NEW MEXICO OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

CASE NO. 10672

IN THE MATTER OF:

The Oil Conservation Division Calling a Hearing on its Own Motion to Accept Nominations and Other Evidence and Information to Assist in Determining April 1993 through September 1993 Gas Allowables for the Prorated Gas Pools in New Mexico.

BEFORE:

CHAIRMAN WILLIAM LEMAY

COMMISSIONER BILL WEISS

COMMISSIONER GARY CARLSON

FLORENE DAVIDSON, Staff Specialist

Mabry Hall

February 25, 1993



REPORTED BY:

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

ORIGINAL

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# I N D E X

CHAIRMAN LEMAY: I shall now call Case No. 10672, which is the application of the Oil Conservation Division to consider nominations and other evidence to determine gas allowables for the period of April 1993 through September 1993.

I'll now call for appearances in Case No. 10672.

MR. STOVALL: Robert G. Stovall of Santa Fe, representing the Division in this case. I have one witness.

MR. CARROLL: Rand Carroll for the State of New Mexico Office of Interstate Natural Gas Markets.

MR. KELLAHIN: Mr. Chairman, I'm Tom Kellahin of the Santa Fe law firm Kellahin and Kellahin. For the allowable hearing, I'm representing four different companies.

In the Northwest prorated pools, I'm appearing on behalf of Meridian Oil, Inc., with one witness; on behalf of Phillips Petroleum Company with one witness.

In Southeastern New Mexico, in association with Thomas C. Lowry, a Texas attorney, we represent Marathon Oil Company in the Indian Basin and the Blinebry pools, and I

represent Oryx Energy Company in the Indian Basin pool. That's the Indian Basin-Upper Penn, in both those cases.

CHAIRMAN LEMAY: Thank you, Mr. Kellahin. Mr. Carr.

MR. CARR: May it please the Commission, my name is William F. Carr with the Santa Fe law firm Campbell, Carr, Berge & Sheridan. I represent Amoco Production Company, and we'll call one witness to testify as to allowables in the San Juan Basin.

I also represent Chevron U.S.A., Inc., and I'll call two witnesses to testify about allowables for the Indian Basin-Upper Penn pool.

CHAIRMAN LEMAY: Thank you. Mr. Bruce.

MR. BRUCE: Mr. Chairman, Jim Bruce from the Hinkle law firm in Santa Fe, representing Exxon Corporation. I have one witness with respect to the Tubb oil and gas pool.

CHAIRMAN LEMAY: Additional appearances?

We'll certainly take statements at the end, so those of you that would like to make a

statement in terms of allowables, certainly there will be time for that.

I think we shall start, I think, with Mr. Carroll. Is that correct--

MR. STOVALL: Correct. Mr. Carroll will go first.

CHAIRMAN LEMAY: --if we have that part first?

MR. STOVALL: I would suggest we swear the witnesses at this time.

CHAIRMAN LEMAY: Let's do that. Those that will be giving testimony, please stand and raise your right hand.

[All witnesses were sworn.]

MR. CARROLL: Thank you, Mr. Chairman. The State of New Mexico, Office of Interstate Natural Gas Markets calls Mr. Ron Merrett to the stand.

Mr. Chairman, would it be all right if Mr. Merrett sat up here? He has some charts to show.

CHAIRMAN LEMAY: I think that's the way we'll do it, with the screen here, so that we can see it.

MR. CARROLL: Okay.

**RONALD H. MERRETT**

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

EXAMINATION

BY MR. CARROLL:

Q. Mr. Merrett, would you please state your full name, your position and the responsibilities of your position, for the record, please?

A. Mr. Chairman, my name is Ronald H. Merrett. I'm the director of the Office of Interstate Natural Gas Markets in the Energy, Minerals, and Natural Resources Department.

My office is intended to further the cause of the natural gas industry in New Mexico.

Q. Mr. Merrett, have you previously testified before this Commission?

A. Yes, I have.

Q. Mr. Merrett, would you please describe the purpose of your testimony today.

A. The purpose of my testimony is to give an overview of the natural gas market in the United States and Canada as it affects New Mexico. I plan to use a series of slides for this presentation, with the Chairman's

permission.

Q. Mr. Merrett, were these slides prepared by you or under your direction?

A. Yes, they were.

Q. Mr. Merrett, if you would, please, explain these charts after you have projected them onto the screen.

A. Okay.

MR. CARROLL: Mr. Chairman, I made available copies of these charts and they're right next to the docket sheets.

CHAIRMAN LEMAY: Okay. Thank you.

A. These charts are intended--and there are seven of them--to show the natural gas market supply and demand in New Mexico, as it affects New Mexico, I should say.

The first chart shows New Mexico natural gas production history from 1935 through 1992. These charts are numbered 1 through 7. This is Chart No. 1.

As you can see, it was in 1935 when natural gas first was produced in sufficient quantities to get on this chart, on this scale, and reached a peak in 1976, I believe that is, and then declined rather dramatically through

1986, when the trend was reversed. And production has increased, until increasing at such a rapid rate that this chart almost becomes meaningless. We're going to have to change the scale.

In 1992, production from our preliminary estimates will exceed or nearly equal--we're not quite sure which--the peak production of 1976. So the state is back in terms of volume produced to peak levels again.

Chart No. 2 shows the production, by month, for the last three years. Again, 1992 is an estimate because we do not yet have final numbers in for December. However, in the past, our estimates have been fairly accurate, if a little low. It will either be the number that's shown there or a little more.

The purpose of this chart is principally to show seasonal variations. As you see, the peaks in demand are in December and January, and the period from February through September is inclined to be a lower demand than the winter demand.

There had, traditionally, in the years before those shown on this chart, been a spike

shown in the middle of the year in July or August related to the summer cooling season, in most of the United States. However, in the years you see here, starting in 1990, which is the blue line at the bottom, you barely see a spike in August. And then in 1991, in green, there is in fact a dip in July, which was related to pricing, while the demand did climb in August but went on up after that.

In 1992, which is the red line at the top, there is a dip in February which is related to price--and I can talk more about that, if necessary--but that is almost certainly related to price. And then there is a slight dip in June, but I don't think that's related to demand. I think that's related to price, if I may say it that way. It's not related to a particularly hot June, I don't think, or a particularly cool June, it's just related to price. And then the production continues to rise through the end of the year. In other words, seasonal variations have become less pronounced in this state.

The next chart shows the monthly production, from January 1990 through the end of

1992, by month, and the different colors represent on the blue line is coal seam gas production, which you see has a fairly pronounced trend upwards.

The green line is San Juan Basin conventional gas production, and that shows a slight increase, flat to an increase I would say. We have another slide later which shows the trend a little better. The Permian Basin conventional is essentially flat. There may be a slight increase, but it's essentially flat, related to oil production.

Chart No. 4 shows the number of coal seam gas wells which are producing, according to our records. It's my understanding that in addition to the slightly over 1,500 wells which are shown producing in December of 1992, that there are approximately another 320 wells which are completed and are waiting to be connected to gathering systems, so that they can produce.

Chart No. 5 is the first chart in which we show an estimate of what may happen in 1993 and in this proration period under review. As you've seen already, the actual production shows a fairly steep increase as the year is continued,

and we have done some estimates--made some estimates of what could happen in 1993, in the proration period.

Of course, no one has any idea what the impact will be of any federal taxes which might be applied during this period, which have been proposed by the administration, nor do we have any idea of what may happen as a result of any legislation now pending in the New Mexico legislature.

So, with those caveats, I will say that those are our estimates for the period under review. As you'll see, apart from a spike down in February, which is based almost entirely on the past two or three years when there has been a price reduction in February, and that has affected demand, apart from that you see a steady increase in production with a fairly steep production towards the end of the year, steep increase, as the winter season arrives.

The next chart attempts to show part of the way in which this estimate was calculated. What we basically did was--and this chart, by the way, shows the period from January through December of 1993, and is an estimate of

production by category, by month.

The red line with the diamonds at the bottom being San Juan casinghead gas, which is essentially flat, based on the assumption of basically flat oil production. The next line above it is the brown line which is Permian casinghead, which is, again, essentially flat, based on an assumption of flat oil production in 1993.

The orange line, Permian conventional, shows a slight increase towards the end. I believe that Permian conventional is more responsive to price and, therefore, we show a dip in February and an increase in the winter, reflecting the way prices have gone.

These curves are used, by the way, when running a model, in conjunction with Future's prices from the New York Mercantile Exchange, so that is how we derive our forecasts for 1993. But these are the production estimates to which are applied pricing forecasts.

San Juan conventional is the green line. As I said, that shows a dip in February and an increase at the end of the year. The top line is San Juan coal seam gas. That is a

straight line and is something of a guess, because we have no idea whether any of these wells will yet decline. I have no doubt the industry will provide testimony in that area, but we have no information as to the behavior of these coal seam gas wells.

The final chart, Chart 7, simply shows the attempts to verify the validity of our estimates by showing--the estimate is the green column, and the actual is the blue column. These are in New Mexico fiscal years, which run from July 1 to June 30, so the numbers don't exactly correlate with what you've seen, but you can figure it out.

90-92 is 1.237, which is actually the calendar year, as I can see. We have been fairly accurate. Those green bars are usually put together in February for the February gas proration hearing.

The February, for example, in FY79, the forecast for calendar 91 was 1.001. The actual was 1.019. It's fairly close.

In fiscal 1990, that is in February of 1992, we forecast, for the calendar year 92, 1.083, and the actual is 1.237. That's actually

an estimate but, we believe it's fairly close.

For the next year we're showing 1.403 as the estimate. Excuse me. That shows an actual. I don't quite understand that. Excuse me a moment.

I guess that 90-93 must be an estimate, too. And this is a projection, the 1.474, just to show you how we think the production will go as the years go along. I guess the green is the fiscal and the blue is the calendar. That's probably the way it goes.

That's all I have in the way of charts, Mr. Chairman, and I'll be ready for questions.

MR. CARROLL: Mr. Chairman, I move that these charts, numbered 1 through 7, be entered into evidence as the State of New Mexico Office of Interstate Gas Markets' Exhibits No. 1 through No. 7.

CHAIRMAN LEMAY: Without objection, Exhibits 1 through 7 will be admitted into the record.

Are there any questions of the witness?

MR. STOVALL: I have just one, Mr. Chairman.

EXAMINATION

BY MR. STOVALL:

Q. Mr. Merrett--and I think you've answered this in past hearings with similar information, are you able to make any predictions or provide any historical data with respect to any of the prorated gas pools, based upon the information your office has accumulated?

A. Mr. Chairman, it's not possible to do that. I guess one could historically track the production from a pool and project that forward, but gas demand in New Mexico reflects gas demand in the North American continent, to a large extent, because there are not any significant pipeline restrictions to get the gas away from the state, and therefore we respond to market forces and individual pools don't really come into play there, perhaps with the exception of pools related to coal seam gas, where there is a price effect, and the price effect is more significant than the location of the pool.

Q. And I guess the intent of my question was, you haven't done a study of individual pools, so this is a statewide trend that you're talking about?

A. That's correct.

MR. STOVALL: Okay. Thank you.

CHAIRMAN LEMAY: Thank you, Mr. Stovall. Mr. Kellahin?

MR. KELLAHIN: Thank you, Mr. Chairman.

EXAMINATION

BY MR. KELLAHIN:

Q. I want to explore with you, Mr. Merrett, some of the trends that you see in the gas marketing for New Mexico gas. Although in response to Mr. Stovall's question that you don't individually forecast market demand for any of the individual pools, your forecast of market demand for New Mexico gas inherently includes all pools, those prorated and nonprorated, right?

A. That's correct.

Q. Have you seen any indication that there are any owners of natural gas in any of the pools that are denied access to the market?

Let me state that the other way around. Do you see sufficient market demand for all New Mexico gas production that would afford an opportunity to any owner of gas to obtain a place in the market?

A. Yes. To the extent that demand is also a function of price, then it becomes a matter of choice for the producer as to whether or not to produce the gas.

Q. I want to go back to one of your earlier charts. I think that's a nice way to illustrate the difference between what is being produced in New Mexico, a price decision by the owner of the gas or a market demand component that drives the volume of gas produced.

There was a display I wanted to ask you about. I guess it's No. 3.

A. Is that the right one?

Q. Yes, sir. If you look at the red line, you're looking at Permian conventional gas. There's a dip in January of 92?

A. I think that's actually February.

Q. All right, February of 92. Is that a reflection of price, or is that lack of market demand that has caused that to spike downward?

A. Almost certainly, price. The spot price at that time dipped to an all-time low of around a dollar, and net backs to the wellhead were considerably lower than that, and that is almost certainly a reflection of price.

Q. When you look at this display and look at the Permian Basin conventional gas, it appears that perhaps earlier than 1991 there is a seasonal cycle to the demand, and yet somewhere in 91, and forward, it appears that demand continues to be strong without regard to season.

Is that a fair characterization of what that shows?

A. Well, it could be, yes. That's part of it. I think also the U.S. or North American supply/demand balance is more embalanced than it was in early years, so there is far less gas available even in the periods of low demand. To some extent, I would agree with you.

Q. When you look at the San Juan Basin conventional gas, is that same observation applied to that gas? In other words, the seasonal swing appears not to exist after mid-91. As we go into 92, there looks to be no seasonal adjustment in the demand taken for that gas?

A. No, there's a different reason, and that has to do with pipeline capacity. In early 91, the pipeline capacity expansions out of the San Juan Basin were put in place by the major

pipelines. So. effective July 1991, there was no restriction in pipeline capacity out of the Basin.

CHAIRMAN LEMAY: 91 or 92?

THE WITNESS: 92. Excuse me.

Q. Is there still additional pipeline capacity to take the demand that you forecast for this next proration period, for the San Juan Basin conventional gas?

A. Yes. There should be adequate capacity, apart from a few peak times in the winter when there might be some restrictions, but certainly over most of the year there is more than adequate capacity.

MR. KELLAHIN: Thank you, Mr. Chairman.

CHAIRMAN LEMAY: Additional questions of the witness? Does my colleague across the table have any questions?

MR. CARLSON: No questions.

CHAIRMAN LEMAY: Commissioner Weiss?

COMMISSIONER WEISS: Yes.

EXAMINATION

BY COMMISSIONER WEISS:

Q. On Chart No. 1, when is goes from an

decline to a incline, what causes that?

A. That's a hard question to answer. I think there were a number of factors. One of them was to do with the price of crude oil. I think the price of crude oil stabilized and, to some extent, increased, and, therefore, helped the natural gas price to increase a little bit.

Certainly the availability of gas in New Mexico, there was still a lot of gas available, a lot of surface deliverability in this state, so, our producers were inclined to move to the market whereas maybe others were not. It's a real hard question to answer, and I'm not sure I know the answer.

COMMISSIONER WEISS: That's all the questions I have.

COMMISSIONER CARLSON: I have a question.

EXAMINATION

BY COMMISSIONER CARLSON:

Q. Ron, when did you begin your gas marketing activities?

A. 1987.

CHAIRMAN LEMAY: Is there a correlation there, you think, between your entry into the

marketplace and--

THE WITNESS: I have no comment, Mr. Chairman.

CHAIRMAN LEMAY: Mr. Merrett, one question.

EXAMINATION

BY CHAIRMAN LEMAY:

Q. Have you looked at the demand situation in California, and is California still our main market for New Mexico-produced natural gas?

A. Yes. The California market is still the main market, as best we can tell, and it is not all that easy to tell. As best we can tell, about nine percent of New Mexico's production is used in New Mexico. The balance is exported. And of that balance, probably 90 percent goes to California.

I've recently received some statistics from the Canadians, who indicate that their market share has fallen in 1992--their market share in California has fallen in 1992, and it fell in 1991, too, by a couple of points. That clearly reflects an increase in gas in the Southwest going into California.

In addition to that factor, there has

been less off-system gas flowing through New Mexico to California and, therefore, my belief is that most of the additional production in New Mexico has gone to California.

Now, California demand has been fairly flat over the last couple of years and it's forecast to stay that way. Residential consumption in California is increasing slightly. Industrial consumption is increasing a little, but a lot of industry is leaving California and it's possible that consumption for industrial use will be flat or reduced.

Electric generation demand is the big question mark in California. The drought has now been formally declared over by Governor Wilson, and so I suppose it is over, but it means that the reservoirs are full and there will be additional hydroelectric production in 1993.

However, you have to balance that against the nuclear power plants, a couple of which are down for maintenance or refueling, so it's really rather difficult to predict what California's demand will be.

We do have fairly reputable consultants. Cambridge Energy Research have

indicated to us that California demand in 1993 is not likely to be more than about 200 million cubic feet a day higher than 1992. So, I would characterize California demand as being slightly increasing to flat.

Q. I guess I would ask you, if we were to increase our production, as your estimates would indicate, would there have to be an increased demand in California for us to meet that projection, or is that based on, possibly, the opening up of other markets or displacing other sources of gas from the Midwest or other areas into California?

A. Mr. Chairman, I do have one more slide, if I can find it. This slide shows the U.S. natural gas demand, and it was obtained--it comes from an in-house study from the Canadian Energy Mines and Resources Department. It's not an official Canadian government document, but it is an internal document from Ottowa.

This is simply a collection of various forecasts of U.S. demand. The broken line, which goes up in 1993, is one which is put on by me. That's not a part of their original graph, but it is probably around 20.4 trillion cubic feet in

1993.

In 1992, U.S. demand was expected to be about 19-1/2, so there is something close to a Tcf of additional demand in the United States in 1993.

We don't know where that will be supplied from, whether it will be from Canada or from the U.S. sources, but this is merely intended to show you that there is increasing demand for natural gas in North America. It's very difficult to say just how big that demand will be, but there's certainly additional demand in North America.

CHAIRMAN LEMAY: Thank you. Additional questions of the witness?

FURTHER EXAMINATION

BY COMMISSIONER WEISS:

Q. On Chart No. 7, was the purpose of Chart No. 7 to support the goodness of your forecast?

A. Yes.

CHAIRMAN LEMAY: Mr. Stovall?

FURTHER EXAMINATION

BY MR. STOVALL:

Q. One other question, Mr. Merrett.

Throughout your discussion you've really referred to a price component. Is it fair to say, then, that demand is really, in the true economic sense, a demand at a specific price, and it is somewhat price-driven presumably by both the buyer and seller?

A. Yes. As a generality, the answer is yes. I think, though, that when you have a situation as you may have with coal seam gas, where there are tax benefits to be obtained which might otherwise be lost, then price becomes less significant.

Q. So it's an economic relationship or a decision that's made on both ends of the exchange, though, is that correct?

A. That's correct.

CHAIRMAN LEMAY: Additional questions? If not, you may be excused. Thank you, Mr. Merrett.

We'll move back unless, Mr. Stovall, do you have any slides to your presentation?

MR. STOVALL: I do not, Mr. Chairman. And I assume Mr. Carroll has nothing further in this, is that correct?

MR. CARROLL: Yes, that is correct.

CHAIRMAN LEMAY: Does anyone else have any slides they'll be showing?

MR. STOVALL: I would call Mr. Larry Van Ryan.

**LARRY O. VAN RYAN**

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

EXAMINATION

BY MR. STOVALL:

Q. Mr. Van Ryan, would you state your name and place of residence, please?

A. My name is Larry Van Ryan, and I reside in Santa Fe, New Mexico.

Q. How are you employed, Mr. Van Ryan?

A. I'm employed by the State of New Mexico, the Oil Conservation Division.

Q. In what capacity?

A. As a chief petroleum engineer.

Q. Do your duties in that position as chief petroleum engineer, include the preparation of allowable schedules, maintenance of the allowable schedules, oversight of the allowable system, proration system?

A. Yes, they do.

Q. Are you familiar with the

recommendations or the information that is being submitted by the Division to the Commission for the purpose of determining the allowables for the period starting in April of 1993?

A. Yes, I'm familiar with this those.

Q. Have you testified before the Commission and the Division and had your credentials as an engineer accepted as a matter of record?

A. Yes, I have.

Q. Mr. Van Ryan, would you, just very briefly, please, describe the process that the Division goes through in order to prepare exhibits and submit initial information to the Commission to help it determine allowables for a coming period?

A. Okay. As you're aware, our proration is done on a six-month basis, so we take the average six months' production from the same period a year ago, to arrive at what the monthly average pool sales are for all of our prorated pools.

After that, we determine the marginal and nonmarginal gas proration units in these prorated pools, and we calculate what the

production is for the marginal portions of the pools and nonmarginal portions of the pools, and that's how we arrive at the allowable for the nonmarginal well in the pools.

To walk over this a little better, in the exhibits that we sent out prior to the hearing and we now have today as Exhibit A and B for the hearing, if we look at those, Line No. 1 is what we've determined is the average pool production, by month, for the like period of April 92 through September of 92.

Q. That's the same on both Exhibit A and B, is that correct?

A. Yes, that's correct.

Q. Why don't you tell us what the difference is between A and B. Why don't you tell us why we have two exhibits.

A. Exhibits A and B are split up by the portions of the state. Exhibit A applies to the Southeast portion of New Mexico, and Exhibit B applies to the Northwest portion. The reason for that is, the proration is done differently in those two areas.

In the Northwest, we use two components to establish the allowable, one being the acreage

factor, the other one being the deliverability factor from the wells. In the Southeast part of the state, we only use acreage factor.

Q. Now, am I correct in understanding that what you're saying is, Exhibits A and B, the Line No. 1, average pool monthly sales, is based upon the April through September 1992 period?

A. That's correct.

Q. Now, would you continue with your explanation of the process?

A. Okay. We do not make any adjustments to these as we send them out. We simply send out exactly what happened. So, from Line 1 to Line 4, which we call the monthly pool allowable, we've made no adjustments to those figures.

We've just cranked these through the system to come up with bottom line No. 8, which is the F1 factor for the Southeast part of the state.

The components there are that we determine what the monthly marginal pool production is, the monthly nonmarginal pool production, the number of nonmarginal acreage factors, and with the nonmarginal production and the acreage factors, we allocate the F1 factor

based on an acreage factor of 1.

For the Northwest, it's done a little bit different. After we determine what the monthly nonmarginal pool allowable is, without adjustments likewise, we then determine nonmarginal acreage factors and we also determine a figure which is the deliverability figure times the nonmarginal acreage factors.

Through a series of calculations, we prorate or proportion a portion of the nonmarginal pool allowable to the acreage factor and to the deliverability factor, and we then arrive at lines 9 and 10, one being a monthly acreage factor allowable, and the other being the acreage times the deliverability factor allowable.

Q. So, if I understand you correctly, the information on Exhibits A and B, none of that is estimated, suggested, or recommended, all of that is based upon history and it simply becomes a mathematical calculation, going from Line 1 to Line 8 on Exhibit A, and Line 1 to Line 10 on Exhibit B, is that correct?

A. That's correct. There are no adjustments put in here. This is just historical

information.

Q. Mr. Van Ryan, have you received any nominations for any pools in the State of New Mexico?

A. We did receive nominations from Northern Natural Gas Company for the Tubb pool, for the Blinebry pool, for the Eumont-Yates, for the Jalmat pool, and for the Monument-McKee pool.

Q. Now, am I correct in assuming that those nominations do not reflect on Schedule A because the numbers that you have arrived at would include that production amount based upon the historical production?

A. The numbers we have arrived at do not have any adjustments or nominations, so they're not included in there, that's correct.

Q. But the amount that is not, that would be nominated on Schedule A, would include the volumes nominated by Northern Natural, is that correct?

A. It would include that to the effect that these may not--in the nomination situation, they don't tell us what they took during the period a year ago. They're only saying in this like period in 1993, this is what they'll take.

We've not backed out the production from a year ago. These may be higher or may be lower. They did not provide us with that information.

Q. Now, again, you've stated that you have no adjustments. Are you aware of any adjustments which are going to be recommended by any operator for any of the pools?

A. I've heard some various comments, but I don't know for sure until we have the hearing today.

Q. So, from that can I conclude that you do not have, at this time, an opinion on whether any specific adjustments for any pools should be adopted by the Commission to adjust the allowable?

A. No, I do not have any recommendations on that.

Q. I just want to point out for clarification, on Line No. 7 of Exhibit A, and I would assume the same would be on Lines 8 and 9--7, 8 and 9 of Exhibit B, if there were any change in our classification of a well proration unit from marginal to nonmarginal or vice versa, that would cause a mathematical adjustment which could be done during the course of the period,

but which would affect the ultimate allowable assigned to nonmarginal wells in any given pool, is that correct?

A. Yes, that's correct.

Q. And it doesn't matter whether an adjustment is made or not? That can occur during at any time a well is reclassified within a proration period?

A. Yes.

Q. Do you have anything further to add to your testimony?

A. No, I believe that covers it.

Q. Were Exhibits A and B prepared by you in the course of your duties as chief engineer?

A. Yes, they were.

MR. STOVALL: At this time, Mr. Chairman, I would move the admission of Exhibits A and B, and would also submit for the record the nominations of Northern Natural Gas. They've not been marked as an exhibit by the Division because they were not prepared by the Division, they were prepared by Northern and submitted, but should be part of the record.

CHAIRMAN LEMAY: Without objection those exhibits will be entered into the record.

Questions of Mr. Van Ryan? Mr. Kellahin.

EXAMINATION

MR. KELLAHIN:

Q. Mr. Van Ryan, I would like to look at Schedule B with you, which is the one for Northwestern New Mexico. I want to address Line 1, for Basin-Dakota, and let you know that my expert witness for Meridian will testify that his tabulation of actual sales for the like period of time that you're tabulating, is different than yours.

A. Okay.

Q. He is going to testify that that number, instead of being 8.1 Bcf, should be 8.8. I'll ask you to look at that issue with us as we explore it, because there is a substantial difference in what we think that number is.

For clarification, are you taking this number off the C-115s that are supplied to the Oil Conservation Division?

A. Yes, we are. On the disposition side, however, not on the production side.

Q. Okay. For the Blanco-Mesaverde, the Meridian witness will testify that he believes

that average monthly pool sale number, less lease use, should be 15.4 Bcf, so again there's going to be a small difference in there. And I bring that to your attention.

A. Okay.

Q. As part of your duties in processing and handling the proration system, have you been contacted by any interest owner of gas in a prorated pool expressing concern or complaints about the allowables being set, in terms of denying them an opportunity to market their share of gas?

A. Restate that, please.

Q. Are a lot of people asking you to make adjustments upward in the allowable schedule?

A. We've had that happen, yes.

Q. Has anyone come forward with regard to the current period and suggested that there needs to be a downward adjustment?

A. No.

Q. Have you had any indication from any of the interest owners in the prorated gas, that their correlative rights are being impaired by the allowable system, in terms of market demand?

A. No, we have not.

Q. Let me look with you on Schedule A, and looking at the Indian Basin-Upper Pennsylvanian Pool, when you look on the last line, Line 8, the F1 factor for the calculation shows 172,000 Mcf?

A. Yes.

Q. Okay. I want to go back with you to Indian Basin, to the current winter proration period that we're in now, and show you an example of what Mr. Stovall and you just discussed about making adjustments for marginal and nonmarginal wells.

When we discuss the Indian Basin-Upper Penn, as an example or illustration, how the F1 factor can be affected by moving or reclassifying wells from nonmarginal to marginal, Marathon's proposed Exhibit No. 10 is an OCD memo dated January 12, 1993, in which an adjustment is made, reclassifying the MOK well from nonmarginal to marginal, and making it effective as of October 1, 1992, if I recall correctly?

A. That's what it says, it looks like.

Q. When that adjustment is made, then, there's a corresponding change in the F1 factor for that pool for this winter proration period, right?

A. Yes.

Q. And that result would have been a change whereby the allowable, the F1 factor, becomes 196,500?

A. Approximately. It says 495 here.

Q. That's the last line or the second to the last line of the last paragraph, 196,495?

A. Yes, that's correct.

Q. For Indian Basin-Upper Penn, then, for the nonmarginal wells that are producing in that pool in the current winter period, that then becomes the F1 factor for that entire proration period?

A. As I read the letter, that's correct.

MR. KELLAHIN: No further questions, Mr. Chairman.

CHAIRMAN LEMAY: Thank you, Mr. Kellahin. Additional questions of the witness?

EXAMINATION

BY MR. BRUCE:

Q. Just a couple of simple questions, Mr. Van Ryan. Looking at Exhibit A, I'm here looking at the Tubb pool in the extreme right column for Exxon. If Exxon proposes a two- or three-percent increase for the nonmarginal pool allowable, then

that would just, using the Item 7 divided by it, would increase the monthly allowable for that well, correct?

A. Yes. If there's an increase in the nonmarginals and the number of nonmarginals acreage factors would remain the same, it would result in an increase.

MR. BRUCE: Okay. I haven't been here, Mr. Van Ryan, in about six years.

CHAIRMAN LEMAY: Any more questions?

MR. STOVALL: I could wait for the Commissioners, but I have one.

CHAIRMAN LEMAY: Go ahead.

FURTHER EXAMINATION

BY MR. STOVALL:

Q. In response to Mr. Kellahin, you said nobody has approached you, complaining about impairment of their correlative rights.

Am I correct in understanding that the answer to that question relates to the tentative schedule you sent out for this period? You're not talking in general, or are you talking just this period?

A. I was just talking in general. The question was addressed, has anybody called me

complaining about not having enough allowable, they have, but I've not had anybody call saying their correlative rights are being impaired.

MR. STOVALL: Okay.

CHAIRMAN LEMAY: Commissioner Carlson?

COMMISSIONER CARLSON: No questions.

CHAIRMAN LEMAY: Commissioner Weiss?

COMMISSIONER WEISS: No questions.

CHAIRMAN LEMAY: I have only one, Mr. Van Ryan.

EXAMINATION

BY CHAIRMAN LEMAY:

Q. You mentioned that that letter was addressing the Monument and McKee field. I don't see that on here. Is that a field that used to be prorated, or am I not seeing that?

A. It's in the lower left-hand corner of Exhibit A, where it has the F1 factor as 25,000, on the very bottom.

CHAIRMAN LEMAY: Oh, I see. Okay. Thank you.

Additional questions? If not, the witness may be excused. Thank you.

Mr. Kellahin?

MR. KELLAHIN: Mr. Chairman, if there's

no objection, I would propose to address the Northwest prorated pools first, and then to come back later to the Southeastern prorated pools.

CHAIRMAN LEMAY: Does anyone have a problem with that? Does anyone have a preference other than that?

MR. STOVALL: I think that's fine. We've discussed that ahead of time, and I think it will get some people out of the room earlier.

CHAIRMAN LEMAY: We'll do that, then. Are you prepared to proceed, Mr. Kellahin, with your Northwest witnesses?

MR. KELLAHIN: Yes. Mr. Chairman, we'll call at this time Mr. Jim Fraser, a petroleum engineer with Meridian Oil Company.

Mr. Chairman, in order to give the Commission a quick reference as to what has been the action of the Commission in establishing allowables in the Northwest prorated pools over the last three or four allowable hearings, I have marked, as Meridian Exhibit No. 10, a package of those schedules so you can go back and see what you did in August and then February of 90, and then the year ahead of that time, and I thought it might be helpful to have those available for

discussion.

Exhibit 10 is in chronological order, starting with the October 91 through March 92 proration schedule for Northwest, and then it finally ends with a copy of the Division's preliminary schedule that Mr. Van Ryan discussed a while ago.

**JAMES B. FRASER**

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

EXAMINATION

BY MR. KELLAHIN:

Q. Good morning, Mr. Fraser.

A. Good morning, Mr. Kellahin.

Q. Please state your name and occupation.

A. My name is James B. Fraser. I'm a production superintendent for Meridian Oil, Inc., in Farmington, New Mexico.

Q. You testified at the last allowable hearing on behalf of your company for your nominations or requests in adjustments for certain prorated pools in the San Juan Basin?

A. Yes, sir, I did.

Q. And you've continued doing that for your company?

A. Yes, sir, I have.

Q. Based upon your employment, do you have recommendations to the Commission for adjustments in certain of the prorated gas pools?

A. Yes, sir. We have recommendations for three of the prorated pools in Northwest New Mexico.

MR. KELLAHIN: Mr. Chairman, I would tender Mr. Fraser as an expert witness.

CHAIRMAN LEMAY: His qualifications are acceptable.

Q. So we have a clear understanding of where you're headed and what direction you're going with your testimony, Mr. Fraser, would you summarize for us the adjustment factor, in Bcf of gas, that you would like to put into the schedule that's been introduced, starting first of all with the Basin-Dakota.

A. Yes sir, I will. If everyone would refer to Exhibit No. 2 in the packet that was just passed out, it has Meridian's recommended adjustments that we would like to see made to the recommendation of the OCD.

In the Basin-Dakota, we would recommend an increase or adjustment of 2 Bcf per month for

the Dakota pool; for the Mesaverde, we would like to see an increase of 3 Bcf per month; and for the Blanco P.C. South, our recommendation is an adjustment of a positive 150,000 Mcf per month.

Q. To make the adjustment on Exhibit No. 2, when you say "current," what does current mean?

A. "Current" is the number that was published by the OCD, and that is their recommendation.

Before we go any farther, I would like to contradict Mr. Kellahin a little bit. I'm not going to testify as to the accuracy of the OCD's numbers on the current values, "current" being the April through September numbers of last year. All my recommendations are based on those numbers, so I don't really want to get into the accuracy of the numbers.

What I'm going to testify to is based on the OCD numbers, and my adjustments are recommended based on their original numbers.

Q. I understand, but in reviewing your production information for actual sales during that period, you happen to have a number that's higher than what Mr. Van Ryan has?

A. Yes, I do, and that probably reflects a higher adjustment, but I stand with the adjustment that I just testified to. That is, the total is really the key number as far Meridian is concerned.

Q. I understand. Let's go back now and have you identify Exhibit No. 1 for us.

A. Exhibit No. 1 is entitled "Northwest New Mexico," and the subtitle is "Reasons for Increased Production."

What Meridian and all the other operators in the San Juan Basin have seen, have been too dramatic changes in the marketplace in the last 12 to 18 months, and those are identified with the bullets, the first being that there's been an increased pipeline capacity out of the San Juan Basin.

In April of 1992, two major pipeline companies, El Paso Natural Gas and Transwestern, expanded their take-away capacity out of the San Juan Basin. That has, of course, decreased field pressures back to the wellhead and has increased the wells' ability to deliver gas.

The second point is that we've seen an increase and a firming of natural gas prices in

the last 18 months. I believe Mr. Merrett referred to that briefly, but the prices now, as a matter of fact late this fall, were at record level from what we've seen in 10 years in the San Juan Basin.

Q. What have you concluded about the market demand for production of prorated gas out of the three prorated pools that you've identified on Exhibit No. 2, if the Commission makes the adjustments that you've proposed?

A. The adjustments we've proposed, the totals there are very much in line with what current production out of those prorated pools are. And by "current," I mean in the last six, seven months of 1992, and the first month of 1993, we've seen total pool production values approximately the same as what our recommended total pool allowable is.

Q. The Division's schedule has calculated on a monthly average for the summer of 91 on Line 1 of the schedule, and used that, then, to calculate and forecast the allowables for the summer of 93, going from 92 to 93, all right?

A. Uh-huh.

Q. Is that representative of what you see

to be the market demand for gas from these prorated pools?

A. No, sir. I think the market demand is in excess of last summer's average values.

Q. Do you see any seasonal cycle or seasonal swing in the market demand for these pools, between the summer of 92 and the summer of 93?

A. No, sir, I don't. In conversations with our marketing people in our Houston corporate office, they tell me that there will not be a seasonal demand, that the market will remain strong. Throughout the summer months, the demand for New Mexico gas will remain strong at the current levels that we're currently producing.

Q. Do you see any bottleneck in the pipeline capacity to take gas out of the prorated gas pools, if allowables are set as you propose?

A. No, sir, I don't. El Paso Natural Gas, which is the largest gatherer in the Basin, has some excess capacity right now. The numbers that I'm going to recommend are, essentially, the same as what we currently see as take-away production out of the Basin. So, with their increased

capability to take gas out of the Basin, I think that will remain the same.

Q. Do you see any indication that there are owners of gas that's prorated that are denied access to market?

A. No, sir, I certainly do not.

Q. Let's turn to Exhibit No. 3 and have you identify and describe that display.

A. Exhibit No. 3 is a month-by-month production plot of the Basin-Dakota pool production. The units on the left-hand side of the exhibit are in Bcf per month; on the right-hand side of the exhibit I've got actual production, which is the solid black line through November of 1992.

The last two solid squares you see there are my estimates for December and January of 1993.

Q. What's the significance of the two stars?

A. The two stars, which are in June and July of 1992, were my predictions of what the pool production was going to be six months ago.

When I testified before this Commission last August, I testified that the June production

that I would estimate out of the Dakota pool would be 8.1 Bcf per month. The actual number was 8.2 Bcf per month. In July, my estimate was 9.4 Bcf per month. The actual production for that month was 9.1 Bcf.

The point of the stars is to show that the method that I've used to estimate, on the tail end of my exhibit there, does have some validity as shown by what has happened in the production of the pool six months ago.

Q. What adjustment did you propose the Commission use in the August allowable hearing last year?

A. We recommended a 2 Bcf per month increase or adjustment in the Dakota pool.

Q. Let's turn now to Exhibit 4. Identify and describe that display.

A. Exhibit No. 4 is a similar presentation as Exhibit No. 3, however this is for the Blanco-Mesaverde pool. Once again, Bcf per month production is labeled on the left-hand vertical column. The solid black line represents the actual production for the pool for the two-year time frame, from January of 91 through January of 1993.

Once again, to show the validity of my estimate methodology we used six months ago in June--or I predicted in June of 1992 that the estimated production of the Mesaverde pool would be 14.1 Bcf. The actual value was 13.8 Bcf a month.

In July, my estimate was 16.0 Bcf a month. The actual value was 15.9 Bcf a month. Once again, the point being that the methodology I've used to estimate the last two months on the curve does have some validity.

Q. Let's go to Exhibit No. 5, sir.

A. Exhibit No. 5 is simply a tabulation of what the previous plot showed. I've got three columns here, labeled "1991," "1992," and then the difference being a percent of 92 divided by 1991.

I've got the time frame from August of 1991 through January of 1993. What I'm doing is comparing like months from 1992 to 1991.

As the tabulation shows, we've seen a dramatic increase in Dakota production in that six-month time frame, from 92 to 91. The average number is listed on the bottom, which shows that for 1992 the average production per month was 9.8

Bcf as opposed to the 1991 average for the same time frame as 7.2 Bcf a month, which is a 36-percent increase.

I think that is a direct impact of the two factors I mentioned at the outset of my testimony. The pipeline capacity expansions out of the Basin and the firming and increase of natural gas prices.

Q. Let's turn to Exhibit 6 and have you identify and describe that display.

A. Exhibit No. 6 is a tabulation of the Mesaverde production within the same time frame, 1992 versus 1991. As you can see, the production increase in the last six months has been significantly higher than the previous like time frame in 1991.

As the numbers on the bottom, the average value shows, the 1992 average production for the last six months was 17.2 Bcf versus a 1991 value of 12.2 Bcf, a 41-percent increase. And I think that's a direct impact from the factors mentioned previously.

Q. Let's look at Blanco P.C. South, Exhibit 7.

A. A similar exhibit to Nos. 5 and 6. It

shows the monthly production for 1992 versus 1991.

As you can see on the last line there, the average production for that six-month time frame in 1992 is 1.4 Bcf per month, as opposed to 1.0 Bcf per month in 1991, or a 40-percent increase over the same time frame.

Q. As part of your study, have you examined whether or not the increased sale of gas out of the prorated pools has had any effect on pipeline pressures whereby low-capacity wells may have been impaired in their ability to access the market and produce their share?

A. Yes. I have looked at pipeline pressures, and that falls with Exhibit Nos. 8 and 9, and it shows some historic pool production values and also some gathering pressures out in the field that are an impact or a cause for that production value.

Q. Let's start with the Blanco-Mesaverde, and give us a time reference in terms of the additional capacity added to the pipeline system in Northwest New Mexico and what the changes have been in the pipeline pressure.

A. As I previously mentioned, in April of

1992, the expansions out of the Basin were in place. El Paso's expansion increased capacity of 800 million cubic feet per day out of the Basin. Transwestern's was 500 million cubic feet per day increase out of the Basin, for a total of 1.3 Bcf per day increase out of the Basin.

With that increased take-away capacity, the pressures out in the field on the gathering systems actually have decreased an average of 100 psi. And Exhibit Nos. 8 and 9 show what impact that has made to the pool production.

You alluded to the Blanco-Mesaverde pool. If you look at Exhibit No. 9, that has a bar graph tabulation of the average monthly production, since 1982, of the Blanco-Mesaverde pool. Also noted in several triangles on the exhibit are the field-wide gathering system pressures existent during that same time frame.

As you can see in 1982, the field pressure was in the 260 psi range. In 1991, the pressure had increased to approximately 390 psi. Consequently, you can see that the production of the pool had decreased significantly.

The 1982 value was in excess of 16 Bcf per month; the 1991 value was slightly less than

13 Bcf a month. In 1992, as a result of these expansions out of the Basin, the field-wide pressure has dropped to approximately 300 psi. Consequently, the pool production has increased to over 15 Bcf per month, which is the highest value that the pool has seen since 1982.

Q. If we make the adjustment that Meridian is proposing in the Blanco-Mesaverde prorated pool, will that have a material effect on pipeline pressures?

A. No, sir, it won't. We're currently producing in excess of 17 Bcf a month out of the Mesaverde, and pipeline pressures have stabilized in the last several months.

Q. When we look at the Blanco-Mesaverde, then, you are seeking an allowable level that is comparable allowable level for the summer proration period of 93 that is comparable to the one you now have in the winter of 92?

A. Yes, we are.

Q. Okay. Let's turn now to the Basin-Dakota and examine the pipeline pressure for wells producing in that pool.

A. Exhibit No. 8 is a similar presentation for the Basin-Dakota. Once again, the average

monthly production on a Bcf basis, since 1982, are plotted on the vertical bar. The triangles represent the same pipeline pressures I previously testified to.

In 1982, with the pipeline pressures being approximately 260 psi, the pool production on the Dakota was slightly less than 12 Bcf. That production value decreased to 1991, to a value of slightly under 7 Bcf per month at a pipeline pressure of 390 psi.

As pipeline pressures have dropped to the 300 psi range, pool production has increased to about 8.7 Bcf per month. That's the highest pool production since 1987.

Q. With regards to the adjustment you propose to make in the Basin-Dakota pool, how does that adjustment equate to what the allowable is in the current winter of 92 proration schedule?

A. The allowable for the current time frame we're in, October of 92 to March of 93, the current allowable is 9.1 Bcf per month. We're asking that the summer allowable be set at 10.2 Bcf a month, an increase or an adjustment, rather, of 2 Bcf a month. 10.2 Bcf a month is

consistent with what we see in current production out of the pool.

As I previously testified, I do not believe we we will see a summer downward revision or downward trend in production for these upcoming summer months.

Q. Do you see any material effect on pipeline pressures, if the Commission approves the allowable adjustment you're seeking for the Basin-Dakota pool?

A. No, sir, I don't. Pipeline pressures have stabilized in roughly the last four to five months, and we have seen very little difference in pipeline pressures since the production has increased.

MR. KELLAHIN: Mr. Chairman, that concludes my examination of Mr. Fraser. We move the introduction of Meridian Exhibits 1 through 10.

CHAIRMAN LEMAY: Without objection, Exhibits 1 through 10 will be admitted into the record.

Questions of the witness?

MR. STOVALL: None.

CHAIRMAN LEMAY: Commissioner Carlson?

EXAMINATION

BY COMMISSIONER CARLSON:

Q. Mr. Fraser, of the three pools, let's start with the Basin-Dakota pool, what percent of the current production does Meridian market?

A. We produce 31 percent of the Basin-Dakota pool.

Q. Is that where you are the operator of the well that produces?

A. Yes, sir. We operate the wells that cumulatively produce 31 percent of the pool production.

Q. Do you know what percent of the current production that Meridian actually markets; in other words, that it buys at the wellhead from other producers and markets?

A. We market about 75 percent of the total production that we produce on a gross basis.

Q. So, I could take the 31 percent times 75 percent, and that's what Meridian Oil markets out of the Basin-Dakota pool?

A. That 75 percent is on a cumulative basis of what we produce daily. I don't know on a pool-wide basis what the percentage is, sir.

Q. Okay. And I assume Meridian is also

purchasing at the wellhead from other parties and marketing that gas?

A. For the most part, we market the gas on the wells that we operate. Some of that is other working interest owners' gas.

Q. Okay. What I'm getting at is, if you check with Houston and they say they can continue marketing levels during the summer as they have over the last few months, but if we're only talking about 31 percent of the production, have you checked with other operators in those pools to see if they can also continue to market at the levels they had?

A. Informally I have, sir, and I think those parties are going to testify subsequent to my testimony, essentially the same comments that I have, that they will be able to move as much gas as they currently are. But, once again, I'm not going to put words in their mouth. I think the major operators are going to succeed my testimony.

Q. Fine. What percent of the Blanco-Mesaverde pool does Meridian produce?

A. In December of 1992, we produced 47 percent of the Mesaverde production.

Q. And the Blanco Pictured Cliffs?
A. 31 percent.
COMMISSIONER CARLSON: Okay. Thank you.
CHAIRMAN LEMAY: Commissioner Weiss?

EXAMINATION

BY COMMISSIONER WEISS:

Q. Yes. On Exhibit 2, your requested adjustments, do they reflect Ron Merrett's comments concerning the California market as he sees it?
A. I think that's a reflection of it, sir. I did not talk to Mr. Merrett prior to his testimony, but I believe Mr. Merrett's testimony was that the California market is increasing, if not at the very least being stable to what it's been recently.
Q. Assume it's stable, is there enough market there to take these adjustments?
A. Yes, sir, I believe that's correct, because we're currently selling this much gas.
Q. Then, on Exhibits 3 and 4, you showed the goodness of your estimates for June and July. What about August and September? Were they similar?

A. I did not make estimates for August and September because we were here in August, and I didn't redo this until roughly a month ago. So I did not make any estimates for them.

COMMISSIONER WEISS: That's all the questions I have. Thank you.

CHAIRMAN LEMAY: I have no questions. Additional questions of the witness? If not, he may be excused.

Thank you, Mr. Fraser. Mr. Kellahin?

MR. KELLAHIN: Thank you, Mr. Chairman. Call Kirk Czirr, on behalf of Phillips Petroleum Company.

**KIRK CZIRR**

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

EXAMINATION

BY MR. KELLAHIN:

Q. Would you please state your name and occupation?

A. My name is Kirk Czirr. I'm a field development superintendent for Phillips Petroleum Company in Farmington, responsible for reservoir engineering and geology.

Q. You'll have to speak up. It's going to

be hard to hear you.

A. Okay.

Q. At the allowable hearing the Commission held back in August of 92, did you qualify as an expert witness and provide testimony on behalf of your company concerning allowable adjustments in certain of the prorated gas pools in San Juan Basin, New Mexico?

A. Yes, sir, I did.

Q. Have you continued your employment and your study of the prorated pools on behalf of your company?

A. Yes, sir.

Q. Do you have recommendations to the Commission concerning adjustments to be made in the preliminary schedule for the summer proration period that is under consideration today?

A. We do.

MR. KELLAHIN: We tender Mr. Czirr as an expert witness.

CHAIRMAN LEMAY: His qualifications are acceptable.

Q. Let me have me have you turn to Exhibit No. 1, Mr. Czirr. Would you identify and describe that display for me?

A. Okay. This is a graph. I showed a similar one at the last hearing for the San Juan Basin-Dakota pool, a graph of monthly gas production in Bcf per month, and also overlaying on that gas price in dollars per MMBTU. That gas price is El Paso Natural Gas price at the Blanco hub.

What the graph is intended to show is historically, over the last four years, the strong correlation between gas price and gas production out of the pool. And, as Mr. Fraser with Meridian has mentioned, we have seen a change in characteristics over the last year or so, whereby during the summer of 92, we saw significantly higher gas prices than what we had seen in previous summers. And, consequently, we saw significantly higher production as well.

Q. In your opinion, will it be representative of the market demand for the Basin-Dakota to set allowables based upon the preliminary schedule introduced in hearing without adjustment?

A. No, sir.

Q. What adjustment do you propose to make in the Basin-Dakota pool?

A. Phillips proposes a 2.6 Bcf per month adjustment to the OCD mailing.

Q. Let's turn to page 2, or Exhibit 2. Before we talk about how to read the spread sheet, let's start with the conclusion. After analyzing the information and compiling it on your spread sheet, Exhibit No. 2, what's the point you conclude?

A. That we need significant adjustment to the proposed allowables as proposed by the OCD, in order to obtain an allowable on an individual gas proration unit basis that is sufficient to encourage continued development.

Q. You're looking at the opportunity to develop infill wells in the Basin-Dakota?

A. Yes, sir.

Q. And right now the parent well takes a certain portion of the allowable?

A. Yes, sir.

Q. Have you examined to determine whether or not, with the parent well taking its share of the allowable for the GPU, there's a sufficient margin in the allowable for the GPU to justify the infill well?

A. There's not sufficient incremental

allowable to justify that infill well, unless you go with the type of adjustments that we are recommending here today, in my opinion.

Q. Take us to Exhibit 2, and give us an illustration of how you justify that conclusion.

A. Okay. I guess just to start, basically in Exhibit 1 we were looking at the pool capacity and we were trying to talk about some allowables that are consistent with the overall ability of the pool to produce and what it has historically produced.

In this exhibit, we're again trying to look more at what does the allowable mean to an individual gas proration unit in terms of being able to justify investment to develop that GPU.

As an example, what this spreadsheet does is compares the nonmarginal pool allowable to the gas proration unit allowable, for various scenarios of deliverability and various scenarios of nonmarginal pool allowable.

One of the middle columns in the spread sheet at the top says "April 92 to September 92 actuals." This represents the nonmarginal pool allowable that was actually included in the order for that period, of just over 4 Bcf per month in

the subsequent F1-F2 factors.

If I proceed on down that column to the next set of numbers, I'm trying to determine what my allowable would be on a GPU basis, if that GPU had a deliverability of 425 Mcf a day.

Q. Let me stop you for a moment.

A. Okay.

Q. If you go back to Meridian's Exhibit No. 10 and look at page 2, that is the spread sheet off the Commission order, and if you'll look at line 6, that's the nonmarginal pool allowable, and that's the number you've called "actual" in the second column of your spread sheet on Exhibit 2?

A. Yes.

Q. The next column over, where it says OCD proposal, that's simply the nonmarginal allowable for Basin-Dakota off the spread sheet that was introduced earlier here?

A. Yes, sir.

Q. And then when we look at Phillips' proposal, that's the nonmarginal pool allowable if you factor in 2.6 additional adjustment?

A. Yes, sir.

Q. Take us there and show us what that

means, in terms of a GPU allowable.

A. For the Phillips' proposed adjustment?

Q. Yes, sir.

A. Okay. If you go down the Phillips' proposed adjustment, which is the furthest right column on the spread sheet, you'll see a number circled, 1.01. What that is saying is, for a 650 Mcf a day GPU deliverability with the Phillips' proposed adjustment, your allowable would indeed be, essentially, that 650 Mcf a day; such that for all deliverabilities at or below 650 Mcf a day, you would be able to produce at your deliverability. For deliverabilities in excess of 650 Mcf a day, you would again be curtailing production.

And the basis for that number is, again, when we're looking at infill drilling, oftentimes we have an existing parent well that's producing 200, 250 Mcf a day of gas. You know you need to drill an infill well to recover the additional reserves; and yet, if you don't have a substantially high allowable, there's not enough incremental allowable to justify that development well.

Q. Show us how you get the 2.6 adjustment

in this pool in order to provide you sufficient allowable incentive in a 320 gas proration unit to justify the infill well.

A. Okay. If I have an existing parent well again that's producing 200 Mcf a day, with the Phillips' proposed allowables, I would be guaranteed at least 400 to 450 Mcf a day of incremental allowable to aid me in justifying the drilling of that well.

Q. If you factor in an adjustment that will take the GPU allowable to 750 a day, where on the spread sheet do you show that calculation?

A. Well, okay. If the GPU deliverability was 750 Mcf a day, then your actual granted allowable under our proposal would be 94 percent of that. So you would be curtailing at that point.

I guess one other thing I would like to mention, again we're in the same position as Meridian in that we're seeing less and less seasonal variation from summer to winter, in terms of price and, therefore, volume.

I would like to point out that the Phillips' proposed adjustment, looking at it on an individual GPU basis, is very, very similar to

what has been granted under the current proration period.

The current proration period is set up such that we don't start actually curtailing until we achieve a GPU deliverability in excess of 625 Mcf a day, and that's very close to what I'm asking for today.

Q. Let's turn to Exhibit No. 3 and have you summarize what's contained on that exhibit.

A. Okay. This is simply a summary, as far as the Basin-Dakota pool goes. Historically, Phillips has sought total pool allowables for the Basin-Dakota in a 10 to 11 Bcf per month range. I know that in recent months we have exceeded 10 Bcf per month in production.

We've sought these pool allowables for two reasons: No. 1, we felt they were reflective of the pool's ability to produce; and, No. 2, we felt that level of allowable was sufficient to justify investment on an individual gas proration unit basis.

Q. Does Phillips find that they have a market demand for the additional gas that would be produced if your proposed adjustment is made in this pool?

A. Yes, sir.

Q. Let's turn now to Exhibit No. 4 and look at the Blanco-Mesaverde.

A. This is a similar plot to what Exhibit 1 was, except we have the Blanco-Mesaverde gas production and again gas price plotted versus time.

Again, we see a somewhat similar relationship of gas price versus gas production there. Again, we see that during the summer 1992 proration period, as gas prices increased, so did gas production. And, in fact, it exceeded 17 Bcf which, as Meridian had pointed out, was the highest production we had seen in quite some time.

Q. What's Phillips' proposed adjustment in the Blanco-Mesaverde pool?

A. 2.7 Bcf per month adjustment.

Q. Summarize for us why you're seeking to make that level of adjustment.

A. I would like to go to Exhibit No. 5.

Q. Okay.

A. And, without going through all the numbers in Exhibit No. 5, the top part of the exhibit is a spread sheet set up very similar to

what the Basin-Dakota was.

The problem with the Mesaverde, as we see it, we would like to have continued development of the Mesaverde principally through compression projects to lower back-pressure on the wells and increase both production rate and ultimate reserves from those wells.

Q. Does the allowable schedule, as produced by Mr. Van Ryan, without an adjustment, provide the necessary incentive for Phillips to do the compression work it feels is required to increase the deliverability of the Blanco-Mesaverde pool?

A. No, sir, it does not.

Q. Show us an example of how your level of allowable adjustment provides that incentive.

A. Okay. If you wanted to look at the column titled April 93 to September 93, Phillips' proposed numbers, that's the far right column that has the 2.7 Bcf per month adjustment, built into it giving us a nonmarginal pool allowable of 8.1 Bcf per month, as you continue down that column, when you get to a GPU deliverability of 800 Mcf a day, then at that point your allowable is equal to that 800 Mcf a day deliverability.

For deliverabilities less than 800, you have no curtailment. For deliverabilities in excess of 800, you start curtailing.

One thing I would like to point out which is an important part of looking at compression projects, and this is illustrated on the bottom of this exhibit, the way your actual deliverability is calculated is a function of your measured deliverability out in the field, a formula which compairs how hard you're drawing the well down to get to that measured deliverability.

For Mesaverde compression projects, the typical pressures that you see, both shut-in pressures and flowing tubing pressures on compression, what happens is, if you go through the calculation, your calculated deliverability will end up only being approximately 65 to 70 percent of what your actual measured deliverability is out in the field.

So, if I've got a Mesaverde well on compression and it has a physical deliverability of 600 Mcf a day, the calculated deliverability will only turn out to be 400 Mcf a day.

Q. How does that affect you, in terms of

the allowable?

A. Since in the Mesaverde pool, the vast majority of your allowable is driven by your deliverability, the method for calculating deliverability itself becomes a proration or a curtailment tool.

Q. 60 percent of the formula is deliverability?

A. 75.

Q. 75 percent in this pool?

A. Yeah. So, what I was trying to achieve with our proposal here is an adjustment such that we still have a system for proration and curtailment, but don't necessarily take a double hit where we're getting a dramatically reduced calculated deliverability and then, on top of that, getting prorated and curtailed because of the lack of adjustment in the allowable figures.

Q. Without running through the details of the engineering calculations, what, in summary, is your conclusion about the necessary adjustment in this pool in order to provide incentive to add compression to the GPU?

A. My opinion is that the Phillips' proposed adjustment, 2.7 Bcf, should really be

considered a minimum. I know Meridian testified they are requesting a 3 Bcf increase. I have no problem with that at all and can support that. We need those types of adjustments to make it feasible.

In addition to that, it's really outside the scope of this hearing, but it's probably a situation where we might want to look at establishing minimum allowables for a pool in this type of situation.

Q. All right. Let's turn to Exhibit 6. You have written down your summary conclusions you've just verbalized?

A. Yes. Basically, again, with the Phillips' proposed adjustment, that would bring a total pool allowable to 17 Bcf per month. We have, in fact, exceeded that in recent months.

We also feel that reservoir-related correlative rights are not really in issue here.

Concerning compression projects, Phillips is evaluating a 120-well Mesaverde compression project in our San Juan 29-5 and 29-6 units. It is still in the evaluation stage and really in the negotiation stage with the gas gatherers, but obviously our ability to have

sufficient allowable to make it an economical project, will have tremendous bearing on whether we proceed with the project itself.

MR. KELLAHIN: That concludes my examination of Mr. Czirr. We move the introduction of his Exhibits 1 through 6.

CHAIRMAN LEMAY: Without objection, Exhibits 1 through 6 will be admitted into the record.

Questions of Mr. Czirr? Commissioner Carlson?

EXAMINATION

BY COMMISSIONER CARLSON:

Q. Is your infill drilling program in the Basin-Dakota ongoing, or are they drilled and waiting to be produced?

A. Not at the present time. Our situation is, we drilled three infill wells in the Basin-Dakota at the very end of 1991 and they actually came on line, I think, in January of 92.

We have a number of other wells, potential well locations in that same unit for infill drilling. At this time we are in a bit of a pinch. The parent wells in the blocks that we

infill-drilled, the parent wells already had some significant overproduction against them, and, when we drilled the infill wells because of the lower allowables that we had, we rapidly accrued a tremendous amount of overproduction, and we're now bordering on the 12-times-overproduced limit, you know, approximately a year, year and a half after we started production.

We have, like I say, a number of other infill drilling candidates that we've actually requested funds to drill. Again, we still have some worry about the allowables.

Q. How many proration areas will you have? For the Basin-Dakota, if we were to give you the allowable and you say the break-even is 650, how many would you have above that 650?

A. Where the actual deliverability is higher than 650?

Q. Right.

A. Two of the three infill wells that we drilled, again at the end of 91, the infill wells themselves, without even considering the parent wells, the infill wells themselves came on line at 1.2 million a day to 1.5 million a day. They're both producing at about 700 Mcf a day

currently.

Each of the parent wells in those respective GPUs produce about 300 Mcf a day, so it's fair to say that our deliverability in those GPUs is in the one-million-a-day range. So we're certainly not asking to not be prorated.

Q. And I have the same question on your Exhibit 5 for the Blanco-Mesaverde pool. How many do you have above the 800?

A. Currently none. We currently have no wells on compression so, in fact, the vast majority of our wells are, indeed, declared marginal wells. We anticipate that production will at least double if we were to put these wells on compression, so this throws us into the nonmarginal class, and this is where we get into trouble where we kind of get double curtailed, once on the deliverability calculation and once on the nonmarginal pool allowable itself.

Q. Are you saying this higher allowable is needed to do the compression project or are you going to do this with or without? Would it make the economics better for doing--

A. Without the compression project--excuse me, without a high adjustment, it's going to make

it very difficult to economically justify the project. The nature--I can't really talk too much about our negotiations, but the nature of the agreement that we're working towards is that we have to provide some volume commitments in order to get the compression. It will make it very hard to meet those volume commitments if we're being drastically curtailed.

COMMISSIONER CARLSON: That's all I have.

CHAIRMAN LEMAY: Commissioner Weiss?

COMMISSIONER WEISS: I have one question.

EXAMINATION

BY COMMISSIONER WEISS:

Q. On your Basin-Dakota infill wells, what has been the net effect on offset operators' reserves?

A. Well, Phillips Petroleum Company operates very few drilling blocks on a lease basis. We operate six federal units. For example, the infill wells that we drilled in the Basin-Dakota, they were in the 31-6 unit, which were at least two miles away from the unit boundary. We're really not affecting anybody out

of our own scope of operations, and all the wells within that unit boundary are, essentially, the same ownership.

Q. Was that reflected in your exhibits?

A. No, sir.

COMMISSIONER WEISS: Thank you. That was the only question I had.

CHAIRMAN LEMAY: Just one question.

EXAMINATION

BY CHAIRMAN LEMAY:

Q. Your El Paso price, are you selling the gas to El Paso?

A. No, that's just a posted price. We're selling to a whole variety of people, and I'm not really ever involved in that. This is just a posted price that you can use as a yardstick to determine what the general condition of the market is in any one month.

Q. I didn't know there was such a thing as an El Paso posted price.

A. Well, it's the posted price going to into the El Paso system at the Blanco hub.

Q. The posted price is the value of the gas, not necessarily transmission cost?

A. Right. Gas price.

Q. That's one I have to look at.

A. Yeah. It's just a common delivery point.

COMMISSIONER CARLSON: But that's as published by El Paso, or FERC, or Gas Daily.

THE WITNESS: It's probably Gas Daily.

COMMISSIONER CARLSON: Okay. Thank you. That's what I was trying to get at. I didn't know El Paso was the author of a price at their Blanco hub.

THE WITNESS: No, it was probably Gas Daily.

CHAIRMAN LEMAY: Okay. Additional questions of the witness? If not, he may be excused.

Let's take a 15-minute break and then we'll come back.

[A recess was taken.]

CHAIRMAN LEMAY: We shall continue. Mr. Kellahin, does that complete your testimony?

MR. KELLAHIN: Yes, sir.

CHAIRMAN LEMAY: Thank you. Mr. Carr.

MR. CARR: May it please the Commission, at this time we'll call Bill Hawkins to present testimony for Amoco Production

Company.

**J. W. "BILL" HAWKINS**

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

EXAMINATION

BY MR. CARR:

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

A. James William Bill Hawkins.

Q. Where do you reside?

A. In Denver, Colorado.

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

A. Amoco Production Company, senior petroleum engineering associate, responsible for regulatory affairs in the Southern Rockies Business Unit.

Q. Mr. Hawkins, have you previously testified before the New Mexico Oil Conservation Commission?

A. Yes, I have.

Q. At the time of that prior testimony, were your credentials as a petroleum engineer accepted and made a matter of record?

A. Yes, they were.

Q. In fact, you have testified for Amoco in previous allowable hearings, have you not?

A. That's correct.

Q. You are familiar with how allowables are set for the prorated pools in Northwestern New Mexico?

A. Yes, I am.

Q. Have you reviewed the preliminary allowables proposed by the Oil Conservation Division for the period running from April 1993 through September of this year?

A. Yes, I have.

Q. Are you prepared to make recommendations to the Commission concerning adjustments to these preliminary allowable figures?

A. Yes.

MR. CARR: Are the witness' qualifications acceptable.

CHAIRMAN LEMAY: They're acceptable.

Q. Mr. Hawkins, will you refer to what has been marked for identification as Amoco Exhibit No. 1 and review this exhibit for the Commission?

A. Yes. We prepared one exhibit for the hearing today, and this exhibit is just a

tabulation of recommended allowable for each of the four pools in the northwestern portion of the state.

The first line that we'll look at shows the names of each of the four pools, and right below that is the NMOCD preliminary estimate. This is the estimate that was published in our Notice of Hearing as the production from the equivalent period in 1992. That is their preliminary estimate for the April through September 93 period.

I would like to call your attention, say, for instance, to the Basin-Dakota pool. The NMOCD preliminary estimate was set at about 8.2 Bcf per month.

Q. Do you believe this accurately reflects the sustained producing rate for each of these pools, the figures in this column?

A. No, I do not. I think what our recommended allowable is, if you take the Amoco-recommended adjustments and come up with the bottom line, the monthly pool allowable, you then would come up with an estimate that's much closer to the current production from the pools, and what we would recommend are what we believe

to be a sustainable production over the next six-month period.

Q. Go to the column marked Amoco recommended adjustment and explain how you derived those recommendations.

A. We reviewed the pool production from the most recent monthly statistical books published by the NMOCD. At the time, the October month was the latest that we had, and so we chose an adjustment that would put us in line with the October production.

As it turns out, that October production is very close to the six-month averages that we're looking at and that have been testified to by the other parties.

Q. The bottom line shows when you make the adjustment what Amoco recommends the monthly pool allowable to be?

A. That's correct.

Q. Do you have an opinion as to whether or not the operators in these pools could sell the production that you have indicated in that column for each of the pools?

A. Yes, I do. Since this is the estimate of current production from the pool and all of

us, you know, have the market right now to sell that gas, we believe that that market will be sustained through the next six-month period, and we will be able to market all of the gas shown on our estimate of monthly pool allowable.

Q. You were present for the presentation made this morning by Meridian, were you not?

A. Yes, I was.

Q. How do the figures in the monthly pool allowable column compare to the average or estimated production rates for the last six months that were presented by Meridian?

A. They're very close. For instance, in Meridian's Exhibit No. 3, they show, for the six-month period from, it appears to be, August, roughly, 92 through January of 93, an average of 9.8 Bcf per month for the Basin-Dakota pool, and our estimate of monthly pool allowable is about 9.7 Bcf per month, so we're very close there.

On Meridian's Exhibit No. 4 for the Blanco-Mesaverde pool, they show an average production of 17.2 Bcf per month for the last six months. With our recommended adjustment, we'd set the pool at about 17.2 Bcf per month.

I think on their Exhibit No. 7, they

show an average production for the Blanco P.C. South at about 1.4 Bcf per month for the last six months, and we're recommending an adjustment that would set the pool allowable at about 1.4 Bcf per month.

So, we feel like these estimates that we've made are very similar to the information that Meridian has looked at, and although slightly different from their recommendation, it's very much in line with the current production in the pool.

Q. In your opinion, if these recommended adjustments are adopted, would any disturbance in the over, underproduced status of wells in the pool be created?

A. No, I don't think so.

Q. Do you recommend to the Oil Conservation Commission that the adjustments indicated on Amoco Exhibit No. 1, in fact, be adopted?

A. Yes.

Q. Do you have anything further to add to your testimony?

A. No, I don't.

Q. Did you prepare Exhibit No. 1?

A. Yes, I did.

MR. CARR: At this time, we would offer Exhibit No. 1.

CHAIRMAN LEMAY: Without objection, Exhibit No. 1 will be admitted into the record.

MR. CARR: That concludes my examination of Mr. Hawkins.

CHAIRMAN LEMAY: Questions of Mr. Hawkins? Mr. Kellahin?

CHAIRMAN LEMAY:

EXAMINATION

BY MR. KELLAHIN:

Q. Mr. Hawkins, on the Blanco-Mesaverde, the highest level of adjustment thus far proposed is Meridian's adjustment of 3 Bcf. Would Amoco have any objection if the Commission adopted a 3 Bcf adjustment for the Blanco-Mesaverde?

A. No, we would not. It's very similar to what we're recommending.

Q. When you look at the Basin-Dakota, the highest adjustment recommended thus far is Phillips' adjustment of 2.6 Bcf. Would Amoco have any objection if the Commission adopted Phillips' proposed adjustment of 2.6 Bcf for the Basin-Dakota?

A. Well, I think that is quite a bit higher adjustment than what we're recommending. I think it's difficult at this point to foresee that we're going to have that much increased production out of the pool over the next six months, but I think probably a number closer to, say, Meridian's, would be more in line with our recommendation.

MR. KELLAHIN: Thank you.

CHAIRMAN LEMAY: Additional questions of the witness?

COMMISSIONER WEISS: I have no questions.

CHAIRMAN LEMAY: Thank you, Mr. Hawkins. You may be excused.

Anything else in the Northwest? Do we have any--

MR. CARR: May it please the Commission, I think there's a representative from Union Oil here that would like to make a statement at this time, before we go on to the Southeast.

CHAIRMAN LEMAY: Yes, we would like to finish up with the Northwest, and at this time we would be happy to accept the statement from Union

Oil.

MR. VAN HORN: Thank you. My name is Craig Van Horn and I'm a field superintendent with Unocal in Farmington, New Mexico.

Unocal's position is that we support the testimony and recommendation of Phillips for a 2.6 Bcf administrative adjustment in the Basin-Dakota. Unocal, like others, is currently involved in an infill drilling program in the Dakota. This program is to recover reserves that would otherwise not be produced without these new wells.

Excessive curtailment of these wells make the economics of this program, and infill drilling programs like this, unfavorable, therefore leaving unrecovered reserves in the ground.

A 2.6 Bcf adjustment allows Unocal to produce and market 99 percent of our production capability from the nonmarginal proration units in the Basin-Dakota. At a very minimum, Unocal would like to see a 2 Bcf adjustment to maintain allowables at the current production rates from the pool.

At the 2 Bcf adjustment, we can produce

97 percent of our nonmarginal capability, representing a loss of three percent of our deliverable gas. This three percent for Unocal equates to almost 330 million cubic feet over the next two years.

Unocal also supports Meridian's testimony on the Mesaverde and South Blanco P.C. in their request of 3 Bcf and 150 million cubic feet adjustments respectively. This maintains allowables roughly equivalent to the current production rates from these wells.

Unocal, like Phillips, is also currently involved in a project for central gathering and compression in the Mesaverde and South Blanco P.C. This project will also result in the recovery of unrecoverable reserves.

Economics for our project, like Phillips said, are very dependent on the amount of prorationing or the amount the wells are curtailed.

In summary, Unocal recommends a 2.6 Bcf per month administrative adjustment in the Basin-Dakota, 3 Bcf a month in the Mesaverde, and 150 million cubic feet in the South Blanco P.C. Thank you.

CHAIRMAN LEMAY: Thank you, Mr. Van Horn. Additional statements that pertain to the Northwest?

Okay, then, we'll move on to the southeast. Maybe we can get a pool or two in before lunch.

[Discussion off the record.]

CHAIRMAN LEMAY: We shall resume. Mr. Stovall?

MR. STOVALL: Mr. Chairman, we've conferred. There are actually, in the Southeast, there are only three pools in which testimony is going to be presented; the Blinebry, the Indian Basin-Upper Penn, and the Tubb.

In conferring with counsel for the parties, they feel that we'll do the Blinebry first. I think there's one party with one witness. We'll do the Tubb next, again one party with one witness, and we will save the best for last and do the Indian Basin-Upper Penn with, I believe, three parties and several witnesses.

CHAIRMAN LEMAY: We might get two of them before lunch, and we'll save the other ones until after lunch.

We'll start with what's been

characterized as one of the easy ones, Mr. Kellahin.

MR. KELLAHIN: Thank you, Mr. Chairman. Mr. Chairman, I have passed out Marathon Exhibits 1 through 6 for the Blinebry gas pool. As Exhibit 7, just to keep some order to it, Exhibit 7 is a tabulation, as we did in Northwest, of the prior spreadsheets, starting with the April through September of 91 Commission Order setting allowables in Southeastern New Mexico. It goes through each of the prior schedules the Commission has adopted and it ends with the last page being the proposed schedule as we have it today, and that is here.

**CRAIG KENT**

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

EXAMINATION

BY MR. KELLAHIN:

Q. Mr. Kent, for the record, would you please state your name and occupation?

A. My name is Craig Kent, and I'm a reservoir engineer with Marathon Oil Company in Midland, Texas.

Q. On prior occasions have you testified

as an expert witness before the Oil Conservation Division and Commission?

A. Yes, I have.

Q. And pursuant to your employment, have you, as an employee of Marathon, made a study of Marathon's position concerning proposed allowables in the Blinebry gas pool?

A. Yes, I have.

Q. Based upon that study, do you have recommendations to the Commission?

A. Yes, I do.

MR. KELLAHIN: We tender Mr. Kent as an expert witness.

CHAIRMAN LEMAY: His qualifications are acceptable.

Q. Mr. Kent, before we talk about the exhibits and the displays, give us an idea of what your ultimate conclusion is with regards to an adjustment, if any, to the preliminary schedule presented by Mr. Van Ryan earlier this morning concerning the Blinebry gas pool.

A. Marathon is seeking an adjustment which would bring the F1 factor for the Blinebry gas pool to a value of 38,000 Mcf per month, which is a continuation of the allowable that's been set

for this pool for the prior three periods.

Q. Let's turn now, sir, to Exhibit No. 1. Would you identify and describe that for us?

A. Exhibit No. 1 is a plot of gas production for the Blinebry gas pool. This is shown by the blue bars, along with a red dashed line, which represents the pool allowable for the respective proration periods.

Q. What does it show you?

A. It shows me first that the production from the pool, at least through 92, did not see any type of seasonal cycles, and also that the pool was close to producing the total pool allowable in the summer of 1992.

Q. Have you examined or do you have an opinion with regards to those months in which the production falls below the allowable?

A. No, I don't.

Q. Okay. On average, though, it appears that the allowable has been produced by the pool?

A. It was either at or slightly below the allowable for the period.

Q. Let's turn now to Exhibit No. 2. Identify and describe that for us.

A. Exhibit No. 2, entitled "Blinebry Gas

Pool Allowables," is a summary of the preliminary calculation issued by the Oil Conservation Division, as well as a calculation using Marathon's proposed adjustment.

Q. The F1 factor, then, is in the last column, last line of the display, the 38,000?

A. That's correct.

Q. And you come back through the calculation and then find the necessary adjustment up in the adjustment schedule in order to achieve that F1 factor?

A. That's correct.

Q. Have you contacted the other operators in the pool and made a proposal to them with regards to the allowable request that you're presenting to the Commission today?

A. Yes, we have.

Q. Let's turn to Exhibit No. 3 and have you identify that.

A. Exhibit No. 3 was a letter sent to all operators in the Blinebry gas pool, advising them of Marathon's intention to propose an adjustment to bring the F1 factor up to a value of 38,000 Mcf per month.

Q. Have you received any objection from

any of the operators in the pool to your allowable request?

A. No, I haven't.

Q. Let's look at the data you have with regards to the nonmarginal wells that are in the pool, Exhibits 4, 5 and 6. What do those represent?

A. Exhibits 4, 5 and 6 represent production curves on three wells in the pool that are capable of making rates in excess of our proposed 38,000 Mcf per month.

Q. Why have you selected these three?

A. These three are nonmarginal wells in the pool and are the only three that are capable of producing in excess of that value.

Q. Let's turn to Exhibit 4. Identify and describe this for us.

A. Exhibit 4 is a production plot of the Marathon Oil Company Lou Worthan No. 9. You can see the red line on the graph represents the allowable. The purple line represents the monthly production from the well, and the dotted yellow line represents a running total of the overproduction for the well.

Q. Let's go to Exhibit No. 5, and identify

and describe that one for us?

A. Exhibit No. 5 is a similar plot on the Marathon Oil Company-operated Lou Worthan No. 12, again with the allowable shown as the red line, sales shown in purple.

MR. STOVALL: If we could take a minute, Mr. Chairman, the court reporter needs a quick break.

[Discussion off the record.]

Q. (BY MR. KELLAHIN) Please continue, Mr. Kent.

A. As I said, Exhibit 5 is a production plot on the Marathon Oil Company Lou Worthan No. 12, with the allowable shown as the red line, sales by the purple line, and a running total of overproduction by the dotted yellow line.

Q. All right. Identify and describe for us Exhibit 6.

A. Exhibit 6 is a similar plot on the John Hendrix-operated L. E. Hinton No. 1, with the same detail on the plot.

Q. Give us your comments when you look at the various allowables set for past periods and that allowable level in relation to the production level. What have you observed?

A. I've observed that over the past three or so periods that the total pool allowable has, after adjustments, has decreased, while total pool production has actually increased.

Q. Is the proposed allowable, without an adjustment that was introduced by the Division, is that representative of the volume of gas necessary to produce and meet market demand for this pool?

A. It is slightly below the amount needed to meet market demand for this pool.

Q. If the adjustment is made so the F1 factor is 38,000, is that a number that you're proposing as being adequate to meet market demand?

A. Yes, it is.

Q. And that is consistent, then, with the F1 factor that has been utilized in past orders for production from this pool?

A. Yes, it is.

MR. KELLAHIN: That concludes my examination of Mr. Kent. We move the introduction of Exhibits 1 through 7.

CHAIRMAN LEMAY: Without objection, Exhibits 1 through 7 will be admitted into the

record.

Questions of Mr. Kent?

COMMISSIONER CARLSON: Yes.

EXAMINATION

BY COMMISSIONER CARLSON:

Q. Mr. Kent, you sent the letter of February 16th to all the operators. How many operators is that?

A. Off the top of my head, I don't know how many operators there are. There are several.

Q. "Seven" or "several"?

A. Several.

Q. You say nobody objects, but you ask for their support. Has anybody supported?

A. I haven't received any indication.

Q. So you haven't heard from any of them?

A. No.

Q. What percent of the production from the Blinebry pool does Marathon produce?

A. Marathon operates approximately 20 to 25 percent of the production from the Blinebry pool.

COMMISSIONER CARLSON: That's all I have. Thank you.

CHAIRMAN LEMAY: Commissioner Weiss?

COMMISSIONER WEISS: I have no questions.

EXAMINATION

BY CHAIRMAN LEMAY:

Q. Do you happen to know if there's any curtailed production based on orthodox locations within that field, or reduced allowables based on Commission orders for--

A. There are several wells that have acreage factors less than one, but whether that's due to nonstandard proration units or nonstandard locations, I don't know.

Q. In general, you're not familiar with any curtailed allowables based on an orthodox location or a wide variety of spacing unit sizes in there?

A. In my review, I did not see, even with wells that had acreage factors less than one, wells that were capable of producing in excess of the F1 times the acreage factor on a monthly basis. So, in other words, in my study, no, there wasn't.

Q. Are you the largest operator in the field with 20 or 25 percent of the production?

A. Off the top of my head, I can't tell

you that. I don't know.

CHAIRMAN LEMAY: Any other questions of the witness? If not, he may be excused.

Mr. Kellahin?

MR. KELLAHIN: Mr. Chairman, I would like to call Mr. John Gilbert. Mr. Gilbert has previously testified before the Commission as a gas marketing expert, and I'll ask him his comments on the Blinebry.

**JOHN P. GILBERT**

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

EXAMINATION

BY MR. KELLAHIN:

Q. Mr. Gilbert, would you please state your name and occupation?

A. My name is John P. Gilbert. I'm a natural gas marketing representative for Marathon Oil Company.

Q. Where do you reside, sir?

A. Midland, Texas.

Q. On prior occasions have you testified as a marketing gas expert with regards to the Blinebry gas pool?

A. Yes, sir, I have.

Q. Have you continued to market gas out of that pool for your company?

A. Yes, sir.

MR. KELLAHIN: We tender Mr. Gilbert as a gas marketing expert.

CHAIRMAN LEMAY: His qualifications are acceptable.

Q. Give us your summary of market conditions and market demand for gas produced out of the Blinebry gas pool, Mr. Gilbert.

A. The marketing opportunities have been abundant out there. In the last two to three months alone, for the first time ever, we're receiving calls from large LDCs in the west, also in the north, as this gas primarily is transported on Northern, who are short of supply and need the gas. The demand has been greater than the supply.

Q. Do you see any forecast of seasonal cycling or seasonal fluctuations in market demand for production from this pool?

A. No, sir. We're certainly seeing a flattening of the line of this seasonal demand.

Q. Do you continue to have the ability to market gas if this allowable level adjustment is

approved by the Commission?

A. Yes, sir.

MR. KELLAHIN: That concludes my examination of Mr. Gilbert.

CHAIRMAN LEMAY: Thank you. Questions of Mr. Gilbert?

I have none. Thank you, Mr. Gilbert. Keep marketing that gas. You may be excused.

MR. KELLAHIN: That completes my presentation on the Blinebry.

CHAIRMAN LEMAY: Thank you, Mr. Kellahin. Let's go to the Tubb.

Mr. Bruce?

MR. BRUCE: Thank you, Mr. Chairman, I'm here on behalf Exxon Corporation today.

**WILLIAM THOMAS DUNCAN, JR.**

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

EXAMINATION

BY MR. BRUCE:

Q. Mr. Duncan, would you please state your full name and city of residence for the Commission?

A. My name is William Thomas Duncan, Jr., and I reside in Midland, Texas.

Q. What is your occupation and who are you employed by?

A. I'm a staff engineer with Exxon Corporation in our regulatory compliance group.

Q. Have you previously qualified before the Oil Conservation Division as a petroleum engineer?

A. Yes, I have.

Q. Have you previously testified before the Division?

A. Yes, I have.

Q. Do you have some recommendations to make to the Commission regarding the Tubb allowable?

A. Yes, I do.

MR. BRUCE: Mr. Chairman, I would tender Mr. Duncan as an expert petroleum engineer.

CHAIRMAN LEMAY: His qualifications are acceptable.

Q. Mr. Duncan, what is Exxon's position at this hearing?

A. We seek an increase in the allowable for the Tubb prorated gas pool slightly in addition to the proposed allowable that the

Commission has offered.

Q. Okay. If you would refer to your Exhibit 1, what is the proposed monthly Tubb allowable as proposed by the Division?

A. Based upon the 1992 production for a like period, the NMOCD has proposed pool monthly allowables of slightly in excess of 288 million cubic feet per month.

Q. That was based on last year's actual figure?

A. Yes, it was.

Q. How did the actual April to September 1992 production compare to the allowable for that period?

A. The actual production was slightly over 52 percent higher than the allowable for that like period, that same period, so production was actually 152 percent of the allowables for that period last year.

Q. So the allowable, the actual or the set allowable for that period was somewhere around 190,000 per month, is that correct?

A. Yes, it was, 199 million.

Q. Does Exxon have any information as to market demand for production from its nonmarginal

wells in the Tubb pool?

A. Yes. Our nonmarginal wells are dedicated to the Sid Richardson Gasoline Company. That's not the complete name.

Q. Carbon and Gasoline Company?

A. Yes. And Sid Richardson has indicated to us that they have a marked for significantly more gas than we can even produce, if we had the allowable to produce it.

Q. What figure did they say they could use in addition to what you're producing?

A. When we asked if they could use additional production in addition to what we've been able to provide in the past, they said they would like to see another 40 million cubic feet per day, and we can only provide somewhere less than one million cubic feet per day.

Q. What is your recommended adjustment for the Tubb pool?

A. We recommend that the additional capacity of the wells in the Tubb pool be added to the Tubb proposed monthly allowable. That would be an additional six million cubic feet per month average, over the six-month period.

Q. How many nonmarginal wells does Exxon

have in this pool?

A. Exxon operates three nonmarginal wells. There are another two wells that are nonmarginal.

Q. Are Exxon's wells all dedicated to the standard 160-acre units?

A. Yes, they are.

Q. Are any of Exxon's wells what you would call barn-burners?

A. Well, they're ours, but they're not barn-burners, no.

Q. Could your Exxon proposal benefit other operators in this pool?

A. Yes, it could, the other operators of other nonmarginal wells.

Q. Do you have anything further in this matter, Mr. Duncan?

A. No, I don't.

Q. Was Exhibit 1 prepared by you or under your direction?

A. Yes, it was.

MR. BRUCE: Mr. Chairman, at this time I would move the admission of Exxon's Exhibit No. 1.

CHAIRMAN LEMAY: Without objection,

Exhibit 1 is in the record.

MR. BRUCE: I have no further questions at this time.

CHAIRMAN LEMAY: Questions of the witness?

MR. STOVALL: I have some, Mr. Chairman, solely for the purpose of making sure I understand the request that's being made

EXAMINATION

BY MR. STOVALL:

Q. Using your Exhibit 1--and do you have a copy of the Commission Exhibit A?

A. Yes, I do.

Q. Division Exhibit A, as you pointed out, is 288 million, and your Exhibit 1 talks about a 5,900 Mcf or 5.9 million cubic feet. Is that the number you would suggest be entered on Line 3, or is that a per well, or what is that number?

A. That is the number that will be entered as a positive value on Line 3.

Q. So, in other words, the entire pool allowable on Line 4 would then be about 293, 294, is that correct?

A. That's correct. It would be an increase of about two percent.

MR. STOVALL: Okay. That's all I wanted to know.

CHAIRMAN LEMAY: Thank you, Mr. Stovall. Additional questions of the witness?

Commissioner Carlson?

EXAMINATION

BY COMMISSIONER CARLSON:

Q. By additional capacity, which would be limited, if we add that on there, then they would be able to produce their total deliverability, is that correct?

A. They would be able to produce as much as they've indicated they could produce over the past year. What I did is, I took the highest individual month's production from each of those wells that were nonmarginal.

Q. Exxon operates three of those wells?

A. That's correct.

Q. Who are the other two operators?

A. Marathon and Texaco, I believe. Let me refer to my notes. Excuse me, Exxon operates two of those wells, Texaco operates one, John Hendrix operates another, and Marathon operates a third. I apologize.

Q. Have you talked to those three

operators?

A. No, I have not.

COMMISSIONER CARLSON: No other questions.

CHAIRMAN LEMAY: Commissioner Weiss?

EXAMINATION

BY COMMISSIONER WEISS:

Q. How many wells are in the Tubb field?

A. I don't know off hand. I have a proration schedule and could count them up pretty quickly. There are a total of 64-1/2 acreage factors on the October to March proration schedule.

COMMISSIONER WEISS: That's 64 wells. Thank you. That's the only question.

EXAMINATION

BY CHAIRMAN LEMAY:

Q. Are you familiar with any nonstandard units or any unorthodox locations in this field?

A. I don't know which ones specifically you're referring to.

Q. Just in general, if it's a common practice to have the standard proration unit size, or if there's a lot of variations in allowables adjusted according to those

variations?

A. Well, in looking down the proration schedule, it does look like most of the wells have an acreage factor of one, so they're probably the standard size. I've not made a study of whether or not those locations are orthodox or not.

Q. Do you know if those locations in the nonmarginal wells are standard or unorthodox?

A. I believe that those are standard. I have not checked the footages, but on a map they look like they're approximately 660 or greater to the lease line, which would be standard.

CHAIRMAN LEMAY: Thank you. Any other questions of the witness? If not, he may be excused.

Let's take a break and come back at 1:00, and we'll do the Indian Basin.

[The noon recess was taken.]

CHAIRMAN LEMAY: Okay. We'll continue. We'll start with some Commission dates here that we've all agreed upon, those of us up here, anyway.

The March 11th date, I don't think we have any cases for that, so March will be free.

April 29th, May 27th, June 24th and July 22nd, those will all be the Commission hearing days for the next four months, and we'll look toward the end of the year somewhere in the spring.

Okay. We shall continue with the Indian Basin field. Mr. Kellahin.

MR. KELLAHIN: Thank you, Mr. Chairman. I would like to call at this time Mr. Craig Kent.

**CRAIG KENT**

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

EXAMINATION

BY MR. KELLAHIN:

Q. Mr. Kent, for the record, would you please state your name and occupation?

A. My name is Craig Kent, and I'm a reservoir engineer with Marathon Oil Company in Midland, Texas.

Q. Mr. Kent, on prior occasions have you testified before the Oil Conservation Division as a reservoir engineer specifically with regards to the Indian Basin-Upper Pennsylvanian gas pool?

A. Yes, I have.

Q. In addition, have you been assigned

responsibility for analyzing the reservoir and your wells to determine a recommendation for an allowable for the proration period that's under consideration here?

A. Yes, I have.

Q. Pursuant to that direction by your company, have you prepared certain exhibits and reached certain conclusions about the requested allowable adjustment you're seeking for your company?

A. Yes, I have.

MR. KELLAHIN: We tender Mr. Kent as an expert witness.

CHAIRMAN LEMAY: His qualifications are acceptable.

Q. Mr. Kent, before we start with the presentation of the exhibits, give me a summary, sir, of what your recommendation is for an adjustment in the allowable for the Indian Basin-Upper Penn gas pool?

A. Marathon is seeking an adjustment of 166,234 Mcf per month to the preliminary allowable proposed by the OCD.

Q. When you take that adjustment and factor or calculate the F1 nonmarginal component,

what does that equate to in Mcf of gas per month?

A. That equates to an F1 factor of 196,500 Mcf per month.

Q. If you divide that number by 30.4 to get to a maximum daily gas producing rate, what is that number?

A. It's just under 6.5 million cubic feet per day.

Q. How does that requested level of allowable compare to the allowable level you're currently using in that pool for this winter period that we're in now?

A. Essentially, the two figures are identical.

Q. Let's start now with Exhibit No. 1. Would you identify and describe that for us?

A. Exhibit No. 1 is a plat of the area surrounding the Indian Basin-Upper Penn pool. The pool is spaced on 640 acres. Each section is color-coded indicating the operator of the well in that section.

There are green boxes or boxes around several wells in the plat area which indicate wells that have been worked on since the beginning of 1991, with the boxes in green

showing those wells that were worked on in 91, boxes in red showing those wells that have been worked on in 92 and 93.

Q. Have you prepared a display that shows the additional well capacity, if you will, that has been added to the pool since the last allowable hearing?

A. Yes, I have.

Q. Let's turn to Exhibit No. 2. What information have you placed on Exhibit No. 2?

A. Exhibit No. 2 is a well-by-well breakdown of the work that's been done in the Indian Basin field since the beginning of 1992. The two operators that were active in 92 were Oryx and Chevron.

Listed is the well station which is just a way that we track these wells. For instance, the first well, Station 217, the first digit represents the township that the well is in with the number 2, indicating Township 21 South, Range 23 East; the number 3 representing Township 22 South, Range 23 East.

The second two digits of the station number designate which section the well is in.

Also on this is a summary of the gas

rate prior to work being completed, as well as the peak month of production following the work that we saw.

Q. Last August of 92, when the Commission had under consideration establishing allowables for the pool, the work shown for Chevron on additional capacity, with the exception of the 308 well, then, all those represent additional work that they have undertaken since the last hearing?

A. That's correct.

Q. Has the additional capacity added by other operators to the pool been factored into the 196,500 F1 factor at this point?

A. Yes, it has.

Q. What conclusions do you draw from Exhibit No. 2?

A. Basically, the main conclusion here is that we've been able to see that there was considerable capacity that could be added in several wells in the field just by doing remedial work.

Q. The preliminary schedule that Mr. Van Ryan introduced showed an F1 factor for the Indian Basin-Upper Penn of just over 172,000. In

your opinion, is that representative of the appropriate level for an allowable for this summer period for this pool?

A. No, it's not. With the activity that went on late last summer and into the winter, the added capacity of those wells was not taken into account in the calculation of the F1 factor.

Q. Have you made a study to determine how the operators share the gas production out of the pool, in terms of a percentage?

A. Yes, I have.

Q. Let's turn to Exhibit No. 3. Is this also a tabulation you've made, Mr. Kent?

A. Yes, it is.

Q. Describe for us what you've done.

A. This is a tabulation of each company's working interest share of produced gas. This includes their working interest share in operated, as well as nonoperated wells in the pool.

For instance, looking at Marathon, from April to September of 92, we held about a 26.8 percent working interest share of gross gas sales, and we held about the same value in October through December of 92.

Q. The preliminary schedule for Indian Basin, the number of nonmarginal acreage factors, 6.92?

A. That's correct.

Q. How many nonmarginal wells make up the nonmarginal acreage factor?

A. As I understand it, there are seven nonmarginal wells in the total nonmarginal acreage factor.

Q. There's one well, then, with less than a full 640 spacing unit?

A. There's one well with less, and one well with more.

Q. When we look at Exhibit No. 3, can you identify for us, of those nonmarginal wells, which operator has how many?

A. Based on discussions with the Division, Marathon, in that 6.92, operates four wells, Oryx operates two, Chevron operates one.

Q. If the Commission accepts the continuation of an allowable that lets the current F1 factor for the winter period stay in place for this summer period, will there be nonmarginal wells that will be curtailed?

A. There will be four wells that will have

capacity in excess of the 196,500.

Q. Let's turn now to Exhibit No. 4 and have you identify and describe that display.

A. Exhibit No. 4 is a plot of monthly pool production from the Indian Basin-Upper Penn pool. Also shown on the plot, the dashed black line shows the pool allowable for the respective period, and the solid black line in the upper right indicates what the pool allowable will be with Marathon's proposed adjustment.

Q. Have the wells in the pool, the nonmarginal wells in the pool, been able to produce their nonmarginal allowables?

A. Yes, they have.

Q. What is the total status of the pool in terms of pool allowable versus pool production?

A. You can see that from early 1992, through 92 and projected into early 1993, the pool has and will continue to produce in excess of the pool allowable.

Q. If you look on your bar graph, Exhibit No. 4, and count back four bars from the right--and I think that is June of 93--there is a dip. That bar graph is below the allowable for that month?

A. That's correct.

Q. What happened?

A. We were planning to do a major turn-around at the Indian Basin gas plant during June, so we factored in a seven day shut-in of the field into the production for June of 1993.

Q. How has the Commission handled the down time of the plant that takes gas production from the pool, in terms of adjusting the allowable?

A. As I understand it, there has been no adjustment made.

Q. When we go backwards now and looking in 91, there are two other times where there is a downward spike in your bar graph. Looking at the one in December of 91, January of 92, what occurred during that interval?

A. There were fires at the Indian Basin gas plant which, essentially, had the field shut in for several days in December and January.

Q. Going back to September of 91, that was the last downward spike. What does that represent?

A. That was, again, a plant turn around to do maintenance work at the facility.

Q. The production, then, has been affected

by events other than market demand and in reduced production for those months?

A. That's correct.

Q. Let's turn now to Exhibit No. 5, Mr. Kent. Would you identify and describe that for us?

A. Exhibit No. 5 is a calculation of the F1 factor, showing both the preliminary schedule issued by the OCD as well as a calculation of the F1 factor utilizing Marathon's adjustment.

Q. When you look at the historic past production, what has been that relationship between actual production and the allowables assigned for any given proration period?

A. Over the past few years, the actual production has exceeded the pool allowable.

Q. What is your forecast for production for this next proration period for pool production?

A. The forecast is, on a daily rate the pool should produce somewhere on the order of 3.8 Bcf. When taking into account the down time we project in June, we would expect an average monthly production of something on the order of 3.7 Bcf for the six-month period under

consideration.

Q. What is Marathon's plan with regards to its use of the allowable to be assigned under your proposal for the next period? Will you produce your wells up to that allowable level?

A. Yes, we will.

Q. Have you contacted any other operators in the pool to determine whether or not they will utilize the allowable assigned if your recommendation is accepted?

A. The operators I've talked to have indicated that they will produce their wells to the full extent.

Q. Who have you talked to?

A. I've spoken with both Oryx and Chevron.

Q. Let's turn now to Exhibit No. 6, Mr. Kent. Would you identify and describe that.

A. Exhibit No. 6 is a letter that we sent to all the operators in the Indian Basin-Upper Penn pool, indicating our intention to ask for an adjustment to the proration schedule to calculate an F1 factor of 196,500.

Q. What, if any, response have you received from the other operators concerning your proposed allowable request?

A. We have received support from Oryx.

Q. Have you received any position from any other company?

A. No, I haven't.

Q. As a reservoir engineer working in the Indian Basin-Upper Pennsylvanian, are you familiar with the reservoir characteristics of that pool?

A. Yes, I am.

Q. In terms of determining whether or not there is any potential impairment of correlative rights with regards to the relationship of the wells within the reservoir, have you made a study of that issue?

A. Yes, I have.

Q. Let me turn your attention, Mr. Kent, to Exhibit No. 7. Before are you describe it, simply identify what you've displayed on that exhibit.

A. Exhibit 7 is a structure map on the top of the Indian Basin-Upper Penn pool, with various structure contours as well as both original and current gas/water contacts.

Q. To the best of your knowledge, information and belief, is this an accurate

illustration or depiction of the reservoir, as you and Marathon believe it to exist?

A. Yes, it is.

Q. Summarize for us, as a reservoir engineer, what you see as the important reservoir characteristics of the pool.

A. The important reservoir characteristics are that there is somewhat of a structural component to this pool, with the wells on the eastern plank being downdip, the wells on the west being updip. There has been some water encroachment since the mid-60s from the east to the west.

Q. You've identified an original gas/water contact, and that's the farther east dotted line through the display?

A. That's correct.

Q. Is there an estimate of what the current gas/water contact in the reservoir is?

A. Yes, there is.

Q. How is that shown?

A. That's shown by the dotted line that's just slightly to the left, running approximately in the middle of the plat.

Q. How have you identified for us the

nonmarginal wells?

A. The nonmarginal wells make up the 6.92 acreage factor, and are denoted by green circles surrounding the wells.

Q. Is there a structural advantage or a structural component in the reservoir?

A. There is somewhat of a structural component in the reservoir.

Q. Is there a relationship where the gas wells higher on structure will have an advantage over wells that are lower on structure?

A. Through time, as the gas/water contact continues to move to the west, we expect that the downdip wells will water out and the updip wells will continue to produce.

Q. On the far left side of the display is a type log. What does that illustrate?

A. The type log illustrates the various formations in the Indian Basin-Upper Penn pool. Of particular note, the Upper Penn interval, shaded in red, shows basically the productive interval for the Upper Penn pool.

Q. In relationship to structural position in the reservoir, if the Commission approves your allowable adjustment level, do you see any

impairment of correlative rights among the wells because of structural position?

A. No, I don't.

Q. Let's turn now to look at the reservoir thickness, if you will. There's a line of cross-section on Exhibit 7. What does that illustrate?

A. This line of cross-section connects four wells in the Indian Basin-Upper Penn pool, basically showing a structural component as well as connecting wells that are some of the better wells in the field.

Q. Why did you want to examine that issue?

A. We wanted to see, comparatively, how net pay stacked up between wells.

Q. Let me turn you now to Exhibit No. 8. What does that represent, Mr. Kent?

A. Exhibit No. 8 is a graphical depiction of the net pay that we calculate in each of the wells in the cross-section.

Q. Identify for us, going left to right, the wells involved in the cross-section.

A. The farthestmost to the left is the Bogle Flats Unit #3, located in Section 9, 22 South, 23 East. It's the furthest southwest well

on the cross-section line.

Q. Has that well been subject to any recompletions or workovers?

A. Yes, it has.

Q. Okay. We go to the next one, and what's that?

A. That's the Bogle Flats 2, located in Section 4 of 22 South, 23 East.

Q. That's a nonmarginal well?

A. That's correct.

Q. The next well?

A. Is the Indian Basin "D" #1, which is operated by Marathon. It's in Section 34 of 21 South, 23 East.

Q. And the last well on the cross-section?

A. Is Marathon's Indian Basin "C" #1, located in Section 26 of 21 South, 23 East.

Q. What do you conclude about examining the net pay in the reservoir that the operators have an opportunity to produce the gas from?

A. There is a significant difference between the net pay in the various wells in this field.

Q. How is that related to the structure, if at all?

A. The wells, at least on this cross-section, the wells that are further updip also have more pay.

Q. Turn now to Exhibit No. 9. Would you identify and describe that for us?

A. Exhibit No. 9 is a log cross-section which took two of the wells we were looking at on Exhibit 8. I placed the sonic logs side by side to give an illustration of exactly what the differences were in the pay between those two wells.

Q. What does this show you?

A. Qualitatively, it shows that the Bogle Flats Unit #3, which is located on the left, has significantly more pay, than the Indian Basin "D" #1 well, which is the log shown on the right.

Q. In terms of establishing an allowable at the level you're requesting for the summer period, what effect does reservoir thickness have upon that decision?

A. It has no effect on that decision.

Q. Summarize for us, Mr. Kent, what you propose to accomplish with the adjustment.

A. What we propose to accomplish with our adjustment is the establishment of an F1 factor

of 196,500 Mcf per month, which is a continuation from the winter period.

It also reflects the current productive capacity of the field, and it also provides the operators the opportunity to produce their gas without restriction.

Q. In terms of how that production is distributed among the operators, it is shared principally among which operators?

A. Principally it's shared among Marathon, Chevron and Oryx.

Q. Do you see any opportunity for the impairment of correlative rights if the Division or the Commission accepts your recommended adjustment?

A. No, I don't.

MR. KELLAHIN: That concludes my examination of Mr. Kent, Mr. Chairman. I move the introduction of his Exhibits 1 through 9.

CHAIRMAN LEMAY: Exhibits 1 through 9 will be admitted into the record without objection.

Questions of the witness? Commissioner Carlson?

EXAMINATION

BY COMMISSIONER CARLSON:

Q. If we accept your recommended allocation, would any of these wells be curtailed at all?

A. There would be four wells that would be capable of producing in excess and would start accruing overproduction, and eventually there would be a curtailment.

COMMISSIONER CARLSON: That's all I have.

CHAIRMAN LEMAY: Commissioner Weiss?

EXAMINATION

BY COMMISSIONER WEISS:

Q. What is the general nature of the workovers?

A. Most of them were reperforation, installing larger tubing, making modifications to surface facilities. This reservoir, when initially discovered, was about 3,000 pounds reservoir pressure. We're down somewhere below 1,500. With the gas expansion, you're seeing a lot larger pressure drops now than what you were originally, which acted to choke the wells back.

COMMISSIONER WEISS: That's the only question I had. Thank you.

CHAIRMAN LEMAY: Just one.

EXAMINATION

BY CHAIRMAN LEMAY:

Q. Are you still pursuing your efforts to unitize?

A. We've not had formal discussions with the other operators since last summer, but that is still an option.

Q. Kind of a dead one, you think?

A. It depends on what the attitude of some of the other operators is. It was at the point last summer where it reached a stalemate, so it's dependent on the decisions of some of the other operators in the pool.

CHAIRMAN LEMAY: Commissioner Weiss?

FURTHER EXAMINATION

BY COMMISSIONER WEISS:

Q. I did notice that the working interests have changed somewhat, namely Oryx's. Does that have anything to do with what you're talking about?

A. You're talking about the working interest share of production?

Q. The ownership.

A. Well, that's not ownership, it's

working interest share of gas produced, and I think that's a direct reflection on the work that Oryx did to improve the capacity of their wells.

Q. You think that may have something to do with unitization, or the prospects of it?

A. I really can't say. I don't know what the motivation of some of the other companies are.

COMMISSIONER WEISS: Thank you.

CHAIRMAN LEMAY: That's all I have. Thank you, Mr. Kent.

MR. KELLAHIN: I have a quick follow-up question.

FURTHER EXAMINATION

BY MR. KELLAHIN:

Q. Let me address Commissioner Weiss' issue as a follow-up with you, Mr. Kent.

When you look at Exhibit No. 3, on the second column from the right you've listed 36 wells. How many actual wells are there in the pool?

A. There's actually 38 wells in the pool.

Q. There are two wells that Chevron operates in which Chevron doesn't have a working interest?

A. That's correct.

Q. Those two wells, the working interest, is held by Oryx, is it?

A. It's Oryx and Marathon.

Q. So there's a slight difference in the working interest versus operatorship, as the way ycu've tabulated it?

A. Correct.

Q. All right. In terms of establishing an allowable, is it still your company's position that you support capacity allowables for the Indian Basin-Upper Pennsylvanian pool?

A. Yes, it is.

Q. But in an effort to compromise and develop an agreeable allowable schedule, you're proposing to maintain the current allowable for the summer period?

A. That's correct.

Q. So those allowables you're recommending are less than capacity?

A. That's correct.

MR. KELLAHIN: All right, sir.

CHAIRMAN LEMAY: Thank you. Additional questions?

Thank you, Mr. Kent. You may be

excused.

MR. KELLAHIN: Call John Gilbert.

**JOHN P. GILBERT**

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

EXAMINATION

BY MR. KELLAHIN:

Q. Mr. Gilbert, would you identify yourself for the record?

A. My name is John P. Gilbert. I work with Marathon Oil Company.

Q. In what capacity are you employed, sir?

A. As a natural gas marketing representative.

Q. Where do you reside?

A. Midland, Texas.

Q. What, if any, responsibility do you have as a gas marketer for gas produced out of the Indian Basin-Upper Pennsylvanian gas pool?

A. I'm solely responsible for marketing Marathon's portion of the production at the tailgate of the Indian Basin gas plant.

Q. In addition to marketing Marathon's share of that gas, are you also familiar with what the other operators are doing in terms of

marketing their gas?

A. Yes; not actually knowing their markets, but I do know their nominations at the tailgate of the plant and the amount that they're selling.

Q. In your opinion, is there adequate market demand to market all the gas that would be produced from the pool if the Commission adopts Mr. Kent's proposed adjustment?

A. Yes, sir, there's more than enough market.

Q. Give us a quick summary with regards to the Indian Basin-Upper Penn, of what market conditions are and what you forecast them to be for this pool for the next proration period.

A. As I just stated, there's enormous opportunity to market at Indian Basin. It's a wonderful place to own gas. Not only can that gas flow west, to California, actually, most of our market is in the northeast. That gas can also be brought to the Gulf Coast via the Waha hub in West Texas. We see no limited market capabilities whatsoever.

Q. Do you see any seasonal cycle to the market demand for production out of this pool?

A. No, sir.

MR. KELLAHIN: No further questions.

CHAIRMAN LEMAY: Questions of the witness? Commissioner Carlson?

EXAMINATION

BY COMMISSIONER CARLSON:

Q. Where do you market that gas currently?

A. We have a package--this is Marathon's portion--currently going to the northeast, particularly Indiana. I prefer not to elaborate my exact market because my competition is in the room.

We also have a package going to the Gulf Coast. We have this month, the month of February, a package going to intrastate New Mexico, and one small package going to California.

Q. Are those warranty contracts? Are they tied specifically to Indian Basin gas wells?

A. 21 million cubic feet of the 33 million I market there are going to production-guaranteed contracts year-round, long-term. We worked hard for those contracts and we're very proud of them.

11 million a day is going to spot

market for the month of February. However, commencing day after tomorrow, March 1st, 10 million is going to another long-term market in the East.

Q. Are they specifically tied to the Indian Basin?

A. Yes, sir, they are. With the transportation involved in the various pipelines, the package of gas is guaranteed from Indian Basin.

COMMISSIONER CARLSON: That's all I have.

CHAIRMAN LEMAY: Commissioner Weiss?

COMMISSIONER WEISS: No questions.

EXAMINATION

BY CHAIRMAN LEMAY:

Q. What would happen if the Indian Basin field, for some reason, was shut down? Would that mean you would be in default of your contracts?

A. Well, we would not let that happen. We have other reserves we would have to route, even if it's at a loss. We'll back up our contracts with production. In fact, when the turn-around is geared up for June of 93, we're already making

those arrangements to serve our contracts with other production.

Q. So, then, the production from the Indian Basin isn't the sole guarantor of your marketing contracts?

A. Not the sole guarantor, but with the way the transportation fits and the way we priced our contracts, had Indian Basin in mind.

Q. You had Indian Basin in mind?

A. In mind, absolutely.

Q. It's not specified in your contracts?

A. It's not specified. It's one of the delivery points cited in the contract, and that's the gas we prefer to use. However, if we have to reroute at a lot, we will do it to guarantee our contracts.

Q. There again, that's Marathon's choice and not a specific condition of the market requesting Indian Basin gas?

A. Sir?

Q. It's not a specific criteria in the contract? In other words, your buyers didn't specifically request Indian Basin gas, and default would result if they didn't get if?

A. That's accurate.

CHAIRMAN LEMAY: Okay. Thank you. Any more questions? Thank you very much, Mr. Gilbert.

MR. KELLAHIN: Mr. Chairman, I would like to call Mr. Rick Hall from Oryx Energy Company.

**RICHARD W. HALL**

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

EXAMINATION

BY MR. KELLAHIN:

Q. Mr. Hall, would you please state your name and occupation?

A. My name is Richard W. Hall, and I work for Oryx Energy Company.

Q. In what capacity, sir?

A. I'm a production/operations engineer for Oryx.

Q. Where do you reside?

A. Dallas, Texas.

Q. At the prior allowable hearing before the Commission in August of 92, were you an expert witness on this subject for your company?

A. Yes, sir, I was.

Q. Have you continued in that capacity for

your company and now have recommendations for an allowable for the Indian Basin-Upper Pennsylvanian gas pool?

A. Yes, I do.

MR. KELLAHIN: We Tender Mr. Hall as an expert witness.

CHAIRMAN LEMAY: His qualificationsare acceptable.

Q. Mr. Hall, summarize for us what your company's position is with regards to allowables for the summer proration period for this pool.

A. Our company's position is the same as Marathon's. It is to request an adjustment in the proposed allowable for an F1 factor of 196,500 Mcf. We would like to keep the same level in the winter through the summer.

Q. Identify for us, Mr. Hall, what is contained on Exhibit No. 1.

A. Exhibit No. 1 is a letter stating Oryx's position to Mr. Larry Van Ryan, asking that the acreage allocation factor of 196,500 be considered for the Indian Basin-Upper Penn pool.

Q. Let's turn to Exhibit No. 2, and describe for us the reasons why you're requesting an allowable at this level.

A. As mentioned by Marathon, Oryx has done extensive well work in this field and has continued through the winter period. To date we've spent $604,000 on capital and expense outlays to work our wells over.

We also have proposed spending of $150,000 on the table that we would like to continue, for a total of $754,000 in this field.

Q. Turn now to Exhibit No. 3 and identify that for us.

A. Exhibit No. 3 is a well-by-well breakdown of production of the wells that Oryx operates, for the winter period.

The middle column is a listing of the proration schedule published for us and totals 385,474 Mcf.

Q. Stop a moment. Where does that number come from?

A. That comes from the OCD's published October through March or winter allowable book.

Q. Does this represent the allowable assigned to those wells?

A. Yes, sir, it represents the allocation for these wells as a marginal basis.

Q. In terms of the allowable, how much of

that allowable have you actually produced for each of those wells?

A. That's the right-hand column. We've exceeded the allowable on all those wells--I shouldn't say "allowable," the allocation of all those wells, which you can see in the right-hand column. This is what we're predicting we will produce through the end of March.

Q. What's your point?

A. The point is, as Marathon talked about, the marginal wells are using up the allotted production or they're exceeding the allotted production, and this is part of that reasoning in the workovers of the wells. And, as you see, no wells will violate the adjusted allowable of 196,495 that was given to us recently.

Q. Do you forecast any lessening of market demand in this forthcoming summer period than you currently have for the winter period?

A. No, we don't.

Q. Turn now to Exhibit No. 4, and identify and describe that for us.

A. Exhibit No. 4 is a similar slide with the summer period. The left-hand column are the well names, the center column is the published

allocation for April 92 through September of 92, the last summer period.

What I'm doing, I'm comparing summer periods, what I think our wells are going to make or an estimate, versus what they were scheduled previously.

Q. The preliminary schedule introduced by the Division shows a nonmarginal monthly acreage factor of just over 172,000--

A. Correct.

Q. --for this, and that's based upon historic production for the summer of 92.

In your opinion, is that representative of what will be the market demand for gas production for the summer of 93?

A. No, it's not. We believe that the demand we have now will continue through the summer. If we're held to that number, as you can see in the right-hand column, four of our five wells will exceed that volume and will be gathering overages.

Q. Turn to Exhibit 5, and--

A. Let me make one more point about that exhibit.

Q. Yes, sir.

A. There is one well, the Federal 28-1. We're predicting 212,800 Mcf per month, that will exceed even our proposed allowable of 196,500.

Q. So you can at least forecast at least one, if not more of your wells, as being nonmarginal and capacity curtailed?

A. Yes, sir.

Q. All right. Go to No. 5 now and identify that for us.

A. No. 5 is a plot of production volume for the Oryx Energy-operated wells. It's basically the previous slides, the production summed on a daily basis.

The first downward spike, as we mentioned, is a plant down time. The second is also plant down time. Then, in 1992, you see an upward trend begin due to the workovers that we've talked about. And you'll also note that there is no summer adjustment in 92, and we don't expect any in 93.

Q. This tracks production from your wells, marginal and nonmarginal?

A. Yes, sir, the summation.

Q. All right. Exhibit No. 6, identify and describe that for us, please.

A. Exhibit No. 6 is a letter from our gas marketing group or gas marketing company, Oryx Gas Marketing, and it welcomes the opportunity to service additional gas deliverability at the Indian Basin plant.

It also mentions that we do market our gas in the West Coast, the Midwest, and the Texas Gulf Coast, not only just California companies.

Q. As you understand it, does your company have sufficient market demand for your share of gas to produce up to the allowable level you're requesting the Commission adopt?

A. Yes, sir.

MR. KELLAHIN: That concludes my examination of Mr. Hall. We would move the introduction of his Exhibits 1 through 6.

CHAIRMAN LEMAY: Without objection, Exhibits 1 through 6 will be admitted into the record.

Questions of the witness?

COMMISSIONER CARLSON: No questions.

CHAIRMAN LEMAY: Commissioner Weiss?

EXAMINATION

BY COMMISSIONER WEISS:

Q. I would have the same question about

unitization. Has it been brought up again with Oryx.

A. Informally we've talked with Marathon, and we favor unitization. That's Oryx's position.

COMMISSIONER WEISS: Thank you.

CHAIRMAN LEMAY: I have a question on compressors.

EXAMINATION

BY CHAIRMAN LEMAY:

Q. You have two compressors you've installed?

A. Yes, sir.

Q. Do you know how many compressors there are? Is that all you have on your wells? You have compressors on two wells?

A. We have compression on two wells, yes, sir.

Q. Do you know how the competition is faring with compressors? How many they have?

A. I believe Marathon has several compressors. I don't know about Chevron. I don't think they have as many as either one of us.

Q. In a competitive situation like that,

with compressors, how does that affect what you're requesting in terms of allowable? Would you add more compressors with higher allowables? Are the compressors there to gain competitive advantages?

Or, maybe you can answer this question. Would it be better to put the compressor at the plant rather than the wells fighting each other for an advantage with compressors?

A. Boy, that's a difficult question. It really just depends on the well. Some wells you don't require compressing because they're better wells. The lower-structure wells are probably going to need compression because you have some water influx that's hurting, and that's our situation. Our worst wells have compressors on them; our best wells don't.

Q. They don't. That was my next question. Your nonmarginal wells do not have compression?

A. Neither nonmarginal well has compression, yes, sir.

CHAIRMAN LEMAY: Thank you. Any other questions? You may be excused. Thank you very much.

Mr. Carr?

MR. CARR: May it please the Commission, at this time I would call Brian Huzzey to testify for Chevron.

**BRIAN HUZZEY**

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

EXAMINATION

BY MR. CARR:

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

A. Brian Huzzey.

Q. Where do you reside?

A. Midland, Texas.

Q. By whom are you employed?

A. Chevron, U.S.A.

Q. In what capacity?

A. As a production and reservoir engineer.

Q. Mr. Huzzey, have you previously testified before the Oil Conservation Commission?

A. No.

Q. Could you briefly summarize your educational background and then review your work experience?

A. I graduated from West Virginia

University with a B.S. in petroleum engineering in May of 1982. I went to work for Gulf Oil Company in June of 1982, and have been with Gulf/Chevron since that time.

I've worked as a facilities or equipment engineer, field engineer, production engineer, reserves engineer, reservoir engineer, and now I'm currently a production and reservoir engineer.

Q. Are you familiar with how allowables are set for the prorated gas pools in Southeastern New Mexico?

A. Yes, I am.

Q. And have you reviewed the preliminary allowables for the Indian Basin-Upper Penn pool for the period from April through September of 1993?

A. Yes, I have.

Q. Are you familiar with Chevron's operations in this pool?

A. Yes.

MR. CARR: Are the witness' qualifications acceptable.

CHAIRMAN LEMAY: They're acceptable.

Q. Mr. Huzzey, could you refer to what has

been marked Chevron Exhibit No. 1, and review that for the Commission, please?

A. Yes. This exhibit shows the Indian Basin-Upper Penn pool production by operator for November of 1992. If you'll note in the legend, it also shows an incremental increase on the Chevron portion of this graphic, showing the results of our workover efforts in December and January.

Q. The total, 40.10 percent, reflects what?

A. Chevron's gross November production and the incremental production from the work we've performed in December and January.

Q. All right. Now let's go to Chevron Exhibit No. 2. Identify that for us, please?

A. This is a plot of the Indian Basin pool, Chevron-operated production, and there are three areas of this graph that I would like to note.

On the far left you'll note, about October 14th and 15th, we removed the chokes from all of our wells, and this resulted in an incremental increase of approximately 3,700 Mcf per day.

The production then stabilized thoughout November, while we did geological and engineering work to determine what else we should proceed with. In December, we started doing tubing changeouts and some acid work, reperf and acid work, which resulted in another incremental increase of approximately 11,000 Mcf per day.

Q. Anything else on Exhibit No. 2?

A. Well, the only other point of interest is the Indian Basin gas plant had problems in January, which significantly curtailed production.

Q. Basically, Exhibit No. 2 shows results of Chevron's efforts to workover certain wells in this pool since the last allowable hearing?

A. The majority of the wells operated by Chevron have now been worked on to protect our rights.

Q. All right. Well, let's now move to Exhibit No. 3. Can you identify and explain what this is designed to show?

A. This shows the typical type of work that we've performed on Indian Basin wells. This is Chevron's Federal Gas Com "33" #1, and in this particular well we received a 680 Mcf per

day increase by removing the choke. This stabilized for approximately a month, month and a half.

We did a tubing changeout from 2-3/8 to 3-1/2" and received a 1,500 Mcf a day increase. And then in January we performed some perforation and acid work, which added another 750 Mcf per day.

Eight of our ten wells have been worked on at this time.

Q. Let's go to Exhibit No. 4. Identify the well and then explain to the Commission what this exhibit is designed to show.

A. This is Chevron's Bogle Flats Unit #3, previously mentioned by Marathon. It has shown significant increases in production, from approximately 4,000 Mcf per day prior to our work, to a current rate of approximately 7,500 to 7,600 Mcf per day.

If you'll note on the right-hand side, that is the winter allowable in the dark line, and shows this well consistently exceeds the winter allowable.

Q. Is this Chevron's top producer in the pool?

A. This is currently our top producer in the pool.

Q. And it is capable of overproducing the allowable, both the existing and the recommended allowable, is that correct?

A. That is correct.

Q. What is Exhibit No. 5?

A. Exhibit No. 5 is another one of our successful workovers. In this exhibit you can note, back in October, again, that we had a 600 to 800 Mcf a day increase just by removing the chokes.

In this well, the only other work that has been performed at this time, we changed out the tubing size, increased the tubing size, and received approximately a 2,200 Mcf a day increase from this work. This well also consistently produces over the winter allowable.

Q. And now Exhibit No. 6?

A. Exhibit No. 6 is the Fed Com "33" #1 again, and in this well we did get results from both the choke removal, tubing changeout, and the acid work. It is slightly over the winter allowable and has been consistent so far, on a daily basis, of producing slightly over the

winter allowable.

Q. What is the purpose of presenting this information to the Commission?

A. We feel that the Commission needs this information to better understand where the pool's production stands at this time so that they can assign an equitable allowable for the upcoming proration period.

Q. Basically, has Chevron undertaken these efforts to protect its correlative rights?

A. Yes.

Q. Are you in a position here today to make exact recommendations as to what the allowable adjustment should be for the pool on a pool-wide basis?

A. No. Our position primarily is, as I stated, to present information to the Commission so that they can undertake to determine what an appropriate allowable would be.

Q. Has Chevron been discussing what an appropriate allowable rate might be for this pool?

A. Yes. In-house we've discussed rates from approximately 6,100 Mcf a day up to 6,400 Mcf a day.

Q. But you're not making any particular recommendation?

A. Not at this time.

Q. You were present when Marathon made its presentation here this afternoon, were you not?

A. Yes.

Q. You heard the adjustments that they were recommending to the proposed allowable for this pool?

A. Yes.

Q. Does Chevron have any objection to the allowable limits that are being proposed here today by Marathon?

A. No.

Q. Will Chevron also be calling a witness to testify as to market trends from the Indian Basin-Upper Penn pool?

A. Yes, we will.

Q. Were Exhibits 1 through 6 prepared by you?

A. Yes.

MR. CARR: At this time, Mr. LeMay, we would move the admission of Chevron Exhibits 1 through 6.

CHAIRMAN LEMAY: Without objection,

Exhibits 1 through 6 will be admitted into the record.

MR. CARR: That concludes my direct examination of Mr. Huzzey.

CHAIRMAN LEMAY: Questions of the witness?

MR. KELLAHIN: No questions, Mr. Chairman.

CHAIRMAN LEMAY: Commissioner Carlson?

EXAMINATION

BY COMMISSIONER CARLSON:

Q. How do I reconcile your Exhibit No. 1 with Marathon's Exhibit No. 3? Do you have that exhibit in front of you?

A. Yes. Marathon's exhibit is based on the working interest production, whereas mine is based on gross operator production.

Q. Would yours include those two wells that you don't own a working interest in?

A. Yes, it does.

Q. I assume that's the main difference, then?

A. That, plus Marathon and Oryx both have working interests in other wells in our area.

Q. If I want to look at marketed share of

production, I would look at Marathon's exhibit and not yours?

A. Yes. However, if you look at Marathon's percent share, it's based on October through December. We had a tremendous amount of well work done in December, so our production was down.

At this time, the incremental production that I mentioned of approximately 15,000 Mcf per day, that graphic does not illustrate that incremental production or Chevron's share of that incremental production.

COMMISSIONER CARLSON: I see. Thank you. That's all I have.

CHAIRMAN LEMAY: Commissioner Weiss?

EXAMINATION

BY COMMISSIONER WEISS:

Q. Did I understand you to say that you feel, as a result of your workover program, that your correlative rights are not protected?

A. Yes. And as with Oryx, we still have some additional work we are going to perform in this field.

COMMISSIONER WEISS: No other questions. Thank you.

CHAIRMAN LEMAY: No questions. Thank you very much. Additional questions, Mr. Carr?

MR. CARR: No.

CHAIRMAN LEMAY: The witness may be excused.

MR. CARR: I would like to call Robert Green.

**ROBERT E. GREEN**

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

EXAMINATION

BY MR. CARR:

Q. Mr. Green, would you state your full name for the record?

A. My name is Robert E. Green.

Q. Where do you reside?

A. I reside in Midland, Texas.

Q. By whom are you employed?

A. I work for Chevron, U.S.A., Incorporated, as a natural gas coordinator.

Q. Have you previously testified before this Commission?

A. No, I have not.

Q. Would you briefly summarize your educational background and then review your work

experience?

A. Yes. I graduated in December of 1973 from Texas Tech University with a bachelor of science in petroleum engineering. After going to work for Gulf Oil in Hobbs, New Mexico, I was called in to active duty with the Air Force, and returned from the Air Force in 1981.

I reinstated my employment with Gulf, which became Chevron, in the Permian Basin and I've spent the the past 12 years in the Permian Basin in various natural gas-related jobs.

Q. How long have your duties with Chevron included a responsibility for marketing Chevron's natural gas?

A. In various capacities and involvement, I've spent the past seven years in marketing of the natural gas.

Q. And what is your current position?

A. My current position is natural gas coordinator in the Permian Basin and, as such, I and my staff coordinate the availability of gas, communicate that with our marketing group in our gas sales and transportation.

We dispatch the gas into the pipeline, and we, additionally, perform contract

administration, measurement analyses, market analyses and regulatory affairs. Additionally, I monitor and provide input on legislative actions affecting natural gas in the state of New Mexico.

Q. Are you familiar with Chevron's efforts to market gas from the Indian Basin-Upper Penn pool?

A. Yes, I am.

Q. Are you also a registered petroleum engineer?

A. Yes. I'm a registered petroleum engineer in the state of Texas.

MR. CARR: May it please the Commission, we would tender Mr. Green as an expert witness in petroleum engineering and gas marketing matters.

CHAIRMAN LEMAY: His qualifications are acceptable.

Q. What is the purpose of your testimony here today?

A. The purpose of my testimony today is to report to the Commission on Chevron's reorientation of marketing New Mexico gas, and Chevron's position in New Mexico.

Q. How much natural gas does Chevron

actually produce and sell from this state?

A. The Chevron Production Company sells 77,000 Mcf a day from New Mexico.

Q. How much of this production comes from the Indian Basin-Upper Penn?

A. Currently, we are selling 31,000 Mcf a day from the tailgate of the Indian Basin plant.

Q. What percent of Chevron's total New Mexico production does this actually represent?

A. This represents 40 percent of Chevron's production in the state of New Mexico.

Q. How much natural gas is Chevron actually selling nationally?

A. Chevron spot-markets a Bcf a day of gas.

Q. How much of that is from New Mexico?

A. From New Mexico, from the production company, we have about eight percent of that. With our affiliate, Warren Petroleum, we're in excess of 12 percent of the spot-marketed gas.

Q. How much of your total national gas spot-market sales comes from the Indian Basin-Upper Penn pool?

A. Three percent of the gas that we spot-market nationally comes from the Indian

Basin-Upper Penn pool.

Q. Could you review for the Commission the changes in your marketing arrangements which have occurred during the last year for gas from the Indian Basin-Upper Penn pool?

A. Yes. I would like to start with February of last year. We've seen a 180-degree turn in the way that we deal with it. At this time last year, Chevron was marketing all of its gas from the Indian Basin pool in the California market area. Today, we have negotiated and contracted various transportation options to move and sell our gas east of California.

We currently have contract areas in the Texas Gulf Coast, East Texas, the Louisiana Gulf Coast, the Waha hub, the Midwest United States, and we're working on future opportunities to move our gas internationally into Mexico.

Currently, we're marketing most of the Indian Basin gas in the Chicago area.

Q. How does Chevron currently view the natural gas industry and natural gas markets?

A. Chevron's current view towards natural gas is, we're bullish on gas. Due to the FERC Order 636 and other events, there has been

significant confusion in the industry in the past few months. This has caused a shift to lower the natural gas in storage, and by adding to the late winter cold snap, we're seeing a shortage of natural gas in storage in the industry.

Q. How does your company view the current supply/demand situation?

A. Currently, we believe that the industry is in a relative supply/demand balance and we anticipate the supply/demand balance to remain virtually level throughout the summer season.

Q. Why do you think it's going to remain stable?

A. We anticipate that if the price is softened during the summer season that the industry will take advantage of this to fill storage and, therefore, maintaining the supply side of it and maintaining the prices. So we should see a fairly stable price and supply during the summer cycle.

Q. How do you think the prices currently being received for natural gas will compare to prices received later during calendar year 1993?

A. Based on the current situation of the winter and the New York Mercantile Exchange,

Chevron, U.S.A. believes the industry has probably seen the lowest prices for 1993.

Q. Do you have anything further to add to your testimony?

A. No, I don't.

MR. CARR: That concludes my direct examination of Mr. Green.

CHAIRMAN LEMAY: Thank you, Mr. Carr.

Questions of the witness? Mr. Kellahin?

EXAMINATION

BY MR. KELLAHIN:

Q. Mr. Green, let me ask you a few follow-up questions. The current allowable level for the Indian Basin is such that, I believe your engineer testified, you're producing in excess of that allowable on certain of your nonmarginal wells.

Do you continue to enjoy a market demand that will allow you to produce the winter allowable, if that is established for this coming summer period?

A. Could you rephrase that question, sir?

Q. I'll repeat it. What is the market demand that you forecast at the Marathon

allowable level for the summer period?

A. I think it would be easier if I were to state that Chevron's marketing intentions and Chevron's production intentions can be easily met with the current conditions.

Q. "Current conditions" meaning, the allowable level that we now have in Indian Basin in the winter period? That's 196,500 Mcf for an F1 factor.

A. That's correct.

Q. If we keep that in place for the summer period, are you going to be able to market and sell that gas that you would produce under that schedule?

A. Chevron will be able to market and sell its gas through the entire spread of the proposed allowables that we've seen here, from both the OCD, and from what we have discussed, and from what Marathon has discussed. None of those proposals would inhibit our ability to market and sell the gas.

Q. Would it give you more allowable than you can produce from your nonmarginal wells? Let me phrase that again. I've confused you.

Would the allowable be in excess of the

market demand for your share of production, if it's set at the Marathon proposed level?

A. Would the allowable be in excess of our market demand?

Q. Right.

A. I'm not sure I understand your question.

Q. I don't know how to make it clearer for you, but I'll try again. You're currently selling gas in excess of the current allowable for the winter period?

A. That's correct.

Q. You must have a market demand for gas in excess of the current allowable?

A. That's correct.

Q. Do you forecast that to change for the summer?

A. No.

Q. Do you see any seasonal cycle you ought to factor in, when we establish allowables for the summer?

A. We, through our marketing efforts have, essentially, eliminated seasonal cycles.

MR. KELLAHIN: Thank you.

CHAIRMAN LEMAY: Additional questions

of the witness?

COMMISSIONER CARLSON: No questions.

COMMISSIONER WEISS: No questions.

CHAIRMAN LEMAY: No questions. Thank you very much.

Do we have any more witnesses? Any statements for any of the fields in the southeast? Anything additional?

Thank you. We'll take the case under advisement.

We'll take about a 10-minute break and get ready for the next case.

(And the proceedings concluded.)

CERTIFICATE OF REPORTER

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

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

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

WITNESS MY HAND AND SEAL March 10, 1993.

Carla Diane Rodriguez

CARLA DIANE RODRIGUEZ, RPR
CCR No. 4

NEW MEXICO OIL CONSERVATION COMMISSION

COMMISSION HEARING

SANTA FE, NEW MEXICO

Hearing Date FEBRUARY 25, 1993 Time: 9:00 A.M.

| NAME | REPRESENTING | LOCATION |
|---|---|---|
| [illegible] | [illegible] | Santa Fe |
| [illegible] | Campbell, Carr, Berge & Sheridan | Santa Fe |
| Brian Huzzey | Chevron USA | Midland |
| Robert Green | Chevron USA | Midland |
| Alan Bohling | Chevron U.S.A. | Midland |
| [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] |
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| [illegible] | [illegible] | [illegible] |
| Rick Hall | Oxy Energy | Dallas |
| Bill Hawkins | Amoco | Denver |
| James Bruce | Hinkle Law Firm | Santa Fe |
| Craig Van Horn | Unocal | Farmington |
| Bill Duncan | Exxon | Midland |
| Victor Lyon | Consultant | Santa Fe |
| Jim FRASER | Meridian | Farmington |
| Kirk Crist | Phillips | Farmington |

NEW MEXICO OIL CONSERVATION COMMISSION

COMMISSION HEARING

SANTA FE, NEW MEXICO

Hearing Date FEBRUARY 25, 1993 Time: 9:00 A.M.

| NAME | REPRESENTING | LOCATION |
|---|---|---|
| Michael Pierce | C+C Consultants Inc | Hobbs |
| Eddie W. Seay | " " " | Hobbs |
| MARK E. ELLIS | MERIDIAN OIL | FARMINGTON |
| Arden L. Walker, Jr. | Meridian Oil | Farmington |
| Mike Larmier | Phillips Pet. | " |
| Bill Olson | NMOCD | Santa Fe |
| Kathy Brown | NMOCD | Santa Fe |