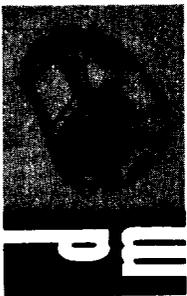


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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
EXAMINER HEARING

June 28, 1967

IN THE MATTER OF:)

Application of Franklin, Aston)
and Fair, Inc. for a waterflood)
project, Eddy County, New Mexico.)

Case No. 3599

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: We will take up Case 3599.

MR. HATCH: Application of Franklin, Aston and Fair, Inc. for a waterflood project, Eddy County, New Mexico.

(Witness sworn.)

(Whereupon, Applicant's Exhibits Nos. 1 through 7 were marked for identification.)

MR. EATON: Mr. Examiner, I am Paul W. Eaton, Junior of the firm of Hinkle, Bondurant and Christy, representing the Applicant, Franklin, Aston and Fair, Inc.

GRANT M. SMITH

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

DIRECT EXAMINATION

BY MR. EATON:

Q Please state your name, address, occupation and employer.

A I am Grant M. Smith of 1112 Rancho Road, Roswell, New Mexico, and I am employed by Franklin, Aston and Fair, Incorporated, as petroleum geologist.

Q Are you familiar with the property and wells involved in this case?

A I am.

Q Is Franklin, Aston and Fair the operator of the property?

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A Yes.

Q Have you previously testified before the New Mexico Oil Conservation Commission as a petroleum geologist?

A Yes.

MR. EATON: Mr. Examiner, would you accept Mr. Smith's qualifications as a petroleum geologist?

MR. UTZ: Yes, sir, he's qualified.

Q (By Mr. Eaton) Mr. Smith, are you familiar with the application of Franklin, Aston and Fair in this case?

A Yes.

Q What does it seek by its application?

A It seeks to start a waterflood in Sections 18 and 17 of Township 17 South, Range 31 East, Eddy County, New Mexico.

Q I hand you what has been marked as Exhibit 1 and ask you to state what it reflects.

A This is a map showing the location of all wells and leases within two miles of the subject area which is shown in the cross-hatched section of the map. It also shows the present injection wells being operated by Sinclair in their waterflood project. Also in the cross-hatched area are two triangles, the one in the upper left-hand corner is a well proposed for conversion to water injection and the one in the lower right-hand corner is a proposed well for water injection.

Q Was this exhibit prepared by you or under your

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supervision?

A Yes.

Q The exhibit shows, I believe, four producing wells within the project area?

A Yes.

Q Are these wells productive at this time?

A Yes.

Q What formation are they producing from and at what depth?

A Primarily they are producing from the Grayburg-Jackson at approximately 3400 to 3500 feet; however, most of the wells in that area at that time were completed open hole and these wells have approximately 700 feet of open hole in them, but it is believed that most of the production is from the Grayburg-Jackson.

Q Would you state or give the productive history of these wells and also state when the wells were drilled?

A The first well was drilled in January of 1939.

Q By the first well do you mean --

A The Hudson No. 1. 660 from the north and 660 from the east line of Section 18. The last well, the No. 4, was completed in January, January 21, 1942.

Q Would you give the production history on these wells, please?

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A The lease total for these wells as of the first of January this year was 321,429 barrels of oil.

Q What is the current daily production of the wells?

A The current daily production will average a little better than a barrel of oil a day.

Q Are these wells commonly known as stripper wells?

A Yes, they are.

Q If the proposed secondary recovery project is not initiated immediately, what will be the effect on the current production?

A The current production would probably increase but we would be suffering drainage as the flood of the wells to the north and the east moves the oil off of this lease.

Q How do you propose to initiate and conduct the waterflood operation?

A Our first step would be to immediately convert the Hudson No. 1 well to an injection well and soon after to drill the proposed well which will be the Hudson No. 5, and make it an injection well for backup.

Q Has a log of the Hudson No. 1 previously been furnished to the Commission and to the State Engineer?

A Yes.

Q Would you give the exact location of the Hudson No. 1 on the proposed Hudson No. 5 well?

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A The Hudson No. 1 is 660 from the north and 660 from the east line of Section 18; the proposed well will be 1160 from the west line and 2480 from the north line of Section 17.

Q Now, Mr. Smith, why do you desire the injection wells at these particular locations?

A The primary reason for converting the Hudson No. 1 to an injection well is that it is on pattern with the existing flood and the No. 5 is to give backup and prevent drainage from Franklin, Aston and Fair's lease. As you can note, the Hudson No. 2 and the Hudson No. 3 wells are located in the Northwest Corners of their respective 40-acre spacing.

Q What are the names of the offset operators?

A The offset operators are Sinclair and Murchison and Closuit and Sunray.

Q Has Franklin, Aston and Fair notified these offset operators of the proposed waterflood project?

A Yes, they have.

Q Have they objected to the project?

A No.

Q I hand you what has been marked as Exhibits 2, 3 and 4 and ask you to state what they are.

A These are letters of consent from Sinclair and Sunray and Murchison and Closuit.

Q Indicating no form of objection at all to the --

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A To the unorthodox location.

Q Next, Mr. Smith, I hand you what has been marked as Exhibit 5. I will ask you to state what it reflects.

A No. 5 is a letter from the United States Geological Survey giving consent to the proposed well.

Q Exhibit No. 5 also approves the proposed waterflood project?

A The waterflood, yes.

Q Now, directing your attention to the proposed injection wells, have you caused to be prepared diagrammatic sketches of each well showing the casing and cement programs?

A Yes.

Q In that connection, I hand you what has been marked as Exhibits 6 and 7 and ask you to state what they portray.

A No. 6, Exhibit No. 6 is a diagrammatic sketch of the existing well, the Hudson No. 1 well, showing the surface casing and the production string and the depth of the hole. No. 7 is a diagram of the proposed Hudson No. 5 well, as it will be completed.

Q Both of these exhibits show the cement program, do they not?

A Yes.

Q Were these exhibits prepared by you or under your supervision?

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A Yes.

Q Mr. Smith, what will be the source of the water which you propose to inject?

A The water will be supplied by Sinclair from their flood to our lease line.

Q Do you know where Sinclair obtains its water?

A From their own water leases.

MR. UTZ: What formation is that water out of?

A I believe that's the Ogallala.

Q (By Mr. Eaton) How much water do you propose to inject in the two wells and at what wellhead pressure?

A We plan to inject from four to six hundred barrels of oil per day per well.

MR. UTZ: Water per day?

MR. EATON: Of water, about 400 to 600 barrels of water.

A Water, right. Did I say oil?

Q (By Mr. Eaton) You said oil.

A At 2,000 pounds.

Q Will produced water be recycled through the injection wells?

A Yes. Sinclair has, with our agreement for them to supply the water, they will take the produced water and recycle it.

Q How soon after you begin the waterflood do you expect a response?

A I would say from six months to one year.

Q Can you give an opinion as to the amount of oil you expect to recover from the proposed waterflood?

A We would hope to recover at least as much as our primary production was, which was 321,429 barrels of oil from the lease.

Q In your opinion is it reasonable to assume that you may recover even more than the amount of your primary?

A There's a good possibility.

Q In your opinion will the proposed waterflood project be in the interest of conservation and prevention of waste?

A Yes.

Q In your opinion will the correlative rights of all other interested parties be protected under the proposed project?

A Yes.

Q In your opinion will the proposed project result in the maximum recovery of oil from the project area?

A Yes.

Q Is it the desire of Franklin, Aston and Fair that the maximum allowable be assigned to this waterflood project?

A Yes.

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MR. EATON: Mr. Examiner, I believe that's all the questions I have of this witness. I would ask that all exhibits be admitted into the record and that the exhibits attached to the application be considered part of the record.

MR. UTZ: All right. Exhibits 1 through 7 will be entered into the record of this case. The application, of course, will be a part of the record.

(Whereupon, Applicant's Exhibits 1 through 7 were offered and admitted in evidence.)

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Smith, in reference to your Exhibit No. 6, and particularly your casing, cementing program, that well is now completed, is that correct?

A Yes. That was the first well drilled on the lease.

Q What was the date that well was completed?

A It was completed May the 20th, 1939.

Q And this is the manner in which it was completed at that time, I presume?

A Yes, sir.

Q Do you have any idea how far up the cement, or what the top of the cement is on the 8-1/4-inch surface casing?

A No, not accurately.

Q Did you make any calculation?

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A When we convert this well we will probably run a gamma ray neutron log and attempt to establish the top of the cement.

Q Did you make any calculations that would indicate how far up the 50 sacks might go?

A Oh, I would suspect that they would go up 150 to 200 feet.

Q The same questions in regard to your 7-inch and the hundred sacks used there.

A On the No. 1 well?

Q Yes.

A I would think that the hundred sacks or the 50 sacks that were used in that one are probably not up over a hundred feet.

Q Well, this shows a hundred sacks on this Exhibit No. 6 that were used on the 7-inch.

A Oh, the 7-inch, I thought you were talking about the surface casing. No, the hundred sacks on the 7-inch, I would say would bring that up to 200 feet above the casing anyway. I was confused, I thought you were talking about the surface casing on that.

Q 200 feet above the casing shoe?

A Yes.

Q This water at the present time that you are going to

inject is fresh water, I presume?

A Yes.

Q Do you intend to inject this water through tubing?

A Through tubing. It's our understanding that in the offset wells some of them are injecting through open hole below the 7-inch casing, or whatever casing is set in them, and some of the new wells are injecting through tubing and through the casing where they are injecting into more than one zone. We would inject into the Grayburg-Jackson pay through tubing and if necessary, into the other indicated pay zone through the casing.

Q All your injection will be below the 2780-foot level, will it not?

A That is correct.

Q Do you intend to use a packer on your tubing?

A Yes, sir.

Q And will the same type of injection be used on your No. 5 well?

A Yes, sir.

Q Will this tubing be lined?

A If they're using recycled water it will be lined. It's my understanding that where they are injecting the fresh water it isn't lined but when they are using recycling, it is.

Q But you will not line your tubing at the present time,

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but when you start using recycled water you will change the tubing string?

A Yes, sir.

Q Have you received any response from the flood to the northeast on your producing wells yet?

A We feel that there has been a slight response. The over-all lease production a few months back increased from 600 barrels to 900, and in testing we felt that it was from the No. 2 well, but it has declined a little in the past month or so.

Q Are you producing the No. 1 well now?

A Yes, sir.

Q And it didn't show any response?

A It has shown no response.

MR. UTZ: Are there any other questions of the witness? The witness may be excused.

(Witness excused.)

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

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<u>EXHIBIT</u>	<u>MARKED</u>	<u>OFFERED AND ADMITTED</u>
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Franklin Aston & Fair
Grayburg Jackson

Grayburg San Andres
formations

2 inj wells
660 N & E

Eddy Co.

Hudson #1 A 18-17-31

#5 1160' FWL 17-17-31
2480' FNL

Call Paul Eaton



SINCLAIR OIL & GAS COMPANY
P. O. Box 1470
MIDLAND, TEXAS 79701

June 1, 1967

WEST TEXAS REGION

Franklin, Aston & Fair, Inc.
P. O. Box 1090
Roswell, New Mexico 88201

Attention: Mr. R. R. Aston

Gentlemen:

Sinclair Oil & Gas Company has no objection to the drilling of an injection well to be located 1160 feet from the West Line and 2480 feet from the North Line of Section 17-17S-31E Grayburg-Jackson Pool, Eddy County, New Mexico.

It is our understanding that water will be injected in cooperation with Sinclair's offset waterflood projects into the Premier and Jackson zones found in the interval from 2950 feet to 3500 feet in this area.

Yours very truly,

R. M. Anderson
Region Regulatory Engineer

RMA/h1

