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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
June 10, 1970

EXAMINER HEARING

IN THE MATTER OF:

Application of Benson-Montin-Greer
Drilling Corporation for
amendment of special pool rules,
Rio Arriba County, New Mexico.

Case No. 4365

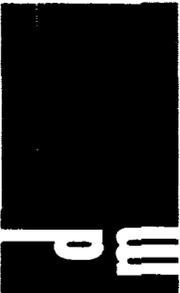
IN THE MATTER OF:

Application of Mobil Oil
Corporation for down-hole commingling
Lea County, New Mexico

Case No. 4366

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING



MR. NUTTER: The first case is 4365.

MR. HATCH: Application of Benson-Montin-Greer Drilling Corporation for amendment of special pool rules, Rio Arriba County, New Mexico. The applicant has requested that this case be dismissed.

MR. NUTTER: Case No. 4365 will be dismissed, and we will go on with Case No. 4366.

MR. HATCH: Application of Mobil Oil Corporation for down-hole commingling, Lea County, New Mexico.

MR. NUTTER: At the outset, I might point out there was an error in the legal notice for this case in the Hobbs Daily News Sun. We will go ahead and hear the evidence in this case. We will re-advertise it and call it at the next hearing. We cannot enter an order in the case until we have had the correct advertisement.

MR. SPERLING: I am James E. Sperling of Modrall, Seymour, Sperling, Roehl and Harris, appearing for the applicant. We have one witness, and his name is William B. Simmons.

(Whereupon, Applicant's Exhibits
1 through 9 marked for
identification.)

(Witness sworn.)

WILLIAM B. SIMMONS, JR.

called as a witness, having been first duly sworn, was

examined and testified as follows:

DIRECT EXAMINATION

BY MR. SPERLING:

Q Please state your name, position, place of residence and employer.

A I am W. B. Simmons, Jr., employed as Associate Engineer in the Proration Group for the Midland Division Office of Mobil Oil Corporation.

Q Have you on any previous occasion testified as a Petroleum Engineer before the Commission?

A Yes, I have.

Q Your qualifications are a matter of record?

A Yes, they are.

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

MR. NUTTER: Yes, they are.

Q (By Mr. Sperling) What is sought by Mobil in this application?

A Mobil Oil Corporation plans to seek exception to New Mexico Oil Conservation Commission's Rule 303 and requests authority to commingle within the well-bore of Mobil's Bridges State No. 109, production from the Vacuum-Wolfcamp and Vacuum-Upper Pennsylvanian Pools. The Upper Pennsylvania

Zone is now at its economic limit. Then it can continue to produce along with the Wolfcamp Zone. Both zones will realize an extension of their economic productive life and will ultimately result in additional oil recovery, thereby preventing waste.

Q Would you please refer to what has been marked as Exhibit 1 and explain its purpose?

A Exhibit 1 is an ownership plat that shows the location of the subject well, Bridges State 109, which is located in Unit N, 610 feet from the south line 1830 feet from the west line of Section 24, Township 17 South, Range 34 East in Lea County, New Mexico. The Upper Pennsylvania producers and the outline of the field are noted in the red color and the Wolfcamp producers and the outline of the Wolfcamp field are outlined and noted in the green figure.

Q Is the entire area outlined here as the Bridges Lease, is that held under one lease?

A Yes, the lease consists of 5,281.38 acres, leased from the State of New Mexico.

Q Now, refer to Exhibit 2 and explain that exhibit and its purpose.

A Exhibit 2 is a graph and it shows the performance curves for the Wolfcamp Zone of Well 109. It shows that the production is decreasing at approximately 35% percent decline,

that the well is producing at a marginal rate and that the -- it's about 29 barrels of oil a day. We had a test at 2770. Now, not shown on this graph is the insignificant amount of water produced since 1966. It's cumulative is only about 114 barrels.

Q Now, refer to Exhibit 3, please.

A Exhibit 3 is a graph showing the performance curves for the Upper Penn Zone of Well 109. It shows that the oil production is decreasing at an approximate rate of 39% decline and the well is producing at a marginal rate.

Q And what, if any, water production is being encountered?

A On Graph 4, I have indicated the water production because of the crowded Graph 3. I wasn't able to put it on there, but this graph shows that the water production initially was somewhat high. It has dropped and has maintained a low water volume. We expect this trend to continue.

MR. NUTTER: Have you had a recent test in this Zone, Mr. Simmons?

THE WITNESS: Yes, sir, I have and it tested at 10 barrels per day with 4 barrels of water per day.

MR. NUTTER: What was the date of that?

THE WITNESS: That was 5-27-70.

MR. NUTTER: Same date as the other one?

THE WITNESS: Yes, sir.

MR. NUTTER: Thank you.

Q (By Mr. Sperling) Now, the last graph that you have offered is marked Exhibit 4, is that correct?

A Exhibit 4, yes.

Q Now, refer to Exhibit 5, please.

A Exhibit 5 is the backup information. It's a tabular data, tabular production history, and it just backs up the graphic.

Q Simply presents --

A In tabular form.

Q -- the information shown on the previous exhibits --

A Yes, sir.

Q -- three and four. O. K. Exhibit 6?

A Exhibit 6 is a graph that shows the anticipated production decline of both Zones if produced separately and then a composite production curve if the same two Zones were produced commingled down-hole. Now, the combined production will be 39 barrels of oil per day produced with a Ben pump operating under vented conditions.

Q What is the significance of the horizontal line on Exhibit 6?

A It was shown to, drawn on there to show the 80 barrels

of oil per day which is the maximum daily production allowed for both zones when commingled under Commission's Rule 303C. This Rule provides for an administrative procedure by which exceptions to Rule 303A may be granted by the Commission, provided certain facts, exhibits and the required conditions were met.

Now, since this Rule was written for specifically dually completed wells, this triply completed well is not eligible for administrative approval under this rule. The graph also shows that the total commingled production on line 3 there, is expected to decline from its initial rate at about 36 decline rate, with an extended life due to the commingling.

Q Are there any other facts or conditions existing in these two zones which would meet the guideline for Rule 303A?

A Yes. Both zones do require artificial lift and are under artificial lift at present, for any future production. Neither zone produces more than the 80 barrels of water per day allowed for this dip. Now actually, the combined water is only 4 barrels of water per day. The fluid from both zones are compatible with each other and their combination will not result in damaging precipitates in either reservoir.

The total value accrued will not be reduced by commingling. Ownership of the zones to be commingled is common.

The royalty interest of both zones is common. Mobil has no plans for secondary recovery in either of the zones to be commingled, nor do we know of any such plans.

Q Why do you consider that these points are significant in this matter?

A Well, in my opinion, the two zones in Well 109 has substantially satisfied the guidelines of eligibility set forth in Commission's Rule 303C and should receive consideration for these facts, along with any criterion that the Commission deems necessary in this case. If Mobil were required to continue production from separated zones, the Upper Penn Zone would have to be abandoned in the near future, thereby resulting in waste.

Q Now, would you refer, please, to what has been marked as Exhibit 7 and explain its purpose.

A Exhibit 7 is a data sheet with attachments that summarizes the background necessary for the Commission's consideration of this request. The two attached C-1 16 forms are current productivity tests for both zones.

Q Now would you please refer to Exhibit 8?

A Exhibit 8 is a computation of the relative values of the hydrocarbon production before and after down-hole commingling. It shows that the value of accrual will remain

the same before and after the proposed down-hole commingling. These two zones are presently commingled on the surface in accordance with Commission's Rule PC-100.

Q Would you please refer back to Exhibit 7, and there are bottomhole pressures indicated which do result in a pressure differential which conceivably could cause cross-flow insofar as these two zones are concerned after down-hole commingling. How do you propose to handle that problem?

A In answer to this question, I would like to submit Exhibit 9 which is a schematic well-bore sketch of Well 109. This shows the existing triple completion and the proposed dual completion, if down-hole commingling were allowed.

You will note that the packers are to be left in place and that the long string will be perforated as shown on the exhibit there, at about 10,000 feet. The existing Ben pump now pumping the Upper Penn Zone will be pulled, and a new pump installed, and operated in such a manner as to maintain a low fluid level in this well. This will minimize any tendency for cross-flow since we believe the reservoir pressure of the lower zone will more than offset the pressure encountered by normal pumping level of the commingled well. The gas lift equipment in intermediate string shown on the exhibit will be pulled, but the tubing will be left in place to provide

draining of the commingled zones.

We believe this will increase pumping efficiency of the well. However, if the well were to become inoperative for a rather long period of time, or a sufficient time for the fluid level to rise, the check valve, stemming valve would prevent cross-flow from the Wolfcamp Zone into the Upper Penn Zone.

After the proposed commingling the Abo Zone will continue to be produced, maintained and operated as an isolated zone and it will be completely isolated from the two lower zones.

Q Was notification given to the other operators in the area as to Mobil's proposed plan?

A Yes, we sent them individual letters. Now, there has been no adverse response to this application directed to Mobil. The State of New Mexico, as royalty owner, has been notified of this application by letter to the State Land Commissioner and a copy was sent to the Commission, and I believe the Commission has received a copy from the State Land Commissioner on this. At least, I was informed of that.

Q In response to the letter?

A Yes, stating they had no objections.

Q Now, in your opinion, Mr. Simmons, would the granting

of this application have any adverse effect upon the correlative rights of any other operators?

A In my opinion, no.

Q I believe you testified earlier that in your opinion the granting of the application would enable Mobil to recover oil that would not otherwise be economically recoverable, and thereby preventing waste, is that your testimony?

A Yes, sir, it will prevent the waste of oil, and we believe it will be in the best interest of conservation.

Q Were Exhibits 1 through 9 prepared by you, or under your supervision?

A Yes, they were.

MR. SPERLING: At this time, I would like to offer Exhibits 1 through 9.

MR. NUTTER: Mobil's Exhibits 1 through 9 will be admitted in evidence.

MR. SPERLING: That's all we have.

MR. NUTTER: Are there any questions of Mr. Simmons? He may be excused. Anything else, Mr. Sperling?

MR. SPERLING: No.

MR. NUTTER: Does anyone have anything they would like to offer in Case 4366? The case will be taken under advisement.

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STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, the undersigned, 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; and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

Louisa Gonzalez
NOTARY PUBLIC

MY COMMISSION EXPIRES:

March 26, 1974

I do hereby certify that the foregoing is a copy of record of the hearing held on 4/10/66 before the New Mexico Oil Conservation Commission. Received _____ of New Mexico Oil Conservation Commission