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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. 3842

BEFORE: D. S. NUTTER,
Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: Call Case 3842.

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 the the witness, Mr. Roger Porter, has been sworn and qualified.

(Whereupon, 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 Would you state your name, please?

A J. Roger Porter.

Q You are the same Mr. Porter who has testified in the preceding cases?

A Yes, sir.

Q Mr. Porter, are you familiar with the application of Continental Oil Company in Case 3842?

A Yes, sir.

Q Briefly, what is proposed by Continental Oil Company in this case?

A Case No. 3842 is the application of Continental Oil Company for authority to inject water into its Eaves "A" No. 10 well in the Scarborough Pool.

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

A Exhibit No. 1 is a copy of the plat showing the proposed injection well circled in red at a location 660 feet from the south line and 990 feet from the east line of Section 19, Township 26 South, Range 37 East, Lea County, New Mexico. The Eaves "A" lease is shown outlined in red and is described as northwest quarter northwest quarter, south half of northwest quarter in the south half of Section 19, and the north half of north half of Section 30, Township 26 South, Range 37 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 wells.

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 Eaves "A" No. 10. As shown on the form, we propose to inject produced water into the Seven Rivers Formation in the interval 3208 to 3255 feet, through 3 1/2 inch O. D. Plastic-lined tubing below a packer to be set at approximately 3195 feet.

Q Referring to what has been marked as Exhibit No. 3, would you identify that exhibit?

A Exhibit No. 3 is a schematic diagram of the well showing the eight and five-eighths-inch casing set at 379 feet, five and one-half-inch casing set at 3255 feet, three and one-half-inch O. D. plastic-lined tubing set at 3195 feet, with a packer at 3195 feet and the injection interval 3208 to 3255 feet.

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

A Yes.

Q Will it be possible to put a pressure gauge on the annulus, or leave it open?

A Yes, sir.

Q Referring to what has been marked as Exhibit 4, would you identify that exhibit?

A Exhibit 4 is a copy of the radioactivity log on the Eaves "A" No. 10. The top of the Seven Rivers formation is indicated at approximately 3183 feet. The perforated interval into which water is proposed to be injected is shown at 3208 to 3255 feet.

Q Now, referring to what has been marked as Exhibit 5, would you describe what it shows?

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

this lease.

Q Is this water potable?

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

Q You are going to inject this water into the San Andres formation, is that correct?

A No, it is into the Seven Rivers.

Q Into the Seven Rivers, pardon me.

A Yes.

Q There is production in the area from the Seven Rivers formation?

A Yes, that is correct.

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

A There is a strong water drive in the Seven Rivers and Basal Yates of the Scarborough Pool. These intervals are not considered to be waterflood prospects since there is a natural water drive, or waterflood, already in existence. The Upper Yates interval is still enjoying primary production and we have not yet gathered sufficient data to determine whether or not this will be floodable.

Q What will be the effect of injecting water into the Seven Rivers?

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, in your opinion?

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. There will be no effect on the oil and gas production in the area.

Q Will the granting of the application impair the correlative rights of any of the offset operators?

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

Q What is the source of the water that will be injected into this well?

A The injection water will initially be produced water from Eaves "A", Eaves "B-1" and Eaves "B-9", nineteen leases and in addition we have been contacted by nearby

operators who desire to dispose of water into our Eaves "A" No. 10. This possibility is currently being considered by our company.

Q Initially, what volumes of water will you inject into the well?

A The initial injection rate is anticipated to be approximately 2,000 barrels of water a day and it may increase up to 6,000 barrels of water a day.

Q Do you think this well will have the capacity to take that volume of water?

A In our opinion, it will.

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 Exhibits 1 through 5 inclusive.

MR. NUTTER: Exhibits 1 through 5 will be admitted in evidence.

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

MR. KELLAHIN: That completes our direct examination.

MR. NUTTER: Does anyone have any questions of this witness?

CROSS EXAMINATION

BY MR. NUTTER:

Q These perforations 3107 to 3182 which will be squeezed, are those in the Lower Yates formation?

A Yes, sir, they will be squeezed. Let me check this log; yes, sir, they are in the Lower Yates.

Q So all disposal or injection will be into the Seven Rivers formation?

A Right, the top of the Seven Rivers is approximately 3183 and we are looking at an injection interval of 3208 to 3255 feet.

Q So the lowermost perforations in the upper set go right down to the top of the Seven Rivers practically?

A Yes, sir.

Q What is the status of this well at the present time?

A It is currently temporarily shut in.

MR. NUTTER: Any further questions of this witness? He may be excused.

(Witness excused.)

MR. KELLAHIN: That's all I have.

MR. NUTTER: Does anyone have anything they wish to offer in Case 3842? If not, we will take the case under

advisement. I was trying to classify these as either salt water disposals or waterfloods.

Mr. Porter, in Case 3840, which is your line project, you are going into the Seven Rivers there?

THE WITNESS: Yes, sir.

MR. NUTTER: Is there a strong water drive in the Seven Rivers in this area?

THE WITNESS: Yes, sir.

MR. NUTTER: So this, you won't expect any response to the injection in this particular --

THE WITNESS: No. --

MR. NUTTER: So we will call that a S W D?

THE WITNESS: Yes, sir.

MR. NUTTER: The one in the Scarborough is a S W D?

THE WITNESS: Either S W D or pressure maintenance, either way, it actually could be.

MR. NUTTER: That's where you got your strong water drive in the Seven Rivers, isn't it?

THE WITNESS: Right.

MR. NUTTER: And over in the Triste Draw area, it could be a waterflood or disposal?

THE WITNESS: Disposal.

MR. NUTTER: If it's a waterflood, you don't have a project area to go with it, no producing well.

MR. KELLAHIN: There might be a response on that one, though.

MR. NUTTER: By someone else?

MR. KELLAHIN: Someone else, right.

MR. NUTTER: Then there was another one that was a clearcut salt water disposal case, I think.

MR. KELLAHIN: The one we just completed.

THE WITNESS: The El Mar.

MR. NUTTER: The El Mar is definitely a waterflood.

MR. KELLAHIN: Right.

MR. NUTTER: If there is nothing further in Case 3842, we will take the case under advisement.

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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

ADA DEARNLEY

I do hereby certify that the foregoing is a complete record of the proceedings of the Examiner hearing of Case No. 3842 heard by me on 8/21, 1968.
[Signature], Examiner
New Mexico Oil Conservation Commission