BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
November ~~18~~ 12, 1968

IN THE MATTER OF:	)	
	)	
Application of Texaco, Inc., for a waterflood project, Lea County, New Mexico	)	Case No. 3934
	)	
	)	

BEFORE: D. S. NUTTER

TRANSCRIPT OF HEARING

MR. NUTTER: Call Case 3934.

MR. HATCH: Application of Texaco, Inc., for a waterflood project, Lea County, New Mexico

MR. KELLY: Let the record show the same appearance and the same witness who is under oath.

(Applicant's Exhibits 1 through 4 marked for identification.)

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DALE McCARTER, called as a witness, having been previously duly sworn, was examined, and testified as follows:

DIRECT EXAMINATION

BY MR. KELLY:

Q You are the same Mr. McCarter who testified in the previous case?

A Yes, I am.

Q Referring to Exhibit No. 1, the plat, would you state what Texaco seeks by this application?

A Texaco seeks approval to initiate a pilot waterflood project by injection of water into the Drinkard Formation in its V. M. Henderson Well No. 8 located in Unit E, Section 30, Township 21 South, Range 37 East.

Q Have you shown the offset operators on this?

A They are on the plat, I will call them out. It would be Gulf Oil Corporation, Pan American, Mobil, Sinclair,

J. W. Peary, and J. H. Moore. They were notified by a copy of our application for the hearing.

Q What is the current status of the proposed injection well?

A The well is a triple completion being completed in the Penrose Skelly, the Paddock and the Drinkard formations. The Drinkard zone in the well is producing three barrels of oil per day, three barrels of water per day and G-O-R of approximately 1800. It is pumping.

Q On this lease, are there other Drinkard Completions?

A Yes, sir.

Q What is the average production from your lease on the Drinkard?

A The average production from the Lease is approximately three and a half barrels of oil per day per well.

Q In your opinion, are these Drinkard wells in the advanced stage of depletion?

A Yes, sir, they are.

Q What is the drive mechanism of the Drinkard Reservoir?

A Again, it's a solution gas drive reservoir.

Q Now, what will be the source of your water --

A The water source will be that water produced in

conjunction with the oil production on the V. M. Henderson Lease, which produces from the Blinebry-Paddock, Penrose-Skelly and Drinkard Formations.

Q What is the ownership status as far as the underlying lease?

A They are all identical.

Q Is this fee, State or Federal, do you know?

A This is Federal.

Q You have an exhibit marked Exhibit No. 2, which is your performance curve and production history for this lease?

A Yes; this again shows the production peramiters for the Drinkard formation underneath the V. M. Henderson Lease. It shows it producing approximately three and a half barrels of oil per day per well with a gas-oil ratio of approximately 9,000 to 1 and approximately 10 barrels of water per day. There are five current producing wells on the Lease.

Q Now, what volumes of water will you be injecting, did you testify to that?

A No, sir; we will be injecting approximately 250 barrels of water per day.

Q Will this rate go up, in your opinion?

A Yes, sir.

Q What would be the maximum you would anticipate you would be injecting?

A I would anticipate not more than 350 to 375 barrels of water per day.

Q Then if you were to get response, you would probably be looking at other injection wells?

A Yes, with response we would probably enter into cooperative flooding with other offset operators because we would be approaching,right now, as you can notice on Exhibit No. 1, this well is not offset, directly offset by any other operator. Any other well that would be converted would be offset by another operator whereby causing it, or requiring that we enter a cooperative agreement or unitization, one or the other.

Q What injection pressures do you anticipate?

A We initially expect approximately two to three hundred pounds and a rapid increase to a thousand to 1100 pounds.

Q Referring to Exhibit 3, your sketch of the proposed injection well, would you explain that to the Examiner?

A Exhibit No. 3 shows the well which is a triple tubingless completion with one string of production, 2 and 3/8ths production casing set at 5329, the other two strings of 2 and 3/8ths-inch casing set at 6744. The surface casing is 11 and 3/4-inch set at 329 feet and cement circulated.

The intermediate string is 8 and 5/8ths, cemented with 1750 sacks, the top of the cement is unknown. This volume of cement calculates enough to circulate. As stated previously, all three zones are currently producing. We will run a string of one-inch internally plastic-coated tubing in the Drinkard string and set it at approximately 6600 feet which is some 18 feet above the perforated interval, and load the back side with kerosine.

Q Do you feel that this will protect against migration?

A Yes, sir, I do.

Q Is there any fresh water in the area?

A Yes; again the Ogalala is water bearing.

Q Do you feel that the proposed installation will protect the other oil producing zones and any fresh water?

A Yes, any leak that can be detected.

Q Now, do you have an estimate as to the potential recovery,of the secondary recovery?

A No, sir, I don't believe I could accurately estimate any additional recovery from the injection. The recoveries on this portion of the lease have been very low; in fact, the cumulative recovery from Well No. 8 is only 11000 barrels of oil, so we could probably expect a fairly rapid fill-up and response, if it is going to occur, fairly soon due to the

low volumes that have been recovered.

Q In your opinion would injecting water into the Drinkard in this well have any adverse affect on any of the adjoining operators?

A No, sir, I do not.

Q This well will also serve the dual purpose of being a salt water disposal well?

A Yes.

Q You also have a log on this well, right?

A Yes, sir.

Q Were Exhibits 1 through 4, No. 4 being the log, prepared by you or under your supervision?

A Yes, they were.

MR. KELLY: I move the introduction of Texaco's Exhibits 1 through 4.

MR. NUTTER: Texaco's Exhibits 1 through 4 will be admitted in evidence.

(Whereupon, Texaco's Exhibits 1 through 4 offered and admitted in evidence.)

MR. KELLY: I have nothing further at this time, Mr. Examiner.

CROSS EXAMINATION

BY MR. NUTTER:

Q I missed your initial rate of water injection.

A 250 barrels of water per day.

Q And that is water that's produced from the Henderson lease, only?

A Yes, sir, just from the Henderson lease.

Q It may be on here some place, but I can't find the top of the cement on these various strings of casing, Mr. McCarter.

A The top on the 11 and 3/4 surface casing is cement circulated.

Q Right.

A On the 8 and 5/8ths intermediate, we do not know what the top is, it was cemented with 1750 sacks of cement. The three strings of production casing were cemented with 1320 sacks and the top of the cement is fifteen hundred and --

Q So it's up in the intermediate?

A This is on Exhibit No. 3, the diagrammatic sketch, up in the left-hand corner.

Q So the cement is up in the intermediate pipe then, on the small casing string?

A Yes, sir.

MR. NUTTER: Are there any other questions of Mr. McCarter? He may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr. Kelly?

MR. KELLY: Nothing further.

MR. NUTTER: Does anyone have anything they wish to offer in Case 3934? We will take the case under advisement.

I N D E X

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Court Reporter in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceddings before the New Mexico Oil Conservation Commission was reported by me, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my hand this 26th day of November, 1968.

Ada Dearnley

I do hereby ADA DEARNLEY the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 3934 heard by me on 11/18/68, 1968.

Examiner
New Mexico Oil Conservation Commission