

Case No.

586

Application, Transcript,
Small Exhibits, Etc.

Before the
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

NOV 1 1953

TRANSCRIPT OF PROCEEDINGS

Case No. 586

October 28, 1953 - Special Hearing

ADA DEARNLEY & ASSOCIATES
COURT REPORTERS
ROOM 105-106, EL CORTEZ BLDG.
PHONES 7-9643 AND 5-9546
ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

October 28, 1953

IN THE MATTER OF:

The Blinebry Gas Pool, in Lea County,
New Mexico, said operators and interested
persons being called upon to show cause
at special hearing beginning at 9 o'clock
a.m., on October 28, 1953, why Order No.
R-372, Arrow Gas Pool, as amended at such
hearing, should not be effective and in
full force and effect as of November 1,
1953.

Case No. 586

BEFORE:

E. S. (Johnny) Walker, Commission of Public Lands
R. R. Spurrier, Secretary, Oil Conservation Commission
(See transcript in Case No. 584 for register of
attendance and appearances.)

TRANSCRIPT OF PROCEEDINGS

(Notice of publication read by Mr. Graham.)

MR. SPURRIER: This relates to the Blinebry Gas Pool. Does any one have testimony in Case 586 to present? Mr. Davis.

MR. DAVIS: Quilman Davis, representing Southern Union Gas Company. I would like to call Mr. Wiederkehr.

A. M. W I E D E R K E H R

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By: MR. DAVIS:

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

A A. M. Wiederkehr.

Q Are you the same person who testified in the Eumont, Langmat Pool?

A I am.

MR. DAVIS: We submit that Mr. Wiederkehr's qualifications are expert.

MR. SPURRIER: They are.

Q Mr. Wiederkehr, in connection with the proposed proration of gas in the Blinebry Pool, what are your suggestions or recommendations concerning gas proration in that pool?

A As a transmission company, Southern Union Gas Company's position is that proration of gas in the Blinebry Pool should be based upon one hundred percent on acreage times deliverability. We make this statement due to the fact that this is a relatively new pool in which no consequential drainage has occurred. We also on behalf of the Aztec Oil and Gas Company as an oil operator in this particular pool would like to point out that even though the Commission may decide that the

Blinebry Pool is actually a gas pool in our opinion it is a gas cap pool with an oil ring. The commercial possibilities of which we are not now sure of. We would like to recommend that the Commission hold up any order on this particular pool in view of the fact that further development might prove that there is sufficient oil on the northern edge of this pool to warrant that it be classified as an oil pool. We feel that drainage will occur from the oil ring to the gas cap during the production of gas from this cap. We see no way that we can do anything about it right now. We do feel that oil wells presently classified as oil wells should be allowed to produce regardless of the gas oil ratio, the top oil allowable until such time as the total volumetric space voided by production from these wells, would be equitable to that voided by a gas well producing from the same size tract and under the same conditions.

Q Mr. Wiederkehr, you got into discussing the position of Aztec Oil and Gas Company. What is Southern Union's interest in Aztec Oil and Gas Company?

A Aztec Oil and Gas Company is a wholly owned subsidiary of Southern Union.

Q And, of course, Aztec Oil and Gas Company is the one interested in the Blinebry Pool?

A It has the well completed in the Blinebry Pool and has potential productive acreage that has not been developed at the present time.

MR. DAVIS: That is all.

MR. SPURRIER: Any one have a question of this witness?

By: MR. FOSTER:

Q From what you say about the oil production in this pool and the possibilities of other oil production, don't you think that proration of gas is necessary there in order to prevent waste?

A I think that some type of proration is necessary.

Q I am not trying to say what it ought to be?

A Yes.

Q Isn't that statement generally true with respect to all the fields we have been talking about?

A I am not familiar with all the pools. I do say that where commercial oil production exists that would be true.

Q You have commercial oil production in most of these fields that we have under consideration here, do you not?

A This is the only one in which we have any oil production. I have heard that there is commercial oil production in the other pools.

MR. FOSTER: That is all.

MR. SPURRIER: Any one else?

MR. ABBOTT: W. G. Abbott, Amerada.

By: MR. ABBOTT:

Q Just what is your present allowable for this well, the oil allowable?

A Since the last allowable schedule was presented, I do not know. Prior to that time, 60 barrels.

Q Could you tell us what the gas, oil ratio is?

A In the vicinity of 12 to 1500 feet per barrel right now.

MR. ABBOTT: That is all.

MR. SPURRIER: Any one else?

MR. STAHL: Mr. Commissioner, I have a few questions.

By: MR. STAHL:

Q I am not real sure I understood your testimony. Did you say in your opinion, the gas from the Blinebry Pool should not be produced at this time?

A No, I did not.

Q But rather that there should be protection given to the possibility of future oil production?

A That is right. It is my opinion that there might be a necessity of reclassifying the zone. That is in the future. We have no complaint as to the present production of gas from the reservoir but we feel that we should hold this case open until some future date at which time we might have a different opinion and might want to present other evidence.

MR. STAHL: That is all.

MR. SPURRIER: Any one else?

MR. ORN: I have some questions.

By: MR. ORN:

Q If this is a pool with a gas cap and oil ring, in order to get the recovery of oil from the reservoir, would it be necessary for the oil to be produced before the pressures decline too rapidly?

A To get the ultimate recovery, yes, sir.

Q So, if it is a combination then the volumetric withdrawal of gas should be limited to the volumetric withdrawal of oil and gas from the oil well, shouldn't it?

A Theoretically, yes, sir.

Q On these fields where there are predominantly gas fields, the oil must be produced in order to get the greatest ultimate recovery before the pressures decline too rapidly, isn't that right?

A Yes, sir, that is exactly correct.

Q So, if you limit the production of the oil wells to the volumetric withdrawal of gas, the pressures may decline so rapidly that there will be oil left in the reservoir that would otherwise would be recovered?

A That is correct.

MR. ORN: That is all.

MR. SPURRIER: Any one else?

MR. FOSTER: I would like to ask one more question.

MR. SPURRIER: Mr. Foster.

By: MR. FOSTER:

Q In connection with Mr. Orn's question, it depends on whether you want to produce the field as an oil field or gas field, doesn't it?

A The Commission, I think, should decide which method should be used.

Q They have got to decide.

A Very definitely. We are not arguing that the Commission should classify it as an oil pool at this time.

MR. FOSTER: That is all.

MR. SPURRIER: Any one else? The witness may be excused.

(Witness excused.)

MR. SPURRIER: Does any one have any further testimony to present? We will take a short recess.

(RECESS)

MR. SPURRIER: The meeting will come to order, please. Mr. Hinkle?

MR. HINKLE: Clarence Hinkle representing the Humble Oil and Refining Company. I would like to have two witnesses sworn, Joe Hudgin and Mr. Bob Dewey.

(Witnesses sworn.)

J. L. H U D G I N S

a witness, having been duly sworn, testified as follows:

By: MR. HINKLE:

Q State your name? A Joe L. Hudgins.

Q Where do you live, Mr. Hudgins? A Midland, Texas.

Q By whom are you employed?

A Humble Oil and Refining Company.

Q What capacity? A Geologist.

Q Are you a graduate geologist? A Yes, sir.

Q What year did you graduate in geology?

A January, 1948, University of Oklahoma.

Q Have you been practicing geology since your graduation?

A Yes, sir, except for one 17 month stretch in the Army, called back in the Reserve.

Q Have you been with the Humble Oil Company since your graduation except that time? A Yes, sir.

Q What has your work principally consisted of?

A I had about three years of sub surface work and about a little over two years of more or less what they term as production geology.

Q Have you had any experience in New Mexico?

A I have had experience in working up gas prospects in Lea County New Mexico. That has been one of my main jobs for the last year or so.

Q Have you had any experience in connection with the Blinebry Gas area?

A I have.

Q What does that consist of?

A I served on the Subcommittee, what was termed as the Nomenclature Subcommittee which was a portion of the Advisory Committee which was to propose these rules to the Oil Conservation Commission in these particular fields.

Q And which designated the Blinebry Gas Pool or resulted in that?

A This committee worked on that, yes, sir.

Q Have you made any particular study of this area outside of acting on that committee?

A Yes, sir, I have. As I say, I have been attempting to evaluate all company, Humble leases in Lea County and I have worked a great deal with this field as with the other fields.

Q Is there any oil production in this field as well as gas?

A Yes, sir, there is. When the Blinebry Gas Pool, the recommended outlines of it was set forth, it included in it an oil pool which had been up to now and heretofore, termed the Terry Blinebry Oil Pool, which pool is located on the north east flank of the proposed Blinebry Gas Pool. In addition to oil production here, there is scattered through the proposed Blinebry Pool, I think, approximately 12 to 13 other oil wells, which are now prorated, I believe under Blinebry Oil.

Q How many wells are there in the Terry Blinebry area?

A The Terry Blinebry has at the present time nine producing wells

Q Have you prepared a cross sectional map showing the structural condition that prevails in this area?

A I have. We were naturally concerned since we did have oil production here. We made an investigation or study to see if there was any basis for separating what is now known as Terry Blinebry from the so-called, from the proposed Blinebry gas area.

Q Now, the first map, the one at the top has been marked Exhibit 1, has it?

A Yes, sir, our Exhibit One is a west, east cross section running along the north end of the Blinebry Pool and through a portion of what is now prorated as Terry Blinebry Oil Pool.

Q What does that show or represent?

A Well, this gave geological evidence that there is no structural low or structural separation from these particular oil wells from the main structure there which comprises the Blinebry Pool. It also points out by, I apologize for the size of these but, it also showed that the porosity was continuous and there was no, in addition showing there was no structural low between this and the main gas .

Q The small placque is marked Exhibit 2, I believe?

A That is correct. This is contoured on top of the Blinebry. It does show that it is a continuous structure with no intervening lows or structural separation in this particular area.

Q That shows the Terry Blinebry wells, the wells to be located on the north east flank of the structure?

A That is correct.

Q From your study of this area, is it your opinion that it all constitutes the same reservoir?

A It does, this oil production is coming from the age or on at the present time, the north east flank in this particular Terry Blinbry Pool. We do wish to point out however that it is a relatively new area and relatively undeveloped. Insofar as geological evidence is concerned we feel that there is no basis for separation of this particular area from the Blinbry gas area but due to the fact that there is oil production, it has been recommended by the Advisory Committee to the Oil Conservation Committee that special rules be set for this particular area.

MR. HINKLE: That is all.

MR. SPURRIER: Does any one have a question of the witness?

MR. CAMPBELL: Jack M. Campbell, Roswell. I would like to ask a few questions on behalf of Texas Pacific Coal and Oil Company.

By: MR. CAMPBELL:

Q How many gas wells are there in that field?

A At the present time, Mr. Campbell, I believe there are around 30, approximately 30 producing at the present time.

Q How many have been completed, do you know that as gas wells?

A Well, that was my assumption that all those, aren't they all completed that he showed me on the map?

MR. MACEY: There may be some that are not actually completed. Those wells on the map include applications for wells which were applications for oil-gas, duals. There may be even more than that on the map however, too.

A Well, as I recall, I don't have the New Mexico engineering report but as I recall the last time I checked, of this 20 or 30, that overall applications have been made, some of which are producing, probably between 15 and 20, I believe, that are all that are producing right now.

Q I believe I understood you to say there are nine oil wells?

A There are now nine oil wells prorated under the Terry Blinebry. In addition to that there are 13 scattered up and down the long 12 mile pool which are now carred under Blinebry oil.

Q I don't believe I understood exactly what your recommendation was or did you make one?

A Well, I recommend there are two ways to attack the problem. You could segregate these oil pools but since the geological evidence is such that there is no way that it could logocially be separated, we feel that possibly the best way to handle the problem is to classif; the whole pool as a gas pool but due to the fact that we do have edge oil to adopt a special rule to protect the oil. In other words, to prevent difference, a pressure differentiation which would permit this oil to be lost up structure. Our following witness will take that up more fully.

Q Is there any reason you don't apply the application of the same special rule here as you do in the other gas pools with reference to giving the gas an allowable?

A It is identical as our recommendation heretofor on this other pool.

Q Do I understand that your recommendation here is that you be

allowed to produce only the amount of oil that you can produce with the normal gas allowable in the field?

A That will be taken up further with the following witness. I am not qualified--

MR. HINKLE: (Interrupting) The only purpose of this witness was to show that this reservoir is the same with the oil well producing from the same reservoir as the gas wells. Mr. Dewey, the next witness, I think will bring that out.

By: MR. ORN:

Q In order to prevent the waste of the oil, it should be withdrawn or produced before the pressure declines too rapidly in the reservoir, shouldn't it?

A That is correct. Here again, I am not fully qualified from a reservoir standpoint. What you would try to prevent roughly would be from the pressures, withdrawal of pressures on the crest of the thing being done at such a rate where the pressures on the flank would be approximately the same or higher than in the center and the oil would be migrating up structure.

Q That is right if the oil migrates up structure into the gas cap then it will be loss?

A It is loss, that is correct.

Q So, the way to prevent that loss is to first produce your oil from around the periphery of the reservoir before the pressures decline too rapidly, isn't it?

A Well, at the present time, Mr. Orn, it is a new field and the actual limits of oil and gas are still more or less up in the air. As

future development will take place, we will probably know a little bit more about the reservoir.

Q But at this time you do know that you have an oil ring at least part of the way around the gas reservoir?

A That is correct.

Q And the oil ring may actually be larger than it is now proven to be?

A Possibly, yes, sir, slightly larger.

MR. ORN: That is all.

MR. SPURRIER: Mr. Stahl?

By: MR. STAHL:

Q Mr. Hudgins, in your study of this area, have you had an opportunity to familiarize yourself with reservoir mechanics of this particular reservoir?

A No, sir, I have not. That is a reservoir engineering study. I am not qualified to be an authority.

Q Let me ask you this. Do you know for example, what is the source of the reservoir energy that is going to produce this well? By that, I mean is it a water drive, dissolved gas drive or gas capped reservoir?

A At the present time, we believe it is a gas capped drive. There is little or no evidence of water as shown up to the present time

Q In a gas cap reservoir, don't you want, if you do produce your gas in that reservoir to produce it at the same time you are producing the oil? In other words, if you don't hold the gas and produce the oil first, don't you want to produce that gas in relatively the same

ratio as the underground reserves?

A Well, our standpoint on this field is that both gas and oil should be volumetrically controlled. That is my standpoint on the other field and it would apply in this field also.

Q Under the volumetric formula that you are advocating, under a particular acre that, let us say, has 50 feet of sand thickness and the next well there is a hundred feet of sand thickness under the volumetric method, should you not produce half from the,--should not the ratio be two to one?

A I am not qualified to comment on that.

MR. STAHL; Thank you.

MR. HINKLE: If the Commission please, I would like to offer in evidence the Exhibits one and Two of Humble's.

MR. SPURRIER: Are there any objections? Without objection they will be admitted.

MR. SPURRIER: Any other questions of the witness? Mr. Hill?
By: MR. HILL:

Q We don't know the full extent of the productive area, I realize from your statement. However, could you state approximately what the presently proved oil area is and its relationship to the total area of the defined Blinebry Pool?

A Yes, sir, at the present time, it is something less than one percent. The proposed Blinebry Pool roughly is 12 miles by four miles or approximately 50 square miles insofar as the Terry Blinebry area is concerned. There are nine locations, 360 acres which would be slightly more than a square mile, roughly one to one hundred.

Q At the present time, oil production is incidental in this field as compared to the gas?

A For the potential area, that is correct.

MR. HILL: Thank you.

MR. SPURRIER: Any one else?

By: MR. ORN:

Q You made a statement there that you thought there ought to be a volumetric control, a volumetric withdrawal. Do you think that the volumetric withdrawal should control the volumetric withdrawal of oil or the volumetric withdrawal of oil should control the volumetric withdrawal of gas?

A That looks to me to be an engineering standpoint but it looks to me that it is going to be up to the Commission to look at the overall problem and attempt to set special rules which would permit the oil insofar as the oil concerned prevent the oil from migrating up structure. They will have to look at it with that respect.

Q I know this is up to the Commission, but they are asking witnesses to appear so they can decide the question. Any evidence that these witnesses can give them will help them in deciding. If your volumetric withdrawal of gas controls your volumetric withdrawal of oil, and they should withdraw three hundred million cubic feet of gas then you actually would have a migration of your oil up into your gas cap and a loss of your oil, wouldn't you?

A If, at any time there is a pressure differentiation so great that the pressure on the flank is greater than this pressure on the crest, the oil would have a tendency to move up structure, that is

correct.

Q But in all these reservoirs, the ideal way to produce them if you are going to get your oil out is get your oil out as rapidly as you can before the pressure declines?

A I am not qualified to say, yes, or no on that.

MR. ORN: That is all.

MR. SPURRIER: Mr. Stahl.

By: MR. STAHL:

Q Just a couple of questions, Mr. Hudgins. Just for the record, is it your personal recommendation as a geologist that the volumetric method be used or is that Humble's recommendation?

A That is primarily an engineering function and it is the Humble, I believe, it is the Humble engineering position.

Q You are not an engineer?

A No, sir, I am not.

Q One other question. On your Exhibit 2, what are the contour lines on here?

A The contour lines are contoured on top of the Blinebry formation.

MR. STAHL: That is all.

MR. SPURRIER: Any one else? The witness may be excused.

(Witness excused.)

R. S. D E W E Y

a witness, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By: MR. HINKLE:

Q State your name, please? A R. S. Dewey.
Q Where do you live? A Midland, Texas.
Q By whom are you employed?
A Humble Oil and Refining Company.
Q How long have you been in their employment?
A Over twenty years.
Q Are you a graduate engineer? A Yes, sir.
Q Have you previously testified before the New Mexico Oil Conservation Commission?
A I have.
Q Several times? A Yes.

MR. HINKLE: Will you accept his qualifications?

MR. SPURRIER: They have been.

Q Are you familiar, Mr. Dewey, with the Blinebry gas area?
A In a general way.
Q Also with the Terry Blinebry Oil Production?
A In a general way, yes, sir.
Q How many wells, oil wells are therein the Terry Blinebry?
A There are nine completed oil wells currently.
Q Do you have any statement to make to the Commission with respect to this area and the situation that exists in producing the gas in the area with respect to the oil wells?

A I have.

Q Go ahead.

A I have a brief statement. The area designated for the Blinebry gas field is over 12 miles long and up to four and a half miles wide. Currently, the Terry Blinebry oil field has nine producing wells with

an aerial extent of 360 acres. In effect the Terry Blinebry Oil field contains approximately one percent of the acreage in the Blinebry gas field. It is possible that the future drilling will extend the Terry Blinebry oil field. Essentially, the Blinebry area is a large gas capped connected with a small oil field. The Terry Blinebry oil field was discovered in March, 1952.

Humble Oil and Refining Company operates but two of the nine wells in the field. We have not attempted to gather sufficient data to evaluate the reservoir performance of this oil field. The current proration schedule indicates that seven of the nine wells in the Terry Blinebry field were granted a top allowable of 59 barrels and that eight of the nine wells had a gas-oil ratio below the gas-oil ratio limit of two thousand. We estimate that the original pressure in the field was 2300 pounds at 2400 feet sub sea. We have shut-in pressure information on only three wells. In July and August, 1953, these pressures were 1128, 1543, and 1479 pounds respectively, indicating a rather rapid rate of pressure decline. These pressures may not be indicative of the pressure decline of the reservoir as a whole. Currently we believe that there is little or no effective water drive in the Terry Blinebry Pool.

As we have no pressure history in the gas cap area adjacent to the Terry Blinebry Pool, we are unable to make any comparison between the pressures and oil and the gas productive areas as the gas area is not completely developed and as withdrawals of gas have been relatively low, we assume that the pressures in the gas area are higher than those in the oil area. We believe that this pressure difference

should be maintained to prevent the migration of oil up structure into the gas area, or a substantial part of the oil would become unrecoverable and constitute waste. To prevent the occurrence of underground waste, it is necessary to control the production of oil and the production of gas on a volumetric basis to maintain a slightly higher reservoir pressure in the adjacent gas area and the reservoir pressure in the oil area. It is recommended that the oil wells in the Terry Blinebry field be prorated as oil wells in accordance with the maximum oil allowable determined by the state wide rules, 505 and 502 with the gas-oil ratio limit which will permit any oil well producing as much gas daily as would be allowed to the gas well on the same size unit.

It is further recommended that periodic shut-in pressure surveys be made in the Terry Blinebry oil wells and in the adjacent gas wells to afford the necessary data to determine the relative pressures in the two areas. This matter is called to the attention of the Commission in order that suitable field rules or regulations may be enacted to accomplish the above recommendations.

Q Mr. Dewey, the recommendations that you have made there to the Commission with respect to putting a limiting factor in connection with the production of gas and oil from these wells is that covered by the same rule that the Humble proposed in the Jalco area?

A Substantially the same, yes, sir.

Q And you propose then the adoption by the Commission in this case of substantially the same rule as the Humble proposed in the Jalco case?

A That is correct.

MR. HINKLE: That is all.

MR. SPURRIER: Any one have a question of the witness?

By: MR. ORN:

Q Mr. Dewey, you live in Midland, Texas?

A Yes, sir.

Q You are familiar with proration in Texas, aren't you?

A To a certain extent, yes, sir.

Q You are familiar with the state wide rule in Texas that where you have a combination oil and gas pool that the volumetric withdrawal of oil controls the volumetric withdrawal of gas, aren't you?

A That is generally so, yes, sir.

Q As a matter of fact, your company has advocated that rule, hasn't it?

A Yes, sir, and we believe that waste may occur in the production of oil if that is not the case and there is not the same opportunity for waste to occur in the oil because it is not loss in the formations to the same extent that the oil may be.

Q In other words, if the volumetric withdrawal of gas controlled the volumetric withdrawal of oil, your pressure decline might be so rapid on your gas cap that your oil would migrate up into the gas cap and be loss, wouldn't it?

A It might be in certain instances, yes.

Q What you are saying here now, is that with this combination field here that the production should be such that there will still be a pressure differential between the oil ring and the gas cap with the gas cap maintaining the higher pressure?

A Yes, sir, that is exactly right. Currently we don't think that

there is any migration but in the future there very well might depending upon the amount of gas that is withdrawn from the gas cap area in relationship to the amount of oil and associated gas that might be withdrawn from the oil area?

A In other words, the withdrawal of gas from a gas cap area cannot be controlled by the market demand from the gas from the area but it must also be controlled by the differential in pressure from the oil ring and the gas cap?

A That is why we recommend in here that suitable control be set up on a pressure basis to determine the relative pressures between the two areas.

Q All right. Now, then, if your market demand for gas is so high that they were taking three hundred million cubic feet of gas per day out of the gas cap, it wouldn't be possible for you to withdraw enough oil to keep the migration from taking place from the oil ring up into the gas cap, would it?

A I don't know the exact figure--

Q (Interrupting) There is a break off.

A (Continuing)--that would cause migration at some point in there. Migration might take place. I don't know if that particular figure is applicable or not.

Q There is a break off figure? A Yes, sir.

Q That break off figure is going to depend a great deal on the performance of the oil reservoir?

A Yes, it is going to effect the performance of the oil reservoir.

Q The ideal thing, of course, is to withdraw the oil before the

pressure in the reservoir declines too rapidly, isn't that right?

A That is right. It should be withdrawn at such a rate as to prevent the migration of the oil up structure where it will be loss and constitute waste.

Q That would be true in the other reservoirs that we have been testifying about the last two or three days. If you don't get the oil out before the pressure declines, then you are going to have quite a bit of oil left in the reservoir?

A I think that is generally so, yes, sir, I haven't made a study of all the situations in each one of the reservoirs relative to the oil wells in the reservoirs.

Q So, the oil ought to be withdrawn from these reservoirs looking at the oil itself and not at the volumetric displacement of gas from the gas well. Don't you think that is right in order to prevent waste?

A Would you repeat that, Mr. Orn?

Q I say, your oil ought to be withdrawn in these reservoirs looking at the oil wells themselves and not be governed by the volumetric withdrawal of gas from the gas withdrawals?

A I think it is a relationship between the volumetric relation of the two. It is in such a way that the oil may be recovered before there is a chance for migration. Does that answer your question?

Q Yes, sir. In other words, what you want to do is to produce these oil wells at such a rate that the oil can be withdrawn before the pressures in the reservoir have declined to the point where the oil will be loss in the reservoirs?

A I think that is right.

Q Irrespective of the volumetric withdrawal of gas, that is the way the oil wells are going to have to be produced in order to get adequate recovery from the reservoir of oil?

A I don't follow you, what you mean by volumetric withdrawal of gas.

Q The quantity of gas withdrawn from the gas well?

A Well, I think that is right. The quantity of the gas, but I didn't know just how the term, volumetric, didn't know that you meant the same thing by volumetric and quantity.

Q In other words, there is a similarity between this Blinebry Pool and the other Pool here, where there is a combination of oil wells and gas wells?

A That is right. Our general statement covering the pools that we are interested in substantially reflects that position in all of the pools, Mr. Orn.

Q Your position in this Blinebry pool, is that you want to keep the pressure differential between the gas wells or the gas area and the oil area with the pressure lower in the oil area so that oil won't migrate in the gas area?

A That is right.

Q Now, then, you can't have a pressure differential between the oil area and the gas area if your volumetric withdrawal is the same, can you?

A It should be slightly higher in the oil area, in order to maintain the pressure differential between the two areas?

MR. ORN: Yes, sir. That is all.

By: MR. CAMPBELL:

Q Your recommendations in the prior cases as I understood them involved the application of the same rate of withdrawal, isn't that correct?

A No, I don't think it is, Mr. Campbell. I think it is a general statement here. I think I can read it to you. Wells producing oil located in the blank pool--that is applied to all of them---shall be allowed to produce as much gas daily as allocated to the gas well on the same size proration unit provided however that the oil production from any well shall not exceed the maximum oil allowable determined by state wide rules 502 and 503. Mr. Campbell, to answer that question if an oil well is allowed to produce the same amount of gas, that is allowed to be produced from the same size unit producing gas only plus the amount of oil that the well can make within the state wide rules, 502 and 505, then the volumetric withdrawal from an oil unit is slight in excess of the volumetric withdrawal from a gas unit.

Q But you still don't maintain any differential there, do you under that rule?

A Well, I think you do. This suggestion here advocates that the withdrawal be slightly higher, permitted withdrawal be slightly higher from a unit producing oil than it shall be from the same size unit producing gas.

Q The only difference is the amount of oil that you get, isn't that correct?

A Amount of oil, yes, sir.

Q That is regulated by your allowable?

A But in the volumetric relationship, it doesn't mean that there

is more volume permitted from the withdrawal of an oil well than there is permitted from the withdrawal of a gas well on the same size unit.

Q From your study of this particular field and reservoir conditions there it is quite apparent, is it not that this matter of oil wells in gas fields is some what more complicated than just establishing a state wide gas proration system, isn't that correct?

A Well, this is a very complicated matter that the Commission has before them.

Q How many gas wells does Humble have in this particular Blin-bry field?

A Currently, we have one but we have plans for 15 others, eventually.

Q Is there any reason in your mind why the same situation would not exist in a field with 250 oil wells in it that is designated as a gas field as exists here?

A I don't think the total number of wells has much to do with it. I think it is the relative number. If it is predominately a gas field, it should be prorated as a gas field. If it is predominately an oil field, it should be prorated as an oil field.

Q Just one more question, I was interested in Mr. Orn's question with reference to the volumetric withdrawal. It is something with which I am not acquainted. I understand from your answer that the customary application of the volumetric withdrawal principle is where you withdraw from a gas cap only the amount of gas that would be produced by the oil. In other words, the oil controls the gas in the normal situation, does it not?

A That is often the case, yes. The amount of gas that is permitted to be withdrawn from the gas cap that will occupy the same reservoir space underground that an oil well is permitted to produce with its limiting ratio.

Q What is the particular reason here for reversing that situation

A Well, we, in this case, we are trying to prorate oil wells in gas pools where the normal case is that we try to prorate gas wells in oil fields.

Q You consider this to be a gas field?

A Due to the preponderance and size of the gas areas as compared to the oil area we think that it should be treated currently as a gas field. Now, future development may indicate that the matter may need to be reviewed at some future date and in view of future developments.

Q Would your views change on that if it had heretofore been considered an oil field and was now being considered as a gas field?

A Well, I think that part of this area has heretofore been considered as an oil field. It is now so prorated.

Q What about the rest of the area which you think may be an oil field?

A From what knowledge I have of the Blinebry area as a whole, I think it should be treated now and in the future in the major portions at least as a gas reservoir.

MR. CAMPBELL: That is all.

By: MR. ORN:

Q Let me ask, Mr. Dewey another question. Now, under this for-

mula that you have proposed, the only difference in volumetric withdrawal would be by virtue of the volume of oil withdrawn, isn't that right? In other words, you permit the same volume of gas to be withdrawn from the gas cap that you permit the volume of gas to be withdrawn from the oil ring and in addition to the withdrawal from the oil ring, it covers the volume of oil itself?

A That is right.

Q That is the only difference. Now, then the rule that you propose has a top limit on the amount of oil that will be withdrawn, doesn't it? That is, there, the amount of oil that the Commission fixes under its proration formula?

A That is right. Currently we recommend that it follow the proration of oil in Lea County that is what would be governed by the top allowable in department factors because currently we don't see any need for changing that. Now, there may come a time--

Q (Interrupting) If you control the volumetric withdrawal of oil by virtue of the oil allocation formula then it is quite possible that the volumetric withdrawal of gas will actually exceed the volumetric withdrawal of oil, wouldn't it? You are going to put a ceiling on the amount of oil that is going to be withdrawn?

A Currently, yes.

Q So, if that occurred out of this formula here then, you are going to have actually a withdrawal more rapidly in volume from the gas cap than you will from the oil ring, won't you?

A It depends in this particular instance, Mr. Orn, on how fast the gas cap is developed and the rate at which the gas wells are pro-

duced, which are the two things that are unknown at this time.

Q But you are, actually under this rule, you are putting a ceiling on the amount of oil that may be withdrawn?

A Currently because we see no justification under existing circumstances to do otherwise.

Q But there is no ceiling on the amount of gas that may be withdrawn?

A The ceiling is--

Q Except the market demand for gas?

A As the market demand for gas becomes established.

Q That is right, if the market demand for gas is higher than the ceiling on the volumetric withdrawal of oil, then you are going to have migration of the oil up into the gas cap?

A Unless, some appropriate steps are taken to modify these recommendations.

Q So, what you actually come back to, then, is that in order to prevent this, you are going to have to look at your oil production and let the volumetric withdrawal from your oil production determine your volumetric withdrawal from the gas cap, aren't you?

A I think that is correct.

MR. ORN: That is all.

MR. SPURRIER: Mr. Stahl.

By: MR. STAHL:

Q Just a few questions, Mr. Dewey. I believe, did you hear Mr. Hudgin's testimony?

A Yes, I did.

Q In answer to a question asked by Mr. Hill, didn't Mr. Hudgin's

say that about one percent of the Blinebry Pool was the oil that you have been talking about the oil area?

A I think I mentioned that one percent and I think he said it was a little less than that. It is relatively one percent.

Q I won't quarrel with you about a few percentage points but it is a very very small amount, isn't it?

A That is true.

Q Isn't it your approach that the oil should regulate the production of the gas?

A If the time comes, Mr. Stahl, when substantial amounts of oil may become unrecoverable by migration up structure into a dry gas bearing part of the reservoir, it is our view point or my view point any way that waste will occur and the only way that I know that that waste can be prevented is by changing the relative amounts of oil and gas that are withdrawn in the area so that there will be a pressure differential from the gas producing area toward the oil producing area to permit the production of the oil before that occurs.

Q I think I understand that all right. My question is, aren't you advocating that one percent of the field dominate production from the entire field, irrespective of whether it is oil or gas?

A Not under, not in this particular case. We are merely calling this to the attention of the Commission with the hopes that they will write an appropriate rule or regulation and will require sufficient information to determine where this pressure differential is at all times and in the event that conditions are reversed from those as we know them today, then the matter can be presented to them and the

amount of waste that is either taking place or may be taking place in the immediate future and let them decide how the two areas may be prorated.

Q Well, as I understand--

Q (Interrupting) We are not advocating any immediate action in this particular instance but merely advising the Commission that we should do certain things to getting pressure and reservoir information so that no waste will occur.

Q Did I understand you to say that you are not advocating that the Commission take any action at this time?

A No, I have not. I have made very definite recommendations in here to the Commission but I am not advocating to the Commission that they need to be concerned at this particular moment with a migration of oil up structure. I don't believe we have those circumstances currently.

Q In your judgment at this time, is it perfectly permissible to withdraw as much gas from the gas cap as the operators and the pipe line companies want to?

A I have no idea what that might include.

Q Well--

A (Interrupting) Under a just one hundred percent wide open flow from all levels. We don't hardly recommend that every well be opened to pull capacity.

Q In answer to Mr. Orn's question, you did say there was a break off point, did you not?

A I think that is right. Yes, there is some point--

Q (Interrupting) If we assume that that break over point has been reached and that the gas companies are taking, nominating a volume greater than the break over point and if we also assume that that is efficient production from a gas standpoint, would you limit that gas withdrawal?

A I think that that would be a matter for a special hearing before the Commission.

Q Isn't that what we are having at this time and aren't you making recommendations to that effect?

A The recommendations that I am making to the Commission are those under the existing circumstances of the pool. You are posing a hypothetical case here that I don't think is applicable at this time.

Q You are an expert in these matters, are you not, Mr. Dewey?

A No, I wouldn't say I am an expert. I would say I am familiar to a certain extent with them.

Q Are you not appearing as an expert?

A I am appearing as a witness.

Q Mr. Dewey, just a couple more points. I don't want to belabor this. If you have two acres side by side or two tracts side by side adjacent, one of those has one hundred feet of sand thickness, the other one has 200 feet of sand thickness, to have the most efficient reservoir practices, reservoir engineering practices should you not withdraw twice as much gas from the two hundred foot sand thickness as you do from the one hundred foot sand thickness assuming all other conditions are equal?

A I think that is correct, that you have twice the recoverable

reservoirs under one tract than you have on another and all conditions are equal in every respect otherwise I think that probably it has a great deal of basis of fact.

Q Is the surface acreage a measure of the recoverable reserves unlike that?

A I think surface acreage comes into that, yes, sir.

Q On an acre basis taking only one acre?

A No, on the theoretical assumption that the only controlling factor that you put in there is to double the thickness.

Q I realize that that is probably an unnecessarily simple assumption but if you will bear with me on my rather simple assumption. On a one acre basis now, comparing two one acre tracts, is there any correlation between the fact that there is an acre on the surface and the amount of recoverable reserves underlying that acre?

A Well, the identical surface area, that is only common.

Q The fact that--

A (Interrupting) The common thing.

Q The fact that they have one common surface under the ground?

A That is right.

Q If the acre was the sole determinant of the recoverable reserves, we wouldn't need any engineers to figure that even a poor lawyer like myself could count the number of acres in the pool and get the reserves, isn't that right?

A I am afraid you will have to put your question again.

Q If acreage is the sole determinant of what reserves are underlying the tract then anybody could figure the reserves by simply

knowing the surface acreage?

A The value that each surface acre represented?

Q Sir?

A And the value that each surface acre, that is the recoverable reserves that each acre represented, you would have to know that and then count your acres and multiply by ten.

Q How would you determine what the recoverable reserves are in general?

A In general?

Q What factors? If you were making a study, what factors would you want to take into account?

A We would like some pressure history and core information relative to whatever information you can get with the cores, pressures.

Q Permeability?

A Permeability.

Q Interstitial water?

A It is quite an elaborate process.

Q Yes, I am familiar with that. Isn't it a fact that proration on a straight acreage basis in no way reflects production of recoverable reserves underlying that acreage?

A I don't think so.

Q You don't think that straight acreage is?

A I think straight acreage is part of the measure of recovering reserves, yes, sir.

Q Shouldn't there be some other factor?

A Not necessarily.

Q In other words, while you are making a reserve study, I would want to know about porosity, permeability, pressure, sand thickness.

You would want to know about interstitial water, when you are going to produce the gas into the pipeline, you are going to disregard the factors and take only acres, is that correct?

A I am in this instance, in this area.

Q In other words, you answered earlier, you said proration should be based on recoverable reserves underlying the acreage?

A No, I don't think I made that statement that proration should be.

Q Production?

A You asked me the question, hypothetical question about two flanks identical in all respects except for the one that had twice the thickness of the other?

Q Yes.

A I don't think you would find that theoretical situation in the oil field that we are dealing with here today.

Q May we use it for the sake of illustration?

A We can use it, if you care too.

Q In that hypothetical case, should production be based on the amount of recoverable reserves underlying that acreage?

A I don't think it is applicable in these fields that we are discussing here at all, Mr. Stahl.

Q If you don't do it that way, won't you have drainage?

A Not necessarily. I don't think we will have any worse drainage situation.

Q Will there be drainage?

A I think we will have just as much drainage situation under

that kind of situation as we currently have and perhaps more.

Q Isn't production a function of pressure?

A It is one of the factors in production. There are other factors in production though besides pressure.

Q You have two wells side by side with different pressures and produce them at the same rate, will there not be drainage?

A It depends upon the difference of permeability and the other factors, too.

Q Assuming that there is interconnection in the reservoir?

A There are a lot of things that need to be evaluated in order to determine whether there was drainage or not.

Q Couldn't we make the hypothetical assumption that all we know is that there are two different shut-in pressures and when producing them at the same rate, will there not be drainage? Will not gas in a higher pressure area go on an area that has a lower pressure?

A The drainage, I think is controlled by pressure differential, yes,

Q Drainage is a function of pressure differential to?

A To a certain extent, of course, permeability comes into it too. The extent of that drainage is connected with permeability.

Q The straight--

A (Interrupting) I say it depends it depends upon the permeability to a large extent, how much there is and how fast it takes place and all that sort of thing.

Q Mr. Dewey, under the straight acreage formula that has been discussed here in these hearings, you know what I mean when I refer

to the straight acreage formula?

A Yes, I think I do.

Q Does that straight acreage formula as you understand its application take into effect porosity?

A No, sir.

Q Permeability?

A No, sir.

Q Pressure?

A No, sir.

Q Sand thickness?

A No, sir.

Q Interstitial water content?

A No, sir.

Q Reserves underlying the acreage?

A To a certain extent.

Q To a certain extent?

A Yes.

Q How?

A Well, the acreage is one of the measures of the recoverable reserves underlying the property.

Q Yes, is that all--

A (Interrupting) It is one of the measures of it.

Q That is when you get into your acre feet in your formula?

A Acre feet, yes, sir.

Q But if your units are the same size, all one hundred sixty acres, is your answer still the same?

A Mr. Stahl, may I ask you a question?

Q Sure.

A Why do you advocate two different methods of proration in the same area? We have been prorating oil in New Mexico for a good many years on straight acreages and rather successfully, I think. We have in this particular gas pool, we have this Terry Blinbry area that has been prorated on unit basis and I think that as far as I know the operators in that particular area are very well satisfied

with the working of that unit basis and why should we change the proration in that Terry Blinebry area and the oil area over to some other formula to conform with a hypothetical proration formula that might be placed on the area?

Q Do you propose to leave the proration of the oil area as it is and set up a different method of allocation for the gas area?

A I don't think it is very consistent to have two different proration areas, two different proration schedules in the same field.

Q Now, could I answer your question?

A Yes, sir.

Q All right, first of all, as you realize we made no suggestion, with respect to oil proration. I believe that was one of your questions. Secondly, I asked--if I might--Secondly, you asked me why we were advocating a formula for the proration of gas different from the one used for oil? There are several reasons. One, is the difference in the business. Oil can be stored above ground, gas can't. You can carry oil around in a bucket. You can't carry gas around in a bucket. That is one of the reasons. The second one is; that we feel that the production in any field of gas should be tied to the recoverable reserve underlying that particular acreage and that a deliverability formula acreages times deliverability is a better index than straight acreage. Maybe it is not the best index. If you have got a better one, we would like to hear it. We don't think it is as good as straight acreage. Now, shall we get back to the normal procedure?

A Well, I think it is very inopportune at this time to come into

a situation where we have wells that have been drilled for 20 years, some of them and some more recently and they are all at different stages of depletion. We have a tremendous diversity of conditions. We have a problem of associated gas entering into this thing that you don't have in a field where you are stating out with, equal so to speak a field that is recently developed and that sort of thing. We have got an area in here where we don't know too much about the factor that go into proration, that is a lot of these wells were drilled before the time when any measurements were made on permeability.

Q May I interrupt?

A As to sand thickness--

Q (Interrupting) Do you know--

MR. HINKLE: Let him go ahead.

A We have also different producing well horizons into the same well bore. We have a tremendous diversity of conditions in this particular area that I can't conceive, how any change in proration allocations wouldn't lead to more complications and more inequities than we already have. Your formula about deliverability in certain areas is probably very applicable, workable and good but I don't think it is applicable at all to the conditions that we have in these reservoirs under discussion.

Q Did you say that one of your reasons was that we have been going along down here so many years on this basis and therefore there is no real good reason to change?

A The oil operators in this area have wanted gas proration for a great number of years and it is only recently that the sentiment

among pipe line companies has come around to where they are willing to talk about it or accept it. We think that perhaps we could have started in the early days with some other proration formula that it might be acceptable to everybody but I don't--

Q (Interrupting) Do we presently have a proration formula?

A We have inherited one that may not have had the blessing of a Commission order but as I understand--

Q (Interrupting) There is not one officially in effect at this time?

A (Continuing)--but as I understood the testimony of El Paso and Southern Union that they had some sort of a means of proration that they, you might call it pipe line proration, that they had in effect.

Q There is no official one though, is there? It won't hurt to say no.

A No, no, I know there isn't. Everybody else knows that. But a large number of the operators in Southwest New Mexico haven't been able to follow all the ramifications and effect of that voluntary proration that has been in effect by these pipe line companies.

Q Just a few more questions, Mr. Dewey? In any area that you are familiar with in the Southeastern Lea County, is the pressure consistent in any part of that area in any part of these pools?

A I doubt that it is. I haven't made a complete study.

Q Do you know as a fact there are certain variations within the reservoir?

A I am sure there are.

Q Does a straight acreage formula, take into account the pressure?

A I don't think it does

Q Does not the pressure have a direct relationship to production?

A I think that is true. I think theoretically we would argue about the theoretical aspects for hours without settling any of the practical matters in connection with proration in Southeastern New Mexico.

Q Isn't that a fact that the production is directly proportional to pressure?

A I don't know directly.

Q To pressure drop, I will put it that way?

A Pressure drop has a material effect on production.

Q But straight acreages doesn't have any effect on it?

A It doesn't reflect that.

Q It does or does not?

A It doesn't reflect that, no.

MR. STAHL: That is all.

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

By: MR. HILL:

Q I would like to make sure that I understand Mr. Dewey's recommendation. I think I do, if I do, I believe his answer to Mr. Orn's last question was maybe improperly stated at least, it conflicted with what I understood Mr. Dewey to be recommending. As I understand your recommendation concerning this pool. It is simply this, that an oil well on a given unit, say it is a one hundred sixty acre unit shall be given the same gas allowable as a one hundred sixty acre gas well unit?

A That is incorrect to this extent. An oil well is located on a forty acre unit.

Q All right, sir.

A And we contemplate that a gas unit will be one hundred sixty acres in size. But one fourth of one hundred sixty acres would be a comparable size to the oil unit so that if you set up a nomination for one hundred sixty acres at say one million cubic feet of gas a day then the forty acre or one fourth of that in effect would have allowable of 250,000 cubic feet a day. That would be the same size acreage that the normal oil well has in unit in New Mexico, so it would be a gas limit of 250,000 cubic feet on a forty acre producing oil unit.

Q Yes, sir, I am glad you explained that, it is actually the way I understood but didn't put it in the right words. But then it would be permitted to produce the oil that went along with that gas to the extent that it didn't exceed the oil allowable?

A That is right.

Q My point in asking this, is this, I believe that Mr. Orn got you to state in answer to his last question that the oil withdrawals in this particular field should in effect dictate at the same time the gas withdrawals from the field. Did you mean that to be the case after having explained your recommendation as you have just done?

A It may be necessary that the Commission will have to determine that fact, what shall govern when those conditions arise. That is if there is substantial migration of oil up structure and be lost in some particular--

Q (Interrupting) But at this time?

A At this time, we have not. We are just recommending that the

oil wells in this pool be granted a top allowable or whatever they can make up to top allowable according to their depth and whatever the allowable happens to be from month to month and that in addition to that, that they be allowed to produce whatever gas they may up to a nomination for the same size proration unit in the gas area. If we get into substantial difficulties in any particular area or place, I think that the Commission will have to review the circumstances and determine whether waste is occurring and what is the best means and how to prevent the waste. I don't think we need to cross that bridge today.

Q Your recommendation for this pool is as you read into the record earlier in your testimony?

A That is right.

MR. HILL: That is all.

MR. SPURRIER: Mr. Orn.

By: MR. ORN:

Q If the gas company should close in their wells and not take any gas for two or three months, then your recommendation would be that the oil wells should be shut in too?

A No, sir, as I understand it, Mr. Orn, the gas companies are to make a gas nomination for each six months period and that they, these nominations are with the idea that they will produce relatively each month a proportional part of the six months nomination. Whatever they set up in the six months nomination, whether the well is shut in or whether it is producing exactly the amount of the nominations or whether it is overproducing the part of the time and shut in part of the time would constitute the gas limit for that six months period.

Q You are putting--

A (Interrupting) That is what I contemplate. That may not be the case but that is what I contemplate.

Q You are putting the amount of oil production then in the hands of the gas company. If the gas companies only want to take one hundred thousand cubic feet of gas a day from the entire field then each one of the oil wells will be producing about a cup of oil a day?

A No, sir, you misunderstood me, Mr. Orn. My recommendation was the oil wells be allowed to produce as they have in the past under the two rules for prorating oil relative to proration of oil that is the oil wells in this Terry Blinebry Field have been allowed to produce on the current proration schedule up to 59 barrels.

We contemplate that next month there will be a slight reduction in that amount but that they will have the same allowable as other oil wells that can produce top allowable in fields that are prorated as oil wells and they will be allowed to produce that in the same manner and as other oil wells that are not in this gas area.

Q Well, now, suppose in producing that amount of oil that they were producing more gas than a gas well would be producing, would you cut back the oil allowable?

A I think the oil operator first should see whether he can't do some remedial work to cut back on his gas. He ought to look to his picture first and then if he is satisfied that he can't do anything about it, I think he has a right to call a hearing to find out what the Commission might decide relative to that particular circumstance.

Q I am sorry, I probably didn't make my question clear. What I am saying, is that if the best gas well in the field was only during a six month period average producing ten thousand cubic feet of gas a day, now the oil well at its allowable would be producing more gas than that assuming that it wasn't cut back by virtue of the gas well production. Would you cut back the oil well production to the volume of gas that the gas well was producing assuming that the gas well had been cut down, the companies had decided they didn't want any gas from the field they reduce the take, would you cut the oil production down because the gas production had been reduced?

A I think if they reduce the gas production under those circumstances, why the volumetric relationship between the two areas would increase in favor of the oil well, I would continue producing the oil well.

Q In other words, in that case, the oil well would have a greater volumetric withdrawal than the gas well?

A It could have.

Q It could produce more gas than was being taken from the gas well?

A It could if the gas company for the area were such as to permit it.

Q This rule that you recommend would that permit that to be done? Isn't the rule that you are proposing here to let them produce from the oil well the same volume of gas that is being produced if it were a gas well but it can't produce more oil than the oil allows?

A It may not have been worded right, Mr. Orn. The intent was

that the oil well would be allowed to produce the same amount of gas that, the same size gas unit nominates for the period. Maybe that is what you mean.

Q Well, suppose the gas--

A (Interrupting) Whether they take it or whether they don't for six months, the oil well would have to have that limiting ratio, I think.

Q You understand that the gas allowables are going to be fixed according to the nomination of the company?

A That is right and we don't know what they are.

Q Suppose a company doesn't nominate for six months. Suppose they decided they didn't want to take any gas from these pools under the rules that you are proposing the oil wells would be closed in for six months?

A No, I don't think they would be closed in. I think they would be allowed to produce their oil. It might, there wouldn't be any ratio limit on them, I think.

Q Read your rule there and see if it wouldn't, if your gas wells were closed in for six months for some reason the companies didn't nominate, wouldn't your oil well then be closed in for six months under that proposed rule?

A Well, here is the recommendation, Mr. Orn. It is recommended that the oil wells in the Terry Blinebry field be prorated as oil wells in accordance with the maximum oil allowable determined by state wide rules 505, 502, with the gas oil limit which will permit any oil well producing as much gas daily as would be allocated to a gas

well to the same size unit. Your point is that if no nominations are made, why the gas-oil limit would be zero and the oil well shut in?

Q That is right.

A I think probably your point is well taken in that regard.

MR. ORN: That is all.

MR. SPURRIER: Mr. Stahl.

By: MR. STAH:

Q Mr. Dewey?

A Yes, sir.

Q In answer to Mr. Orn's question, did you--I am just trying to understand now. If the gas wells are shut in, would you permit the oil wells to still produce?

A I think they should be, yes, sir. They are not responsible for the gas dislocation, market or that sort of thing.

Q Sure, if the oil wells are shut in, should the gas wells be permitted to continue to produce the nominations, the allowables?

MR. SPURRIER: Let's take a recess until 1:15.

(RECESS.)

MR. SPURRIER: The meeting will come to order, please,
Mr. Stahl.

Q Mr. Dewey, if you recall right before the noon recess, I had asked a question--if the oil wells are shut in, should the gas wells be permitted to continue to produce the nominations, the allowables?

A We think that, at least I do, that in such an event the Commission should hear the full circumstances relative to shut in and determine what procedure to take under existing circumstances.

Q In other words, you don't have a specific recommendation or answer to the question, at this time?

A We don't think the Commission wants to advocate anything concerning waste and we certainly don't want to recommend to them that they should sanction or condone waste of any kind and without knowing the full circumstances relative to any set of conditions it is rather hard to give a direct answer on that proposition.

Q I appreciate that. Let's assume there is an oil strike, like there was last May and the wells were shut in, should the gas wells be shut in during the same period?

A It depends upon largely, I think, whether a production of gas, a continued production of the gas wells over a considerable length of time will lead to migration of oil up structure where it would be lost and unrecoverable which would constitute waste. I think the Commission would have to check on the particular circumstances to see whether any action that they took in those circumstances would contribute to waste or lead to waste. Until we

meet that particular set of conditions, I don't think we ought to try to recommend any direct action to the Commission.

Q One more question, I hope. In a reservoir which has been produced for some little time, where the rate of depletion is different within the reservoir, in your opinion is a formula allocation which incorporates deliverability unequitable?

A I think it is in these circumstances where the deliverability formula doesn't contemplate the handling of associated gas. The primary concern, I think of most of the producers in these fields is that their associated gas will be marketed. I think that it should be marketed as much as possible before the dry gas is marketed.

Q How about in a straight dry gas reservoir where there is no oil and there is no associated gas?

A We are not dealing, I think to any great extent under those conditions here.

Q What is your opinion?

A Without knowing all the characteristics of the reservoir, I would be hesitant to give you a direct answer in regard to the incorporation of a deliverability formula, what weight such a formula would be given, whether it is a times formula or plus formula under the proposed deliverability formula that has been proposed here in some of these fields, it has the effect or might have the effect of causing a well to be drilled on nearly every forty acres instead of the unit that is contemplated of 160.

Q You would have to have more information before you can

intelligently answer the question?

A I think that is right.

Q Is that always true of your answers as regards the straight acreage formula? Would you still have to have the same information?

A If I were going to make comparisons between the two in some reservoir, I think that would be so.

Q But you have advocated a straight acreage factor, have you not?

A I have and still do.

Q Based on no more knowledge than you have?

A Based on the experience that has extended over most of the oil fields in New Mexico, I think that the straight acreage has been worked out very advantageously for all parties concerned. I think that is an outstanding endorsement for straight acreage. It has been in effect in this state a good many years and it has been a long time since anybody has advocated any change.

Q In other words, Mr. Dewey, you have sufficient information to form an opinion as to whether straight acreage factor is all right but you don't have sufficient information to form an opinion as to whether deliverability factor should be incorporated but yet the same information is necessary?

A I believe it would be desirable to have the same information. I don't claim to have sufficient information to be dogmatic on the acreage problem either. I think under the existing circumstances it is the preferable way to do it.

MR. STAHL: That is all, thank you.

MR. SPURRIER: Anyone else? Mr. Campbell.

By MR. CAMPBELL:

Q You may not be able to answer this question, if not just tell me. Is it the feeling of your company or you that under the proration laws of New Mexico that this Commission has the power to prorate gas from an oil well?

A Well, I think that is sort of a legal question that I am rather hesitant to answer.

Q All right.

MR. CAMPBELL: That is all.

MR. SPURRIER: Mr. Orn.

By MR. ORN:

Q Mr. Dewey, would you be opposed in this rule that you have advocated to putting a floor in it, namely, that an oil well in any one of these pools could produce whatever amount of oil it might be assigned along with an oil well with the gas-oil ratio applicable then a ceiling in there that if that amount of oil is less, I mean the volume of gas that comes out of that amount of oil is less than the volume of gas that would be produced from the well if it were a gas well, then it could produce that additional amount of oil. Would you be opposed to putting a floor in here whereby the wells couldn't be cut below a certain amount if the pipe line companies didn't nominate or take the gas?

A I don't know as I understand you exactly, Mr. Orn. I am sorry, could you give me a concrete example of what you have in

mind.

Q Let's just take this. Suppose that a well now, with a gas-oil ratio, applied to it of 2,000, if that is the one that is applicable to it were producing 20 barrels of oil a day, assume that its ratio may be four thousand to one. That well could continue to produce its 20 barrels a day, that is that would be the floor but now if the volume of gas it was producing wasn't as large as the volume of gas that would be produced if it were a gas well, then its oil allowable could be increased to the point where its volume of oil produced would be equal to the volume of gas that would be produced with the oil?

A Mr. Orn, I think that is rather unnecessary due to the fact that in New Mexico the wells are allowed to produce up to unit allowable in most cases. I think in all cases they are allowed to produce up to the unit allowable which is around 40 barrels for a shallow well. The circumstances that you are reciting, I take it that you would want to increase the well above the unit allowable?

Q First, I am trying to get a floor in there. If it was producing at 40 barrels a day and the volume of gas that it produced was less than it would produce if it were a gas well, then under your formula the amount of oil that well can produce would be reduced below the 40 barrels a day, wouldn't it?

A If it were a top allowable well and it were producing with a gas-oil ratio that was equal to the volume of gas that was nominated from an offset 40 acres in the gas zone that would be

the case, I think.

Q Yes.

A And in the event there are sufficient instances as that and I think that the Commission would have to consider whether the waste thing, how much waste would occur, if they had to raise the allowable of that well above the top unit allowable.

Q I don't believe--

A Sir?

Q I don't think I have quite gotten the point. Supposing the well is a 40 barrel well producing at the ratio of two to one. The volume of gas would be 80 thousand cubic feet a day, wouldn't it?

A Yes.

Q If it was a gas well with a nomination the amount of gas these companies are going to produce and they are going to vary because their production will be lighter in the summer. Suppose it were a gas well, the volume of gas, it could produce would be only 40 thousand barrels a day, I mean only 40 thousand cubic feet a day. Now, as I understand your formula then, that oil well would be cut down from 40 barrels a day to 20 barrels a day because the volume of gas would have to correspond with the volume of gas it produced if it were a gas well. What I am asking is, would you be willing to put a floor in the formula whereby the volume of oil produced from that well won't be reduced below what it could produce under the oil allowable, would the gas-oil ratio

apply? Namely, can it be cut down below its 40 barrels a day?

A You have in mind the gas-oil ratio that is currently in effect?

Q Yes, sir.

A I think that is a fair proposition.

Q In other words, there would be a floor put in here whereby irrespective of the amount of gas these companies were taking the oil allowable couldn't be taken down below where it is producing today as the current gas-oil ratio but it could be increased if the volume of gas were--

A (Interrupting) I think the Commission could consider that.

Q Don't you think it would be an equitable way to put a floor in as well as a ceiling?

A If the floor weren't too high.

Q You think that the present floor, the Commission has is a reasonable floor?

A Well, it is fairly reasonable now, in most of the fields I think the gas-oil ratio is a little high in some of them.

Q You mean--

A The gas limit is a little excessive in some of the fields.

Q If you are going to produce gas and oil from the same reservoir there isn't much reason of having a gas-oil ratio, is there?

A We don't think there is, no.

Q Under your formula that you propose then, the two thousand

or three thousand ratio wouldn't apply?

A I think that the Commission could set a floor but I am not advocating a high floor for it.

Q Well, you wouldn't be opposed to the present floor they have?

A In most cases, no.

Q Let me see if I understand this. Under your formula then the only gas-oil ratio applicable to the well would be the volume of gas that a gas well would produce?

A Well, that was the way the formula was stated, that a well would be allowed to produce up to that and there wasn't any floor in there but if the Commission feels it desirable in some particular instances to place a floor in there, I think it would be very well for them to consider doing so.

Q That would protect all the oil producers here from the eventuality of the gas companies reducing their nominations way down if there were periods there where they didn't take any gas.

A I don't think the floor should be too high though.

Q Yes. We both agree to that. I think the Commission now sets an allowable. I am talking about the way, using the method they use now to set the allowable, let that be the floor?

A I think in this Terry Blinebry currently such a floor three thousand cubic feet per barrel would be applicable.

Q You think that is too high?

A No, I say currently in the Terry Blinebry that we have

under discussion such a floor if it were set off about three thousand cubic feet of gas per barrel under existing circumstances is about right.

Q By setting a floor to protect the oil producers in the event the gas companies reduced their nomination or decided not to take any gas at all?

A I think it would have that effect.

Q It would eliminate the thing we talked about this morning if the gas cap was set in for six months, the oil well wouldn't be shut in for that period?

A I think that is right.

MR. ORN: That is all.

MR. SPURRIER: Mr. Macey?

By MR. MACEY:

Q I have one brief question to ask you. Don't you think it would be advisable for the Commission to conduct a hearing on not only the Blinebry Gas pool, the Blinebry Oil pool and the Terry Blinebry Oil Pool toward consolidation of the pool and adoption of pool rules completely. It is one reservoir, isn't it?

A It is one. It is a common reservoir and so far as we know now, we haven't made any analysis recently on the wells in the Blinebry Oil Pool. The only thing, the only two parts of this field that we have attempted to do anything in, is the Terry Blinebry and the Blinebry Gas Field. I am not speaking for the Blinebry Oil Field. We would have no objection to such procedure.

Q At such a proceedings, I believe that all the questions

and all the difficulties that apparently arise from gas proration could be ironed out at that time?

A We don't foresee, as far as the relationship between the Terry Blinebry field and the Blinebry Gas Field, that currently there is any great conflict. It is just, we are just bringing this thing up at this time, Mr. Macey in order to get it before the Commission that conditions may change out there in the future and that in order to be prepared for those changed conditions that we need to have more reservoir information in the way of pressures and so that we may evaluate the changes that take place and be prepared to come back at some later date, perhaps, and advise the Commission as to the status of the two areas.

MR. MACEY: That is all.

MR. SPURRIER: Anyone else? Mr. Campbell.

By MR. CAMPBELL:

Q Wouldn't that same procedure be wise in some of the other pools that are producing oil?

A You have a particular one in mind?

Q Well, like Jalco for instance?

A We have no objections to that procedure at all, if the Commission wants to follow it. I would like the Commission to know that we would like to have this gas proration become effective January 1st and would not like to defer the proration of gas in any particular pool too long having these hearings. I don't know what timing you contemplated on that, Mr. Macey.

MR. CAMPBELL: That is all.

MR. SPURRIER: Anyone else? . . .The witness may be excused. . .Does anyone else have any testimony to offer in this case?

MR. HILL: If the Commission please, I would like to make a brief statement. A. L. Hill, El Paso Natural Gas. According to our records as taken from the New Mexico Oil and Gas Engineering Committee records for July, there were 21 gas wells in the Blinbry Pool, 19 of which were connected to El Paso. For that reason we are interested in this pool. Just as a brief closing statement covering and applying to all the pools, Mr. Commissioner, I would like to just briefly say that during these three days of hearings, we have heard considerable discussion on the merits of various means of prorating gas within these pools and primary importance has been placed upon equitable distributions of the allowances. We are certainly an advocate of that being achieved but at the same time we feel that there are certain problems involved in the production and marketing of natural gas that have to be or should be given some consideration. We have made our studies of these pools, made the best recommendations we know of to achieve both purposes.

Mention was made yesterday of how oil has been produced and marketed in this state. Well, I am sure that it isn't necessary for me to remind the Commission of the great difference there is between the problems involved in the production and marketing of oil and those problems involved in the productions and marketing of natural gas. I am sure the oil companies know far more

about the marketing of oil than we do, but we believe that we know more about the marketing of gas and have a better understanding of the problems involved therein.

In previous hearing before this Commission, we have explained the necessity for El Paso to have as much flexibility and as much freedom of action as is possible in the operation of the gas wells connected to its system in order that we can properly market the large volumes of residue gas which we presently expect to be marketing in the future. In our opinion the proration formula that we have recommended for the various pools, all of which take into account the ability of the wells to produce, will result in and a fair and equitable allocation of the pool allowables and at the same time will result in the assignment of allowables that can be more nearly produced and provide maximum flexibility of operation and minimizing the problem of balancing production and allowables. We respectfully request the Commission to give full and serious consideration to our recommendations in cases 582 to 590.

MR. SPURRIER: Are there other closing statements? Mr. Stahl?

MR. STAHL: In addition to the testimony and statement which we made the opening day which I would like to have incorporated in the Blinbry Pool I have this, what I hope is going to be a rather brief statement. We of Permian Basin Pipe Line Company have listened with a great deal of interest, the last three days while these hearings have been going on. Unfortunately, I feel, but it is oftentimes true, this has again become in general two

factions. The producers in one camp or the majority of the producers, the pipeline companies over in the other camp. It has become in the nature of, let's say, a friendly argument. We of the pipeline companies have been accused or it has been intimated that we have no real interest in what proration formula is established. We take very definite issue with that. We do feel that we have a very real interest.

Let me give you some facts to back that up. Permian Basin Pipeline Company is investing something like 45 million dollars in the Permian Basin. A portion of that investment is going into New Mexico. Northern Natural Gas Company which is the parent of Permian is investing something like 60 million dollars in order to take the gas that Permian delivers into the Northern system north to market. That is a total investment then of one hundred million dollars. Well, that fact alone gives us a substantial interest. Let's go on from there. When you build a pipeline company, you first of all have to contract for a certain amount of reserves. You have got to buy the gas to send through the line. We have done that, as has El Paso and Southern Union. Your pipeline company is designed, financed and built upon the reserves, you have under contract. In that respect our interest is identical with that of the producers. When we sign a gas purchase contract we not only buy gas on a day to day basis, we feel essentially we are buying gas in place in the ground for the next 20 years or at least the right to pay for it as it is produced. The producing companies have exactly the same interest. They want

to get paid for their gas. They want to produce it. In that respect, a proration formula which gives effect to equitable production or reserves underlying acreage in a pool is, it seems to me, what we are striving for. The producers and the pipeline companies then are entitled to produce and purchase the gas that they have already made a deal for. The Commission is protecting the interest of everybody if that type of formula is put into effect. Now, naturally we do have a selfish interest.

A deliverability type of proration formula makes it a lot easier for us to operate down the road. We are very honest about that. We also feel that it is not in any way harmful to the producers to permit us that ease of operation. So, that you all as producers have no valid reason at least in my mind for opposing the proration formula as suggested by the pipeline companies in these cases. There is one other factor as to why a sensible proration formula should be put into effect. All of us hope that El Paso, Southern Union and Permian Basin will grow, will buy more gas, build more lines and increase their capacity. Unless we have a proration formula which efficiently and honestly protects our rights under our gas purchase contracts and the reserves committed thereto we cannot intelligently build increased capacity. With respect to the hearings that we have all been sitting in on, you are all aware that evidence has been introduced which supports the deliverability concept. At this moment in time and space, that evidence is absolutely uncontraverted. There has been no evidence as such introduced into these hearings which support the straight acreage formula.

There have been statements made by the producers or by representatives of the producers setting forth what the company position is. At best these are statements or opinions of the people making them. There are certain basic questions which we feel it is necessary to direct against those statements as made by the various producing companies. First of all, how does surface acreage in any way indicate underground reserves? Second, how does surface acreage indicate in any way or reflect pressure, porosity permeability, interstitial water or sand thickness. The essential elements of determining reserves. All the pipe line companies are asking for is a proration formula which will permit us to produce into our pipeline and sell to our markets, the gas we presently have under contract.

MR. SPURRIER: Anyone else? Mr. Hill.

MR. HILL: Mr. Commissioner, if it please, I overlooked making a statement in the case of the Blinbry Pool. We want the proration formula based upon one hundred times deliverability.

MR. ORN: Mr. Commissioner, let me state our position again. We don't advocate that in these combination oil and gas pools that the volume of withdrawal of an oil well should govern the volume of withdrawal from a gas well, nor do we advocate that the volume of withdrawal from the gas well should govern the volume of withdrawal from the oil well. We think that the oil well on the schedule should be prorated as an oil well, and that the gas-oil ratio should be amended whereby they will be able to produce the allowable oil at a ratio of whatever might be applicable, but if that

is less oil than could be produced with the volume of gas could be produced if the well were a gas well, then the oil can be withdrawn up to the allowable fixed by the Commission. That puts a floor in here whereby these gas purchasers reduce their take or for some reason they are closed in these oil wells, will not be closed in. They can continue to be produced at the applicable ratio of two thousand or whatever it may be. It will protect them and at the same time if you put in a ceiling here that that volume of gas is less than the volume of gas that would be produced if it were a gas well, then they can produce additional volumes of gas and the oil that comes up with it up to top allowable of the oil well. That then would give them the right to take their gas too. It will also result in oil being produced a little more rapidly, produced before the pressures in the reservoirs decline to the point where there will be great quantities of oil left in the reservoir. On the question of deliverability in favor of a deliverability factor in the allocation formula, we certainly think that there ought to be a deliverability factor put in the formula if you are going to permit the combining into one-unit of four one-hundred-sixty-acre tracts, with one well on it and that 640 acres will produce as much as four one-hundred-sixty-acre tracts with four wells on it. We think when the deliverability is increased by the producer that he is entitled to a greater share of the market.

MR. SPURRIER: Anyone else?

MR. MASSEY: H. A. Massey of the City Service Oil Company.

I would like to make a short general statement and have it made applicable to all nine cases which have been heard in the last three days. City Service Oil Company is in general accord with the general gas rule as proposed except one feature. We wish to direct attention to rule five, proration units in connection with Rule 8, under gas allocation. We feel that the basic unit should be a 160 acres and that no additional acreage should be credited to one single gas well without the applicant's first making application through the process of hearing before the Commission and show cause why this additional acreage should be credited to the well.

MR. SPURRIER: Anyone else?

MR. FOSTER: Mr. Foster, representing Phillips Petroleum Company. I just have a few general remarks that I would like to make. First, I would like to say that I have been very much impressed by the way the hearings here have been conducted during the three days. I want to compliment the Commission on their patience in listening to everybody. I think it is a fine thing where you can have a forum where you can get together and just talk these things out and certainly no harm can come from maybe a little bit too much talking, if that is possible. I hardly think it is and everybody gets it off their chest and kind of gets the steam off. I want to sort of state Phillips Petroleum's position in this matter.

We are interested in most of these pools all except one

or two. On this question of deliverability as one of the factors in the proration formula, I don't want anyone to get the impression that Phillips Petroleum Company is opposed to deliverability in a gas allocation formula in principle. But these fields that we are dealing with here are fields that have oil production in them as well as gas production. They are fields that have been operating for a long time, some of them. Some are older than others. We don't know what the facts are, I don't believe anybody else does, in these particular fields with respect to the proper formula that should be adopted for the field. Now, you can hold hearings all this year and you never would get those facts, because the facts that you will get for adoption of a better proration formula have to come from field experience and field history under proration. You do not have any field experience or field history in any of these fields on gas proration. You can only get it by prorating. I don't want this record to stand unexplained as to Phillips Petroleum Company's position on the straight acreage formula.

I know that has some defects in it and it may be that after you had a year or two years experience under the proposed acreage formula that a good many of the operators will want to come in here and change it. Maybe they won't, maybe they will. After all, it is largely the operators business and I think this Commission can depend on it that the operators if they think a more equitable formula can be devised for these fields after you have had your history and experience that you will find operators

in here advocating that formula. I don't believe it is a correct statement that has been made here, there is just no evidence here to support the acreage formula, I think there is. It appears that most of these fields are common reservoirs that produce both oil and gas. I know the oil operators there have their problems in the field and the gas operators have their problems. But this Commission is going to have to make up its mind whether it is going to prorate the field as a gas field or going to prorate them as oil fields.

It seems to me that the oil producers want to continue to call the wells in these gas fields that are producing oil, oil wells. Well, it is not my understanding that that is the definition which the Commission has in the proposed order given to those wells. The Commission has attempted to find a gas well. I know that some of those wells that would be the gas wells would be producing oil. But for regular information purposes, it seems to me that is going to be necessary, if they are oil wells, you have to prorate them on one formula. If they are gas wells, you have to prorate them on another formula. I am talking about simply for regulatory purposes. You can't prorate a gas well on an oil well formula nor can you prorate an oil well on a gas formula. So, it is necessary that you find what these wells are and you have done that and I think wisely so. In your definition here, you say that a gas well is a well producing gas for natural gas from a common source of gas supply designated as a gas pool by the Commission.

All of these fields have been designated as I understand it gas pools by the Commission. Therefore, all the wells that are in those pools are gas wells and subject to proration as gas wells. That doesn't mean that you must not give or you will not give effect to the fact that the wells are producing some oil. You should do that. It is a question of on what equitable basis you are going to do it. Now, there again, you have no field experience and no field history with respect to that and the only way you can gain it is through experience so that you, when you come down finally, you will know what to do based on the actual facts, in each field. The whole proposition kind of reminds me of when I was a young lawyer and was in the office of an older lawyer, he told me that the only way to write a brief was to write it. The only way to prorate gas is just start prorating. You can stand here and talk about it. You can argue about it and you can have these hypothetical cases, you can talk about deliverability, permeability, porosity and open flow and potential and all of that, and if you just keep on talking--as a matter of fact, we have been talking about prorating gas in this state for a good many years, the Commission is just now getting around to taking some action on it, I think you are to be congratulated on the way you have approached it and the speed with which you have done it and the work you have done on it so far. Of course, I want to leave this one thought with the Commission. I want to say to you, that when you put these orders into effect, your job isn't

done. It is just commenced. If you think you have had any headaches up until now, you just don't know what is happening. Perhaps, if you knew all the things that you are going to have to go through after you get the orders in, you would be pretty much inclined just to back away from the whole thing.

MR. SPURRIER: Thank you for those kind words. Mr. Campbell.

MR. CAMPBELL: Judge Foster's words compel me to make another statement on behalf of Texas Pacific Coal and Oil Company. As the Commission knows, I am not as well pleased with the procedure the Commission has followed as is Judge Foster but that is neither here nor there. I have heretofore expressed my views in that regard. The thing which Texas Pacific Coal and Oil Company has asked for with regard to these fields is not necessarily to throw a monkey wrench in gas proration. The thing that concerns them is that the Commission by its definition in this order is overnight changing an oil well to a gas well.

Judge Foster says that that should make some difference in the way the Commission applies any allocations formula. But if the gas companies come in and nominate and you start prorating January 1st, and I assume they will be nominating on all the gas oil wells as gas wells, it is going to have an immediate effect particularly in areas where wells have been producing for long periods of time, where you may have four wells on 160 acres producing enough gas, combined maybe to make the allowable on gas and perhaps not being able to make any oil in some of the four wells

and having to shut them in. A lot of the wells were drilled in the days where you can't go in and complete them properly. You probably can't go in and fool around with them. We ask that the Commission leave those oil wells alone until we can have adequate hearings to determine how they were completed, where they were completed, whether a gas-oil ratio should be applied. If they are flaring whether the Commission should stop them from flaring gas rather than going in now and overnight having operators who have not had an opportunity to find out what the effect is going to be on their property rights find themselves cut out or cut down on their productions of oil.

We simply ask that any order in any of these fields which has oil wells in it on the oil allowable schedule contain a provision that until reclassified by the Commission they remain oil wells. Since they are oil wells, they cannot be prorated under our statutes until the Commission determines they are gas wells. They cannot be prorated under the gas proration laws as, I think would be conceded by anyone here. We don't want to have the oil wells changed to gas wells by a simple process of setting in an order that every well in this boundary is a gas well.

MR. FOSTER: I don't want anyone to get the impression that Phillips Petroleum Company is entirely happy and satisfied with this proposed order. We are not. We realize there are many defects in it. We think you will have to change it some and the time will come but again I think under all the circumstances it is the fairest one you can get to begin prorating gas with.

MR. SPURRIER: Anyone else? Mr. Davis.

MR. DAVIS: Southern Union Gas Company has been represented at the pool hearings for the last three days and I think the record will clearly indicate that we haven't taken any active position in any field other than those in which we are either purchasing or producing gas from. We felt like that as to those fields that we were in that we should submit and propose a proper formula of allocation of gas. Now, as to Judge Foster's remark that he knew there were bound to be bugs in the proposed or standby order, we realize that too and we realize that the purpose of these pool hearings was to iron those things out. In other words, let's get all of them out we can. As a public utility Southern Union is operating in Southeastern New Mexico and has been for many years and as such we not only have a duty but an obligation to assure the people of New Mexico in that area that they are going to have gas at the time that they need it. In view of that fact, we think that any formula that the Commission adopts in connection with the proration of gas in the Eumont and the Lang-Mat fields should be something that is equitable both from the stand point of the producer and also a formula which we feel sure will enable us to get the amount of gas we need. Now, we have considered several different types of formula and have finally decided that the 50 percent acreage plus 50 percent deliverability is an equitable formula and certainly will not hurt the oil companies or the producers of gas.

Now, Aztec, a subsidiary of Southern Union has oil producti

in several of these areas in Southern New Mexico and we have never attempted to tell any company, any oil producer how to allocate oil. We assume that they knew a lot more about that than we do and we believe that they have been satisfactory, all their orders have been satisfactory in that respect. However, we do not believe that at any time should an allocation formula or any procedure that might be used in setting oil allowables should be even considered in connection with a gas proration or gas allocation.

MR. SPURRIER: Anyone else? Mr. Lyon.

MR. LYON: Mr. Lyon with Continental Oil Company, in regard to the Blinbry Pool, Continental Oil Company adopts and concurs in the position that Humble Oil Refining Company has taken in this matter. In regard to the nine pools in which the Company has been taking testimony for the last three days, Continental believes that the rules which the Commission published in order Number R-356 are as good as we can start off with and we realize there probably will have to be changes made. So, we believe that the rules which they have put out are as fair as any that we can make at this time and we recommend that the Commission adopt them.

MR. SPURRIER: Anyone else? Do we have the same requests for concluding statements in the record of this case 586 that we had in the previous cases? Mr. Abbott?

MR. ABBOTT: Yes, sir.

MR. SPURRIER: Mr. Girand?

(No response)

MR. SPURRIER: Mr. Campbell?

MR. CAMPBELL: Yes.

MR. SPURRIER: Mr. Stahl?

MR. STAHL: Yes, sir. As I understand that includes Mr. Fowler's testimony also?

MR. SPURRIER: Yes. Mr. Bickel?

MR. HULL: C. A. Hull representing Mr. Bickel, yes.

MR. SPURRIER: Mr. Hill?

MR. HILL: Yes, sir, one hundred percent plus deliverability.

MR. SPURRIER: Mr. Hiltz?

MR. HILTZ: Yes.

MR. SPURRIER: Mr. Hinkle?

MR. HINKLE: Yes.

MR. SPURRIER: Mr. Campbell for Mr. Adair?

MR. CAMPBELL: Yes.

MR. SPURRIER: Mr. Curry?

MR. CURRY: As much as they apply to the rule, we would like to have our statement stand.

MR. SPURRIER: Mr. Vickery?

MR. VICKERY: Yes, sir.

MR. SPURRIER: Mr. Foster?

MR. FOSTER: Yes, sir.

MR. SPURRIER: Mr. Orn?

MR. ORN: Yes, sir, but I would like for what we have said in this to be applicable to the others.

MR. SPURRIER: Anyone have anything further in the case?

MR. KELLAHIN: Mr. Kellahin.

MR. SPURRIER: Excuse me, Mr. Kellahin .

MR. KELLAHIN: Mr. Kellahin for Samedan, we have no interest in this pool but insofar as our statements apply to the rule generally, we would like to have them included.

MR. SPURRIER: I might say as insofar as legally possible we will include statements of previous cases in this case, and the statement in this case in previous cases. If no one has anything further, we will take the case under advisement and move on to case Number 601.

* * * * *

I, ADA DEARNLEY, Court Reporter do hereby certify that the foregoing and attached transcript of proceedings was taken by me on October 28, 1953, that the same is a true and correct record to the best of my knowledge, skill and ability.

Ada Dearnley
Ada Dearnley
REPORTER

Cancel

NEW MEXICO
OIL CONSERVATION COMMISSION
P. O. BOX 871

Santa Fe, New Mexico

February 10, 1954

DIRECTIVE

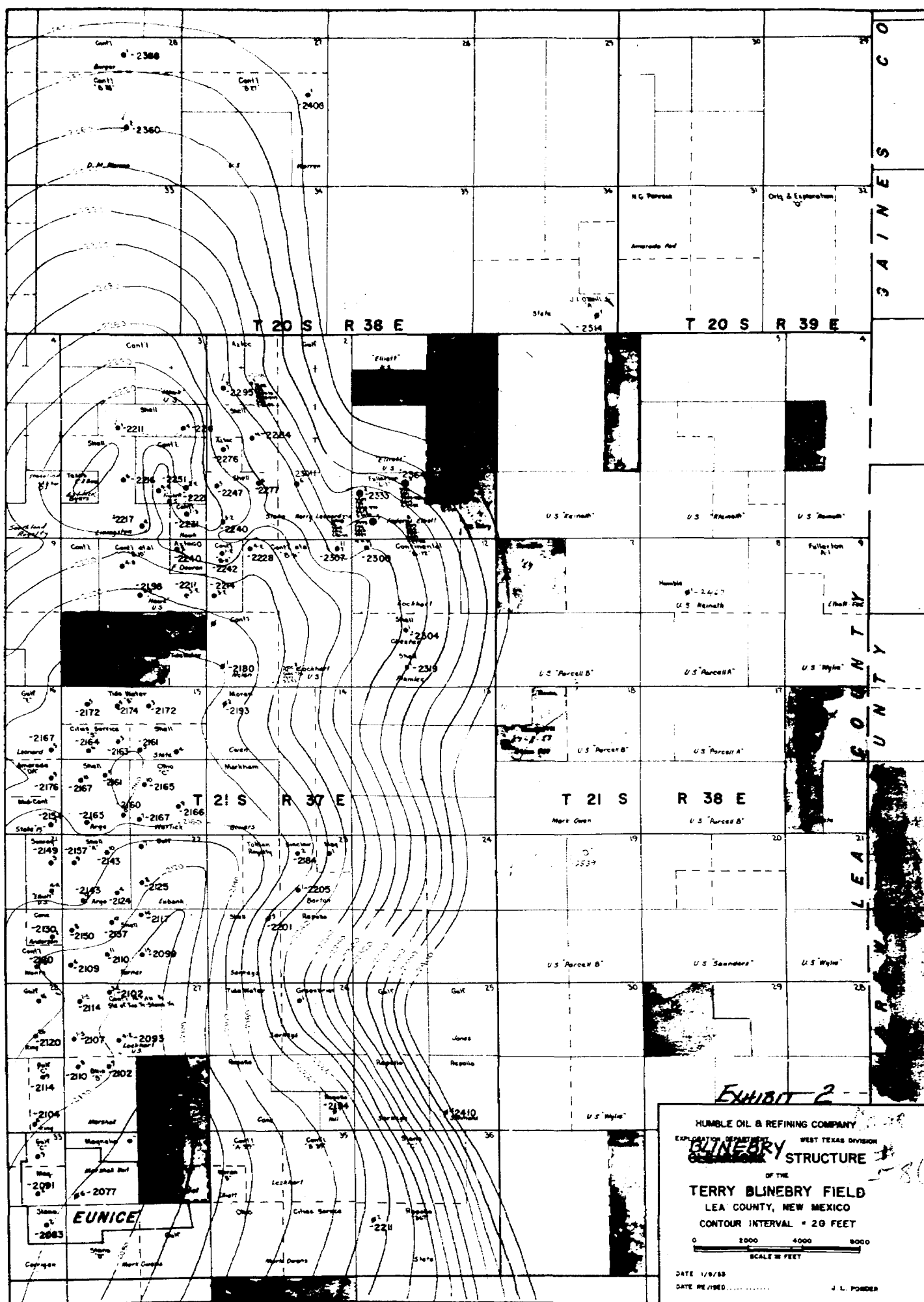
TO: Tubb, Blinebry and Drinkard Pool Operators

FROM: R. R. Spurrier, Secretary and Director

The gas pool rules for the Tubb and Blinebry Pools, as outlined in Orders Nos. R-372-A and R-373-A, requested operators of all oil and gas wells within the defined limits of these pools to furnish the Commission with certain geological information (well logs) on their producing wells. Very few of these logs have been submitted to date.

It is therefore requested that all operators take immediate steps to determine whether or not they have complied with this order and if the requested information is not available to advise this Commission to that effect. If logs have been submitted previously in dual completion applications or hearings, it will not be necessary to re-submit copies of these logs.

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MEMORANDUM

To: The Oil Conservation Commission

From: W. B. Macey

Subject: Cases 582 through 590: General rules for the prorationing of gas in the Jalco, Langmat, Eumont, Arrow, Amanda, Blinebry, Tubb, Justis and Byers-Queen Gas Pools.

In accordance with Mr. Spurrier's request, following are my recommendations pertaining to the above listed Cases held in Santa Fe, on October 26 through 28. In order to evaluate the basic recommendations the following history of these cases should be observed.

1. The Commission originated hearings on a general four county area (Lea, Eddy, Chaves and Roosevelt Counties) on March 17, 1953 under Case 521. The purpose of this hearing was to establish means and methods of prorating gas in this four county area. In April, 1953 this Case was consolidated with Case 245 in accordance with Order No. 264 issued in Case 245. (Case 245 and subsequent Order R-264 established the defined limits and producing intervals of gas pools in Southeast New Mexico.) As a result of the March 17th hearing, the Commission appointed a Committee to propose suggested rules in Case 521 and suggested revisions in Case 245. The final report of the committee, containing recommendations in both Case 245 and Case 521 was made on August 20, 1953 and on August 28, 1953 the Commission issued Order R-356 in Case 321 outlining "Stand-by" rules for the four-county area. (No additional order has been issued in Case 245 as yet). The Commission then advertised nine gas pool cases for hearing on September 17, 1953, the Commission's advertisement requesting an order establishing pool rules and other related matters insofar as they were set forth in Order R-356. Some testimony was received at this time and as a result of these hearings, Orders were issued in each Case requesting operators and other interested parties to show cause why the rules as outlined in Order R-356 should not be put in effect on November 1, 1953. The hearings were conducted on October 26, 27 and 28 with extensive testimony being given in each case. The testimony and evidence given in these hearings is the basis for the following recommendations. Since the Rules as outlined in Order R-356 are numerical in sequence the following comments and recommendations will be made in the same numerical order.

Rule 1: The recommended provisions of Rule 1 should be changed since they apply solely to a defined gas pool. The rule provides an exception to some of the provisions of statewide Rule 104. The exception however, should only apply to paragraph (a) and paragraph (d) of the Rule 104 since they are solely concerned with gas pools in particular. Also a further provision should be included as sub-paragraph (c) of the Rule to provide as follows:

(c) When the well is located upon a tract of not less than a quarter section of approximately 160 surface contiguous acres substantially in the form of a square which shall be a legal subdivision (quarter section) of the U. S. Public Land Survey.

Rule 2: The provisions of this rule should be placed in effect in all nine pools.

Rule 3: An appropriate revision of Rule 3. pertinent to each pool name should be inserted in each set of pool rules.

Rule 4: This provision should be set forth in each set of pool rules.

Rule 5: This Rule and a portion of Rule 8 pertaining to Proration units and the formation of unorthodox gas units should be amended in such a manner to limit the standard proration unit to a legal quarter section of approximately 160 acres and allowing exceptions thereto only after notice and hearing. Exceptions should be limited to only extreme cases where Communitization is impractical because of the presence of a well which has been producing for considerable length of time, or where acreage is so situated that well locations can be adequately placed so as to insure adequate unit drainage in spite of the unorthodox unit and the correlative rights of everyone are protected. Furthermore, a policy of not approving unorthodox units where another unorthodox unit is formed thereby (thus starting a chain reaction) should be strictly adhered to. It is recognized that this policy which in effect promotes the formation of communitization or pooling agreements will cause some more work on the part of everyone concerned but the inequities which could arise from a large number of unorthodox units far out-weighs the work involved.

Since it is contemplated that the proration period in each pool will start January 1, 1954, it is entirely possible that a great number of Communitization Agreements will be delayed in execution until after the start of the proration period or after the completion of the well. Therefore, it is recommended that each pool order contain a provision outlining a policy which would allow the total acreage formed by the agreement, and thus dedicated to a well, be made retroactive to the first day of the proration period or the first day the well produces, whichever date is the later, provided, that the executed Communitization Agreement is in force and effect on the last day of the proration period.

Rules 6 and 7: The provisions of these rules should be placed into effect in each pool as outlined.

Rule 8: The first sentence of Rule 8 should be included as the last paragraph and the remaining provisions of the rule deleted from all pool rules. This will require the re-numbering of Rules 9 through 15. The reason for the deletion of that portion of Rule 8 is outlined in my remarks under Rule 5.

Rules 9 through 15: The provisions of these rules should be incorporated in each set of pool rules without any changes.

Further Recommendations:

It is further recommended that the Commission place in the hands of all operators, "preliminary" nomination forms so that the Commission may consider the nominations for each of the 9 pools for the first six month period of 1954 at the regular November hearing on November 19th. Instructions should be sent out with the forms stating that the nominations should apply to only those wells which are considered gas wells and which are not on the oil proration schedule.

Initially each purchaser or taker of gas should also include with his nominations the well or wells from which he desires to purchase gas January 1, 1954. This would allow the Commission staff an opportunity to check to see that each well to be listed on the schedule is known beforehand and that the well is not also listed on the oil proration schedule.

In this connection I believe it also advisable to point out that a provision should be inserted in each pool order stating that the Commission will continue to prorate those oil wells which lie within the productive limits of defined gas pools as oil wells pending a complete study and redesignation of some of the oil wells and possibly a re-definition of both oil pools and gas pools. In order to facilitate this study, all operators in all of the producing pools should be required to submit to the Commission an electric log or sample log, if available, on each well producing from the same zone within the defined limits of each gas pool.

It is also recommended that an Order be entered immediately in Case 245 outlining the recommended changes in pool nomenclature as made by the sub-committee in this case at previous hearings. It is also suggested that as soon as this Order is entered, the Hobbs office sent out Form C-123 requesting pool extensions which have not yet been made so that a hearing can be held in December to consider these pool extensions.

Due to the fact that considerable testimony was entered by the Pipeline Companies in the 9 pool cases requesting some form of a deliverability formula it is recommended that the Commission, through its staff, take immediate steps to outline an adequate gas well testing program to govern all gas wells in south-eastern New Mexico. In connection with this, the Commission should supply adequate tables and forms in order that any deliverability formula can be properly evaluated after the necessary well tests are performed. In this connection each pool order should contain a provision that well tests in that particular pool should be made in accordance with testing procedure approved by the Commission.

It is also recommended that the Commission carefully consider the advisability of refusing to approve any subsequent dual completions (gas-oil or gas-gas) where the recompletion information shows that the well is not located upon a standard 160 acre proration unit. It should also be noted that some operators might construe approval of a dual to mean also approval of an unorthodox gas unit.

With reference to the Rhodes storage area of the Jalco Pool, a provision should be inserted in the order pertaining to the Jalco Pool which states that those storage wells in the Rhodes Unit Area should not be governed by the pool rules. Provided, however, that the operator of the storage area submits periodic reports of storage and withdrawal of gas from the unit area.

With particular reference to the Blinebry Pool a study should be made immediately on the withdrawals of gas and oil from this reservoir and a determination made after proper notice and hearing of some volumetric withdrawal formula.

October 30, 1953

CASE 586

STATEMENT OF SHELL OIL COMPANY
IN REGARD TO PROPOSED GAS RULES
FOR BLINEBRY FIELD
SEPTEMBER 17, 1953

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

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

Rule 5 establishes a standard gas proration unit of 155 to 162 contiguous surface acres.

Rule 8 provides, however, that more than one standard proration unit may be assigned to a gas well provided not more than 640 acres are so assigned, and provided the other requirements of the Section 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 well to which additional acreage is assigned should be shown to be capable of draining such additional acreage.

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

It is our thought that it would be better to stay with a standard size unit for allowable purposes, unless, after a hearing, the Commission permits the assigning of additional acreage and allowable because of the circumstances existing in the particular case. We realize that there may be conditions under which additional acreage should be assigned to a well or wells, but feel that it should be permitted only after hearing, and not solely at the discretion of an operator. As to the size of the standard unit in this field, in view of the fact that the field has been developed to date on 160 spacing, we feel that 160 acres should constitute the standard unit therein.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF THE STATE OF NEW
MEXICO FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 586
Order No. R-372

THE APPLICATION OF THE OIL
CONSERVATION COMMISSION ON ITS
OWN MOTION FOR AN ORDER ESTABLISH-
ING POOL RULES FOR THE BLINEBRY GAS
POOL, LEA COUNTY, NEW MEXICO, SAID
RULES BEING CONCERNED WITH WELL
SPACING, GAS PRORATION AND ALLOCATION,
PRORATION UNITS, POOL DELINEATION AND
OTHER RELATED MATTERS INsofar AS THEY
PERTAIN TO THE GENERAL RULES FOR GAS
PRORATION AS SET FORTH IN ORDER NO.
R-356 IN CASE 521.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This case came on for hearing at 9 o'clock a.m. on September 17, 1953, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 28th day of September, 1953, the Commission, a quorum being present, having considered the statements of interested persons, and the official records of the office and other pertinent data, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given, the Commission has jurisdiction of this cause.

(2) That production records of gas wells producing within the Blinebry Gas Pool as heretofore designated, classified and defined, indicate the necessity for proration of gas-well gas for the prevention of waste and the protection of correlative rights.

(3) That Order No. 356, heretofore issued by the Commission, and containing appropriate general rules relative to gas-well spacing, gas proration and gas allocation, appearing to be satisfactorily applicable to the Blinebry Gas Pool, should be considered as the special rules and regulations for said pool pending further order of the Commission.

IT IS THEREFORE ORDERED:

That the rules and regulations relating to gas-well spacing, gas proration and gas allocation, as set out in Order R-356, be, and the same hereby are made the special rules and regulations of the Blinebry Gas Pool pending further order of the Commission after notice and hearing.

IT IS FURTHER ORDERED:

That all parties interested in said Blinebry Pool and the rules therefor be, and they and each of them are hereby ordered to show cause at 9 o'clock a.m. on October 28, 1953, at Santa Fe, New Mexico, why the rules and regulations referred to hereinabove, with any essential amendments, shall not be put into effect as of November 1, 1953.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION



EDWIN L. MECHEM, Chairman



E. S. WALKER, Member



R. R. SPURRIER, Member and Secretary

SEAL

Blanchard

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF THE STATE OF NEW
MEXICO FOR THE PURPOSE OF CONSIDERING

THE APPLICATION OF THE OIL CONSERVATION
COMMISSION ON ITS OWN MOTION FOR ALL
OPERATORS AND INTERESTED PARTIES IN
THE ~~SALES~~ GAS POOL TO SHOW CAUSE WHY
THE RULES AND REGULATIONS AS SET OUT
IN ORDER R-356, WITH ANY ESSENTIAL
AMENDMENTS, SHOULD NOT BE PUT INTO
EFFECT.

586
CASE NO. ~~388~~
ORDER NO. R-~~356~~
372-A

ORDER OF THE COMMISSION

BY THE COMMISSION:

This case came on for hearing at 9 o'clock a. m. on October ²⁸~~25~~,

1953, at Santa Fe, New Mexico, before the Oil Conservation Commission of

New Mexico, hereinafter referred to as the "Commission".

NOW, on this _____ day of November, 1953, the Commission,
a quorum being present, having considered the testimony adduced, the exhibits
received, the statements of interested parties, the official records of this
Commission and other pertinent data, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given, the Commission has
jurisdiction of this cause.
- (2) That the Commission by virtue of Order R-356 adopted certain
"Standby Rules" pertaining to the four county area of Lea, Eddy, Chaves and
Roosevelt Counties, New Mexico; said rules dealing with well spacing, allocation,

proration units and other pertinent matters.

(3) That the Commission issued Order R-355, pertaining to the Jaleo Gas Pool adopting the Rules and Regulations of Order R-356 as the special pool Rules and Regulations of the Jaleo Gas Pool pending further order.

(4) That the Rules and Regulations as set forth in Order R-356 with certain amendments should be placed in full force and effect in the Jaleo Gas Pool.

(5) That operators in certain designated oil and gas pools in the area of the Jaleo Gas Pool should supply to the Commission certain geological and reservoir information in order that a complete evaluation of the productive limits of this pool can be ascertained.

(6) That an adequate gas well testing procedure should be adopted as soon as possible so that operators, purchasers and the Commission can determine the feasibility of employing an allocation factor pertaining to well productivity, deliverability or pressure in allocating production and that pending this evaluation the allocation of gas in the Jaleo Pool shall be on a 100% acreage basis using 160 acre proration units as a basis for the allocation.

(7) That the allocation of gas on a 160 acre proration unit basis be limited to 160 acres in the form of a square being a legal subdivision, quarter section, of the U. S. Public Land Surveys and that deviation from this

basis shall be allowed only after proper notice and hearing.

(8) That in granting exception to the standard 160 acre proration unit the Commission should give special consideration to wells heretofore completed, which would make pooling agreements of acreage economically impractical.

(9) That the portion of the Jalisco Gas Pool known as the "Rhodes Storage Area" should be granted exception to the Rules and Regulations of the Jalisco Gas Pool provided certain reports are made to the Commission.

(10) That for the purpose of administration and clarification of pool rules, all the rules applicable to well spacing, production, proration and allocation of gas in the Jalisco Gas Pool should be set out in this order under the heading ^{Blindery} "JALISCO GAS POOL RULES".

IT IS THEREFORE ORDERED:

That the following Rules shall apply to the ^{Blindery} Jalisco Gas Pool, Lea County, New Mexico.

^{Blindery}
JALISCO GAS POOL RULES

WELL SPACING AND ACREAGE REQUIREMENTS FOR DRILLING TRACTS.

Rule 1. Any well drilled a distance of one mile or more from the outer boundary of the ^{Blindery} Jalisco Gas Pool shall be classified as a wildcat well. Any well drilled less than one mile from the outer boundary of the ^{Blindery} Jalisco Gas Pool shall be spaced, drilled, operated and prorated in accordance with the

Elmore
Regulations in effect in the ~~Jules~~ Gas Pool.

Elmore
Rule 2. Each well drilled or recompleted within the Jules Gas Pool shall be located on a tract consisting of not less than a quarter section of approximately 160 surface contiguous acres substantially in the form of a square which shall be a legal subdivision (quarter section) of the U. S. Public Land Surveys.

Blindley
Rule 3. Each well drilled within the Jules Gas Pool shall not be drilled closer than 660 feet to any outer boundary line of the tract nor closer than 330 feet to a quarter-quarter section or subdivision inner boundary nor closer than 1320 feet to a well drilling to or capable of producing from the same pool.

Rule 4. The Secretary of the Commission shall have authority to grant an exception to the requirements of Rule 3 without notice and hearing where application has been filed in due form, and,

(a) When the necessity for an unorthodox location is based on topographical conditions, or is occasioned by the recompletion of a well previously drilled to another horizon, and

(b) When either one of the following is applicable.

1. When the ownership of all oil and gas leases within a radius of 1320 feet of the proposed location is common with the ownership of the oil and gas leases under the proposed location.

2. When all owners of oil and gas leases within such consent in writing to the proposed location.

Rule 5. The provision of Statewide Rule 104 Paragraph (k), shall not apply to the Jalco Gas Pool located in Lea County, New Mexico.

GAS PRORATION

Rule 6. The Commission after notice and hearing, shall consider the nominations of gas purchasers from the Jalco Gas Pool and other relevant data and shall fix the allowable production of the Jalco Gas Pool, and shall allocate production among the gas wells in the Jalco Gas Pool upon a reasonable basis with due regard to correlative rights.

PRORATION UNITS

Rule 7 (a) For the purpose of gas allocation in the Jalco Gas Pool, a standard proration unit shall consist of between 158 and 162 contiguous surface acres substantially in the form of a square which shall be a legal subdivision (quarter section) of the U. S. Public Land Surveys; provided, however, that a gas proration unit other than a legal quarter section may be formed after notice and hearing by the Commission, except as outlined in Paragraph (b). Any allocation unit containing less than 158 acres or more than 162 acres shall be a non-standard unit and its allowable shall be decreased or increased to that proportion of the standard unit allowable that the number of acres contained therein bears to 160 acres. Any standard proration unit consisting of between 158 and 162 contiguous surface acres shall be considered as containing 160 acres for the purpose of gas allocation.

(b) The Secretary of the Commission shall have authority to grant an exception to Rule 7 (a) without Notice and Hearing where application has been filed in due form and where the following facts exist and the following provisions are complied with;

1. The non-standard unit consists of less acreage than a standard proration unit.
2. The acreage assigned to the non-standard unit lies wholly within a legal quarter section and contains a well capable of producing gas into a gas transportation facility on the date of this order.
3. The operator receives written consent in the form of waivers from all operators in the adjoining 160 acre proration units.

GAS ALLOCATION

Rule 8. At least 30 days prior to the beginning of each gas proration period the Commission shall hold a hearing after due notice has been given. The Commission shall cause to be submitted by each gas purchaser its "Preliminary Nominations" of the amount of gas which each in good faith actually desires to purchase within the ensuing proration period, by months, from the ^{Blinberry} ~~Jules Gas~~ Pool. The Commission shall consider the "Preliminary Nominations" of purchasers, actual production, and such other factors as may be deemed applicable in determining the amount of gas that may be produced without waste within the ensuing proration period. "Preliminary Nominations" shall be submitted on a form prescribed by the Commission.

Rule 9. Each month, the Commission shall cause to be submitted by each gas purchaser its "Supplemental Nominations" of the amount of gas which each in good faith actually desires to purchase within the ensuing proration month from the ^{Blinberry} ~~Jules Gas~~ Pool. The Commission shall hold a public hearing between the 15th and 20th days of each month to determine the reasonable market demand for gas for the ensuing proration month, and shall issue a proration schedule setting out the amount of gas which each well may produce during the ensuing proration month. Included in the monthly proration schedule shall be a tabulation of allowable and production for the second preceding month together with an adjusted allowable computation for the second preceding month. Said

adjusted allowable shall be computed by comparing the actual allowable assigned with the actual production. In the event the allowable assigned is greater than the actual production, the allowables assigned the top allowable units shall be reduced proportionately, and in the event the allowable assigned is less than the production then the allowables assigned the top allowable units shall be increased proportionately. "Supplemental Nominations" shall be submitted on a form prescribed by the Commission.

The Commission shall include in the proration schedule the gas wells in ^{Blinberry} the Juice Gas Pool delivering to a gas transportation facility, or lease gathering system, and shall include in the proration schedule of the ^{Blinberry} Juice Gas 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. The total allowable to be allocated to the pool each month shall be equal to the sum of the supplemental nominations together with any adjustment which the Commission deems advisable. 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 proportion that the acreage contained in each unit bears to the total acreage allotted to such non-marginal units.

BALANCING OF PRODUCTION

Rule 10. Underproduction: The dates 7:00 A. M., January 1 and 7:00 A. M., July 1 shall be known as balancing dates and the periods of time bounded by these

dates shall be known as gas proration periods. The amount of current gas allowable remaining unproduced at the end of each proration period shall be carried forward to and may be produced during the next succeeding proration period in addition to the normal gas allowable for such succeeding period; but whatever amount thereof is not made up within the first succeeding proration period shall be cancelled. If, at the end of the first succeeding proration period, a greater amount of allowable remains unproduced than was carried forward as underproduction, the amount carried forward to the second succeeding period shall be the total underproduction less the amount carried forward to the first succeeding period.

If it appears that such continued underproduction has resulted from inability of the well to produce its allowable, it may be classified as a marginal well and its allowable reduced to the well's ability to produce.

Rule 11. Overproduction: A well which has produced a greater amount of gas than was allowed during a given proration period shall have its allowable for the first succeeding proration period reduced by the amount of such overproduction and such overproduction shall be made up within the first succeeding proration period. If, at the end of the first succeeding proration period, the well is still overproduced, it shall be shut in and its current monthly allowable charged against said overproduction until the well is in balance. If, at any time, a well is overproduced an amount equaling six times its current monthly allowable, it shall be shut in until it is in balance.

The Commission may allow overproduction to be made up at a lesser rate than would be the case if the well were completely shut in upon a showing at public hearing after due notice that complete shut in of the well would result in material damage to the well.

GRANTING OF ALLOWABLES

Rule 12. No gas well shall be given an allowable until Form C-104 and Form C-110 have been filed together with a plat showing acreage attributed to said well and the locations of all wells on the lease.

Rule 13. Allowables to newly completed gas wells shall commence on the date of connection to a gas transportation facility or the date of filing of Form C-104 and Form C-110 and the plat described above, whichever date is the later.

REPORTING OF PRODUCTION

Rule 14. The monthly gas production from each gas well shall be metered separately and the gas production therefrom shall be submitted to the Commission ^{on} Form ^{C-115} so as to reach the Commission on or before the twentieth day of the month next succeeding the month in which the gas was produced. The operator shall show on such report what disposition has been made of the gas produced. 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; provided, however that gas used on the lease for consumption in lease houses, treaters, combustion

engines and other similar lease equipment shall not be charged against the well's allowable.

DEFINITIONS

Rule 15. A gas well shall mean a well producing gas or natural gas from a common source of gas supply from a gas pool determined by the Commission.

Rule 16. The term "gas purchaser" as used in these rules, shall mean any "taker" of gas either at the wellhead or at any point on the lease where connection is made for gas transportation or utilization. It shall be the responsibility of said "taker" to submit a nomination.

PROVIDED FURTHER that those wells located within the defined limits of the ^{Blinn} Yates Gas Pool which produce oil and receive an oil allowable on the oil proration schedule shall be prorated as oil wells pending further study and that "preliminary" and "supplemental" nominations, as outlined in Rules 8 and 9 above, shall pertain only to gas wells which are not assigned an oil allowable.

PROVIDED FURTHER that all operators of oil or gas wells shall submit to the Hobbs office of this Commission (Box 2045) on or before January 1, 1954 a copy of either an electric log or sample log of each well, whether oil or gas, they operate within the defined limits of the ^{Blinn} Yates Gas Pool. Attached to each log shall be a detailed report showing well elevation, total depth, plug back depth, depth of production string, interval of perforations and open hole and estimation of formation tops of Yates, Seven Rivers and Queen as indicated by the log.

In the event that the Commission deems it advisable to obtain additional information from wells producing outside the defined limits of the ^{Blinkey} Jalco Gas Pool the Secretary of the Commission is hereby authorized to issue a directive to operators in order to obtain the desired information.

PROVIDED FURTHER That the provisions of these rules contained herein shall not apply to those wells involved in the Rhodes Storage Area. Provided, however, that operators in the Rhodes Storage area shall submit semi-annual reports, corresponding with the Jalco pool proration period, said reports shall contain statistical information showing the amount of gas injected and withdrawn from storage during each period and the cumulative amount of gas injected and withdrawn at the end of the proration period.

PROVIDED FURTHER that as soon as possible a testing procedure for all gas wells shall be adopted by the Commission. Said procedure shall contain adequate tests in order to determine the usefulness of employing any well potential, deliverability or pressure factors in allocating gas.

PROVIDED FURTHER that those operators who desire approval of the Commission of gas-oil dual completions under the provisions of Statewide Rule 112-A should also comply with the provisions of Rules 2, 3 and 4 of this order before approval will be granted.

PROVIDED FURTHER that in order to inaugurate gas prorationing and allocation in the ^{Blinkey} Jalco Gas Pool on January 1, 1954 the Commission shall consider

the nominations of purchasers for the proration period beginning January 1, 1954 at the regular hearing of the Commission on November 19, 1953 and shall require each purchaser of gas from the ^{Blimley} ~~Salce~~ Gas Pool to submit with each "supplemental" nomination a list of the wells and their location from which gas is to be purchased commencing January 1, 1954. In this instance the list of wells shall pertain solely to those wells which are gas wells and are not on the oil proration schedule.

PROVIDED FURTHER that in the event an operator has a producing well on acreage which does not conform to the provisions of Rule 2 or Rule 7 and an exception to Rule 7 is to be requested of this Commission the necessary information requested under Rule 12 should be complied with pending Commission action. In this instance the Proration Manager is directed to assign to the well only that acreage attributable to the well lying within the quarter section upon which the well is located. In the event the unorthodox unit is approved after notice and hearing and an increase in total acreage is permitted then the total allowable assigned the well shall be adjusted and made retroactive to the 1st day of the proration period or the 1st day the well produced into a gas transportation facility if the well was not productive prior to January 1, 1954.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING

CASE NO. 586
ORDER NO. R-372-A

THE APPLICATION OF THE OIL
CONSERVATION COMMISSION ON ITS
OWN MOTION FOR ALL OPERATORS
AND INTERESTED PARTIES IN THE
BLINEBRY GAS POOL TO SHOW CAUSE
WHY THE RULES AND REGULATIONS
AS SET OUT IN ORDER R-356, WITH
ANY ESSENTIAL AMENDMENTS,
SHOULD NOT BE PUT INTO EFFECT.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This case came on for hearing at 9 o'clock a. m., on October 28, 1953, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW, on this 10th day of November, 1953, the Commission, a quorum being present, having considered the testimony adduced, the exhibits received, the statements of interested parties, the official records of this Commission and other pertinent data, and being fully advised in the premises.

FINDS:

- (1) That due public notice having been given, the Commission has jurisdiction of this cause.
- (2) That the Commission, for the purpose of preventing waste and drainage, and for the protection of correlative rights, entered Order R-356, establishing certain general or "stand-by" rules and regulations relating to the proration of gas well gas, proration units, well spacing, and other related matters in the gas pools of Eddy, Lea, Chaves and Roosevelt Counties, New Mexico, applicable in all cases only after special rules for each gas pool shall have been promulgated.
- (3) That thereafter, after due notice and hearing, Order R-372 was duly entered by the Commission. Order R-372 adopted the general or "Stand-by" rules promulgated by Order R-356 as the Special Rules and Regulations of the Blinebry Gas Pool, heretofore established. R-372 was entered pending a further order in the premises, said order to be entered only after all interested parties were afforded the opportunity to be heard in the matter.
- (4) That as a result of such hearing and in consideration of the testimony adduced Special Pool rules should be promulgated for the Blinebry Gas Pool, heretofore established, described and classified as a gas pool. That the Special pool rules should approximate the general rules and regulations promulgated by Order R-356 insofar as the same are applicable to the Blinebry Gas Pool, and should conform, generally with the provisional special rules of Order R-372.

(5) That in order for the Commission to evaluate and delineate the actual productive limits of the Blinebry Gas Pool all operators of gas wells within the defined limits of the Blinebry Gas Pool should supply certain Geological and Reservoir data to the Commission.

(6) That pending further study and orders, the allocation of gas in the Blinebry Gas Pool should be calculated on the basis of 100 per cent acreage, based upon the standard 160 acre proration unit, which unit is limited to a regular quarter section subdivision of the U. S. Public Land Surveys and consisting of not less than 158 nor more than 162 acres, substantially in the form of a square, with provision for deviation therefrom particularly in cases of wells heretofore completed where the impracticability of unitization is apparent.

(7) That an adequate gas well testing procedure should be adopted as soon as possible so that operators, purchasers and the Commission can determine the fairness and feasibility of an allocation factor for the pool which employs the factors of deliverability, pressure, or any other factor relating to gas well productivity.

IT IS THEREFORE ORDERED:

That Special Pool Rules applicable to the Blinebry Gas Pool, be and the same hereby are promulgated and are as follows:

SPECIAL RULES AND REGULATIONS
FOR THE BLINEBRY GAS POOL
LEA COUNTY, NEW MEXICO

WELL SPACING AND ACREAGE REQUIREMENTS FOR DRILLING TRACTS.

RULE 1. Any well drilled a distance of one mile or more from the outer boundary of the Blinebry Gas Pool shall be classified as a wildcat well. Any well drilled less than one mile from the outer boundary of the Blinebry Gas Pool shall be spaced, drilled, operated and prorated in accordance with the Regulations in effect in the Blinebry Gas Pool.

RULE 2. Each well drilled or recompleted within the Blinebry Gas Pool shall be located on a tract consisting of not less than a quarter section of approximately 160 surface contiguous acres substantially in the form of a square which shall be a legal subdivision (quarter section) of the U. S. Public Land Surveys.

RULE 3. Each well drilled within the Blinebry Gas Pool shall not be drilled closer than 660 feet to any outer boundary line of the tract nor closer than 330 feet to a quarter-quarter section or subdivision inner boundary nor closer than 1320 feet to a well drilling to or capable of producing from the same pool.

RULE 4. The Secretary of the Commission shall have authority to grant exception to the requirements of Rule 3 without Notice and Hearing where application has been filed in due form and the necessity for the unorthodox location is based on topographical conditions or is occasioned by the recompletion of a well previously drilled to another horizon.

Applicants shall furnish all operators within a 1320 foot radius of the subject well a copy of the application to the Commission, and applicant shall include with his application a written stipulation that all operators within such

radius have been properly notified. The Secretary of the Commission shall wait at least 10 days before approving any such unorthodox location, and shall approve such unorthodox location only in the absence of objection of any offset operator. In the event an operator objects to the unorthodox location the Commission shall consider the matter only after proper notice and hearing.

RULE 5. The provision of Statewide Rule 104 Paragraph (k), shall not apply to the Blinebry Gas Pool located in Lea County, New Mexico.

GAS PRORATION

RULE 6. The Commission after notice and hearing, shall consider the nominations of gas purchasers from the Blinebry Gas Pool and other relevant data and shall fix the allowable production of the Blinebry Gas Pool, and shall allocate production among the gas wells in the Blinebry Gas Pool upon a reasonable basis with due regard to correlative rights.

PRORATION UNITS

RULE 7. (a) For the purpose of gas allocation in the Blinebry Gas Pool, a standard proration unit shall consist of between 158 and 162 contiguous surface acres substantially in the form of a square which shall be a legal subdivision (quarter section) of the U. S. Public Land Surveys; provided, however, that a gas proration unit other than a legal quarter section may be formed after notice and hearing by the Commission, or as outlined in Paragraph (b). Any allocation unit containing less than 158 acres or more than 162 acres shall be a non-standard unit and its allowable shall be decreased or increased to that proportion of the standard unit allowable that the number of acres contained therein bears to 160 acres. Any standard proration unit consisting of between 158 and 162 contiguous surface acres shall be considered as containing 160 acres for the purpose of gas allocation.

(b) The Secretary of the Commission shall have authority to grant an exception to Rule 7 (a) without Notice and Hearing where application has been filed in due form and where the following facts exist and the following provisions are complied with:

1. The non-standard unit consists of less acreage than a standard proration unit.
2. The acreage assigned to the non-standard unit lies wholly within a legal quarter section and contains a well capable of producing gas into a gas transportation facility on the date of this order.
3. The operator receives written consent in the form of waivers from all operators in the adjoining 160 acre proration units.

GAS ALLOCATION

RULE 8. At least 30 days prior to the beginning of each gas proration period the Commission shall hold a hearing after due notice has been given. The Commission shall cause to be submitted by each gas purchaser its "Preliminary Nominations" of the amount of gas which each in good faith actually desires to purchase within the ensuing proration period, by months, from the Blinebry Gas Pool. The Commission shall consider the "Preliminary Nominations" of purchasers, actual production, and such other factors as may be deemed applicable in determining the amount of gas that may be produced without waste within the ensuing proration period. "Preliminary Nominations" shall be submitted on a form prescribed by the Commission.

RULE 9. Each month, the Commission shall cause to be submitted by each gas purchaser its "Supplemental Nominations" of the amount of gas which each in good faith actually desires to purchase within the ensuing proration month from the Blinebry Gas Pool. The Commission shall hold a public hearing between the 15th and 20th days of each month to determine the reasonable market demand for gas for the ensuing proration month, and shall issue a proration schedule setting out the amount of gas which each well may produce during the ensuing proration month. Included in the monthly proration schedule shall be a tabulation of allowable and production for the second preceding month together with an adjusted allowable computation for the second preceding month. Said adjusted allowable shall be computed by comparing the actual allowable assigned with the actual production. In the event the allowable assigned is greater than the actual production, the allowables assigned the top allowable units shall be reduced proportionately, and in the event the allowable assigned is less than the production then the allowables assigned the top allowable units shall be increased proportionately. "Supplemental Nominations" shall be submitted on a form prescribed by the Commission.

The Commission shall include in the proration schedule the gas wells in the Blinebry Gas Pool delivering to a gas transportation facility, or lease gathering system, and shall include in the proration schedule of the Blinebry Gas 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. The total allowable to be allocated to the pool each month shall be equal to the sum of the supplemental nominations together with any adjustment which the Commission deems advisable. 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 proportion that the acreage contained in each unit bears to the total acreage allotted to such non-marginal units.

BALANCING OF PRODUCTION

RULE 10. Underproduction: The dates 7:00 A. M., January 1 and 7:00 A. M., July 1, shall be known as balancing dates and the periods of time bounded by these dates shall be known as gas proration periods. The amount of current gas allowable remaining unproduced at the end of each proration period shall be carried forward to and may be produced during the next succeeding proration period in addition to the normal gas allowable for such succeeding period; but whatever amount thereof is not made up within the first succeeding proration period shall be cancelled. If, at the end of the first succeeding proration period, a greater amount of allowable remains unproduced than was carried forward as underproduction, the amount carried forward to the second succeeding period shall be the total underproduction less the amount carried forward to the first succeeding period.

If it appears that such continued underproduction has resulted from inability of the well to produce its allowable, it may be classified as a marginal well and its allowable reduced to the well's ability to produce.

RULE 11. Overproduction: A well which has produced a greater amount of gas than was allowed during a given proration period shall have its allowable for the first succeeding proration period reduced by the amount of such overproduction and such overproduction shall be made up within the first succeeding proration period. If, at the end of the first succeeding proration period, the well is still overproduced, it shall be shut in and its current monthly allowable charged against said overproduction until the well is in balance. If, at any time, a well is overproduced an amount equaling six times its current monthly allowable, it shall be shut in until it is in balance.

The Commission may allow overproduction to be made up at a lesser rate than would be the case if the well were completely shut in upon a showing at public hearing after due notice that complete shut in of the well would result in material damage to the well.

GRANTING OF ALLOWABLES

RULE 12. No gas well shall be given an allowable until Form C-104 and Form C-110 have been filed together with a plat showing acreage attributed to said well and the locations of all wells on the lease.

RULE 13. Allowables to newly completed gas wells shall commence on the date of connection to a gas transportation facility, as determined from an affidavit furnished to the Commission (Box 2045, Hobbs, New Mexico) by the purchaser, or the date of filing of Form C-104 and Form C-110 and the plat described above, whichever date is the later.

REPORTING OF PRODUCTION

RULE 14. The monthly gas production from each gas well shall be metered separately and the gas production therefrom shall be submitted to the Commission on Form C-115 so as to reach the Commission on or before the twentieth day of the month next succeeding the month in which the gas was produced. The operator shall show on such report what disposition has been made of the gas produced. 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; provided, however that gas used on the lease for consumption in lease houses, treaters, combustion engines and other similar lease equipment shall not be charged against the well's allowable.

DEFINITIONS

RULE 15. A gas well shall mean a well producing gas or natural gas from a common source of gas supply from a gas pool determined by the Commission.

RULE 16. The term "gas purchaser" as used in these rules, shall mean any "taker of gas either at the wellhead or at any point on the lease where connection is made for gas transportation or utilization. It shall be the responsibility of said "taker" to submit a nomination.

PROVIDED FURTHER that those wells located within the defined limits of the Blinebry Gas Pool which produce oil and receive an oil allowable on the oil proration schedule shall be prorated as oil wells pending further study and that "preliminary" and "supplemental" nominations, as outlined in Rules 8 and 9 above, shall pertain only to gas wells which are not assigned an oil allowable.

PROVIDED FURTHER that all operators of oil or gas wells shall submit to the Hobbs office of this Commission (Box 2045) on or before January 1, 1954 a copy of either an electric log or sample log of each well (if available), whether oil or gas, that they operate within the defined limits of the Blinebry Gas Pool. Attached to each log shall be a detailed report showing well elevation, total depth, plug back depth, depth of production string, interval of perforations and open hole and estimation of formation tops as indicated by the log. Any operator of any well hereafter completed or recompleted within the defined limits of the Blinebry Gas Pool shall also submit to the Hobbs office of the Commission, the logs and information detailed above, within 30 days following such completion or recompletion.

In the event that the Commission deems it advisable to obtain additional information from wells producing outside the defined limits of the Blinebry Gas Pool the Secretary of the Commission is hereby authorized to issue a directive

to operators in order to obtain the desired information.

PROVIDED FURTHER that as soon as possible a testing procedure for all gas wells shall be adopted by the Commission. Said procedure shall contain adequate tests in order to determine the feasibility of employing any well potential, deliverability or pressure factors in allocating gas.

PROVIDED FURTHER that those operators who desire approval of the Commission of gas-oil dual completions under the provisions of Statewide Rule 112-A should also comply with the provisions of Rules 2, 3 and 4 of this order before approval will be granted.

PROVIDED FURTHER that in order to inaugurate gas prorationing and allocation in the Blinbry Gas Pool on January 1, 1954 the Commission shall consider the nominations of purchasers for the proration period beginning January 1, 1954 at the regular hearing of the Commission on November 19, 1953 and shall require each purchaser of gas from the Blinbry Gas Pool to submit with each "supplemental" nomination a list of the wells and their location from which gas is to be purchased commencing January 1, 1954. In this instance the list of wells shall pertain solely to those wells which are gas wells and are not on the proration schedule.

PROVIDED FURTHER that in the event an operator has a producing well on acreage which does not conform to the provisions of Rule 2 or Rule 7 and an exception to Rule 7 is to be requested of this Commission, the necessary information requested under Rule 12 should be complied with pending Commission action. In this instance the Proration Manager is directed to assign to the well only that acreage attributable to the well lying within the quarter section upon which the well is located. In the event the unorthodox unit is approved after notice and hearing and an increase in total acreage is permitted then the total allowable assigned the well shall be adjusted and made retroactive to the 1st day of the proration period or the 1st day the well produced into a gas transportation facility if the well was not productive prior to January 1, 1954.

PROVIDED FURTHER that copies of Form C-115, Monthly Production Report, submitted in compliance with Rule 14 shall be distributed by the operator as follows: Original to Oil Conservation Commission, Box 871, Santa Fe; two copies to Oil Conservation Commission, Box 2045, Hobbs, New Mexico.

IT IS FURTHER ORDERED that nothing in this order, or Order No. R-372, heretofore issued by the Commission, shall be construed as re-classifying any well, now prorated on the oil proration schedule, as a gas well, and any such reclassification hereafter made shall only be made after due notice and hearing.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


EDWIN L. MECHEM, Chairman


E. S. WALKER, Member


R. R. SPURRIER, Member and Secretary

S E A L

NEW MEXICO
OIL CONSERVATION COMMISSION
P. O. BOX 871
Santa Fe, New Mexico

February 10, 1954

DIRECTIVE

TO: Tubb, Blinebry and Drinkard Pool Operators

FROM: R. R. Spurrier, Secretary and Director

The gas pool rules for the Tubb and Blinebry Pools, as outlined in Orders Nos. R-372-A and R-373-A, requested operators of all oil and gas wells within the defined limits of these pools to furnish the Commission with certain geological information (well logs) on their producing wells. Very few of these logs have been submitted to date.

It is therefore requested that all operators take immediate steps to determine whether or not they have complied with this order and if the requested information is not available to advise this Commission to that effect. If logs have been submitted previously in dual completion applications or hearings, it will not be necessary to re-submit copies of these logs.

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