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

EXAMINER HEARING

IN THE MATTER OF:

Application of Leonard Oil Company for a triple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its Federal Ginsberg Well No. 11. located in Unit E, of Section 31, Township 25 South, Range 38 East, Lea County, New Mexico, as a triple completion (conventional) in the Justis Blinebry Pool, in an undesignated Tubb Pool and in the Justis Fusselman Pool, with production of oil from the Tubb and Fusselman zones to be through parallel strings of 2 3/8-inch tubing and the production of oil from the Blinebry zone through a string of 2 1/16-inch tubing.

CASE 2419

BEFORE: Mr. Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

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

MR. RUSSELL: John V. Russell of Campbell and Russell, appearing for the applicant. I have one witness, Mr. Fowler Hix.

(Witness sworn.)



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FOWLER HIX

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

DIRECT EXAMINATION

BY MR. RUSSELL:

- Q Will you please state your name, residence, employer, and the capacity in which you are employed?
- A Fowler Hix, General Manager for Leonard Oil Company in Roswell.
- Q Have you previously qualified to give expert testimony before this Commission?
 - A Yes.
- Q You are acquainted with the application in this case, are you not?
 - A Yes. sir.
- Q What does the applicant seek to obtain through this application?
- A The applicant seeks to obtain permission to triple complete our Federal Ginsberg No. 11 well from the Justis Bline-bry undesignated Tubb and Justis Fusselman Pools, through parallel strings of tubing. The Justis Blinebry being 2 1/16 tubing, and the Tubb and Fusselman being 2 3/8 OD tubing.
 - Q Now, did you prepare Exhibit 1 which consists of



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A Yes.

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

Q Referring to the first page, will you explain that portion of your exhibit?

A Page 1 of Exhibit 1 is a plat of a portion of Southeast Lea County showing Section 31, which is Leonard's Federal Ginsberg lease which is outlined in red. The No. 11 well, which is in Unit E, located 1815 feet from the North line and 33 from the West line, is the well which we're asking to triple complete.

- Q What section, township, range is that?
- A Section 21, Township 25 South, Range 38 East.
- Q This exhibit also shows the offset wells?
- A Yes, it shows the offset wells, which several of those have been dually completed, none of which have been triply completed.
- Q Now, referring to the second page of the exhibit, will you explain that to the Commission?
- A Page 2 is a diagrammatic sketch of the mechanical installation of our proposed triple completion. By referring to this diagrammatic sketch precisely, I would like to give you a brief explanation of what we have done toward testing these zones.



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We'll use the diagrammatic sketch in some instances. set 9 5/8 casing at 915 feet with 450 sacks of cement, and cement was circulated to the surface and then 8 3/4 hole was drilled to 5650, at which point we set 7-inch casing with 650 sacks. top of the cement from temperature survey was 2350.

Then we drilled a 6 1/4 hole to 6977, at which point we set a 42-inch liner with 150 sacks and cement was circulated to the top of the liner, and approximately 20 sacks of cement were reversed off the top of the liner.

The top of the $4\frac{1}{2}$ -inch liner is at 5527. After the cementing, and we drilled out to 6973, perforated the Fusselman from 6938 to 53, and 6957 to 72; then we set with 2 3/8 tubing the Brown BP4 packer, which is shown at 6903, and acidized these perforations with 500 gallons of mud acid, and it tested 120 barrels of oil in 24 hours, GOR 451 to 1. Gravity, 36.7.

After testing the Fusselman perforations, this Brown BP4 packer is of the type which you can set a tubing plug in the top of the backer through the tubing. We set the tubing plug in the packer, and then unlatched from the packer; prior to unlatching. from the packer we bled the pressure off to make sure that the plug was holding, then unlatched from it and removed the tubing from the hole. And, at that time, the BP4 was serving as a bridge plug. Then we perforated the Tubb 5709 to 13, 5831 to 43.



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We set a 7-inch BP4 packer, which it won't be shown on this diagram because it was just during the testing, but the packer was set at approximately 5500, and treated the perforation with 500 gallons of mud acid, tested 150 barrels of oil in 24 hours, GOR 548 to 1, gravity 36.1.

The purpose of setting the 7-inch packer at 5500 rather than setting a $4\frac{1}{2}$ -inch packer near the perforations was that with this $4\frac{1}{2}$ -inch liner, when we mutually completed, of necessity we are going to have to have our top packer above the liner, so we tested it under the conditions that we would have to produce it after the mutual completion.

After we tested the Tubb, we went through the same procedure in setting the tubing plug in the top of the 7-inch BP4 as we did the lower one, unlatched from the BP4, perforated the Blinebry 5265 to 74, 5423 to 27, and 5444 to 48. Treated the Blinebry with 22,000 gallons of refined oil, 45,000 pounds of sand. After recovering the load oil, tested 178 barrels of oil in 24 hours, GOR 500 to 1. The gravity, 37.4.

After the Blinebry was tested, we killed the Blinebry with 9.8 pounds per gallon kinex mud washed down to the BP4 packer at 5500 the 7-inch, retrieved from the hole, and when we released the BP4 packer at 5500, the mud which we killed the Blinebry with also served to kill the Tubb with after removing the packer.



After that, the only thing that was in the hole at that time would be this BP4 packer at 6903, which was serving as a bridge plug. As you will note, it has two joints of tail pipe on it, because the Fusselman tubing is set at 6698; after that we installed the equipment as shown on this diagrammatic sketch, with the BP4 at 6903, the Fusselman tubing is 2 3/8 OD tubing which has turned, it's just EUE tubing with turned and bevelled couplings.

You'll note that there is a PSI sliding sleeve at 6897. The purpose of this sleeve is that in case we wish to retrieve this packer from the hole at a later date, we can shift the sleeve and circulate at that point which is within six foot of the packer, and can probably unlatch from the packer then and circulate any sand or debris that's on top of the packer.

The seating nipple is at 6887, our dual packer, which is run on the long string and set with the second string, is at 5497. It's a TIW dual packer, which has a sheer pin setting device. From there to the surface is 2 3/8ths tubing. The Tubb tubing is 2 3/8 OD, EUE, with turned and bevelled couplings setto 5501, and is latched into the IW packer and is set, the TIW packer is set by the weight of the Tubb tubing.

You will note on the bottom of the Tubb stripping there is a 2 3/8 by $1\frac{1}{2}$ -inch landing nipple at 5501. The purpose of this



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nipple, it was installed in case that at a later date we develop a leak which we couldn't determine whether it was a packer leak or tubing leak, we could set a plug in the nipple and test the pressure leak. We have a sliding sleeve at 5494, the purpose which is the same as the bottom one, so that we could open the sleeve and circulate any debris off this dual packer.

The seating nipple at 5464, and 2 3/8 tubing from there to the surface. Then, our Blinebry oil string is 2 1/16 OD, it's CS hydril, to 5556, which is bull plugged. Tubing perforations, 5221 to 26, seating nipple at 5220.

I might also add that in the Fusselman tubing, the tubing between the two packers is 2 3/8 OD CS hydril. We installed the hydril so we would have more clearance within the liner in case sometime we might have to wash over.

Q If this application is approved, will there be any commingling of the oil after it's produced?

A No. We produce into separate tankage at the surface.

MR. RUSSELL: I would like to offer into evidence

Exhibit 1.

MR. NUTTER: Leonard's Exhibit No. 1 will be admitted into evidence.

MR. RUSSELL: I have no further questions.

MR. NUTTER: Does anyone have any questions of Mr. Hix



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He may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further. Mr. Russell? MR. RUSSELL: Nothing further unless it would be necessary that I formally request that Case No. 2420 be dismissed at this time.

MR. NUTTER: We will call that in just a minute. Does anyone have anything they wish to offer in this case? We'll take this case under advisement and call Case 2420. STATE OF NEW MEXICO SS

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

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 2nd day of November, 1961.

My commission expires:

COUNTY OF BERNALILLO)

June 19, 1963.

ability.

I do hereby certify that the foregoing is a couple e replace of the propositi the Examiner hearing

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