BEFORE THE OIL CONSERVATION COMMISSION Santa Fe, New Mexico October 25, 1961

EXAMINER HEARING

CASE 2418

TRANSCRIPT OF HEARING



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FARMINGTON, N M

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EXAMINER HEARING

IN THE MATTER OF:

Application of Humble Oil & Refining Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its State BM Well No. 1, located in Unit I, Section 2, Township 25 South, Range 37 East, Lea County, New Mexico, as a dual completion (Tubingless) in undesignated Fusselman and Ellenburger pools, with the production of oil from the Fusselman zone through 2 7/8-inch casing and the production of oil from the Ellenburger zone through 2 3/8-inch casing cemented in a common well bore.

BEFORE: Mr. Daniel S. Nutter, Examiner

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MR. BRATTON: Howard Bratton on behalf of the applicant. We have one witness.

(Witness sworn.)

B. K. BEVILL

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



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DIRECT EXAMINATION

BY MR. BRATTON:

Q Please state your name, by whom you are employed, and in what capacity.

A B. K. Bevill, Humble Oil and Refining Company, District Production Engineer, Hobbs District.

Q Are you familiar with the well that's the subject of this application, Mr. Bevill?

A Yes, sir.

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

A Yes, sir.

MR. NUTTER: How do you spell your name?

A B-e-v-i-l-l.

MR. NUTTER: Thank you.

(Whereupon, Humble's Exhibit No. 1 was marked for identification)

Q (By Mr. Bratton) Mr. Bevill, I have what has been marked as Exhibit No. 1, which consists of four sheets. Will you please start at the top sheet and explain that exhibit and what it reflects with relation to this application?

A Sheet No. 1 is a map showing the subject area and the Humble State BM lease is outlined in red, and the subject



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well has a small red circle around it.

- Q The well is in the Northeast of the Southeast of Section 2, 25 South, 37 East?
 - A Right.
- Q It shows the completions in the area, the mutual completions in the area?
 - A That is right.
- Q The Humble No. 1 is the well that you want to dually complete?
 - A Yes, sir.
 - Q In what formations?
- A We would like to complete this well in the Fusselman and the Ellenburger.
- Q Now, refer to your second sheet there, which shows the sketch of your proposed completion. Will you run through that and explain it?
- A This is a diagrammatic sketch of how we blan to comblete this well. Starting from the top string, 13-3-8 casing
 has already been set at 236 feet, and cemented to the surface.
 The second or salt string has already been set 9 5/8ths at
 3470 feet, and cemented back into the salt zone. At present
 the well is drilling in an 8 3/4 hole at approximately 7,000
 feet. As a matter of fact, I think we're probably coring the



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Fusselman zone now. It is projected to go on to the Ellenburger, which we expect somewhere in the neighborhood of 8600 feet.

The first string of casing, which will be 4½ inch, will be run to total depth. The second string of casing, which will be 2 7/8ths inch will be run to approximately 7,000 feet, or to a point below the Fusselman.

- Q The 2 7/8ths is the casing on the left, that's where you'll complete the Fusselman?
 - A That is right.
- Q And 4 7/8ths is on the right, and that's where you'll complete the Ellenburger?
 - A The $4\frac{1}{2}$.
 - Q All right.

A Cementing operations will be in a method that we have used before by stage method, whereby we will cement down through the $4\frac{1}{2}$ inch and bring it back up to the 2 7/8ths inch, and from there we will cement down through the 2 7/8ths inch, and we propose to bring cement all the way back up and tie into the salt string at approximately 3700, I mean 3470 feet.

- Q You do propose to run tubing in the Ellenburger?
- A We will tube the $4\frac{1}{2}$ string in the Ellenburger.
- Q At a later date you could tube the Fusselman if necessary?



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- A We very likely will if we find it necessary.
- Q When you get into artificial lift?
- A Right.
- Q Is there anything else in connection with the proposed completion that you care to explain?
- A No, the next two sheets are just for the benefit of showing the type centralizers that we have used in the past. We plan to use them on this well.
 - Q Turning to your last sheet --

A The last sheet, I want to apologize for that print, it's not very good, but it gives you a picture of our surface hookup, at the bottom is the 9 5/8ths inch OD well head, which will be flanked directly to the salt string well head. You will note that both production strings extend up through that well head and are merely packed off, and they're controlled by well head equipment above.

The well head, the large well head will be 4,000 bound test and all equipment above that will be 6,000 pound test equipment.

Q The reason for this application is because these two zones have not been dualled in this immediate vicinity, is that correct?

A Yes, sir. We asked for administrative approval, but it was turned down on the basis that there were no wells



completed in these same two zones within a mile.

- Q Have you utilized this same type of dual completion under order of the Commission?
 - A Yes. sir.
 - Q What zones were those completed in, if you recall?
- A One zone was in the Langli-Mattix and the other in the Drinkard.
- Q Were those at depths roughly corresponding to what you are talking about here?
- A Not quite so deep. The Langli-Mattix at approximately 4,000 feet and the Drinkard approximately 7,000 feet.
- Q Did you have the same type installation approved in another case?
 - A Yes, sir, we did.
- Q And, unfortunately, the well didn't come in in both zones?
- A It was a proposed 9500 foot well, and this same procedure was approved, but unfortunately we made a dry hole.
- Q Would you anticipate any problems with this type of installation?
- A We anticipate problems all right, but we don't anticipate any that we can not handle.
 - Q Those would be in the nature of what?



- Either corrosion or paraffin or heavy water production. A
- Q You could handle any of those that might occur?
- A Yes.
- Do you have any reason to anticipate corrosion prob-Q lems?

A Well, this is our first venture in this field, and our experience and our information is limited. We have found out that there is possibly heavy paraffin problems that might occur from the Fusselman. However, we don't anticipate any problem that we can't handle.

- Is there anything else you would care to state with relation to the application of the proposed installation?
 - No, sir. Α
 - Was Exhibit 1 prepared by you? Q
 - Α Yes, sir.

MR. BRATTON: We would offer applicant's Exhibit No. 1. and we have no further questions of Mr. Bevill.

MR. NUTTER: Applicant's Exhibit No. 1 will be admitted in evidence. Does anyone have any questions of Mr. Bevill?

CROSS EXAMINATION

BY MR. NUTTER:

Is this in the general area known as the North Justis Field?



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ALBUQUERQUE, N M PHONE 243.6691 A I don't know that it has been designated as North Justis, but I understand that that is under consideration.

Q This is North of the Justis area by a mile or two, however, isn't it?

A Yes, sir.

Q Mr. Bevill, do you have any bottom hole information on either of these zones?

A No, sir, I don't. I understand, I don't have any exact information on it.

Q Do you have any knowledge of the pressures that you'll encounter in either zone?

A Only what was stated yesterday by Texaco, and I'm sure that, as well as I remember, they stated that the bottom hole pressures in the Ellenburger, which are the highest bottom hole pressures, are in the neighborhood of 2700 pounds.

Q How about the Fusselman, do you have any idea of pressure in that?

A No, sir, I don't.

Q Do you have any knowledge of the gas-oil ratios that will be encountered in either of these formations?

A Only from Texaco. They expect a ratio in the neighborhood of 1,000 cubic feet from the Ellenburger, and from the Fusselman approximately 1100.



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Q How about gravities, do you have any knowledge of the gravities in either of these zones?

A Only what they stated, Ellenburger from 40 to 45 degrees and Fusselman 37 degrees.

Q What depth do you expect to encounter the Fusselman here?

A Approximately 7,000 feet.

Q And the Ellenburger approximately 8600?

A 8600.

Q You will directionally perforate the 2 7/8ths inch casing?

A Yes, sir.

MR. NUTTER: Any further questions of Mr. Bevill? He may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr.

Bratton?

MR. BRATTON: No. sir.

MR. NUTTER: Does anyone have anything further to offer in Case 2418? We'll take the case under advisement and call Case 2419.



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STATE OF NEW MEXICO SS COUNTY OF BERNALILLO)

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 2nd day of November, 1961.

Notary Public-Court

My commission expires: June 19, 1963.

> I do hereby certify that the foregoing is a complete row of of the proceedings in the Examiner bearing of Cape No.

Curry, Examiner New Mexico Oil Conservation Commission



