

BEFORE THE
OIL CONSERVATION COMMISSION

Santa Fe, New Mexico
September 14, 1953

In the Matter of:

The application of the Oil Conservation Commission upon its own motion for an order establishing pool rules for the Jalco gas pool, Lea County, New Mexico, said rules being concerned with well spacing, gas proration and allocation, proration units, pool delineation and other related matters insofar as they pertain to the general rules for gas proration as set forth in Order R-356 in Case 521,

Cases Nos.

582,

The application of the Oil Conservation Commission upon its own motion for an order establishing pool rules for the Langmat gas pool, Lea County, New Mexico said rules being concerned with well spacing, gas proration and allocation, proration units, pool delineation and other related matters insofar as they pertain to the general rules for gas proration as set forth in Order R-356 in Case 521,

583,

The application of the Oil Conservation Commission upon its own motion for an order establishing pool rules for the Eumont gas pool, Lea County, New Mexico said rules being concerned with well spacing, gas proration and allocation, proration units, pool delineation and other related matters insofar as they pertain to the general rules for gas proration as set forth in Order R-356 in Case 521,

584,

The application of the Oil Conservation Commission upon its own motion for an order establishing pool rules for the Arrow gas pool, Lea County, New Mexico said rules being concerned with well

585,

spacing, gas proration and allocation, proration units, pool delineation and other related matters insofar as they pertain to the general rules for gas proration as set forth in Order R-356 in Case 521,)

The application of the Oil Conservation Commission upon its own motion for an order establishing pool rules for the Blinebry gas pool, Lea County, New Mexico said rules being concerned with well spacing, gas proration and allocation, proration units, pool delineation and other related matters insofar as they pertain to the general rules for gas proration as set forth in Order R-356 in Case 521,)

586,

The application of the Oil Conservation Commission upon its own motion for an order establishing pool rules for the Tubb gas pool, Lea County, New Mexico said rules being concerned with well spacing, gas proration and allocation, proration units, pool delineation and other related matters insofar as they pertain to the general rules for gas proration as set forth in Order R-356 in Case 521,)

587,

The application of the Oil Conservation Commission upon its own motion for an order establishing pool rules for the Amanda gas pool, Lea County, New Mexico said rules being concerned with well spacing, gas proration and allocation, proration units, pool delineation and other related matters insofar as they pertain to the general rules for gas proration as set forth in Order R-356 in Case 521,)

588,

The application of the Oil Conservation Commission upon its own motion for an order establishing pool rules for the Justis gas pool, Lea County, New Mexico said rules being concerned with well spacing, gas proration and allocation, proration units, pool delineation and other related matters insofar as they pertain to the general rules for gas proration as set forth in Order R-356 in Case 521,)

589,

The application of the Oil Conservation Commission upon its own motion for an order establishing pool rules for the Byers-Queen gas pool, Lea County, New Mexico said rules being concerned with well spacing, gas proration and allocation, proration units, pool delineation and other related matters insofar as they pertain to the general rules for gas proration as set forth in Order R-356 in Case 521.) and 590 (Consolidated)

TRANSCRIPT OF HEARING

(Notice of Publication read by Mr. Graham)

MR. STAHL: My name is Stahl, representing Permian Basin Pipeline Company. In behalf of the Permian Basin Pipeline Company, I would like to move that the cases be continued until the October hearing for this very good reason. I believe that we just got our notice that these cases were set about a week ago and we just haven't had enough time. If this motion is not granted, I would like to have an opportunity to make a further proposal.

MR. SPURRIER: Anyone else? Mr. Bickel.

MR. BICKEL. C. E. Bickel with Shell Oil Company. With respect to the field in Cases 582, 583, 584, 586, 588 and 590, I would like to read for the record, the following:

Shell Oil Company is in general accord with the gas rules as proposed, except for one feature thereof.

We wish to direct attention to Rule 5, Proration Units, in connection with Rule 8 under Gas allocation.

Rule 5 establishes a standard gas proration unit of 158 to 162 contiguous surface acres.

Rule 8 provides, however, that more than one standard pro-
ration unit may be assigned to a gas well provided not more
than 640 acres are so assigned, and provided the other require-
ments of the Section are met.

As written, the rule would apparently leave to the dis-
cretion of the operator whether such additional acreage should
be assigned to a well. Also, as written, there is no require-
ment that the well to which additional acreage is assigned
should be shown to be capable of draining such additional
acreage.

We feel that this rule could result in grave inequities.
An operator with a single 160- acre tract could be offset or
surrounded by one or more single ownership units of 640 acres.
Such operator would have a single unit allowable. The offset
operators, on the other hand, could each assign four standard
units to their wells, and could each obtain a proportionably
increased allowable, and could do this even without a showing
that their wells would drain the acreage assigned to such
wells.

It is our thought that it would be better to stay with a
standard size unit for allowable purposes, unless, after a
hearing, the Commission permits the assigning of additional
acreage and allowable because of the circumstances existing
in the particular case. We realize that there may be conditions
under which additional acreage should be assigned to a well
or wells, but feel that it should be permitted only after hear-
ing, and not solely at the discretion of an operator. As to

the size of the standard unit in this field, in view of the fact that the field has been developed to date on 160 acre spacing, we feel that 160 acres should constitute the standard unit therein.

MR. SPURRIER: Anyone else? Mr. Davis.

MR. DAVIS: Quilman Davis, representing Southern Union Gas Company. First, we would like to concur with Mr. Stahl's motion to have these consolidated cases continued until the October hearing. We have found several inconsistent provisions in these rules in addition to the ones submitted by Shell and we feel that additional time should be given before the Commission voiced any objections or any suggested changes and after more time than a thirty or forty minute hearing.

MR. SPURRIER: Anyone else? Judge Foster.

JUDGE FOSTER: E. H. Foster, representing Phillips Petroleum Company. We don't feel that any real purpose can be accomplished by continuing these cases. It is our thought in the matter that the only way to start prorating is to just start.

We have given a good deal of thought to this matter I believe, in the Advisory Committee. We have come up with some rules that are imperfect of course, but, the only way I know to really get something accomplished is to put these rules into effect and then with respect to each particular field, let those that are interested in that field come in and demonstrate to the Commission wherein they feel that the rule should be changed and modified.

Now, the Shell, I think, has made a suggestion here that has

a good deal of merit. We realize, I think all of us on the Advisory Committee that the establishment of the unit the way that it is proposed might work some hardship in some fields. Of course it is perfectly obvious to me that you don't want to establish 160 acre standard proration units in any field when a well will efficiently and economically drain a greater area but, we could spend a month here trying to determine what the drainage area of a well is, in any particular area and by losing a lot of valuable time and I've always observed that we can see a lot further out of the back of a wagon than we can out of the front of it because all you do there is just see where you've been instead of finding out where you're going. (Laughter)

Now, if you want to get proration started, why you've got to put in some set of rules and then you will have something to shoot at and it will be my suggestion to the Commission, for whatever it may be worth, based on what little experience I've had in gas proration matters that you just put these rules into effect and if they don't work or if the operators in the particular field can come in and demonstrate what they want, and there will be instances where they will do just that, why, then you can change them or modify them to suit the particular circumstances in that field. But, if you try and work out a perfect set of rules here for these different fields, it will be a year or two before you get any proration started in any of these fields.

MR. SPURRIER: We have two motions before the Commission now.

Mr. Campbell.

MR. CAMPBELL: Jack M. Campbell, Roswell, New Mexico. I would like to make a statement in behalf of Texas Pacific Coal and Oil Company.

It is our feeling that the Commission, in adopting the rules which they adopted in a standby capacity, acted properly and that the orderly way to proceed is to hold pool hearings to determine whether proration is required in each gas pool. It may be that the statute is wrong in that regard but we feel that that is what the statute requires the Commission to do. We feel that there has not been ample time with regard to particular fields and that the Commission must know that we cannot possibly put field rules in effect in nine (9) gas pools in New Mexico upon a hearing lasting a few minutes.

We feel that in the interest of orderly procedure however, the Commission should and may have in mind some method of procedure by which the pools can be brought up for hearing at an early date in order that the necessary evidence can be obtained and offered by the interested parties.

We still maintain that gas proration can be put into effect in New Mexico only by pool and that the Commission must find that there is a gas pool and properly define it. They must find that proration is necessary in that gas pool and they then must adopt rules, either the standby rules that they have in effect now, or special rules for that pool.

We join in the motion for continuance of these cases with the idea in mind that there will be individual gas pool hear-

ings to establish proration where it is considered by the Commission necessary.

MR. SPURRIER: Anyone else? Mr. Hinkle.

MR. HINKLE: Clarence Hinkle, representing Humble Oil and Refining Company. The Humble would like to endorse the statements made by Mr. Foster in behalf of Phillips Petroleum Company. Humble feels, as Phillips, that it is going to take considerable time to put proration into effect in these pools if we go ahead and have a long hearing for the adoption of the field rules in each of these pools.

We believe that proration can be put into effect successfully by the use of the general rules which have been adopted by the Commission. Practically, we do not believe that a good and equitable set of special rules can be adopted until you have a proration schedule and until you have some field experience. There may be some rule that could be adopted by you cannot adopt a full set of rules unless you have some experience in connection with the field.

We believe that the Commission should go ahead and take necessary steps at the present time to call for the plats that are necessary and to call for nominations at the earliest possible time.

MR. SPURRIER: Any one else? Mr. Hiltz.

MR. HILTZ: R. G. Hiltz for Stanolind. I would just like to state that we feel that the rules that were adopted by the Commission on the recommendation of the industry Advisory Committee are based on sound principles and experience in other

areas.

We believe that they are workable and equitable and we believe that they should be adopted however, we have no objection to the cases being continued to get additional information on the fields, on individual fields.

MR. SPURRIER: Anyone else? Mr. Halloway.

MR. HALLOWAY: Halloway for Tidewater Associated Oil Company. We would like to concur in the statement made by Mr. Hinkle. I'd also like to ask a question in behalf of myself.

With reference to the proration unit which states that it shall be in substantially the form of a square, which will be a legal subdivision quarter section of U. S. Public Land Survey. I talked to some that sat in on these committees or sub-committees and find that they were of the opinion that if you had 160 acres whether it was a quarter section or not, provided it was contiguous, would make a proration unit. I want to get that clear, I want to know how to file these plats.

MR. SPURRIER. Well, the general rules states Mr. Halloway, that it shall be in the form of a square for substantially a quarter section.

MR. HALLOWAY: Rule 104, is that right?

MR. SPURRIER: That's right.

MR. HALLOWAY: Now, what is going to happen if you deviate from that, that's what I want to know?

MR. MACEY: Every neighbor that you have will have to do the same thing.

MR. HALLOWAY: Well, that brings this question then. Is the Commission prepared to force units. We have an instance

or two where we have invited our neighbors in and they didn't want to join. Where does that leave us, or our neighbors, or the Commission?

MR. MACEY: Well, it's a drilling block. I believe we have forced them in the past and I believe if you ask for it, we will try again.

The reason that rule was drawn as it is, there are some here who remember - 1949 -, was because an irregular tract immediately creates several more irregular tracts and to keep it under control we feel that it should remain in the form of a square.

MR. HALLOWAY: That's a very neat way to handle it. It's going to bring a lot of problems about. I asked the question a few months ago at a hearing, as to what was going to happen to a great number of wells, gas wells, that have previously been completed on 40, 80 or 120 acres and I was, I believe Mr. Macey, advised that they'd just be forced to reduce to acreage they had. But, there is no provision made to take care of similar circumstances in the future.

MR. MACEY: Mr. Halloway, the rule that you are quoting says that a standard proration unit, this is in the absence of special rules for the pool, a standard unit is a legal quarter section. It also provides for an exception to that by getting waivers from offsets for other than the acreage conforming to a legal quarter section. In fact it provides that you can get

it approved without going to a hearing by getting waivers from the offset operators. If you don't get the waivers, you can come up for a hearing. I frankly think that the Commission has to insist on standard acreage basis and make that the rule and allow for the exception to be approved proportionately.

MR. HALLOWAY: My question was only to guide me as I stated, Because I am going to be called upon to tell someone to form these plats that we must submit and I didn't want to file plats that wouldn't be acceptable to the Commission and if we have contiguous acreage we think is productive and they just don't want to join of course, we won't get the benefit of that acreage and that was the reason for my question.

MR. MACEY: I think basically that if you've got 160 acres in the northeast quarter or southwest quarter of the section that you've got a standard unit. If you've got four contiguous lots of 40 acre tracts then you can get an exception provided you get approval from your offset operators or after a hearing. It further provides that you can form abnormal units greater than standard units. It's an automatic procedure in here but I believe it probably ought to be after notice and hearing specifically.

MR. HALLOWAY: There's a great many cases in our company. In fact in a case we just had - we have 400 acres. We own the E/2 of Section 24 and additional 80 acres all contiguous. From the time we drilled our well we invited our neighbors to join us and they were interested, and I just wondered how to

file a plat in a case like that.

MR. MACEY: You can get relief from that by simply making application to the Commission for approval.

MR. SPURRIER: Anyone else. Mr. Howell.

MR. HOWELL: I am Ben Howell, representing El Paso Natural Gas. There are a number of pools that are mentioned here that I am informed we don't have any connection with and of course not interested in so we are not speaking as to those. There are some pools on which we don't think proration should be imposed at this time. There is one pool that I am informed has four wells as listed here. We see no good purpose for imposing proration rules on that pool and we think that as to each pool that the field around each pool should be developed and a determination made pool by pool.

MR. SPURRIER: Anyone else? Mr. Dipple.

MR. DIPPLE: I am Harry Dipple representing Continental Oil Company. We want to concur entirely in everything that Judge Foster said in behalf of Phillips and in what Mr. Hinkle said in behalf of Humble and urge the Commission to put these proration rules into effect at the earliest possible time.

MR. SPURRIER: Anyone else? Mr. Christie.

MR. CHRISTIE: R. S. Christie, representing Amerada Petroleum Corporation. We just want to concur on what Judge Foster has said and the Humble representative and some of the others and further suggest that the Commission enlist the help of the New Mexico Oil and Gas Engineering Committee to help formulate

these different pool rules.

MR. SPURRIER: Anyone else? If there is no one else to be heard, we will take the case under advisement and we'll recess to hear the rest of the cases at 9 o'clock in the morning.

(RECESS)

I, Virginia M. Chavez, hereby certify that the above and foregoing transcript of proceedings in Cases 582 through 590, inclusive, Consolidated, taken before the Oil Conservation Commission on September 17, 1953, at Santa Fe, New Mexico, is true and correct to the best of my knowledge, skill and ability.

Dated at Santa Fe, New Mexico, this 19th day of October, 1953.

(signed) Virginia M. Chavez
Notary and Reporter

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

CASE 521: (Consolidated with Case 245) These two cases concerning the denomination of gas pools in SE New Mexico and proration of natural gas in the area have been under study by an industry advisory committee.

TRANSCRIPT OF HEARING

August 20, 1953

BEFORE: Honorable Ed. L. Mechem, Governor
Honorable E. S. Walker, Land Commissioner
Honorable R. R. Spurrier, Director, OCC

STATE OF NEW MEXICO)ss.
COUNTY OF LOS ALAMOS)

I hereby certify that the within transcript of proceedings before the Oil Conservation Commission is a true record of the same to the best of my knowledge, skill and ability.

TRANSCRIBED at Los Alamos, New Mexico this 26th day of August, 1953.

(signed) Audrey M. Henrickson
Audrey M. Henrickson
Notary Public

(S E A L)

My commission expires September 22, 1955.

NEW MEXICO OIL CONSERVATION COMMISSION

Regular Hearing

9:00 a.m., August 20, 1953

MR. HILL: A. L. Hill of the El Paso Natural Gas Company and I have acted as chairman of the committee appointed by the Commission in Case 521 to develop recommendations concerning gas proration in the southeastern part of the State. The recommendations of the committee were formerly presented to the Commission at last month's hearing and a meeting of the committee was held in this room yesterday afternoon for the purpose of fully discussing with all interested parties the recommendations of the committee.

We were somewhat surprised that there were not more participants in the discussion but very well pleased at the same time.

Before the Commission entertains any full discussion of these recommendations, if it please the Commission, certain of the pipeline companies interested in operating in the area would like to present certain testimony of the general nature, in order to enlighten all those concerned that may not have the full picture of the operations of the gas pipeline companies in the area. It would give them some further idea of the problems and the magnitude of the operations of the pipeline companies in the southeastern part of New Mexico as well as the entire Permian Basin.

So if it please the Commission, we will proceed in that manner.

MR. HOWELL: My name is Ben Howell, representing the El Paso Natural Gas Company. If the Commission has no objection, I would like to call as witnesses Mr. Baulch and Mr. Steen.

J. W. BAULCH, JR.

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. HOWELL:

Q. What is your name, please?

A. J. W. Baulch, Jr.

Q. What position do you hold with El Paso Natural Gas Company?

A. I'm the supervisor in the gas dispatching for El Paso Natural.

Q. Where are you stationed?

A. At Jal, New Mexico.

Q. About how long has you held that position?

A. I've held this one position for approximately 7 years.

Q. What are the duties of your position to determine the amount that will be taken from the gas pools in the southeastern portion of New Mexico and determine the demand upon those gas pools?

A. That's right.

Q. Insofar as El Paso Natural Gas Company is concerned?

A. That is correct.

Q. I hand you an exhibit which we have marked as El Paso Natural Gas Company Exhibit No. 1 and ask you to state to the Commission what that exhibit shows.

A. Now the colored lines that you see here that represents the boundaries of the pools that are designated by the Commission. In addition to that, we have other pools like the Jalco, the Justice and the Blineberry pool, there are recommended changes in the boundaries of these various pools by recommendations made by the advisory committee to the Commission in Case 521.

Q. If I understand you then, this exhibit 1 is a plat which shows all of the gas pools in southeastern New Mexico that are presently designated by the Commission. That is shown in solid lines and then in broken lines, such new pools and such additions to the pools as are contained in the recommendations of this committee which have been filed with the Commission.

A. That is right.

Q. That is correct. Now, let's pass to the separate pools. We have here in the northern or south part of exhibit 1, a pool. What is that pool?

A. That is the Byers-Queen pool.

Q. What are the characteristics of that pool as to the depth, the quality of gas - the character of gas produced from the pool and the connection by which gas is taken from that pool?

A. Well, as far as the characteristics of the well is concerned, I don't feel qualified to answer. There are two wells in this pool that are used for gas lift purposes and there are three operating companies involved.

Q. Now, I might ask you what you used as a basis for the data that you put on this plat as to the well connections in this pool?

A. That was taken from the Engineer's Committee Report.

Q. As of what date is this number of wells shown?

A. December 31st, 1952.

Q. All right. Then as of that time in this Byers-Queen pool there were three wells that had connections with three companies that were using the gas for gas lift.

A. That is true.

Q. Now, let us pass to the next pool. What is it?

A. That is the Monument-McKee Pool.

Q. All right. What can you tell us about the depth and the character of gas produced from that pool?

A. Well, I don't feel qualified to answer that because El Paso doesn't have any wells in that pool.

Q. Now, what connections are there in that pool?

A. We have one well being used for gas lift purposes.

Q. All right. Let's pass next to the next pool here. What pool is that?

A. That is the Eumont pool.

Q. Now what -- about what depth is the Eumont pool?

A. I'm not too familiar with the geology, but I believe it is around 3200 to 3400 feet.

Q. And from what formation?

A. From the Yates and Queen formations. It is designated as top of the yates to point 200 feet below top of Queen.

Q. That is the designation presently made by the Commission?

A. That is right.

Q. Now, then, what is the character of the gas - whether it is sweet or sour in the Eumont pool?

A. Well, the biggest portion of gas for El Paso that is taken from that pool is sour gas.

Q. Now what well connections are there in the Eumont pool? What gas is being taken?

A. Well, for gas lift purposes, there are nineteen wells being used for gas lift purposes and there are seven companies involved. Phillips Petroleum Company is taking gas from nine wells; Warren Petroleum Company is taking gas from seven wells; Southern Union Gas Company is taking gas from seventeen wells; and El Paso Natural Gas Company is taking gas from ten wells.

Q. That is, as of the date of December 31, 1952?

A. That's right.

Q. Now let us pass to the next pool here. Which is the next pool?

A. We come down there to the Blinebry pool.

Q. What formation is that producing from?

A. That is what is called the Blinebry formation.

Q. At approximately what depth?

A. Approximately 5800 feet.

Q. Now, is that gas sweet or sour?

A. It is mainly sweet gas.

Q. And what wells are connected in that pool?

A. In the Blinebry, the El Paso Natural Gas Company is taking gas from fourteen wells in the Blinebry pool.

Q. Is there any other company taking gas from that pool?

A. No. Not as of December, 1952.

Q. Now what other pool is there in that locality?

A. We have the Tubb pool.

Q. And in what formation is it producing?

A. From the top of the Tubb to a point 225 feet below the top of the Tubb.

Q. At approximately what depth?

A. At approximately 6100 to 6200 feet.

Q. Now as to the gas from the Tubb's pool, is that sweet or sour?

A. It is mainly sweet gas.

Q. And what connections are there into the Tubb's pool?

A. Well, for gas lift purposes there are five wells with two companies involved, and El Paso Natural Gas Company is connected to eight wells and that was the disposition in the Tubb's Pool as of December 31, 1952.

Q. Now is there another pool in that general area?

A. The Arrow Pool.

Q. And what is the formation from which that is producing?

A. Top of the Yates to a point 200 feet below top of the Queen.

Q. Now any other pool - - -

A. We have three wells being used in the Arrow Pool for gas lift purposes and two companies are involved.

Q. And as of December 31, 1952, those were the only wells connected in that pool?

A. Yes.

Q. Now are there any other pools in that area?

A. Well, you go on down to the Jalco and the Amanda pool.

Q. How many well connections are there in the Amanda pool?

A. There is one well being used for gas lift purposes.

Q. Do you know the characteristics of that pool?

A. No, sir. I don't.

Q. Now, let's pass over to the pool to the west there. I believe the Langmat is the next one.

A. Yes.

Q. From what formation is this well producing?

A. To Yates to a point 100 feet above base of the S.R.

Q. And what character of gas is it producing - is it sweet or sour?

A. A part of the pool is producing sweet gas and in the southern part of the pool, there is sour gas. There is sweet and sour.

Q. And about what - - - -

A. There is mainly sweet gas in the whole pool.

Q. And about what depth is this well producing?

A. That ranges from about 3000 feet to 3200 feet.

Q. Now what well connections are there in that pool?

A. For gas lift purposes, there are six wells in the area and four companies involved. Southern Union Gas Company is connected to six wells and El Paso Natural Gas Company is connected to 155 wells.

Q. Now, with reference to the Jalco pool, what formation, depth and character of gas is found in that pool?

A. That is from the top of the Yates to a point 100 feet above the base of the S. R. The gas in the Jalco pool is mainly sour gas and it is producing from a depth of approximately 3000 feet to 3100 or 3200 feet.

Q. Now what connections are there in that pool?

A. For gas lift purposes there are ten wells being used with four companies involved. United Production Company is connected to six wells; Phillips Petroleum is connected to three wells; and El Paso Natural Gas Company is connected to 82 wells.

Q. Are there any other pools that are now designated or projected?

A. There is the Justis pool which is producing from 200 feet below the Glorietta Datum.

Q. At approximately what depth is this?

A. I believe that's around 5400 to 5600 feet.

Q. And what is the character of gas? Is it sweet or sour?

A. The area is mostly sour gas.

Q. And what connections were there on December 31, 1952 as to that pool?

A. El Paso Natural Gas Company is connected to four wells.

Q. Is there a difference between these various pools as to the extent of the depletion that is taking place in each pool?

A. Definitely so. Take the Langmat pool and the Jalco pool -- the southern portion of the pools are at a low level and your depletion has - - is beginning to show in these two pools, reasonably fast.

Q. Does the El Paso Natural Gas Company have a service project located in one of those pools?

A. In the southern half of the Jalco Pool.

Q. Is that known as the Rhodes area?

A. That is the Rhodes Unit area.

Q. And that is used for area for surface gas from time to time and withdrawn at other times?

A. Yes.

Q. Now, Mr. Baulch, in connection with the operations of El Paso Natural Gas Company, I hand you a graph which is marked El Paso Natural Gas Company's Exhibit No. 2. Will you tell us what that graph or chart represents?

A. This chart represents the gas purchased by El Paso Natural Gas from the Permian Basin Area.

The black lines show the total gas purchased by months by El Paso. The top of the red represents the total amount of dry gas produced from the Lea County area and the top of the blue represents the total gas produced from what we consider marginal wells throughout the area.

(Pause. Exhibit No. 2 was attached to bulletin board)

Q. Mr. Baulch, do you have exhibit 3 that reflects the total figures?

A. Yes, I am placing it on the board.

Q. Now, as I understand the graph which has been presented for the year 1952 shows the purchases by El Paso Natural Gas Company in the Permian Basin area? Is that correct?

A. Correct.

Q. Now the black as shown on the chart represents the residue gas which is purchased. Is that correct?

A. That is correct.

Q. Now what proportion of that residue comes from Lea County - - produced from Lea County?

A. Well, during the month of January, 1952, the total amount of gas was a little bit less than 31 billion.

VOICE: I didn't get that.

A. For January, 1952, the total amount of gas, both residue and dry gas - - -

Q. Just a minute, do you mean produced or purchased?

A. Purchased. Was a little below 31 billion cubic feet of gas. Now there was 42 billion, approximately, of residue gas produced ah, purchased and out of that 42 billion residue gas, there was about 48.45 per cent of that was residue gas found in New Mexico.

Q. Now what was the - - - -

A. I beg your pardon. That percentage was 36.42.

Q. Now does that table, marked Exhibit 3, does that represent the percentages month by month of the residue gas which was purchased in Lea County?

A. That's right.

Q. Now what does it vary - what do those purchases vary from the top percentage to the bottom percentage without taking up so much time in going into each one of them?

A. In New Mexico, residue gas varies from approximately 31 per cent to 39 per cent, or $39\frac{1}{2}$ per cent, of the total gas purchased.

A. Now, Mr. Baulch, the red as shown on the graph represents the purchases of dry gas from the pools in Lea County, is that correct?

A. That is correct.

Q. Now, there's considerable fluctuation as shown on that chart as to quantities purchased. For example, the month of May, the purchases of dry gas have increased while purchases of residue have gone down. Can you give the reason for that?

A. Yes. In May, 1952 that's when the oil strike occurred and as a result we had to take more dry gas.

Q. Now, in general, your purchases of dry gas fluctuate from month to month with respect to the quantities of residue which may be available either from Lea County or from the Permian Basin?

A. That is correct.

Q. And I notice at the bottom of the graph there, that the total production - - that the total purchases have increased.

Is that due to new facilities being installed and new plants being put on the system?

A. That's true. Also during the winter months our purchases increase.

Q. Your market conditions then determine what your purchases will have to be?

A. That is correct.

Q. And the market fluctuates with market conditions?

A. That is correct.

Q. Well, Mr. Baulch, I will hand you a graph marked El Paso Natural Gas Company's Exhibit 4. Does this graph represent the purchases made day by day for different months during the year 1952?

A. That is correct.

Q. The months shown on there are February, July, October and December. Is that right?

A. That is correct.

Q. Now, I notice that there is quite a dip there in July. Can you account for that?

A. Well, the big dip that you see is the decrease in pipe line purchases over the week-end of July 4th, 1952. That is due to industrial plants shutting down.

Q. So that these dips occur when the plants shut down for long week-ends and then immediately your demand changes?

A. That is correct.

Q. And as shown by month to month, you have a week-end

dip almost every week-end?

A. That is correct. On week-ends, the big industrial plants as well as the California companies shut back during these days of the month.

Q. So that you have a constantly fluctuating market demand for the gas that is being delivered in New Mexico, Arizona and California?

A. That is correct.

Q. And one of your sources of supply, the residue gas, is subsequently cut back?

A. That is correct.

Q. Now at the end of each month, I notice that the curve of your dry gas purchases goes up to a high point. Can you account for that?

A. Yes, that is caused by the sources of our residue gas being very low during that period, caused by production - in other words, the operators get production from other wells and consequently, we have less residue gas available.

Q. That is, the operators of oil wells that produce their allowables before the end of the month and so the oil wells being operated to capacity at the end of the month mean that you have an additional demand on dry gas wells?

A. That is correct.

Q. Now, Mr. Baulch, you are familiar with the rules that we have here, that have been submitted by the advisory board - - one minute, before that - - we would like to offer these exhibits

1 through 4 inclusive in evidence.

MR. SPURRIER: Is there objection? Without objection, they will be admitted.

Q. What, from your experience in knowing when to take dry gas - - from your experience, what do you think approximately the rules should be and should apply?

A. The proration of gas initially should be done on a pool basis, without any specific rules being adopted.

Q. You think there should be a hearing as to whether or not proration is needed on any pool before rules should be adopted for that pool?

A. I do - yes.

Q. And you think that the rules should be required for that pool - the general rules - which might be necessary because of the peculiar characteristics of anyone pool or the working conditions of that pool?

A. That is correct.

MR. HOWELL: I think that's all for Mr. Baulch. Now we have one other witness, do you want to hear him now?

MR. SPURRIER: I think we will recess until 1:30 this afternoon before hearing any additional testimony.

(RECESS UNTIL 1:30 P.M.)

Mr. SMITH: I should like at this time to ask the Commission if they will permit the record to show that the several exhibits offered in the Fowler Field case - which were marked for identification but were not offered - shall be considered in

evidence.

MR. SPURRIER: Without objection, they will be admitted.
Mr. Howell?

MR. HOWELL: Is the Commission prepared to ask Mr. Baulch some questions or to have our other witness put on? I suggest that we put Mr. Steen on and then have both witnesses available for questioning and I think it would probably save time rather than having them questioned separately. If that's agreeable, we'll have Mr. Steen take the stand.

MR. SPURRIER: That is agreeable with the Commission.

H. F. STEEN,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. HOWELL:

Q. What is your name?

A. H. F. Steen.

Q. What is your position with El Paso Natural Gas Company?

A. General Superintendent.

Q. How long have you been employed in this capacity?

A. Some twenty-three years.

Q. Are you familiar with the over-all problems of purchases of dry gas in the Lea County area?

A. I believe I am.

Q. Would you explain to the commission the various sources of gas in that area. I believe you have a map there you can use in answering the question and you can point out the

various sources of supply.

A. That is right, Mr. Howell, we do have a map on the wall. I hope all of those present will be able to see the map because it's on such a small scale. However, in part, it sets out the facilities of the El Paso Natural Gas Company in the Permian Area.

You will note that the map has red and green dots designating by the red dot, the plants owned by the El Paso Natural Gas Company.

Q. Now, let me interrupt just a minute there. The plants owned by El Paso Natural Gas Company take what character of gas?

A. The plants owned by the El Paso Natural Gas Company take all the gas that is passed through the El Paso Natural Gas Company's line.

The necessity of these plants is due partly to the fact that part of the Permian Basin is sweet and part of the gas is sour. Being so co-mingled, it would take duplicate systems in the field to bring the gas in from long distances if it were kept separated. We have found it more economical to build a plant and co-mingle the gas and let all the gas go through the purification dehydration and compressor plant.

Again on the map there, the green dots represent the spots where we are buying gas from other companies. That is gas that would enter our transmission line and is pipeline gas. When I say pipeline gas, I mean gas that has been purified, the sulphur acid removed and dehydrated and ready for transmission into our main line system. Those plants are owned by numerous companies

who operate residue plants, having gas available at the tail gate of such plants for sale to the pipeline industry. The ones up above there belong to Stanolind and some below that belong to Gulf and one or two that belong to Skelly. There are numerous plants that belong to Phillips and other producers in the area where we buy gas at the tail gate of their gasoline plants.

Now, in the area where the red dots are shown, our plants are not the only existing plants there. As the general rule, a gasoline plant is existing there although not in all cases, in New Mexico proper in the vicinity of Jal and Eunice, we have the only plant which is our Jal 1, 2, 3 and 4. Now, that's in the vicinity of Monument and Phillips oil center plant - Phillips, Warren and various other producers have plants besides our plant. In the sketch you see there alone, we have over 200,000 horse power or horse power approaching 200,000 of our own horse power that we have placed there so that residue gas could be properly marketed. We have about 1000 miles of pipeline and gathering lines ranging from about 30 inch down to 8 inch in diameter. Also a gathering system of smaller lines probably reaching close to a 1000 miles as well.

Besides our hold plant where our 200,000 horse power is installed, the other companies have numerous amounts of horse power which I am not entirely familiar with and the pressures in the gasoline plants are anywhere from vacuum to 8 or 10 pounds suction and discharge some 45,000 and in some cases up to 200,000. It is our practice to buy the gas at those pressures and compress it on up and in most cases, run it through our own

purification and dehydration plant, compress it on up, in some instances, to 850,000 for mainline transmission use.

About 80 per cent of the entire output of gas from the Permian Basin area through our company is at this time residue gas and when I _____ residue gas I mean gas that has come from oil wells, has been processed through a gasoline plant and then picked up by our company and treated or purified to remove the acid substances, dehydrated and placed into our compressors and then into our high-pressure system.

Where you have 80 per cent of your volume of gas coming from sources as uncertain as residue plants, your production will necessitate having stand-by capacity to take the place of that gas, or in the event of failure of pressure or the fluctuation of oil marketing conditions that cause shut-down days, in Texas particularly, and we find, I might add here that we find from the Texas Railraod Commission cuts or adds from twenty days for each day cut, we have a fluctuation of a full 20 or 30 million in our residue take. For each day added to oil production, we have the same fluctuation upward, between 25 or 20 or 30 million feet of gas per day. So, that you can see that the oil residue gas in the area, both in New Mexico and Texas, it is necessary to have considerable volume of standardized gas. It is our estimate that for every four million of residue gas that is marketed, you should have at least one million standby of high pressure dry gas.

Now, not only does the orders of the Commission effect the some 37 or 38 plants shown on the plat in from of you there, with that many plants mechanically operating and with purification

and treating facilities which are **subject** to corrosion and sometimes repairs, you can see that hardly a day passes that one or two plants, either our own or some of the others, they must be repaired and therefore, they must be shut down ranging anywhere from two days to two months. In the case of fire or explosion or a failure of some type in the equipment, it could incapacitate a plant for a much longer period of time. Therefore, where you are getting a flow of gas approximating say 50 million a day, you must process that flow of gas through another facility.

Now, our company is unique to some extent in two counts. The first being that all the gas -- the majority of the gas that we process itself through our pipeline facilities is our gas. It must be treated and purified so that it can be sold as gas that will pass the state qualifications for the product. The other is that we, I guess, market more residue gas than any other company.

Most of the time gas companies have high pressure gas wells connected to their high pressure systems. About all that is necessary for the high pressure gas is that it is turned on, run through a dehydration plant and then it is ready for sale in the high pressure areas or market areas wherever it might be transferred to. I think we are far ahead of any other company in these two factors. Now, whether that is a good deal or not, I cannot say at this time. It is however, a lot of trouble. It takes about a 1000 men to operate this system that you have been following there, with headquarters of another plant being located in Jal, which is the headquarters of our southern states.

The part that I am talking about or trying to get over to the Commission here is that a great deal of flexibility is required in operating a system of this type. And in that flexibility, you must have high pressure gas wells on call at all times to take care of any fluctuation in your residue, which is the gas that comes from the oil wells.

We started out a number of years ago at Jal, as most pipeline companies would, without any -- with some 7 or 8 high pressure gas wells that were all that existed in the area at the time. We took gas from those wells for a number of years - this high pressure gas - and all that was required was treatment. I believe that the first state or the first place where conservation or preventing of waste by the burning of residue gas was in New Mexico. That was started up at our low pressure plant which we designate as our No. 2 plant, where as you know, a gasoline plant was built and gas from the oil wells was taken from the tail gate of the gasoline plant, treated, processed, compressed and put into mainline systems. The next place we went, I believe was the Phillips plant and made a deal with Phillips to start buying residue gas from that plant, and compressing it, treating it and putting it into the line. Consequently, we have tried to keep abreast of the flaring of gas in New Mexico which has been our policy. I believe the record will show that very little gas is being burned from gasoline plants throughout the State of New Mexico..

That, I presume, is the reason that regulations have not been imposed sooner or that they have not been imposed at all to any great extent, in New Mexico, because there is no waste occurring.

Now, I mention these things to give you some idea of the equipment, the man power and the flexibility that is required to assure markets for our residue gas and to conserve it from waste because if it isn't marketed -- several years ago, it was vented to the air. Most of the Commissions are becoming more strict with respect to this, and more so daily, in allowing any gas to be flared to the air and wasted forever for the country as a whole.

Mr. Howell, I believe that's all I have to say about the matter. I was just trying to bring them up to date a little on what the procedure has been and our policy with respect to residue gas as well as the need of flexibility that you must have for stand-by capacity for this type of system.

Now, we have built in, as we could, in our Rhodes reservoir a storage project which will help us take care of demands of excess residue gas areas, when we do not have demand for it in the pipeline so that we can store it for short periods of time to help give us some flexibility for that isn't all that is required in marketing this large volume of residue gas.

Q. Mr. Steen, are you purchasing from Lea County approximately the same amount of residue gas as dry gas?

A. Mr. Howell, I believe the figures will show that that is approximately -- the statement is approximately correct. Although it isn't on a straight line basis. In the summer time, the high pressure wells are cut back to the extent that we can cut them back. All high pressure wells that we are tied into in order to meet our contract with the producers are guaranteed an allowable that we have to look after to hold our contract in good standing with the producers. But in the summer time, we shut the high pressure wells back because if you don't have something that you can cut back, you certainly have to flare residue gas either in New Mexico, Texas or other places. So, our practice has been to cut the high pressure wells back in the summer time, go ahead and take all the flared gas that we have facilities to take, then in the winter time when the seasonal demand on the system causes peak takes and peak days, we use the High pressure wells as a means of keeping our system loaded.

Q. Now there is a matter which we tend to overlook. What is the fundamental difference between the problems of marketing oil and marketing gas?

A. Well, my conception of that Mr. Howell, would be that the oil can be carried in buckets or in a truck or it can be stored in tanks on top of the ground in various places, but that is impossible with gas. You must have a pipeline running through the gas field and the line must have a market at the place the line extends to to be sold because there is no way unless some other ground storage is devised and that requires a formation of some kind to be stored in, there is no way to store the gas at the sales point like there is the oil.

Q. So that for each separate gas pool, the market is determined by the lines that are built into that pool?

A. That is correct.

Q. And the only way that ^{that} gas can be marketed from any one pool is through the pipeline which go in there, whether they go to interstate pipelines or local pipelines or carbon black or gas lift. The gas moves out of the pool and must be marketed.

A. That is correct.

Q. Now, let us look over the proposed rules for the Lea County area. What is your opinion with reference to the time and manner in which the Commission should approach imposition of rules for the proration of gas in Lea County?

A. I have looked over the rules several times and wish to say that I'm not entirely familiar with them. There are some things about them that I do not understand, completely. But it is my opinion that in prorating gas in Lea County it should be done - where it is just being done for the first time - it should be done on a pool basis and not an over-all proposition with one order because if that happens I think it is going to cause a glorified amount of confusion such as the Commission hasn't run into before if the order is passed that all pools on a general order will be prorated.

Now, it may be that these pools are partially depleted in different percentages. Many of them have different flowing pressures. Many of them have dual completed wells in them. Many of them have not only dual completed oil wells but dual

completed gas wells. You have gas wells in some of those pools that are producing from two varieties or two formations down below the ground. All of that is going to raise the question - - all of that is going to cause a great deal of confusion not only that but the pools that have been named here and some of them covering the extent of territory they cover, it seems to me that there is some question that must be straightened out between the oil producers and the Commission as to whether all of these wells in the gas pools -- the pools that are designated as gas pools, are gas wells or whether part of them are oil wells.

Now, I admit that maybe I haven't understood the rules well enough. Maybe that isn't a good thought or a good idea to bring up at this time, but it seems to me that any well, or tract of land in a gas pool could be designated a gas well and conversely there would be certain wells that are at this time classified as oil wells that, if classified as gas wells, would lose a part of the oil allowable they have at this time as well as lose the gas that was going into a low-pressure system.

Perhaps, low pressure wells will not be considered. However, there are a number of high-pressure wells, that is oil wells - - that is, they are dually completed wells and the reason I think that it should be considered on a pool basis aside from the things that I have already said, is that there may be ground in certain pools there that they do not need proration at this time. There may be one purchaser there who is

taking from all the wells in that particular pool and there are no correlative rights that are being - one person to the other - is not getting hurt on the pool with respect to correlative rights being taken. In the same instance, if we try to do this on an over-all basis, with the different pressures - the different flowing pressures that the wells have - the different deliverability that the wells will put out, it is going to cause a great deal of confusion in trying to make all the pools fit one set of rules. It seems to me that it would be much simpler to take one pool for proration first and the worst as the Commission saw it, and have evidenced furnished showing the type well or all the type wells that existed there and then make a set of rules to conform to the type of wells that you have in the pool, rather than rules for the over-all area in New Mexico.

Q. I understand that it is your opinion that the best approach is to have a hearing as to a particular pool to determine whether or not proration is necessary, to determine the boundaries of the pool to see if they are proper and to discuss any particular problems that exist in the pool prior to imposing proration rules on that pool.

A. It seems to me that that is the only feasible way to do it.

Q. Now, there is another factor that hasn't been mentioned here that is that it is anticipated that the Permian Basin pipeline will be taking gas from this area. Is there any advantage in your opinion in waiting until the Permian

Company is actually in there and taking gas and seeing what the problems are before giving rules to the pool district?

A. Well, I think that when Permian comes in it will change the situation to a considerable degree. Of course, that's up to the Commission as to whether it wishes to put the proration into effect before the Permian gets in. I don't know.

MR. HOWELL: I think that's the evidence that I had desired to bring out.

MR. SPURRIER: Are there any questions of either of these witnesses? If there are no questions, the witnesses may be excused.

MR. SPURRIER: Mr. Davis?

MR. DAVIS: I have one witness.

A. M. WEIDERKEHR.

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. DAVIS:

Q. What is your name?

A. A. M. Weiderkehr.

Q. What position do you hold with Southern Union Gas Company?

A. Engineer.

Q. Would you briefly state your background?

A. I started with Southern Union Gas Company about six years ago. Before that, I spent 5 years with Magnolia and two and one half of that was in the field in general engineering and the last two and one half, I worked in their Dallas office as a reservoir engineer and working on proration in fields in Texas.

Q. Mr. Weiderkehr, you are familiar with the operations of Southern Union Gas Company, particularly in the Lea County Area, New Mexico?

A. I am.

Q. Would you tell us briefly what fields we have under the pipeline system and what disposition is being made of that gas?

A. We take gas at this particular time actually from three fields. The Eumont field primarily, and then we are also taking gas from the Langmat field and we have recently added one Blinebry well to our system. The gas from all of this area is used in our southeast distributing system.

Q. The gas is used for what purpose?

A. For conduction throughout the general area.

Q. For domestic?

A. For domestic, commercial, etc.

Q. Now, you have heard the testimony of Mr. Baulch and Mr. Steen of El Paso concerning the character of the gas to be found in the Eumont and Langmat pools. Have you not?

A. I have.

Q. Do you agree with their conclusions?

A. Yes, I do.

Q. Generally, their testimony insofar as our operations in this area conforms with our operations?

A. Right. Our gas coming from the Eumont pool is sour and the gas that we are taking from the Langmat pool is sweet.

Q. What action do we take on the gas coming from the Eumont pool to get it ready for our market?

A. We have to process this gas in order to make it available for the pipeline.

Q. In other words, until that operation is completed, the gas is not of any benefit to us whatsoever?

A. It cannot be used until it has been processed.

Q. In connection with that type of operations, our plant is designed to carry and take care of a certain amount of gas which is comparable to our market requirements?

A. That is right.

Q. With respect to both the sour and sweet gas?

A. That is correct. We need both the sour and the sweet gas. Our plant has capacity to handle 300 million cubic feet per month, and the remaining gas will be taken from the sweet gas wells. It has been our policy in the several months, we have gotten our plant running pretty well the year round on sour gas and increase our gas intake from the sweet gas wells during the winter months since we have more sour gas wells, it gives them their fair share and we continue to produce them at a higher rate the year round - that is, a higher average rate than we do the other wells that are producing sweet gas and we kick up the sweet gas wells appreciably during the winter months.

Q. Now, Mr. Weiderkehr, you were present at the meeting yesterday? You were a member of the advisory committee and also the rules committee that prepared a draft of proration rules for the Commission?

A. Yes.

Q. During some of those meetings, did you observe that the rules that we submitted here that there was controversy as to several of the provisions?

A. That is correct. There were very few of the companies that agreed on all of these. Some folks said will we do about this, and the answer usually was we'll take care of that when the problem arises. The rules were drafted very broadly and if they have bugs in them, they'll be worked out.

Q. In other words, it is your opinion that a general procedure should be followed and if and when the Commission finds that the proration of natural gas in any part of the area is necessary - - - -

A. I think the Commission will have to make rules for individual fields taking into the consideration of these rules the factors which will vary throughout the field, such as sweet and sour gas deliverability - all those things will have to be taken into consideration in any of your pools.

Q. None of that information was taken into consideration by the committee that was involved in setting up these rules which were adopted by the majority vote of the committee?

A. That was not the case. The rules were general and did not take into consideration any specific pools.

MR. DAVIS: No further questions.

MR. SPURRIER: Does anyone have a question of this witness? If not, the witness may be excused.

MR. STAHL: My name is Stahl of the Permian Basin

Pipeline Company and we have one witness.

REX D. FOWLER

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY: MR. STAHL

Q. Will you state your name, please?

A. Rex D. Fowler.

Q. What position do you hold with the Permian Basin Pipeline Company?

A. Manager.

Q. Do you also hold the same position a natural gas company?

A. That is correct.

Q. In general, what do your duties consist of, Mr. Fowler?

A. They generally cover the allocation and proration of gas and various sources of supply.

A. For both Permian and Northern?

A. Yes.

Q. Will you explain to the Commission the present status of the Permian Basin Pipeline Company?

A. Yes. We think it will go into operation December 1 of this year. That system is located in the southeast part of the - - of Lea County, New Mexico where dry gas will be purchased and in the Sprayberry area of Texas.

Q. You said that the system was planned to go into

operation December 1st, do you mean that the company anticipates running gas about December 1st?

A. That is correct.

Q. Mr. Fowler, was Permian represented on the committee which was delegated to draft the proposed rules?

A. Yes, they were.

Q. Are you familiar with those rules?

A. Yes. I have read the rules.

Q. With your conversations with persons from Permian who attended those meetings and from your reading of the rules, is it your understanding that those rules provide for proration on a pool by pool basis?

A. Yes. That is my understanding.

Q. Do you have any other general comments with respect to those rules, Mr. Fowler?

A. I'd like to make just one general comment. I am not completely familiar with the pools in the southeastern section of Lea county; however, it has been my experience that the characteristics of various gas pools are not generally the same. For that reason, I believe hearings will be held on each pools so that special rules can be considered.

Q. Were you present when Mr. Steen of El Paso testified?

A. I was.

Q. Did you hear his testimony?

A. I did.

Q. In your opinion, do you think that the Permian Basin Pipeline Company will be faced with the same type of

problems that Mr. Steen outlined in his testimony?

A. Yes, I do.

Q. Did you hear Mr. Steen testify that a great amount of flexibility is desirable in the gas producing areas?

A. Yes, I did. I think Mr. Steen covered the problem very well.

Q. Does this generally conform to the view of the Permian Basin Pipeline Company?

A. That is right.

Q. Is the Northern Gas Company presently operating where gas is prorated?

A. Yes. We are operating in the Texas panhandle and gas is prorated there.

Q. I understand from earlier testimony that you have had experience in working under proration in various areas?

A. That is right.

Q. Based on that experience in your work, do you have an opinion as to whether proration should be established at this time?

A. Yes. As previously stated Permian Basin Pipeline Company expects to put its system in operation in a little over three months now - about December 1. There will be a substantial new market for gas in the Lea County area.

Q. Do you have any figure in mind as to about what percentage Permian will take of the gas produced in that area?

A. Roughly, I think it will be about 35 per cent. Now, it seems to me that as soon as that system is in operation,

quite a large number of additional wells will have a market for gas, and much more information will be available at that time on which to base a study as to whether or not proration would be advisable and what rules should apply in each pool.

Q. If I understand your testimony then, your position is that Permian Basin Pipeline Company feels that proration is not desirable at this time - is that right?

A. We would like to see it deferred until our Company is in operation. Thinking that the additional information available at that time will help the Commission in establishing proration on a suitable basis.

Q. Mr. Fowler, are you generally familiar with the sources of supply that Permian anticipates getting their gas from?

A. Yes.

Q. Is it not a fact that Permian does not have a great deal of information at this time with regard to wells that it will be connected to?

A. That is true. In fact, many of the wells aren't yet drilled. They are to be drilled between now and the end of the year. Other wells are to be reworked and recompleted.

Q. Then from your experience, wouldn't it be very difficult thing to attempt to set up proration at this time when a very small amount of knowledge and factual data is available?

A. I believe it would.

Q. Do you have any further statement that you would care to make?

A. I believe not.

MR. STAHL: That's all.

MR. SPURRIER: Is there a question of the witness?

MR. TREMBLE: George E. Tremble, Samaden Oil Corporation. Mr. Fowler, did I understand you to say that your system is proposed for 200 million cubic feet of gas per day?

A. That is right. At the first of the year.

Q. What I would like to ask you, the gas coming from the State of Texas, how much of that will be residue -- how much of that do you anticipate to be residue and how much will be high pressure gas?

A. Out of the State of Texas?

Q. Yes.

A. I think about 100 to 125 will be residue gas.

Q. That's out of the State of Texas?

A. That would be from the Sprayberry area, yes.

Q. How much from the gas wells in Pecos County - are they high pressure gas wells?

A. Yes. I think that will probably go into operation early in next year. Probably start out around 2500 per day.

MR. STAHL: Thank you.

MR. SPURRIER: Anyone else? If not, the witness may be excused. Is there anyone else to be heard in this case?

MR. CAMPBELL: If the Commission please, I'm Jack M. Campbell, Roswell, New Mexico and I'd like to make a state-

ment, in behalf of the Texas-Pacific Coal & Oil Company.

It appears to Texas-Pacific Coal & Oil Company that there is some difference of opinion as to the effect of the proposed general rules should the Commission see fit to put them into effect.

The rules do not seem to us to be clear inasmuch as they seem on the surface to contemplate pool hearings in all cases, which we believe is the proper method to initiate gas proration and if they mean any more than that - if they do mean an attempt to proration in a four county area - or any area larger than a common source of supply, we have serious doubts as to their legality under New Mexico statute.

We have no objection to gas proration provided it is needed and provided it is done in compliance with the statutes. In fact, the statutes require that the Commission make a determination if gas proration is needed and these proposed rules likewise contain such a provision.

Furthermore, the statutes require that the Commission in designating a gas pool limit the pool both horizontally and vertically as a separate or common source of supply. As we understand it, this hearing involves both cases 245 and the case involving the proposed gas proration in a four-county area. We feel that the determination and definition of the gas pools being the very predicate upon which gas proration, if it is initiated, must be based is extremely important, in setting up any gas proration system.

For example, it is our understanding that in Case 245 the Commission has already or by the proposed changes which have recently been offered in connection with this proposal by the committee, has combined the Yates formation, which both historically and geologically have been accepted as a separate source of supply in the Permian Basin from the Seven Rivers formation and in some cases, has combined it with a portion of the Queen, and combined all of these into one common source of gas supply.

To do so, we feel ignores the method and manner in which hundreds of wells have been drilled in those areas and results in considerable complications both by way of proper and legal orders of the Commission and protection of contractual rights of people in those areas, who have drilled oil wells and who have been producing them as oil wells under the Commission's approval for some period of time.

Furthermore, many gas sales contracts have been entered into in these areas with the Commission's knowledge which limit the subject matter of the contract of gas produced from the Yates formation as sweet gas on one hand, and sour gas on the Seven Rivers formation on the other hand.

We feel that the legality of the designation of gas pools in this manner is a very serious question for the Commission and in establishing gas proration if it is determined to be necessary. We would like to request the Commission, and I believe these proposed rules contemplated, if they do

not spell it out clearly, that there shall be a separate pool hearing in each and every case. And that in those pool hearings, case 245 might be left open for the purpose of determining in each pool from proper geological testimony by interested parties whether a gas pool designated both horizontally and vertically is actually a single source of supply or whether in fact there are several sources of supply involved.

Second, that the hearing determine separate sources of supply which should be designated as gas pools. Third, whether gas proration is needed in each of these separate sources of supply and fourth, if they are needed, what special field rules should be adopted to protect the wells already completed and to protect contractual rights which have been acquired on the basis of designation of pools in another manner in the absence of gas proration.

If these proposed general rules contemplate that they shall simply be stand-by rules and that there shall be no gas proration in any pool in New Mexico in the absence of a pool hearing, we have no particular objection to them. On the other hand, if, as some people seem to feel, they contemplate gas proration on a four-county basis without a determination in each common source of supply before any gas proration is put into effect, we have serious doubts as to their wisdom or legality.

We want to particularly request that Case 245 be retained open in any event for modification in the event there is a pool hearing and its determination is contrary to the

existing designation of gas pools as made by the Commission at that time.

MR. SPURRIER: Is there anyone else to be heard?
Mr. Hinkle?

MR. HINKLE: I am Clarence Hinkle, Hervey, Dow & Hinkle, Roswell representing the Humble Oil and Refining Company.

We have listened with a great deal of interest to the testimony that has been put up here by the El Paso Natural Gas and other pipeline companies. We assume that the object of their testimony is to impress the Commission that there is no hurry in putting proration into effect. We have felt all along that the wisdom of the Commission in appointing the advisory committee to recommend some rules was an indication of the feeling of the Commission that there was a necessity for gas proration in these four counties.

We have participated in the hearings that have been held with respect to drafting these rules. And I think I can state generally, that we are in accord with the rules that have been proposed. We are not wholeheartedly in accord with Rule 4 which is the rule which is sometimes - - which has come under some discussion here as to its proper interpretation - whether it is necessary for the Commission to make a separate determination in each pool or field to determine if proration is needed and the adoption of special field rules.

However, we are willing to go along on that and on the proposition that of the pipeline companies as proposed

here that there be a hearing on each separate pool, but we would like to urge the Commission to put these rules after they have been adopted, into effect at the earliest possible time. We think that the Commission should go ahead and call, as soon as practicable, hearings for the purposes of determining whether proration is warranted in the pool and for the adoption of any special rules as may be necessary preparatory to putting proration into effect. Then they can go ahead and call for proration and put it into effect at the earliest possible time.

Now, I assume that there will be some periods of time when each one of these rules, as proposed, will be discussed. Am I right on that?

MR. SPURRIER: We hoped we wouldn't have to, Mr. Hinkle. But if you care to discuss them, you go ahead.

MR. HINKLE: I have only one suggestion. It is not a proposed change in those rules but it is a suggested clarification. And that's in connection with Rule 6 which provides for gas allocation. Now, in order to understand the substitution which I would like to suggest to the Commission when they consider the adoption of these rules, I would like to read that last sentence which is in "C", roman numeral VI.

It reads "More than one proration unit of fractional parts thereof may be adjoined to a gas well and the allowable assigned said well may be increased proportionately provided that: "and then it discusses the conditions upon which these allowables may be increased. "First, no more than 640 acres

shall be assigned to any one well; second, all acreage in said lease may reasonably be presumed to be productive of gas; three, a multiple unit, so formed, shall not have over-all length or width exceeding 5,280 feet; " now, fourth, this is the one which I felt was ambiguous and should be changed. Four reads this way in the proposed rule. "The well, to which such additional units are assigned, shall be located not closer to any boundary of such pool units" that - - I think that's a typographical error, I suppose it should be "than" the distance represented by 25% of the length of the longer of the two boundaries in such pool units, which are adjacent to said first mentioned boundaries."

Now, I don't believe that that makes sense in that you have not made reference to any such boundary at all. And we have tried a number of times to figure out practically and while we know what the intent was and have no quarrel with the intent - - we think that the intent was "no well, where there are multiple pool units, should be located less than 660 feet from the longest boundary nor more than 1320 feet from the shortest boundary.

Now, in order to clarify that statement and accomplish the same think, we would like to suggest that the following be substituted for sub-section 4. "Where not more than two proration units are assigned to a well, the well shall not be located closer than 660 feet to the longest boundary of the pool unit nor less than 1320 feet from the shortest boundary of the pool unit, where three or more units are pooled, the wells shall not be located closer than 320 feet to the outer boundary

of the pool unit."

We believe that in this manner, it is clear and accomplishes the same thing that is proposed in these rules. I would like to pass this along to the Commission for what it's worth.

VOICE: You made reference to 320, you meant 1320 feet, didn't you?

MR. HINKLE: 1320 - that's right.

MR. SPURRIER: Anyone else?

MR. DIPPLE: My name is Harry Dipple and I'm with the Continental Oil Company.

The continental realizing or acting on the assumption, I should say, that the Commission in appointing this committee felt that the time for gas proration has arrived, feels that it should say that it favors generally the rules that have been proposed by the committee.

Continental was represented on the committee and took part in the discussions. But, of course, we have some reservations in our mind with respect to the provisions of certain portions of these rules. I might say at the out-set that it is our opinion that they should have general application to the four-county area and that exceptions thereto should be granted when the conditions exist that require granting of such exceptions, and after proper notice and hearing, rather than trying to have all of the exceptions fit into the rules.

There is a provision in section (b) of Rule 4 for just that sort of thing, I believe. And apparently,

some members of the committee have in mind that that sort of hearing would be in order and probably necessary on certain occasions. Since it was indicated a moment ago that the Commission will hear comments with respect to the individual rules as proposed, we have made, I think it is correct to say, some careful studies of these rules that are proposed and we have some matters that we would like to call to the Commission's attention and we have some recommendations to make.

Rule 1 attempts to define a gas well. We think that the rule is so worded as to perhaps be confusing and in one sense of the word, it's rather duplicitous. It says: "A gas well shall mean a well producing gas or natural gas from a common source of gas supply from the gas pools determined by the Commission" and if you'll refer to the definitions in the existing rules, you will, I think, find that a common source of gas supply is the same thing as a gas pool. So in view of that definition, we would like to recommend the following definition of a gas well. " A gas well shall mean a well producing gas from a common source of supply which has been designated by the Commission to be a gas pool."

Now, since Rule 1 has to do with definitions, we would suggest that the heading of the rule be changed merely to the word "Definitions" and that the work of the gas well be eliminated and that a definition be added under there - let the gas well definition be sub-section (a) or sub-section (1)

whatever you may chose.

Under Rule 4, sub-section (c), there is an attempt made to define a gas purchaser system. Now Rule 4 is headed "GAS PRORATION" and we do not feel that ~~that~~ is a proper place for a definition. We, therefore would suggest that a gas purchaser should be defined in Rule 1 where definitions will properly find their place, since we already attempted to define one term as to what a gas well is.

We would recommend that the following definition of a gas purchaser should be included in rule 1. "Gas purchaser shall mean any taker of gas either at the well head or at any point on the lead where connection is made for gas transportation or utilization." We feel that perhaps a casual comparison of the proposed definition and the one that we are recommending with the one that is appearing in sub-section (c) of Rule 4 will suggest that the one that is included in the proposed rules as sub-section (c) of Rule 4 does not adequately define a gas purchaser, because some gas purchasers take at points other than well heads. Some of them take it at the separator or either at the lease line.

Now, this next recommendation has to do with Rule 2. We feel that under paragraph (a) of Rule 2 in lines 2 and 3, the word "sections" should be changed "section" and then subdivisions(a), (b) and (c) should be eliminated. In other words, we feel that sub-section (a) of Rule 2 should read that "the secretary of the Commission shall have authority to grant an exception to the requirements of state-wide rules 104, section (d) without notice and hearing when application has been filed

in due form." Then put a period and eliminate the word "and".

The reason for this recommendation is that the provisions of the sections that we have proposed to eliminate do not apply to these gas rules but appear to us to apply to oil rules.

Our next recommendation has to do with sub-paragraph 2(a) in line 2 of - - let me see - in sub-paragraph 2(a) of sub-section (a) of Rule 2 reads: "The ownership of all oil and gas leases within a radius of 660 feet of the proposed locations" - -we recommend that it be changed from 660 to 1320 feet. This distance that we recommend, the 1320, corresponds to gas spacing whereas the 660 figure which apparently was copied with this wording from state-wide rule 104 (f) applies to oil proration units specifically.

Now, our next recommendation has to do with Rule 3, and we recommend that the entire paragraph be eliminated and that there be substituted for it the following: "No well producing from any pool allocated under these rules shall be allowed to produce a greater daily amount of liquid hydrocarbons than the top unit oil allowable determined by state-wide rule 505, unless, after hearing, the Commission shall amend this rule as it applies to a particular pool in order to prevent waste or protect correlative rights."

We feel that the provision that we recommend the deletion of is not only not necessary but that it is contrary to what we think is the intent of the Commission in regulating gas pools. We believe that rules governing gas pools should regulate gas by setting gas allowables, not oil allowables.

We will next come to Rule 4. To be perfectly frank about it, we feel that Rule 4 should be eliminated in its entirety unless it is desired to keep sub-division (b) in the rules and if that sub-section (b) is thought to be desirable, we would suggest that it be added on at the end of the rule rather than at this point.

Now, the reason for our recommending or suggesting that Rule 4 should be - - that is sub-section (a) of Rule 4 should be deleted is that it appears to be as has been evidenced here today, some conflict of opinion on the part of those who worked on the rules at the request of the Commission, as to the interpretation of that rule. The provisions of sub-section (a) are really made unnecessary by provisions of some of the other rules, that are proposed - - as for example, sub-section (a) of Rule 6. And by eliminating sub-section (a) of Rule 4, we feel that the rules would actually not suffer but would be benefited by the delegation. Now, our reason for suggesting the deletion of sub-section (c) of Rule 4 has already been gone into in that we recommend that a gas purchaser be defined as we recommended and be placed in Rule 1, under definitions.

Now, we next come to Rule 6. In paragraph B, line 8, that sentence which I have reference to now reads "The Commission shall include in the proration schedule the gas wells in the pool delivering to a gas transportation facility, and shall include in the proration schedule of such pool any well which it finds is being unreasonably discriminated against through denial of access to a gas transportation facility which is reasonably capable of handling the type of gas produced by such well." We

recommend the deletion of that sentence and the substitution for it of this sentence: "The Commission shall include in such proration schedule, all wells completed in and capable of producing from any pool allocated under these rules."

We feel that the wording that is in the rule and proposed by the committee would enable an operator in utilizing all of his gas production on his own lease to have his wells left off the schedule. We feel that placing a well on the proration schedule is no insurance that the well will be connected because that is a matter of contract between the producer and the purchaser.

Now, we recommend also the deletion of the next sentence of sub-section (b) of paragraph 6 which reads "The total allowable to be allocated to the pool shall be determined by the Commission in the following manner: The total allowable for a month shall be equal to the total market demand for that month plus the amount of any overproduction, or less the amount of any underproduction during the second preceding month." We recommend the substitution of the following: "Such schedule shall set forth each well's current gas allowable, which shall be its fair and equitable share of the pool allowable, as determined under the provisions of Rule VI C below; the amount of overproduction or underproduction accrued during the second preceding month; and the net allowable which shall be the current allowable plus said underproduction or less said overproduction from the second preceding month."

The wording, as recommended by the committee, we feel, is calculated to adjust nominations by actual production experience. The effect, however, would appear to us to be confusing. For instance, if production or takes during a given month greatly exceeded the allowable, due to an unexpected surge of demand, that excess would be added to the allowable of the second succeeding month. The effect is to multiply the difficulties wrought by the vagaries of weather and market demand. Actually, these unknown factors should be handled by adjusting nominations, as that is the purpose of the supplemental nominations.

Now, we have one recommendation for a change which perhaps is minor and is more a grammatical matter than one which would seriously affect the rules. I have reference to section (c), of Rule 6 the last line on the page. That is, the third line. The word "amount" - - it reads "the allocation to a pool remaining after subtracting the capacities of marginal units shall be divided and allocated ratably among the non-marginal units in the amount that the acreage" and so on. We feel that the word "amount" should be changed to read "proportion" because that would make the intent clearer.

Now in line 5 of sub-section (c) of Rule 6 which is line 2 on page 3 of the mimeographed copies of the proposed rules which I have - after the word "shall" - provided that for this purpose standard units shall be as defined in Rule 5 above - - we recommend that the words "as defined in Rule 5 above" be deleted and that we substitute the following: "construed to contain 160 acres, notwithstanding variations therefrom

within the limitations of rule 5 above."

Now, our first thought was perhaps that the Committee misunderstood the intent of the former wording, and that it was changed for brevity. The purpose of this language is to relieve the Commission of having to deal with small variations (up to 2 acres) from the standard units for allowable purposes. Units with 158 or 162 acres would be given credit for 160 acres and be treated exactly like a tract that contained precisely 160 acres.

Now, Mr. Hinkle called attention to typographical error in numbered paragraph 4 of sub-section (c) of Rule 6 in the second line where he suggested the word "that" should be changed to "than". Unless the Commission adopts the substituted language that Mr. Hinkle proposed and we have no objection to the Commission's adopting the language that he recommended.

If, however, Humble's recommendation is not adopted, we would further recommend that numbered paragraph 4 should end after the word "pooled" and the word "and" at the end of it should be eliminated.

Now, under Rule 8, numbered paragraph 2 of sub-section (a), it now reads: "the locations of all wells on the lease and the immediately surrounding leases producing from the saver reservoir, and". We recommend the elimination or deletion of the words "and the immediately surrounding leases". We also recommend the deletion of numbered paragraph 3 of sub-section (a) of Rule 8, which reads: "the lease ownership of said leases".

Now the reason for that recommendation is that the person who will be required to make the affidavit on form C-104 could hardly be expected to have personal knowledge of the location of wells on the immediately surrounding leases and of the lease ownership of surrounding leases to such an extent that he would be willing to swear to it.

The next recommendation has to do with Rule 9. In the second line of Rule 9, there appears the word "submitted". We recommend that we substitute for the word "submitted" the following words "reported on a form designated by the Commission." The first part of that paragraph should then read: "The monthly gas production from each gas well shall be metered separately and the gas production therefrom shall be reported on a form designated by the Commission."

The word "submitted" we think is ambiguous and does not indicate the intent of the rule. The substituted wording, we feel, gives the proper directions and indicates exactly how the gas production is to be reported.

Now, we would like to make this further suggestion. While it really doesn't directly apply to the rules as proposed by the Commission - - the committee, but we feel perhaps that this is an opportunity to call it to the attention of the Commission and we should like to do so. That the definition numbered 51 in the statewide rules be changed - - I don't have my copy of state-wide rules - - be changed in line 4 to - - change the word "seventh" to read "sixth". The definition would then read as follows: Proration period shall mean for

oil the proration month and for gas six consecutive calendar months which shall begin at 7:00 a. m. on the first day of a calendar month and end at 7:00 a.m. on the first day of the sixth succeeding month."

The present wording would imply a seven month proration period, whereas the wording just preceding it in the same definition definitely states that the period should be six months. We think that for consistency and clarity, the change should be made.

MR. DIPPLE: I believe that's all I have.

MR. SPURRIER: Anyone else? Mr. Nestor?

MR. NESTOR: E. W. Nestor representing Shell Oil Company.

Shell Oil Company is in general accord with the gas rules as proposed except for one feature. We wish to direct attention to Rule 5, Proration Unit, in connection with Rule 6, Gas Allocation.

Rule 5 establishes a standard gas proration unit of 158 to 162 contiguous surface acres. Provision is also made for special pool rules under which proration units are of a different size and may be established.

Section (c) of Rule 6 provides however, that more than one standard proration unit may be assigned to a gas well provided that not more than 640 acres are so assigned and provided that the other requirements are met.

As written, the rule would apparently leave to the discretion of the operator whether such additional acreage

should be assigned to a well. Also as written, there is no requirement that the wells to which additional acreage is assigned should be shown to be capable of draining such additional acreage. We feel that this rule could result in grave inequity. An operator with a single 160 acre tract could be off-set or surrounded by one or more single ownership units of 640 acres, such operator would have a single unit allowable. The off-set operators, on the other hand, could each assign four standard units to their wells and could each obtain a proportionately increased allowable and could do this even without a showing that their wells were draining the acreage assigned such wells.

It is our thought that in the absence of field rules establishing larger units, it would be better to say that the standard 160 acre units for allowable purposes unless after a hearing, the Commission permitted the assignment of additional acreage and allowable because of circumstances existing in that particular case.

We realize that there may be conditions under which such additional acreage could be assigned to other wells but feel that it should be permitted only after hearing and not solely at the discretion of an operator.

MR. SPURRIER: Anyone else?

MR. DIPPLE: If the Commission, please, it has been called to my attention that I apparently recommended the deletion of the word "and" at the wrong point in sub-division (a) of Rule 2.

I was told that I recommended the elimination of the word "and" at the end of that first paragraph there under sub-division (a) just before the numbered paragraph 1. I did not so intend and the word "and" that I intended to recommend elimination of appears just before "d" in parenthesis in the third line of the first paragraph under sub-division (a). In other words, I intended to recommend the changing of the word "sections" in line 2 to read "section" and eliminate (a), (b), (c) and" so that it would read: "to the requirements of State-wide Rule 104, Section (d)..."

MR. SPURRIER: We will take a five minute recess.

(FIVE MINUTE RECESS)

MR. SPURRIER: Is there anyone else to be heard?

MR. CHRISTIE: R. S. Christie of the Amerada Petroleum Company. We are in favor of gas proration in the state of New Mexico and urge the adoption of the proposed rules as soon as possible.

The only rule that we are not particularly in favor of would be Rule 3 - that's oil production from a defined gas pool. We don't believe that that's necessary and we suggest that that be deleted.

MR. SPURRIER: Mr. Smith?

MR. SMITH: Stanolind Oil and Gas Company would like to make the following statement. We concur in Mr. Campbell's statement that the statutes do not authorize the prorationing of gas on anything but a pool-wide basis and we doubt seriously the legality of any such order that might affect prorationing throughout an entire area.

I should like to suggest, however, that the committee report be adopted by the Commission for use as stand-by rules and that individual applications for prorationing in a particular pool would result in those rules being brought forward, at which time the individual operating problem or marketing problems in that particular pool would be subject to review to determine what variations or deviations should be made in the suggested prorationing rules.

MR. SPURRIER: Anyone else? Mr. Foster?

JUDGE FOSTER: Phillips Petroleum/Company, of course, in favor of gas proration and we feel that the time has really come for that to be put into effect, in these pools.

As far as these rules are concerned, I don't suppose that any committee or even the Commission could ever write a set of rules that would suit everybody. Now, there are some things in here that don't suit Phillips Petroleum Company. But we are willing to go along of them as they are written. We sat in as a member of that committee and we voted against some of these rules and we were out-voted on them. We are willing to accept them as they are written in order to get proration started.

Now, I know they're not perfect and I know that you'll want to change them in a good many respects as you go along. I think you are going to find that this is going to be sort of a long, tedious process in getting the gas prorated in this state. I'd say that it would take you five to ten years to get this thing to running smoothly. That's been our experience other places and I think we will have the same experience here.

I think you should adopt separate pool rules and - - or adopt rules separately for each pool and it would be my suggestion that when you decide that proration is necessary in any particular pool, that you start off with these rules for that pool and then as the problems develop, you can have your hearings and determine what particular changes should be made in these rules as applied to any particular pool. You are just going to have to do it by a trial and error method and that's the way all the other rules that I know anything about have finally be resolved. Just try this one out. There will be matters of interpretation. People won't agree on what a particular sentence means or what it's application is and the Commission will have to make those interpretations.

These represent - - these rules that have been presented here to the Commission represent a good many hours of hard work. I think the committee got down and really worked and took everything in a pretty good spirit. As I say, there are lots of them that aren't satisfied with everything in here, but you attempt to get everybody satisfied before you put a set of rules into effect, you'll never get prorationing to working in this state.

MR. SPURRIER: Anyone else?

MR. COOPER: J. D. Cooper with Skelly. At last month's meeting, Skelly brought up two or three changes which we thought would be desirable in this group of rules. One of which was just brought out by Mr. Christie of Amerada, regarding Rule 3.

The other brought up by Humble on sub-paragraph 4,

section 3 (c) of Rule 4 - ah, 6 - the rewording there but there is one further that has not been discussed in Rule 9.

Skelly would like to provide that the gas used on the lease for any purpose other than gas lift or drilling fuel would not be charged against the well's allowable. Now, that can be done by inserting a clause at the beginning of the last sentence of Rule 9 to read as follows: "excepting therefrom all gas used on the lease for purposes other than drilling fuel or gas lift...."

MR. SPURRIER: Anyone else? Is there anyone else to be heard? If not, we will take the case under advisement and move on to Case 529.