BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE NO. 1458

TRANSCRIPT OF PROCEEDINGS

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May 28, 1958

BEFORE THE
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IN THE MATTER OF:

Application of Albert Gackle for a non-standard gas proration unit. Applicant, in the above-styled cause, seeks an order establishing a 320-acre non-standard gas proration unit in the Jalmat Gas Pool consisting of the S/2 of Section 23, Township 23 South, Range 36 East, Lea County, New Mexico, said unit to be dedicated to the applicant's Sinclair State No. 1 Well, located 1650 feet from the South line and 990 feet from the East line of said Section 23.

CASE NO. 1458

BEFORE:

ELVIS A. UTZ, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: The next case on the docket is Case 1458.

MR. PAYNE: Case 1458. Application of Albert Gackle for a non-stand gas proration unit.

MR. JOHNSTON: Mr. Examiner, I am Paul Johnston. I am the only one who will appear and give testimony.

(Witness sworn.)

PAUL JOHNSTON

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

DIRECT EXAMINATION

BY: MR. PAYNE:

Q Will you state your name, please?

A I am Paul Johnston. I am superintendent of production for Albert Gackle, the operator of the lease in question, and I have appeared before the Commission previously as an expert witness.

MR. PAYNE: Are his qualifications acceptable?

MR. UTZ: They are.

Q (By Mr. Payne) Proceed.

A Albert Gackle is the operator of the Sinclair State Lease that comprises the S/2 of Section 23, Township 23 South, Range 36 East. There are two gas wells located on this lease, and that is the Albert Gackle Operator Sinclair State No. 1, and the Albert Gackle Operator Sinclair No. 2.

I would like to offer in evidence Exhibit 1 in this case, which shows the ownership in the area, and I have colored in red the S/2 of Section 23. Also, at this time I would like to offer in evidence Exhibit No. 2.

Exhibit No. 2 is a photostatic copy of the Jalmat pool showing the top of the Yates contours and the aerial limits of the Jalmat Pool, and I submit this exhibit to show the relative position of this lease within the aerial limits of the Jalmat Pool.

I have shaded in the S/2 of Section 23 in red in this Exhibit also. It will be noted that it lies approximately in the center of the Jalmat Pool.

The No. 1 well is located 1650 feet from the South line and

990 feet from the East line of the section.

The casing program in this well is 10 3/4 inch, set at 225, with cement circulated; 7 5/8 inch casing set at 1235, with cement circulated, and 5 1/2 inch casing set at 2770, cemented with 600 sacks, or five hundred sacks, excuse me. Temperature survey showed the top of the cement to be at 290 feet, which did tie together the 7 5/8 and 5 1/2. The total depth of this well is 3300 feet, and was completed 8/12/49. 2 inch tubing was set at 3260 feet. This well is in the SE/4 of the section, and presently, the SE/4 of the section is assigned to the No. 1 well for gas production.

The No. 2 Well is located 1650 feet from the South line and 2310 feet from the West line of the section. The casing program on this well is 10 3/4 inch, set at 225; 7 5/8 set at 1235 feet; cement was circulated on both the 10 3/4 and 7 5/8, and 5 1/2 inch tubing was set at 2795 feet, cemented with 500 sacks, and cement circulated. Total depth of the well, 3300 feet. The well was completed 9/9/49. 2 inch tubing was set at 3260. The SW/4 of the section comprises the gas unit presently assigned to the No. 2 Well.

These units were formed prior to the effective date of Order R-520.

I want to submit in evidence Exhibit 3. Exhibit 3 is a cross section of Wells 1 and 2, and shows in part the gamma ray neutron log run on each well. I have marked the top of the Yates

formation on the cross section and also the top of the Seven Rivers formation. Now, referring to the cross section and the No. 2 Well upon completion, the No. 2 well produced an excessive amount of sand and mud, which resulted in plugging off the tubing. In order to place the well on production, the tubing was perforated at 2504 and 2534 feet. Since that time, the well has continued to intermittently produce amounts of sand and shale, and on 3/11/58, it became necessary to again perforate the 2 inch tubing in order to increase the flow of gas from the well. All indications point to the necessity of performing remedial work to correct this sand condition, sand and shale, and I refer again to the radioactivity log of Well No. 2, and you'll note that in the lower portion of the log, on the gamma ray curve side, we have a very high reading of radioactivity. In this particular area, this would indicate, does indicate presence of a silty condition which is very highly radioactive. Now, over on the No. 1 Well we only have one section that is indicated to be extremely highly radioactive on the gamma ray curve. I believe that this condition is what is contributing to the fact that the well is sanding up intermittently on us. Apparently, it will be necessary to clean out the well to TD and if possible, cement a liner to the open hole section, perforated at selected intervals, and treat the gas production.

Now, since the production is entering the tubing at approximately 2500 feet, in all probability, the tubing will be stuck when an attempt to move it is made. To remove the tubing will

probably require expensive wash-over work. It is, of course, possible to perform this work. However, it would be most expensive, and there is no assurance that the remedial work will be successful, and it is possible that a new well would be required in order that we might recover our equitable share of hydrocarbons in place from the SW/4 of Section 23.

I also make reference to T.P.C. & O State "A" 1-27 Well. If you refer back to Exhibit 1, you will note that that well is, in effect, a North offset to the No. 2. About 1952 that well was deepened approximately 400 feet to an approximate depth of 3700 feet. At that time, oil production was encountered from the lower Seven Rivers Zone, and it was necessary to set a tank battery in order to collect the incidental fluid being produced from the well. Recently, T.P. had performed remedial work on Well No. 27, wherein they ran a liner through the open hole section and cemented the liner, and have perforated in selected intervals in the lower Seven Rivers zone.

The last report that I have received on that well was that it was producing 50 barrels of oil natural, through perforation, from the lower Seven Rivers zone. Also, they were experiencing some water production with the oil.

Now, it is not the intent of the operator to plug and abandon the No. 2 Well, rather, we are desirous of deepening this well to encounter the oil productive zones that are found in the T. P. Oil Company No. 27 Well, in which case we would cement

a liner through the open hole section and make some completions at selected intervals in the lower Seven Rivers formation. It would not be our intent, however, to make a dual completion of this well, since production from the lower Seven Rivers and possibly the Queen formation in this area have shown that it will become necessary to pump those zones after a short period of time. Also, in the area, we have experienced considerable sand and considerable amount of sand being produced with the oil. Since these zones would be below the gas zone from the Jalmat pool, it would be necessary to kill the well each time it became necessary to remove sand from the bottom of the well.

In view of this experience in the area, we do not feel that a dual completion is advisable from the Jalmat and the lower Seven Rivers zone.

Now, referring to Exhibit 2, since it has been proven that the acreage presently assigned to the No. 2 Well is productive of gas, and due to mechanical conditions, it appears that it will not be possible to produce the maximum amount of recoverable gas under the tract. It is requested that the SW/4 of the section be combined with the SE/4 of the section, thus creating a 320-acre unit, and that the gas allowable assigned to the new unit be allocated to the No. 1 Well.

As evidence that the No. 1 Well is capable of producing a 320-acre allowable, I refer to the recent deliverability test, which is on file in both the Santa Fe and Hobbs office of the New Mexico

Oil Conservation Commission and the results of the deliverability tests show that the No. 1 Well has a deliverability of four million six hundred and thrity-nine thousand cubic feet of gas per day. I want to point out that this is at 80 per cent of the well head pressure, and also that this is actually 720.2 PSI, and this 720 is well above the operating pressure of the line. That should be operating pressure of the gas gathering system.

It is the opinion of the applicant that the approval of this application will be in the interest of conservation and will protect correlative rights.

At this time I want to offer in evidence Exhibit 4, which is a letter from Sinclair Oil and Gas Company, a part owner of the working interest in this lease, and in which they answered a letter in which I requested their position on this matter.

Quoting the content of this letter, "Our letter of May 19, 1958, requested our position in respect to your application to the Oil Conservation Commission for authority to shut in well No. 2 and assign the acreage for this well to Well No. 1.

This is to advise that Sinclair concurs in your application.

Signed by H. F. Defenbaugh, Production Superintendent for Sinclair Oil and Gas Company at Midland, Texas."

That concludes all of the statements I have.

MR. UTZ: Does anyone have a question of Mr. Johnston?

CROSS EXAMINATION

BY: MR. UTZ:

Q Mr. Johnston, is it your sole purpose in wanting to abandon the Jalmat section in the No. 2 Well because of mechanical difficulties?

A Well, first of all, not considering the results on T.P.'s No. 27 Well, if we continued to produce this well, we are going to continue to aggraviate the condition that exists, and that is in sanding up the well, and it, of course, would only be a matter of time until we would experience the well being probably completely plugged or almost so. And also, it has been my experience in the area, that each time that it is necessary to go into a Jalmat gas well and put mud back into the formation, we do some irreparable damage to the producing ability of the well. For that reason, that is one of the reasons why I do not want to go into this well at this time and try to increase the production of gas in the well.

Q I believe you stated that there is a good possibility of trying --

A With a well of this nature, if we produced it through the annulus, we could, for a short period of time, produce considerably more gas, but if we did that, then we would be bringing sand and shale all the way up to the surface, and could result in sticking the tubing on the top, and also could form a bridge up on the top, and then it would be impossible to go ahead and kill the well in order to work on it, because we couldn't circulate from the bottom.

I was superintendent for T.P.C. & Co. when the well I referred to was deepened. At that time the well had no tubing in it,

and as I recall, we spent something in the neighborhood of four hundred dollars for mud trying to pump from the top to kill it. After that was unsuccessful, then we had to rig up Otis at an additional cost of five thousand dollars to get pipe to the bottom that we could circulate through in order to kill the well. At best now, we've only got twenty-five hundred feet that we can circulate from in order to kill this well when it is worked on.

Q The tubing is not stuck in the well at the present time as far as you know?

A As far as I know, no, we have not tied on to it or attempted to move it.

Q Will you be able to retrive your tubing for your deepening operation?

A Yes, we would. We could at least, if the tubing were stuck, presumably it would be at or below 2500 feet, and if necessary, we could cut the tubing off there and start our wash-over operation from there, and that is up in the 5 1/2 inch pipe, and I wouldn't anticipate any undue difficulty in getting over the tubing at that point. Of course, it is in the open hole section, then it is possible that we can encounter considerable difficulty. If we can start our wash-over operation while we are still in the pipe, we wouldn't have nearly as much trouble going all the way to the bottom of it.

Q Have you taken a deliverability test on the No. 2 Well yet?

A Yes, sir.

Q What is that?

A One million six hundred and forty-four thousand cubic feet per day.

Q In your opinion, does that prove the Jalmat zone to be productive in that quarter section?

A Yes, sir, it does, and for all practical producing purpose, there should be no or very little difference between the No. 1 and No. 2 Wells, except for the sand and field conditions that we have in the No. 2 Well.

Q I believe the low deliverability would be due to the condition of the well bore?

A That's right.

Q And not to the reserves in place?

A No, I don't believe so. From studying the log, or a study of these logs, it doesn't appear that there would be any difference between the amount of pay section in either of the wells.

MR. UTZ: Does anyone else have any questions of Mr. Johnston.

MR. JOHNSTON: I would like to point out that the TD shown on the cross section on the No. 2 Well is 3299 and on the No. 1 Well is 3305. That is the depth that was logged by the logging company on those two wells.

MR. UTZ: Did you state whether or not the royalty

interest is common in the S/2 of 23?

A No, I did not, but the royalty interests are common over the entire S/2, and also the working interest is common over the entire S/2 of the section.

MR. UTZ: Do you wish to enter in evidence Exhibits 1 through 4?

A Yes, sir, I would like to enter in evidence Exhibits 1 through 4.

MR. UTZ: Are there any objections to the entrance of Exhibits 1 through 4 in this case? If not, they will be received. If there are no further questions, the witness may be excused.

(Witness excused.)

MR. UTZ: Are there any further statements to be made in this case? If not, we will take the case under advisement.

MR. JOHNSTON: There is one other thing that I thought of. In my application, on Page 2, there is a typographical error. It says the SW/4 of the section comprised the unit assigned to the No. 1 Well, and it should be No. 2 Well.

MR. UTZ: That correction will be made.

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

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

WITNESS my Hand and Seal, this, the 9th day of June, 1958, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Joseph A. Trujillo
NOTARY PUBLIC

My Commission Expires:

October 5, 1960

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1456, heard by me on May 28, 1958.

Examiner
New Mexico Oil Conservation Commission