

BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
July 9, 1969

EXAMINER HEARING

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IN THE MATTER OF:

Case No. 3786 being reopened pursuant to the provisions of Order No. R-3437, which order established special rules and regulations for the North Paduca-Delaware Pool, Lea County, New Mexico, including provisions for the classification of and spacing for oil and gas wells and a special gas-liquid ratio limitation.

Case No. 3786

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BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

MR. NUTTER: Call Case Number 3786.

MR. HATCH: Case 3786, reopened, reopened pursuant to the provisions of Order No. R-3437, which order established special rules and regulations for the North Paduca-Delaware Pool, Lea County, New Mexico.

MR. KELLY: Booker Kelly of White, Gilbert, Koch and Kelly appearing on behalf of the applicant.

I have one witness, Mr. Examiner, and ask that he be sworn.

(Witness sworn.)

BILLY R. HENSON

called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLY:

Q Would you state your name, position and employer, please?

A Billy R. Henson, Texaco, Incorporated in Hobbs. I am the Hobbs District Production Engineer.

Q Mr. Henson, how do you spell your last name?

A H-E-N-S-O-N.

Q And have you previously qualified as an expert witness before this Commission?

A No.

Q Will you give the Examiner a brief resume of your professional education and experience?

A I am a graduate of Texas Tech, 1959, Bachelor of Science Degree in Petroleum Engineering, have eight years of oilfield and related experience, having held various field assignments with Texaco, and holding my present position for some three months.

Q Now, are you familiar with the Paduca-  
Delaware Pool?

A Yes, sir.

Q All right.

MR. KELLY: Mr. Examiner, are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

(Whereupon, Applicant's Exhibits 1 through 3 were marked for identification.)

Q (By Mr. Kelly) Please refer to what has been marked Exhibit Number One, which is a structure map and a plat of the area, and locate the wells

that were producing at the time of this last hearing in June, 1968?

A In June of 1968, we had Wells Number 69 and 70 in Section 34 producing.

Q And at that time, both of those wells were classified as oil wells, is that correct?

A Yes sir, that's correct.

Q Now, what has happened so far as those two wells since that time?

A Number 70 has been reclassified as a gas well effective March 1st, 1969, in accordance with the special field rules.

Q Is that since the special rules in this pool define as gas well as having a GOR of thirty thousand to one, is that correct?

A That is correct, and this well was producing with a GOR in excess of thirty thousand to one.

Q Now, what new developments have occurred in the pool since June of '68?

A Since June of '68, we drilled Well Number 71 in the southwest quarter of the northwest quarter, which was a dry hole. On the drill stem

test of the pay, what was considered to be pay, we recovered only water, with no show of oil or gas.

Well Number 72 in the southeast quarter of the southeast quarter of 33 has been completed in September of 1968. It's a dry gas well.

Well Number 73 just south of Number 72 was completed in December of 1968, also a dry gas well.

Q Both of these new wells, Number 72 and 73, are off-structure oil and gas contacts, is that right?

A Both wells are completed above the oil-gas contact.

Q And as I understand it, you now have four completed wells in this pool, three of which are classified as a gas well and one which is still classified as an oil well?

A That is correct.

Q And actually, of the gas wells, Number 70 is the only one that's producing any oil at all?

A This is true.

Q All right; now, based upon the drilling

that has occurred in the area, in your opinion, what would be the defined limits of the pool?

A We feel that the pool limits have been established on the north, the east and the southeast portion of the pool due to dry holes in those areas.

Q So there still might be some drilling sites in the southwest or west?

A This is true.

Q Does Texaco have any present plans to drill additional wells?

A At this time, we have no scheduled wells to be drilled, but it's highly probable that we could drill one or more gas wells in the gas area.

Q All right; now, refer to what has been marked Exhibit Number Two, which is a compilation of completion data on all the wells. Would you just briefly point out the significant factors there?

A Exhibit Two simply shows the completion date, completion interval, dirt-floor elevations, current status and the monthly production for April or May on each individual well.

Q Now, what is your actual daily oil production on your Wells Number 69 and 70?

A Well Number 69 is currently producing approximately six barrels of oil per day, and Number 70 is producing eight barrels of oil per day. These are current test figures, since this Exhibit Two was prepared before these tests were taken.

Q Pardon me, I -- what was your answer on that?

A Number 69 is producing six barrels of oil per day, and Number 70 is eight barrels of oil per day.

MR. NUTTER: Give us the gas while you're at it, Mr. Henson, please, on those two wells?

A Number 69, gas production is 700 MCF per month; Number 70, in the month of April, produced 3334 MCF.

Q (By Mr. Kelly) You can go ahead on those, 72 and 73.

A Number 72 is currently producing 1148 MCF per month; Number 73 is producing 4958 per month. Now, I might add that these figures were prior to setting a compressor to handle the gas from these wells, and they are -- are actually low to what

the wells have been potentially producing.

MR. NUTTER: Is the compressor on there now?

A The compressor has been set and is operating.

Q (By Mr. Kelly) Now, referring to what has been marked Exhibit Number Three, your cross-section, would you point out the gas-oil contact that you established on those?

A We have established a gas-oil contact in this pool of minus 1269-1265, as exhibited by the dashed line on the horizontal plane there at minus 1265.

Q Now, is there anything else you want to point out of significance on the cross section?

A You might show that Well Number 70 is completed across the gas-oil contact.

Q Now, I believe at the last hearing Mr. Wigham, the witness from Texaco, testified that in his opinion this was a solution gas drive reservoir with probable gas cap. Based on the more up to date studies, what is your opinion on this?

A We feel that it's a solution gas drive

with a large gas cap and just a small oil column.

Q Now, you have already given the current rate of your gas production on the wells?

A Yes, sir.

Q None of these wells appear capable of making their allowable based on the present field rules of three thousand to one GOR, is that correct?

A That's true.

Q Now, are all these wells now connected to a gas line?

A Yes sir, they are.

Q Now, based on the experience over the year, do you feel that the present field rules have allowed an efficient and economical development of this pool?

A Yes, I do.

Q Are you asking that any changes be made in the pool rules, or are you asking that they be made permanent at this time?

A We are asking that they be made permanent at this time.

Q Now, since none of the existing wells are capable of using their three thousand to one GOR,

what is Texaco's position, why are they seeking the retention of that particular rule?

A We feel that a solution GOR of approximately three thousand exists in the oil column, and it's only logical that a limiting GOR should be stayed at or near that figure. Further, any additional gas well completions might possibly result in a top allowable well. Also, we feel that workover prospects exist in Wells Number 72 and 73, since they indicated that they would produce top allowable on our initial potential of the two wells.

Q What are your figures for your gas-oil ratio on that Number 69 oil well?

A We have established a solution GOR for Number 69 as an oil well, that being about three thousand to one. The initial potential test indicated a solution gas-oil ratio of thirty-three, ten, and we have had subsequent tests to run as low as twenty-seven fifty, but I might add that the cumulative producing GOR over the eighteen month history of the well has averaged thirty-five forty.

Q And then if you were to bring in a good gas well or another oil well, it's possible that it

would be unfairly limited by a two thousand to one GOR?

A This is the way we feel. It wouldn't be unjustified, but penalized.

Q Now, do you feel that the retention of this three thousand to one GOR would in any way endanger the reservoir?

A We do not feel that there would be any detrimental effect on the reservoir from the three thousand to one GOR. It is possible that the oil ring could move up-structure. However, we feel that this oil ring, being relatively small, the change in the ultimate recovery would be small or negligible.

Q I see.

A It should be pointed out that within the two thousand to one limiting GOR, that the same problem would exist under the present characteristics of the reservoir. And I might say that it appears that Well Number 69 will be the only oil well completion in the pool due to its low economic value.

Q You are basically dealing with a gas reservoir here, aren't you?

A That's the way it looks.

Q Were Exhibits One through Three prepared by you or under your supervision?

A Yes sir, they were.

MR. KELLY: I would move the introduction of Applicant's Exhibits One through Three.

MR. NUTTER: Texaco's Exhibits One through Three will be admitted in evidence.

(Whereupon, Applicant's Exhibits 1 through 3 were offered and admitted in evidence.)

MR. KELLY: That's all we have on direct, Mr. Examiner.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Henson, according to the Exhibit Five at the original hearing of this pool -- well, no, it's not according to the exhibit, it's according to a note made on this exhibit, it must be on some other exhibit, the estimated gas-oil contact at that time was 12 minus 1240?

A Yes sir, at that time. That's where we thought it was, but I -- but in reading the transcript, I know that you questioned maybe that we were completed

in that Number 70 across the gas-oil contact, and it so happened that we weren't.

Q The only change which has been made in the last year as far as classification of wells is you have had a well that has gone from an oil well to a classification of a gas well?

A Yes, sir.

Q And there haven't been any changes -- re-classifications in the opposite direction?

A No, sir.

Q So it would appear then, if anything, that the gas-oil contact is moving downwards rather than upward?

A Well, we haven't -- we feel that this 1265 is where the thing happened originally, and we don't feel that there has been any movement up of it, because actually we haven't produced enough volume out there, out of those two gas wells to effectively change that thing, change the pressure. These two were -- these three gas wells have been on production about three months and have a low cumulative recovery.

Q They are new wells then?

A Yes sir, as far as the producing part goes, they are new. They were completed in '68, but we didn't get them on the line until February the 18th of this year.

Q I see; and then when was this compressor installed?

A Its been in operation about one month.

Q So you will expect to see these withdrawals increase from those two gas wells?

A Yes, we do.

Q Actually, from all three of the gas wells, I suppose?

A Yes, sir. I have current test figures on those three wells since we installed the compressor.

Q I'd like to have those.

A Okay, on those three gas wells, Well Number 70 is producing 400 MCF per day, or twelve million per month; Number 72, 75 MCF, or two point twenty-five million per month; Number 73 is producing 350 MCF per day, or ten point five million per month. That's with the compressor.

Q So the Number 70 is the best gas well

you got there then, isn't it?

A According to the test, it is.

MR. NUTTER: Are there any further questions of this witness?

MR. KELLY: Mr. Examiner, I'd like to ask if the Commission has received a letter from New Mexico Electric Service Company, which is the purchaser of the gas. It probably came in today's date, but I have a copy of this, which was mailed.

MR. NUTTER: I don't think there's one in the case file.

MR. KELLY: I would like to include that in the record. It just indicates that they are purchasing our gas and have a market which will take all the gas that we can produce.

That's all we have.

MR. NUTTER: If there's no further questions of Mr. Henson, he may be excused.

(Witness excused.)

MR. NUTTER: Does anyone have anything they wish to offer in Case 3786? We'll take the case under advisement.

Now, a fifteen-minute recess.

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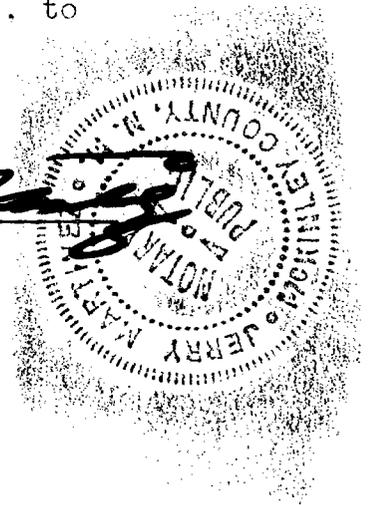
  

<u>EXHIBIT</u>	<u>MARKED</u>	<u>OFFERED AND ADMITTED</u>
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STATE OF NEW MEXICO )  
COUNTY OF BERNALILLO )

I, JERRY MARTINEZ, Notary Public in and for the County of McKinley, 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 and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

*Jerry Martinez*  
Notary Public



My Commission Expires:  
January 24, 1970.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 3786 heard by me on 7/9 1969.  
*[Signature]* Examiner  
New Mexico Oil Conservation Commission