

BEFORE THE  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

April 15, 1952

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In the Matter of:

Amerada application for temporary  
exception to Paragraph (b) 2 of  
Rule 506 as related to production  
of both oil and gas from the High-  
tower-Permo-Pennsylvanian pool,  
Lea County, New Mexico.

Case No. 364

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(Notice of Publication read by Mr. Graham.)

MR. KELLOUGH: Mr. Kellough, Tulsa, Oklahoma, repre-  
senting Amerada Petroleum Corporation in this matter.

The Commission will recall that some months ago when  
all parties thought that Hightower-Permo-Pennsylvanian pool was  
a gas pool the Amerada and the Gulf both asked for and obtained  
exception to Rule 404 so as to permit them to use gas for gas-  
lift purposes. Since that time an oil well was drilled into  
this reservoir and it now appears that the gas and the oil are  
all being produced from the same reservoir. That then raised  
the question of whether or not automatically Rule 506 applied  
which would limit the amount of gas that could be produced to a  
ratio of two thousand to one since the gas and oil was from the  
same reservoir.

Last month when the matter came on for hearing upon

the motion by the Commission to classify the Hightower-Pennsylvanian pool Amerada then made an application for an exception to Rule 506 and asked that the previous exception to 404 be continued. At that time, if you recall, testimony was presented. At the conclusion of the testimony it then appeared that the notice was insufficiently defective so Amerada then filed another formal application for an exception to Rule 506 asking for a temporary period only that we be permitted to produce enough gas to satisfy the gas lift requirements until such time as other arrangements could be made.

We wish to make clear now that as far as Amerada is concerned we fully and wholeheartedly endorse the propriety and advisability of Rule 404 and Rule 506. We think they are good rules. We have no quarrel with the rule at all. However, we also think that exceptions to those rules should not be lightly granted. However, in the case we have here an emergency exists. We started the gas-lift proceedings and the gas-lift operations are necessary to produce these oil wells and we are asking for this temporary relief until some other arrangements can be made. In other words, we don't think you should kill the patient to cure a cold, or build a thousand dollar fence to keep in a fifty dollar horse, although I did that for a dog.

I would like to now re-offer formally, re-offer all the testimony which was presented at the prior hearing in support of our application to get an exception to Rule 506, and also

present some additional information to the Commission which has transpired since the case was here last month.

R. S. CHRISTIE,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By MR. KELLOUGH:

Q You are Mr. R. S. Christie, petroleum engineer for Amerada Petroleum Corporation?

A Yes, sir.

Q You recall the testimony which you gave last month?

A Yes, sir.

Q And do you now wish to adopt and reaffirm that testimony?

A I do.

Q Do you have anything further that you wish to add in connection with this application?

A I have the latest information on the amount of gas produced for the month of March. During the month of March there was a total of 42,481,000 cubic feet of gas produced from Amerada's "B", "C" Roach No. 1, which was used for gas-lift and for fuel purposes. The Gulf NMI No. 1 produced 29,746,000 and was used for the same purposes. During the month we were lifting oil by gas lift to 12 wells. The total amount of oil lifted by gas lift for the month of March was 39,380 barrels. At the last hearing I reported we were making a study to determine the feasibility of

installing compressors and compressing the gas from the Pennsylvanian wells as against installing pumping equipment. We can now report that it appears to be more economical to install compressors and use gas that is being produced from Pennsylvanian wells for gas lift. We are in the process of ordering that equipment and we have been advised by the equipment manufacturers that the minimum time for the first unit would be four months from one manufacturer and six months from the other. So that we estimate that we will require at least six months period for this exception.

Q Then how much time are you asking for this temporary exception to Rule 506?

A Six months.

Q Do you have any further information that you wish to convey to the Commission?

A We are continually drilling wells to the Pennsylvanian formation and undoubtedly will bring in some wells that will have sufficient pressure to buck our gas lift system, so that as those wells are completed that gas will be supplemented from our gas wells in the Pennsylvanian and as time goes on that gas from our gas wells should be less and less.

Q Amerada and Gulf own all the leases in this Hightower-Pennsylvanian pool, do they not?

A Yes, sir, all that have been developed.

Q Has there been any objection to this application on

behalf of the Gulf?

A No, sir.

MR. CAMPBELL: I would like to ask one question. Mr. Christie, in addition to the gas that you need from your well for gas-lift and fuel purposes do you also need the gas which you are now purchasing from Gulf's NMI No. 1 for the same purposes?

A Yes, we do.

MR. CAMPBELL: That is all.

MR. WHITE: Any potential market for this gas in this area?

A Not at the present time.

MR. WHITE: Is there as to the future?

A We have been advised that there is a pipe line company planning a line into that area and there have been several gas line companies that have requested the possibilities of gas line plant in that general area. But they are still in the paper state.

MR. WHITE: That is all.

MR. SPURRIER: Any further questions?

MR. MACEY: You have a line running over to the East Caprock Devonian field to operate drilling rigs, do you not?

A Yes, we do.

MR. WHITE: How much gas goes down that line, do you have any idea?

A Unfortunately, I haven't those figures available. I

could supply them to you, however.

MR. WHITE: How many cubic feet of gas do you anticipate using to lift one barrel of oil?

A At the present time we are using 3941 cubic feet.

MR. MACEY: That is a barrel of oil but you are producing a lot of water with your oil.

A No, that is the average input GOR. Yes, sir.

MR. MACEY: You don't know how much water you produce with that oil?

A Yes, we are producing from the Bagley Siluro Devonian pool an average of 19,131 barrels of water for the month of March, which is all being lifted by gas or practically all of it. The average water production in the Hightower pool is 82 per cent which amounted to 37,238 barrels in the month of February. That is all being lifted by gas lift.

MR. MACEY: Your total amount of gas which you have from the two gas wells, the Roach and the Gulf NMI, is supplemented by other high pressure gas up in the field, is that correct?

A In the past, yes, sir.

MR. MACEY: Does it all go into one system, is it all a continuous system?

A It all goes into one system, yes. At the last hearing we submitted a plat showing the gas-lift system.

MR. MACEY: Mr. Christie, how much pressure does it take to put gas down a line to those drilling rigs? How far is

that away over to the west?

A About five to six miles.

MR. MACEY: How much pressure would you think that you would have in that line?

A We carry about 750 to 800 pounds on that line and what pressure gets at the other end I can't tell you.

MR. MACEY: How long would it take you to supply those figures on the amount of gas going to the drilling rigs?

A I can get it to you just as soon as I get back to Tulsa.

MR. MACEY: That is all I have.

By MR. KELLOUGH:

Q Is that gas commingled from the other gas from the oil wells in the line?

A Yes, it is.

Q Do you also, have you submitted to the Commission the amount of oil that is being gas lifted?

A Yes, sir.

Q Have you already furnished them those figures?

A Yes, sir.

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

MR. MACEY: Let me ask him one more. Do you have any estimate of how much pressure it will take to go down that line to the gas wells? What I am getting at, could you possibly use

gas from the Pennsylvanian wells to utilize those drilling rigs by re-rigging your line system?

A Well, yes, we could. As a matter of fact a large percentage of the gas that is used in the gas wells is used for the two oil wells down in the Hightower pool so that there is not too much gas goes up into the Bagley Field.

MR. MACEY: That is all.

MR. GRAHAM: If we denied this request what effect would it have on your production?

A We would lose temporarily, until we could get some equipment in there, approximately 39,000 barrels a month.

MR. KELLOUGH: Would you have to shut in the wells?

A That is not correct. Strike that. We would lose the amount it takes to, the amount that the gas is used from the gas wells. Of course the gas taken from the Pennsylvanian we could still go ahead and use.

MR. GRAHAM: It would be a material drop?

A Yes, it would.

MR. MACEY: How much gas could you produce if you were cut back to 2,000 ratio limit based on current allowable on the two gas wells?

A 318,000 cubic feet per well on the present allowable.

MR. MACEY: That is per day?

A Yes, sir. Actually the true volumetric displacement of the gas wells would be much higher even than that under the

rules. It would be 318,000.

MR. MACEY: That is all.

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

MR. KELLOUGH: That is all we have.

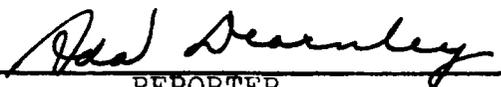
MR. SPURRIER: Any further comment in the case?

(Witness excused.)

STATE OF NEW MEXICO     )  
                                  :  
COUNTY OF BERNALILLO    )

I HEREBY CERTIFY that the foregoing and attached transcript of hearing in Case No. 364 before the Oil Conservation Commission, State of New Mexico, at Santa Fe, on April 15, 1952, is a true and correct record of the same to the best of my knowledge, skill and ability.

DATED at Albuquerque, New Mexico, this 21<sup>st</sup> day of April, 1952.

  
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REPORTER

ADA DEARNLEY & ASSOCIATES  
COURT REPORTERS  
ROOM 12, CROMWELL BLDG.  
PHONES 7-9648 AND 5-9846  
ALBUQUERQUE, NEW MEXICO