

BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

January 15, 1969

REGULAR HEARING

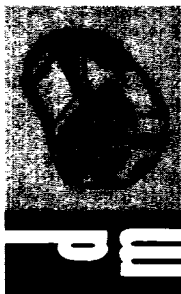
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IN THE MATTER OF: )

Application of Ralph Lowe )  
for an exception to Order )  
No. R-3221, as amended, )  
Eddy County, New Mexico. )  
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Case No. 4025

BEFORE: A. L. Porter, Jr., Secretary-Director  
Alex J. Armijo, Land Commissioner  
Governor David F. Cargo, Chairman  
George Hatch, Counsel

TRANSCRIPT OF HEARING



MR. HATCH: Case 4025, Application of Ralph Lowe for an exception to Order No. R-3221, as amended, Eddy County, New Mexico.

MR. McDERMOTT: I am W. H. McDermott, appearing for Ralph Lowe in Case 4025. I have one witness I would like to have sworn in.

(Witness sworn.)

(Whereupon, Applicant's Exhibits Numbers 1, 2, 3, 4, 5, 6, inclusive, were marked for identification.)

EVERETT L. SMITH

called as a witness by the Applicant, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. McDERMOTT:

Q Will you state your name, please?

A Everett L. Smith.

Q What is your occupation?

A Petroleum Engineer.

Q By whom are you employed?

A Ralph Lowe.

Q Are you acquainted with the Case No. 4025 before the Commission?

A I am.

Q Have you ever testified before the Commission previously?

A Yes.

MR. McDERMOTT: Are his qualifications acceptable?

MR. PORTER: Yes.

Q Have you submitted an exhibit pertaining to the area involved in this application?

A Yes, sir.

Q Now, at the present time, are there two pits being used for disposal of salt water?

A That's right, on the Poker Lake State lease, and on the R. B. Federal lease.

Q What are the size of these particular pits?

A Those pits are approximately forty by thirty by four.

Q Will you describe where they are located?

A They are located inside the tank battery fence, right at the tank batteries. The Poker Lake State pit is approximately 1,320 feet from the south, and 660 feet from the west line of Section 8. And the pit on the R. B. Federal lease is located at approximately 660 feet north of the intersection between Section 17 and Section 18.

Q Are there any water wells located within this area?

A Yes, sir.

Q Where are they located?

A There is one in Section 9, which is to the east, and one in Section 7, which is to the west.

Q Have you had the opportunity to take water samples from the oil wells in the area?

A Yes, I have had samples of the water taken and analyzed.

Q Are they submitted in Exhibits 4, 5, and 6?

A Right.

Q Will you discuss Exhibit Number 3?

A Exhibit Number 3 is a water analysis of the water in Section 7, which is to the west of these Ralph Lowe leases. One thing I especially want to point out there, that the chloride is only 208, and sulphate is 380.

Q Would you discuss the water analysis as shown by Exhibit 5?

A Exhibit 5 is the analysis of the water from the R. B. Federal No. 1, Section 18. It has chloride content of 97,200, sulphate content of 570.

Q Would you proceed on to Exhibit Number 6 on the water analysis on that well?

A Number 6 is the R. B. Federal A No. 1, Section 17. It has a chloride content of 96,800, with a sulphate content of

460.

Q Did you have the opportunity to have water samples taken from the water wells in Sections 7 and 9?

A Yes. I gave the analysis of the water well in Section 7. The water well in Section 9 has a chloride content of 272, and a sulphate content of 2,120.

I would like to point out right here at this point that the sulphate content in the salt water produced from the oil wells is much lower than the sulphate content in these water wells.

Q In your analysis of these results, do you feel as though you have any seepage from your water tanks, that they are having any effect whatsoever on the water being produced out of the oil well?

A No. The water in Section--well, in Section 9, results were taken from the Bulletin 3 of this New Mexico Mining and Technology Ground Water Report of Eddy County. In, I believe, 1949, the sulphate content in that well was 1,710, with a chloride rather low, about 22. But the sulphate has gone from 1,710 to 2,120, which is kind of typical of a lot of wells in that area, the older they get, it seems like the water gets more mineralized, more contaminated the longer they are produced.

And these two wells, water wells show no evidence of any increase in chloride, to any appreciable amount at all. If the water was seeping through from the oil water, water from the surface pits, it would appear that the chlorides would be much higher than they are.

MR. PORTER: Are you saying that they show no appreciable increase over what period of time?

THE WITNESS: Now, the pit on the Poker Lake State lease has been in use about five years, and on the R. B. Federal, they have been putting water in there about eight years. The wells were all completed in 1960.

Q Referring to the study made that you referred to, what is the date in there that the results were shown, in that particular report?

A On Section 9?

Q Yes.

A That was 1949.

Q Do you have any comparable date or something closer, say like 1964 or 1965?

A No, the only date we had was that one out of this report in our analysis of the water from this water well.

Q What is the date out of the report?

A According to this ground water report, it was 5-1-49

when the sample was taken out of this water well in Section 9.

Q At what depth do you obtain the water in this area?

A That is approximately 300 feet.

Q Is this water potable at that depth?

A No, it is not.

Q Do you have any analysis or any report as to the parts per million of chlorides, or dissolved minerals?

A The well in Section 9 has a dissolved solids of 3,706. The well in Section 7 has a dissolved solids of 1,252.

Q Under the standards set by the USGS, is this considered as potable water?

A It is not. Potable water is described by the USGS as less than 500 parts per million.

Q Do you think that there will be any contamination at all from the surface pits to the water at the first water level?

A No, I do not.

Q Do you have any idea whether or not this water from these surface pits could possibly reach this first water level?

A No, I don't--there is a lot of surface Redbeds and Blue shale that some cable tool holes have been drilled in this area, and I don't believe there is a chance of the water ever seeping down.

Q Were all these exhibits made under your supervision or

by you?

A I had the water samples taken by a Federal man, and the water analysis was run by the Western Company.

Q To your best knowledge, do you know of any potable water within the immediate area of these surface pits?

A Not potable water. Some of this water can be used for stock water. In fact, I think they are using it for stock water now.

Q Is it your basic conclusion that there will be no contamination at all?

A That's right. And the evidence as to the water analysis of 1949 and to date show no contamination whatever.

MR. McDERMOTT: I have no further questions of this witness.

MR. PORTER: Does anyone else have any questions?

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Smith, I would like to qualify the location of those pits. You have them identified on your Exhibit Number 1.

A On Exhibit 1, you notice down in the lower right hand corner, the tank battery symbol, those pits are in the south end of the tank battery location. Their tank battery is a standard location on all tank batteries. I can give you a blueprint of



their tank battery standard locations, if you would like to have it.

MR. PORTER: Would you describe it by quarter quarter section, please?

THE WITNESS: Well, I had it here a minute ago. The pit on the State lease, Poker Lake State lease is approximately 1,320 from the south line, and 660 from the west line of Section 8.

MR. PORTER: That is the Poker Lake?

THE WITNESS: Yes, that is the Poker Lake State.

Now, the one on the R. B. Federal, both of those leases go into the same tank battery. It is located north of the--I mean about 660 feet south of the intersection of Sections 7, 8, 17, and 18.

Q (By Mr. Nutter) In other words, that is almost on the line?

A Yes, sir.

Q And about 660 feet south of the north side of the section?

A Right.

Q Is that the only two tank batteries we are talking about, or do you have a third one?

A No, sir, that is the only two. This R. B. Federal

and Poker Lake State go into the same tank battery.

Q And then the incomplete circles, the dotted line circles are the location of the water wells?

A Yes, sir.

Q Structurally, do you recall the location of the water wells with reference to the pits?

A Well, the surface dip there is about one and a half degrees to the west. Now, the subsurface formations generally dip to the southeast.

Q Subsurface, the dip is to the southeast, but surface-wise the dip is to the west toward the river?

A Yes, sir.

Q So could be assume then that the pits that you are talking about would be down dip surfacewise from the water well in Section 9?

A Surfacewise, yes, sir, it would be down dip.

Q And that would probably be about on strike with the water well up there in Section 7?

A Yes, sir.

Q How deep is the well in Section 7?

A I don't have the exact depth. It is around 300 feet, approximately.

Q And the well in Section 9?

A It should be approximately the same depth.

MR. PORTER: Would that put it in the Redbeds?

THE WITNESS: Well, the way those sands are in Eddy County, you can't always tell exactly until you hit the water. There is an example over in Section 14, 19 South, 27 East, two water wells drilled twenty feet apart, and according to this water report 3, one of them was hard and the other one was soft, and there was about a 50 foot differential in the water levels. So those are just entrapped sands, and you will find one here, and maybe yonder you won't find one.

Q (By Mr. Nutter) How much water is being produced at the present time, Mr. Smith?

A In the Poker Lake State lease, it is approximately 35 barrels a day. And the R. B. Federal No. 1-A, is about 6 barrels a day. And the R. B. "AY" Federal No. 1, it is approximately 125 barrels a day.

Q So we have here maybe 160 to 170 barrels a day?

A Yes, sir.

Q Are there any dry holes in the immediate vicinity of this pool which could be used for disposal of water?

A Well, there are dry holes up there. There is one up in--I believe that is Section 4, but I don't know how available it would be to put salt water in. I think there is a dry hole

in Section 17.

Q Does the Ralph Lowe estate have any dry holes on its leases?

A No, sir, they do not.

Q What is this well in the northwest of the northwest of Section 17?

A Northwest of the northwest--that is a Bass well, I believe, isn't it?

Q Well, I believe it is on the R. and B. lease?

A My map doesn't show a well. That shows the oil well there, yes, that is the No. 1-YD in the northwest of the northwest of 17.

Q Well, it appears on this exhibit that I have, that there is also a dry hole shown there in that 40-acre tract?

A Well, that I don't have any information on.

Q And then up here in Section 8, Mr. Smith, immediately north of your tank battery there, it appears that there is a dry hole there. Do you know what depth that well is?

A No, I don't have it. It shows here, 3,761 total depth.

Q 3,761?

A Yes.

Q Do you know of any study that has been made to

consider the feasibility of using that well for salt water disposal?

A No, sir.

Q You made no study?

A No, sir.

Q Mr. Smith, what is this, the line that runs around here on this exhibit? Is that the outer boundary of the leases?

A Yes, that State lease covers two and a little better sections. I believe on your map it has it in red, and they photostated those after they drew the red lines around those leases.

MR. NUTTER: I believe that is all.

MR. McDERMOTT: If the Commission please, it appears that we had a statement to three unlined surface pits in the application, whereas we are only asking for the use of two. I presume it would be necessary to republish in that case, or just have it corrected?

MR. PORTER: You asked for two?

MR. McDERMOTT: That is all. We only have two in the area, although I notice in the application--

THE WITNESS: Well, the application was stated for the R. and B. Federal and Federal A, but they go in the same pit.

MR. PORTER: Since you are asking for less, we don't feel it would be necessary to readvertise, since you are actually asking for less than what appears in the advertisement.

Does anyone else have any question of Mr. Smith?

MR. McDERMOTT: At this time, I would like to have all the exhibits admitted in evidence.

MR. PORTER: What are those numbers?

MR. McDERMOTT: Exhibits 1 through 6.

MR. PORTER: If there is no objection, the Exhibits will be admitted. If there are no further questions, the witness may be excused.

(Whereupon, Applicant's Exhibits  
Numbers 1, 2, 3, 4, 5, 6,  
inclusive, were admitted in  
evidence.)

Is there anything further to be offered in this Case?  
If not, the Commission will take the Case under advisement, and  
proceed to Case 4028.

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STATE OF NEW MEXICO     )  
                                      )     ss.  
COUNTY OF BERNALILLO    )

I, SAMUEL MORTELETTE, 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.

  
COURT REPORTER