BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE NO. 1698

TRANSCRIPT OF HEARING

June 24, 1959

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I N D E X

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE NO. 1698 Application of Shell Oil Company for an exception to Rule 502 1 (a). Applicant, in the above-styled cause, seeks an order which would exempt all wells in the Carson Unit Area and all other Shell wells in Township 25 North, Ranges 11 and 12 West, Bisti-lower Gallup Oil Pool, San Juan County, New Mexico, from the daily tolerance provisions of Rule 502 1 (a) of the Commission Rules and Regulations.

BEFORE:

Mr. Elvis A. Utz, Examiner.

T R A N S C R I P T O F P R O C E E D I N G S

MR. UTZ: Case 1698.

MR. PAYNE: Case 1698. Application of Shell Oil Company for an exception to Rule 502 1 (a).

MR. KELL: Mr. Leslie Kell and Oliver Seth appearing for Shell Oil Company. We have two witnesses to be sworn.

MR. UTZ: Are there any other appearances to be made in this case? If not you may proceed.

(Witnesses sworn.)

MR. KELL: We will call Mr. Rheems as our first witness.

Q (By Mr. Kell) You are employed by Shell Oil Company?

A That's correct.

Q And what are your duties?

A I am assistant production superintendent in charge of our Bisti operation.

Q You have not testified before the Commission, have you?

A No, I never have.

Q Would you give the Commission a summary of your education?

A Well, I graduated from an acredited university in 1947 receiving a B. S. in mechanical engineering. I went to work directly for Shell Oil at that time and have been with them ever since. I have been mainly associated with drilling and production operations in California. The last nine months I have been in charge of all operations in the Bisti field.

Q Your practical experience has been primarily with production?

A Production and drilling, that's correct.

Q Give us a little bit more detail on your duties as far as Bisti is concerned.

A Well, I am in charge of the drilling operations out there -- in charge of the production and seeing that all operations are performed in an efficient and intelligent manner; collecting, producing, and shipping the oil.

MR. KELL: Are his qualifications acceptable?

MR. UTZ: They are.

Q (By Mr. Kell) Are you generally familiar with the petition of Shell Oil Company in this case?

A Yes, I am.

Q Would you tell the Commission briefly what it seeks to accomplish?

A Well, this petition is an exception to Rule 502 1 (a), which will permit monthly allowables. And I would also like to say that our sole purpose for requesting that exception to Rule 502 is so we may deliver gas at a continuous rate and most efficient manner possible to the joint Shell-El Paso facilities for collecting and compressing gas which will be available sometime on or about July 1st of this year.

Q Have you prepared a map showing the area covered by that petition?

A Yes, I have. This is the map.

Q Would you tell us, please, what that map shows?

A Well, this map covers Township 25 North, Ranges 11 and 12 West, and it's a map of our Bisti field. On the legend to the right you can see the barred section represents our Carson unit and the dotted section represents the Shell leases outside the Carson unit, which will be connected to the gas system on or about July 1, 1959. And the barred or dashed section are all other Shell acreage that we would like to have included in this exception.

Q And the map shows the entire area that's the subject of the petition in this case, is that correct?

A That is correct.

Q About how many wells are there involved in the operation?

A At present we have 104 wells which we own and which we operate for others. Half of these are producing 24 hours a day and the other half roughly production periods vary from 4 to 24 hours per day.

Q And is there a substantial amount of gas produced with this oil?

A Yes, there is. At my last count it was in the neighborhood of nine million feet a day.

Q Would you describe the present method of producing these wells?

A Well, our personnel number five operating people and one production foreman. For operating purposes we divide the field in half and we give the responsibility for production and for getting the oil out of each half to a lease operator and his relief. The third man is a lease operator who works as a mechanic over the entire field, and the last man is a lease maintenance man who shuts in the wells at night that require more than eight hours to make their allowable production.

Q And would you mind stating again about how many wells?

A 104 at present.

Q How many must be on the entire time or produced continuously?

A About half have produced continuously and about half, I'd say, production periods vary from four to twenty-four hours a day.

Q Have you made a study of the rates of production of gas that results from this operation under the present rules?

A I have.

Q Briefly, what does that show?

A Well, it is shown here.

Q What time is covered by this study -- what period?

A Well, the period of May to this month I made a very detailed study of our producing operations.

Q Is that month pretty typical of the present situation?

A Yes, I would say so. Of course, the wells vary in their gas production and oil production, but I'd say it is typical.

Q Have you made a chart showing these rates?

A Yes, I have. It's shown as Shell Exhibit B.

Q Would you describe to the Commission, please, what that Exhibit B shows?

A Well, on the left hand scale you see M.C.F. an hour, and that is representing the scale on the left. The bottom scale are the hours in the day. And at the lower left hand corner you can see the number rate that we produce along the early morning hours is five million feet a day. And then as the daylight people come on work and we turn more wells into the stream, we reach a maximum rate of around twelve and a quarter million feet a day in the midday. And then again the gas production slackens off back down to mid-night again.

Q And that's a pretty typical day?

A Yes. This is a characteristic day.

Q Now, how does that look on a monthly basis?

A Well, if you will turn the page and look at Shell Exhibit C. Again the M.C.F. per hour scale on the left hand side, and now days on the bottom instead of hours in the day.

Q Now, this is just a repitition every day of this peak that

you have shown on Exhibit B?

A Exactly, that's correct.

Q Now, why is there this peak? Referring to Exhibit B again.

A Well, we desire whenever possible to do all our operations in daylight. We find it much more efficient and it is much safer. So if we can tailor our operation to do that, that's what we have tried to do. And this is possible in the Bisti field because we have 40 or 50 exceptionally good producers, which is almost half of our wells. And to give an example of how this operates, for 80 acres we are allowed 108 barrels a day production. And if you divide this by 24 hours a day you come at a figure 4½ barrels per hour average rate. And as I say, 40 or 50 of our wells are capable of producing efficiently three times this rate. And they not only can produce efficiently but it is also necessary because the characteristics of the well to produce somewhere near this maximum rate, because if we don't the wells load up with dead oil and they die.

Q Then it's necessary for some hours of the day to produce at this higher rate by reason of the characteristics of the well?

A Yes. And so that means that since we produce them at three times the allowable rate in the 80 acres of wells we can get our production in eight hours and then in our 40 acres of wells we can get the production in four hours. We also have several pump wells that are capable of near this maximum rate, and we don't like to beam them back at the well head because in the first place it in-

creases our horsepower requirements, and in the second place it increases the pressure underneath the stumping box, which means we have more failures at that point and a resultant loss of gas and oil. And this could be a measureable amount if the lease operator happens to be at the other end of the field when this failure occurs. And the second reason why we have this high rate is again characteristic of the well. As I pointed out, some of these wells or many of these wells run from sixteen to twenty hours, and during this period fluid, being heavy, drops out of the tubing and mainly goes up into the casing. And some of it will go into the formation, and that means you have a solid column of gas in your tubing.

So then when the lease operator comes around each day and opens these wells up, he must work this gas column off before the fluid, the formation fluid, can arrive. And we have fifty of these wells over a short period of time. So producing you will get a high peak of gas production.

Q And that is what happens daily under the present condition?

A Exactly. And if it were under a thirty-day allowable we would only do this once. And since it would be at different times a day and even different times of the month, this small amount of pure gas production would only be a small ripple in our total gas rate.

Q Is it generally considered to be more efficient operation to deliver gas and oil at a reasonably constant rate?

A Yes, it is. It's considered more efficient all the way along the line. Our lease facilities work more efficiently and

also -- although I'm not an expert in gas plant operations, I do know enough to know that a constant rate to their force increases their efficiency, which means they can extract more products, which is a measure of conservation.

Q Now, in connection with the petition. Have you prepared some tentative -- or scheduling as an example over a monthly period of time?

A Yes, I have. I have made, as I say in May, a detailed analysis, and if you will turn to Shell Exhibit D you will see where I have made an illustrative schedule of how the wells can be produced over a monthly period and give this desired effect of a constant gas flow.

Q Now, would you explain the chart, Exhibit D, a little bit?

A The first column,of course, is the wells. The second one --

Q The first column -- that's a description of the wells?

A Yes. The second column are the barrels per hour, of which you see ten barrels an hour is our maximum rate, and the others vary according to their capabilities. And the third column are the M.C.F. & R., which is the gas associated with that production. And the fourth column is fourth month allowable.

Q What are the numbers across the page?

A Those are the days representing the days of the month across the top.

Q Now, if you would proceed and give us a couple of examples.

A Well, about the 6th or 7th one down if you want to take 329,

that's a pump well and it is capable of producing four, and it is allowable to 1620 barrels, and it requires 13 days' production in order to make that 1620 barrels which I have shown there.

Q And you have set this in on that schedule for the first 13 days of the month?

A That's correct. The next well there is 1310, which is one of our maximum producers at 10 barrels an hour. It also has 1620 barrels a day which I have scheduled for the first 7 days of the month. There is any number of others I could illustrate if you care. The next one is 1410, which is 4 barrels an hour and it will take around 17 days to make the production, and I scheduled that for the last part of the month.

Q Now, you have set these all in in order to come out with a reasonably constant rate of oil-gas production, is that correct?

A That's correct.

Q And will this type of scheduling have to be flexible? Is this going to change from time to time?

A Yes. Because the characteristics of the wells change, it by necessity has to be flexible. But this is in essence the type of program that we would follow in order to arrive at this constant flow of gas.

Q Now, assume this type of scheduling was followed, what would be the result as far as gas and oil production?

A If you care to go to Shell Exhibit E you will see again on the left hand scale the numbers represent both M.C.F. of gas an

and barrels per hour. The solid line on the graph is the gas production, and the dotted line represents the oil production.

Q This covers a period of a month again?

A That's correct. The days of the month are on the bottom. And you can see we reach maximum gas rate during the month of close to eight million feet a day and a minimum rate of close to seven million feet a day, which is a million variation during the month, and within a day there would be a much smaller variation.

Q Could this be compared with Exhibit C, for example?

A Yes. Exhibit B do you mean?

Q Well, C is on a monthly basis.

A All right. You can see where we reach a maximum of $12\frac{1}{4}$ million during the day and a minimum of five million during the day, so there is a considerable difference in the variation there.

Q You have flattened out the peak considerably of gas?

A Yes.

Q Now, a little bit about the oil production. Does that flatten out too?

A Yes. The oil production will follow the gas production fairly closely, as you can see there. And this is also a desirable thing as far as our operations are concerned. It helps everybody from the pipeline people on back through us.

Q Would you tell the Commission why scheduling of this character is important and why Shell felt it necessary to submit this petition at this particular time?

A Well, as I have mentioned previously in my testimony Shell has entered into an agreement with El Paso Natural Gas to construct joint facilities to deliver gas to their change over plant in order to conserve this gas. And this proposed change in 502 will enable Shell to make proper use of the jointly owned facilities, which is namely a ten million foot a day compressor facility which is available to us. And by getting this exception we will be able to stay within the capacity of that compressor and not waste gas.

Q And it's pretty well geared up to the use of this facility and the conservation of gas from the Bisti field?

A That is exactly correct.

Q Do you believe the application considering all the factors is in the interests of conservation and the prevention of waste.

A I do.

Q Can actual physical waste occur if there are say this twelve million peak was delivered or attempted to be delivered in the gas facilities.

A Yes. As I said the compressor capacity is to be ten million and it will exceed that by some two and a quarter million feet a day under our existing operating conditions.

Q Is there anything further you would like to mention in connection with the petition?

A No. I believe I have stated everything.

MR. KELL: That's all I have of this witness.

MR. UTZ: Are there any questions of the witness?

MR. NUTTER: Yes.

Q (By Mr. Nutter) This monthly allowable would evidently smooth out the flow of gas from these 104 wells that you are talking about that Shell owns or operates. How would the Commission face up to the problem, however, if other operators were seeking the same thing. Now, perhaps if your peak production being seven million nine hundred thousand a day there would coincide with the production of some other operator on that same day, being the 14th day of the month. Now, how would the Commission smooth out the flow of gas into the gas line plant if everyone were operating under a monthly allowable?

A Well, Mr. Nutter, I don't believe you could call that a peak. That seven point nine million which is only a million above the minimum which is six point nine. That's about as even as you can get gas production from that field because I spent considerable time juggling these figures and that was the best that I could come up with.

Q Now, is your Exhibit E drawn from the schedule on Exhibit D?

A Yes, that's correct.

Q Well, in the event that it became necessary to schedule production from various parts of the pool into the gas line plant if we had other leases besides your own operating on a monthly allowable, would Shell Oil Company be willing to discuss scheduling wells with other operators to be sure that a uniform flow of gas would go into the gas line plant?

A Well, I still stick to my point. I consider this a uniform flow of gas. I don't believe that you would get it much more uniform than that.

Q On a daily basis?

A Well, if you started scheduling wells with other companies you know what kind of hassels you can get into with that, and I'd hate to commit my company on something like that. It would present tremendous problems in -- you mean co-ordinate our production with our neighbors?

Q Yes, sir.

A I think that would create some tremendous problems.

Q You are not asking for a fieldwide exception to 502, you are asking for an exception to Shell-owned properties, is that correct?

A That's correct.

Q Now, most of your pumping wells, are they operating 24 hours a day on this schedule D?

A The greatest percentage of them, yes.

Q And it is only the flowing wells that you have tried to schedule for production in a short period of time?

A No. We have some pumping wells as I stated previously that are capable of high rates of production.

Q Well, now, you stated that if you operated these wells for -- I believe you said if you operated for eight hours a day then during the night it would log up with heavy oil and it would be difficult

to start flowing the next morning?

A No. I said during the shutin period the oil would drop from the tubing leaving a column of gas in the tubing and this column of gas has to be worked off first before this formation fluid arrives.

Q Now, would it operate if you had a smaller shock in there and the well was flowing 24 hours a day?

A Then it would load up with oil and you don't have enough pressure. That's why we have to flow these wells at somewhere near the high rate as I mentioned in order to keep it.

Q Then what you are attempting to do here is cause that loading up period to occur less frequently than it does under daily operation?

A Yes. We don't think it would occur at all.

Q If you flowed the well at a larger capacity for half the month?

A Yes, that's correct.

MR. NUTTER: I believe that's all. Thank you.

MR. UTZ: Well, it would occur once a month, wouldn't it?

A No. Because, see, the problem is that you flow it at smaller rates and the tubing fills up with heavy fluid which kills your well. But when you shut the well in this heavy fluid drops in the tubing leaving the tubing solid gas which, of course, will flow very nicely, and this helps bring the formation fluid in.

Q (By Mr. Utz) That's when the well is shut in?

A Yes.

Q Well, you are going to shut in some of these wells for fifteen, twenty days a month?

A Yes.

Q So it will occur once a month?

A Yes. Once a month, which is better than having gas occur every day.

MR. UTZ: Are there any other questions of the witness?

Q (By Mr. Nutter) Is it your intention to schedule your wells in a manner similar to this?

A Yes. But it has to be flexible because the condition of the wells change and we are bringing in new wells every day, but this is basically the pattern we will follow.

MR. NUTTER: That's all.

Q (By Mr. Payne) Mr. Rheem, when do you plan to have your gas gathering system in operation?

A We hope to by July 1st of this year.

MR. PAYNE: Thank you.

MR. UTZ: Are there any other questions? If not the witness may be excused.

(Witness excused.)

WILLIAM C. MILLER

called as a witness, being first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. KELL:

Q Would you state your name, your employer, and the capacity

in which you are employed?

A My name is William C. Miller. I'm the Division Reservoir Engineer, Farmington Division, Farmington, New Mexico, for Shell Oil Company.

Q You have not previously testified as an expert witness before the Commission or an Examiner, have you?

A No, sir.

Q Would you state briefly your educational background in the field of Engineering?

A I graduated from Stanford University in 1950 with a Batchelor of Science degree in Petroleum Engineering.

Q Since then what has been your operational experience in the field?

A I was employed by Shell Oil Company at that time and have worked as a petroleum engineer specializing in reservoir engineering with assignments in Long Beach, Ventura, Bakersfield, Houston, and most recently in the Los Angeles area office prior to me assignment as Division Reservoir Engineer in Farmington when the division was formed in April, 1957.

MR. KELL: Are the witness' qualifications as an expert witness acceptable?

MR. UTZ: Yes, sir.

Q (By Mr. Kell) Are you familiar with and have you made a detailed study of the Bisti field reservoir?

A Yes, sir. In the over two years I have been associated with

the field I have made numerous reservoir studies.

Q What types of data were available to you and upon what did you base this study?

A I have had available production information, oil and gas core analysis, well logs, pressure volume temperature information on the reservoir fluids and other pertinent reservoir information.

Q Just about all the available information?

A Yes, sir.

Q Would you describe briefly the general characteristics of the Bisti reservoir?

A The Bisti field produces under a solution gas drive mechanism. Virtually no water is produced in the field. A small gas cap is present in the extreme southeastern portion of our leases, which has stayed pretty much immobile during production of the oil bearing portions of the reservoir. It has not moved into the adjoining producing wells. There has been no evidence of secondary gas caps forming in this extremely low dip reservoir. The dips are somewhat under one degree in the Bisti field. The productive portion of the Shell leases contain in general a large number of highly productive wells, many of which still flow. About 35 per cent of them are still flowing production.

Q Based upon your knowledge of the reservoir and the detailed studies that you have conducted, do you feel that the proposed manner in which Shell desires to operate, as further brought out by Mr. Rheem's testimony, would in any wise be harmful to the reservoir?

A It is my opinion that the use of the monthly allowable as proposed here with a maximum of 10 barrels an hour or 240 barrels a day on the very best of the wells could not be considered by any reasonable standards, taking into consideration the characteristics of the formations present in this reservoir, to be excessive for the better Bisti wells.

Q Now, have you prepared an exhibit which we refer to as Shell's Exhibit F which will more or less illustrate in a couple of instances the effect of the proposed operation?

A Yes, sir, I have.

Q Would you describe that for the Commission? Point out what it illustrates.

A Exhibit F contains pertinent data on two wells typical of those very best wells which will be produced at the maximum scheduled rate of 10 barrels per hour. These two wells were selected because they are typical and because we have a recent pressure built up survey on these wells performed during the recent June pressure survey in the field. The well in the left column is our Carson unit 12-19, which is in Section 19 and is circled in red on the official map. This well has 80 acrea dedicated to it and is a top allowable well. The pressure survey obtained in June of this year the well was producing at that time an instantaneous production rate of 485 barrels a day. This, of course, was produced for only a portion of the day. The static reservoir pressure at the end of a five-day build up was 1247 pounds. The flowing pressure

immediately before the well was shut in was 842 pounds. The draw down is 405 pounds at the above raite. The productivity index is 1.20 barrels per day per pound of draw down. The draw down, of course, being the difference between the static reservoir pressure and the flowing pressure in the well bore itself. This productivity index is rather typical of our other measurements of our most productive Bisti wells.

At a drawdown of 200 p.s.i. the well would produce at the maximum scheduled rate of 10 barrels per hour and this would be only 16 per cent of the available pressure in the reservoir. And, as I say, by any reasonable standards I think this could not be considered excessive. And, in fact, Shell's laboratory work both in Houston and in our Amsterdam laboratories corroborated by field studies and practical experience indicate that in solution gas drives where no secondary gas caps are being formed in reservoirs such as the Bisti, the recovery is probably independent of the rate of the production or, indeed, the scheduling of the production periods.

The right hand column contains data on another well, Government 44-10, which is a 40 acre dedicated well. The pertinent data is contained there also. The productivity index again is indicated to be above 1, and at the maximum scheduled rate the per cent drawdown would only be 21 per cent. As I say, these are typical of these better wells which flow most efficiently at these rates.

Q Now, you have indicated that in the draw mechanism is

solution gas, and I think you have also said, have you not, in that type of mechanism it's the quantity of the production rather than the rate of production that is most significant?

A That is true.

Q Now, in what respect does the effect upon this rate vary in other types of drive mechanism rather than solution gas?

A In other reservoirs certain factors such as water drive and/or gravity drainage may make the recovery from a field sensitive to the rate of production. These factors are not present in my opinion in the Bisti field.

Q And have you encountered any other factors or peculiarities of the structural formation in the Bisti reservoir that would lead you to believe that they would react other than other general gas mechanisms?

A After considering all the other factors I can see where no damage can occur under the proposed schedule.

Q And what were the maximum rates of production, I think that you mentioned, that these wells would be producing under the proposed plan of operation in terms of barrels a day?

A 240 barrels a day, which of course is considerably less than their potential.

Q In your opinion, will operation of the Shell wells covered by the application which are along the boundaries of competitor lands adversely affect such wells -- the competitor wells, I mean?

A No. Since there will be production only at the allowable

with the same amount of oil being produced under this requested procedure during a month, there will be no violation of the correlative rights of others.

Q Now, we have mentioned, too, that under this plan some of these wells will be shut in for rather substantial periods of time. Some of them will produce appreciably less. Some will produce 10 or 15 days and some even less. Will this shut in period have any adverse effect?

A No, it will not. We have examined this possibility and come to this conclusion. We can expect no paraffin accumulation in the perforated interval. We have never encountered paraffin in these wells below 1500 feet. The wells produce no water and, therefore, there is none to accumulate in the bottom of the well. We have no sand problems. We have no corrosion problems in these wells and, in fact, we have experience of a much longer shutdown in many of these wells as they were waiting the completion of the Four Corners pipeline serving this area. And during that period there was no detrimental effect noted to the productivity of the wells after this shutdown as compared to that which we have measured before.

Q In your opinion as a reservoir engineer, if this application is granted, will it prevent waste and promote conservation of the gas involved and adequately protect correlative rights?

A It is my engineering opinion that production of the Shell wells under a schedule such as planned under the requested exception will result in no damage to the recovery to the Bisti-Gallup

reservoir, and will result in no violation of any operator's correlative rights; will permit an even, constant flow of gas to the gas facilities and, therefore, is in the interest of conservation.

MR. KELL: That's all the questions I have at this time, and I would like to move for the introduction of Shell Exhibits A through F inclusive.

MR. UTZ: Without objection Exhibits A through F will be admitted. Any questions of the witness? Mr. Nutter.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Miller, are you acquainted with any other orders that the Commission may have entered from time to time allowing exceptions to the daily tolerance for various pools?

A Not directly, no, sir.

Q Well, assuming that such orders have placed a limitation upon the rate of production to 200 per cent of the daily allowable, how would that affect you here. Now, as I calculate it the present allowable of 108 barrels for an 80 acre well is a rate of production of 4.5 barrels per hour. Now, you propose that the maximum rate of production would be 10 barrels an hour, correct?

A Yes, sir.

Q 200 per cent of that would be 9 barrels an hour. Now, would the difference between the maximum of 10, would that adversely affect you to any substantial degree?

A Course, the place where it would would be in the 40 acre wells.

Also their natural characteristics in order to maintain an even, stabalized rate of production also choose to flow stably at 240 barrels a day, which would be some 4 times the 40 acre allowable. The second example on the right there was such a well.

Q I see. So you would then in the case of a well that had half the allowable, you would produce that allowable at the same rate per hour that you produce an 80 acre allowable, is that correct?

A Yes, sir, that being a characteristic of these wells.

Q I see.

MR. NUTTER: I believe that's all. Thank you.

MR. UTZ: Any other questions?

MR. PAYNE: Yes, sir.

Q (By Mr. Payne) Mr. Miller, I would like to get straight what acreage is involved in this application. Is this acreage first of all in the Bisti-Gallup oil pool?

A The outlines of the pool are of a smaller dimension than the land indicated here.

Q So that there is a possibility that some of this acreage might be in another pool?

A Not at the present, no, sir.

Q Not at the present, but all of it is not in the Bisti at present either or has not been proven productive from the Bisti Lower Gallup to this date, is that right?

A Yes, sir, that is correct.

Q Now, referring to Section 9 -- north half of Section 9, 25

North, 12 West, hasn't Shell Oil Company traded off some of this acreage with Phillips?

A We are in the process of consumating that trade, yes, sir.

Q Well, now, your application is not to suspend the daily tolerance rate for any wells except Shell, is that right?

A Well, we will operate those wells for the Phillips Petroleum Company for a considerable amount of time and during that period we would like that exception.

MR. PAYNE: I see. I believe that's all. Thank you.

A I think in response to your first question. The order, I think, could be restricted to it not applying to other possible pools to be discovered in the future.

MR. PAYNE: Yes, sir.

MR. UTZ: Are there any other questions. If not the witness may be excused. Any other statements to be made in this case?

(Witness excused.)

MR. KELL: I'd like to make a brief statement. We feel that this proposed scheduling will make this gas production curve as flat as possible over a monthly period. Consequently, if other operators go on a monthly basis, if the Commission permits, they will be producing against this constant rate. But if there are any problems in that connection in scheduling, why, Shell will always be glad to discuss those with the Commission or the other operators. The most important thing we believe right now is to even out the gas flow into the gas gathering facilities. That's the critical

thing now in order to dispose of gas. The matter of delivering into the gas line plant is important, too. But that's not as critical a problem we don't believe as the gas delivery.

MR. UTZ: Are there any other statements?

MR. BRATTON: Howard Bratton appearing on behalf of Sun Oil Company. Sun is an operator in the Bisti-Gallup Oil Pool. Sun has no objection to the granting of the application of Shell in this case. However, Sun feels that any waiver or exception to the daily tolerance rule which is afforded to Shell in this case should be made available also or afforded to other operators in the pool. Of course, it very possibly could not be done in this case. However, Sun feels that the Commission should consider that any exception to the daily tolerance rule which is granted to Shell in this case should be and would be considered as a precedent for other operators in the pool at a later date, at a later hearing.

MR. PAYNE: Mr. Examiner, we have received the following communication from El Paso Natural Gas Company which reads as follows:

> "In Case No. 1698 on the docket for Examiner Hearing June 24, 1959, Shell Oil Company applies for exception to Rule 502 1 (a) seeking an order which would exempt all wells in the Carson Unit area and all other Shell wells in Township 25 North, Range 11 and 12 West, Bisti oil pool from the daily tolerance provisions of said Rule 502 1 (a). This would permit production of

one day of more than 15 per cent of wells allowable. El Paso Natural Gas Company pursuant to contract with Shell and others has almost completed construction of gathering , compressing, and processing facilities to take casing head gas produced from the wells covered by this application. The capacity of the facilities is limited to ten million cubic feet of gas per day. El Paso Natural Gas Company favors rules which will result in casing head gas being tendered to it on a reasonably level basis through the month and throughout each day. Any rule which results in peak production of casing head gas in excess of available facilities during the month or during any particular day obviously will result in waste. El Paso believes that Rule 502 1 (a) is desirable as a statewide rule and that it prevents waste. However, Shell advises El Paso that enforcement of the statewide rule to production from the Bisti Lower Gallup oil pool will cause peaks which can be leveled by granting Shell's application. The amendment will permit the operator to use production from high deliverability wells at the most desirable time to avoid peaks. Shell as operator of the unit area is anxious to maintain casing head gas production at reasonable levels and to avoid production in excess of the available facilities. Under these circumstances

El Paso supports Shell's application as meritorious, but suggests to the Commission that any order issued contain conditions limiting the production at any time of casing head gas from the area to the capacity of available facilities."

MR. UTZ: Are there any other statements? If not the case will be taken under advisement.

C E R T I F I C A T E

STATE OF NEW MEXICO)
: ss
COUNTY OF BERNALILLO)

I, Ned A. Greenig, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in stenotype and reduced to typewritten transcript by me, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my hand and seal this the 30th day of June, 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Notary Public

My Commission Expires:

May 5, 1963

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1698, heard by me on June-24-59.

Examiner
New Mexico Oil Conservation Commission

C E R T I F I C A T E

STATE OF NEW MEXICO)
: ss
COUNTY OF BERNALILLO)

I, Ned A. Greenig, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in stenotype and reduced to typewritten transcript by me, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my hand and seal this the 30th day of June, 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Notary Public

My Commission Expires:

May 5, 1963

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1695, heard by me on June-24-59.

, Examiner
New Mexico Oil Conservation Commission