

BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
October 8, 1969

EXAMINER HEARING

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IN THE MATTER OF: )

(Reopened) )

In the matter of Case No. 3881 being )  
reopened pursuant to the provisions )  
of Order No. R-3533, which order )  
established eighty-acre spacing )  
units for the South Prairie- )  
Devonian Pool, Roosevelt County, New )  
Mexico. )  
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) Case No.

) 3881

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case 3881.

MR. HATCH: Case 3881. Reopened. In the matter of Case Number 3881 being reopened pursuant to the provisions of Order Number R-3533, which order established eighty-acre spacing units for the South Prairie-Devonian Pool, Roosevelt County, New Mexico, for a period of one year.

MR. KELLAHIN: If the Examiner please, Jason Kellahin, Kellahin and Fox, appearing for the applicant. I have one witness I would like to have sworn.

(Witness sworn.)

MR. UTZ: Any other appearances?

You may proceed.

FLOYD MEADE

the witness, called by Mr. Kellahin, was first duly sworn upon his oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q. State your name, please?

A. Floyd Meade.

Q. By whom are you employed and in what position,

Mr. Meade?

A. J. M. Huber Corporation, as a professional petroleum engineer.

Q. And have you previously testified before the Oil Conservation Commission and made your qualifications a matter of record?

A. Yes, sir.

MR. KELLAHIN: Are the witness's qualifications acceptable?

MR. UTZ: Yes, sir, they are.

Q. (By Mr. Kellahin) Mr. Meade, are you familiar with the matter covered by the Case Number 3881?

A. Yes, sir.

Q. Did you testify in the original hearing of this case?

A. Yes, sir.

Q. Subsequent to the entry of Order Number R-3533, has there been any additional development in this pool?

A. Yes, sir. There has been one producing well in Section 20, the southeast of the northeast, for Petrofina Federal Number One. It was completed as an oil well. The Lone Star Federal B Number One in the northeast of the southeast of Section 20, completed as a dry hole.

And recently, Atlantic drilled and completed a

dry hole in Section 16 in the southeast of the northwest,

Q. Are those wells shown on what has been marked as Huber's Exhibit Number One?

A. Yes, sir.

Q. What other information have you shown on this exhibit?

A. Well, on the right-hand side, there is a structural map on the Devonian, showing the five wells in the area that have penetrated the Devonian.

And the remainder of the exhibit is a cross section containing certain information about these wells.

Q. Now, with reference to the right-hand portion of the exhibit, you also have a structure map on the top of the Devonian; is that correct?

A. Yes, sir.

Q. Does that differ, materially, with the exhibit offered by Huber in the original hearing of this case?

A. Not too much, no.

Q. What changes were made and on what basis were they made?

A. Well, the southeast quarter of Section 20, we have since proven is non-productive of oil and gas.

Q. Actually, then, is it your conclusion that you

have a very small Devonian pool here?

A. Yes, sir.

Q. Is it typical of other Devonian pools in this area?

A. Yes, sir.

Q. And now, turning to the cross section, will you discuss the information shown there?

A. Well, it's a cross section, starting from the left-hand side, starting with Atlantic's well in Section 16, coming down through R-3 wells and ending in the Lone Star Well in Section 21.

Q. Now, the Atlantic-Richfield Well, was that shown on the exhibit offered in the original hearing?

A. No, sir -- it was recently completed --

Q. Recently completed?

A. As a dry hole; right.

Q. Is there any information in connection with that well you would like to point out?

A. Well, they did have a bottom hole pressure -- they were quite low, structurally, but they did have a bottom hole pressure of forty-nine sixty-nine on drill stem test in the Devonian.

Q. And then, going to the next well, what information

do you have there?

A. The next well is our Lone Star Federal Number One, located in the northeast northeast of Section 20.

It was the original discovery well and completed for two hundred and eighty-eight barrels oil per day.

Since the completion, we have taken two bottom hole pressure build-ups; one on 9/5/68, with an extrapolated bottom hole pressure of forty-nine ten.

We then took another one on March 17 of this year, and it's extrapolated bottom hole pressure of five thousand twenty-six, indicating we are not losing bottom hole pressure, and every indication is that it is a water drive.

Currently the well is producing thirty-two barrels of oil daily and sixty-three barrels of water -- sixty-six percent of water.

It is pumping with a hydraulic casing, free pump.

In thirteen months, since completion, through September, accumulative production of thirty-four thousand three hundred and forty barrels of oil.

Q. On the basis of the bottom hole pressure, did you make any calculation of the permeability of the formation?

A. Right -- the drill stem test, over the interval, had an indicated permeability, to oil, of one point seven millidarcies, while the later two bottom pressure build-ups

indicated two point six and two point eight millidarcies.

Q. Turning to the next well on the exhibit, will you discuss the information shown there?

A. Yes. That is our Petrofina Federal Number One, located in the southeast of the northeast of Section 20.

It was located early this year, for seven hundred seventeen barrels of oil per day. It is flowing and no water.

It is currently producing two hundred and fifty-three barrels of oil a day and four hundred and seventy-four barrels of water.

This is sixty-five percent water. And we are pumping it with a casing hydraulic pump.

In the eight months since completion, accumulative production is fifty-seven thousand nine hundred and ninety barrels of oil.

The indicated permeability for the drill stem test was twenty-five point nine millidarcies to oil, and a bottom hole pressure taken immediately following completion or approximately a month following completion, in March, and it indicated a bottom hole pressure, extrapolated to forty-nine twenty-one, with a nine point one millidarcy permeability to oil.

Q. Do you also show the cost of that well?

A. Yes, sir. That well costs two hundred and eighty thousand dollars, and this includes pumping equipment and tank battery and --

Q. In your opinion, will that well pay out?

A. Yes, sir. I believe that well will pay out.

Q. Do you believe the first well that you drilled; will it pay out?

A. The first well will probably not pay out.

Q. Do you remember what the cost of that well was?

A. Approximately two hundred and fifty thousand dollars, but I don't have the exact figure.

Q. That was the recompletion of an old hole?

A. This was a deepening that was originally a Bough-C well, and we deepened it to the Devonian.

Q. Now, the Petrofina Federal Number One Well was a new well drilled to the top of the surface?

A. It was a top to bottom hole; yes, sir.

Q. Now, does that also indicated, in your opinion, that this is an active water-drive pool?

A. Yes, sir. The bottom hole pressure is similar to the original pressure in the Lone Star Federal Number One, and with the water encroachment, it appears as an active water drive.



Q. Would you discuss the other two wells shown on the exhibit?

A. All right. The well in Section 20, to the northeast of the southeast was our Lone Star Federal B Number One. It was drilled top to bottom, as a dry hole.

Drill stem tests, over the Devonian interval, indicated bottom hole pressure of forty-eight eighty-seven.

Here again, this is similar to the other two wells of bottom hole pressure.

That well cost, plugged and abandoned, one hundred and sixty-six thousand dollars.

The last well was a Lone Star well, in the southwest southwest of Section 21. It was a dry hole, and it had a shut-in pressure of five thousand twenty-four and it was again, structurally, low.

So, it appeared as a quite small reservoir.

Q. Generally, how would you characterize this reservoir as to drainage and pressures and other information available to you?

A. Well, the pressures indicate a no-draw-down, due to production, indicating an active water drive.

We did cut a core in the Petrofina Federal. It had large, buggy-type permeability and porosity in it,

indicating that it drained quite a large area, actually.

The calculation from build-up indicates pretty good permeability, in excess of -- well, the last build-up on the Petrofina, of nine point one millidarcies.

And it should drain a large area.

Q. Now, with the type of core that you secured in your Petrofina Federal Number One Well, could you make a determination of the permeability?

A. Well, it would be probably erroneous, inasmuch as you get one of those bugs -- and then, it would be exceptionally high.

The Matrix was tight.

Q. Do you consider your pressure build-up calculation as a better indication?

A. Right.

Q. For the field, as a whole?

A. Yes, sir.

Q. Based upon the information that is available to you, in your opinion, will one well effectively drain and develop the eighty acres?

A. Yes, sir.

Q. Is it your request the Oil Commission continue in effect the present rules provided for eighty-acre spacing

in the proration units?

A. Yes, sir.

Q. Do you have anything else to add to your testimony, Mr. Meade?

A. No, sir -- I believe that covers it.

Q. Was Exhibit Number One prepared by your or under your supervision?

A. Yes.

MR. KELLAHIN: At this time, I would like to offer into evidence Exhibit Number One. I would also ask that the Examiner and the Commission take notice of the testimony that was offered in this case, at the original hearing, a year ago. And the testimony offered today is only designed to supplement that testimony.

MR. UTZ: Exhibit Number One will be entered in the record in this case, and we will take note of the previous case in this matter.

(WHEREUPON, Applicant's Exhibit One was duly admitted into evidence.)

#### CROSS EXAMINATION

BY MR. UTZ:

Q. Mr. Meade, how many wells do you have in this

pool now?

A. Two producing wells and three dry holes.

Q. What are these wells up in the south half of the southwest quarter of seventeen?

A. That is called our Prairie Federal Number One, located in the southwest of the southeast of Section 17. That is a Bough-C producing well.

Our Prairie Federal Number Two, in the southeast southeast of Section 17 is a San Andres producing well.

Q. And all the rest are shown as producing wells in the Bough-C and the San Andres?

A. Yes, sir -- I believe that's correct.

Q. Did you mention what the pressures were at this time?

A. Well, the most recent pressures -- the Atlantic dry hole, and this was -- I can't give you an exact date, I would say in the last six weeks it was plugged and abandoned, and their pressure on drill stem test was forty-nine sixty-nine.

That is similar to our -- the original drill stem test pressure in our Lone Star Federal Number One, which was forty-nine point five --

Q. You are using hydraulic pumps on these?

A. Yes, sir.

Q. Are you asking at this time for a permanent order?

A. Yes, sir.

Q. You don't anticipate any further development in the pool?

A. Well, sir, we think that the south half of the southeast quarter of Section 17 may be productive -- but it's under our lease with two wells already existing on it. And we may drill it ourselves or we may not.

It depends on the performance of the first two wells, really.

MR. UTZ: Any questions of the witness? The witness may be excused.

Statements? The case will be taken under advisement.

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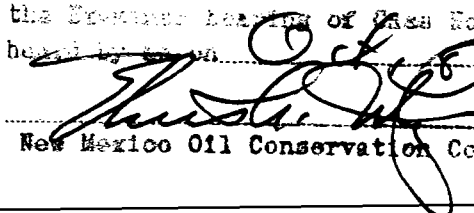
STATE OF NEW MEXICO     )  
                                       ) ss  
 COUNTY OF BERNALILLO    )

I, CA FENLEY, Court Reporter 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, and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

Witness my Hand this 20th day of November, 1969.



CA FENLEY - COURT REPORTER

I do hereby certify that the foregoing is  
 a complete record of the proceedings in  
 the Bernalillo hearing of Case No. 3887  
 heard by the Commission on October 19, 1969.  
  
 Commissioner  
 New Mexico Oil Conservation Commission

dearnley-meier

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