

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

November 20, 1957

IN THE MATTER OF
CASE NO. 1343

TRANSCRIPT OF PROCEEDINGS

DEARNLEY - MEIER & ASSOCIATES
INCORPORATED
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ALBUQUERQUE - SANTA FE
3-6691 2-2211

Q Would you state your name, address and occupation, please?

A My name is K. C. Heald, Jr.

Q Have you ever testified before the New Mexico Oil Conservation Commission before? A No, I have not.

Q Would you briefly tell us your formal education as a petroleum engineer?

A I was educated at the Colorado School of Mines and received a petroleum engineering degree, and I am employed by Humble Oil and Refining Company as an engineer. During the last ten years I have been employed in the western division which includes the western part of the State of Texas and all of the State of New Mexico, and in various capacities dealing with operation, production, proration and reservoir studies.

Q Does that work and study include the area in Township 20 South, Range 37 East, Lea County? A Yes, it does.

MR. CHRISTY: Any questions concerning the witness' qualifications?

MR. UTZ: The witness' qualifications are acceptable.

Q (By Mr. Christy) Mr. Heald, will you please explain briefly to the Commission what is requested by the application and why?

A Humble Oil and Refining Company requests that a 640-acre unit allowable be applied to their Eumont gas unit, the allowable to be designated to both wells which are completed within the confines of the unit. The purpose of the application is because the one well presently completed, presently producing on the standard proration

unit, has been incapable of producing at the base allowable, which has resulted in a substantial cumulative under production. The surrounding wells of other operators have been producing at base allowable rates, and as such, could be draining the acreage which is under the Eumont gas unit.

Q By this application, are you seeking an increased allowable for the 640-acres involved? A We are not, no.

Q In other words, you are seeking only the normal allowable for 640-acres but attributable to the two wells rather than the single well? A That is correct.

Q In your opinion, are the offset lease operations draining your Section 4 unit?

A I believe that the offset wells are draining the Section 4 unit.

Q I refer you to a plat which is marked Exhibit 1, and ask you if that is a plat of the area involved in the application showing the offset operators and the offset wells and the two wells involved? A It is.

Q I refer you to Exhibit 2 and I will ask you what that is?

A Exhibit No. 2 is a graph of the months' production which has been produced by Humble's Eumont Gas unit No. 1, Well No. 1, and shows the relationship between that production and the monthly base allowable which has been assigned to that unit. This plat illustrates the fact that since the unit was placed on production, for the first eleven months of its production, why it never did pro-

duce at a monthly rate comparable to the base allowable rate for that month. Since that period of time, there have been some months when the well has produced at higher rates than its base allowable. I might explain our Eumont gas unit No. 1, Well No. 1, had a little difficulty on initial completion, and the well never, after stimulation produced at rates comparable to the rates it produced at before stimulation. In June of 1957 we attempted a workover, which did result in a higher production rate and may be seen by the last few months plotted for the year 1957. The production rate from the well was substantially higher than it had been previously. However, as may also be seen, during only one of the last three months plotted did the well produce at a rate higher than the base attributed for that month.

Q Is the well within 660 feet and 1850 feet from the outside limit of the unit area?

A No, it is within 620 feet and 2100 feet.

Q That would be beyond --

A It is beyond, yes, sir.

MR. CHRISTY: I might say to the Commission that your normal location under Rule 520 for your normal two well is not exactly as provided in the rule. However, Exhibits 3 and 4, are your orders C-101 and 128 showing the location of the No. 2 Well approved by this Commission in your Hobbs office. We should have drilled that well further inside the section lines. For a normal 640 we should have been in here, but under the application we are only asking for

this No. 2 Well as a 320.

MR. COOLEY: Be comparable to a 320 allowable.

MR. CHRISTY: Not to exceed 50 percent of the normal 640.

Q (Mr. Christy) Now, would you please explain to the Commission your request for the application in connection with this 50 percent maximum of the No. 2 Well with relation to overproduction?

A With respect to overproduction, if the No. 2 Well produced, during the balancing period, over 50 percent of the allowable attributed to the Eumont Gas unit No. 1, the No. 2 Well would be shut in until such overproduction of the 50 percent allowable was made up. The No. 1 Well would still be allowed to produce so long as the basic unit allowable was not exceeded.

Q Is it satisfactory with the applicant for the order to so provide?

A Yes, sir.

Q Now, what is the size of your unit area requested for your No. 2 Well, what is your land?

A Actually, we attributed 320 acres -- we haven't attributed 320 acre -- we have attributed the provision of 320 acres to our No. 2 well.

Q What would be the objection, if any, to splitting the section in half and attributing the west 320 to your No. 2 Well and the east 320 to your No. 1 Well?

A There might not be any objection to that whatsoever. However, the area is unitized or communitized by the pooling of the grants interest of El Paso Natural Gas, Tidewater, Sun, and Humble,

and there may be this involved: By dedicating specific acreage to each of the wells, due to the fact that our No. 1 Well had an excessive cost due to difficulty in completion, it was also worked over in the interest of all unit operators, and the cost attributed to the No. 2 Well was quite a bit less. Some questions could arise as to the splitting of the acreage and how those costs would be allocated. It is possible that no questions would come up and that it could be done very easily. Those things would be taken up between unit operators and the unit's interest.

Q Now, your unit as it stands today is one full section, all contiguous 640-acres? A That is correct.

Q Is it all reasonable presumptive of producing gas?

A Yes, sir, it is. It is surrounded by gas wells on each side. Has gas wells on each side. I might mention about the waivers. We have notified all offset operators and requested waivers from all offset operators in this case. We received waivers from them with the exception of two operators, whom we were informed would notify the Commission that such an application was acceptable to them.

MR. CHRISTY: I was going to explain that to the Commission. I believe Tennessee Gas and Gulf are two of the offsets that have not given us consent. They were to wire them to the Commission.

MR. COOLEY: We have a consent from Gulf Oil Corporation.

MR. CHRISTY: You have nothing, then, from Tennessee?

MR. COOLEY: No, sir.

MR. CHRISTY: We will supply that to you. We have their oral consent, we do not have it in writing.

MR. COOLEY: You have consent from all others?

MR. CHRISTY: Yes, sir, including the unit operators, of course, and the offset.

MR. UTE: The other offsets include Gulf, Cities Service and Texas Company.

MR. CHRISTY: Sun, Tidewater.

A With the offset, Texas Company, Cities Service, Sun has a 25 percent interest in the Cities Service Block, and Gulf Oil Corporation. We also have waivers from Amarada, which has leases on either side of the unit, and from Aztec that operates the Southern Union property to the north of us, and Texas Company in Section 5 and --

MR. CHRISTY: Tennessee offsets us in the southeast as well as northwest.

MR. UTE: You will supply the Commission with those waivers.

MR. CHRISTY: Yes, sir. Well, supposing I get the Tennessee Gas and then supply them all at once, would that be better? I have the others except Tennessee Gas. You have the Gulf in your hand.

MR. UTE: How long will it take you to supply those to the Commission?

MR. CHRISTY: I have all of them if you would like to have all of them, except the Tennessee Gas.

MR. COOLEY: Might as well take those now.

MR. CHRISTY: Here are consents from Sinclair, Cities Service, the Texas Company, Amerasia and Astec.

MR. COOLEY: And include with that a telegram from Gulf and identify them as the next exhibit, I believe it will be --

MR. CHRISTY: 5.

MR. COOLEY: Make that Exhibit 5.

MR. CHRISTY: We likewise have approval from the operators within the unit area, being Tidewater, El Paso Natural, Sun, which we would like to have marked as Exhibit 6. Those are the people within the unit area, and we will furnish the Commission within seven days the consent from Tennessee.

At this time we would like to offer in evidence Applicant's Exhibit 1 through 6 inclusive.

MR. UTZ: Is there objection to the entrance of Applicant's Exhibits 1 through 6 inclusive? If not, they will be so admitted.

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

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Heald, what you have asked for here is a 320-acre allowable on your No. 2 Well, is that correct?

A I don't believe that is exactly correct.

Q Half of a 640-acre unit allowable?

A We have asked that the well be allowed to produce no more than that.

Q Therefore, the No. 1 Well being a marginal well, would not

be able to produce any more gas than a 320-acre unit allowable and possibly less?

A No, sir, I don't agree with that for two reasons: First, I am not sure that the No. 1 Well is completely a marginal well, since it has demonstrated ability to produce the equivalent of base allowables during certain periods of time, whether it would continue to do so over an annual period or not, I cannot say. Part of the shortage of the well may be due to production practices, and not so much to the capability of the well. In the second place, I feel that the No. 1 Well should be allowed to produce as much of the unit allowable as possible, and any shortage which would develop from that would be produced from the No. 2 Well.

Q Is it my correct understanding that the only objection you have, or your company would have to splitting the unit into two, three hundred and twenty acre units is your cost problem on your No. 1, and your communitization on the unit as a whole?

A I believe that is correct. I can't state that as definite. It is a problem which is being looked into and we do not know exactly what will develop, as sometimes things develop in unitization.

Q In the event you were to accomplish the splitting of this unit, you would not want this order written, would you?

A In the event that we would accomplish this, we would like to come back to the Commission and designate 320-acres to each of the wells. However, for the purpose of time, it might be six months, it might be a year before an agreement would be worked

out between the operators so that the acreage could be split. During that period of time, we might be substantially short; the 640-acres would probably be drained by offset wells, which may be capable. At the end of September we were overproduced.

MR. COOLEY: To clarify that answer, Mr. Heald, in the event such an agreement were accomplished, the procedure then would be for Humble to apply to the Commission for two nonstandard gas production units splitting it down the middle, making it the east half and the west half of the section, individual units, and applying at that time for the cancellation of this order, is that correct, as written?

A That is correct.

MR. UTZ: Are there any further questions of the witness? Is there any further statement in this case? Do you have a statement, Mr. Cooley?

MR. COOLEY: I don't think so.

MR. UTZ: The witness may be excused and the case taken under advisement.

(Witness excused)

