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.

Audrey M. Henrickson
Notary Public

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 pic ture 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 Blinebery 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 Company 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 s 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 Jalce 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 39½ per cent, of the total gas purchased.

Q. 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

almo st 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 sulpur 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 front 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 where/ever it might be transferred to. I think we are far ahead of any other 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 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 of 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 loose a part of the oil allowable they have at this time as well as loose 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 found 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 propation 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.

Q. 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 this 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 statement, 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 proportionally 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 thing, 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-sdction (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 sub-divisions (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 deletion. 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 state-wide 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 prededing 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. DIPPIE: 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 is, 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 been 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 there 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.

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

CASE 245
CASE 521: (Consolidated) These two cases concerning the denomination of gas pools in southeastern New Mexico and the proration of natural gas in the area were consolidated for hearing purposes on April 16, then continued to May 19 in order that reports might be completed by the advisory committee which was appointed to make recommendations to the Commission.

TRANSCRIPT OF HEARING

May 19, 1953
Date

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 BERNALILLO)

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.

DONE at Albuquerque, N. M., this 29th day of May 1953.

E. E. Greeson

My Comm. Ex.:
August 4, 1956

E. E. Greeson
Notary - Reporter

COMMISSIONER SPURRIER: The next case on the docket is Case 245, which is tied in very closely with Case 521, and therefore we will take the two together.

(Mr. Graham reads the call of the cases.)

MR. MACEY: We have a letter from Mr. A. L. Hill, El Paso Natural Gas Company, in regard to this case. It is addressed to Oil Conservation Commission, Santa Fe, in regard to the advisory committee in regard to the Oil Conservation Commission on Case 521 concerning gas proration in Lea, Eddy, Chaves and Roosevelt Counties, New Mexico.

(Reads the letter.)

COMMISSIONER SPURRIER: Is there anyone else to be heard in this case?

(Off the record)

COMMISSIONER SPURRIER: Without objection, Mr. Hill's motion to continue to the regular June hearing will be approved.

———o———

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 southeastern New Mexico and the proration of natural gas in the area have been under study of an industry advisory committee, and have been continued awaiting completion of reports.

TRANSCRIPT OF HEARING

June 16, 1953
Date

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 BERNALILLO)

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.

DONE at Albuquerque, N. M., this 20th day of June 1953.

E. E. Greeson

My Comm. Ex.:
August 4, 1956

E. E. Greeson
Notary - Reporter

COM. SPURRIER: We will move on to Case 521, which is consolidated with Case 245.

(Mr. Graham reads the advertisement.)

MR. MACEY: I have a letter from Mr. A. L. Hill, Chairman of the Advisory Committee on gas proration, dated June 12, 1953, addressed to the New Mexico Oil Conservation Commission, Re: Advisory Committee to the Oil Conservation Commission on Case 521, concerning gas proration in Lea, Eddy, Chaves and Roosevelt Counties, New Mexico. It reads,

"Gentlemen:

"The subcommittee on general rules met on June 2, 1953, at Hobbs, New Mexico, at which time final rules were proposed for presentation to the Advisory Committee. As you were advised in our report at the last regular hearing of the Commission, the subcommittee investigating the need for revision of present gas pool designations has completed its work. The final report of both subcommittees will be considered by the Advisory Committee at a meeting to be called in the near future.

"It is believed that the final report of the Advisory Committee can be submitted to the Oil Conservation Commission at their regular meeting in July.

"Respectfully submitted,
/s/ A. L. Hill
A. L. Hill
El Paso Natural Gas Company
Advisory Committee"

COM. SPURRIER: Are there any other comments in this case?

MR. GRAHAM: Shall we consider that as a motion for continuance?

COM. SPURRIER: I think so. The Commission will expect to get the Committee's final report in July and wind up this case.

The next case on the docket is Case 532.

-------O-------

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 southeastern New Mexico and the proration of natural gas in the area have been under study of an industry advisory committee and have been successively continued awaiting completion of reports.

TRANSCRIPT OF HEARING

July 16, 1953
Date

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 BERNALILLO)

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.

DONE at Albuquerque, N. M., this 28th day of July 1953.

E. E. Greeson

My Comm. Ex.:
August 4, 1956

E. E. Greeson
Notary - Reporter

MR. SPURRIER: We will move on to Case 521, continued from the last hearing.

(Mr. Graham reads the advertisement.)

(Off the record.)

MR. SPURRIER: You now have, I believe, all of you, in your hands the committee report filed by Mr. Hill and dated July 6th.

Now, I notice that this was reprinted by Mr. Staley's group on July 9th. That was just a week ago. I wonder if we feel that this is the time to make our final recommendations, or I wonder if there are those who would like to consider this and have a chance to talk to your management, as most of you would put it, and bring it up for discussion, and finally resolve this case for the regular August hearing. Does anyone have a comment on that project?

Mr. Hill.

MR. HILL: Yes, Mr. Spurrier, our company would like to see that done. We would like to have the opportunity, and everyone to have the opportunity, of reviewing these recommendations and have a full discussion of the case and perhaps putting on some testimony in the August hearing. We feel also that is the feeling of the other pipeline companies. Perhaps they would like to speak for themselves.

(Off the record.)

MR. SPURRIER: Mr. Hill, would you like to formally introduce this at this time as a matter of record?

MR. HILL: Well, yes, I would like to offer the recommended new rules and attached letter as the official recommendation of the advisory committee in Case 521.

MR. SPURRIER: Thank you. Is there objection to my idea or Mr. Hill's idea of circulating this for scrutiny until the August hearing.

MR. HOLLOWAY: Mr. Spurrier, there are certain phases of this order that is a little vague to me. I don't know just how it would go over with the management themselves because there's some of it I don't understand. I wonder if there could be a brief discussion to clarify some of the points?

MR. SPURRIER: I think it is entirely in order for you to ask any question you care to.

MR. HOLLOWAY: There are a number of them. I have in mind one, these 40-acre units that already have wells on them. If you can't get your neighbors to join, what happens there? And things of that sort.

2b MR. MACEY: I may be wrong and subject to correction on it, but I am under the impression that the committee when they worked on this, if you had 80 acres or a 160-acre unit and already had a producing well, you would designate

as an 80-acre unit and get half of an allowable, if the propration unit was 160 acres in that particular pool.

On the well spacing, B, it supercedes statewide Rule 104 (k), the provisions of statewide Rule 104, paragraph (k) shall not apply to gas pools located in Lea, Eddy, Chavez and Roosevelt Counties, New Mexico. With that line, it made me think. Paragraph (k) said it shouldn't apply to wells which have been drilled or on production prior to this order. Now, it says it doesn't apply to that. They are contradicting one another.

MR. SELINGER: The point Mr. Holloway is raising is taken care of by this phrase in Roman Numeral V, Page 2, "Any allocation unit containing less than 150 acres or more than 162 acres shall be a nonstandard unit and its allowable shall be decreased or increased to that proportion of the standard unit." So it automatically takes care of his point. If you have 40 acres, you get a 40-acre allowable; and if you have 80 acres, you get an 80-acre allowable. Automatically taken care of by that provision.

MR. HOLLOWAY: That is what I want to know.

MR. SPURRIER: Anyone else?

MR. SELINGER: I have something. George W. Selinger, with Skelly Oil Company.

I don't want to discuss this here, but bring this

up in connection with the exhibit introduced, which was the rules and regulations as made by the committee.

Under Roman Numeral III on Page 1, "Oil Production from Defined Gas Pools," I recommend the entire paragraph be deleted, because it is now covered under Rule 506, and it really isn't necessary to have that rule at all because the rule written in revision of Rule 506 under Oil Production covers this specific point, so it isn't necessary to include it in these rules at all.

And under IX, Page 4, the last sentence which reads; "The full production of gas from each well shall be charged against the well's allowable regardless of what disposition has been made of the gas."

We believe gas produced on a lease and utilized on that lease for use of the lease - for lease purposes - rather than gas lift, should not be charged against the well's allowable.

Then, on VI, Paragraph (c), (4), Page 3, the last sentence, which begins "Provided further, that where three proration units are pooled, the well shall not be located more than 1,320 feet from the nearest boundary of any unit so pooled, and ..."

I don't know whether they intended to use "well" or the word "lease."

A VOICE: What rule?

MR. SELINGER: On Page 3, VI, Gas Allocation, and Paragraph (c), (4), on Page 3, Paragraph (4). It starts out "The well to which such additional units are assigned..."

The last sentence of that paragraph, "Provided further, that where three proration units are pooled, the well shall not be located more than 1320 feet from the nearest boundary of any unit so pooled."

I believe that should be clarified as to whether they intended to use the word "lease" or the word "well." The way it is written, that prohibits the drilling of a center of a 40-acre or three 160-acre units which are adjacent. And I don't know whether the committee intended to prohibit the drilling of such wells or not. But I think that part of that paragraph should be clarified.

(Off the record.)

MR. HOLLOWAY: Mr. Spurrier, is that an orthodox location? You have another rule which says --

MR. SELINGER: This now will have to be located in the exact center of 160 acres, apparently.

MR. SPURRIER: Mr. Hill, would you care to try to answer that question? Or, are they right in their assumptions?

MR. HILL: I believe, Mr. Lyon, if you will go into that question --

MR. LYON: Yes, if the Commission please. My name

is Lyon, for the Continental Oil Company.

The purpose of that particular wording in that rule was to make sure that the well was drilled in the center quarter section of the unit formed of three quarter-sections. And it would, as you say, have to be within about 330 feet of the center of that center quarter.

MR. SELINGER: Is that what the committee wants to do, require wells to be located in approximately the center of the 160 acres to get credit for three units?

MR. LYON: You would get credit for three units if located within that restricted area. And the reason we had it worded that way, we felt with three units having a triple allowable, your chances of bringing about inequities due to disproportionate withdrawal from that well are most dangerous for three units in a pool rather than two or four. Therefore, we restricted it to a central location on that particular ground.

MR. HOLLOWAY: Another objection, Mr. Spurrier.

Under Article VIII, "No gas well shall be given an allowable until Form C-104 has been filed, together with a plat showing:

"1. Acreage attributed to said well,

"2. The locations of all wells on the lease and the immediately surrounding leases producing from the same reservoir, and,

"3. The lease ownership of said leases."

That might result in somebody making a survey around his land to see what his neighbors are doing, and I don't see the purpose.

MR. SPURRIER: How would you modify it, Mr. Holloway?

MR. HOLLOWAY: Simply stop it by filing a certified plat showing the acreage distributed to the well and the location of all wells on that lease or tract of the whole lease.

MR. SPURRIER: Anyone else?

MR. MACEY: Mr. Selinger, with reference to your comments on Paragraph III, in what way does Rule 506 take care of that provision?

MR. SELINGER: You are talking about a gas pool on the assumption that it is a gas pool. You don't want to say anything about oil wells in the gas pool. If you have an oil well in a gas pool, it is covered under oil rules in volumetric reservoir equality. What you are doing is doing the same thing here. When the majority of the wells in a reservoir are gas wells, you want to prorate the gas part. And there are a number of gas wells that make fluid. You don't attempt to keep up with the fluid. You have one product that is limited or restricted and let the otherproduct go. Obviously, you can't have a twin control over two different products in the same well bore. You have to either discard one or take one. And these rules are written for

gas wells, trying to restrict the maximum amount of gas produced. In the oil rules, you use the measure of fluid as your maximum limitation. Here you use gas as the maximum limitation.

I think your Rule 506 takes care of socalled classified oil wells.

MR. MACEY: Provided there is a gas-oil ratio; is that right?

MR. SELINGER: Well, those fields that have no limiting gas-oil ratio, I doubt will come in with gas fields as you may classify them from here on out for proration purposes. They are usually of small producing capability. In fact, most of them are way below marginal or minimum class. I think Rule 506 is adequate to take care of it.

MR. SPURRIER: Anyone else?

MR. CHRISTIE: My name is R. S. Christie of Amerada Petroleum Corporation.

We concur in the suggestions made by Mr. Selinger. As a matter of fact, recommended that to the committee. We don't think it is necessary to try or prorate an oil well in a gas reservoir. As a matter of fact, you might cause some inequities by doing so.

Of course, you always have the privilege of coming in and having a hearing. But I think you would do away with some hearings.

MR. SPURRIER: Anyone else? Is there objection to continuing this case to the August 20th hearing for final recommendations and comment? Without objection, we will continue this case to August 20th.

The next case on the docket would be 555.

———o———

See P. 17

Case 2-15

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

TRANSCRIPT OF HEARING

December 22, 1950.

E. E. GREESON
COURT REPORTER
UNITED STATES COURT HOUSE
TELEPHONE 2-0672
ALBUQUERQUE, NEW MEXICO

BEFORE THE

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

PROCEEDINGS

The following matter came on for consideration before a hearing of the Oil Conservation Commission of the State of New MExico, pursuant to legal notice, at Santa Fe, New Mexico, on December 22, 1950 at 10:00 a.m.

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

The State of New Mexico by its Oil Conservation Commission hereby gives notice pursuant to law and the Rules and Regulations of said Commission promulgated thereunder, of the following public hearing to be held December 22, 1950, beginning at 10:00 o'clock A.M. on that day in the City of Santa Fe, New Mexico, in the Capitol (HAll of Representatives).

STATE OF NEW MEXICO TO:

All named parties in the following cases and notice to the public:

Case 243:

In the matter of the Oil Conservation Commission upon its own motion to any and all gas producing persons to show cause why Commission Orders No. 33 and No. 398 should not be rescinded (Monument and HObbs pools proration orders).

Case 244:

In the matter of the Oil Conservation Commission upon its own motion to designate, name, define and extend the following pools, some as recommended by the Northwestern New MExico Nomenclature Committee on October 26, 1950.

Extend Blanco (Mesaverde) Gas Pool to include:

Township 30 North, Range 9 West:

All Section 23
All Section 14
E½ Section 15
W½ Section 9
N½ Section 8
All Section 5
W½ Section 4

Township 31 North, Range 9 West:

SW¼ Section 33
S½ Section 32

Extend Fulcher Basin-Kutz Canyon (Pictured Cliffs) Gas Pool, to be known hereafter as Fulcher-Kutz (Pictured Cliffs) Gas Pool, to include:

Township 27 North, Range 9 West:

All Section 8
All Section 17
S½ Section 18

Township 28 North, Range 10 West:

SW¼ Section 25
SE¼ Section 26

Extend West Kutz Canyon (Pictured Cliffs) Gas Pool to

include:

Township 27 North, Range 12 West:

E½ Section 14
NE¼ Section 23
N½ Section 24

Designate South Kutz Canyon (Pictured Cliffs) Gas Pool to include:

Township 27 North, Range 11 West:

E½ Section 22
All Section 23
All Section 26
E½ Section 27

Designate South La Plata (Mesaverde) Gas Pool to include:

Township 30 North, Range 12 West:

N½ Section 4
NE¼ Section 5

Township 31 North, Range 12 West:

E½ Section 32
All Section 33

Extend La Plata (Mesaverde) Gas Pool to include:

Township 32 North, Range 12 West:

All Section 14
All Section 15
E½ Section 22
All Section 23

Designate Stoney Butte (Dakota) Oil Pool to include:

Township 21 North, Range 13 West:

W/2 Section 6
W/2 Section 7

Township 22 North, Range 13 West:

W/2 Section 31

Township 21 North, Range 14 West:

E/2 Section 1
E/2 Section 12

Township 22 North, Range 14 West:

E/2 Section 36

Case 245:

In the matter of the motion by the Oil Conservation Commission to designate, name, define and extend or delete the gas pools of Lea, Eddy and Chavez Counties, New Mexico.

Case 246:

In the matter of the regular and allowable hearings to be held during 1951 upon the Oil Conservation Commission's own motion, dates to be as follows:

January 16, 1951
February 15, 1951
March 15, 1951
April 17, 1951
May 15, 1951
June 14, 1951
July 17, 1951
August 16, 1951
September 18, 1951
October 16, 1951
November 15, 1951
December 18, 1951

GIVEN under the seal of the Oil Conservation Commission of NEw Mexico, at Santa Fe, New Mexico, on November 22, 1950.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

/s R. R. Spurrier
R. R. SPURRIER, Secretary.

SEAL

NEW MEXICO

OIL CONSERVATION COMMISSION

P. O. Box 871
Santa Fe, New Mexico

December 1, 1950

TO ALL GAS PRODUCERS:

Re: Townships 24, 25 26 South
Ranges 36, 37, 38 East,
N.M.P.M., Lea County, New
Mexico

Gentlemen:

Case 245 recently advertised to be heard on December 22, 1950, will involve the naming of gas pools in the above designated townships.

Interested operators are requested to be present at the hearing on December 22, to make recommendations to the Commission so that the Commission may determine the vertical and horizontal extent of the gas pools in the area.

If insufficient information is available on December 22, the hearing will be continued to a later date so that this material may be properly and completely compiled.

Very truly yours,

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

s/ R. R. Spurrier
R. R. SPURRIER
Secretary-Director.

RRS:bw

BEFORE: Honorable Guy Shepard, Chairman
Honorable R. R. Spurrier, Secretary.

REGISTER:

Quilman B. Davis
Southern Union Gas Company
Dallas, Texas

Van Thompson
Southern Union Gas Company
Dallas, Texas

E. E. Kinney
New Mexico Bureau of Mines
Artesia, New Mexico

A. R. Ballou
Sun Oil Company
Dallas, Texas

W. B. Macey
American Republics Corporation
Artesia, New Mexico

Warren L. Taylor
El Paso Natural Gas company
Jal, New Mexico

W. T. Hollis
El Paso Natural Gas Company
Farmington, New Mexico

F. C. Barnes
New Mexico Oil Conservation Commission
Santa Fe, New Mexico

O. P. Nicola
Phillips Petroleum Company
Bartlesville, Oklahoma

L. L. Patterson
Phillips Petroleum Company
Odessa, Texas.

E. L. Shafer
Continental Oil Company
Hobbs, New Mexico

R. S. Christie
Amerada Petroleum Corporation
Fort Worth, Texas

L. G. Storm
Shell Oil Company
Hobbs, New Mexico

Elvis A. Utz
New Mexico Oil Conservation Commission
Santa Fe, New Mexico

H. L. Hensley
Humble Oil and Refining Company
Midland, Texas

R. S. Denny
Humble Oil and Refining Company
Midland, Texas

Homer Dailey
Continental Oil Company
Midland, Texas

Lucas H. Bond, Jr.
Stanolind Oil and Gas Company
Fort Worth, Texas

J. A. Seth
Stanolind Oil and Gas Company
Santa Fe, New Mexico

R. G. Schuehle
Texas Pacific Coal and Oil
Midland, Texas

GlennStaley
New Mexico Oil and Gas Engineering Commission
Hobbs, New Mexico

G. H. Gray
Sinclair Oil and Gas Company
Midland, Texas

C. D. Borland
Gulf Oil Corporation
Hobbs, New Mexico

D. E. Elliott
Wooster, Ohio

Don McCormick
New Mexico Oil Conservation Commission
Carlsbad, New Mexico

George Graham
New Mexico Oil Conservation Commission
Santa Fe, New Mexico

- - - - -

MR. SPURRIER: The meeting will come to order, gentlemen. Commissioner Shepard will be here in a few moments. In the meantime, we will proceed with the first case, which will be the allowable hearing.

MR. McCORMICK: I would like to have Mr. Utz and Mr. Kinney sworn.

(Witnesses sworn.)

(Chairman Shepardnow present.)

ELVIS A. UTZ,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. MCCORMICK:

Q State your name and official position.

A Elvis A. Utz, engineer of the Oil Conservation Commission.

Q Have you made a study of the market demand for oil for the State of New Mexico for the month of January 1951?

A Yes, I have.

Q Do you have an estimate of market demand furnished by the United States Bureau of Mines?

A Yes, sir, I do have.

Q What was that?

A 138,000 barrels per day.

Q How does that compare with the last previous estimate?

A The last month, it was 142,000 barrels.

Q Have you received and compiled the nominations of purchasers for the month of January?

A Yes, I have.

Q What is the total.

A The total nominations are 132,627.

Q How does that compare with the last previous month?

A that is 8.8 per cent above the nominations last month, December.

Q Do you have an opinion as to what the reasonable market demand for oil will be for the entire state in January?

A In my opinion the reasonable market demand will be 141,972 barrels per day, for the southeast. 800 for the northwest, or 142,772 barrels per day for the state.

Q I will ask you if in your opinion the market demand you have estimated for southeastern New Mexico can be met by the allocated pools in southeastern New Mexico?

A Yes, I believe it can.

Q Is the potential producing capacity of all pools in southeastern New Mexico greater than the estimate you have given?

A I believe so, yes, sir.

Q In order to prevent waste, is it necessary for the pools of Lea, Eddy and Chavez county to be limited in their production?

A Yes, I believe it is.

Q In your opinion can those pools produce the amount you have estimated without permitting waste?

A From the information we have available, to study, they can, yes.

Q What do you recommend then as the total daily allowable for the allocated pools of Eddy, Lea and Chavez county?

A 141,972 barrels per day.

Q And in your opinion how should this production be distributed?

A It should be distributed in accordance with the present rules and regulations of the Oil Conservation Commission.

Q What do you recommend for the daily normal unit allowance?

A 48 barrels normal daily unit allowable should give us the beforehand quoted figure.

Q That is the same recommendation you made at the last hearing, isn't it?

A That is correct.

Q Is there any essential difference in market demand situation now than a month ago?

A Possibly a little more demand now than there was a month ago. However, it was only apparent in the nominations. It wasn't apparent in any other manner I know of.

MR. McCORMICK: Does anyone have any questions of Mr. Utz?

(Witness dismissed.)

ED E. KINNEY,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. McCORMICK:

Q State your official position, Mr. Kinney.

A Petroleum engineer, New Mexico Bureau of Mines.

Q Have you made a study of the market demand situation for New Mexico for the month of January, 1951?

A I have.

Q Just tell the commission in your own words what the picture is on storage and market demand.

A For the past 30 days oil has been going out of storage in southeastern New Mexico. The demand is very firm. Infact, a little in excess of supply. And for that reason I see no reason to go below last months' proration of 48 barrels.

Q And you join in the recommendation of Mr. Utz then, for a 48 barrel normal unit allowable?

do not believe any attempt should be made to define pools or outlying reservoir boundaries until such time as this study has been completed. Actually the study is being made for that specific purpose. To present the best available geological and engineering data to the Commission for their study in considering our recommendation.

For that reason, we do request that the hearing be postponed until March 15th, at which time we feel we will have completed this study.

MR. DAILEY: One other thing. That omits, of course, some gas production, particularly in the pre -San Andres and in the Hobbs structure, and in the Blineberry and several other gas sands.

MR. SPURRIER: Mr. Shafer, I notice one thing. You mentioned shallow gas. What is to become of the deeper gas pay, what would be done on this?

MR. SHAFER: Taking into consideration Continental Oil Company is not a very large producer of gas from deeper horizons, we have confined our study to those shallower zones and in so far as the work we are presently doing, it will not cover the deeper gas areas such as the Blineberry, Tubbs Sand and those other reservoirs below the San Andres section.

MR. SPURRIER: I notice Mr. Dailey said the Hobbs and some other pools would also be left out. Do you have

a suggestion, Mr. Shafer, how we could get the information on those two?

MR. SHAFER: I would suggest the Commission on its own motion call a hearing specifying those various areas or sections which we do not cover in our particular work here and give the - in the same manner you have brought up Case 245 - and give the larger or interested operators in those particular areas an opportunity to bring forward the same type of information we claim to possess.

MR. SPURRIER: In other words, we should give the largest operator in each area the responsibility and give all operators the privilege of submitting data.

MR. SHAFER: That would be my suggestion. Incidentally, while we are still talking about this, we have chosen the date March 15th because it coincides with the date set for the next regular hearing of the Commission. If that date is changed, any date in March will be satisfactory so far as we are concerned.

MR. SPURRIER: You would probably like to recommend that the case come up at the regular March hearing.

MR. SHAFER: That would be better.

MR. SPURRIER: Fine.

CHAIRMAN SHEPARD: If there is no objection, this case will be continued until the regular March hearing.

We will take up the next case. Case No. 244.

(Mr. Graham reads notice of publication.)

CHAIRMAN SHEPARD: I believe we will let the record show the notice has been read in full and save a little time.

FRANK BARNES,

having been first duly sworn testified as follows:

DIRECT EXAMINATION

BY MR. McCORMICK:

Q State your name and official position please.

A Frank C. Barnes, geologist with the New Mexico Oil Conservation Commission.

MR. McCORMICK: I would like to insert in the record by reference the notice in Case No. 244.

Q Mr. Barnes, I will ask you if you are familiar with the proposed pools or extensions to pools as set forth in the notice of Case 244?

A I am.

Q I will ask you if on the basis of available information the designated extension and classification of those several pools is reasonable and in conformity with known geological facts?

A I believe that is correct, with one exception. I was in the San Juan basin the early part of this week and it appears that in the case of Stony Butte, the Dakota oil pool, that the actual production from the wells in that area is not yet stabilized to the point where a definite pool boundary could be reasonably set up at this time. And I would recommend,

if there is no objection from the operators, that the designation of the Stony Butte, the Dakota oil pools, be put off until a latter date when the area has been more fully developed.

Q Who are the operators in that pool?

A The Southern Union Gas Company.

(Off the record.)

Q Do you have anything else to say about these proposed pools?

A No, sir.

Q And is your recommendation then, that the pools as designated in the notice of Case 244 be extended and designated as shown, except the Stony Butte Dakota oil pool?

A Correct.

MR. McCORMICK: Any questions by anyone? I will ask the Southern Union, Mr. Davis, if he has any recommendation about this matter.

MR. DAVIS: We concur in that recommendation and make it ourselves because we only have one well in the so-called Stony Butte at this time. We don't think it is quite a proper time to make it a designated pool.

MR. McCORMICK: Any questions by the Commission?

MR. SPURRIER: In this Stony Butte pool, I might let the record show that it was the Southern Union that

made this recommendation. Or I should say, the Nomenclature Committee made the recommendation at the instance of Southern Union. Now pending the naming of a pool in this area your files will show we have given you permission to drill a well in an orthodox location, is a wild cat, and if we do not name this pool according to these recommendations, which is neither here nor there, then it would be necessary for Southern Union to make arrangements to take care of that unorthodox location.

CHAIRMAN SHEPARD: Anyone else? If not, then we will take up the next case, No. 246.

(Reads the notice of publication in Case No. 246.)

MR. McCORMICK: If the Commission please, I might state for the record that Rule 503A provides this: The Commission should meet between the 20th and 25th of each month for the purpose of setting the allowable production for the State for the following calendar month. And 503Bprovides this: The exact time and place of such meeting shall be established in advance of each one and notice given of such setting by publication made on or before. January 10th of each year.

Now at the time these rules were written it was the feeling of the members of the committee that the

appropriate time for meetings was between the 20th and 25th. One consideration was to eliminate a conflict with the Texas hearings and the matter was that was thought to be adequate time so that the proration schedule could be prepared shortly and be distributed shortly after the first of the following month.

Now, if the time for the meetings is to be changed to dates other than those between the 20th and 25th, it would be necessary to amend this rule 503A, which can be done under the notice which has been given in Case 246. And if that is to be done, why, then an order can be entered changing the date, say, from the 15th to the 20th; and then publishing the notice between the 1st and the 10th of January setting out the exact dates for the meetings for 1951.

CHAIRMAN SHEPARD: Anyone else have anything to say on these meeting dates? After trying it for a year, we have decided we would have to move these dates back in order to give plenty of time to make up our proration schedules. Holding them this late in the month it makes it very difficult to get the amount by the first.

MR. McCORMICK: I will ask if anyone has any comment?

MR. BALLOU: These dates as you have them here now will conflict with the hearings in other states. A number of the people here have to attend hearings in

Texas, Louisana and New Mexico. It appears to me they should be moved back one week. I don't want to make any strenuous objection, but it wouldn't be possible for a lot of us to come out here if these dates conflict with other states. And the rule was originally written to take care of that. So that I don't think that it should be changed unless there is a good reason for it.

MR. BOND: With the Stanolind Oil and Gas Company. I would like to urge consideration along the same lines Mr. Ballou has. If the dates could be moved up or back a few days. It is possibly a selfish request on the part of the operators, but it would make operations considerably easier if it could be closer to the 20th or a few days before the middle of the month.

MR. McCORMICK: What dates do you recommend?

MR. BOND: Probably the 19th or 20th of the month, or the 12th and 13th, avoiding as much as possible the 14th, 15th, 16th and 17th.

MR. SPURRIER: It is the Texas hearing?

MR. BOND: Yes, sir.

MR. SPURRIER: Have you tried to get them to change their dates?

MR. BOND: No, sir.

CHAIRMAN SHEPARD: Anyone else have any recommendations?

MR. SHAFER: I would like to say this much. This is

OIL CONSERVATION COMMISSION

STATE of NEW MEXICO

TRANSCRIPT OF PROCEEDINGS

CASE NO. 245

April 24, 1951

E. E. GREESON
COURT REPORTER
UNITED STATES COURT HOUSE
TELEPHONE 2-0872
ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION
April 24, 1951

- -

CASE NO. 245: A case which has been continued twice for lack of information to designate the gas pools of Lea, Eddy and Chaves Counties.

CHAIRMAN SHEPARD: The next case to be taken up is Case 245, which has been continued twice and this time we will hear it.

(Mr. Graham reads the Notice of Publication.)

CHAIRMAN SHEPARD: Is the Continental ready?

MR. SANDERS: Yes, sir. My name is H. W. Sanders. I represent Continental Oil Company. We have testimony to put on relative to the shallow gas pools in South eastern Lea County above the San Andres Formation. We have some large exhibits to hang on the wall and we ask your indulgence while we put them up.

CHAIRMAN SHEPARD: All right, sir, you may proceed.

MR. SANDERS: H. W. Sanders, appearing for Continental Oil Company, Fort Worth; Paul N. Colliston, from Houston; Henry Forbes, from Fort Worth; and Homer Dailey, from Midland.

CHAIRMAN SHEPARD: You may proceed.

MR. SANDERS: Will you swear the witnesses, please?

(Witnesses sworn.)

MR. SANDERS: As I stated a while ago, Continental oil Company proposes to introduce evidence on the shallow gas fields in southeastern Lea County, New Mexico, above the San Andres formation.

Under Rule 601, the Commission was required to initiate proceedings to name, classify and define the limits of all the known producing gas pools. Accordingly, the Commission of its own motion issued a call in Case No. 245 a hearing on December 22, 1950. That was continued to March 15, 1951, by the request of Continental Oil Company and was again continued until this date. In order to make a study for the benefit of the Oil Conservation Commission, Continental Oil Company, who is appearing in its own behalf with the assistance of geologists and engineers from the Atlantic Refining Company, Stanolind Oil and Gas Company and Standard Oil Company of Texas, has made a study of the subsurface formations and gas pools above the San Andres Formation in southeastern Lea County. They made a study covering the period of six months and they examined about 2000 well logs, both electrical and sample. The results of the study are presented to the Commission for whatever action it deems necessary or wishes to take.

As a result of this study, we have come to the conclusion that the gas pools could fall in approximately four pools. We, in this testimony, will call in areas one, two, three and four. In outlining these various areas we have used the 160 acre unit of the survey which is also the state wide gas unit, I believe. After we had completed our study, on April 12, a meeting of the engineers of, I believe the Lea County engineering Committee was called and at that time we presented evidence, not evidence, but a report to them of our findings as a result of our study. We have made a study, as I said before, over a term of six months and the

engineers of all interested parties were invited to sit in, so this testimony will not come as a surprise.

With those preliminary remarks, I would like to proceed to put on testimony. I would first like to question Mr. Henry Forbes.

H E N R Y F. F O R B E S,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By MR. SANDERS:

Q Your name is H. F. Forbes, is it not?

A Yes, sir.

Q You are employed by Continental Oil Company?

A Yes, sir.

Q In what capacity?

A Area Petroleum Engineer.

Q Do you have a degree in petroleum engineering?

A Yes, sir.

Q Where did you get that degree or take that degree?

A Colorado School of Mines.

Q What year did you finish?

A 1938.

Q What course did you take?

A I took general engineers course in petroleum engineering.

Q Did you study any courses in geology?

A Yes, sir.

Q What were those courses?

A Plain geology and structural geology, minerology, field geology,

and such subjects.

Q Have you had any experience in subsurface engineering in the Permian Basin of West Texas and New Mexico?

A Yes, sir.

Q About how many years?

A Approximately six years.

Q Have you - are you still working with the subsurface engineering in that particular area, the Permian Basin?

A Yes, sir.

MR. SANDERS: Is the Commission satisfied with the qualification of the witness?

CHAIRMAN SHEPARD: Yes.

Q Mr. Forbes, you are familiar with the study made by the Continental Oil Company, are you not?

A I am.

Q Will you proceed in your own words to give the Commission a report of that study?

A Yes, sir. Mr. Sanders just mentioned many well logs were studied, approximately 2000, and those of you that know some of the sample logs in Lea County know it was rather difficult in making exact correlations. As a result of studying these logs, we drew three cross sections north and south from Township 20 on to the state line. Then we drew cross sections across each township east and west cross sections across each township down to the state line in order to get some sort of an idea as to the

general over all geology of the area.

Before we start on the study, I think it better to define oil pools as set forth by the Commission. This is definition No. 44, as found on Page 5 of the Rules and Regulations of the Commission. "Pool means an underground reservoir containing a common accumulation of crude petroleum oil or natural gas, or both. Each zone of a general structure, which zone is completely separated from any other zone in the structure, is covered by the word "pool" as used herein. "Pool" is synonymous with "common source of supply" and with "common reservoir"."

We shall use the term "Pool" as thus defined in this report with the following additional consideration. It is our opinion that Yates and Seven Rivers and Queen formations were separate reservoirs. However, due to development throughout south eastern Lea County, these pools have been connected together by hundreds of well bores. Therefore, it is virtually impossible, at least we believe it is impractical, to separate that by zones, individual zones within a formation.

As Mr. Sanders stated, as a result of this study, we came out with four major gas pools in this area. There are some more gas pools probably in southeastern Lea County but they have not been defined.

First, I would like to present a structural map of southeastern Lea County contoured on top of Yates. We call that Exhibit No. 1. This gives the general over all structual relation of these various pools and will be of use to us later on in our

report here.

During 1927 on up through 1930 shallow development extended from Texas on up through Lea County. Until about 1930 the entire area was fairly well drilled up. At that time due to economic conditions, drilling ceased to a large extent and was resumed about 1935 to 1936 from 1935 to 1940 the area was more or less completely drilled up.

At the same time the El Paso Natural Gas Company was taking gas from some of these gas wells. However, their outlet was rather limited. I believe it just went through El Paso and in 1946 it was extended on to California markets which enhanced the gas markets and more drilling, particularly in these gas areas, have taken place.

In outlining this study, I would like to give a little bit about stratigraphy. The first geological formation encounter is Rustler Anhydrite and dolomite and is rather thin, approximately 150 feet. The Salado is the salt formation that you generally find in this area and is from 1200, approximately 1200 feet thick. Under that is the Tansill formation which is about 175 feet thick of anhydrite and dolomite. Below that is the Yates which is the first formation we will consider in our study here.

The Yates is approximately 200 to 300 feet thick. It is sand and anhydrite and dolomite. Underneath that is the Seven Rivers formation which is about 400 feet and consists of dolomite in the place of sand lenses and dolomite and some anhydrite.

Underneath the Seven Rivers is the Queen formation which is predominantly sand although we classify it into sand bodies with dolomite in between them. This member is approximately 300 feet thick. Immediately below that is the Grayburg sandy dolomite 250 feet thick and then the San Ancres. This study covers down including the San Andres.

Inasmuch as the geology of the area ties in, we believe very closely with the pools that we have outlined, I would like to give a general description of the area.

On Exhibit 1, you will notice there is a ridge running from north to south from Township 21 to state line and approximately six miles east of that is another ridge running from approximately 22 to state line. This western ridge, the one we previously mentioned, is the eastern portion of the Capitan reef which extends on west towards Carlsbad, The eastern ridge on Exhibit 1 is part of the Central Basin Platform. Between those two ridges there is what we call a trough area and you can notice on - I am going to call this Exhibit 2 - generalized east and west cross sections. You will notice that as we come up through here (indicating), we have our structures and more or less trough area and then on to the larger and the anticlinal structure of the Central Basin Platform. That holds true until this point is reached (indicating). This ridge then broadens out into a larger anticlinal which is the Penrose-Skelly pool. The fourth structural feature in this study is the Eunice-Monument Pool which is the anticlinal type.

In defining gas pools we have started with the Capitan reef. The oil was originally laid down in what we believe to be a common reservoir oil gas outlet here on the western side of the reef, probably all of these small structures that you see along the reef, high, and probably the same gas,-oil and water-oil contacts. Since that time, they have been disturbed by development and withdrawals. As you cross the reef, you come into what we just previously mentioned as the trough area. These zones carry over the crest of the reef fairly well. That is the Yates, all the various sand members of the Yates, and the upper portion of the Seven Rivers. However, when it comes to troughed area, you have a lethological change in your section and it becomes tighter, less permeable and your anhydrite showing above your Yates starts dipping down into your Yates formation. Since practically all the production from this area here is from the Yates and Seven Rivers, we have used that as the vertical thickness in the Yates and Seven Rivers formations for that pool.

At this time I would like to introduce Exhibit No. 3, the gas pool designation map, suggested gas pool designation map. Area one colored in orange; area two colored in green; area three in blue; and area four in red.

You will notice that the contours on the reef follow very closely to our colored area on our gas area map. We have also made another separation on this reef area from our back reef area and that is that we find that the sulphur content and the gas is generally higher in this reef structure than it is in area

two or the back reef part.

Area two has been defined as a separate gas pool and includes the Yates and Seven Rivers formations. All but the lower one hundred feet of the Seven Rivers formation, the boundary, the eastern boundary on this area two was defined by the lack shows in the Yates and Seven Rivers formations on wells on this side. Wells on this side generally showed Yates and Seven Rivers gas. Continental on their Jack leases down here completed a gas well on this side and a dry hole on that side which extended from the boundary on up. This boundary as it goes between Arrowhead and the green area is defined by poor wells, lack of shows and edge wells on the Arrowhead and was brought up in that map. We don't have too much development in that area.

To go back a little further, to show why we did not extend the eastern portion of the area, or the green area further I would like to explain on this cross section, on Exhibit 2. As you come over the top of the reef structure into what we call the trough area and start up your flank of your larger anticlinal you find that your permeabilities decrease and very little gas shows are found in the Yates and Seven Rivers formations. In the meantime you will encounter oil in the Queen formation as you come east and the major portion of the production in the Langlie-Mattix and Penrose pools are from the Queen formation. We consider that to be gas-cap gas and have not included it in the study of dry gas reservoirs.

The third area under consideration is the Eunice-Monument area. The boundaries of thathave been placed to more or less follow the development of the area and plus the shows that have

been encountered on wells that have been brandenhead. Here again our zonian theory comes into play in that we do not believe there was originally vertical communication between formations in the Eunice-Monument Pool. However, since that time due to connecting well bores, brandenheads and so forth we believe them to be connected.

Around the southern portion of Eunice is a small area of Queen oil wells. As it soon progresses over the anticlinal structure, you will find that wells drilled up in this portion of the field are not producing the same gas as the oils are producing. In other words, they are producing from the Queen formation although they may be producing oil from the Grayburg. That is behind brandenhead wells.

Inasmuch as this is a small area of oil compared to the large area of gas we have included the Queen formation with the Seven Rivers and Yates formations in area three.

Area four, roughly outlines the productive limits of the Arrowhead pool. The eastern boundary of this area has been defined dueto poor wells, dry holes and the factthat when we corrolated our cross sections across here we could not corrolate individual sand stringers of the Queen formation over in the Arrowhead. It was extremely difficult to carry the sand strings clean into the area. Shows have been encountered in the Seven Rivers, Queen and Yates. Therefore, all three formations have been included in this area of the pool. This Arrowhead pool is also further defined by our structure map. You will notice that the re-entrants on the northwest side which is fairly barren have

poor wells, some dry holes encountered. In more or less the same boundaries as in area two were used on the southern boundary.

O Probably the main thing too, in area one is Yates and Seven Rivers; area two, Yates and Seven Rivers; area three, Yates, Seven Rivers and Queen; four, Yates,Seven Rivers and Queen formations. I believe that is all I have.

MR. SANDERS: Before we throw this discussion open for questions, I would like to add a few remarks.

This testimony is put on only to delineate gas pools. You notice he didn't touch on well spacing or allocation of production and it wasn't within the scope of that study to do so. I stated in the beginning that the engineers of the interested operators were invited to sit in on the study. I didn't mean by that that they were invited to participate in the study. But they were invited to inspect the progress of the study. If anybody wants to know why we included certain sections or quarter sections or 40 or 80 acres within one area and not another, our answer to that would be that our study didn't show that it should be included therein.

Of course, we know the testimony is only for the help of the Oil Conservation Commission to do with as it sees fit. We certainly are not in the position of saying that anybody should be bound by the results of our study. We made this six months study for the information and benefit of the Oil Conservation Commission in performing its duty. I anybody has any questions they would like to as Mr. Forbes, he will be glad to answer

them in explanation of the result of our study.

MR. SELINGER: George Selinger with Skelly. Will you please refer to your Exhibit 3, particularly Section 31-24 South, 37 East, Section 625 South, 37 East.

MR. FORBES: Take it a little slower.

MR. SELINGER: Section 31-24 South, 37 East, and the immediate section to the south which is Section 625 South, 37 East. You have the line of demarkation between areas one and two going through the approximate middle of the Skelly Oil Company's Sherrell lease. You know that the wells on both sides of that dividing line are producing from the same reservoir, do you not, or has your study been that extensive?

MR. FORBES: Yes, on the same reservoir?

MR. SELINGER: Yes.

MR. FORBES: Yes, Queens and Seven Rivers.

MR. SELINGER: That's right. In area one you have placed 200 acres of the 300 acres in area two and 120 acres of the 320 acres in area one, which results in a subnormal gas unit of only one hundred twenty acres, when in truth and fact there are two gas wells which would be normally entitled to a normal 160 acres.

In calling that to your attention, it is our suggestion that - and we would like to put into evidence Skelly's Exhibit One, that area one with respect to Township 24 S, 37 E, be deleted with respect to the southwest quarter of Section 31 and in Township 25 S, Range 37 E, that instead of the west half of

Sections 6 be placed in area one, that it read the NW¼ of the NW¼ and the S½ of the NW¼ and the SW¼ of Section 6 and that area two be corrected with respect to Township 24S, Range 37E, to read instead of the north half and the southeast quarter of Section 31 read all of Section 31 and with respect to Township 25S, Range 37E, which now reads the E½ of Section 6, be corrected to read the E½ and the NE¼ of the NW¼ of Section 6 which is in effect transferring the entire lease into one area. We have no objections to throwing the entire 320 acres either in area one or area two but since they have place the - the suggestion has been to place the section into area two - we wouldn't have any objection to throw the 320 acres in area two.

MR. FORBES: I think that is fixed primarily from a structural -

MR. HOMER DAILEY: There are several gas wells in that immediate area and we through that place there picked the boundary on the structure and sulphur contents of the gas. In that particular place we did not have much data on the sulphur contents. That is why that boundary was placed in there. Actually from the structural map if a person were going to make a change in that boundary, I believe it would be better to move the boundary over so that would be included in area one rather than in area two.

MR. SELINGER: I might point out to the Commission that there are no wells in the NW¼ of Section 6 and there is only one well in the extreme SW of the SW of Section 6 so that there won't be any offset obligations or any moving of equities or rights of offset obligations whatsoever.

MR. SANDERS: I would like to ask Mr. Dailey a question. Did you consider surface ownership in your study?

MR. DAILEY: We did not.

MR. SELINGER: But the effect is to correct a submarginal subunit with respect to acreage. In other words, one of our wells would not be on a normal 160 whereas the other well would have an abnormal unit of 200 acres and we feel that equities would be better preserved by the correction of two uniform units rather than having a subnormal and abnormal unit.

MR. SANDERS: We don't object to the request of the Skelly Oil Company at all.

CHAIRMAN SHEPARD: Any further questions?

MR. EUGENE T. ADAIR: Mr. Chairman.

CHAIRMAN SHEPARD: Will you come forward and state your name?

MR. ADAIR: Eugene Adair, representing Texas Pacific Coal and Oil Company. I might state to the Commission that at this time we have no quarrel whatsoever with the results shown by Continental. However, we would like for the record, to ask a few questions.

Mr. Forbes, this comprehensive study that you have just completed was necessarily based, was it not, upon such information as you had available to you at that time?

MR. FORBES: That's right.

MR. ADAIR: And as future drilling and future development operations are conducted in the area, you will have available to you additional information which may require

the Commission to revise the pools, the pool gas pool lines.

MR. FORBES: That's right.

MR. ADAIR: I will refer you to the northern portion of Township 22 South, Range 36 East where you will observe that gas pool one, the line separating gas pool one from gas pool two to the east coming through that Township splits several of Texas Pacific Coal and Oil Company's leases. Is that not correct?

MR. DAILEY: It does, the basic lease. It doesn't within any one section. It does some of your basic leases where they extend across more than one section.

MR. ADAIR: Now, as an additional drilling is done along that line and additional information becomes available, it may require that line separating those two pools be shifted some one way or another.

MR. FORBES: That's right. This is the best we can draw from our information.

MR. ADAIR: At the present time?

MR. FORBES: At the present time.

MR. ADAIR: It is not intended to be a permanent line?

MR. FORBES: It is unless you can furnish additional information.

MR. ADAIR: Additional information will change the line if necessary?

MR. FORBES: If it warrants it.

MR. ADAIR: So, then, it is not intended to be a

permanent line delineating the gas pools.

MR. FORBES: No.

MR. ADAIR: That is all I have.

MR. BAILEY: Perhaps that should be clarified just a little bit. In several instances the area is not fully developed, of course, for gas and we have included areas within that pool on the basis of reported shows when some of the oil wells were drilled. Naturally, when a person goes in there and attempts to recomplete some of the wells or develop some of that acreage for gas would necessarily change our thoughts a little bit.

JACK M. CAMPBELL: Mr. Chairman.

CHAIRMAN SHEPARD: Mr. Campbell.

MR. CAMPBELL: Gulf Oil Corporation, Jack M. Campbell, Roswell. Gulf would like to suggest to the Commission a modification of one portion of the proposed delineation of gas pools and would like to introduce some evidence. I wonder if the Commission wants to hear it now or after lunch.

CHAIRMAN SHEPARD: If you have evidence, I believe we will hold it up and stand in recess until 1:30, and at that time we will resume where we left off.

(Recess.)

MR. SPURRIER: Commissioner Shepard has instructed me to go ahead and open the meeting for the purpose of taking testimony. He will be here at some later time. Mr. Sanders.

MR. SANDERS: If the Commission please, we have obtained permission from the Gulf to complete our testimony before they put on their testimony.

MR. SPURRIER: You may proceed.

MR. SANDERS: Mr. Forbes, I don't believe it has been clearly brought out in the testimony as to the vertical severance between each area as to the formation of dry gas. Would you take each area individually and point out that to theCommission?

MR. FORBES: Yes, sir. In area one, the vertical distance or vertical separation between pools is the Yates and Seven Rivers and doesn't go any further down than that. In area two, we have used the Yates and Seven Rivers with the exception of the lower 100 feet of Seven Rivers. We believe that is partially gas cap gas, so were Yates and all of Seven Rivers with the exception of below 100 feet. Area three and four both Yates and Seven Rivers andQueen formations. In the Queen formation it is the upper 200 feet of theQueen formation. In other words, the Yates, Seven Rivers and upper 200 feet of Queen.

MR. SANDERS: They are considered dry gas?

MR. FORBES: They are considered dry gas reservoirs.

MR. SANDERS: Have you any suggested name for these various areas, pool names?

MR. FORBES: Yes. We have some that have been suggested which we are in accord with. In area one it has been suggested that this area be called the Jalco, combination of the Cooper-Jal field. Area two is Langemat gas pool, combination of Langlie-Mattix pool. Area three might be called the Eumont gas pool.

Area four is Arrow pool.

MR. SANDERS: That is all.

MR. McCORMICK: I would like to ask Mr. Forbes some questions. In area three what is the oil producing horizon?

MR. FORBES: From the Grayburg and the San Andres, with the exception of the small strip around here which is the Queen.

MR. McCORMICK: In NO. 1 what is the oil producing parts?

MR. FORBES: From the Yates and Seven Rivers, principally the Seven Rivers formation.

MR. McCORMICK: What are the gas producing horizons in No. 1?

MR. FORBES: The same formations. In other words in Area 1 it is probably gas cap gas, the majority of it. The upper two zones, as we classify the Yates, has a lower sulphur content and it has strictly free gas, we believe. However, like I described before that the formations have been connected by well bores so long that it is difficult to -

MR. McCORMICK: How would you suggest the Commission could determine the difference between a gas well and oil well for classification purposes and proration purposes in No. 1, the Jalco?

MR. FORBES: Well, inasmuch as there is no limitation ratio on that pool at the present time, I don't think we are too bothered about that situation.

MR. McCORMICK: Well, would you prorate all the wells there as gas wells and let them produce as much oil as would come up with that quantity of gas?

MR. FORBES: Inasmuch as we have considered this as a gas pool, gas reservoir, they will have to be prorated under some allocation formulated later.

MR. McCORMICK: I know this is outside the scope of your original examination but for the benefit of the Commission I think we would like your views on it. Say that there is one well that is producing a large quantity of oil and then in the adjoining section a well is producing dry gas from the same horizon or same formation, would both those wells be classified as gas wells?

MR. FORBES: No, I don't believe so.

MR. McCORMICK: Well, how -

MR. FORBES: I understand your problem. I prefer to defer the answer on that.

MR. McCORMICK: I gathered from your statement a little while ago that all wells that were produced, that were completed say, in the upper three pays would be automatically classified as gas wells and those that were completed below that in the San Andres and Grayburg or Grayburg and San Andres would be automatically classified as oil wells.

MR. FORBES: Are you talking about area one or three?

MR. McCORMICK: Well, either one. I think the problem is the same. I may not have the formations exactly stated correctly.

Just go back up to the Eumont, your oil is produced from the Grayburg and San Andres.

MR. FORBES: That's right.

MR. McCORMICK: Any well completed in these formations would you suggest they be classified as oil wells?

MR. FORBES: That's right.

MR. McCORMICK: And all that were completed above these formations would be automatically classified as gas wells?

MR. FORBES: That is in the upper 200 feet of theQueen on up through the Seven Rivers and Yates, yes, sir.

MR. McCORMICK: Isn't that going to be quite a problem when you have one formation split like that?

MR. FORBES: I don't think it will be. It may be a problem to a certain extent but with electrical logs and so forth now, I think it can be done.

MR. McCORMICK: Go back down to the Jalee there, just repeat for me the gas producing horizons.

MR. FORBES: On this Jalee field the producing formations are Yates and Seven Rivers.

MR. McCORMICK: For gas?

MR. FORBES: For gas.

MR. McCORMICK: And what are the oil producing horizons?

MR. FORBES: They are all producing oil from the Yates and Seven Rivers formations. Now, then, in regard to prorating it, how you can handle that, I am not prepared to answer it at the present time. I do believe this is a separate gas pool from this over here.

MR. McCORMICK: In No. 2, what are the gas producing horizons?

MR. FORBES: Yates and in all but the lower 100 feet of the Seven Rivers.

MR. McCORMICK: What are the oil producing horizons?

MR. FORBES: The Queen and the lower part of - the lower 100 feet of the Seven Rivers.

MR. McCORMICK: How about the No. 4?

MR. FORBES: All three horizons. Yates, Seven Rivers and Queen are gas horizons and with your oil.

MR. McCORMICK: If a well were completed in No.2, in Yates, then it would be automatically classified as a gas well?

MR. FORBES: That's right.

MR. McCORMICK: And also, all except the lower 100 feet of the Seven Rivers would be automatically classified as a gas well?

MR. FORBES: That's right.

MR. McCORMICK: And if it were produced from the lower 100 feet of the Seven Rivers or the Queen it would be automatically an oil well?

MR. FORBES: We believe it would be gas cap gas.

MR. McCORMICK: And should be prorated as an oil well?

MR. FORBES: I wouldn't say at this time whether it should be or not. It would be similar to the Langlie-Mattix

pool at the present time.

MR. McCORMICK: Are the gathering lines of the gas purchasing companies in all of those areas, I presume they are.

MR. FORBES: Yes, sir, I believe they are. I don't know how far El Paso goes up here.

MR. DAILEY: I believe they are in everything except area four.

MR. McCORMICK: How about the market for gas in the No. 4.

MR. DAILEY: There are only at the present time three gas wells inside that area. The gas from, I believe, two of those three wells anyway is used chiefly for gas purposes.

MR. McCORMICK: I would like for you to tell me which companies operate in each of the areas that you know which are gathering purchasing companies? That is, for high pressure gas.

MR. DAILEY: Dry high pressure gas?

MR. McCORMICK: Yes.

MR. DAILEY: Actually as far as I know, El Paso purchases some gas in area three and so does Southern Union. The El Paso purchases dry gas through this area in through here, No. 1. Whether Charles Henry Johnson purchases any dry gas there I do not know. In area two the El Paso is the main purchaser. However, I believe the Southern Union Purchases from one or two wells in the area. When Mattix had the line throughthere

they took it from area two. Whether Southern Union is continuing to do so, I don't know. As far as I know, there are no sales out of area four. In addition to that, there is a small amount of dry gas purchased out of area three by the Phillips and the warm fuel, plant fuel and house fuel.

MR. McCORMICK: Would you have any ideas or suggestions as to how the Commission would determine as to each particular well whether it was a gas well or oil well?

MR. DAILEY: In which area?

MR. McCORMICK: Well, take three for instance.

MR. DAILEY: I believe area three is probably, in that regard, is probably the easiest. I don'tbelieve that any of the oil wells producing from the Queen down through this area will produce from top allowable. I don't believe they are capable of it. There may be one or two that are but as far as I can find out, why, they aren't. Therefore, the way we have it divided, the main problem would be to determine where the well was producing.

MR. McCORMICK: How accurately can that be determined?

MR. DAILEY: I couldn't say.

MR. McCORMICK: In area one there, what ideas do you have about determining gas wells and oil wells?

MR. DAILEY: That is in area one. Again I believe you will find that the largest portion of the area, any oil wells in there are producing large volumes of water with a

few exceptions and are marginal. I don't believe that the problem would be too hard to work out.

E. L. SHAFER: Mr. Chairman.

MR. SPURRIER: Yes, sir.

MR. SHAFER: E. L. Shafer, Continental Oil Company. With regard to Mr. McCormick's question concerning area one, the Commission has previously by rule stated that those reservoirs in area one are primarily gas reservoirs. Therefore, Mr. McCormick's question would narrow it down to the classification of an individual well in that reservoir. I would suggest that the Commission use some criteria such as gas-oil ratio or other mediums of that nature to differentiate between an oil well as compared to a gas well. Inasmuch as they can and will be producing from the same reservoir essentially.

MR. McCORMICK: Would there be anything wrong with classifying area one as, all wells in there, as gas wells?

MR. SHAFER: I don't know that there would be. I don't know how you would limit the oil production from an individual well unless you placed a top allowable limit on that well. Even though you classify it as a gas well. In other words, there is no problem of corelative rights or withdrawals from an individual well since there is no limiting gas-oil ratio in effect at the present time. It is merely a classification for proration purposes. I think some criteria such as gas-oil ratio would still give each individual, whether or not he is producing an oil well or gas well the same rights and privileges that he presently has.

MR. McCORMICK: How about this division of the Seven Rivers into the lower 100 feet and the upper portion of it, is that going to be capable of accurate determination?

MR. SHAFER: I think so. I see no reason why that should pose any problem.

MR. DAILEY: That division was put in there, to explain the reason for it being put in there, you find that the bottom hole of the formation pressure through that section in here, I believe development started in the area of 1936 or 1937, the formation pressure in the hole in that area was very low in that portion of those formations that had been opened. Whereas the Yates and the upper portion of the Seven Rivers which had not been open for production had a considerable higher pressure. I believe the Yates and Seven Rivers were averaging better than 1,000 pounds, whereas theQueen pressure, I doubt if it would go over 500. That was the reason, to protect the possibility of trying to repressure the Queen through opening up both the high pressure gates in any one well.

MR. McCORMICK: How thick is the Seven Rivers formation in No. 2?

MR. DAILEY: Approximately 400 feet.

MR. McCORMICK: It is fairly uniform?

MR. DAILEY: Fairly. Not too uniform.

MR. McCORMICK: Is it more than 100 feet thick at any point?

MR. DAILEY: Is it what?

MR. McCORMICK: Is it more than a hundred feet thick at any point where there is production?

MR. DAILEY: It is 400 feet.

MR. McCORMICK: Is it more than 100 feet at the minimum at any point?

MR. DAILEY: You mean that has been opened up for production?

MR. McCORMICK: Well, if you are allowed to produce oil from a lower 100 feet of it is there any point where the Seven Rivers is not 100 feet thick?

MR. DAILEY: No, there is no place where the Seven Rivers is less than 100 feet thick. No. The way it worked out in there the total thickness of the Yates and Seven Rivers varies from, I believe, over in this area. It is approximately seven hundred and forty or fifty feet as near as I can remember, and it gets somewhat thinner this way, probably, oh, say loses 100 feet of its thickness coming this way. As far as we can tell, as far as we can trace it. The Yates is approximately 250 feet thick which would mean that you would have between 450 and 550 feet of Seven Rivers as you go across there.

MR. McCORMICK: Is there any disagreement among geologists as to where one formation begins and the other stops?

MR. DAILEY: You mean the Seven Rivers and the Queen or the Yates and Seven Rivers?

MR. McCORMICK: All three of those.

MR. DAILEY: There would be between, I believe, you would find some between the Yates and Seven Rivers especially back in here along this area, it is rather definite, especially where

you have an electrical --

MR. ADAIR: (Interrupting) For the purpose of the record, will you indicate where you are pointing?

MR. SPURRIER: Just say from east to west.

MR. DAILEY: Well, in area one, along the reef there is a rather definite separation point between the Yates and Seven Rivers that can be picked off from line wells or radio active surveys or from electrical logs. As you go east, that definite break becomes somewhat indefinite, the characteristics of the Yates and Seven Rivers become fairly similar.

MR. SANDERS: That is in area two.

MR. DAILEY: That's right.

MR. ADAIR: That is the southeastern portion of area two.

MR. DAILEY: That's right. Similar conditions exist up here farther north.

MR. SANDERS: Farther north of area one, is that what you are speaking of?

MR. DAILEY: That's right.

MR. McCORMICK: I would like to ask another question. Assuming that the Commission would adopt, would go ahead and define pools somewhat like you have it there, with perhaps some minor changes, do you have a practical suggestion as to how the Commission would go through the mechanics of saying that this well is an oil well or it is a gas well?

MR. DAILEY: No. It would undoubtedly require a study of each individual well by qualified engineers or geologists.

MR. FRANK R. LOVERING: Lo vering, with Shell. I have a question. Does this thing resolve itself into defining gas cap rather than gas reservoirs or gas pools? Isn't that the result of this survey?

MR. DAILEY: In area three to a certain extent, yes.

MR. LOVERING: It seems to me that in areas one and two, it seems that it is admitted that gas is coming from the same wells.

MR. DAILEY: Not all the gas.

MR. LOVERING: A good part of it.

MR. DAILEY: Part of it, yes.

MR. LOVERING: As a gas field, so designated, those wells would produce on gas allowables the same reservoir an oil well connection of producing curtailed and limited by limitations in oil allowables rather than gas and might there not be some advantage given to gas areas in regard to recoveries both in the fluids and in reservoir energy? I don't see how you can have a gas pool so devined that actually the source of production is from an oil and gas reservoir.

MR. DAILEY: I believe that the only place where we have done that is in area one.

MR. LOVERING: That is particularly the one I had in mind.

MR. DAILEY: It, as Mr. Shafer pointed out, has been declared primarily a gas reservoir by the Commission.

MR. LOVERING: Even in area two, doesn't that area amount to have nothing more than a gas cap overlying on the edges there, say, oil horizon adjacent to there, you get oil wells, so testified,

out of the same reservoir, don't you?

MR. FORBES: Area two is mostly dry gas, Mr. Lovering, practically all of it. We will admit there is oil here and here (indicating).

MR. LOVERING: I don't object to mostly. It is oil and gas regardless of which is predominate.

MR. FORBES: I would say in area two, the gas in area two is a gas cap for these small wells.

MR. LOVERING: The impression I got from the testimony and maybe others here too, that actually you are defining a gas cap in each case and all these gas pools would be actually producing from the same reservoir as the adjacent oil wells.

MR. SHAFER: Perhaps I can clarify that for you a little in area two. Ithink the only sections that we have described or suggested be place in the dry gas reservoir that also produces oil is the upper Yates section.

Admittedly, in the upper Yates and some of the little troughs throughout that area, I believe are three in number, there is a limited oil production. However, on an acreage basis, the acreage assigned to those oil wells comprises approximately three per cent of the total area set up in the gas pool and inasmuch as it is true of area two that the Commission has stated that the reservoirs are primarily gas reservoirs, we feel that the individual producing sections or formations that we have suggested be place in the gas pool or one hundred per cent productivity of dry gas or are primarily productive of dry gas.

The only instance in which I can see that any confusion might be created is in area one designated as, primarily as a gas reservoir and the gas reservoir we are suggesting, the one and the same. If they call the entire thing a gas pool, however, and limit the production of oil from a gas well to top allowable, I cannot see that it will change anything from what its present status is.

MR. LOVERING: I think your statement is understandable and probably true. The thing I forsee here is that we are going to get faced with the problem of proration of oil wells on one side of the line and gas wells on the other which you may be producing from the same reservoir, and that we may have a problem, the Commission would have a problem of prorating to everybody's satisfaction oil where gas production of those wells from the other side of the line.

MR. SHAFER: You are making the point that, for instance, taking an example, say, in the area two or Langemat area, you have a well producing from the Yates, say, upper Seven Rivers which is a very common occurrence in area one, or the Jalco pool, you might have a well producing from the Yates and upper Seven Rivers which is now classified as an oil well. That comes back to the same point. I can't see any reason why that well in area one couldn't be designated a gas well.

MR. FORBES: We separated these two areas by sulphur content and the lack of permeability here.

MR. SHAFER: There are geological factors and other factors

that caused you to draw the line in there. Otherwise, we would have made one pool out of the entire thing.

MR. LOVERING: To actually separate the gas to gas pool or reservoirs, as separate from gas, it is practically impossible to do, is that right?

MR. SHAFER: That is something that I hope everyone will bear in mind. We did not have the opportunity to take a new field or new area and work up some appropriate rules and regulations. We are taking an old set of conditions that existed for many, many years. We studied them thoroughly and we tried to do the best we could. Admittedly, there is a lot of debatable points, there is a lot of questions that can arise regarding the lease boundaries of surface ownership and other matters. We tried to avoid those things and keep it strictly on a geological and individual well data basis at this time, in order to get some sort of gas pool boundary set up, in order that these other matters can be intelligently discussed later on.

I am afraid if we got into those factors right now, we would be going on to next Christmas.

MR. LOVERING: I don't want to go to next Christmas.

MR. SANDER: We have concluded our testimony. If nobody has any more questions, we would like to introduce the three exhibits up here into evidence.

MR. McCORMICK: Why don't you mark the one, two and three?

(Maps, marked as Exhibits 1, 2, and 3, for identification.)

MR. CAMPBELL: Stanolind representative has asked to make

a statement before we put on our evidence.

MR. L. H. BOND: L. H. Bond, Stanolind Oil and Gas Company. As has previously been stated by Phillips representatives, Stanolind participated in this study, one of our engineers working on the study full time for a considerable period. It is my opinion that this study represents a reasonable approach to the problem but that as has been mentioned, adjustments will probably have to be made to take into account new data which is discovered by further development or futher study of individual areas. I think it does represent a good start at solving the problem and concur generally with Continental's recommendations for these four areas.

MR. SPURRIER: Thank you.

(Witness sworn.)

MR. CAMPBELL: If the Commission please, Gulf Oil Corporation, Jack M. Campbell, Atwood, Malone and Campbell, Roswell, New Mexico. Gulf desires to present for the Commission's consideration a minor modification of the proposed gas pool designations and calling as its witness, R. L. Boss, Hobbs, New Mexico.

R. L. B O S S,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By MR. CAMPBELL:

Q State your name.

A R. L. Boss.

Q Where do you reside?

A Hobbs, New Mexico.

Q By whom are you employed?

A Gulf Oil Corporation.

Q What capacity?

A Zone Geologist.

Q Have you testified before this Commission on previous occasions?

A Yes.

MR. CAMPBELL: Is the Commission satisfied with the qualifications of Mr. Boss as an expert witness in the field of geology?

MR. SPURRIER: Yes.

(Marked "Gulf's Exhibit No. 1" for identification.)

Q I hand you what has been identified as Gulf's Exhibit 1, in Case No. 245, and ask you to state what that is?

A It is a plat showing the interpretation of the Yates structure and in addition the outlines of the gas areas one and two have been shown plus the suggested revision of those areas.

Q Did you prepare this map yourself?

A That's correct.

Q Did you obtain the information on the contours yourself in the preparation of the map?

A That's correct.

Q The contours as shown on this map are the same as the contours shown on Continental's Exhibit No. 1?

A They are drawn on essentially the same horizon, however, there

is a variation among many of the geologists in using the Yates as a reference datum. Some use the top of the Yates sand and some use a point 20 to 30 feet bebw. In this instance, I believe the Continental uses the top of the sand, and I believe Gulf uses the lower horizon. It amounts to a slight variation but essentially the map should correspond very closely.

Q You are acquainted with the proposed gas pool designations as indicated in Continental's Exhibit No. 3?

A I am.

Q Based upon your studies in the area you referred to, do you have a recommendation as to modification of the Continental's recommendations?

A I do.

Q Have you prepared a statement setting out your views in that regard?

A Yes.

Q First will you state which area is involved in your proposed modification?

A Well, it is common boundary of areas one, two and three.

Q The known boundaries?

A The known boundaries.

Q Of areas one and two?

A That's correct.

Q And the southern boundary of area three?

A Yes.

Q Read the statement you prepared in connection with your study.

A "The proposed delineation of shallow gas areas in Southeastern Lea County is in general accord with the interpretation made by the Gulf Oil Corporation. We concur in the statement that the Grayburg formation is primarily an oil reservoir in areas 3 and 4. While Gulf recognizes the fact both sweet and sour gas are produced from the Yates and Seven Rivers formations in the southern part of the county, the difference being attributed to the production of sour gas from porous dolomites of the "reef" area along the western margin of production, the fact the Yates sands are apparently productive of sweet gas over much of the entire area leads to the interpretation that no distinct separation exists and this reservoir within the Yates and Seven Rivers formations is essentially a common one. However, if it is felt desirable to differentiate between the sweet and sour areas, Gulf will offer no objection to such delineation.

"Gulf is not in accord with the north limits recommended for the Yates-Seven Rivers gas poolor pools. The essential difference which embraces most of the Eunice-Monument field, is the fact that in the latter theQueen formation is productive or potentially productive of gas. The common boundary of the areas as previously recommended is drawn through the last tier of sections in Township 21 South, Range 36 East. However, the southwest part of this township occupies such a relatively low position structurally that the Queen formation, particularly the lower Queen, occurs below the gas-oil contact. Thus, the only formations here potentially productive of gas are the Yates

and Seven Rivers. The area of Yates-Seven Rivers (solely) gas production should, therefore, be extended northward.

"Relative structural position appears a reasonable basis for separation of the areas. The interval from the top of the Yates to and including the upper queen sand is approximately 750 feet. The gas-oil contact in the immediate area has been established as approximately 200 feet below sea level. The 550 foot Yates contour thus represents the approximate south limit of Queen gas and pool limits herewith proposed follow, as nearly as possible, this contour with exceptions where specific data are available.

"The resulting north boundary of the Yates-Seven Rivers gas area would be extended as shown on Gulf Exhibit No. 1, to include the following area:

"Township 21 South, Range 35 East:
E½ Sec. 12, E½ Sec. 13, and E½ Sec. 24.

"Township 21 South, Range 36 East:
W½/Sec 7, W½ Sec. 18, All Sec. 19, S½ Sec. 20, W½ Sec. 28, All Sec. 29, All Sec. 30, NE¼ Sec. 31, N½ and SE¼ Sec 32, N½ Sec. 33, and N½ Sec. 34."

Q Mr. Boss, for the benefit of those here can you point out generally on Continental Exhibit No. 3, what that area embraces?
A The Yates, Seven Rivers areas would be extended northward then to include the east half of 12, the east half of 13, the east half of 24 of Township 21 South, Range 35 East; to include the west half of Section 7, the west half of 18, all of 19, the west half of 20, the west of 28, all of 30, all of 29, the northeast of 31, the north half and southeast of 32, the north half of 33 and the north half of 34.

Q Based upon your study do you recommend that the north limits of the Yates-Seven Rivers pool be extended as shown on the dotted lines of Gulf's Exhibit 1?

A I do.

MR. CAMPBELL: That is all.

MR. SPURRIER: Does anyone have any questions of this witness?

MR. SELINGER: Does the witness mean that you want areas one and two to be extended to take in a portion of what Continental has designated as area three, is that what you mean?

A Correct.

MR. DAILEY: Do you mean that, or extend area two and leave area one as is?

A As we have interpreted that area as Yates-Seven Rivers gas production, it really would make no difference which one according to our interpretation, so we have no objection to extending two up to include that.

MR. SPURRIER: Any further questions? If not, the witness may be excused.

MR. CAMPBELL: I think for the benefit of the Commission it might help to determine what Continental feels about that proposed extension, whether they object to it or feel that it would be satisfactory generally.

MR. SPURRIER: Mr. Sanders, do you have any comment?

MR. SANDERS: No, sir, we have no objection to that.

MR. SPURRIER: Is there any other comment on Gulf proposal?

MR. DON LITTLE: Mr. Chairman, my name is Don Little. I represent Standard Oil Company of Texas, from Houston. Standard of Texas owns a joint venture interest in many of the Continental operated leases scattered throughout this area. We have reviewed the report and the exhibits submitted here today by Continental and are in substantial agreement with the findings of that report insofar as it suggests or attempts to define the limits of the gas pool in the area under consideration. We feel that this report represents a constructive approach to this problem of defining these gas pools and we recommend it to the Commission on that basis for their study and commission. Thank you.

MR. SPURRIER: Thank you. Anyone else?

MR. LOVERING: It occurred to me that they be referred to as gas areas rather than to gas pools. I don't think they are gas pools.

MR. SHAFER: Although we have referred to them as gas pools we originally commenced this study and referred to them as areas primarily because of lack of nomenclature. We hadn't decided any names. However, to be of any benefit they must be common sources of supply which is synonomous of pools. Otherwise, we can't promulgate any rules or regulations to fit those various pools. I suggest that we do consider them as pools even though it is contrary to Mr. Lovering.

MR. LOVERING: I withdraw my objection.

MR. C. E. CARDWELL: C. E. Cardwell, with Atlantic. Continental pointed out in this testimony Atlantic did go over this study with them and we are in substantial agreement with their recommendations to the Commission.

MR. SPURRIER: LThank you, Mr. Cardwell. Anyone else? Has anyone anything further in the case? Do you have something, Mr. Dewey?

MR. DEWEY: We have the Blinebry gas field if you would like to hear it this afternoon. It is a deeper gas field than presented.

I am R. S. Dewey, Humble Oil and Refining Company, Midland, Texas. On behalf of the Humble Oil and Refining Company we wish to state that we are in substantial agreement with the evidence that has been placed before the Commission in this case in regard to the shallow fields in Lea County. As our part of the hearing we have prepared a very short discussion of the Blinebry gas pool and I think, Mr. Spurrier, that perhaps some of the other operators have some other pools they want to discuss. We have one witness, Mr. W. L. Crothers, who has n't appeared before you before.

(Witness sworn.)

W. L. CROTHERS,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By MR. DEWEY:

Q I wish you would state your name, please.

A W. L. Crothers.

Q For whom are you employed?

A Humble Oil and Refining Company.

Q In what capacity?

A Petroleum Engineer.

Q How long have you been active in this area?

A In West Texas and New Mexico since 1936.

MR. DEWEY: Is that suffiecien qualifications?

MR. SPURRIER: Yes.

Q Mr. Crothers has prepared a statement which he would like to read and which we will leave with the Commission. I might say that this matter has been discussed with the various operators concerned in the area so far as we know it is not controversal. We haven't been able to find any material disagreement with it.

MR. CROTHERS: "Blinebry Gas and Oil Pays. There are 12 oil wells in the Blinebry Field and 11 gas-distillate wells are completed to produce from the Blinebry pay. Data available for these wells are listed in the accompanying tables. The oil wells are all marginal with allowables in March 1951 ranging from 5 to 28 bbl/day and averaging 11 bbl/day. As shown on the accompanying map, the oil wells are in three areas over an interval of about 8 miles. Practically all these oil wells were originally drilled with some other pay such as Drinkard as an objective and were only completed in the Blinebry after failure to produce in other pays. The average cumulative production of the oil wells to

January 1, 1951, is approximately 15,000 bbl/well. It should be noted that on the map only wells with production tests or drill stem tests of a Blinebry pay are shown although there are a number of other wells in the area producing from the Paddock, Drinkard and other pays. It will be noted from the map that the Blinebry has been found productive of gas over an area about 9 miles long with a maximum width of about 2 miles. Data available are sufficient to indicate whether gas production will be continuous over the entire length of the area involved. Initial tests of Blinebry gas wells show production of distillate varying in gravity from 50 to 64 degrees A.P.I. at gas-distillate ratios varying from 40,000 to 100,000 cubic feet per barrel.

"If oil is found in a reservoir with a gas cap and the pressure in the gas cap is lowered faster than that in the oil pay, oil will migrate to the gas cap. The small percentage of the oil migrating to the gas cap will be produced. Pressure data for the Blinebry pay show that the pressures of the oil wells have dropped much faster than those of the gas wells, indicating that little if any oil migration of a gas cap has occurred or will occur. Pressures reported for oil wells include the following: Olsen, Danglade 1, 11-49, 1635; Penrose, Hinton 3, 7-50, 839; Penrose, Hinton 4, 7-50, 1525; Rowan, Elliott B-13-1, 6-50, 903; Sinclair, Hill 1, 11-48, 1018; Texas, Lockhart 2, 11-50, 812.

"Back pressure tests indicate the gas wells had pressures of about 2300 pounds at the middle of 1950.

"Cross-sections AA' and BB' were prepared primarily to determine whether oil and gas production were from the same zone. Section AA' shows oil production in Gulf-Pike 1 just above

the top of the Blinebry while oil production in Sinclair-Hill 1 is from a point about 65 feet below the top of the Blinebry. These wells are about 7 miles apart. In the central area where most the oil wells are located, Rowan-Elliott B-12-1, Section BB', is shown by drill stem tests to have its best oil pay 65 feet below the top of the Blinebry. Data on Section AA' for such gas-distillate wells as Gulf-Vivian 5, Humble-Penrose 1, and Sinclair-Sarkeys 1 indicate that gas production is from just below the top of the Blinebry.

It is believed that these data indicate that it is unlikely that the Blinebry gas-distillate pay is a gas cap of the oil pay or pays. The gas-distillate pay occurs about 65 feet higher in the section than the oil pay and has a bottom hole pressure from 800 to 1500 pounds higher. In the event that it should be the gas cap of the oil pay, it is believed that negligible loss of ultimate oil production would occur as a result of prorating and producing the gas pay as a separate gas pay.

A proposed area boundary for the Blinebry gas-distillate pay is shown on the attached mpa. The area included inside this boundary is largely undeveloped. It is recommended that this boundary be revised as development extends or reduces the area inclosed in it."

MR. DEWEY: The material has been supplied to a great many of the operators operating in southeastern Lea County and it has been available to them. However, if there is anybody that desires to cross examine the witness, they may do so.

MR. SPURRIER: Does anybody have any questions of this

by data available at a later date, must be considered a dry gas reservoir.

There are no other oil or gas pays in the remaining few feet of the subjacent Permian beds and in the overlying section the nearest pay stratigraphically is the lower Drinkard of Andrews oil zone. From the attached Section C the relative position of this gas pay is available.

In view of the quite local development of the zone, the depth necessary to reach it, and the small potential indicated no further exploitation of this pay appears probable. The immediate section within which the well is located (see accompanying map) namely; Section 25, Township 22 South, Range 37 East, appears ample for the horizontal limits of the pool. For like reasons, the presently exposed stratigraphic interval provides adequate vertical limits.

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GULF CORPORATION'S EXHIBIT NO. 3

JUSTIS GAS POOL

In the Justis gas Pool, the lateral limits of which have previously been defined, there are at present four producing wells. The gas pay of this pool occurs in a section of porous dolomite immediately underlying the Glorieta horizon. In order to illustrate the structural and stratigraphic relation of the wells which have either tested or are producing from this zone, the cross-section B-B' has been prepared.

Available data suggest this reservoir is quite limited, being confined almost wholly to the very crest of the structure.

At lower structural elevations the zone is water-bearing. The Western Natural Gas Co. No. 1 Eaton (well 2 of section) which occupies a relatively medial structural position was originally completed in this pay for a potential of 9,000 MCF per day. Subsequently, because of encroaching water, it was necessary to plug the well back to the more shallow Queen formation. In addition, the Atlantic-Olsen No. 1 Justis (Langlie) and the Olsen No. 1 Wimberly (wells 4 and 5 of section), both of which occupy a hight structural position, tested all underlying formations without disclosing any additional oil or gas pays. These data suggest the zone to be a dry gas reservoir and not a gas cap associated with an adjacent oil pay at either a lower structural or stratigraphic position.

From the data at hand it is disclosed the productive section is confined to the interval from a minimun of 7 feet to a maximum of 160 feet below the Glorieta horizon. In view of the performance of the reservoir to date, it seems probable the productive limits of the pool will fall within this interval. For this reason, the more or less arbitrary figure of 200 feet below the Glorieta datum appears as a reasonable vertical limit for the Justis gas zone.

In view of its limitations, little if any additional exploitation of this reservoir is anticipated and therefore the horizontal limits of the pool as presently defined appear adequate. These limits, as shown on the accompnaying map, comprise the following lands: SW/4 Section 1, SE/4 Sec. 2, E/2 Sec. 11, W/2 Sec. 12, W/2 Sec. 13, E/2 Sec. 14, E/2 Sec. 23, and W/2 Sec. 24, all in Township 25 South, Range 37 East.

AMERADA PETROLEUM CORPORATION
EXHIBIT NO. I
CASE 245

MONUMENT-McKEE GAS POOL

In the Monument field there is one well producing gas from the McKee sand in the Simpson formation. Three other wells drilled through the McKee sand have indicated on drill stem tests that they will produce gas from that zone.

The attached cross-section shows the sample logs and drill stem test results for all wells drilled through the McKee sand in the Monument field. The attached map shows the location of the wells.

The McKee sand is considered as the zone starting at 9846' (-6256') in Amerada Petroleum Corporation's State F Well No. 5 and extending to the top of the Ellenberger formation at 10,010' (-6520'). The water level is at approximately 6330' subsea.

Amerada State F Well No. 5 was completed Novmmber 4, 1948 as a high gas-oil ratio oil well. This was the discovery well for the Monument--McKee pool. The thin oil column was soon depleted and the well was reclassified as a gas wll March 1, 1950. The well currently produces condensate with a gravity of 65 degrees API. No other well has indicated any oil column.

The boundaries originally set out by the Oil Conservation Commission for the Monument-McKee Pool, should cover any possible gas productive acreage from that zone. Those boundaries are:

T. 19S, R36E Section 36
T. 19S, R.37E Section 31
T. 20S, R.36E Section 1
T. 20S, R.37E Section 6

AMERADA PETROLEUM CORPORATION
EXHIBIT NO. I
IN CASE 245

HIGHTOWER PERMO-PENNSYLVANIAN GAS POOL

In the Hightower field there are two gas wells completed in a section refered to as the Permo-Pennsylvanian zone. Two other wells drilled through this zone have indicated on drill stem tests that they will produce gas from that zone. Three other wells were drilled through this zone with insufficient porosity development to produce and one of these wells found water in the base of this zone.

The attached cross-section shows the electric logs and drill stem test results for five wells drilled through the Permo-Pennsylvanian zone in the Hightower field. The attachedmap shows the location of all wells in the Hightower field.

The zone that is gas productive starts at or near the top of the Wolfcamp in the Amerada Petroleum Corporation's B.C. Roach Well No. 1 at 8385' (-4136') and extending to 8690' (-4441') which point is 70' below the top of the Pennsylvanian. The water level in this zone is at 4500 subsea. Water found on a drill stem test in the lower part of this zone separates this reservoir from lower oil productive zones.

The boundaries originally set out by the Oil Conservation Commission for the Hightower Permo-Pennsylvanian Pool, should cover any possible gas productive acreage from that zone. Those boundaries are:

T.12S, R33E Sections 22, 23, 26 & 27.

BEFORE THE

OIL CONSERVATION COMMISSION

May 23, 1951

CASE No. 245

MR. SPURRIER: Let the record show, no one appeared to testify. The Commission has written testimony on pools not taken up at the first hearing on April 24th. Therefore, the case was closed and taken under advisement.

STATE OF NEW MEXICO)
:
COUNTY OF BERNALILLO)

I HEREBY CERTIFY that the foregoing and attached transcript of proceedings before the Oil Conservation Commission in Case No. 245, taken on May 23, 1951 at Santa Fe, is a true and correct record of the same to the best of my knowledge, skill and ability.

DATED at Albuquerque, this 20th day of June, 1951.

E. E. Greer
Reporter

My Commission Expires:

August 4, 1952

BEFORE THE

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

TRANSCRIPTION OF HEARING

CASE NO. 245

24 July 1951

(DATE)

Original

E. E. GREESON
ADA DEARNLEY
COURT REPORTERS
BOX 1302
PHONE 2-4547
ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION
July 24, 1951

CASE NO. 245: (Readvertised). In which the Oil Conservation Commission on its own motion will hear further testimony and date relating to the Byers gas pool in Sections 29, 30, 31 and 32 in Township 18 S, Range 38 E. NMPM, Lea County, New Mexico.

MR. SHEPARD: We will take up Case No. 245.

(Mr. Graham reads the Notice of Publication.)

MR. SHEPARD: State your name, Mr. Manley, for the record.

MR. MANLEY: My name is E. D. Manley, exploitation engineer for the Shell Oil Company, Hobbs, New Mexico.

(Mr. Manley sworn.)

MR. GRAHAM: Mr. Manley, will you state your name and also your position and then explain your testimony?

MR. MANLEY: My name is E. D. Manley, exploitation engineer, Shell Oil Company, Hobbs, New Mexico. I wish to present testimony relative to the delineation and designation of the Byers Gas pool of Lea County, New Mexico. I have a prepared statement that was made by Shell Oil Company with the help of others in their office at Hobbs, that shows the data and contains the conclusions drawn from this study, so you won't have to take this down. (To the reporter.)

"BYERS GAS POOL

In the Hobbs Field Area there are three wells producing dry gas from the Byers Gas Pool A total of four wells have produced gas from this horizon but at present only three wells are producing with the fourth shut in due to its very low capacity. An attached tabulation shows the well locations and producing interval.

The Byers Sand is a member of the Queen formation, Whitehorse group of the Permian system. The Byers Sand (sometimes known as the Big Gas Sand) occurs at an approximate depth of 3650 feet and averages about 70 feet in thickness. Other producing horizons in the same area are the Bowers Sand of the Seven Rivers formation which is approximately 500 feet above the top of the Byers, and the Hobbs pay zones (San Andres) which underlie the Byers some 300 feet. The 500 feet separating the Bowers oil reservoir from the Byers Gas Reservoir consist predominately of anhydrite. The 300 feet separating the Byers Gas reservoir from the Hobbs oil pay consist of dolomite and sandy dolomitic limestones ofGrayburg age - the upper portions of which are impermeable.

The Byers Sand is prevalent over the entire Hobbs structure and during the development of the Hobbs pool it presented blow-out hazards due to its high pressure. Gulf W. Grimes No. 4, Unit C, Section 32-T18S-R38E, the first commercial gas well in the Byers Gas Pool, was plugged back from the Hobbs pay and recompleted as a Byers gas well in

the early part of 1941. It had an initial potential of 23.8 million cubic feet of sweet gas per day and a shut in surface pressure of 1700 psi.

The gas produced from this horizon has a negligible hydrogen sulphide content and is considered sweet whereas the gas occuring in the Hobbs pay has a 1.3 per cent H_2S content. At present the Byers gas production is not accompanied by any liquids but during the early life of the reservoir distillate was produced in small amounts.

The cumulative gas production as of March 1, 1951, was 6,557,730,000 cubic feet and the average daily production was 698 MCF during the last 14 months. A portion of the gas from the field is being sold to the Hobbs Gas System with the remainder being utilized for gas lifting wells in the Hobbs Pool and for domestic lease fuel. No gas is being wasted; the gas employed in gas lifting is later recovered in the Phillips Hobbs Gasoline Plant gas gathering system.

On the basis of the Byers Sand's stratigraphic position, the fact that its gas composition is different from the Hobbs Pay gas, and the absence of associated liquid hydrocarbons, it is proposed that the Byers Sand under the following acreage be defined and designated as a gas pool:

T. 18S, R. 38 E Sections 29, 30, 31 and 32

Between the depths of 3500' and 3800'

The proposed gas pool is shown on the attached plat.

MR. MANLEY: I would like to present this tabulation as Exhibit 1, which is attached to the testimony. It shows the location and total depth, the well producing interval, and any remarks that are pertinent to the case.

MR. SHEPARD: Are you through Mr. Manley?

MR. MANLEY: Yes, sir.

MR. SHEPARD: Any questions? Any statements? If not, you are excused.

MR. MANLEY: Thank you sir.

MR. SHEPARD: Case 245 will be taken under advisement.

-o-o-

STATE OF NEW MEXICO)
: ss
COUNTY OF BERNALILLO)

I HEREBY CERTIFY THAT THE FOREGOING AND ATTACHED TRANSCRIPT OF PROCEEDINGS BEFORE THE OIL CONSERVATION COMMISSION IN CASE NO. 245, HELD ON JULY 24, 1951, IS A TRUE AND CORRECT RECORD OF THE SAME TO THE BEST OF MY KNOWLEDGE, SKILL AND ABILITY.

DATED at Albuquerque, New Mexico, this 4th day of August, 1951.

E. E. Greer
REPORTER

My Commission Expires: 8-4-52

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

Santa Fe, New Mexico
March 17, 1953

TRANSCRIPT OF HEARING

CASE NO. 521

ADA DEARNLEY & ASSOCIATES
COURT REPORTERS
ROOM 12, CROMWELL BLDG.
PHONES 7-9645 AND 5-9546
ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

Santa Fe, New Mexico
March 17, 1953

In the Matter of:	)	
	)	
Application of the Oil Conservation Commission upon its own motion for an order establishing means and methods for the proration of natural gas in Lea, Eddy, Chaves and Roosevelt Counties.	)	Case No. 521

TRANSCRIPT OF HEARING

(Notice of Publication read by Mr. Graham.)

MR. SPURRIER: On this case the Commission believes that it recognizes a need for proration and ratable take of gas in Lea County, and, for that matter, in the State of New Mexico. However, this particular case applies only to Lea, Eddy, Chaves and Roosevelt County. We anticipate a lot of hard work and a lot of difficulty in getting this set up properly. We want to be fair to everyone and, as I have said before, we intend to referee this thing. We do not have all the personnel that we need to go into the matter completely and set it up.

We would like to appoint an advisory committee to report to us on how this might be set up and we want that Committee to report at the next hearing, which will be April the 16th. Before I leave that part of it I might say that we have tried to put companies who have considerable production, or have a special interest, or the purchasing companies of natural gas. Perhaps you had better make notes on this. I will confirm this with a

letter, but we head the list with El Paso Natural Gas.

I think whoever the member might be designated from that company might be the chairman. However, that is something for the Committee to determine. The second company is Southern Union, the third is Continental Oil Company, the fourth is Gulf, the fifth is Humble, the sixth is Shell, the seventh is Texas and Pacific Coal and Oil Company, eight is Phillips Petroleum Company, nine is Samedan, and I think that if Mr. Staley, , Staley's office can and will, we would like you to serve as the secretary, Mr. Staley.

MR. STALEY: I will be glad to assist in every way possible.

MR. SPURRIER: We presume that some of you have some comments to make in this case. Before we take those comments we would like to impress on you that we are not starting this to continue it and continue it indefinitely. We will expect a report from this Committee at the April hearing and we expect by the May hearing to be able to set it up. I am sure that many of you have been thinking about it for a long time. I don't believe that two months is too short a time to get this thing set up. Is there anyone who has a comment in the case?

MR. HOUSE: You want to give Mr. Staley the responsibility of securing the names of the people to serve on the Committee and also announce the place and date of the first meeting.

MR. SPURRIER: Did everyone hear that? He would like to know the names, and I think I will let Commissioner Staley be a clearing house for that, the names of the men that the various companies want to serve on this Committee. I think you all

understand that the meeting will have to be called as soon as possible.

MR. STALEY: If it meets with your approval, I will be glad to pole the members of the Commission and determine for the Committee the persons to serve.

MR. SPURRIER: They didn't hear that, Glen.

MR. STALEY: I say, if it meets with the approval of those present, our office will be glad to pole the companies that you have appointed on this Committee and to determine the members that are to serve, and we will set a date for a preliminary meeting, one that will meet with the approval of the Committee.

MR. KELLY: It was my understanding that this Committee is a Committee working for the Oil Conservation Commission, appointed by them and working under their jurisdiction.

MR. SPURRIER: Yes. Anyone else?

MR. FOSTER: I would like to suggest that the chairman there name the time of the preliminary meeting now. I think that would save a lot of time. I will designate our man this afternoon.

MR. SPURRIER: It may be that the El Paso Natural Gas is not ready to designate a man. If they are he will be at least temporary chairman, and perhaps you could announce a meeting date.

MR. COLEMAN: Coleman, with El Paso Natural Gas Company. We are not ready, at this time, to appoint a chairman. I would like to check to see who is coming. We can either set the date, or Mr. Staley.

MR. SPURRIER: Any other comments in this case? If not

Case 521 will be continued at the April 16th hearing and we will go on to the next case.

STATE OF NEW MEXICO)
: SS.
COUNTY OF BERNALILLO

I, ADA DEARNLEY, hereby certify that the above and foregoing transcript of proceedings in Case No. 521, taken before the Oil Conservation Commission on March 17th, 1953, at Santa Fe, New Mexico, is a true and correct record.

Dated in Albuquerque, New Mexico, this 25th day of March, 1953.

Ada Dearnley
Notary Public

My Commission Expires:
June 19, 1955

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

March 20, 1951

- -

Case 245:

This case, which involves the designation of the gas pools in Lea, Eddy, and Chaves Counties, was originally scheduled for the December hearing. At that time sufficient information was not available to enable the Commission to promulgate an order, and the case was therefore continued to the regular March hearing (March 20, 1951.).

CHAIRMAN SHEPARD: The next case is 245, will you read it, Mr. Graham please.

(Mr. Graham reads the notice of publication.)

MR. DAILEY: My name is Homer Dailey. We, at the December hearing in this case when it came up before, we asked for a continuance until this hearing. In the meantime, we found there was a little bit more work than what we bargained for, and would like to ask for another 30 days to get the rest of the data.

At the present time, we have made a series of some 12 or 14 cross sections and written data. The data is fairly well practically completed. However, it will take 30 days to get

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

April 16, 1953

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CASE 245 and CASE 521: Case 245 - continued - Under terms of Order R-264 which denominated gas pools in Southeastern New Mexico, further testimony will be received for the extension of existing pools or the creation of new pools.

Case 521 - Application of the Commission on its own motion for an order, establishing means and methods for the proration of natural gas in Lea, Eddy, Chaves and Roosevelt Counties. This case was continued in expectation of report of advisory committee which was appointed at the March 17 hearing.

MR. SPURRIER: I have a letter from the Chairman of the advisory committee to the Oil Conservation Commission on Case 521. It is signed by A. L. Hill, Chairman.

"As requested by Mr. R. R. Spurrier under letter dated March 19, 1953, the above mentioned advisory committee met in the office of the New Mexico Oil & Gas Engineering Committee in Hobbs, New Mexico at 10:00 a.m., March 24, 1953. As suggested by the Commission, the representative of the El Paso Natural Gas Company acted as chairman of this committee. Spurrier and other Commission personnel, Mr. Taylor of the New Mexico Oil & Gas Engineering Committee and representatives of each of the companies appointed to the advisory committee were present at this meeting.

"A subcommittee was appointed for the study and determination of general rules of gas proration for submission to the advisory committee. Another subcommittee is to study a report as to any required revisons of present gas pool desigations. Each committee consists of a representative from each of the companies represented on the advisory committee.

"A meeting of each of these subcommittees was held in Hobbs at 10:00 a.m., March 31. Samedan Oil Corporation represented by George E. ~~Kendell~~ Trimble acted as chairman of the general rules subcommittee. They met in the office of the Oil and Gas Engineering Committee.

"Gulf Oil Corporation represented by Mr. R. L. Haas acting as the chairman of the pool definitions subcommittee met at the Humble Recreation Hall. Each of these subcommittees, subjects for additional study were

agreed upon and provision made for future meeting. The minutes of the initial advisory committee meeting and the meeting of each of the subcommittees have been furnished to the Commission.

"It is recommended that the hearing be kept open and continued until the final report of the advisory committee."

Now, you will notice that there is a subcommittee designated for the study what could be properly called Case 245.

Does anyone else have anything to be heard on either of these two cases? The Commission will continue these two cases until the next regular hearing which will be held on May 19th and we urge you to -- that is the Committee and the subcommittee to proceed with all possible speed. We realize that this is quite a problem but we, nevertheless, would like to have you move as fast as possible. The next case on the docket is Case 497.

STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

I hereby certify that the foregoing and attached transcript of hearing in Cases 245 and 521 before the Oil Conservation Commission on April 16, 1953, at Santa Fe, is a true record of the same to the best of my knowledge, skill and ability.

DATED at Santa Fe, this 28th day of April, 1953.

Audrey M. Henrickson

My commission expires September 20, 1955.

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

April 16, 1953

CASE 245 and CASE 521: Case 245 - continued - Under terms of Order R-264 which denominated gas pools in Southeastern New Mexico, further testimony will be received for the extension of existing pools or the creation of new pools.

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"Gulf Oil Corporation represented by Mr. R. L. Haas acting as the chairman of the pool definitions subcommittee met at the Humble Recreation Hall. Each of these subcommittees, subjects for additional study were

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STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

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DATED at Santa Fe, this 28th day of April, 1953.

Audrey M. Hendrickson

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