

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
July 11, 1962

EXAMINER HEARING

IN THE MATTER OF:  
 Application of Continental Oil Company  
 for a triple completion, Lea County, New  
 Mexico. Applicant, in the above-styled cause,  
 seeks permission to complete its Hawk B-3 Well  
 No. 21, located in Unit L of Section 3, Town-  
 ship 21 South, Range 37 East, Lea County, New  
 Mexico, as a triple completion (conventional)  
 in the Blinebry, Tubb and Drinkard Pools, with  
 the production of oil from all zones to be  
 through parallel strings of 2 1/16 inch tubing.

CASE NO.  
2597

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF PROCEEDINGS

MR. NUTTER: Case 2597.

MR. MORRIS: Application of Continental Oil Company for  
a triple completion, Lea County, New Mexico.

MR. FOX: Robert Fox of Kellahin and Fox, appearing for  
Continental Oil Company. We have one witness to be sworn, Jerry  
Felts.

(Witness sworn).

(Whereupon Applicant's Exhibits 1 and 2 were marked for  
identification).

JERRY FELTS

called as a witness, having been first duly sworn on oath, was

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examined and testified as follows:

DIRECT EXAMINATION

BY MR. FOX:

Q Will you state your name, please?

A Jerry Otis Felts.

Q Where do you reside, Jerry?

A 1101 Seventh, Eunice, New Mexico.

Q By whom are you employed?

A Continental Oil Company.

Q What is your title?

A I am primarily classified as Production Engineer.

Q Have you testified before the Commission previously?

A No, sir, I have not.

Q What is your educational background?

A I received a BS degree in mechanical engineering, petroleum option, in '57 from Oklahoma State University.

Q Following your graduation, what has been your experience?

A I was employed by Continental Oil Company in '57 as an engineer trainee. I served as a trainee for the period of one year. I was promoted to associate engineer, and I have served in that position for one, year, and was then promoted to production engineer.

Q With Continental Oil, what have been your duties during this term of employment?

A I am directly under the supervision of the district

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engineer, who has responsibility, I believe, for promotion of drilling wells and of remedial projects for oil and gas well promotion of various types, lease studies and pool studies, and I have done most of those and have assisted in some of them.

Q Has this job been confined to the State of New Mexico?

A Yes, sir.

Q And are you familiar with the area to which this application refers?

A Yes, sir, I am.

Q Are you familiar with the application in this case, which is for the approval of a triple completion on the Hawk B-3, Well Number 21, within the Blinebry, Tubb and Drinkard Pools, through parallel tubing, as I understand it, with strings of 2 1/16 inch measurement?

A Yes, sir, I am familiar with it.

Q Now, will you examine Exhibit Number 1, Mr. Felts? What does Exhibit Number 1 depict?

A Exhibit Number 1 is a schematic diagram of a proposed well, depicting the cementing program, also the casing string program, packers and tubing strings which will be employed in the well head.

Q With the type of packers proposed, what is your opinion regarding whether permanent separation would be attained between the several producing zones?

A These packers are presently used in wells within the area,

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and it is my opinion that the permanent separation will be effective by the use of these packers.

Q Would you state a bit more specifically the cementing program for the well?

A Yes, sir. A surface hole will be drilled at approximately 1400 feet, in which 9 and 5/8 inch casing will be run and cemented. The cement will be circulated to the surface, the well will then be drilled to ~~total~~ depth of approximately 6750 feet, at which time 7 inch o.d. casing will be run and cemented. It's proposed to run the cement to approximately 2400 feet.

Q Would a well of this type, in your opinion, protect the various producing zones which will be encountered here?

A Yes, sir, it will.

Q Now, the applicant in this case states that you expect all three of the zones to flow initially. If it becomes necessary to lift artificially from one or more of the zones, could this be done with this proposed type of completion?

A Yes, sir, it will be possible to produce these wells artificially by conventional producing methods with sucker rods and pump.

Q If leakage were to occur in this well, apart from the regular packer leakage along the seams, what other means would be available to detect leakage?

A In all probability, the most recognizable, effective communication would be a rise or probably an increase in pressure

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on one or the other of the tubing strings. Also there would be, in all probability, a variance of gravity in the crude oil.

Q This well has not been drilled at this date, is that right, is that correct?

A That is correct. It has not been drilled yet.

Q Consequently, you have no log ~~on~~ this well?

A No, sir, we do not.

Q Will you take Exhibit Number 2, please? Are you acquainted with this exhibit?

A Yes, sir, I am.

Q What does it show?

A Exhibit Number 2 is a location and ownership plat of the Hawk B-3 lease and the surrounding area, showing the wells in that area and the operators of the leases.

Q According to the plat, the section within which this well is proposed is an odd section. I notice the branch shows 38N on the top and 37 on the bottom.

A That is correct, that is an adjustment section.

Q An adjustment section, is it?

A That's correct.

Q What type of land is the ownership?

A Federal acreage.

Q Have there been multiple completion wells in the area of the proposed well, which ~~has~~ been brought up in this hearing?

A Yes, sir, there have. There are several within the

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immediate area.

Q What is the location from the boundaries of this proposed well?

A The location of the subject well is 3300 feet from the north line, 660 feet from the west line of Section 3, Township 31 South, Range 37 East, NMPM, Lea County, New Mexico.

Q What is the distance from the south line?

A From the south line?

Q Yes, sir.

A I don't have that from the south. 3300 feet from the north line.

MR. FOX: I think that is all I have.

MR. NUTTER: Are there any questions of Mr. Felts?

MR. MORRIS: Yes.

MR. NUTTER: Mr. Morris.

CROSS EXAMINATION

BY MR. MORRIS:

Q The well directly west of your proposed well, the Shell-Livingston Well Number 1, that is the same completion in the Blinebry oil?

A That's correct.

Q And the well immediately east of your proposed well, the Shell, Taylor-Glenn Well Number 1, is a dual completion in the Blinebry gas and Drinkard oil?

A That's correct.

Q So, you have a Blinebry oil well on one side and a Blinebry gas well on the other side?



A Yes, sir.

Q What geological information has led you to believe that you will get a Blinebry oil well on the proposed location rather than a gas well?

A The Blinebry oil is arbitrarily divided up into numbers of division changes, particularly of the block. Starting at the top, Zones 1, 2, 3, and 4, it is the opinion that Zone 1 is gas productive, probably Zone 2 is gas productive, and the zones below that are oil productive.

Q In this particular well, what makes you believe that you are going to encounter oil in the zones lower than Zone 2?

A Well, it's proposed to drill the well for principal strata into zones below number 2.

Q In other words, the Zones 1 and 2 may be present and may be productive of gas, but you are to perforate in no intervals?

A That's correct.

MR. MORRIS: That is all I have. Thank you.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Felts, do you have anything available regarding the gravities to be expected in these zones?

A Yes, sir, I do. The approximate gravity of the Drinkard oil zone is 38 degrees. The gravity of the Tubb oil zone varies from about 40 degrees gravity to as high as 50 degrees gravity. The Blinebry zone also varies from approximately 41 degrees to 50

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degrees API gravity.

Q What about the GORs on the three zones?

A The GORs vary considerably in this area from well to well, depending on the zones of completion.

Q Do you have an average gravity for the Drinkard in the area - - GOR, I am sorry?

A Initially the average GOR for the Drinkard would be approximately 800 to 1.

Q And what about bottom hole pressures, Mr. Felts?

A Yes. I have bottom hole pressures. From the Drinkard shut in bottom hole pressure is approximately 2400 pounds per square inch. The Tubb bottom hole pressure is approximately 1600 pounds per square inch. The Blinebry bottom hole pressure is approximately 1900 pounds PSI.

Q Now, is this location within the defined recommendations of the Tubb gas pool and Blinebry oil or gas pool?

A No, sir. It's within the limit of the Tubb and Blinebry oil pool.

Q So the pool rules regarding classification of wells, whether or not oil or gas, would apply?

A Yes, sir. They do.

Q Depending on the gravity and GORs encountered in these wells?

A That's right. That's correct.

MR. NUTTER: Are there any other questions of Mr. Felts?

RE-CROSS EXAMINATION

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BY MR. MORRIS:

Q One further question. Mr. Felts, referring again to the Shell, Taylor-Glenn well number 1 directly east of the proposed location, are you aware of whether the Zones 3 and 4, the oil producing zones of the Blinebry formation were encountered in that particular well?

A I am not too sure, but I believe they were encountered, but not perforated.

Q They show as being completed as a gas well for some reason?

A Yes, sir.

Q In your opinion, do you believe that there is a possibility that the <sup>subject</sup> ~~subject well~~ would be productive or would be discovered as a gas well in the Blinebry?

A If the lower zones below Zone 2 are perforated, I believe it would be an oil well.

Q I see. All right. Now, maybe I should have asked the question this way. Do you know if any of the zones below Zone 2 will not be present in this well?

A No, sir. In all of the wells that are drilled in this area, all of the Blinebry zones are present.

Q Thank you.

MR. NUTTER: Are there any other questions of Mr. Felts?

MR. FOX: May I offer Mr. Lyons as a witness in view of some of the questions concerning the Taylor-Glenn well?

MR. NUTTER: Yes, sir. (Witness sworn).

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V. T. LYON

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

DIRECT EXAMINATION

BY MR. FOX:

Q State your name, please?

A V. T. Lyon.

Q By whom are you employed?

A Continental Oil Company.

Q And have you testified before the Commission or its examiners previously?

A Yes, sir. I have.

Q Mr. Lyon, will you look at the Exhibit that is marked Number 2 and directing your attention to the proposed well and the well shown as Shell, Taylor-Glenn Number 1, have you any knowledge as to the plans with respect to the Taylor-Glenn well in the future as to its relationship to the proposed well before the hearing?

A Yes, sir. I do. This Taylor-Glenn Number 1 is a gas well. It's in the Blinebry pool, 160 acres allocated approximately for Blinebry gas, which includes Lot 12 or the lease on which our proposed well is to be located. In view of future communitization, Shell has agreed to delay the completion of this well as an oil well, which they do contemplate. They have informed us that as soon as our well is drilled and completed, they will recomplete

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