

dearnley-meier

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO



BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
November 3, 1965

EXAMINER HEARING

IN THE MATTER OF:

Application of Anadarko Production
Company for a waterflood project,
Eddy County, New Mexico. Applicant,
in the above-styled cause, seeks
authority to institute a waterflood
project in its Grayburg Premier Sand
formation through five wells in
Sections 25 and 26, Township 17 South,
Range 30 East, Grayburg Jackson Pool,
Eddy County, New Mexico.

Case No. 3330

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case 3330.

MR. DURRETT: Application of Anadarko Production Company for a waterflood project, Eddy County, New Mexico.

MR. BONNETTE: Actually, that's a misnomer. It's an expansion of a waterflood. The waterflood is in operation but this is to recomplete wells in this, water injection wells. I would like to -- I am a Texas attorney, and there's my association. My name is Irley Bonnette.

MR. DURRETT: The entry of appearance will be entered into the record.

MR. BONNETTE: In our application, we have six exhibits attached and I would like, due to typographical errors here, I would like to substitute three exhibits. I would like to substitute for the exhibit attached to the pleading, Exhibit C, and the only change there is at the bottom line, Well 13-4 and Well 13-8, show 7-inch casing, and it should be 4-1/2 inch for those two, and this change makes that substitution.

MR. DURRETT: Would you like that marked?

MR. BONNETTE: Yes, I would.

(Whereupon, Applicant's Exhibit C marked for identification.)

MR. BONNETTE: Exhibit D, we have a little trouble in the change from Ambassador to Anadarko. They show Ambassador as the operator, and it should be Anadarko, and I would like that marked to show that change.

dearnley-meier

SPECIALIZING IN DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO
1213 FIRST NATIONAL BANK EAST • PHONE 256-1294 • ALBUQUERQUE, NEW MEXICO



MR. BONNETTE: On Exhibit E, a statement was left off in the full details which says, "Re-enter this plugged and abandoned well and clean out to total depth of approximately 3250 feet. Set 4-1/2 casing to total depth and perforate casing opposite Premier Zone of Grayburg. Install tubing and packer and complete as water injection well."

None of these amendments change the basic application, the form.

MR. UTZ: That recompletion procedure will be identical to the procedure used in the injection wells in the rest of the unit?

MR. RILEY: As to the tubing and packer installation?

MR. UTZ: Right.

MR. RILEY: Yes.

MR. BONNETTE: We do have, and the Commission should now have in their files waivers from Franklin, Aston and Fair, Inc., and the Executors of the R. F. Windfohr Estate. If you do not have those, I have copies of those.

MR. UTZ: Yes, we have them.

MR. BONNETTE: In support of my application, I have one witness, and may he be sworn?

(Witness sworn.)

(Whereupon, Applicant's Exhibits D and E marked for identification.)

MR. UTZ: Are there any other appearances in this



case?

(Whereupon, Applicant's Exhibits A, B, and F marked for identification.)

E. A. RILEY

called as a witness, having been first duly sworn on oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. BONNETTE:

Q Would you state your name and whether or not you have testified before this Commission?

A My name is E. A. Riley. I am Superintendent of Waterflood Production for Anadarko, Fort Worth, Texas, and I have previously testified before the Commission.

MR. BONNETTE: Would you accept Mr. Riley as a qualified witness?

MR. UTZ: Yes, sir.

Q (By Mr. Bonnette) These exhibits which we have introduced in evidence, were they prepared by you or under your supervision?

A Under my supervision, yes.

Q Mr. Riley, you are familiar with the application that's on file here in 3330?

A Yes, I am.

Q Would you explain in detail the application and the

exhibits and why we are requesting the recompletion or the conversion of these wells?

A Yes. Referring the Commission to Exhibit F, which is the larger map than Exhibit A, it will be easier to see the specific wells I am speaking of. We're requesting permission to recomplete and/or convert five wells in the Grayburg Jackson Unit, Order 2323, to water injection status for two reasons; one, as a normal extension of our present injection pattern; and, two, to comply with the cooperative line well agreement with the east offset operator, the Windfohr Estate, so as to promote timely and orderly extension of the unit and to protect correlative rights.

The cooperative line agreement has been temporarily agreed upon between Anadarko and Windfohr, and we have received 92.79 percent approval by the unit working interest owners to enter into this agreement.

The agreement has been submitted to the United States Geological Survey and the State of New Mexico Land Commission for their approval as to form; following their approval we will execute the document, have the Windfohr group execute the document, and then submit it to the Land Commission and the United States Geological Survey for their final approval.

MR. BONNETTE: I might say the agreement is subject



to the approval of this Commission, granting this request.

A This agreement is very similar to the agreement previously entered into with the west offset operator, General American Oil Corporation of Texas, which we're currently operating under. The major exception is that the co-op agreement with Windfohr provides for the sale of pressured water to the Windfohr Estate for a starting price of 3.2 cents per barrel, with the price to be adjusted annually.

This was the only way we could work out the cooperative line agreement so as to have orderly and timely development along the east border of the unit.

The five wells in the application that we wish to either recomplete or convert, are Wells 7A-2, 13-1, 13-4, 13-5, and 13-8, being currently plugged and abandoned, and will be the wells that we propose to re-enter and recomplete.

The application also recites that this unit is operating as a unitized waterflood operation previously authorized by the Commission under Order R-2323. The first stage of expansion was approved in Commission Order WFX-169 and one additional well added by Commission Order WFX-215. The co-partner in the cooperative agreement, Windfohr and Brown, previously held it before the Commission on October 19th, and the case is under advisement for their application to conduct waterflooding on their leases.



dearnley-meier

SPECIALIZING IN DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO
1213 FIRST NATIONAL BANK EAST • PHONE 256-1294 • ALBUQUERQUE, NEW MEXICO

The application also cites the six exhibits that are included with the application. I will review those briefly. Exhibit A is a map, as prescribed by the Commission, showing the unit boundaries and all leases within a two-mile radius and wells within a two-mile radius of the unit boundaries. On this map we have also shown the current injection wells connected with a black line, and the proposed injection wells encircled in red.

Exhibit B is the Commission C-116 form which shows a recent well test on producing Well 7A-2; on 10/2/65 the well showed a production capacity of 75 barrels of oil, no water and nil gas. At the current time the well is producing at a test of 193 barrels of oil per day and no water. As the Commission could see, this would allow us to seek administrative approval for the conversion of Wells 7A-2 and 13-1, but in verbal discussion with Mr. Nutter, he requested that we have a hearing and include these wells along with the other three wells on the application since the three wells, 13-4, 13-5, and 13-8, you could not grant administrative approval for their conversion without the hearing.

Exhibit C is an injection well data presentation with schematic showing the surface casing, production casing, and tubing scheme for the five injection wells. They indicate that injection into all five wells will be through tubing under

packer, with packer set immediately above the pay zone.

Exhibit D is a general data sheet showing pertinent reservoir and production information. Most of this was previously submitted and presented to the Commission in the original application. There are two or three amendments to it that I would like to point out to the Commission. The current bottom hole pressure is shown in the non-flood area as zero surface pounds of pressure, but in the repressured area, approximately 1200 pounds. In the average daily production, in the non-flood area it is 2.66 barrels per well per day, and in the responding area, 35.1 barrels of oil per day per well. Cumulative oil production to date from the lease is 1,745,000 barrels. Source of injection fluid will be water from a commercial water supplier and produced water. However, in these five wells in this application, fresh water only or water from the Double Eagle Water Corporation will be injected into these two wells through our so-called Plant No. 2. All produced water is being collected at a central facility and will be reinjected through Plant No. 1 into the twelve wells served by that plant.

Exhibit E is in two parts, the first part being Commission Form C-102. The first part gives the detail of proposed plan of work for recompletion of 13-4, and the second part gives the full details of proposed plan of work on Well

dearnley-meier

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO
1213 FIRST NATIONAL BANK EAST • PHONE 256-1294 • ALBUQUERQUE, NEW MEXICO

13-8.

Exhibit F is a larger scale map of the immediate unit area, showing the unit boundaries in hashed line; the current injection wells on the unit and the offset operator to the west connected with a solid black line; and the five proposed injection wells in this application encircled in red.

The unit is responding very nicely to waterflood. At the current time, production is running approximately 750 barrels of oil per day.

Q You stated the offset operator to the west, you mean to the east?

A No, I mean to the west. Those wells are on injection, and they are connected in the solid black line.

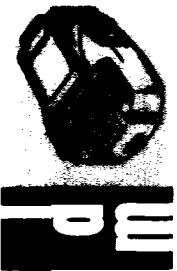
Q You mentioned that you had 92 plus percent of the working interest owners under the unit agreement consenting. What percentage does that agreement require?

A The border agreement paragraph of the unit agreement calls for 65 or more.

MR. UTZ: Does that complete your examination?

MR. BONNETTE: Yes, sir. We would like to request that the exhibits that we have introduced be accepted as part of the testimony in this case.

MR. UTZ: Exhibits A through F will be entered into the record of this case.



(Whereupon, Applicant's Exhibits A through F, both inclusive, were offered and admitted in evidence.)

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Riley, let me ask if all the injection wells in the portion of the unit now in operation all are injecting through tubing and under a packer?

A Yes, they are.

Q How about the annulus, do you have any inert fluid in the annulus?

A It is treated water.

Q Treated water.

A Water treated to prevent corrosion. It is fresh water.

Q You propose that same installation in each of the wells?

A In each of the five wells under the application.

MR. UTZ: Any other questions? The witness may be excused.

(Witness excused.)

MR. UTZ: Are there other statements in this case? The case will be taken under advisement.

* * * *

dearnley-meier

SPECIALIZING IN DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO
1213 FIRST NATIONAL BANK EAST • PHONE 256-1294 • ALBUQUERQUE, NEW MEXICO



