



BEFORE THE  
OIL CONSERVATION COMMISSION  
STATE OF NEW MEXICO

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CASE 447: Continental's application for dual completion of its Lynn A-28 No. 5 well, NE NE 28-23S-36E (Cooper-Jal Pool) in order to produce oil from the Seven Rivers formation and gas from the Yates.

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TRANSCRIPT OF HEARING

(December 6, 1952)

BEFORE: Hon. Ed. Mechem, Governor and Chairman  
Hon. Guy Shepard, Land Commissioner and Member  
Hon. R. R. Spurrier, Director and Member

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STATE OF NEW MEXICO

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COUNTY OF BERNALILLO

I HEREBY CERTIFY That the within transcript of hearing in the above styled case before the Oil Conservation Commission of the State of New Mexico is a true record of the same to the best of my knowledge, skill and ability.

DONE at Albuquerque, New Mexico, December 20, 1952.

E. E. Greeson  
Reporter

MR. SPURRIER: We will move on to Case 447.

(Mr. Graham reads the notice of publication.)

MR. SANDERS: I am H. W. Sanders with Continental Oil Company.

I have one witness I would like to swear, please.

This is an application to dually complete the J. T. Lynn A-28 No. 5 well. This application is somewhat different to the ordinary request for dual completions in that this is now a gas well and we are asking permission to deepen it and dually complete it as a gas and oil well.

WILLIAM RANDOLPH,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. SANDERS:

Q Will you state your name, please?

A William Randolph.

Q By whom are you employed?

A Continental Oil Company.

Q In what capacity?

A District Engineer for the New Mexico District, offices at Hobbs.

Q Have you ever qualified as an expert witness before this Commission?

A I have not.

Q Will you tell the Commission what college education you have had?

A I graduated from the University of Texas in 1942 with a Bachelor of Science degree in petroleum engineering.

Q Now, how many years of experience have you had as a petroleum engineer?

A Approximately five years since August of 1947 in the Hobbs district.

Q You have had all your experience as a petroleum engineer in the Hobbs district of Lea County?

A That is correct.

Q And other counties in southeastern New Mexico?

A That is correct.

MR. SANDERS: Is the Commission satisfied with his qualifications?

MR. SPURRIER: They are.

Q Now, Mr. Randolph, will you give a short history of this well, please?

A Continental Oil Company's J. T. Lynn A-28 No. 5 is located 660 feet from the north and east lines of Section 28, Township 23 South, Range 36 East, Lea County, New Mexico, and is in the Cooper-Jal Pool. It was initially completed on March 1st, 1942, for a potential of 54,000 MCF gas per day.

The well is producing Yates gas from the open hole section between the base of the 7-inch casing cemented at 2926 feet with 525 sacks of cement and the total depth of 3276 feet. A surface string of 10 3/4 inch casing was set at 369 feet and cemented with 250 sacks of cement which circulated.

A back pressure test was taken on this well on May 23rd, 1952, which indicated an open flow potential of 6800 MCF gas per day and the shut in pressure at that time was 734 psi. On October 20, 1952, the well head pressure was 732 psi.

Q Now, you have a copy of Continental's Exhibit 1, do you not?

A Yes, sir.

Q Will you explain to the Commission the contents of that exhibit?

A Exhibit 1 is a plat showing the location of the Lynn A-28 No. 5, designated by a red circle and the surrounding wells and leases. The acreage colored in yellow is Continental operated acreage. Also on this plat is a structural interpretation of the area contoured on top of the Yates.

Q You have before you a copy of Continental's Exhibit 2, do you not?

A I do.

Q Will you explain it to the Commission?

A It is a log comparison of three wells which as shown on Exhibit 1 have, or are believed to have, comparable structural positions. The wells included are the Texas Pacific Col and Oil State "A" Account 1 No. 8, located in the southwest quarter of the southeast quarter of Section 21, Township 23 South, Range 36 East; the Gackle Etz No. 2 located in the northwest quarter of the southwest quarter of Section 27, Township 23 South, Range 36 East; and the Continental Lynn A-28 No. 5. The two offsetting wells are now producing or have produced oil from the Seven Rivers formation from the intervals as shown on the log comparison.

This log comparison consists of the radioactivity surveys of the two offsetting wells and the sample description of the Lynn A-28 No. 5. It was necessary to use the sample description on the Lynn well as at the time the well was drilled radioactivity surveys were not available.

This log comparison shows the Lynn A-28 No. 5 can be completed in the same zone of the Seven Rivers as the Gackle Etz No. 2 is producing from by deepening approximately 100 feet.

4 Q Now, you have a copy of Continental's Exhibit 3 before you, do you not?

A I do.

Q Will you make a statement concerning that exhibit and then a statement to the Commission telling how we propose to dually complete this well?

A Exhibit 3 is a plat showing the present mechanical condition of the Lynn A-28 No. 5 and the mechanical condition of the well after the proposed dual completion.

To develop the Seven Rivers oil reserves believed to exist below the present total depth of our well and produce the Yates gas reserves, it is proposed to dually complete the J. T. Lynn A-28 No. 5 as a Yates gas well and a Seven Rivers oil well in the following manner:

1. Set a retainer in the base of the 7 inch casing with 1,000 pounds pressure and repair any leaks by squeeze cementing until a satisfactory pressure test is obtained.

2. Deepen approximately 100 feet to total depth of 3376 feet and drill stem test the oil zone of the Seven Rivers.

3. Set sufficient 5-inch OD casing to provide 30 feet of overlap above the base of the 7-inch casing and cement with sufficient cement to return to above the top of the liner. After 48 hours, drill out the cement plug in the liner to the casing shoe and pressure test the liner with 1000 pounds pressure. Perform any additional squeeze cementing which may be necessary until a satisfactory pres-

sure test is obtained.

4. Run a radioactivity survey.

And since we have only a sample description of the well at this time, we will submit a copy of the radioactivity log to the Commission after we have completed this work.

5. Selectively perforate the liner opposite the Seven Rivers oil zone as determined from the drill stem test, sample description and the radioactivity survey and acidize if necessary to produce the interval opened to production.

6. Set a 5-inch Baker Model "D" retainer production packer approximately 10 feet above the top of the perforated interval.

7. Perforate the Yates gas section between 3050 feet and 3200 feet.

8. Run tubing with side door choke and complete the well so there can be no co-mingling of well fluids in producing the Yates gas from the annulus between the casing and tubing and Seven Rivers oil through the tubing. The well head will be equipped with all necessary connections to permit accurate measurement of any natural gas, oil, or oil and gas produced from each separate zone as may be required by the Commission.

9. Perform and report the results of any and all

surveys and tests, including segregation tests, as may be required by the Commission and in such a manner as the Commission may designate.

That is so much for the manner in which we propose to dual it. One other thing. The mechanical equipment to be used in this dual completion is the same as has been approved previously by the Commission on numerous similar applications. And in this completion method, we propose, it will allow both zones to be produced to depletion as the gas zone is expected to flow to depletion, and the oil zone can either be pumped or gas-lifted whenever artificial lift becomes necessary.

MR. SANDERS: We do not have any further questions. Does the Commission have any questions?

MR. MACEY: Mr. Randolph, is there a possibility of getting a gas well in the Seven Rivers, is there a possibility?

A There is a possibility, it is true.

MR. MACEY: Would you still want to dual the well if you get a gas well in the Seven Rivers?

MR. SPURRIER: Don't make him commit himself.

A We would like to waive decision on this until such time --

MR. MACEY: You would want to come back in. In other words, your dual would be specifically for oil in the

Seven Rivers?

A That's right.

MR. SPURRIER: Any questions of the witness?

MR. GRAHAM: You are familiar with the usual type of dual completion order issued normally by the Commission?

A Yes, sir. We have had additional previous completions.

MR. SANDERS: We have nothing further.

MR. SPURRIER: The witness may be excused.

The case will be taken under advisement. And we will move on to Case 448.

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