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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
August 21, 1968

IN THE MATTER OF:)

Application of Continental Oil)
Company for a pressure maintenance)
project, Lea County, New Mexico.)

Case No. 3843

BEFORE: D. S. NUTTER,
Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: Call Case 3843.

MR. HATCH: Application of Continental Oil Company for a pressure maintenance project, Lea County, New Mexico.

MR. KELLAHIN: May the record show the same appearance and that the witness, Roger Porter, has been sworn and qualified.

(Applicant's Exhibits 1 through 5 marked for identification.)

* * * * *

J. ROGER PORTER, called as a witness, having been previously duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Will you state your name, please?

A J. Roger Porter.

Q Are you the same Mr. Porter who has testified in the preceeding cases?

A Yes.

Q Are you familiar with the application of Continental Oil Company in Case 3843?

A Yes, I am.

Q Briefly, what is proposed by Continental Oil in Case 3843?

A Case No. 3843 is the application of Continental Oil Company for authority to inject water into its Sholes

"B-25" No. 5 well located in the Jalmat Pool.

Q Referring to what has been marked as Exhibit No. 1, will you identify that exhibit?

A Exhibit No. 1 is a copy of the plat showing the proposed injection well circled in red at a location 1650 feet from the north line and 1650 feet from the east line of Section 25, Township 25 South, Range 36 East, Lea County, New Mexico. The Sholes "B-25" Lease is shown outlined in red and is described as the northeast quarter, the northeast quarter of the southeast quarter of Section 25, Township 25 South, Range 36 East, Lea County, New Mexico. The plat shows the location and ownership of all leases and wells within a radius of two miles from the injection well.

Q Referring to what has been marked as Exhibit No. 2, would you identify that exhibit?

A Exhibit No. 2 is a copy of the Form C-108 for Sholes "B-25" No. 5. As shown on the form, we propose to inject produced water into the Seven Rivers formation in the interval 3012 to 3110 feet, through three and one-half-inch O. D. plastic-lined tubing below a packer to be set at approximately 3010 feet. The well is now shut in after unsuccessful remedial work in 1966.

Q Referring to what has been marked as Exhibit No. 3,

would you identify that exhibit?

A Exhibit 3 is a schematic diagram of the well showing the eight and five-eighths-inch casing set at 360 feet, five and one-half-inch casing set at 3110 feet, three and one-half-inch O. D. Plastic-lined tubing set on a packer at 3010 feet and the injection interval, 3012 to 3110 feet.

Q Will you fill the casing tubing annulus with an inert fluid?

A Yes, sir.

Q And you can leave it open or put a pressure gauge on it, is that correct?

A Yes, sir.

Q According to the diagramatic sketch there is an interval from 360 feet to 950 feet and there's no cement behind the pipe, is that correct?

A That is correct.

Q Is there any fresh waters in this area, or do you know?

A There are fresh waters in this area.

Q Would the installation, as you propose it, adequately protect those fresh waters, in your opinion?

A In my opinion, yes, sir, as long as we have the inert fluid in our annulus.

Q You would know immediately if leakage did occur, would you not, within a reasonable time?

A Within a reasonable period of time, yes, sir.

Q Now, referring to what has been marked as Exhibit No. 4, would you identify that exhibit, please?

A Exhibit No. 4 is a copy of the radioactivity log on the Sholes "B-25" No. 5. The top of the Seven Rivers formation is indicated at approximately 3012 feet. The perforated interval into which water is proposed to be injected is shown at 3012 to 3110 feet.

Q Referring to what has been marked as Exhibit No. 5, would you describe that exhibit?

A Exhibit No. 5 is an analysis of water produced on this lease.

Q Is that a potable water?

A It is not considered potable for humans, but is considered suitable for livestock.

Q Has it been used for livestock in this area, or do you know?

A I do not know for sure, but I have been told that it has.

Q What is the source of the water that you are going to dispose of?

A The injection water will initially be produced water from the Sholes A and Sholes "B-25" leases. In addition to these leases, we have also been contacted by nearby operators who desire to dispose of water into our Sholes "B-25" No. 5. This possibility is now being considered by our company.

Q What volumes of water will you be injecting?

A The initial injection rate is anticipated to be 1200 to 1500 barrels of water per day and it may increase to 6,000 barrels of water per day, depending on the offset operators that we might take and include into this system.

Q Will the well take that volume of water, in your opinion?

A In our opinion, it will.

Q You are going to inject into the Seven Rivers formation?

A That is correct.

Q Is the Jalmat Pool considered to be a waterflood prospect?

A There is a strong water drive in the Seven Rivers and Basal Yates on the west flank of the Jalmat Pool. These intervals are not considered to be waterflood prospects since there is a natural water drive, or waterflood, already in existence.

Q What will be the effect of injecting water into

the Seven Rivers in this area?

A The injection of produced water back into the Seven Rivers formation will have the effect of maintaining pressure in that formation.

Q Do you expect this to have any effect on the recovery of oil in this area?

A In view of the very strong water drive in the Seven Rivers formation, we do not expect any effect on oil recovery as a result of the injection. We do not expect recovery to be either increased or decreased.

Q Will the granting of this application result in waste?

A No, the result of this application will be that produced water which is presently produced into pits on the lease will be injected underground. Currently, there is an engineering evaluation being made to install high volume lift equipment in the producing wells on the Sholes "A" and Sholes "B-25" Leases once subsurface disposal is initiated.

Q Will the granting of the application result in any impairment of correlative rights?

A In my opinion there will be no impairment of correlative rights.

Q Were Exhibits 1 through 5 prepared by you or under your supervision?

A Yes, they were.

MR. KELLAHIN: At this time, I offer in evidence Applicant's Exhibits 1 through 5, inclusive.

MR. NUTTER: Applicant's Exhibits 1 through 5 will be admitted.

(Whereupon, Applicant's Exhibits 1 through 5 offered and admitted in evidence.)

MR. KELLAHIN: That's all I have on direct examination.

CROSS EXAMINATION

BY MR. NUTTER:

Q I am having a little trouble following all these perforations on Exhibit 3. Apparently, originally the perforations starting at 28.7 down to 2991; I don't see that all of those have been squeezed, however, have they?

A No, sir, they have not.

Q You do have perforations up above here that are open, is that correct?

A Yes, sir, above our disposal interval and we do plan to squeeze these.

Q So you will have all perforations squeezed?

A Yes, sir.

Q I was wondering how the inert fluid was going to stay in the annulus if they weren't squeezed. However, every perforation will be squeezed here, except the interval from 3012 to 3110?

A Every interval above the packer will be squeezed, sir.

Q The status of the well is shut in after this unsuccessful remedial work in '66?

A Yes, and there are perforations that are remaining open right now.

Q When you mentioned that the injection may go up to 6,000 barrels a day, that's after you install the high capacity lift equipment on the lease?

A That is correct, that way, or possibly in disposing of water from the offset leases.

Q You are open to receiving water from other operators?

A Yes, sir, our management is considering that.

MR. NUTTER: Are there any other questions of the witness? He may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further in this case, Mr. Kellahin?

MR. KELLAHIN: That's all.

MR. NUTTER: Does anyone have anything further to offer in Case 3843? We will take the case under advisement.

I N D E X


WITNESS	PAGE
<u>J. ROGER PORTER</u>	
Direct Examination by Mr. Kellahin	3
Cross Examination by Mr. Nutter	8

<u>EXHIBITS</u>	<u>MARKED</u>	<u>OFFERED AND ADMITTED</u>
Applicant's 1 through 5	2	8

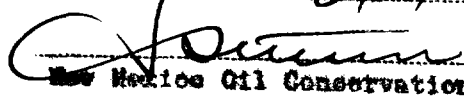
STATE OF NEW MEXICO)
) ss
 COUNTY OF BERNALILLO)

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 Proceedings 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 and seal this 5th day of September, 1968.


 ADA DEARNLEY

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 3843 heard by me on 8/21, 1968.

 Examiner
 New Mexico Oil Conservation Commission