

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
December 11, 1961

EXAMINER HEARING

PHONE CH 3-6691

DEARNLEY-MEIER REPORTING SERVICE, Inc.

ALBUQUERQUE, NEW MEXICO

IN THE MATTER OF:

Application of Great Western Drilling Company for a unit agreement and for a waterflood project, Lea County, New Mexico. Applicant in the above-styled cause, seeks approval of the Malmar Unit Agreement, covering 1,360 acres, more or less, in Township 17 South, Ranges 32 and 33 East, Lea County, New Mexico. Applicant further seeks authority to institute a waterflood project in the Maljamar (Grayburg-San Andres) formation initially through six wells located in Sections 7 and 18, Township 17 South, Range 33 East, in Sections 12 and 13, Township 17, South, Range 32 East, Lea County, New Mexico, said project to be governed by the provisions of Rule 701.

CASE NO.

2456

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case 2456.

MR. MORRIS: Case 2456: Application of Great Western Drilling Company for a unit agreement and for a waterflood project, Lea County, New Mexico.

MR. BRATTON: Howard Bratton, Roswell, New Mexico on behalf of the applicant. We have two witnesses.



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(Witnesses sworn.)

SAM SNODDY,

called as a witness, having been first duly sworn, testified as follows:

Q Will you state your name, by whom you are employed and in what capacity?

A Sam Snoddy, Great Western, Land Manager. Address is 509 North Lorraine.

Are you familiar with the application in the case, Mr. Snoddy, and with the unit agreement and the land matters pertaining thereto?

A Yes, sir.

Q Have you previously testified before this Commission?

A I have.

(Whereupon, Applicant's Exhibits Nos. 1 through 6 marked for identification.)

Q Mr. Snoddy, I'll ask you to refer to Exhibit No. 1 and ask you if you will identify that?

A That is the unit agreement for the Maljamar Unit in Lea County, New Mexico, together with a unit operating agreement covering the same county and state.

Q What land does that unit agreement cover?

A That covers approximately 1,360 acres in Sections 12 and 13, Township 17 South, Range 33 East.



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Q Are those lands shown on Exhibit A to the unit agreement?

A Yes, sir.

Q Is this a waterflood project?

A Yes, sir.

Q And Exhibit No. 2 is the unit operating agreement?

A Yes, it is.

Q Is the unit agreement, Mr. Snoddy, the standard form of unit agreement that has been utilized in connection with waterflood projects involving State lands in previous cases?

A Yes, sir. Great Western has used this agreement approximately four times and several other companies have used the same form.

Q That would have been used in your Rock Queen, Peeble Queen, and Grain Queen?

A Yes, sir.

Q Have you submitted the agreement to the State Land Office?

A We have.

Q Are all of the lands involved in the unit agreement state lands?

A That is correct.

Q What percentage of the working interest do you have agreed to commit at this point?

A We have verbal commitments from 93 per cent of the working



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interest owners.

Q Have you had any refusals?

A No, sir, we have not.

Q Do you anticipate having 100 per cent by the time you are in operation?

A We do.

Q And the ownerships are reflected in Exhibit B to the unit agreement?

A That is correct.

Q Is Great Western to be the unit operator under the unit agreement?

A Yes, sir.

Q You have submitted the unit agreement to the State Land Office for approval as to the form?

A We have submitted it and have received verbal approval.

Q Is there anything further you care to testify to with relation to the unit agreement, or the land matters pertaining to it?

A No, sir.

MR. BRATTON: We move the introduction of Exhibits 1 and 2 and have no further questions of this witness.

MR. UTZ: Without objection, Exhibit 1 and 2 will be entered into the record. Are there questions of the witness? The witness may be excused.

(Witness excused.)

JOHN HAMPTON,

called as a witness, having been first duly sworn, testified as follows:



DIRECT EXAMINATION

BY MR. BRATTON:

Q Will you state your name, by whom you are employed, and in what capacity?

A John Hampton, employed by Great Western Drilling Company as Chief Engineer.

Q Are you familiar with the application in this case and with the proposed Maljamar Unit waterflood project?

A Yes, I am.

Q Have you previously testified before this Commission as an expert witness?

A Yes, sir.

Q I refer you to what has been marked as Exhibit 3, and would you identify that and state what it reflects?

A Exhibit No. 3 is a plat of the area generally surrounding our proposed unit. I have outlined on this plat in yellow the outline of the proposed unit. I've also indicated by circles in red the wells which we propose to put on injection and the wells which are already on injection offsetting this unit to the Northwest. I believe that's Nichols waterflood.

Q That waterflood to the Northwest is actually one operated by Waterflood Associates?

A That is correct.

Q It has been approved by the Commission and is in operation?

A That is correct.

Q And it is in the same formation that you propose to flood?

A Yes, sir.

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Q Now, referring to the wells that you propose to convert to injection, you show six wells there. Do you want to change any of those wells and put a different well or wells on injection?

A With the Commission's approval, we would like to delete the two wells which we have asked for in Section 13 and substitute for those two wells the well in the Southeast Quarter of the Northwest Quarter of Section 18 in Township 17 South, Range 33 East. We would like to do this in order to more efficiently cooperate with two other cases which are to be heard after this case.

Q That would be the Baxter and Zapata applications?

A Yes, sir, that is correct.

Q And with those changes, the two deletions and the additions of the one well, it would form a pattern throughout the three proposed floods?

A That is correct.

Q You will only have five instead of six?

A Yes, we would like to do that. We, of course, would propose also that we would operate this waterflood project in accordance with the New Mexico Commission Rule No. 701.

Q One further question before we get off of this, Mr. Hampton. I actually should have asked Mr. Snoddy. In your judgment, is the area in your proposed unit an effective area for waterflooding?

A Yes, sir. We believe that it is.

Q Is it the only effective area you could assemble under the ownership situation?

A Under the ownership and present circumstances, it is about the



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only area that we could effectively put together.

Q Is there anything else you care to say with regard to Exhibit No. 3?

A I believe that covers Exhibit No. 3

Q Now, refer to Exhibit No. 4, which is comprised of three logs.

A That is correct. These are the available logs of the proposed injection wells. We have indicated on these logs the perforated interval on each of the wells. We recognize that there are several zones here and there may be some additional perforating to be done at a later date. I believe that's about all that's significant about Exhibit No. 4.

Q1 What formation are we talking about?

A We are talking about the Grayburg-San Andres formation.

Q Approximately what depth is that?

A As outlined in the unit agreement, I believe the top of this is about 3950 feet, 4400 would be the bottom of the zone.

Q This is the same area that is now under flood by Waterflood Associates to the Northwest?

A Yes, sir, it is exactly the same zones.

Q These are all of the available logs you have on the injection?

A Yes, sir.

Q Have you complied with the rules as to getting approval from the State Engineer?

A Yes, sir, we have, and I believe the State Engineer has written a waiver to Mr. Porter and the Oil Conservation Commission offering no objection to this proposal.

Q What is your source of water, Mr. Hampton?

A We will purchase water from the Caprock Water Company.



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Q That's the same water that's being utilized in the flood to the Northwest?

A I do not believe they're purchasing their water from Caprock, but I think it's the same water, yes.

Q What injection rates do you propose, Mr. Hampton?

A According to our calculations and also according to the performance of the Nichols waterflood to the Northwest we will inject approximately 400 barrels of water per day per injection well to fill up. After fill up, of course, we will inject at rates commensurate with good conservation practices and also to keep us within the scope of Rule 701 as the allowable goes.

Q What additional recovery would you anticipate by virtue of the proposed flood?

A We believe that this flood should recover approximately a hundred per cent of the primary again by waterflooding.

Q Is there anything you care to state further at this time with relation to your logs or your proposed operations under the flood?

A I believe that covers it.

Q With reference to your Exhibit No. 5, explain what that is and what it reflects.

A Exhibit No. 5 is a production curve merely showing statistical data of the producing history of this proposed area. It shows that the area reached a peak of production in early 1960 and further that it's on a pretty steep decline right now, and it's rather obvious that shortly these reserves are going to be, or much of the production will have been produced in a very short time.



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Q How many wells are there in the proposed unit area?

A 34 wells in the unit area.

Q What is your average production now of the unit area?

A It's about ten barrels a day, probably more like nine barrels a day per well. That can be covered a little better in the next exhibit.

Q Refer then to your Exhibit No. 6, and state what it reflects.

A Exhibit No. 6 is a data sheet showing each of the wells in the proposed unit area. We show the surface casing for each of the wells, the amount of surface casing in feet, the cement which was used to cement this casing and I believe in all cases the surface cement circulated; and then we show the production casing in feet also, and the number of sacks of cement used to cement the production casing; and then the last column shows oil production in barrels of oil per day, and I would like to call the Commission's attention that this data was taken from the New Mexico Oil and Gas Engineering Committee report which is the latest one out, was September. The last column as I understand does show the average daily production taken from that report.

Q All of the wells have been, the cement has been circulated to the surface?

A On the surface casing it has, yes, sir.

Q In your judgment is there any possibility of contamination of fresh water supplies?

A If there were fresh water supplies in that area, there would be no danger of contamination from these operations.

Q In your opinion, Mr. Hampton, are the wells within this unit area at such an advanced state of completion that the institution of



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a waterflood project is advisable?

A In my opinion it's very advisable, yes, sir.

Q Do you propose that the operation of the flood and the expansion thereof will be governed by the provisions of Rule 701?

A Yes, I do.

Q Is there anything further you care to state in connection with this proposal?

A I don't believe so, no, sir.

Q I might ask, Mr. Hampton, are you in the process of formalizing line agreements with the offset flood so that it will make a continuous flood?

A Yes, sir, we are in the process of organizing cooperation in all directions.

Q In your opinion would the granting of this application be in the interest of conservation?

A Yes, sir, it would.

Q Were Exhibits 3 through 6 inclusive prepared by you or under your supervision?

A Yes, they were.

Q Is there anything further you care to state in connection with the application?

A I believe not.

MR. BRATTON: We would offer Exhibits 3 through 6 inclusive.

MR. UTZ: Without objection, 3 through 6 will be admitted into the record.



CROSS EXAMINATION

BY MR. UTZ:

Q What period is the average production stated on Exhibit No. 6?

A For September?

Q September.

A Yes, sir. There's a footnote at the bottom of the page noted, that was taken from the September issue.

Q Do you know what the arithmetic average—in other words, this is all the wells in the unit?

A Yes.

Q Do you know the arithmetic average of these wells?

A No, sir, I do not average this data.

Q It would seem to be something above nine barrels a day?

A It would look that way from this data, yes, sir.

Q Probably in the neighborhood of 10 to 11, wouldn't you say?

A I believe that possibly it would be because of two or three wells in this Fielder Trust lease would bring the average up a bit.

Q Do you consider these wells as being stripper wells?

A Yes, sir, I do consider most of these wells as being stripper wells and I also further think that these that are not at this time are going to be very shortly. We can see from this production curve that we have a rather steep rate of decline on these wells and I think that's pretty much in conformance with the rest of the field.

Q What explanation can you give me for the production decline in December of '60? Was that the ice storm?

A Yes, that's the infamous ice storm in that part of the country.

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Q After being shut-in for a while they seemed to bounce back a little better than they had previous to that?

A Yes, they did. I think that's probably pretty much as one would expect.

Q Are you in the position to state as to why this whole area is not being unitized together instead of four or five or six units?

A I can state why part of it is not being unitized, Mr. Examiner. The area in Section 14 is still being developed and, of course, is not at a stage where unit negotiations are too feasible at this time. The area in the North Half of Section 12 is also in the process of—I believe they have another well to complete there, but they have stated that they are ready, willing, and able to cooperate with this waterflood once it's installed. The area in Section 11 required some additional drilling before it could be effectively unitized. I think maybe they have their cooperative pretty well set up over there already. The area to the South which will be heard in another application today, those people prefer their own operations rather than unitizing with these other leases.

Q And I believe that you stated that you do have a unit line agreement with them?

A We will have, yes, sir.

MR. UTZ: Are there other questions of the witness?

MR. BRATTON: Yes, sir, if I could ask one or two questions.

REDIRECT EXAMINATION

BY MR. BRATTON:

A Assuming your average production now is between 10 and 11 barrels, Mr. Hampton, I haven't calculated it out; but by the time you



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finish getting approval and get your unit formed up and injecting water and obtain response, it would certainly be well into next fall or the first of the following year, would it not?

A Before we could get a response from injection of water?

Q Yes, sir.

A Yes, sir.

Q By which time your average production would be considerably below what it is now?

A Yes, it would.

Q So it would be well below 10 barrels a day by then?

A In my opinion it would be, yes, sir.

Q All of the wells on the lease are pumping now?

A Yes, sir.

Q In the entire project, I mean.

A Yes, sir.

Q With the cooperative line agreements between you, the Baxter, and the Zapata floods, will you have as efficient an operation as you would have if you would try to unitize the whole operation?

A Yes, I think so.

Q It will work out to where in terms of the flood it will be operated substantially the same?

A I believe so, yes, sir.

Q MR. BRATTON: I have no further questions, Mr. Examiner.

MR. UTZ: Does anyone have any further questions? The witness may be excused.

(Witness excused.)



MR. UTZ: Any other statements in this case? If not, the case will be taken under advisement.

Why don't we recess until 1:15.

STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) ss.

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission, at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill, and ability.

IN WITNESS WHEREOF, I have affixed my hand and notarial seal this 11th day of December, 1961.

Ada Dearnley
COURT REPORTER-NOTARY PUBLIC

My commission expires:

June 19, 1963

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2456, heard by me on Dec. 11, 1961.

Chris A. Wolf, Examiner
New Mexico Oil Conservation Commission

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