STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO

IN THE MATTER OF:

Application of Midland Phoenix Corporation for an unorthodox gas well location and compulsory pooling, Lea County, New Mexico,	CASE 9667
and	
Application of Enron Oil & Gas Company for compulsory pooling, unorthodox gas well location, and non-standard gas proration unit, Lea County, New Mexico.	9669

ORIGINAL

TRANSCRIPT OF HEARING
AUGUST 17, 1989

BE IT REMEMBERED that on the 17th day of August, 1989, this matter came on for hearing before CHAIRMAN WILLIAM LEMAY, COMMISSIONER WILLIAM HUMPHRIES and PATRICIA O'BRIEN, Certified Shorthand Reporter, of the firm SANTA FE DEPOSITION SERVICE, 1437 Paseo de Peralta, Santa Fe, New Mexico, at the State Land Offices, Morgan Hall, Santa Fe, New Mexico.

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A P P E A R A N C E S

FOR THE OCD:	WILLIAM LEMAY, CHAIRMAN WILLIAM HUMPHRIES, COMMISSIONER FLORENE DAVIDSON, STAFF SPECIALIST ROBERT STOVALL, GENERAL COUNSEL
FOR MIDLAND PHOENIX CORP.:	ERNEST L. PADILLA, ESQ. PADILLA & SNYDER Attorneys at Law Post Office Box 2523 Santa Fe, New Mexico 87504
FOR ENRON OIL & GAS CORP.:	WILLIAM F. CARR, ESQ. CAMPBELL & BLACK, P.A. Attorneys at Law Post Office Box 2208 Santa Fe, New Mexico 87501

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PROCEEDINGS

AUGUST 17, 1989

CHAIRMAN LEMAY: Case No. 9667?

MR. STOVALL: Application of Midland Phoenix Corporation for an unorthodox gas well location and compulsory pooling, Lea County, New Mexico.

CHAIRMAN LEMAY: This case will be consolidated, without objection, with Case No. 9669.

Case No. 9669?

MR. STOVALL: Application of Enron Oil & Gas Company for compulsory pooling, unorthodox gas well location and non-standard gas proration unit, Lea County, New Mexico.

CHAIRMAN LEMAY: Appearances in Cases 9667 and 9669?

MR. PADILLA: Mr. Chairman, my name is Ernest L. Padilla, Padilla & Snyder of Santa Fe, New Mexico, for Midland Phoenix Corporation.

MR. CARR: May it please the Commission, my name is William F. Carr with the law firm of Campbell & Black, P.A., Santa Fe. We represent Enron Oil & Gas Company.

CHAIRMAN LEMAY: Are there additional --

Yes, sir?

MR. PEARCE: May it please the Commission, I am W. Perry Pearce with the Santa Fe law firm of Montgomery & Andrews appearing in this matter on behalf of Parker Drilling Company.

CHAIRMAN LEMAY: Thank you Mr. Pearce.

Additional appearances in this hearing?

(No response.)

CHAIRMAN LEMAY: Will you have any witnesses?

MR. PEARCE: I will not, Mr. Chairman.

CHAIRMAN LEMAY: Okay. Any additional appearances?

(No response.)

CHAIRMAN LEMAY: We'll have statements at the end.

Will those witnesses that will give testimony please stand and raise your right hand and be sworn in?

MR. STOVALL: Does each of you solemnly swear or affirm the testimony you are about to give in these cases will be the truth, the whole truth, and nothing but the truth?

(All witnesses respond affirmatively.)

CHAIRMAN LEMAY: Thank you. Let's have a

little -- yes, Mr. Padilla?

MR. PADILLA: Mr. Dicey will be one of our witnesses. He was out of the room when the witnesses were sworn.

CHAIRMAN LEMAY: Thank you. Do you want to raise your right hand and be sworn?

(Whereupon, Tim Dicey was sworn upon his oath to tell the truth.)

CHAIRMAN LEMAY: Let's have a little discussion on the presentation of the case. I understand this is the competing compulsory pooling.

MR. PADILLA: Yes, sir.

CHAIRMAN LEMAY: We have eight witnesses, Mr. Padilla?

MR. CARR: We have three.

CHAIRMAN LEMAY: You have five witnesses?

MR. PADILLA: I have five witnesses. I will probably only use four.

CHAIRMAN LEMAY: Is there anything that can be stipulated to in this case concerning your cost of the wells, anything that you all agree to that would maybe shorten the procedure?

Mr. Carr?

MR. CARR: In response to that, I believe the testimony will show that both sides are seeking

to pool certain lands, although different lands, in Section 34. I suspect that there is no dispute between the parties, that whoever is successful, that a risk penalty is appropriate in the amount of 200 percent.

MR. PADILLA: I have no problem with that.

MR. CARR: So I don't think testimony needs to be presented on that point.

Other than that, I think there is not a great deal we can stipulate to. Although, I will tell you that the Examiner Hearing took seven hours. We are hopeful that having worked with the transcript from the Examiner Hearing, that our presentation will be substantially shorter than that.

CHAIRMAN LEMAY: Well, we hope that. Both Commissioner Humphries and myself have problems, out-of-town commitments. If necessary, we may have to delay the hearing until September 21st or so if we're not through this afternoon. That was my concern. We also need to take an hour-and-a-half lunch break and about a 20 minute break 15 or 20-minutes or whatever this morning whenever.

MR. PADILLA: Mr. Chairman, I think if we also incorporate the record of the prior Commission hearing, I would be more inclined not to go over

every detail that we went through the last time.

MR. CARR: We would join in a request to incorporate the record of the prior hearing. That will also put into evidence certain exhibits and will streamline the presentation.

CHAIRMAN LEMAY: Is there any objection to the incorporation of the Examiner Hearing into this record?

MR. CHERRYHOMES: None, Mr. Chairman.

CHAIRMAN LEMAY: If not, we shall do that. Thank you, gentlemen.

Do you have opening statements you would like to make?

MR. PADILLA: Very briefly, Mr. Chairman, and Mr. Humphries, we believe that this is a very straightforward case. Midland Phoenix seeks to compulsory pool the east half of Section 34 to drill a well to primarily test the Morrow Formation.

Midland Phoenix has made all efforts that have been necessary to force pool the east half of Section 34. They have been ahead in leasing the land, to comprise a standard proration unit of 320 acres.

At every stage of the proceeding, Enron has been behind by several days or maybe several

months, whether it's in leasing or making application to force pool.

Midland Phoenix has tried to obtain the voluntary joinder of everyone in that east-half proration unit. In response to the application for compulsory pooling filed by Midland Phoenix, Enron filed two competing applications, one to separately test the Atoka Formation and to comprise the standard proration unit or non-standard proration unit of the southeast quarter of Section 34 for the Atoka Formation and to configure a south-half proration unit for the Morrow Formation.

We believe that the evidence will show that at no time did Enron ever figure to do a south-half proration unit until -- for the Morrow Formation until the application of Midland Phoenix.

The entire east half is susceptible of production. The testimony we have presented before the Division and the testimony that we will present today will bear that out.

Enron will argue that a well that was drilled in the northeast quarter of Section 34 condemned the northeast quarter.

We do not believe that that is accurate. Our evidence will show that all -- almost all

proration units are not entirely productive in the pitchfork Field, both in the Atoka and the Morrow Formation.

This is not unusual at all, but we believe that the Commission should be compelled to maintain the integrity of the spacing patterns in the south -- or in the Pitchfork Field.

We will show that, and we believe that that entire east half of Section 34 should be dedicated as a valid proration unit.

In the call of the docket, the case was advertised as it included -- the Midland Phoenix application called for a non-standard gas or an unorthodox location.

Before we came to the Division, we had dropped that portion of the application and, therefore, our case is only for compulsory pooling at this time.

CHAIRMAN LEMAY: Thank you, Mr. Padilla.

Mr. Carr?

MR. CARR: May it please the Commission, as Mr. Padilla has noted, this case involves the development of one section of land in the Pitchfork Ranch Field in Lea County, New Mexico.

And you have before you applications

which ask you to force pool certain lands, approve a non-standard Atoka proration unit, and approve a well location on this non-standard unit in the Atoka Formation.

The pooling applications are not the same. We seek a south-half unit in the Morrow and Midland Phoenix seeks a standard east-half.

No matter how we look at today, it is going to be a fairly long hearing. But at the end of the hearing, there really is only one question that you, the Oil Commission, are going to be asked to answer, and that question is simply this: Is the northeast quarter of Section 34 reasonably productive? That's it. Is it productive, can it produce? And that one question is going to control everything else in the rest of the case.

It's a geological case. What we're going to do, both of us, is focus on the northeast quarter of 34 because we believe there is nothing there and they believe it is productive.

We're going to go through it zone by zone, top to bottom, and we're going to show you the geological evidence that reasonable interpretation shows that this acreage does not contain produceable reserves and cannot be produced.

We're also going to show you that we've already drilled it and it's been dry, all the primary objective zones. And when you take this data and read it in any reasonable fashion, the conclusion, we submit, will be clear, and that is that it cannot produce.

We're going to present to you data that we prepared back when we leased it. We owned the northeast quarter before Midland Phoenix came along. And we're going to show you data that was developed not for the purpose of this hearing, but data that was developed because we were trying to develop the acreage and, in fact, did drill a $2 million well and discovered it was not productive.

This data was confirmed, not only by the people we will call, but by the people who are going to be testifying for Midland Phoenix where they were Enron employees and they participated. And it is their interpretations that we are going to show you, interpretations which show this acreage cannot and will not produce.

We're also going to show you that there has been no new data upon which to change the interpretation. The only factual change that comes before you is that once they acquired it, the data

looked different to them than it did when they were with Enron.

The conclusion is going to be clear that the northwest (sic) quarter cannot and will not produce. To put it into a spacing unit with our acreage that does contain produceable reserves dilutes our interest. We will show you that it will deny us an opportunity to produce our just and fair share of what is under our tract and that to approve their application would impair our correlative rights and violate your duties with the Oil & Gas Commission.

CHAIRMAN LEMAY: Mr. Carr, I might point out at this time that this case was not advertised correctly in the Hobbs paper and will be readvertised in that paper.

You may continue, Mr. Padilla.

MR. PADILLA: Mr. Chairman, we will call Craig Duke at this time.

BENTON CRAIG DUKE

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

DIRECT EXAMINATION

BY MR. PADILLA:

Q. Mr. Duke, first of all, let me ask you to state your full name and where you reside.

A. Benton Craig Duke, 2402 Castleford, Midland, Texas.

Q. Mr. Duke, what do you do for a living?

A. I'm a Landman in the oil and gas exploration business.

Q. Were your credentials accepted as Landman before the Oil Conservation Commission Hearing?

A. Yes, sir, they were.

Q. Did you testify at that hearing concerning this matter?

A. Yes, I did.

MR. PADILLA: Mr. Chairman, we tender Mr. Duke as a Petroleum Landman.

CHAIRMAN LEMAY: His qualifications are acceptable. One moment, please.

(Whereupon, there was a brief discussion held off the record.)

MR. PADILLA: For purposes of exhibits, in order to track more accurately with the Division record, we have marked the geologic exhibits

starting from Exhibit No. 5 in that order, and we have purposely omitted Exhibit No. 4 so as to maintain some integrity or continuity. We have the same numbers as before except the first three.

MR. CARR: I'd also like to state that in preparing the exhibits for this case, we have moved a type log up in the exhibits because we have kept the same numbering system so that we don't have the same clash with different numbers.

CHAIRMAN LEMAY: You may continue.

BY MR. PADILLA:

Q. Mr. Duke, will you refer to what we have marked as Exhibit No. 1 and tell the Commission what that is?

A. Yes, sir. It's a land plat and an approximate breakdown of the working interest percentages for an east-half proration unit consisting of the east half of Section 34, Township 24 South, Range 34 East in Lea County, New Mexico.

Q. Mr. Duke, you have stated that tnis is an approximate breakdown.

I take it you are referring to the breakdown of working interest owners in the percentages that are at the top of that exhibit?

A. Yes, sir. They have changed as of 8:00

last night. Another reason we don't have the exact is because we weren't privy to the operating agreement of which Enron sent it in in inserts and other parties were party to.

However, I can tell you an approximate working interest for Midland Phoenix has changed from 41.1474 to 52.98314. The reason that is is that we have struck a deal with Mr. Bob Landreth, and he is now joining Midland Phoenix in this east-half compulsory pooling.

Q. Where is that interest or where is the land with interest located in Section 34?

A. It's located -- he's got in the northeast quarter and in the northeast-southeast, 35 unleased net mineral acres. In the west half of the southeast and the southeast-southeast, he has contractual interests which are governed by the operating agreement of which Enron is the operator or was the operator.

Q. Now, in your exhibit, in Section 34, you have colored that exhibit in red and you have colored it also in yellow.

Can you tell us what the red is?

A. The red is just an outline of an east-half proration unit, the standard location for an

east-half.

Q. Has the yellow changed as of 8:00 last night?

A. Yes, sir, it has. Like I said, our interest has jumped -- working interest, as well as before in the previous Commission Hearing, J. Howard Moore, Limited, is also with us. So that would give us approximately 63, roughly, percent working interest.

Q. Now, in looking at the yellow, as depicted in your Exhibit No. 1, what did that constitute?

A. That was the unleased -- that 200-acre tract is a fee tract of land of which we picked up oil and gas leases covering that.

Q. And you control all of the 200 acres?

A. Yes, sir, that is correct.

Q. What interests do you control outside of the yellow area and within the east half proration unit in the red, as of 8:00 last night?

A. We control, like I said, approximately 11.8-some-odd percent. That is combined. It's hard for us to break it down, like I said, without having a copy of that operating agreement to know exactly what Mr. Landreth's and Mr. Jeffcoat's contractual

interest is. But outside of that 200-acre tract, they roughly have 1 to 2 percent, something like that.

Q. Do you have interest now in all of the east half of Section 34?

A. Yes, sir, that is correct.

Q. Do you have anything further concerning Exhibit No. 1?

A. No, sir.

Q. Let's turn now to what we have marked as Exhibit No. 2 and tell us, tell the Commission, what that is.

It's a series of correspondence, Mr. Duke?

A. Right. I believe that would be letters dated March 22nd, 1989 -- is that what you are referring to?

Q. Yes, sir.

A. Yes, sir. On March 22nd, 1989, Midland Phoenix Corporation sent a letter to Enron Oil & Gas Company, Attention: Mr. Frank Estep; Enserch Exploration, Inc., Attention: Mr. Dave Leaverton; Samedan Oil Corporation, Attention: Jack E. Anderson and Leon Jeffcoat, Trustee, wherein we proposed a well in an unorthodox location be at 660 from the south and 1980 from the east of Section 34.

We gave estimated dry-hole costs and completed dry-hole costs which were taken directly off of our AFE which was prepared by our engineer.

We also gave -- if they decided not to participate, and would prefer to farmout for this 15,800-foot Morrow test -- we gave terms which would be acceptable for us.

We further stated in there that we would like a response to this proposal at the earliest possible convenience, since we would like to spud the well in the very near future.

And upon hearing back from all these parties one way or another as to what their intentions were, we would forward a formal AFE and a copy of a 1982 AAPL 610 Form Operating Agreement for their approval.

We further stated that we understood that there was possibly an operating agreement in existence, and we would work with them any way possible to -- either in an -- whether it be an overlapping or to execute a new agreement just covering the east half.

In the same regards, we sent a separate letter on the same date, March 22nd, 1989, at the same location to Mr. Bob Landreth. The reason we --

Q. Mr. Duke, let's not go into Mr. Landreth's letter, since you already made a deal with him.

A. Okay.

Q. Let me ask you regarding the first letter, whether you received a response from any of the addressees on that with the exception of Leon Jeffcoat, whom you made a deal with, also.

My question is directed at Enron's answer and Samedan; what was their response?

A. Yes, sir, we did hear back on April the 14th, 1989, from Enserch Exploration. John McGee, the Senior Landman for Enserch, wrote us a letter in reference to our letter dated the 22nd of March, 1989.

Basically, they, Enserch, state that they do not intend to join said well and tney do not intend to grant a farmout of Enserch's interest in the captioned land. It says, further, tney intend to contest unorthodox location. And it just says let them know anything else.

Other than that, we did not hear from anybody regarding our proposal until such time as we received the compulsory pooling notice from Mr. Carr.

Q. Is that letter from Enserch in this

exhibit?

A. Yes, sir.

Q. Can you point it out to the Commission?

A. It was Exhibit 4 before the Commission last time. I'm not sure --

Q. And it's in this packet now; is that right?

A. Yes, sir, that is correct. Yes, sir, it is.

Q. When did you receive a response from Enron, if any time?

A. We received a response, other than, like I stated, the compulsory pooling, on May the 2nd. Basically, what they did is they sent us a letter whereby they proposed a well for a south-half Morrow proration unit and a non-standard 160-acre southeast quarter Atoka proration unit. That was the first we'd heard from them in writing, other than, like I said, the compulsory pooling notice from them.

Q. You got the compulsory pooling notice first?

A. Yes, sir, that was the response to our original proposal.

Q. What efforts did you try to negotiate a voluntary joinder of the east half of Section 34

prior to the Division Hearing?

A. We tried on numerous occasions to -- you know, we contacted the rest of the parties. Samedan, we chatted with them; talked to Mr. Landreth. Enron would not really respond to us.

Q. Did you call Enron?

A. Yes, sir, we did. We finally got communication going after we were instructed to, after the original hearing was postponed until the 24th.

Q. So --

A. But prior to that, there was no communication.

Q. There was no telephone communication?

A. Well, we called them, but we never got return calls.

Q. Once you were instructed by the Division to communicate with Enron, what efforts did you make to communicate with Enron?

A. We sent -- at that particular point, that was May the 10th, the hearing in which the Examiner instructed us to communicate with all the parties -- so we sent a letter to Enron dated May the 11th, whereby we had decided to drop our unorthodox location for the simple reason economics did not --

we could not stand a penalty, an allowable penalty.

In actuality, it was a better location after, you know, some consideration. We moved it to 1990 from the south and 1980 from the east, which was a standard for the east half.

And we sent this letter to Enron and told them we declined their offer of May the 2nd to participate in the drilling at their standard location for the south half and unorthodox or non-standard southeast proration unit for the Atoka.

We, there again, proposed the same 15,800-foot Morrow test at a legal location. And we also told them that in lieu of participating, that we would be willing to accept a farmout from them, delivering 75 percent with 25 percent back-in after payout.

And we respectfully requested a response to this proposal at the earliest possible convenience. And, upon hearing from them, we would forward to them a formal AFE, as was -- basically the same letter as we proposed before, other than the location change.

Q. At what time did you decide to file a compulsory pooling application for the east half of Section 34?

A. After about 30 days, when we got no response from Enron, we had had prior dealings where we had proposed certain things and gotten no response. We decided that it was going -- that was the way it was going to have to come down anyway.

Q. Mr. Duke, when did you start leasing land in the east half of Section 34 or trying to make efforts to acquire interests in the east half of Section 34?

A. To the best of my recollection, Mr. Padilla, it was around February of 1989. January or February, somewhere in that time.

Q. Do you know what the history was of leasing activity by Enron or an affiliated company of Enron or the predecessor?

A. Yes, sir, I do. We had -- Enron had leased the same acreage that we leased previously in order to prevent a well from being drilled in this east-half proration unit. They let the leases expire in November.

We were trying to put our prospect back together and subsequently start leasing it after the first of the year.

Q. Do you know whether Enron made efforts to lease that land, also?

A. Yes, sir, they did. I've got those letters here. On March 16th, they sent out letters -- I've just got copies of two of them -- to Mr. Boley Embrey and Alan Jochimsen, who are mineral owners in that east half.

They requested an oil and gas lease cover the northeast quarter and the nortneast-southeast of Section 34. These fellows had -- these are mostly pros in here. By that, I mean they are in the oil business themselves, and were fully aware that Enron had leased it prior, previously, to prevent a well from being drilled. Of course, these people were wanting a well drilled.

Anyway, on March 16th is when Enron sent those letters out requesting leases.

Q. Are they in Exhibit No. 1?

A. Yes, sir, they sure are.

Q. When did you acquire those leases from these gentlemen?

A. We acquired them, like I said, around through January or February. I don't have the actual leases.

Q. About a month or so --

A. Yes, sir.

Q. -- before Enron attempted the lease?

A. Yes, sir, that's true.

Q. Mr. Duke, do you have anything further concerning this particular exhibit?

A. No, sir.

Q. Mr. Duke, did you compile this exhibit and prepare Exhibit No. 1?

A. Yes, sir.

MR. PADILLA: Mr. Chairman, we'd move the admission of Exhibits 1 and 2, and we pass the witness at this time.

CHAIRMAN LEMAY: Without objection, Exhibits 1 and 2 will be entered into the record.

(Whereupon, MIDLAND PHOENEX EXHIBITS 1 and 2 were admitted into evidence.)

CHAIRMAN LEMAY: Mr. Carr?

CROSS EXAMINATION

BY MR. CARR:

Q. Mr. Duke, what is your position with Midland Phoenix?

A. I am a Landman.

Q. And how long have you been a Landman for Midland Phoenix?

A. Since the forming of the company approximately November of 1988.

Q. That's when the company was formed?

A. That's when we got together, yes, sir.

Q. Prior to that time, had you worked as a Landman?

A. Yes, sir, I had.

Q. Was that your position with Enron?

A. Yes, sir.

Q. While working as a Landman with Enron, did you become familiar with the Pitchfork area, which is the subject of today's hearing?

A. Yes, sir, I did.

Q. Were you involved with the status and familiar with the status of the leases in the area while working with Enron?

A. Yes, sir.

Q. I think you indicated that you leased the northeast quarter sometime this year. I just missed the date.

A. I say January or February. I don't have the actual date.

Q. This acreage had previously been under lease with Enron; is that correct?

A. That is correct.

Q. In fact, they had leased it and drilled a well on it back when you were with them?

A. Yes, sir, that is true.

Q. Who makes the decision in your company to go out and lease a particular tract?

A. It's a decision based strictly on geological, geophysical and management -- you know, monetary, financial --

Q. Are you involved in that decision process?

A. Yes, sir.

Q. Is it done at a meeting? Do you get together and discuss it?

A. Yes, sir.

Q. And the considerations are land considerations, as well as geological and geophysical?

A. There are land considerations taken into account, but, primarily, it's geological and geophysical.

Q. Looking at the area that's the subject of today's hearing, Section 34, have you recently acquired any additional leasehold interests in that acreage?

A. Any additional leasehold interests?

Q. Yes.

A. No, sir, we have not.

Q. Do you have top leases on any of the acreage currently under lease to Enron?

A. Yes, sir, we sure do.

Q. When will those become effective if, in fact, the acreage isn't developed?

A. They will become effective on December 7th, 1989.

Q. Does Midland Phoenix, if they prevail in this case, propose to be prepared to go forward and develop the lands prior to that date?

A. We have been prepared to go forward, Mr. Carr, the whole time. We were ready May 10th. It was postponed because of Enron. It came May 24th, and it was also postponed. We won the first hearing. We were ready to drill by October 1st. You all asked for an appeal and --

Q. My question is: Will you be prepared to go forward before December the 7th?

A. We would have to discuss that, Mr. Carr.

Q. You may not be?

A. That is possible.

Q. And if you did not, then your ownership position in that tract would change, would it not?

A. In what tract?

Q. In the east half of Section 34. If no

well is drilled by December the 7th on that property, then the ownership of the interest will change?

A. That is correct.

Q. Now, you originally proposed the well south of the current location, I believe you testified?

A. That is correct.

Q. And then a decision, if I understood your testimony, was made to move the well because of the potential penalty you perceived being imposed on it at that location?

A. That is correct. We were told it was approximately 66-and-two-thirds was the equation, or whatever, that they used.

Q. Because you were that much too close to an end line just on a percent of encroachment upon the acreage --

A. Well, for an east half -- for an unorthodox location in an east-half proration unit.

Q. Then you testified that you subsequently concluded that the present location is a better location?

A. I wouldn't say necessarily better. It's just for the Morrow Formation, our geologists and

geophysicists -- which I'm sure you will get into with them later -- will show you from that simple -- from that formation, it is a better location.

However, the bank location, which will be brought out later -- I don't feel I should get into that --

Q. You think there are probably better witnesses for me to pursue this with?

A. Yes, sir, I would say that. Yes, sir.

Q. When you talk about geological and geophysical input as to the new location being better, who was involved in making that decision? Was Mr. Hodges involved?

A. Yes, sir.

Q. Mr. Dicey?

A. Yes, sir.

Q. Mr. Broten?

A. Yes, sir.

Q. Was there engineering input into that decision?

A. No, not really, not from that standpoint. Engineering was not directly involved. It was primarily geological.

Q. On your Exhibit No. 2, you have a number of letters that basically outline or detail the

efforts made during the last six months to obtain a voluntary agreement for development of Section 34.

Is that a fair characterization?

A. Yes, sir, I guess so.

Q. Has a voluntary agreement been reached for the development of this acreage?

A. Obviously not.

MR. CARR: That's all I have.

CHAIRMAN LEMAY: Thank you, Mr. Carr.

Mr. Pearce?

MR. PEARCE: Nothing.

EXAMINATION

BY CHAIRMAN LEMAY:

Q. One question, please, Mr. Duke.

A. Yes, sir.

Q. Concerning the top leases you have in Section 34, did you agree to drill the well prior to the expiration of those leases had this case not been continued?

A. Yes, sir. We were to drill the well, first off with our first proposal, by June or July, and the hearing was delayed. And then the order came out saying we could do the spud by October 1st.

We were ready to do so at that time, spud by October 1st. And then that's when they appealed before the full Commission.

CHAIRMAN LEMAY: That's the only question I have.

THE WITNESS: Yes, sir.

CHAIRMAN LEMAY: You may be excused.

Mr. Padilla, you may proceed.

MR. PADILLA: At this time, Mr. Chairman, we will call Phil Stinson.

JAMES PHILIP STINSON

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

DIRECT EXAMINATION

BY MR. PADILLA:

Q. Mr. Stinson, for the record, please state your full name.

A. James Philip Stinson.

Q. Where do you live?

A. 6101 Mecca, Odessa Texas.

Q. Do you work for Midland Phoenix?

A. I am a drilling consultant.

Q. Mr. Stinson, did you testify before the Division hearing in this matter?

A. No, I did not.

Q. Mr. Stinson, do you have a degree in engineering?

A. No, sir, I do not.

Q. What is your experience in the oil and gas industry as a drilling specialist?

A. I worked for Roden Oil Company, HNG Oil Company, and Enron Oil & Gas for twenty years.

Q. Doing what, Mr. Stinson?

A. I worked every position from drilling foreman to Vice-President of Drilling for twenty years. I have worked as a drilling foreman and progressed up to Vice-President of Drilling in 1978 and was Vice-President until '86.

Q. Mr. Stinson, did you prepare the AFE in this case for drilling of the Midland Phoenix well?

A. Yes, sir, I did.

Q. What other AFE's have you prepared in this area for drilling wells of the kind that is proposed by Midland Phoenix?

A. I've prepared or approved all of the AFE's in the Pitchfork Ranch Fields that were

drilled by HNG-Enron.

MR. PADILLA: Mr. Chairman, we tender Mr. Stinson as a drilling specialist.

CHAIRMAN LEMAY: His qualifications are acceptable.

BY MR. PADILLA:

Q. Mr. Stinson, let me hand you what we have marked as Exhibit No. 3, and ask you to identify that, please (indicating)?

A. (Witness refers to document.) This is Midland Phoenix's AFE for tne drilling of the Madera 34 Federal Com. No. 1.

Q. What is the bottom line for drilling the proposed well, as the figures are projected on that AFE?

A. $1,783,540.00.

Q. And that's for a completed well?

A. That's for a completed well.

Q. What are the proposed well costs for a dry well?

A. $1,379,000.00.

Q. Have you seen the AFE prepared by Enron in this case and submitted to the Division?

A. Yes, sir.

Q. How does your AFE vary from that

submitted by Enron?

A. Ours is some $299,000.00 higher.

Q. Can you explain why it's higher?

A. Yes, sir. There's 160-some-odd-thousand dollars of contingencies that are left out of the Enron AFE.

Q. Why are contingencies in your AFE -- why have you listed those? What is the purpose of having the contingencies?

A. For unexpected things that happen to you in drilling a well.

Q. Is this reasonable in making AFE's of this kind?

A. It's customary to put contingencies in.

Q. What specific contingencies does your AFE contain?

A. Also, one difference in our AFE versus Enron's AFE is we plan to set 7-5/8ths casing for the second intermediate strain rather than the 7-inch proposed by Enron.

Q. Why is that?

A. We figure we will probably have to run a drilling liner and think we can get a better cement job and a slightly larger hole and give us a better chance of completing the well.

Q. Why is this important?

A. This liner will be run as a drilling liner during the drilling of the well; but eventually, when we come back, hopefully, to the Atoka, it will be used as a production liner.

Q. Now, let me go back to the previous question I had asked, and that question was, what are the specific contingencies that you have provided for in this AFE?

A. There is no specific contingencies. It's 10 percent of the cost.

Q. Okay. And that's not unreasonable in drilling wells of this nature?

A. No, sir.

Q. Have you included this type of contingency in other AFE's that you have prepared in the Pitchfork Field?

A. Yes, sir.

Q. And that's been accepted by all working interest owners?

A. Yes, sir.

Q. In your opinion, Mr. Stinson, is this AFE reasonable as to total costs for a completed well and for dry-hole costs?

A. Yes, sir, I believe it is.

MR. PADILLA: Mr. Chairman, we tender Exhibit No. 3, and then pass the witness at this time.

CHAIRMAN LEMAY: Without objection, Exhibit 3 will be entered into the record.

(Whereupon, MIDLAND PHOENIX EXHIBIT 3 was admitted into evidence.)

CHAIRMAN LEMAY: Mr. Carr?

CROSS EXAMINATION

BY MR. CARR:

Q. Mr. Stinson, an AFE is just an estimate of the cost; isn't that correct?

A. An AFE is an estimate of cost. That's correct.

Q. And when you put together an AFE, and you don't put contingencies in it, and then you have something surprise you when you're drilling the well, you are the guy that has to pay for it, aren't you?

A. Yes, sir.

Q. So that's why you put contingencies in?

A. (Indicating affirmatively.)

Q. And if there is no contingency, then still, ultimately, the actually costs of drilling

the well are going to be factors that control; isn't that right?

A. Yes, sir.

Q. How many wells have you been involved with down in the Pitchfork area?

A. I think the number is 25.

Q. Have you prepared AFE's on all those 25?

A. I have either prepared or approved them; yes, sir.

Q. Of those 25, how many of them have had a 5-7/8ths-inch (sic) casing?

A. None of them, sir.

Q. Have you prepared AFE's for costs associated with re-entering existing wells?

A. Yes, sir.

Q. Have you done that and estimated the cost that might be incurred in a re-entry of the Moore No. 1 Well in the northeast quarter of Section 34?

A. No, sir, I have not.

MR. CARR: That's all I have.

CHAIRMAN LEMAY: Thank you, Mr. Carr.

Additional questions of the witness?

(No response.)

CHAIRMAN LEMAY: If not, the witness may be excused.

Mr. Padilla?

MR. PADILLA: We will call at this time Tim Dicey.

TIMOTHY RICHARD DICEY

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

DIRECT EXAMINATION

BY MR. PADILLA:

Q. Mr. Dicey, would you please state your name?

A. My name is Timothy Richard Dicey.

Q. Mr. Dicey, you are President of the Midland Phoenix Corporation?

A. That is correct.

Q. You testified at the Oil Conservation Commission hearing, did you not?

A. Yes, sir.

Q. And you testified as an exploration specialist at that hearing. Is that correct?

A. That is correct.

Q. You prepared exhibits for introduction at

the hearing today?

A. That is correct.

MR. PADILLA: Mr. Chairman, we tender Mr. Dicey as an exploration specialist at this time.

MR. CARR: No objection.

CHAIRMAN LEMAY: He will be so qualified.

BY MR. PADILLA:

Q. Let's go to what we have marked as Exhibit No. 5 and 6, and can you identify those for the Commission?

A. Yes, sir.

Q. Mr. Dicey, let's turn now to what has been marked as Exhibit No. 5, and have you tell the Commission what that is.

A. Okay. Exhibits No. 5 and 6 are both cross sections made through the area which is under dispute. They are both stratigraphic cross sections, which means they are not held on a sub-sea structure, but on a particular formation marker.

They have been made to show the different producing horizons that may be found in this area. In particular, if we start from the bottom up, we see what has been called by HNG-Enron the Morrow C Sand, which is the primary producing zone in the Pitchfork Ranch Field and is the primary producing

objective that we hope to encounter in our proposed work.

This particular cross section is running from west to east; west on the left, east on the right. It starts in the main body of the field and goes east through the well to the north of our proposed location, the HNG-Moore 34 No. 1, and pinches way off to the east in a dry hole.

You can see in here, these wells -- this well to the east is an 11-12 BCF well as current cum will show. You can see the quality of the sand in that well.

Q. Mr. Dicey, you said "that well to the east."

Is that well to the west?

A. To the west, I'm sorry.

Q. And you are referring to the first well on the cross section on the left-hand side?

A. That is correct, and the Madera 33 No. 1.

The sand in that well, as we are moving eastwards this time, going through the wells, you can see the quality of the sand doesn't really change very much. In fact, in the Moore 34 No. 1, you can see we have a very thick section of sands very similar to the HNG Madera 33 No. 1, which

produced at a level of 12 BCF.

As we move up the cross section, other potential zones we will hope to encounter in here, two I will have to come back to on the other cross section.

The next one up is the Warren Sand. That shows on the next cross section. We have a 4-foot sand indication in the Moore 34 No. 1. We think we're on the edge of a sand body there.

We then have a very spectacular looking sand in what's been called the A Sand section in the Morrow again. This sand looks very similar to a sand in the HNG-Warren 3 No. 1, which, as of yet, hasn't been tested, but gave a very substantial kick when drilling down and it's been high priced currently to what is producing from deep formations.

Moving up the road, we come up into the Atoka series. You can see this very thin sand --

Q. Mr. Dicey, when you refer to the Atoka, is that covered in blue on your cross section?

A. No, sir. The difference in colors in the cross sections, yellows are indicating sand formations, blues are indicating limestone formations.

There's a slight difference in blue color

for what we call the Atoka Bank, and I'll come to that in a minute.

But this Atoka Sand in here is very thin sand and looks very prolific. The best one of the field, it was the first one that HNG completed in that sand, the HNG Pitchfork 34 State Com. No. 1, I think it was. As you can see, it's got like 6 or 8 foot of sand in this well, has currently produced at 7-and-a-half BCF, I believe, and is still producing 3-and-a-half million cubic feet of gas per day.

It should be noted at this instance this well is in the western half of Section 34.

The next well that was drilled -- I'm sorry -- the next well that was completed in the Atoka Sand for HNG Enron was a well three miles away. That well had already seen considerable pressure depletion because of the drainage from this well.

Now, our proposed location is merely a half mile to the east of this. We feel we have sand in that half section primarily because we know there is sand to the east. Way east, we know there is a trend as we go to this Pitchfork 36 well. We have 4-foot sand in there.

In the Moore 34, No. 1, we find there is a 3-foot trace of sand in that well, and we feel

there's a good chance we will see some sand in a good proportion of the east half of Morrow Section 34.

Q. Mr. Dicey, when you have a 3-foot sand section, can the well be a pretty good well with that kind of sand thickness?

A. In different places, yes, sir, it can. In this instance, we didn't see -- I say "we," I'm meaning HNG when we drilled this -- we didn't see a gas kick at that time.

I don't really want to go into details about the chronology of what happened when we drilled. I'll leave that to Mr. Broten when he testifies and he can tell you what happened going down with the mud log. But, essentially, we see a trace of sand in there. It's obviously tight and not producible in this well, but we feel we are on the leading edge of a sand body which covers at least the southeast quarter and a portion of the northeast quarter of Section 34.

I would like to emphasize at this point that the Pitchfork 34 No. 1 was drilled and completed in 1983, if I recollect correctly. And although the Moore 34 was drilled a year later, no other attempt has been made to complete in the Atoka

Sand east of the Pitchfork 34.

Now, with consideration to drainage, that we see pressure depletion in a well three miles to the west, we feel that it is probably quite reasonable to suppose we're going to see drainage to maybe three miles to the east if that sand continues that far.

Therefore, I would suggest that this well has been draining. The east half of Pitchfork 34 has been draining considerably those lands under the east half of Section 34, and that, in the time period from these two wells being drilled, no attempt by Enron has been made to produce the Atoka Sand on those lands, i.e. protecting the correlative rights for all people in the east half of Section 34.

Q. When you say "this well," I want to make sure --

A. Each time I've been saying "this well," I'm sorry, I'm meaning the HNG Pitchfork 34 No. 1.

Q. Where is that located?

A. At the standard location, 1980 from the south line, 660 from the west line of Section 34 as a west-half standard proration unit.

Q. Okay. Would you continue with your explanation, or are you done with that?

A. I'm pretty well done with that one. Let me go to Exhibit No. 6.

Exhibit No. 6, this time, is the same type of cross section. It runs north-south this time instead of east-west, north being on the right-hand side of the cross section, south being on the left.

Again, we show the Morrow C Sands, the primary producing zone. But in this instance, there are a series of channel sands which are higher in the section than the Morrow C Sand which runs about north-south, and that's what we're trying to show in this cross section, one of them being what's been called the Sinatra Sand. It's this sand in here running east-west.

We see Page 3 No. 1 in Section 3 to the south -- I'm sorry, right there, and it is a very prolific well in this sand.

Going north, we see only a very slight trace of this sand. In fact, it's probably somewhat cherty. Again, we feel we may be on an edge to this sand. We feel these sands are running north- south.

Higher up in the section, we have what's been called the Warren Sand. This is the sand I remarked on as looking very similar to this A Sand

that we see in the Moore 34 No. 1, very similar in character. This one hasn't been completed yet, but it had a very high pressure kick when we drilled down into it. We feel it's productive. Currently the Warren 3 No. 1 is completed downhole in the C Sand.

We see a trace of this sand into the well to the west or northwest Enron Page 3 No. 1, and we see a 4-foot zone of the Warren Sand in the Moore 34 No. 1.

Again, we feel we're on the edge of a sand body with this. Furthermore, as Mr. Broten will testify, we saw a gas kick when we were drilling down into it.

Again, I come back to this A Sand, which we see in here. I don't think that needs any explanation.

Again, we have the Atoka Sand, as it's drawn in across this cross section.

And the highest section of all producing formations in the Pennsylvanian, which we are concentrating on, is this Atoka Bank series, which is very productive to the north in Antelope Ridge. There is a series of limestone banks, one laid on top of the other.

These units come and go very quickly. What we found here is that in drilling a well specifically for the Atoka Sand, we inadvertently came across this zone, a very porous zone, in one of these Bank units.

Q. Where was that, Mr. Dicey?

A. This was the Page 3, No. 2, just south of where we're looking in Section 3. It had -- this was the last well to be drilled into the Atoka Sand.

The Atoka Sand was showing very significant depletion at that stage. This limestone unit shows essentially virgin pressure for the Atoka and is believed, therefore, to be potentially prolific.

But, in the same instance, it is the only well that has shown significant porosity in these Bank units. There are little bits and pieces here and there. There is one marked right here at Page 3 No. 1 to the south and other bits and pieces throughout the field, but nothing that is worth anything.

Hence, it was one of our objectives, when we first proposed a well in Section 34, to, hopefully, encounter this zone essentially to increase our economic profile in drilling this well

to be as close to this well as we possibly could. That's why we had the unorthodox location.

However, since we came -- since that time, we gained access to the mud log for the Moore 34 No. 1, found that the -- there was actually more gas in that well when we drilled than we had originally anticipated.

We felt this well had essentially been damaged when it was drilled. That's why we were interested in a prospect on that east half.

We didn't realize how much gas there was actually in that well. And we felt that Morrow, as it was our primary objective, we should make the best location, and, therefore, we went back to the standard location. That's the geologic reason for our location change.

Q. Mr. Dicey, in the Antelope Ridge, how far do these Atoka Banks extend?

A. Very shortly. Sometimes they go from one to two locations. Sometimes you go from one location to the next and not get a darn thing. You can have a real prolific well next to essentially a dry hole.

Q. What well control do you have for that Atoka Bank north of the proration unit?

A. None whatsoever. It's a one-well feature, essentially. We can come in here and look at the bank unit as a whole. But as far as this particular bank formation is concerned, this particular net unit, we've only got the one well to deal with. There is no telling where it goes.

All we can tell is it essentially is nowhere else in the Pitchfork area, unless you go way over to the west, and then there is a well over to the west that has a porous zone.

Q. How far west?

A. About 4 miles to Section 29. I think it's the Marshall 29 No. 1, something like that. I don't remember what the exact name of the well was.

Q. Mr. Dicey, why are these cross sections important in your presentation?

A. This area is very difficult to correlate in terms of which units go where. You have multiple cycles of deposition of limestone and sands, and it's very easy to get off on one of those cycles.

With cross sections, it tends to keep people honest. You can make a map on essentially anything. But if you make it from a cross section and make sure everything correlates correctly, there is no way you can miscorrelate something or leave

something out.

Q. Are your maps based on your findings from these cross sections?

A. Absolutely.

Q. Are you ready to go on now to your maps, Mr. Dicey?

A. Yes, sir.

Q. Let me hand you what we have marked as Exhibit No. 7 (indicating).

A. Thank you. Why don't you give me No. 8, too, while you are there?

Q. I will just hand you 7 through 13 (indicating).

A. All right. Thank you.

Q. What does Exhibit No. 7 show, Mr. Dicey?

A. Exhibit No. 7 shows the Morrow C Sand, which I pointed out on the cross sections as being the main objective in the Pitchfork Ranch Field. There are two maps, one overlaid on the other. The background map is a gross isopach showing all the sands present in each of the wells.

The colored map is a net sand isopach using a 6 percent porosity cutoff. This essentially shows or tries to show the best zones to drill for in this sand, where the thickest parts of the

productive zone are.

Exhibit No. 8 is a structural map hung on a shale marker immediately above the Morrow C Sand section, and shows the structural picture for this sand system.

Q. Mr. Dicey, in relation to your cross sections, you are coming from the bottom up. Is that correct?

A. That is correct.

Q. And your maps -- the first map is going to show the Morrow C Zone and then the --

A. Then we'll go up the cross section to the higher sands and higher units.

Q. Okay. What else do you have to tell us concerning Exhibit No. 7?

A. That the east half of Section 34 has a nice looking net porosity load of potentially productive sand on it.

It was tested by the HNG Moore 34 No. 1, but we believe that the formation was damaged by heavy mud and lost circulation material, and could not be cmpleted as a commercial well.

We believe that this sand being under the east half of Section 34, under all of the east half of Section 34 is potentially productive for the

whole of the east half of Section 34, and that the Moore well does not condemn that unit.

Q. What else do you have concerning that exhibit, or do you want to go to Exhibit No. 8 at this time?

A. Let me think. Oh, let me point out one other feature of this map.

The red dots on here or the wells marked in red are producers in the C Sand. Half circles in red indicates wells that had good shows, were attempted, completed or whatever. That's all I have for these two exhibits.

Q. Let's go on to Exhibit No. 9, then, and have you identify that for the Commission and tell us what it contains.

A. Okay. This is the next zone up, higher than the C Sand. It's what we have loosely called the Morrow Sinatra Sand series, and it is a series of at least two sand bodies essentially almost on top of each other.

We see these sands as trending north to south as they were deposited by channels moving north to south. You can see on here differences in colors, the coloring indicating gray being thinnest, yellow being thickest sections of net porous sand,

greater than 6 percent.

Q. In relation to your proposed unit, how does the sand -- or to your proposed well, to the actual location itself, how does the sand thickness compare or show in your exhibit?

A. It shows that there is a good chunk of sand in this series in the east half of Section 34 covering at least three-quarters of the east-half proration unit.

Q. Would that make the entire east half reasonably capable of production from this sand?

A. Yes, sir.

Q. Go on with your testimony or your description of that exhibit.

A. Again, the wells with red marks on them are wells in which there is gas production from this sand.

Q. Are you ready to go to Exhibit No. 10 now, Mr. Dicey?

A. Yes, sir.

Q. Okay.

A. Exhibit No. 10 is another channel sand again coming essentially from north to south. It is what we've called the Morrow Warren Sand series. This map is made with a net porosity cutoff of 8

percent.

Again, it shows variations in thickness of the sand from gray, being thinnest, to hot red as being the thickest.

There is one well which has that very thick sand. I show it on the cross section which was Exhibit No. 6, which is the well on the most southern end. It shows a very strong sand section in that well. You can see it is in the south here, in the south half of Section 3, as indicated by a red half star as having a good show while drilling.

Going to the Moore 34 No. 1, we found we have a 4-foot net sand greater than 8 percent. Again, we had a gas increase when we were drilling. We feel we're on the edge of one of these channels moving south.

CHAIRMAN LEMAY: Excuse me. Could you hold up Exhibit 10?

THE WITNESS: I'm sorry sir, (indicating).

CHAIRMAN LEMAY: Okay. That's marked Exhibit 11 on this one. Thank you.

BY MR. PADILLA:

Q. Mr. Dicey, you mentioned one of the wells that had a good showing that was shown on the cross section. Can you go down and show us where that

well is?

A. Certainly. This is the Warren 3 No. 1. You can correlate that sand all the way up to the Moore 34 No. 1, where we had that 4-foot sand and the gas increase (indicating).

That's all I have for that exhibit.

Q. Okay. Can you go to Exhibit No. 11, please. Please show the Commission what exhibit that is.

A. Yes, sir, Exhibit No. 11 is this one (indicating). It's the next sand body up in the section. You can see it on Exhibit No. 6. It's this unit right in here (indicating).

Again, there are two maps superimposed on each other. The background map is a gross map showing total thickness of sand. The colored map is where we see a porosity greater than 8 percent, again, hopefully, showing potentially productive zones within that sand.

The gray is the thinnest part of that net sand. The bright yellow is the thickest.

Because of the thicknesses we saw in the Pitchfork 34 No. 1 to the west and the Moore 34 No. 1 to the north, we feel we have a very good chance of a very thick, productive sand in our location in

the east half of Section 34.

Q. Let me see if I understand your testimony. In terms of the proposed location, you are saying that the sand is good sand?

A. That's correct, it's an optimum location for that sand.

Q. At the standard location?

A. That's correct.

Q. What else do you have concerning that exhibit?

A. Nothing that comes to mind.

Q. Okay. Let's go on to Exhibit No. 12, then. Would you show that to the Commission so that we're talking about the same thing (indicating)?

A. (Indicating.)

CHAIRMAN LEMAY: Got it.

THE WITNESS: Exhibit No. 12 is a net porosity isopach map made on that Atoka Sand, that thin sand which I showed you on both the exhibits Nos. 5 and 6, this sand up here (indicating).

It shows that that sand is indeed very extensive, but relatively thin. Nowhere does it get more than 12 feet that we found.

The HNG Pitchfork 34 Fed. Com. No. 1 to the west of the section, Section 34, is the best

well in the field -- in this -- producing from this sand within the field. It has cumed, as far as I can recollect, about 7-and-a-half BCF from the sand and is still producing at 3-and-a-half million a day.

As you can see from this map, we see a 3-foot trace of sand in the Moore 34 No. 1. We feel we are on the leading edge of a sand body and that we have potential production at our proposed location.

BY MR. PADILLA:

Q. Mr. Dicey, in looking at all of the proration units in this area that you have been talking about, are there any non-standard proration units in the Morrow or the Atoka?

A. No, sir. All the wells which HNG and Enron have drilled in the Pitchfork Ranch Field were all standard proration units, all 320's, either lay-down or stand-up. All the well locations were standard, legal locations within those proration units.

Q. Mr. Dicey, in your description of the geology of this area, are these formations homogeneous throughout every one of these proration units?

A. No, sir, they vary quite considerably.

Q. I take it that it's not unusual to see some proration units that are not fully productive, necessarily, but can be shown by geology?

A. That is correct.

Q. Does this exhibit illustrate that?

A. Yes, sir. The way we have the net -- this particular map you can see that in the northwest quarter of Section 34, that indeed we have the 2-foot line and the zero line running through this, so that we see essentially no sand in part of the northwest quarter of Section 34.

Q. How about other proration units, as shown on that map?

A. In Section 33, the west half, we don't have the zero line going through there, but less than 2 foot of sand exists in the northwest quarter. I don't know how productive 2 foot of sand may be or less than 2 foot, I should say.

Q. No distinction has been made in these proration units to exclude acreage?

A. These were all developed on 320 standard proration units.

Q. Are they all standard locations, as shown on that exhibit?

A. Yes, sir.

Q. What else do you have to tell us concerning that particular exhibit?

A. Just to comment yet again that all the Atoka Sand producers in the field are the wells marked in red.

Q. Let's go on to Exhibit No. 13 and have you identify that. What is that, Mr. Dicey?

A. This is a structure map made on the base of the Atoka carbonate marker. It's where I've hung both of tnese cross sections to show the structural picture that we're implying on this stratographic cross section, this marker right in here above the sands.

Making this map is to give a structural indication of what the sands in the Atoka are doing or, indeed, the rest of the Atoka, for that matter.

Q. What are the rest of the wells doing in the Atoka?

A. In terms of production?

Q. Yes, sir.

A. Fair to poor. A lot of the -- the best well in the field, as I said, is the HNG 34 No. 1 to the west. It's still producing at 3-and-a-half million per day, as far as the most recent production books show.

However, the other wells are essentially producing under a million cubic feet of gas a day, essentially. They have all been drilled since this 34 Well.

Q. What would you expect to obtain in the Atoka Formation at your location?

A. I would expect a thick sand, but I expect it to be dramatically depleted by the well in the western half of Section 34 and, indeed, the well on the northern half of Section 3.

Q. Did that have anything to do with your decision to place the well at the location that you are proposing?

A. No, sir. The reason for the location we have right now is because we think we have a very good chance of a prolific well in the Morrow formation and that the Atoka is a very secondary formation right now.

But, in the same instance, we feel we do have productive Atoka Sand under a good proportion of the east half and that we would request our rights to go and produce that gas.

Q. In terms of evaluating what your primary target is going to be, that is Morrow or Atoka, did the well in the southwest quarter of Section 34 have

any contribution towards making that decision?

A. It had some contribution, because it encountered some of those zones in it. Indeed, we think that because that well was drilled with heavy mud, that those formations were indeed very heavily damaged.

Q. In terms of the depletion that you spoke about before, did that have any influence concerning the decision to go to the Morrow?

A. No, sir.

Q. Okay.

A. No.

Q. Still, the Morrow is your primary target?

A. Absolutely.

Q. Mr. Dicey, do you have anything further concerning your testimony?

A. Not that I can think of.

MR. PADILLA: Mr. Chairman, we tender Exhibits 5 through 13, and we keep in mind that we've omitted No. 4.

CHAIRMAN LEMAY: Those exhibits will be admitted into the record without objection.

(Whereupon, MIDLAND PHOENIX EXHIBITS 5 through 13 were admitted into evidence.)

CHAIRMAN LEMAY: I'd like to take a break at this point. Would that be acceptable? We'll take a 15-minute break.

(Whereupon, there was a brief recess taken.)

CHAIRMAN LEMAY: We shall resume. Are you through with the record, Mr. Padilla?

MR. PADILLA: Yes, sir, I was.

CHAIRMAN LEMAY: The exhibits are entered into the record.

Mr. Carr?

CROSS EXAMINATION

BY MR. CARR:

Q. Mr. Dicey, what is your current position with Midland Phoenix?

A. I'm President of Midland Phoenix Corporation.

Q. And prior to becoming President of Midland Phoenix, you were with Enron Oil & Gas?

A. That is correct.

Q. How long were you with Enron?

A. Nearly six years.

Q. What positions did you hold while with

Enron?

A. When I started with HNG on January 1st, '83, I started as Senior Geophysicist and progressed to District Geophysicist, to Division Geophysicist and to Acting Exploration Manager.

Q. When did you become Acting Exploration Manager?

A. March or April of 1988.

Q. Working in these various positions, they were basically geological or geophysical in character? Is that a fair characterization?

A. Yes, sir.

Q. In working with Enron, did you have occasion to work with Mr. Hodges?

A. Absolutely.

Q. Do you work with him today in Midland Phoenix?

A. That is correct.

Q. Who is Mr. Hodges?

A. The gentleman sitting behind you.

Q. What does Mr. Hodges do?

A. He finds oil and gas.

Q. What are his credentials? Is he an engineer? Is he a geologist?

A. He's a geologist by training.

Q. And Mr. Hodges' name appears on a number of the exhibits that you presented here today; is that correct?

A. That is correct.

Q. In fact, many, if not all, of the isopach maps of the area bear his name and not yours?

A. That is correct.

Q. The reason for my question is I want to be sure that we know who he is and that he works with you. Is that right?

A. Yes, sir.

Q. Did he actually prepare these exhibits?

A. Yes, sir.

Q. Have you reviewed them independently?

A. Yes, sir.

Q. Can you testify to their accuracy?

A. Yes, sir.

Q. Have you worked with him in a geological capacity over the last six years?

A. Yes, sir.

Q. You have come to respect and trust his judgment?

A. That is correct.

Q. Mr. Broten, is he also a geologist with Midland Phoenix?

A. That's correct.

Q. Did you work with him previously in Enron?

A. Yes, sir.

Q. Did he have any input or any involvement in the preparation of Exhibits 7 through 12?

A. Some input. We talk amongst ourselves in terms of the kind of picture we're doing or geological modeling or whatever.

Q. Did you also take that approach, basically, when you were working at Enron?

A. We tried our very best to. It became very difficult.

Q. But that was basically the approach that you took?

A. Yes, sir.

Q. I noticed on some of the exhibits with Enron that were submitted at the prior hearing that we had, your initials and Mr. Hodges' and Mr. Broten's?

A. Yes, sir.

Q. You haven't used that same approach, I guess, in identifying the exhibits that you have prepared here today?

A. How do you mean?

Q. Well, if we look at Exhibit No. 7 --

A. Well, because Mr. Hodges essentially did all the work in putting that map together, and the maps for Enron, and I'm sure you will heave them out in a minute, they are a compilation of work done over about five or six years since, essentially, the field was discovered by as many geologists.

Q. Is it fair to say that Mr. Hodges is the primary person who prepared Exhibits 7 through 12?

A. Yes, sir.

Q. Now, I believe you indicated that, in your opinion, the Pitchfork 34 Well in the west half of 34 was draining the Atoka reserves from under that section?

A. Yes, sir.

Q. Following the drilling of that well, HNG drilled its Moore 34 in the northeast of that section; is that correct?

A. That's correct.

Q. If I understood your testimony concerning the Atoka in the 34, there was no showing in the Atoka in that well; is that correct?

A. That's correct, no gas show.

Q. There has been no other effort, if I understood your testimony, to attempt to complete a well in the east half of Section 34?

A. In the Atoka, that's correct.

Q. Were you attempting to suggest that there was something that had been done imprudently by an additional well not having been drilled on that acreage?

A. There is that suggestion.

Q. In your role as Exploration Manager and District Geophysicist and all, you would have been in a position, while with Enron, to recommend an additional well be drilled, would you not?

A. In my last half year, yes.

Q. And you didn't make such a recommendation, did you?

A. Not over the last months I was with Enron, no.

Q. Now, if we go to your Exhibit No. 5, which is a cross section, and I can't read these logs; I will tell yu that.

A. Okay, this is 5.

Q. If we look at that, I believe you testified that your primary objective or a primary objective was the C Zone --

A. That is correct.

Q. -- in the proposed well. Is the log for the Moore 34 shown on Exhibit No. 5?

A. Yes, sir.

Q. In that well, what kind of a log is that?

A. That's a CNL neutron density log. It's a porosity log.

Q. Does it show permeability?

A. No, sir.

Q. So what we can gain from this is the appearance of porosity in the C Zone in the No. 34 Well; is that correct?

A. That's correct.

Q. This well was tested, was it not, by Enron?

A. Yes.

Q. And it was determined to be tight, was it not?

A. No, sir.

Q. It was not?

A. It flowed 1.75 million cubic feet of gas a day, decreasing to about 200,000. It gave the appearance of being tight. We believe that because of excessive lost circulation, material, as with the introduction of heavy oil-inverted mud, 13.3 pounds-per-gallon mud while drilling through the C, essentially damaged the C Sand Formation and changed its permeability.

Q. You believe that it is capable of

completing a producing well in this well bore in the C Sand?

A. Not now, no, because the formation has been damaged around the well bore. In fact, we did consider, at one time, is it sensible to go back into the Moore 34 Well to recomplete it?

But, No. 1, we believe the formation has been damaged near the well bore and is essentially not retrievable.

No. 2, because the well was set up to drill an Atoka test and not for the Morrow, the whole casing program is skinnied down and this whole section was drilled with essentially a skinny bit, a 4-and-three-quarter-inch bit, making it relatively difficult to deal with. There are a lot of problems. Certainly, as far as re-entry is concerned, it's probably impossible to deal with.

Q. So, based on the way the well was drilled, you concluded it isn't capable in this well for completing a producing --

A. Not as a re-entry, no.

Q. The A Sand is also an objective, is it not?

A. That is correct.

Q. If we look at the A Sand -- and I think

you had a log of the -- is the 34 Moore Well also on No. 6?

A. Yes, sir.

Q. Your testimony indicated, I think, that you felt that in the A Zone you were located basically on the edge of the sand body?

A. Not in the A Zone, no.

Q. How are you positioned in that?

A. Not centrally, but pretty well inside it, yes.

Q. Was an attempt to complete made by Enron?

A. Yes, sir.

Q. Were they able to complete a well?

A. Very similar to the C Sand, it came on under 2 million a day and decreased rapidly. For the same reason, this whole interval right from where we set casing at 13 whatever it was, intermediate right to TD, was exposed to heavy mud and lost circulation material.

We don't know where that mud or lost circulation material went to. All we know is that each of these sands was exposed to it and had potential damage.

We know the A Sand has a potential clay problem and is going to be more sensitive maybe even

than the C Sand to that kind of business.

Q. And you say that there was a potential for damage because of the way the well was completed?

A. Because of the way it was drilled, yes.

Q. And that the only way you're going to find out whether or not this Bank Formation can produce --

A. Yes, sir.

Q. -- or not is to drill another well; is that --

A. Yes, sir.

Q. -- correct?

A. Yes, sir.

Q. We've got to talk at different times for the Reporter. I'll wait for you to answer and if you will wait for my questions, we'll do all right.

Where were we? I think, Mr. Dicey, that I had asked you whether or not -- to determine whether or not you could produce reserves in these zones because of the possibility of damage as a result of the way the No. 34 was drilled, and it was your opinion that a new well had to be drilled?

A. Yes, sir.

Q. And you are proposing a new well in the southeast quarter or the northwest quarter of the

southeast quarter of 34?

A. Yes, sir.

Q. And that is actually on the Enron lease?

A. It's on our lease now, too.

Q. But it is on the acreage that is covered by the operating agreement?

A. Well, that is true. Let me change that a little bit. We have a farmout covering that.

Q. Covering 8 percent interest?

A. That is correct.

Q. Now, if we look at the Atoka, if I also understood your testimony, as you have continued to work this prospect, it has become a less attractive potential zone. Is that right?

A. I don't know about less attractive. As far as the Atoka Sand is ccncerned, there are reserves there still to be produced out of the east half, even though maybe the 34 has drained it quite excessively.

Now, if we are talking about the Atoka Bank, that is an unproven unit. All I can say is that when the Page 3 No. 2 was drilled into it, it had a gas kick with essentially virgin Atoka pressure of about 10,000-plus pounds, showing it to be a potentially very prolific reservoir.

But there is no well that produces in this immediate area. It's the only well that has had a net porosity in that zone unless you go way up to Antelope Ridge. Then you are looking at very similar zones, and those zones are quite prolific up there.

Q. But it is a secondary --

A. It is a secondary --

Q. -- consideration?

A. It is a secondary consideration. That is correct.

Q. We've got to keep the answers and questions off of each other or the Court Reporter can't get them.

A. Oh, I'm sorry.

Q. Did you, at any time while you were working with Enron, express displeasure with how they drilled or completed any of the wells in this area?

A. It had been a thought -- yes.

Q. Did you express any concern about how the No. 34 Moore Well had been drilled and completed?

A. It had been discussed at different times in conjunction with the Pitchfork 34, which every now and again was discussed in terms of formation

damage, yes.

Q. Did you ever suggest that an additional well should be drilled on the northeast quarter of 34?

A. It was suggested to us by other parties, but I did not.

Q. And you did not recommend that to management?

A. No, sir, I did not.

Q. Let's take a look at the plats that have been prepared by Mr. Hodges that you have testified from. I'd like to have --

A. Hang on a minute.

Q. All right. And I think I'd like to work through 7 through 12. I just want to be sure I understand the basis of your interpretation.

A. Yes, sir.

Q. The first question, Mr. Dicey, is what information was actually utilized in preparing these exhibits?

Did you use well control in some of those?

A. Solely well control. That is correct.

Q. You did not integrate seismic into these presentations?

A. No. We don't have access -- Enron has a

large data base of seismic data, a lot of it proprietary information across the field.

The field was originally discovered using an integration of seismic data and subsurface data, and was certainly developed using seismic data.

But we don't have access to that, so we can't use it. All we can use is the information we have at hand, which is old well information from our local libraries.

Q. So the answer is you used well control data only in preparing these exhibits?

A. That is correct.

Q. If you look at Exhibit No. 7, what well control data do you have actually north of the Moore, the dry hole, and the northeast of 34? What control data do you have for placing the contours in the Morrow C Sand?

A. In which section?

Q. I'm talking about --

A. Section 27?

Q. I'm asking you to focus on Section 34.

A. Yes.

Q. You've got a proposed location in the east half?

A. Yes.

Q. And you've got one well north of that being simply the Moore 34?

A. Yes.

Q. Do you have any other control north or east of that that you have utilized in constructing these contours?

A. Yes, sir. There are two wells in Section 27, the BTA Well and the Southland Royalty Well, and there's a well in Section 36 to the east.

Q. That the Pitchfork 36 --

A. 36 State No. 1.

Q. -- State?

A. That is correct.

Q. And that Pitchfork State was a dry hole; is that correct?

A. That is correct.

Q. And the well in the southwest quarter of 27 was dry, was it not?

A. Yes.

Q. What about the BTA No. 1 just north and west of that?

A. It is a producer.

Q. It's in the C Zone; isn't that correct?

A. Yes.

Q. So that is the closest producing well in

the C Zone?

A. Probably the 33 No. 2 is the closest one, about a mile to the west.

Q. But north of you and east of you, that is the closest producer north of you?

A. Well, going directly north, yes.

Q. So then what we have is that is the only producing well in the C Zone north of the proposed location or east of the proposed location?

A. Yes, sir.

Q. If we go to the structure map again, this is just well control data. This is Exhibit No. 8; is that correct?

A. Yes, sir.

Q. And then on to Exhibit No. 9, this is an isopach map of the Sinatra Sands. Isn't that correct?

A. No. 9, yes, sir.

Q. Again you used well control data. Is that right?

A. Yes, sir.

Q. Can you tell me why, on this exhibit, you did not elect to utilize the data on the HNG Pitchfork 36 State Well over in Section 36?

A. We didn't draw it on there. We think

there is a potential bar in evidence. See, there is a big fault over to the east of the field here, as you can see on this exhibit. And the only well that tested on the down side of that fault is the 36 No. 1.

So it's very difficult to tell where the sands are going from that well. Really, I'm not very keen on encouraging people to make maps on one well control.

Q. Now, I think what I'd like to do at this time, Mr. Dicey, is ask that you refer to what has previously been admitted in this case as Enron's Exhibit No. -- was admitted at the Examiner level as Enron Exhibit No. 20 and was incorporated today into the record.

You are familiar with this exhibit, are you not (indicating)?

A. Yes, sir.

Q. This is, in fact, an isopach map on the Morrow Sinatra Sand series. Is that what it is entitled?

A. That is correct.

Q. And your Exhibit No. 9 is also an isopach map on the Morrow Sinatra Sand sections; is that correct?

A. That is correct.

Q. Now, if I look at the dates on Exhibit No. 20, it appears that the last revision indicated was February, I believe, it's the 17th, 1988. Is that right?

A. Yes, sir.

Q. Now, after February 17, 1988, were any additional wells drilled in the immediate area that would affect your interpretation of the Sinatra Sand series?

A. There are some wells to the south of the field which have influenced our use of geologic models for interpreting this sand.

It must be borne in mind that this map was made, as I say, and the next one you are going to bring out, as a compilation of maps made by up to five or six different people.

Because of the pressure involved in Enron or became involved in Enron, any one of the later people who updated these maps did not have time to go back and check every well that went into the original map. So things like the Moore 34, for instance, particularly as it was considered to have no sand on this map, would not have been reconsidered for looking back.

Generally speaking, for somebody to pick zero sand, it means it's got railroad tracks.

Now, as it happens the Moore 34 was about the fifth well drilled in the field. And our knowledge of how the formations lie on top of each other, how the stratigraphy is was relatively new at that time.

Our interpretations, of course, were with the data we had and has been developed since the drilling of these wells. We drilled 26-odd wells and then on to 32 for the whole field.

As we've utilized more information, we get -- we've updated this map. But, like I say, we've never gone back and checked the original wells. We assumed they are correct.

Now, since we've become -- left Enron, I mean the people who originally worked on these, we started out with nothing, no maps, no cross sections, no anything, so we've had to come and start this thing from scratch again which involves looking at every single log.

Now we find that going back, particularly to the Moore 34, we found that originally the well was miscorrelated; that, in fact, there was an Atoka Sand in there, a little trace of Sinatra Sand in

there. And, of course, that's going to influence how we draw it. And, therefore, which I'm sure your next question is going to be, is why our maps are different to these maps.

Q. Why don't you give me a chance to ask the question?

A. Well, I'll save time.

Q. H. C. Hodges' name appears on Exhibit No. 20; is that right?

A. That's this one (indicating)?

Q. Yes.

A. Yes, sir.

Q. And H. C. Hodges is the man who prepared your Exhibit No. 9; correct?

A. Yes, sir.

Q. And there's been no new data, nor new wells since --

A. There was that BTA Well.

Q. Which BTA Well?

A. The one in the west half of Section 27. Also, there was the Enron Center Roja (sic) 17 or whatever it was, No. 1, which also influenced how we drew some of these maps.

Q. In fact, however, there is nothing that is directly offsetting Section 34, is there?

A. Not directly.

Q. Nothing closer that the BTA Well?

A. That is correct.

Q. And if you compare Exhibit No. 20 with the exhibit you presented today, in fact, the exhibit today places the Sinatra Sand over the northeast of 34, and there was none over the northeast of 34 in your prior interpretation?

A. That is correct.

Q. When you prepared the exhibit today, you didn't take into account the 13 feet of pay in the Pitchfork 36 State Well, and, yet, if you look at the Exhibit No. 20, you have honored that and pulled the Sinatra Sand off of the --

A. That is true. It's a bit of artistry in terms of the Enron map.

Q. And these are prepared by the same individual; isn't that correct?

A. That is correct.

Q. Is it fair to say that Exhibit No. 20 was your best interpretation --

A. At the time --

Q. -- last year?

A. At the time with the time available to look at the data involved, yes.

But, as I emphasized, we didn't go back and look at every well to make sure that our predecessors, who created a good chunk of these maps, had, in fact, not miscorrelated or had got the picture right with the information they had at the time.

Q. And No. 20 only indicates "JRB." Who is that?

A. James Broten.

Q. "TRD"?

A. That's me.

Q. And H. C. Hodges?

A. That's correct.

Q. Exhibit No. 9 was prepared March the 20th, 1989. Is that right?

A. Draftingwise, yes.

Q. And at that point in time, you had already decided to go forward with the east half unit of 34?

A. Yes, sir.

Q. If we go to your Exhibit No. 10, this is the Warren Sand -- in fact I don't have any questions on this except -- no. I have no questions on that.

A. Oh, okay.

Q. I'd like to take you to Exhibit No. 21 --
A. What is 21?
Q. I'm sorry, Exhibit No. 12. I'm going to hand you what was previously admitted into evidence as Exhibit No. 21 at the Examiner Hearing (indicating).
A. (Witness refers to document.)
Q. Mr. Dicey, if I understood your testimony earlier today, and correct me if this is wrong, you indicated that, in your opinion, there is little to no gas that is being produced out of the Atoka in the northwest of Section 34; is that correct?
A. Yes, sir.
Q. Again, we have, marked as Exhibit No. 21, an Atoka carbonate structure map that appears to have been prepared by you, Mr. Broten, and Mr. Hodges with Enron. Is that correct?
A. Yes, sir.
Q. Looking at Section 34 -- and since this is a composite map, it's more difficult to read it -- and if you compare that to your Exhibit No. 12, it appears that there is a zero isopach line coming across Section 34 virtually through the Moore 34 Well and off to the northwest. Is that correct?
A. Yes, sir.

Q. Based on this interpretation, it virtually excludes, in this Atoka Sand, any productive acreage in the northeast of Section 34. Isn't that right?

A. As far as this map is concerned, yes.

Q. If we go to Exhibit No. 12, this map is dated April the 10th; isn't that right?

A. The drafting of this map is dated April the 10th, yes.

Q. And that is after you had come forward with a proposal to develop the east half of 34. Isn't that right?

A. Let me elaborate a little here. These maps, as I'm stating, the dates on all the maps that we tendered as exhibits are either March or April of this year. This is the date on which I drafted these maps, not the date on which these maps were created or made.

We first started mapping this in November of 1988. In fact, we mapped the whole field. We did a field study for the purpose of purchasing Pitchfork Ranch Field from Enron, which, of course, didn't pan out, obviously, but that's the origination of these maps.

The dates reflected up here, as Mr. Carr

is pointing out, is the date on which I drafted these maps. Of course, the drafting is specifically for these hearings, not the original map.

Q. And the Exhibit No. 12, which was drafted specifically for this hearing, attributes productive acreage to the northeast of 34. Isn't that right?

A. That is correct, and re-interpreting all these wells in the field -- like I said, we had to go back and look at every single well again, not take points at face value.

In fact, I believe Mr. Cherryhomes started the original map on the Atoka, and it could well be his point on the Moore 34 that we were using that procreated through all these maps.

However, we started from scratch with every single well again, and we found that the original correlation of the Moore 34, there was an Atoka Sand there. The original correlation was not correct. There is a trace of sand, if you put it together right.

Q. If we compare Exhibit 12 with Exhibit 21, the new exhibit attributes reserves in the Atoka Sand to the northeast quarter of 34 --

A. That is correct.

Q. -- that were not attributed to it before?

A. That is correct.

MR. CARR: That's all I have.

CHAIRMAN LEMAY: Questions of the witness?

(No response.)

CHAIRMAN LEMAY: Mr. Dicey, I have a couple of questions.

EXAMINATION

BY CHAIRMAN LEMAY:

Q. Your main goal in drilling this well, your primary objective, I take it, is the Morrow C Sand?

A. The Morrow C and the Morrow A.

Q. The Morrow A?

A. We perceive all those objectives in there equally.

Q. If you are not qualified to answer this, just say so, but do you know the depositional environment of the Morrow C Sand?

A. I don't know it. From all the work that we have done, we feel that the depositional environment is probably a deep marine turbidite.

You see, to the east, you have the Central Basin Platform rising up at this time.

Those sands derive from the eroding platform and are channeled down into this area. This area, then, essentially has a platform, essentially a structural platform. These sands, as soon as they hit that change in slope, we see them being dumped into a series of fan loops sitting one on top of the other. Where you've got the thickest sands is where you've got a stacking of these fan loops.

Now, what we have, after that was deposited, then you've got a structural change. You had this lot lifted up, and then after that, you had a series of channels being deposited essentially around the edge of the field, and, hence, the Warren, the Sinatra, and the A Sand.

Q. To shorten my question, I guess, in a very broad sense, do you know Stu Martin?

A. Yes, sir, he works with us.

Q. Have you read his paper on the deposition within the field, and do you agree with it?

A. Yes, sir. That's what I'm quoting, in fact.

Q. Are there any otner blanket sands, thick sands, in the Morrow C section where you've drilled the well correctly and you've had thick sand that was tight sand?

A. Not in the Pitchfork Ranch Field. Well, there are sands that are tight in there, yes. I think those are sands in one of the western wells. I can't remember which one of them now. I'd have to go and refer back and look at it. I'm sorry.

Q. What I'm trying to get at is generally if you show a thick isopach on the gross section of Morrow C Sand --

A. Yes.

Q. -- assuming the turbidite-type deposition, generally does that have porosity?

A. No, not necessarily. In fact, looking at this much more regionally, out to the west over in the Mesa Jackson area, Jackson Unit, that Mesa Jackson Well had like 80 feet of C Sand in it, and it produced very, very poorly because it is essentially tight.

We believe it was cherted up after deposition after the Pitchfork Ranch Field was lifted up, that lifting keeping the Pitchfork Ranch Field essentially the porosity open, permeability open, whereas everywhere else around lying relatively low has been essentially cherted up and lost its primary porosity permeability.

Q. In trying to analyze whether the Morrow C

Well in Section 34 was due to lack of permeability or formation damage, is there any reason that you agreed it was drilled poorly? Sometimes it's hard to really know.

A. We didn't know. It was the fifth well along. Throughout any major field development, it's a learning curve, and you learn, as you go along, what you can and what you cannot do.

That being one of the early wells, it was one of the ones that we learned from.

Q. What I'm trying to get at is are there other examples where you can see thick Morrow Sand in the C Zone with porosity indicated on the log? I don't know if there is permeability indicated or not, where there is porosity, but there is no permeability, where it has been drilled correctly and you can assume it's not due to formation damage.

A. Not in this immediate area that I can think of.

Q. I had a question concerning your maps going up in this section, I think it was Section 23. There appears -- you carry some trends up into Section 23, but I assume that's your artistic license?

A. May I ask you which maps?

Q. Yes. Exhibit 9. I was looking for control on the Sinatra Sand where you load it up there, but I don't see any --

A. That's true. There is no small element of artistic license involved in that. But when you have data points, however dense the data points, you still need to fit a geologic model to what you are looking at to make what you hope is the best picture of what's going on. And that's what we've attempted to do here.

We probably have fewer data points. We're still using that geologic model. We know the sands come from the north, moving essentially north-south in this kind of channel system.

We've extended that. There are a few wells to the north that have traces again in it; not on this map, but, like I say, these maps were taken from a much broader study. So, obviously, these don't show where those data points are coming from.

Q. I was wondering if there was well control in Section 23 that doesn't show because of your legend here.

A. Loosely speaking, yes, sir.

CHAIRMAN LEMAY: That's all the questions I have.

Are there additional questions on Redirect?

REDIRECT EXAMINATION

BY MR. PADILLA:

Q. I have one question, Mr. Dicey.

Can you go to your cross section and point out that trace of sand in the Sinatra?

A. Yes, sir, right there (indicating).

Q. How much sand do you see there?

A. 3 feet, plus or minus.

Q. Is that sufficient to obtain production from that?

A. Probably not. It's difficult to tell because when that well was drilled, you got gas increases ever since you started into the Morrow A Sand. You had different gas increases all the way down. It's difficult to tell where they are coming from.

I think probably it's more likely from the Warren, in this instance, and this is merely a trace indicating a leading edge of a sand body. We're looking optimistically at this. We are an exploration group trying to develop, you know, play

sands as we see them.

You can be equally pessimistic and say no, it's just a little bit of nothing in particular and it doesn't go anywhere.

Q. But it's not zero?

A. It's not zero, no.

MR. PADILLA: That's all I have.

CHAIRMAN LEMAY: Any additional questions of the witness?

(No response.)

CHAIRMAN LEMAY: You may be excused, and you may call your next witness, Mr. Padilla.

MR. PADILLA: We will call Jim Broten at this time.

JAMES RUSSELL BROTEN

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

DIRECT EXAMINATION

BY MR. PADILLA:

Q. Mr. Broten, for the record, would you state your name, please?

A. Yes, sir. My name is James Russell Broten.

Q. How do you spell your last name?

A. B-r-o-t-e-n.

Q. Mr. Broten, where do you live?

A. I reside at 2509 Noel Avenue, Midland, Texas.

Q. Do you work for Midland Phoenix?

A. Yes, I've been associated with Midland Phoenix.

Q. In what capacity?

A. Presently, Vice-President of Operations.

Q. And what background do you have as far as technical knowledge?

A. I have a degree in geology from Arizona State University. I came to work, did two years well-site consulting and mud logging.

After that two-year period, I went to work for HNG Oil as a Development Geologist, and progressed up to Exploration Geologist, and later was promoted to Senior Exploration Geologist.

Q. Mr. Broten, did you testify in the Division Hearing in this case?

A. Yes, sir, I did.

Q. Were your credentials accepted as a

Development Geologist?

A. Yes, they were.

MR. PADILLA: We tender Mr. Broten as an expert witness at this time in this case.

CHAIRMAN LEMAY: His qualifications are acceptable.

BY MR. PADILLA:

Q. Mr. Broten, let's jump right into what we have marked as Exhibit No. 14, which is a mud log.

Would you describe to the Commission what that mud log contains and what you have cited in that log?

A. Certainly. What we have is a mud log that was recorded during the drilling of the Moore 34 No. 1. It's of very significant importance in that it disputes the notion that this is the driest well ever drilled in the area. We have had excellent gas shows while drilling.

Q. Mr. Broten, could you speak a little louder?

A. Yes. What you see before you is a portion over the Atoka-Morrow sections. We have a heading on it to identify it as the Moore 34 No. 1.

Q. Starting from the bottom up, or starting with the Morrow C Zone, can you describe where that

show is contained on that log?

A. Normally, when you describe a mud log, you like to proceed from the top down.

Q. Is that what you are going to do?

A. It is. It gives a chronology of what happened during the drilling operation.

Q. Why don't you do that, start from the top to the bottom, then?

A. Okay. The first interval I'd like to draw your attention to would be the Atoka Sand interval.

Before we get going here, I'd like to note that it's common, on mud logs and electric logs, that you have a drilling TD depth differential here, difference, I should say, in that here our actual driller's depth will sometimes be deeper or shallower than what the electric log shows. And as you match up the electric log with the mud log, you take that into consideration.

The case is true here on the Moore 34. We need to make that adjustment because the TD on the mud log or the driller's depth is 15,376, and the electric log is 15,364. That is a 12-foot difference at total depth. So when I refer to intervals, I'm referring back and forth from the

cross section which has the Moore 34 density log on it and the mud log which is in front of you.

With that clarified, I start with the Atoka Sand. We see that interval on the mud log from 14,092 to 14,102, corresponding to 14,078 to 088 on the electric log.

What we observed here is a drilling break. We see downtime gas increases and trip gas. A trip for a new bit occurred at 14,116. This is just below the Atoka Sand interval. And as these samples were circulated up, here is where we begin to see the sand, and this leads us to believe that we have sand present in this interval and that we are able to record it in the trip sample.

Proceeding downwards into our next interval of interest, it will be the Atoka A Sand. We find that at 14,614 to 642 on the mud log, corresponding to 14,598 to 14,627 on the C&L density log.

Q. Mr. Broten, did you mean the Morrow A Sand? You said the Atoka A Sand.

A. Yes, I'm sorry, the Morrow A Sand.

Q. Did you mean the Morrow A Sand?

A. Yes.

Q. Go ahead.

A. Okay. What we see on the mud log here is a drilling break from about 40 minutes per foot to 2 minutes per foot.

At that point, the well was shut in for 30 minutes and was observed to have a 15-barrel gain. A 20-to-30-foot flare was recorded with 2 million on the peak load tube.

At that point, we were still drilling with a dry-run fluid of 10 pounds per gallon. That has increased to 10.7 pounds per gallon, and we continued drilling.

We can also note the C&L density log's very favorable porosity is also in this interval. The density porosities were recorded up to 20 percent, a cross plot average of roughly 14 percent, and the resistivities were in the range of 35 Ohms.

This flags this interval as a potential pay zone, as well as the show during drilling. And the samples recorded also -- what we look for in the cuttings reflect a potential reservoir. And what we saw within this reservoir, we saw a sand that was a fining-upward sand from very coarse to fine-grained, unconsolidated to partly consolidated.

And the key here is we had residue staining on the individual sand grains, and, also,

condensate was observed on the mud pit. So this was a very strong show observed at this point.

The well continued to drill forward with the 10.7 pounds per gallon drilling fluid. But at this point, we were carrying a 6-to-8-foot pulsating flare. Where we get this flow from is the drilling fluid is circulated through a separator, which knocks out the gas prior to reaching the sample trap collection system, which may be located at the flow line or the shale shaker.

The next interval of interest occurs in what we correlate to be the Warren Sand, which is on the mud log at 14,740 to 744. The electric log reads this at 14,728 to 732.

Here again, we're seeing, on the electric log, porosities up to 10 percent, cross plotting around 6 percent, and, again, resistivities in the neighborhood of 35 Ohms.

Here we went into this interval drilling with a 6-to-8-foot flare, and the gas increased to a 10-to-20-foot flare, indicating the presence of gas in that reservoir as we were drilling.

The samples also reflect the potential reservoir has -- it showed it contains a sand that was very fine-grained, consolidated, angular to

rounded.

Q. Mr. Broten, a while ago you said you had resistivities of 35 Ohms.

What does that mean?

A. First off, there is no indicator for permeability. And when you have a favorable resistivity response, you can make sort of a qualified estimation that this may be permeable.

Then the second thing you get from a resistivity log is that you can gather whether or not this is a wet or potentially hydrocarbonate interval, wet.

Q. In terms of this well, what does that mean?

A. This, to me, would flag it as a potential reservoir.

Q. Okay. Go on now to your next --

A. Okay. I want to bring up there was a trip at 15,125, where we observed various -- this would include -- when we have a trip, we have downtime. There was still drilling with a 10.7 pound per gallon drawing.

During this particular trip, we observed a very strong show of gas as this trip gas was circulated up. This would indicate that during the

downtime, we had this formation feeding gas into the well bore, and it definitely wasn't decreasing. It was still increasing. So we look at this as a favorable response.

In fact, at that time, they were getting so much gas back that they had to race this show back into the hole so they wouldn't lose the entire circulation. The fluid was starting to flow up and then they managed to trip back in in time to safely control the well, but it was a concern at the time. So we were seeing continued strong gas presence in the well bore.

I'd like to proceed into the Morrow C Sand. We see that in the mud log at 15,196 to 15,248 -- I'm sorry -- 15,222, 15,272, which corresponds to the electric log depths of 15,196 to 248.

Here, first off, on the electric logs we see density porosities up to 10 percent with average cross plot porosities in the neighborhood of 4-to-6 percent. Here we have a wide range of resistivity readings anywhere from 90 Ohms up to a thousand Ohms.

We had a very strong show as we drilled into this well. When I say "strong show," I mean we had to shut in this well. When I say "we," I'm referring to, at the time, I was with HNG. The well

was shut in when it had 1400 to 1600 pounds on the backside that increased to 2200 pounds.

As we circulated gas through the choke, we observed 2.2 to 2.4 million cubic feet of gas per day. To continue drilling the well, we found it necessary to mud up, and the wellout was displaced with oil-based mud weighted in the neighborhood of 13 pounds to 13.3 pounds per gallon.

This indicates a very strong show. In fact, it was so strong that it necessitated a change in the mud systems.

The samples themselves reflected a very positive indicator for a reservoir. We knew what we needed to see in the C Sand in the samples, and this wellbore exhibited what necessitates to us to be optimistic about its potential.

We saw sand here that was very fine to very coarse, consolidated to unconsolidated, with residue staining on the individual sand grains. This is exactly what we looked for in the Pitchfork Ranch C pay zone. So this flags this well as a good potential wellbore for production.

As we proceeded with the drilling operations, the 13-pound-plus mud proved to be too much for the formations already drilled, and they

began to suffer lost-circulation problems necessitating the addition of lost-circulation materials. This continued until TD was reached six days later.

Our contention is that this is the point where the wellbore had the potential to be damaged throughout the section, as all the sands -- potential pays were exposed to this mud.

Q. Mr. Broten, in view of your experience with this well, what kind of mud programs could you use or what would you do differently to minimize any damage to the Morrow?

A. I wouldn't have shot the wellbore with overkill, which, apparently, was the case here. Hindsight is always perfect sight.

At the time, we didn't realize that when this heavy mud hit this formation, there was potential for damage.

However, now, with our experience in the area, we realize that you don't need a 13-pound; that's overkill. You can go in with a lesser mud rate, probably in the 11-to-12 pound range.

Q. Is the Morrow Formation susceptible to this kind of damage either through water or mud or some other material?

A. Yes, sir, it's noted throughout New Mexico to be a sensitive sand formation. Any time -- it's got pecularities involved in that it has clays associated with the sand that -- in particular, I'm speaking of kayolinite, a particular type of clay; that it's a clay that if it's abused, you might say, in the formation, it will clog up the well bore so that, essentially, you lose your permeability to the formation around the well bore, and, essentially, that creates a dry hole.

Q. Mr. Broten, would re-entry of this well be something that could be done?

A. Because of what I've just mentioned, it rules it out. You would have to drill at another location that is safely removed from the potential surrounding well-bore damage. That distance is hard to determine, so you would want to make sure it was adequate, that it was far away. You don't want a twin well like this.

Q. Is your proposed location far enough away at this time?

A. Yes. We feel it is a prudent location and it's an optimum location to test this. We feel that there are reserves here and that we do have a reservoir potential.

Q. Mr. Broten, do you have anything further to add to your testimony?

A. Not at this time.

MR. PADILLA: We will pass the witness, and we offer Exhibit No. 14, Mr. Chairman.

CHAIRMAN LEMAY: Exhibit No. 14 will be admitted into the record without objection.

(Wnereupon, MIDLAND PHOENIX EXHIBIT 14 was admitted into evidence.)

CHAIRMAN LEMAY: Mr. Carr?

CROSS EXAMINATION

BY MR. CARR:

Q. Thank you. Mr. Broten, how long were you employed by Enron?

A. Nearly eight years.

Q. While employed with them, were you at all times employed as a geologist or did you also serve as a mud logger. Are those different positions?

A. Prior to my employment with HNG-Enron, I had worked as a mud logger.

Q. But all the time you were with HNG-Enron, you worked as a geologist?

A. That's correct.

Q. Were you working as a geologist for them when the Moore 34 Well was drilled in the northeast of Section 34?

A. That is correct.

Q. Were you involved in the drilling of that well?

A. Yes, I was.

Q. When is the mud log actually run? Is it run while the well is being drilled?

A. During operations, while the drill bit is drilling, and as we circulate that cut sample and it is read immediately at the surface by the geologist that is collecting the samples.

Q. Were you that geologist who was collecting the samples on the 34?

A. No. We had mud loggers doing that for us, and we would basically look over their shoulder, if need be. But this particular outfit here has excellent mud loggers.

Q. Did you see the mud log on this well soon after it was run?

A. Daily. We get daily reports on the progress of the well from the mud loggers.

Q. So you were familiar with what was going on --

A. As it was going on.

Q. -- as it ws going on?

A. Yes.

Q. If we look at the Atoka Sand, I think you testified, and correct me if this is wrong, but did you state that there was a show while drilling the well in the Atoka Sand?

A. I didn't mean to infer that. However, we do see indications of downtime throughout that interval.

What we go by here is we have downtime gas and then we have a trip gas noted in the gas column on the mud log.

What that is really showing is that when you are drilling this well bore, there were periods when they actually shut down the well and the sample column would basically go back to bottom and then have to kick in the pump and circulate back up. So it would increase the lag time for the samples.

Q. When we talk about a show, my question is when I look at the mud log, it says there is a show of sand.

I want to know if you are trying to tell us there was a gas show other than just the trip gas show or whether you just had a show of sand.

A. It was a show of sand.

Q. And then the gas was a trip gas which could come out at any place in that wellbore?

A. That is correct.

Q. In drilling this well, you drilled the No. Moore 34 using a brine water instead of a mud. Isn't that right?

A. That's correct, until we reached the C Sand.

Q. This was a 10-pound, approximately, brine water as you went through the Atoka?

A. That's correct.

Q. In other wells you were involved with, didn't you, in fact, have to use about a 14-pound mud when you drilled in the Atoka?

A. Normally, when we drilled into the Atoka Sand Reservoir, it took about a 14-pound mud to control the wellbore.

Q. And that wasn't needed?

A. No, sir.

Q. Didn't that suggest to you that you didn't have the the Atoka present?

A. This indicates to me that we were in the impermeable or on the edge of a sand body. This was a good show to lead us into -- some exploration tool

that we can use to get us into the reservoir, which we believe lies to the east and southeast of this well.

Q. You saw the sand but not the gas?

A. That's correct.

Q. Now, I just want to be sure I understand what you've said.

The 34 was drilled using a brine water, and then, if I understand you, when you got to Atoka Sand, was it at that time that mud was utilized in the well?

A. In the C Sand when we had the gas show yes.

Q. That's the deepest interval; is that right?

A. Actually, that's not the -- if I understand what you are saying, the well was drilled with the brine water system until we experienced a strong gas show in the Morrow C Sand. That necessitated a heavier mud to be implemented.

Q. When they used that mud, it made contact with the formation, and that's how the damage you see occurred?

A. Exactly. That transpired from that time forward. The entire wellbore was open and exposed

to whatever drilling mud was in the wellbore.

Q. When Enron went back and tried to complete in the Morrow A Sand, they did test that sand; is that correct?

A. That's correct.

Q. They shot 20 holes; isn't that correct?

A. Yes, that's correct.

Q. Was that an adequate testing of that zone, in your opinion?

A. I feel that was a fair test. I feel that they had -- it was a lost cause before they started. The damage was there. That was just an attempt to maybe overcome the damage, and there was no success.

Q. Were you involved at all in the drilling of the discovery well, the Madera 28 No. 1?

A. Actually, the discovery well was the Madera 32 No. 1. The Madera 28 came second.

Q. Was that the second one?

A. Yes.

Q. Were you involved with the drilling of either of those?

A. Yes, I was.

Q. What zone does the discovery well produce from?

A. Morrow C Sand.

Q. Wasn't it also drilled using this mud?
A. It was an oil-based mud, yes.
Q. The Madera 28, it was also drilled using this mud, was it not?
A. An oil-based mud, that's correct.
Q. And it produced from the C Sand; isn't that right?
A. That's correct.
Q. Because of the heavy gas shows in the Page No. 1 south of Section 3, heavy mud had to be used, didn't it?
A. In the Page Well?
Q. Yes, the Page No. 1.
A. That's correct. If you look at the chronology --
Q. Really just as examples, that was another well and this was different from the Sinatra; is that right?
A. Yes.
Q. And heavy mud was used in that; isn't that correct?
A. Yes.
Q. If we look at the Pitchfork 34 Well in the west half of Section 34, mud was used in that one; isn't that right?

A. That's correct.

Q. And the Morrow --

A. In fact, there was noted on one of these exhibits that waas entered at the Division Hearing, it was even noted that there was lost-circulation problems in that wellbore, too.

Q. And so do you have an opinion as to whether or not the Morrow was damaged in the 34, the Pitchfork?

A. I believe there were problems.

Q. Is it your testimony that the Moore 34 in the northeast doesn't condemn the zones because of the completion? Is it also fair to say that the Pitchfork 34 doesn't condemn the Morrow in the west half of Section 34?

A. Let's say that that could be true. I feel that I'd like to qualify that "Yes" or "No." The volume of sand found in the Moore 34 exceeds the amount of sand found in the Pitchfork 34. Therefore, I believe the reservoir is improving to the east, actually.

Q. Do you have an opinion as to whether or not the reservoir is present in the Morrow at the Pitchfork 34 Well?

A. I believe we're looking at a smaller sand

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body, which I don't think -- if you use a volumetric-type of calculations, you're going to see less reserves there than you would in the east half.

Q. But some reserves?

A. Hopefully.

MR. CARR: That's all I have.

CHAIRMAN LEMAY: Thank you, Mr. Carr.

Additional questions of the witness?

(No response.)

EXAMINATION

BY CHAIRMAN LEMAY:

Q. Mr. Broten, do you know Mr. Northcut?

A. Yes, I do.

Q. Do you consider him a competent logger?

A. I do.

Q. You agree with --

A. I find this to be a very excellent mud log. I could demonstrate how it sets up with the electric log, if you would like. It's very good.

CHAIRMAN LEMAY: I think it matches well. That's all the questions I have.

Any Redirect?

MR. PADILLA: I have no questions. Mr.

Chairman, we will rest at this time. We've concluded our portion of the case.

I would like to incorporate our overhead charges, as contained in the Commission's Order, and we can stipulate to that.

MR. CARR: I believe the Division record contains overhead charges. It contains a request by Midland Phoenix who paid the operator, and I think all the necessary stones that you have to touch for an application are covered there. And we certainly have no objection. They are in the record.

CHAIRMAN LEMAY: All right. They will be incorporated. Thank you, Mr. Padilla.

I think this is a good time to break and return at 1:15.

(Whereupon, the hearing in the above-referenced matter was adjourned for the lunch recess.)

* * *

CHAIRMAN LEMAY: We will continue with our case with Mr. Carr.

MR. CARR: May it please the Commission, at this time we would call Robert McCommon.

ROBERT McCOMMON, JR.

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

DIRECT EXAMINATION

BY MR. CARR:

Q. Will you state your full name?

A. Robert McCommon, Junior.

Q. Mr. McCommon, where do you reside?

A. At 4511 LLano in Midland, Texas.

Q. By whom are you employed and in what capacity?

A. I'm employed by Enron Oil & Gas Company as a Landman.

Q. Mr. McCommon, have you previously testified before the Oil Conservation Division and had your credentials as a Petroleum Landman accepted and made a matter of record?

A. Yes, sir, I have.

Q. Are you familiar with the applications filed in this case, this consolidated case?

A. Yes, sir, I am.

Q. Both the Midland Phoenix application and the application of Enron?

A. Yes, sir.

Q. Are you familiar with the subject area?

A. Yes, sir.

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

CHAIRMAN LEMAY: They are acceptable.

BY MR. CARR:

Q. Mr. McCommon, would you briefly state what Enron seeks in this case?

A. Yes, sir. We seek the compulsory pooling of the Atoka and Morrow Formations, spacing units, approval of a non-standard proration unit in the Atoka and approval of a well location in the Atoka.

Q. Have you prepared certain exhibits for presentation here today?

A. Yes, sir, I have.

Q. Would you refer to what has been marked as Enron Exhibit No. 1, identify this exhibit, and review it for the Commission?

A. Yes, sir. This is a land plat that I prepared (indicating). It shows on it the proposed location of the Enron Pitchfork 34 Federal Com. No. 2 Well. This is located 1980 from the east line and 660 from the south line of Section 34, Township 24, Range 34 East, Lea County, New Mexico.

Also depicted herein is the -- outlined in blue is the southeast quarter of Section 34, which is the proposed non-standard 160-acre proration unit for the Atoka, and outlined in orange, being the south half of said Section 34, the proposed 320-acre proration unit for the Morrow Formation.

Q. What are Enron's proposed objectives in the well in the southwest and southeast of 34?

A. Okay. Our objectives are the Morrow-Sinatra Sand, the Atoka Reef, and the Atoka Sand.

Q. Would you now look at what has been marked as Exhibit No. 2, and identify that for us?

A. Yes, sir. This is three pages long, and it shows the mineral ownership or interest ownership in various portions of Section 34.

Page 1 is the mineral ownership based on a takeoff that was conducted by an independent

Landman in the county records of Lea County.

It covers the northeast quarter and the northeast quarter of the southeast quarter of Section 34. It was done on March 17th, 1989.

The second page shows the leasehold ownership subject to an existing operating agreement between Enron, Enserch, Robert Landreth and Samedan Corporation in the southeast quarter of Section 34, which is our proposed 160-acre non-standard Atoka proration unit.

It also goes on to show unleased mineral owners and leasehold ownership not subject to the operating agreement.

This schedule was prepared off the take-off that was done on March the 17th.

The third page is basically the same type of information, interests subject to working interests, the owner-operating agreement, and also the interest of unleased minerals and leasehold ownership not subject to an operating agreement. But this covers the south half of Section 34.

Again, this information, or specifically these lower portions, is based on the takeoff that was done on March 17th.

Q. Now, Mr. McCommon, what percentage of the

ownership in the south half of the Morrow Formation, and I'm talking here about working interest ownership, was voluntarily committed to the drilling of this well?

A. Mr. Carr, probably the 87.5 percent shown on Page 3 here, because that is subject to the operating agreement.

Q. Now, when you were developing these figures, were you including in the 87-plus percent figure the interests of Robert Landreth?

A. Only the leasehold interests that he has subject to the operating agreement, not his mineral interest which is depicted in the lower half of that page.

Q. All right. Now, in the southeast quarter of Section 34, what percentage of those owners in the Atoka have voluntarily committed to the well?

A. 75 percent, which is subject to the operating agreement.

Q. Would you briefly review for the Commission the efforts that have been made by Enron to locate and obtain all interest owners in the south half of Section 34 that are affected by this application?

A. Yes, sir. In that regard, I'd like to

refer to Exhibit 2, which is the smaller clipped section of papers.

Without going through them in great detail, all of this information, except for one or two items which I will point out, were presented in my testimony and were introduced as exhibits in my testimony before the Division.

What we have done, upon obtaining a take-off on the mineral ownership, we sent letters out to some unleased mineral owners attempting to acquire oil and gas leases, whereupon we found out that some of these had been committed to Midland Phoenix.

You will also see, contained in this pile of paper, various letters back and forth between Midland Phoenix and Enron Oil & Gas Company proposing wells, requesting farmouts, trying to obtain each others voluntary joinders.

You will also see some letters from Bob Landreth between Enron Oil & Gas Company, Midland Phoenix, et cetera.

The thing I would like to point out to the Commissioners is, at the very end, there is a segment that's stapled. Right before that, there is a schedule which looks like this (indicating).

This was done at the request of Mr.

Stogner at the hearing on the 10th. He had requested that Midland Phoenix and Enron go out and -- he wanted to see us make a little stronger effort to see if we could not come to a voluntary joinder, and requested that we present a log of our meetings and telephone conversations, and that's what this is.

The last item, which is not entered in the testimony, is just copies of letters that we sent out to our working partners, telling about the hearing.

Q. Since the May hearing, have you continued to communicate with Midland Phoenix in an effort to resolve those questions concerning development of this acreage?

A. Yes, sir, quite extensively.

Q. In your opinion, has a good-faith effort been made to obtain a voluntary joinder for the development of this tract?

A. Yes, sir.

Q. At this point in time, no agreement has been reached?

A. That's correct.

Q. Mr. McCommon, were Exhibits 1 through 3 prepared by you or compiled under your direction and supervision?

A. Yes, sir.

MR. CARR: At this time, may it please the Commission, we move for the admission of Enron Exhibits 1 through 3.

CHAIRMAN LEMAY: Exnibits 1 through 3 are in the record without objection.

(Whereupon, ENRON EXHIBITS 1 through 3 were admitted into evidence.)

MR. CARR: That concludes my Direct Examination. I would note that we do not have an Exhibit 4. That was the Notice of Affidavits that really were not relevant in this first case.

CHAIRMAN LEMAY: So noted.

Mr. Padilla?

CROSS EXAMINATION

BY MR. PADILLA:

Q. Mr. McCommon, first of all in regard to this last schedule you were talking about, is it your testimony that you worked out this schedule only after Mr. Stogner requested that the parties start communicating with each other?

A. Yes, sir.

Q. Before May 15th, 1989, had you called

Midland Phoenix?

A. Before May 15th?

Q. Yes, sir.

A. I can't remember. Not to my recollection.

Q. Do you know, of your own personal knowledge, whether anyone with Midland Phoenix or Enron, I should say, had called anyone at Midland Phoenix concerning your application to force pool?

A. Not to my knowledge, sir.

Q. You testified during the hearing before the Division that you had had numerous meetings with Enron concerning development of the south half in the southeast quarter.

Did any of those meetings involve Midland Phoenix?

A. No, sir, they did not.

Q. Were they invited to those meetings?

A. No, sir, they were not.

Q. You knew then that Midland Phoenix owned an interest, at least in the southeast quarter, did you not?

A. At what time, Mr. Padilla?

Q. At the time you made your application.

A. Yes, sir, I did.

Q. Now, subsequent to the Division Hearing,

what specific agreements had you proposed to Midland Phoenix?

A. A number of things. We have been in extensive conversations with them even from the standpoint of on the plane after the hearing back to Midland that day.

We have talked about things like because a lot of the people who work with Midland Phoenix are previous employees of Enron, and they do know our acreage position quite well, that if there were any undeveloped acreage, non-producing acreage, that maybe Enron had leased under their direction or based on their geological ideas but something we might not be interested in, that we could maybe do an acreage in that regard.

Q. Isn't it true that Midland Phoenix made this proposal to you and you may have considered that?

A. I do not know who actually made that first gesture, but I do know that it was something that we both attempted to negotiate a settlement on.

Q. Did your Houston management refuse any kind of dealings with Midland Phoenix?

A. No, sir.

When you say "dealings," are you talking

about offers or acreage negotiations?

Q. Any kind of agreement with Midland Phoenix.

A. They made some offers to us that were unacceptable, yes, sir.

Q. Did you consider them?

A. Yes, sir. I say "I" did; management did.

Q. Why were they unacceptable?

A. I can't answer that question. I could only speculate. And, like I said, I really don't know.

Q. Who was communicating the proposals to your management?

A. I would communicate them to my boss or it would be like our Division Land Manager or Gary Thomas, who is our Division Manager or Vice-President. Then he would coordinate it. I guess you could consider him part of management, and he would, in turn, communicate that to Houston to our management.

Q. What kind of feedback did you get as a result of your submittal of these proposals?

A. For the most part, that they were just unacceptable, that we were too far apart in our evaluation of whatever the particular case was.

Q. I'd like for you to be a little bit more specific, if you know. I assume that you knew at least, through your Division Manager, why the proposals were unacceptable?

A. I guess I'd have to say, more than likely, that Midland Phoenix gave a great value, whether you want to put it in reserves or dollar figures, whatever, to the northeast quarter of Section 34.

Based on our geology and our interpretations, we didn't. Therefore, our management didn't. So, therefore, you are talking about negotiations, you know, apples equaling oranges. There was never a meeting of the minds or agreement as to the value of that.

Q. Mr. McCommon, how much were you willing to pay for the acreage in the northeast quarter of Section 34?

A. In what regard? Are you talking about paying Midland Phoenix?

Q. You were trying to lease this land, were you not?

A. Yes, sir, we did make an attempt.

Q. What kind of monies were you willing to pay for those leases?

A. I believe, at one time or another, we may

have offered I'm going to say $150.00 or maybe more. I can't remember right now.

Q. Per acre?

A. Yes, sir. That's been some time ago.

Q. That's not cheap on a per-acreage basis, is it?

A. I wouldn't consider it cheap.

Q. Do you know why Enron allowed the acreage in the northeast quarter to expire, the leases that Enron had that expired in late 1988 in the northeast quarter and the northeast quarter of the southeast quarter?

A. No, sir, I do not. Since my employment started there after the first of the year, I was not aware of why that decision was made.

Q. You did receive instructions at one time to obtain those leases. Is that correct?

A. That is correct.

Q. Let me show you what we have marked as Enron Exhibit No. 15.

MR. CARR: Did you mark that Enron 15?

MR. PADILLA: I'm sorry, Midland Phoenix No. 15 (indicating).

BY MR. PADILLA:

Q. Mr. McCommon, first of all, can you

identify what this document is?

A. Mr. Padilla, since I've only seen this right now, I can only identify as far as what it says at the top. I have never seen this before. It says, "Pitchfork Ranch Field Workover Planout."

Q. Would it it surprise you to know that this is something that has been worked up by Mr. Cherryhomes, as I understand. He testified at the Division Hearing.

A. It wouldn't surprise me. It's got down here L. W. Helms on it. I can't testify whether it was drawn up by Mr. Cherryhomes. I'm not surprised. I don't know.

Q. Let me call your attention to the right-hand side of the right-hand side of that document. It says at the top, the square up there, it states:

"Secure lease for the east half of Section 34."

As I read that, it was to be done the first quarter of 1989.

Is that correct?

A. According to this, yes, sir.

Q. Why would the entire east half of Section 34 be important to Enron?

A. I can't answer that question. I don't know the answer.

Q. Have you tried to obtain the -- since the hearing before the Oil Conservation Division, have you negotiated with anyone else other than Midland Phoenix to acquire their interests?

A. Yes, sir, we've talked to, I guess, everybody that's under the force -- everybody that we've identified in the ownership here, we've contacted one way or the other to obtain their voluntary joinder. Yes, sir.

Q. Have you reached agreement with anyone else?

A. No, sir.

Q. Have you reached agreement with Samedan?

A. No, sir.

MR. PADILLA: I believe that's all I have, Mr. Chairman.

CHAIRMAN LEMAY: Thank you, Mr. Padilla.

Additional questions of the witness?

MR. CARR: No additional questions.

CHAIRMAN LEMAY: You maybe be excused.

MR. PADILLA: We will offer Exhibit No. 15.

MR. CARR: No objection.

CHAIRMAN LEMAY: Exhibit 15 into the

record without objection.

(Whereupon, MIDLAND PHOENIX EXHIBIT 15 was admitted into evidence.)

MR. CARR: May it please the Commission, at this time we will call Terry Cherryhomes.

TERRY LEE CHERRYHOMES

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

DIRECT EXAMINATION

BY MR. CARR:

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

A. Terry Lee Cherryhomes.

Q. Mr. Cherryhomes, where do you reside?

A. Midland, Texas.

Q. By whom are you employed and in what capacity?

A. Enron Oil & Gas as the Chief Production Geologist for the Midland Division.

Q. Have you previously testified before the New Mexico Oil Conservation Division and had your

credentials as a petroleum geologist accepted and made a matter of record?

A. Yes, sir I have.

Q. Are you familiar with the applications filed for Midland Phoenix and for Enron that has been consolidated for today's hearing?

A. Yes, I am.

Q. Have you studied the area which is the subject of each of these applications?

A. Yes, I have.

MR. CARR: Are the witnesses qualifications acceptable?

CHAIRMAN LEMAY: They are acceptable.

BY MR. CARR:

Q. Are you familiar, Mr. Cherryhomes, with the rules that govern development of the Atoka and Morrow Formations in this area?

A. Yes, sir.

Q. What are the spacing and the location requirements set forth in those rules?

A. The spacing is 320 acres. They can either be stand-up or lay-down proration units within a 640-acre section.

The well spacing has to be 660 feet from the long sides and 1980 feet from the short sides of

the proration unit.

Q. Have you prepared certain exhibits for presentation to the Commission today?

A. Yes, sir.

Q. Would you refer to what has been marked for identification as Enron Exhibit No. 5?

A. Okay.

Q. Identify that and review the relevant portions of that exhibit for the Commission.

A. Okay. This is -- you could call it a type log or a composite log of the potential pays and pays that are found in all or any of the wells in the Pitchfork Field.

Now, not all of the wells have each of these pays in them that are productive, but what we have done is taken, for instance, the Atoka Reef from one well where it was good, and composited a log that we refer to at times just to, for one thing, to keep in order from shallow to deep, the different pays that are in the field. Sometimes our own management forgets whether the Warren Sand is above or below the A Sand or whathaveyou.

So what we do normally is -- we could stretch it out here and maybe refer to it as we go along (indicating).

Q. Is the purpose of this exhibit primarily for orientation as you work through your subsequent exhibits?

A. That's correct.

Q. Would you now refer to what has been marked Enron Exhibit No. 6?

A. Okay.

Q. Would you identify this, please?

A. I might mention this is the only new exhibit that we have from the previous hearing here.

Enron Exhibit No. 6 is a completion zones map of this portion of the Pitchfork Ranch Field. This is not all of the field, just centering around Section 34 here.

And it shows the zones that the wells are completed in now and the zones that have been abandoned or the zones that have shows. Well, the shows will come later.

It also shows the cumulative production underneath the well through 1-1-89. It has not been revised since 1-1-89.

Q. Mr. Cherryhomes, if we go to the No. 1 Moore Well in the northeast of 34, that is color-coded and indicated as the Wolfcamp Well.

What is the status of that well in the

Atoka and the Morrow?

A. As we will see later on the next exhibit, this well was drilled from surface to within -- well, 6 feet into the bottom pay, the C Sand that's been discussed today with 10 pound to 10.5-pound brine.

This is very important, and the people that have been involved in the wells out here realize when I say that, that we had no potential pays in this wellbore. It was a dry hole essentially from top to bottom.

Q. The well in the west half of 34, the Pitchfork No. 1, that is the well that is, although shown as producing from the Atoka, that was a non-commercial well; is that correct?

A. That's correct.

Q. Who is the operator of Section 3 immediately south of the proposed location?

A. Enron.

Q. And the two wells that are indicated down there, one is producing from the Sinatra in the immediate offset from the Atoka, is that correct, in the north of Section 3?

A. In tne north half?

Q. Yes.

A. Tnat's correct.

I might point out here that if you will look at the well in Section 27, it has a dry hole symbol on it.

Really, all of our maps from the Atoka to the base of the C Sand in the Moore Well that's in the northeast quarter of Section 34, we should have a dry hole symbol on every one of them.

The well in the southwest quarter is producing out of the Atoka Sand, and it should have a dry hole symbol on all of the Morrow, because they are both Morrow dry holes.

Q. All right, Mr. Cherryhomes. Would you now go to what is marked Enron Exhibit No. 7?

A. (Witness complies.) Enron Exhibit No. 7 is a map that shows a non-commercial production test by zones on the Enron-operated wells.

Q. All right. Would you focus on the wells in 34, and review that information for the Commission?

A. Okay. Let's look at the well in the southwest quarter of 34, The Pitchfork Ranch Federal Com. No. 1. This well was drilled before the Moore Well that's in the northeast quarter.

This well is now an Atoka producer, and it forms a west half stand-up 320-acre standard Atoka proration unit.

Looking on this map -- and by the way, the writing out to the west of that well goes with this well, not with the wells in Section 33.

This particular well was drilled -- to TD -- it actually went through a D Sand which is below the C Sand. The D Sand was not tested. It had porosity.

But this little symbol around this well shows that three zones were production tested. Two of them have "N's" which means they were non-commercial. The red zone in the A Sand result was also non-commercial. There should be three N's there.

But, anyway, if you will look to the west of that well, we perforated and acidized and tested the C Sand, which is the major, main field pay at the Pitchfork, twice. We perforated it, tested it, we squeezed it, reperforated, acidized; and both times we recovered water overload with the gas, a gas show. So we are satisfied that that is a water-wet well in the C Sand.

It's tight, also. It gave up quite a bit of water. It was tight, as has been mentioned before, I think by heavy drilling fluid, or the possibility exists.

We tested the B Sand coming up a section,

and it was tight. We had a 10-foot, a 6- foot and a 10-foot flare at any given time. It was tight, and we moved up to the A Sand.

The A Sand is one of the sands that does not go around the flanks of this field; it goes across the crest of this field, the porosity does. It goes from east to west, pretty much.

We perforated and acidized this sand with 3,500 gallons, and it flowed at the rate of 1.1 million. Actually, that was natural. Then we acidized it. And then it flowed at 1 million and decreased in 24 hours to 80 Mcf a day. And we recovered 220 barrels of water overload.

And I don't remember how many days we stayed on this before we moved up to the Atoka Sand and made a gas well. But we spent adequate time, in my estimation.

We don't want to walk off and leave any gas down there, that it won't be produced. So we adequately tested these three Morrow Sands in this well bore.

Q. In your opinion, is this well capable of producing from the Morrow Formation?

A. We had one zone that was not tested that we'll see later on my Sinatra map. It had 8 feet of

upper Sinatra Sand that didn't appear at the time. We just moved up and made a gas well. We messed around and spent a lot of money on these lower zones.

Q. What does this well data tell you about the Morrow Formation surrounding the wellbore?

A. It tells me that it's been adequately tested in the west half of Section 34, at least in the southwest quarter.

Q. Let's go to the well to the northeast of 34, and I'd ask you to review the information on that well.

A. The well in the northeast quarter is the Moore 34 No. 1 that we keep mentioning that we feel like has been adequately tested in the Morrow C Sand. It was acidized with 5,000 gallons, and then it was re-acidized with 10,000 gallons, and we recovered most of the load water. It had about a 5-to-8-foot flare, and we deemed it to be tight and moved up the hole to the A Sand.

We perforated the A Sand, acidized it. It flowed 750 Mcf, decreased to 150 Mcf, and we recovered 193 barrels of water overload.

So based on these two wells, we feel like that most of the Morrow Sands have been adequately tested. I mentioned the Sinatra in the southwest

Phil Stinson a little credit in this meeting. He was our Vice-President of Drilling and Production. And I don't believe that we were flying by the seat of our pants all the time. I think we knew a little bit more about how to drill wells than what has been brought out before. That's neither here nor there, but anyway --

Q. My question is if you are drilling this well and you are getting a gas show in the Atoka drilling with brine water, what tells you that you are getting a show?

A. Past histories on other wells. We would have had the Pitchfork 34-1. That's why we drilled the Moore to start with.

The Moore Well was permitted only to the Atoka, to start with. We realized, when we drilled this 3 feet or trace of Atoka Sand and we drilled it with 10 pound brine, that we had no well. We had a dry hole, essentially.

So we permitted it onto the Morrow. That's why we drilled it. We had condemned the Morrow in our own minds at that time.

Q. If you are drilling with brine water and you start to get a gas show, what happens on the well? Do you get a kick? What happens?

A. We have one well in the field that this happened on. It blew the pipe out of the hole. It cut the mud log trailer in two with the drill pipe, and we had the mud up to 14.5 pounds per gallon. You really know it when you hit the Atoka or any of the -- or the A Sand. It takes 14 -- or it did at the time -- 14 pound or better mud weight to control it.

So my point here is that we drilled this well to 6 feet into the bottom sand that it penetrated with 10-pound brine. We had no gas in this well bore other than trip gas until we got into the C Sand, and we did have a show in the C Sand. We changed out to the mud program to 13.3 pounds oil and mud.

Q. If you had had a show in either the Atoka or the A Zone, would you have had to change to mud at that point?

A. That's correct.

Q. And how would you know you needed to do that?

A. Well, it comes to see you, as we say; the gas kick. I wouldn't have wanted to have been there.

Q. Let's go to Exhibit No. 8, and I'd ask you to identify this, please.

A. Exhibit No. 8 is a structure map constructed on the base of the Atoka carbonate. It's the same place that Mr. Dicey pointed out in his discussion. It's right above where the Atoka Sand is developed.

This map is really -- has not too much to offer, other than the fact that it shows you, in this portion of the Pitchfork Field, that the structurally higher part is back to the northwest, and that going to the east and the southeast, we continue to dip into this major fault that's on the east side of the map over here.

We see no reason for another high to be out here or whatever. It's just regional. It's dipping off of the field to the east.

This water is high. That isn't actually a gas-water contact. We tested water as high as this in some of these wells, so the actual water contact could be higher than this if it carries around the field.

Q. All right. Let's move on to Exhibit No. 9. I'd ask you to identify, first of all, what Exhibit 9 is.

A. Exhibit 9 is an isopach map that I made on the Atoka Reef.

Q. As we go through each of these zones, you might make a reference to the type log and indicate exactly where we are talking about.

A. Okay. It's the top carbonate, colored red on the right side of this type log, the way it's hanging over here (indicating). It's just above the Atoka Sand.

Q. Would you go back now to Exhibit 9, and, first of all, I think, identify the basic parameters you used as you approached this mapping effort?

A. Okay. First of all, the porosity in this area of the field in most of the field is only found in two to three wells. I used a 6-percent porosity cutoff, since it was a carbonate with gas, and the contour interval or isopach interval is 10 feet.

We have a lot of negative control on porosity in all these wells that have zero feet of porosity. They have -- most of them have reefal-type carbonate in them, but no porosity.

So the size and extent of this reef is basically unknown at this time. We had plans to test the well in the north half of Section 3, try to use pressure information to help us in figuring out how large this is, but it didn't work out that way. We didn't get to do it.

So this map is very generous, that I've flip-flopped the control I have in the two wells in the north half of 3, flip-flopped them. They cover most of the south half of Section 34. And as you can see, it shows very little to nothing in the northeast quarter.

Q. Let's move on now to Exhibit No. 10. I'd ask you to identify this, please.

A. Exhibit No. 10 is an isopach map of the net Atoka Sand porosity.

Q. Where is this on the type log?

A. The Atoka Sand is found right here (indicating).

Q. That's the second shaded red area from the top of this?

A. That's correct.

Q. This sand produces in each of the wells on this portion of the Pitchfork Ranch Field that are colored solid purple.

The half circles were the wells that had shows when we drilled through it.

Actually, we later had a program to develop this Atoka Sand, and it was with Parker Drilling Company.

We went back and essentially twinned --

although not all of these wells are twins, they are a little further apart -- the wells that we originally had found gas in.

So, at that time, if we had felt like -- and I might mention that all of the Enron people that are now with Midland Phoenix were with Enron at that time. That would have been the time to recommend to drill an Atoka Sand well next to this Moore dry hole if someone felt strongly enough that it was going to produce over there.

It was not recommended, and we did not drill it at that time.

Q. Now, let me ask you, you've drawn a zero line that traverses the north -- it skirts around the northeast corner of section -- northeast quarter of Section 34; is that correct?

A. That is correct.

Q. In pulling your zero line that far, you have placed the contour over the zero in that field encountered in the Moore No. 1. Is that correct?

A. That's correct.

Q. How does that concur with the way you treated wells in which you discovered zero net feet in other sections offsetting there?

A. Well, to the north I have it pulled away

from it. In Section 2 to the southeast, I have it almost through that wellbore.

Basically, in this part of the field, it would -- it's hard to say. I couldn't say for sure, but it would take 2 or 3 feet of really good permeable sand to probably get into the reservoir.

We have wells on the west side of the field with 4 feet that had no show and would not produce.

But I've been generous putting this zero line through this wellbore. The difference between the maps in the cross section that were discussed this morning, I'm talking about zero feet of porosity greater than or equal to 8 percent. It had a trace of sand, as was brought out, 1, 2, 3 feet of sand.

Once again, we drilled it with 10-pound brine. It had no gas.

Q. Mr. Cherryhomes, you are familiar with the map of the Atoka Sand, Exhibit 21, that we discussed with Mr. Dicey this morning?

A. Yes, sir.

Q. How does this interpretation of this net Atoka Sand compare to the interpretations made by Mr. Dicey, Mr. Hodges, and Mr. Broten when they were

employed by Enron?

A. If I can take a second here, it was brought out this morning that probably four or five different geologists with Enron HNG have mapped this field at one time or another.

Mr. Helms and I pulled together a field study starting in October or November of 1988, and I basically mapped almost all of the sands, if I didn't map all of them, and I used maps that Mr. Hodges, Mr. Dicey, Mr. Broten had helped to make at Enron, because I still considered the work, in my estimation, is good work.

My map here is a mirror image of the map Exhibit 20 or 21, as far as the isopach in Section 34. I may have traced it.

Q. This was prepared prior to the time that this matter became an issue?

A. Yes, sir.

Q. Would you refer to Exhibit No. 11, please?

A. (Witness complies.)

Q. First of all, identify this exhibit.

A. Okay. This is an isopach map of the Morrow A Sand which is the upper -- it isn't exactly the uppermost. There is the X Sand, but it produced in one well, I believe, on the northwest side of the

Pitchfork, and it basically does not develop in the field. But this is the uppermost probably Morrow Sand that covers a big part of the field.

And as I mentioned before, as you can see from my isopach, it's headed basically slightly northeast to the west across the field. It goes across the crest of the field, this sand right here (indicating).

Q. Right above it on the type log would be what?

A. The X Sand. That's the one I mentioned.

Q. Where is the Sinatra Sand?

A. The Sinatra is right here (indicating).

Q. All right. Let's go back now and look at the Morrow A.

I'd ask you, based on your study of the area, if you can reach any conclusion about the potential for this sand producing at the proposed well location?

A. Yes, sir. In my estimation, since we've tested gas and water in both of these dry holes in Section 34, I would not move downdip. I don't think I could convince my management to move downdip from water and drill another $2 million well.

I would say that neither Midland

Phoenix's location or our location -- I would be happy if it did produce, but I would not expect it to produce. And I would not expect it to produce in the northeast quarter, since there is a well that tested and had water.

Q. Are you ready to go to Exhibit No. 12?

A. Yes, sir.

Q. Could you identify that, please?

A. Exhibit No. 12 is an isopach map of the Warren-Como Sand. It's using a porosity cutoff of greater than or equal to 8 percent. The isopach interval is a 10-foot isopach interval.

This sand in the Warren No. 1 and 3 No. 1 in the southeast corner of Section 3 is one of the cleanest Morrow Sands that I have seen in the Pitchfork Field.

Unfortunately, it has been found in very few wells. It is commingled in a well way over on the southwest side of the field, an Amoco well. It took 14-pound per gallon mud weight to control it when we drilled it in the Warren Well.

The Page 3-1 has 3 feet, and there is a well or two other wells that may have 2 or 3 feet, but that's basically it. I have not that much control.

I've trended it like I have based on a dry hole in the north half of Section 11 that had a 15-foot flare, gas flare. I feel like it's probably on the edge of this sand.

So with no more control, I've laid it in there like this. It could go another way.

Q. Do you see anything that would suggest it would be productive under Section 34?

A. No, I don't.

Q. Would you now go to Exhibit No. 13 and identify Exhibit No. 13, please?

A. Exhibit No. 13 is a structure map I constructed on top of the Sinatra Sand, and the contouring is a hundred feet, and this is a primary objective at our location.

Q. What is basically the significance of the structure in the Sinatra-Morrow Zone?

A. Once again, I'm showing the relationship of wells and that you are dipping back off to the east.

Water has been tested, for instance, in the well in Section 2 and, basically, other than the color symbols here that show the wells that produce out of the Sinatra, that's roughly it.

Q. Let's now go to Exhibit No. 14.

I'd ask you to first identify what interval you are talking about and then show where it is located on the type log.

A. Okay. Exhibit No. 14 is the -- is an isopach map of the combined Sinatra Sands. And in parts of the field, you can divide the sand into two bodies, an upper and a lower sand.

Basically, the lower sand is the one that is so prolific. The solid orange circles show wells that are producing, two of them in Section 3. I'll point it out. It's this sand right here (indicating).

As you can see, this must have been taken to make this composite log from a well in Section 10, maybe. It's one sand body, in places.

Q. Mr. Cherryhomes, when you say "this sand right here," on the type log they are identified by name?

A. That's right.

Q. Let's go to Exhibit No. 14, and I'd ask you to review what is depicted on this exhibit.

A. Once again, this exhibit shows a meandering channel-type sand that we have a lot of wells here that have no upper or no lower porosity at either end. Yet, we have some wells -- one well

in the north half of Section 3 has 18 feet of lower Sinatra Sand.

If you look back on the first exhibit I had, you can see the cumulative production. It's a very prolific well.

The well in the southeast quarter also has been a good well, and it's producing out of the Sinatra Sand.

Moving up to Section 34, the well in the southwest quarter I mentioned a while ago, it has 8 feet of total Sinatra Sand porosity, and it's upper Sinatra Sand.

We really have not much production history on the upper sand. It's been commingled, and it's been tested with water in it in the lower parts of the field in the flank areas of the field.

I'm showing here that this is about as generous an interpretation as I feel like giving this sand. And I show very little to no commercial gas in the northeast quarter of Section 34.

Q. When was this exhibit prepared?

A. This exhibit was prepared January the 19th of this year.

Q. At the time it was prepared, were you aware of any plans for further development of

Section 34?

A. From --

Q. From Midland Phoenix?

A. No, I was not, from Midland Phoenix.

Q. All right. Let's very briefly address what has been marked Exhibit No. 15. What is that?

A. Exhibit No. 15 is an isopach map of the Morrow B Sand that you can see on the type log. It's marked "B Sand."

This sand -- one reason I have it in here, is that it has been commingled with other sands in other parts of the field, but it does not produce as a single sand anywhere in the Pitchfork. It does exhibit shows, and it could be a potential pay, but I do not really expect it to be productive in Section 34.

Q. Let's go now to Exhibit No. 16. Would you identify that, please?

A. Exhibit No. 16 is a structure map on top of the Morrow C Sand. This has a contour interval of a hundred feet.

Once again, it mirror-images almost the other structure maps that were mapped up higher in the field. It shows the wells that are producing out of the C Sand and the wells that have had shows

and have been production tested but were unsuccessful.

If you look at a north-south line being the west line of Sections 27, 34, 3, there is only one well that is producing out of the C Sand east of that line. It's up in Section 27, and it's just barely a commercial well.

Do you see the dry hole right to the southeast of it? It was tight. It made a maximum of very little gas on the test.

The two wells in Section 34 were both production tested, as I went into already earlier today, and they were unsuccessful.

Wells to the south are tight; had gas shows, some of them.

But what I'm saying is not all of these wells can be blamed on the engineers and their completion techniques. These wells were tight with very little permeability. And you can get a gas show or maybe it will come on strong initially and deplete in a day or two or twenty days. It's tight. It's not commercial, and that's my feelings here.

The main reason I'm even discussing this is it is not a potential objective in my mind at our location or at Midland Phoenix's location. You can

see that this is just dipping right on off to the east.

Q. Based on your study of the Morrow C Sand, do you have an opinion as to whether or not there are commercial reserves under the northeast quarter of Section 34?

A. No. Based on what we've already said, I do not see -- in my -- based on my interpretation and the way I feel, I see no commercial reserves in the C Sand.

Q. Now let's move to Exhibit No. 17. I would ask you to identify that.

A. Okay. This is an isopach map of the Morrow C Sand, the one that we just looked at the structure map on. There is no need belaboring the test data on these two wells in Section 34. They were unsuccessful.

We weren't in the habit of walking off and leaving gas reserves. We like to make money, just like everybody else does. So I see no potential in Section 34.

Q. Now, in your Exhibits Nos. 6 through 17, have you mapped each zone that you believe could possibly contribute production to a well in the east half of Section 34?

A. I have, with the exception of the Wolfcamp pay, which was completed in that well.

Q. We're focusing here just in the Atoka and the Morrow.

Have you mapped all of those zones?

A. Yes.

Q. What conclusions can you reach from your work on this area about the ability of the northeast quarter of Section 34 in the Atoka and the Morrow to contribute reserves to a well in the east half of 34?

A. I honestly can say that I don't see any potential in the northeast quarter of Section 34.

Q. Do you have an opinion as to which of the proposed well locations is most appropriate for development of this acreage?

A. Yes, sir, Enron's.

Q. Why is that?

A. It's offsetting more closely production to the south.

The Sinatra map shows that we have a good shot at making a Sinatra well which produces in the two wells in Section 3.

The Atoka Sand, as I've shown, we should have around 8 feet of sand or porosity in our well. It may be drawn down pressurewise, but it could

still be a good amount of gas there that we can produce.

Q. Is the location of the proposed well in the Morrow Formation a standard location?

A. Yes, sir, it is.

Q. Because of the proposed unorthodox location, is there a standard location in the Atoka?

A. No, there isn't.

Q. Were any of the Exhibits 6 through 17 or 5 through 17 changed or in any way altered in preparation for the hearing on these applications?

A. No, sir.

Q. Were Exhibits 5 through 17 prepared by you?

A. Yes, sir.

MR. CARR: At this time, we move the admission of Enron Exhibits 5 through 17.

CHAIRMAN LEMAY: Without objection, Exhibits 5 through 17 --

THE WITNESS: I'd like to say one other thing to answer your question. I believe I did part of the composite log. I may not have. Someone in our office did, and the draftsman finalized it.

MR. CARR: Have you reviewed it and is it accurate for purposes for which you employed it today?

THE WITNESS: Yes.

MR. CARR: We'd move admission.

CHAIRMAN LEMAY: Without objection, they are admitted into evidence.

(Whereupon, ENRON EXHIBITS 5 through 17 were admitted into evidence.)

MR. CARR: That concludes my Direct.

CHAIRMAN LEMAY: Thank you, Mr. Carr.

Mr. Padilla?

CROSS EXAMINATION

BY MR. PADILLA:

Q. Mr. Cherryhomes, when did you make a recommendation to drill a well in the southeast quarter of Section 34?

A. It was after we received Midland Phoenix's proposal. I believe March the 27th.

Q. Let me refer you to this. We had marked this Midland Phoenix Exhibit No. 15 (indicating).

I will ask you if you know what that exhibit contains?

A. (Witness refers to document.) Yes, sir, I do. I did not make this. The information that I had -- and Mr. Helms and I worked real close on this.

He took this and put it into this form. I'm sure that he discussed it with other people to see which quarter that we would plan to do this work in.

Q. Do you recall when you received the Midland Phoenix application for compulsory pooling or their first proposal to drill in the northeast half of Section 34?

A. Do I recall it? Yes, sir, I do.

Q. About what time was that?

A. I'm not for sure whether March 22nd was the first proposal or the second proposal. It was the first, I guess. Our letter was dated March the 22nd. I believe that was the unorthodox location.

Q. Your testimony at the Division Hearing was that you had prepared a study that included a four-volume test which included this schedule, was it not?

A. That's correct.

Q. And that was done January of 1989?

A. If you look on my maps, my part of the study, I actually started in either October or November -- I will say November of 1988 -- compiling my maps. And by compiling my maps, I compiled work that had been done by my friends here. We all worked together. So I really finished most

of my maps in January or by early January, I believe, of 1989.

Q. Is it fair to say that this Exhibit No. 15 was a schedule that Enron had prepared for field-wide workover plans or drilling plans for the Pitchfork Field?

A. That's correct.

Q. Isn't it true tnat in January, 1989, you nad plans for the east half of Section 34?

A. Yes, sir, we had plans, but we had not finalized what we planned to do at that time, other than we needed to pick the acreage up which we had allowed to expire.

Q. Were you going to combine the northeast quarter with the southeast quarter in figuring a proration unit you proposed for the east half?

A. No, because we had not finalized or even knew where our location might be.

In fact, we had planned to do some remedial work in some nearby wells before we planned to even pursue drilling another well in Section 34.

Q. What was the purpose of your study, Mr. Cherryhomes?

A. It was back through from -- I was involved in all these wells that HNG Enron drilled,

and we were drilling so fast and in other areas also that, honestly, we had not made complete maps on every formation in this field.

And it was brought to our attention by our higher management that this was one of the eight major fields that we had, and that it was a shame that we had not made a field study of this to make darn sure we hadn't overlooked something or come up with workovers or maybe new locations. And that's why --

Q. Isn't it true that possibly as a result of this study, you had overlooked the east half of Section 34?

A. I have never overlooked it. I had chalked the northeast quarter off a long time ago.

Q. My question was was the east half of Section 34, Mr. Cherryhomes. I didn't say the northeast quarter.

A. Overlooked it?

Q. Yes, sir.

A. No, we had acreage. We still have acreage in the southeast quarter.

Q. Why would this red rectangle here not include only the southeast quarter?

A. I think I explained that in the previous

hearing that we are willing to pay for leases for protection around a field like this. One thing is to keep this from happening again.

Q. Were you going to voluntarily, if you had those leases, cut yourself out of the northeast quarter if you had obtained those leases?

A. I did not make that decision initially. But once we received a location from Midland Phoenix, we had 30 days to give them an answer.

And when we put all of our facts together, it just reminded us, once again, that we did not believe that those people in the northeast quarter ought to share the gas that's coming out of the southeast quarter.

Q. Would Enron have a greater position had it had the northeast quarter, if it had obtained those leases in the northeast quarter?

A. We would have had greater lease position in the section. Is that what you mean?

Q. Yes, sir.

A. Sure.

Q. And in the east half of Section 34?

A. Well, if we leased it, we'd have complete control.

Q. Is it your testimony that Enron would

have cut itself out of the northeast quarter had it obtained those leases?

A. That's what we're here under oath saying today, that we do not believe there is commercial gas in the northeast quarter.

Q. That's not the question I'm asking you, Mr. Cherryhomes. I'm asking whether Enron would have voluntarily cut itself out of the northeast quarter of Section 34?

A. You'll have to call Mr. Hoglund in Houston for that. I can't answer that.

Q. Who is Mr. Hoglund?

A. He's the Chairman of our oil and gas company.

I don't make the -- what I'm saying is -- and I'm not trying to be in any way smart -- I can't make that decision. I know what I would recommend to them.

Q. You had weekly meetings every Tuesday, did you not, concerning the application for compulsory pooling that was filed by Midland Phoenix. Is that correct?

A. I no longer attend meetings. I've been lowered to a level that -- we've had Monday meetings, Tuesday meetings. We have a lot of meetings in our

oil company.

Q. You testified at the hearing --

A. You are correct.

Q. -- that you had Tuesday morning meetings?

A. That's correct.

Q. During those meetings did you discuss developing all of the east half of Section 34?

A. No. We never really discussed it until we got the Midland Phoenix proposal and that kind of jacked us up to get something done.

Q. Let me ask you, the left rectangle there that states "Deplete Atoka SD," what does that mean. It's on the third level, I guess.

A. Okay. I see what you mean, in the Page 3-2. It's the only -- that's one of the Atoka twin wells. That's the only pay we have in -- no, I'm sorry. That's the one with the lease in the Vaca. We would deplete the Atoka Sand.

Mr. Helms is the one that should be answering that.

Q. Well, how would you deplete the sand, the Atoka Sand?

A. It never has been nearly as good a well as, say, the 34-1. But we just produced it until we --

Q. Mr. Cherrynomes, I'm a little curious

here, because I don't understand.

Aren't you talking about the east half of 34 in this last section of the rectangles?

A. Evaluate the drilling location?

Q. Well, yes, sir, the left rectangle right below the minus sign.

A. No, that well is in Section 3. It's the well just -- it's the well in the north half of Section 3.

Q. I see, so that Page 3-2 is the well itself?

A. Yes, sir.

Q. It's not a reference to a page in your study or anything?

A. Oh, no, that's a well, the Page 3 No. 2. See the green block right above it?

Q. Yes, sir.

A. That's the same thing. Page 3 No. 2 is a well.

Q. Were these wells in the Pitchfork 34 depleting the southeast quarter of Section 34?

A. Pardon me? I missed the first. I didn't --

Q. Was the Pitchfork 34 in this Page 3-2 depleting the Atoka Formation? Were they depleting --

A. The Atoka Sand gas?

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

REPORTER'S CERTIFICATE

I, Patricia Lou O'Brien, Certified Shorthand Reporter and Notary Public of the firm SANTA FE DEPOSITION SERVICE, do hereby certify that the following transcript is a complete and accurate record of said proceedings as the same were recorded by me or under my supervision.

Dated at SANTA FE, NEW MEXICO, this 7th day of September, 1989.

Patricia O'Brien

Patricia Lou O'Brien
Certified Shorthand Reporter

My Commission Expires:
February 16, 1990

SANTA FE DEPOSITION SERVICE

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I N D E X

* * *

E X H I B I T S

* * *

Q. Yes.

A. All of the wells that we drilled are depleting the Atoka gas out of the sand, yes. That's why we went back and had our in-field drilling program.

Q. When was a decision made by Enron to configure the southeast quarter for the Atoka Formation?

A. It was during the evaluation of Midland Phoenix's proposal.

Q. Was that evaluation, would that evaluation have been the same had Enron obtained the northeast quarter of Section 34?

A. I answered that while ago. I don't know.

Q. You don't know?

A. No.

Q. Do you have a guess or an estimate as to what that evaluation would have been, as a prudent operator?

A. My recommendation would have been the same as I've recommended here, and sometimes my recommendation is listened to and sometimes it isn't. So I cannot answer for management.

Q. You actually recommended from the very beginning a southeast quarter proration unit?

A. I recommended a south-half or I joined in with the recommendation of our people for a south-half proration unit, yes.

Q. That was only after all the meetings that you had concerning the Midland Phoenix application?

A. It was as a result of evaluating that proposal.

Q. You don't think much of the Morrow Formation in Section 34, do you?

A. Mr. Padilla, I really don't. I wish I could. The C Sand, as has been mentioned before, may possibly have been damaged in the Pitchfork 34-1.

Q. Why are you recommending the south-half proration unit for the Morrow?

A. Midland Phoenix, in the previous hearing -- I couldn't figure out for sure. Mr. Dicey said one time it was the A and B Sand and then the A and C Sand. And then later on in his testimony, it was the C Sand and everytning else was secondary.

Q. But you have actually two recommendations, one with regard to the Atoka and one with regard to the Morrow. Isn't that correct?

A. That's correct.

Q. You are still willing to drill a Morrow well; is that correct?

A. That's correct. That's correct. We feel like the Sinatra Sand -- based on those two real good wells in Section 3, should we get a well like that, it will pay for that well over and over again.

Q. And that well is basically the same location as the Midland Phoenix location; isn't that correct?

A. It's the same one as the unorthodox location they turned in first.

Q. Is there any difference in your mind or opinion with regard to 1990 from the south (sic) and the 660 from the south as far as the Morrow is concerned?

A. I believe it's 1980.

Q. Oh, 1980 from the south and --

A. Oh, there sure is.

Q. Where can you show me that there is such a difference?

A. On the Atoka Sand is a good place.

Q. I'm asking concerning the Morrow Formation.

A. The Morrow?

Q. Yes, sir.

A. There is no Sinatra in the Moore, and I believe if you look at the maps, you can see. I

don't believe I -- I don't remember how many feet that I have mapped through their location. I can check.

(Witness refers to documents.) I show 5 feet -- and, of course, that's interpretive -- through Midland Phoenix's location, and I show 17 feet through our location of Sinatra -- Morrow, that's Morrow.

Q. How about Morrow C Sand?

A. It isn't an objective in our mind. The only reason we're drilling through it is something could happen when we're going through the D Sand.

Q. You didn't bother, between the time of the last hearing and this hearing, to try and figure out whether the Morrow Zone may be productive?

A. I already have that figured out.

Q. You didn't do a cross section of that area, did you?

A. No.

Q. The only thing you have is a type log; is that correct?

A. No, I have maps.

Q. I understand that, but --

A. I have a cross section hanging on my wall in the office.

Q. Why didn't you bring that to this hearing, Mr. Cherryhomes?

A. Because it was not needed.

Q. You based your maps on that cross section?

A. I based my maps on Mr. Dicey's cross sections that he had made two or three years ago and that are Enron's property and on my cross sections that I've made. I don't need cross sections here.

Mr. Dicey made the cross sections when he was at Enron, most of them.

Q. Did you base your Exhibit No. 9 on Mr. Dicey's cross section?

A. No.

Q. How did you base your Exhibit No. 9?

A. I flip-flopped it. You have 4 feet -- is that the Atoka Reef?

Q. That's the Atoka Reef.

A. Okay. I've got it right here. I flip-flopped it. That's a geological term. There's not enough control to know which direction that that goes right now.

Q. Wouldn't it be -- if you don't know, wouldn't it be fair simply to draw your structure smaller?

A. This is an isopach map.

Q. Well, an isopach, whatever?
A. Well, you could draw it any way you wanted to, as long as you honored the data from these two wellbores.
Q. Are you honoring that well data?
A. Yes, I am, to my estimation.
Q. What well control do you have in Section 35?
A. No control. You see, those are dashed, a dashed isopach means I don't know where it goes. If you look back to the west, they are solid. I felt a little more confident.
Q. So you have a lot of artistic license with regard to this?
A. Exactly right. It's a very liberal interpretation.
Q. Weren't you very liberal on a lot of your maps?
A. That might be your opinion.
Q. I'm trying to --
A. I feel like I tried to stick closely to the control I had.
Q. You used the word in your testimony "generous"?
A. That's correct.

Q. You were generous to yourself, is that correct, and Enron?

A. Yes. It's interpretive. It's no more generous than Mr. Dicey's map of the channel map that he showed this morning.

Q. Isn't your location simply based on a closology (sic) or trying to get closer to the well in Section 3?

A. I'm a stockholder in Enron, and I'll get as close as I can get to a producing well as long as it's legal.

Q. If you are a stockholder in Section -- if you are a stockholder of Enron, can you control the entire east half -- you would want to dedicate the entire east half, wouldn't you?

A. I wouldn't.

Q. You would cut yourself out of the northeast quarter?

A. That's what we proposed in these two hearings we've gone to.

Q. You don't own any leases there at this time, do you?

A. That's correct.

Q. I'm asking you to assume that you own the leases. You tried to obtain them; isn't that

correct?

A. We tried to get them back.

Q. Would your decision be the same if you owned those leases?

A. I'll tell you what I base this on. You've asked me this now nine or ten times.

I go along with 320-acre proration units in New Mexico because they are based on productive history, as long as there's not a $2 million dry hole drilled on that proration unit, which we drilled in the northeast quarter.

My management would probably have me out on the street if I recommended drilling another northeast quarter location.

Q. Mr. Cherryhomes, have you ever recommended re-entering other wells?

A. In this field?

Q. No, anywhere else.

A. Sure.

Q. Were those wells dry originally?

A. You are making up a hypothetical situation.

Q. Well, I am. I am.

You profess to be an expert, and I'm asking you that as an expert witness.

A. I don't believe I said I was an expert today. Did I?

Q. You are. As far as I know, you are an expert geologist, Mr. Cherryhomes.

A. I don't know what you are trying to get to. You are not going to make me mad, if that's what you are trying to do.

Q. I'm not trying to make you mad. I am simply asking whether you ever made recommendations to re-enter dry holes?

A. I cannot name one that I have.

Q. Have you drilled a step-out from a dry hole?

A. Yes. I haven't. Enron has.

Q. Did you make that recommendation?

A. No -- I don't know whether I did or not. I don't know where you are talking about. In Pitchfork or where? Eddy county? Lea County? Louisiana?

Q. It's not unusual to explore fields that have already been drilled, is it?

A. That's why we did this study, to look at upnole potential in every well bore. And based on that study, we have now recommended two more locations in the Pitchfork, one of which will be

spudded the middle of September, and the other one we don't know about yet.

Q. And that study included some recommendation or some plan to acquire the entire east half; isn't that correct?

A. I believe I said that two or three times, yes.

MR. PADILLA: I believe that's all I have.

CHAIRMAN LEMAY: Thank you, Mr. Padilla. Additional questions of the witness?

MR. CARR: None.

CHAIRMAN LEMAY: I've got a couple here.

EXAMINATION

BY CHAIRMAN LEMAY:

Q. Is it true that the only good Atoka well is that well in Section 34, the Atoka Sand well, or are there any others?

A. It depends on what you call a good Atoka well. That well, Mr. Lemay, the reason it was completed so early in the life of this field -- and that well was probably about the fifth or sixth well that we drilled. And had we been successful in the Morrow C on those, we would still be producing out

of that. I say that because that would have been what would have happened.

We were unsuccessful, and it may have been due to drilling too heavy mud in that particular well. We had not finalized the way we did things at the time. We were working on it hard.

But anyway, to answer your question, that has been a very good well. It produced two or three years at least before we twinned these other wells. And when we did, we could see a pressure drawdown.

Q. What's the pressure in there now? Do you have any information on that?

A. Mr. Helms does.

Q. That's fine. I'll ask him.

A. Okay.

Q. The two wells in Section 34, is it possible that there could be some formation damage because of the drilling procedures at that time in the Morrow Sand?

A. Definitely in the Pitchfork 34. I could not argue one -- in fact, I think that was the general feeling.

You know, in any office the geologist and the engineers bicker with each other but wind up getting along pretty well.

I think we as geologists had a tendency to blame poor completions a lot of times on the engineers when it may not have been that. It may have been tight or whatever, you know. So, to answer your question, we could have damaged the Morrow in the Pitchfork 34. Not so in the --

Q. How about Morrow Formation, did they miss the circulation in the Morrow?

A. I believe there was a little bit lost, but the key to this whole thing it's kind of like air drilling in Sutton County, Texas. When you air drill a well, when you hit a gas zone, you get a flare, and you can almost estimate how good the well is going to be by the length of the flare.

This well we tried to drill in balance or maybe slightly under balance a lot of these wells, and you really know it when you get a good show. And we saw absolutely nothing that really looked good until we got into the C Sand. And then we displaced the brine with the oil-based mud at that time.

But we production-tested it, and could not make a well. In my estimation, the permeability has gotten worse in the eastern part of the field in the C Sand, for sure.

Q. Is it possible that there could be some formation damage, that's why the complete attempt was unsuccessful in the Moore?

A. I couldn't say that there was. I mean, I could never say there's not some damage, you know, drilling the Morrow section.

In my estimation, I would say no in the Moore. I don't feel like it was damaged.

CHAIRMAN LEMAY: Thank you very much.

Additional questions of the witness?

(No response.)

CHAIRMAN LEMAY: None. You maybe excused.

CHAIRMAN LEMAY: Let's take a 10-minute recess.

(Whereupon, there was a brief recess taken.)

CHAIRMAN LEMAY: We shall resume.

Mr. Carr?

MR. CARR: May it please tne Commission, at this time, we'd like to call Mr. Billy Helms.

L. W. HELMS, JR.

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

DIRECT EXAMINATION

BY MR. CARR:

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

A. L. W. Helms, Junior.

Q. Mr. Helms, where do you reside?

A. In Midland, Texas.

Q. By whom are you employed and in what capacity?

A. Enron Oil & Gas as a Project Production Engineer.

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

A. Yes.

Q. Are you familiar with the applications filed by Midland Phoenix and by Enron in the cases that are consolidated here today for hearing?

A. Yes.

Q. Are you familiar with the area which is the subject of these hearings?

A. Yes.

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

CHAIRMAN LEMAY: His qualifications are acceptable.

BY MR. CARR:

Q. Mr. Helms, would you identify for the Commission what has been marked as Enron Exhibit No. 18?

A. It's an AFE that has been prepared for the drilling of this well with a completed well cost of $1,484,421.00.

Q. Were you present this morning when Mr. Stinson testified?

A. Yes, sir, I was.

Q. And you concur with him that this AFE is substantially below the AFE proposed by Midland Phoenix?

A. Yes, sir.

Q. Were the differences in those figures as stated by Mr. Stinson, i.e., a difference in casing size and also a 10 percent charge for contingencies, do you concur that those are the basic difference?

A. Yes.

Q. Why did Enron not put contingencies in their AFE?

A. Enron has operated approximately 34 wells in this immediate area. And with the experience that we've had in this area, we didn't feel like adding the contingencies on top of what we felt we could drill the well for was necessary.

Q. In the Midland Phoenix AFE, a 7-5/8ths casing is proposed?

A. That's correct.

Q. In your opinion, is the use of 7-5/8ths casing appropriate for a well in this area?

A. It can be done, but 7-inch casing is the normal procedure in this area and has been proven to be adequate.

Q. Do you believe that by using a larger casing, the 7-5/8ths casing, as opposed to a 7-inch casing, you can, in fact, get a better cement job or accomplish any other technical purpose?

A. No, sir, I do not.

Q. In the AFE that you have proposed, do you believe the totals contained on that AFE are in line with what is charged by other operators for similar wells in the area?

A. Yes, sir, I do. There was -- the most recent well drilled in the Pitchfork Ranch Field is the Pitchfork 10 Federal No. 1. It's operated by

Meridian, and it had an AFE completed cost of $1,516,000.00.

MR. CARR: May it please the Commission, at this time we were going to address the risk that should be assessed against non-joining interest owners in this property. Since we've stipulated with Mr. Padilla that 200 percent is appropriate, we will not address that. That was contained, however, in the record of the Examiner Hearing.

At that time, we also presented administrative and overhead charges. The figures that we presented at that time and would present here again today are $599.00 a month while producing the well and 5992 a month while drilling the well. All of that, again, is contained in the record of the Examiner Hearing.

BY MR. CARR:

Q. Mr. Helms, would you just identify Exhibit No. 19?

A. Exhibit No. 19 are some joint interest billing summaries submitted on wells in which Enron Oil & Gas owns an interest and are operated by other companies.

Q. What is the purpose of that exhibit?

A. This was to indicate that the overhead

rates charged by Enron Oil & Gas or recommended by Enron in this hearing were in line with what was being charged by other operators in the area.

Q. And you are recommending that the figures of 599 a month and 5992 be incorporated into any order which results from this hearing?

A. That is correct.

Q. Could you explain to the Commission how you would recommend that costs be allocated between the Atoka and Morrow Zone as those interests will be pooled?

A. We recommended that the owners, as to the Atoka, participate as to their interest in the Atoka. From below that point, the owners in the Morrow would participate as to their interest in the Morrow.

We also are aware of some recent orders issued by this Commission pertaining to some TXO Orders, and they set out an allocation form in those Orders. We would be agreeable to either formula as it would please the Commission.

Q. Enron is requesting to be designated operator of the well in the southeast quarter of Section 34?

A. Yes.

Q. Do you believe a penalty should be

imposed on the production from this well?

A. No, I do not.

Q. In terms of a penalty, I'd like to address with you the Atoka.

Could you explain to the Commission why you recommended no penalty in the Atoka?

A. Mainly, the Atoka Bank Zone is yet unproven. It's the same distance -- this particular well would be the same distance from a common boundary as a well to the south that is potentially productive in the same zone. So that if we imposed a penalty on this well, it would not have the same right to produce those reserves, which would be in competition with a well to the south. That's why we were recommending no penalty.

Q. Is the well to the south the Page No. 3 Well?

A. Page 3, No. 2; that's correct.

Q. If a penalty for drainage occurred, would it be enforced to the Page Well which is not penalized?

A. Yes, sir.

Q. If a penalty was imposed by this Division because of the short acreage in the non-standard 160 Atoka unit, what kind of penalty would you recommend?

A. It would be an acreage factor. It would be, basically, if we had 160 acres and 320-acre normal spacing for a proration unit, it would be 50 percent of the deliverability of the well.

Q. How do you recommend the deliverability be established?

A. On a semi-annual deliverability test.

Q. Were Exhibits 18 and 19 compiled by you?

A. Exhibit No. 18 is an AFE prepared by our Drilling Superintendent.

Exhibit No. 19 shows joint interest summaries that I pulled together.

Q. Have you reviewed these and can you testify that they're accurate?

A. Yes.

MR. CARR: At this time, we would move the admission of Enron Exhibits 18 and 19.

CHAIRMAN LEMAY: Without objection, Exhibits 18 and 19 will be admitted into the record.

(Whereupon, ENRON EXHIBITS 18 and 19 were admitted into evidence.)

MR. CARR: That concludes my Direct Examination.

CHAIRMAN LEMAY: Thank you, Mr. Carr.

Mr. Padilla?

CROSS EXAMINATION

BY MR. PADILLA:

Q. Mr. Helms, how many AFE's have you prepared for the Pitchfork Field?

A. AFE's? Quite a few; yes, sir.

Q. Were they under the direction of Mr. Stinson?

A. No, sir, not the AFE's that I have prepared.

Now, the AFE's that I've prepared have been not for the drilling of the wells. I never have prepared an AFE for the drilling of a well in the Pitchfork Ranch Field.

Q. At the last hearing, you proposed or recommended that no penalty be assessed against Enron for the southeast quarter proration unit?

A. Yes, sir.

Q. What motivated your change to a 50 percent change from the time of the last hearing to now?

A. We're still not recommending a penalty. We're still recommending that we have no penalty.

Q. And that's strictly on the basis that

you're 660 feet from the lease line?

A. Yes, sir. We are the same distance from a common boundary if a well is potentially productive from that same zone.

Q. Who are you offsetting to the south?

A. It's our -- Page 3 Com. No. 2 that we operate.

Q. Are you an interest owner to the south?

A. Yes, sir, we are.

Q. Is the ownership the same in section -- in the southeast quarter of Section 34 as it is in Section 3?

A. No, they are not.

Q. Mr. Helms, regarding the AFE submitted by Midland Phoenix, is it your opinion that the AFE submitted by Midland Phoenix is unreasonable?

A. No, sir, it is not.

MR. PADILLA: That's all I have, Mr. Chairman.

CHAIRMAN LEMAY: Thank you, Mr. Padilla.

Additional questions of the witness?

(No response.)

CHAIRMAN LEMAY: With nothing more, he may be excused.

Do either of you have anything else in

the case?

MR. CARR: Only a closing statement.

CHAIRMAN LEMAY: We've got time for a verbal conclusion, if you want to make it. Go ahead.

MR. CARR: May it please the Commission, as I told you this morning, this was a correlative rights case.

Enron appears before you today asking you to grant them an opportunity to produce its share of reserves under Section 34. And what we are talking about are reserves that we believe are under our tract.

If you look at the Morrow Zone, we have two conflicting prudent applications. We submit the Enron application stands before you in a better posture for the south half.

I think if you look at the technical presentation as to the Morrow, the reserves are there. We are proposing to develop a standard unit as well as an orthodox and, we submit, better location. It's on our own tract.

We have a lower AFE, and we have 87 percent of the interest owners in the south half. Even excluding Mr. Landreth's mineral interests, we have 87-plus percent of the interest owners who are

supporting this intercession who are represented today by Enron.

We submit to you that application should be granted.

Midland Phoenix comes in today proposing an east-half unit. We get to the crux of the whole case when we start looking at that, because we submit to you the east-half unit is half nonproductive. We believe the northeast quarter does not contain commercial reserves.

They want to come in. They want to develop the east half. They want to place the well, however, on the Enron-operated tract. They have a higher AFE because they are using large casing, something which is new and has never been used by anyone else in this field. We submit that shouldn't be allowed.

As to the Morrow, we think when you weigh those factors, it is clear that we should be entitled to operate the south-half unit in the Morrow and go forward with the development of the south half of Section 34.

As I told you earlier today, at the end of the day we would present one question to you, and here it is: Is the northeast quarter productive?

Midland Phoenix has attempted to create a question about the productive capability of the northeast quarter. And to do this, they have really relied on two things, whether or not the Moore 34 Well is a dry hole and whether or not the geologic interpretations stand. Those are the two things we have to look at in deciding whether or not they have been able to develop an argument that would establish commercial reserves.

We submit to you they are asking you to take a distorted and unreasonable view of the data.

The facts, I think, are pretty clear. When this property was originally developed by Stu Martin, by Mr. Stinson, by Mr. Dicey, by Mr. Cherryhomes, by virtually everybody, they had a common view of property and it was that Section 34, after the Moore 34 well was drilled, wasn't capable of producing commercial reserves in the northeast quarter.

We were in agreement then, but things have changed, not the underlying geologic or engineering prorations; the ownership has changed.

And following the ownership, we have found some renewed perceptions. We have been able to reconstruct, with the same material facts,

information which takes the productive capability of the northeast 34 and causes it to rise like a Phoenix, pardon the pun, but it didn't show these things before. And the only material thing that has changed is, in fact, the ownership.

We look at the Moore 34. Mr. Broten comes up here. He was a geologist involved at the time that the 34 was drilled. He saw the mud log and got the data reports. He didn't, at that time, say, "We've ruined the formation. We ought to go out when we are infilling these other wells and infill there."

He said, "We drilled the well and when we put mud in the C zone, we ruined the well."

His testimony also said that the discovery well in this pool, the Madera 32 Well, was drilled with a heavy mud. The mud got on that formation in the Morrow, and didn't kill that. In fact, it's a commercial producer.

The same is true of the Madera 28 No. 1. The same is true of the Sinatra-Morrow Sand and the Page No. 1. They weren't damaged by the use of the mud.

But, for some reason, the Moore Well can be resurrected because you can discount it because

of the drilling techniques employed.

We submit to you that they are asking you to take a distorted and an unreasonable view of the evidence.

We have one other thing that I think clearly establishes that the presentation of Enron comes in before you in a more credible posture. We developed these maps with their input long before this dispute developed. Our evidence was developed for the purpose of producing the oil and gas to be found in Section 34.

The evidence wasn't constructed simply for the purpose of carrying the day before the Oil Conservation Commission.

We submit to you when you weigh these things, you are going to find on what we have presented as Enron Oil & Gas is technically correct, it is credible, not only in terms of what we have argued, but the time frame within which it was created and that if you are to carry out your duties and protect our correlative rights, give us an opportunity to produce our just and fair share of the reserves that are under our tract, then you have to go with us.

For if you go with them, you become their

partner in adding nothing to something, dividing it by 2 and thereby taking it from us.

CHAIRMAN LEMAY: Thank you, Mr. Carr.

Mr. Padilla?

MR. PADILLA: Mr. Carr is exactly right, members of the Commission. This is a case of correlative rights. It's a case to protect the correlative rights of the owners of the northeast quarter.

I think our Exhibit No. 15 tells the whole story insofar as it all depends on whose goose is getting gored.

The simple truth of the matter is that Midland Phoenix has paid the leases in the northeast quarter of Section 34 after Enron let them expire. They moved to drill a well, and we have had nothing but delays ever since, for whatever reason.

My clients have testified that they have been willing to drill that well on the east half and dedicate that well. And, for some reason or other, Enron simply has not agreed to the drilling of the well on the east half.

The reason is, we believe, the Pitchfork 34 in the southwest of Section 34 is draining that acreage, so why drill a well, but for the

application of Midland Phoenix.

Once the application of Midland Phoenix was made, then, all of a sudden, the sleeping giant woke up, and we have had problems ever since.

Not once did they make a call or try to respond to the proposal of Midland Phoenix to drill a well. They never said the southeast quarter is a better location. They didn't respond to that.

The way they responded was to come back and say, "We're going to force pool you in the southeast quarter, and we're going to lay down a proration unit."

The whole story, I think, is a question of the ownership, as Mr. Carr says. I don't think that you could believe for a second that Enron would exclude the northeast quarter of the section if they had obtained those leases.

We now have a battle of geology. We have very credible witnesses. The Division Examiner weigned this evidence before the Division, made the recommendation. It was based on substantial evidence.

We have the same, essentially the same presentation today. That order that was issued by the Division should be upheld by the Commission.

There is simply nothing that has changed.

The only thing new is a type log that I think Mr. Cherryhomes felt compelled to bring because he had no cross sections. By his own admission he created some maps which he says were generous to their side.

Mr. Dicey testified that the reason that cross sections are necessary in this case is to show the extent of formations. Enron hasn't shown that kind of thing, other than to draw maps such as their Exhibit 9, which, by Mr. Cherryhome's own admission, has no well control.

The cross sections control the maps that Midland Phoenix presented for you.

But ultimately, you have to look at our Exhibit No. 15. Enron simply had the plans to develop the east half and the east region. And for that reason and for that reason alone, you have to doubt the credibility that Enron brings to this case today as far as lay-down units and the unit comprised of the southeast quarter for the Atoka Formation.

Enron doesn't think much of the Morrow and yet is willing to drill in the Morrow Formation that comprises the south half of the section.

So the credibility that Enron brings here today simply should be considered by the Commission in making its decision. But, ultimately, you have to reach a decision, and the decision of the Hearing Examiner of the Division was accurate and supported by substantial evidence.

Thank you.

CHAIRMAN LEMAY: Thank you, Mr. Padilla.

How about some statements in the case?

Mr. Pearce?

MR. PEARCE: I'd like do call the Commission's attention to a letter dated August 10th of 1989 from Mr. James W. Lynn, Vice-President of Parker Drilling Company.

That letter was addressed to the Division and referenced the case. It should be in the Commission's case file. If not, I can get you copies of it.

The letter on its face shows copies going to Mr. Padilla and Mr. Carr, also. If they don't have it, I'll get copies to them.

It generally expresses Parker Drilling's concerns about Enron's position and the impact it may have on Parker's interest in this area and they oppose the non-standard proration unit.

Thank you.

CHAIRMAN LEMAY: Thank you, Mr. Pearce.

Are there any other statements in the case?

(No response.)

CHAIRMAN LEMAY: I would like to request draft orders from both attorneys.

With that, we will take the case under advisement.

(Whereupon, the hearing in the above matter was adjourned.)

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