

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO
Santa Fe, New Mexico

March 19, 1958

TRANSCRIPT OF HEARING

Case 1396

DEARNLEY - MEIER & ASSOCIATES
INCORPORATED
GENERAL LAW REPORTERS
ALBUQUERQUE - SANTE FE
3-6691 2-2211

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO
Santa Fe, New Mexico

March 19, 1958

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IN THE MATTER OF: :

Application of Continental Oil Company for a dual :
completion. Applicant, in the above-styled cause :
seeks an order authorizing the dual completion of :
its Hawk B-3 Well No. 4 located 1980 feet from : Case No.
the North line and 660 feet from the East line of : 1396
Section 3, Township 21 South, Range 37 East, Lea :
County, New Mexico, in such a manner as to permit :
the production of oil from the Terry-Blinebry Oil :
Pool and gas from the Tubb Gas Pool through para- :
llel strings of tubing. :

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BEFORE: Mr. Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

MR. PAYNE: Application of Continental Oil Company for a
dual completion.

MR. KELLAHIN: If the Commission please, Jason Kellahin,
Kellahin and Fox, Santa Fe, New Mexico, representing the applicant,
Continental Oil Company. We will have one witness, Mr. V. T. Lyon.

(Witness sworn.)

V. T. LYON

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

DIRECT EXAMINATION

By MR. KELLAHIN:

Q Would you state your name, please?

A V. T. Lyon.

Q By whom are you employed? A Continental Oil Company.

Q In what position? A Acting District Engineer.

Q For what district?

A Eunice District, located in Eunice, New Mexico.

Q Mr. Lyon, have you previously testified before this Commission as an expert engineer and had your qualifications accepted?

A Yes, sir.

MR. KELLAHIN: Are the witness's qualifications acceptable?

MR. NUTTER: They are.

Q Are you familiar with the application in Case 1396?

A Yes, sir.

Q What is proposed in that application?

A This is Continental's application for authority to dually complete our Hawk B-3 No. 4 Well located in Section 3, Township 21 South, Range 37 East, Lea County, New Mexico.

Q Now, referring to what has been marked as Exhibit No. 1, will you state what that is?

A Exhibit No. 1 is a plat of the Hawk B-3 lease and the immediately surrounding area. The plat is prepared on a scale of one inch to two thousand feet. It shows the lease outlined in red, the lease incidently consists of three separate tracts; the tract which we are presently concerned with is the northern tract

which consists of lots 1, 2, 3, 4, 7 and 8. The plat also shows the No. 4 Well circled in red. It shows the contours of the Blinebry marker contoured on an interval of 25 feet. Terry-Blinebry oil wells are shown by the usual oil well symbol. Blinebry gas wells are shown by the gas well symbol.

Q Where is the Hawk B-3 No. 4 located?

A It is located 1980 feet from the North line, 660 feet from the East line of Section 3, Township 21 South, Range 37 East.

Q Now, referring to Exhibit No. 1, does that indicate that the Hawk B-3 Well No. 4 is favorably located for the production from the Terry-Blinebry Oil Pool? A Yes, sir.

Q Now, referring to Exhibit No. 2, will you state what that is?

A Exhibit No. 2 is a plat showing approximately the same area and on the same scale as Exhibit No. 1. It shows the lease outlined in red, the No. 4 Well circled in red, it shows the contours of the Tubb marker on the contour interval of 10 feet. It also shows the location of other wells in the area and Tubb producing wells are circled in green.

Q Now, is that well located favorably for Tubb production in your opinion? A We believe that it is.

Q Do you know what characteristics of production you might find in the Tubb?

A Well, we believe that it will be oil or gas.

Q Then you want an order that would be broad enough to allow

the production by dual completion of either oil or gas from the Tubb, is that correct? A Yes, sir.

Q Now, with the proposed method of completion, will both zones be produced sufficiently?

A Yes, sir. We propose to complete the well with parallel tubing strings so that each zone will be produced through tubing, which we believe is as efficient as if the wells were single completions.

Q Referring to Exhibit No. 3, would you state what that is?

A Exhibit No. 3 is a copy of the radioactivity log on this well and shows the present perforations in the Drinkard Formation, the proposed perforations in the Tubb, and the proposed perforations in the Blinebry. It also has indicated on it the Blinebry marker, the Tubb marker and the top of the Drinkard Formation.

Q Now, are those perforations so located that they will be within the defined vertical limits of the Tubb Gas Pool and the Terry-Blinebry Oil Pool? A Yes, sir, they are.

Q Referring back to Exhibits Nos. 1 and 2, is the well located and the acreage to be dedicated thereto located within the horizontal limits of the two pools involved?

A Yes, sir.

Q Now, referring to Exhibit No. 4, would you state what that is?

A Exhibit No. 4 is a schematic diagram showing the present

condition of the well and the proposed dual completion. At present the well is perforated in the Drinkard, but the well is dead and is shut in. It has been shut in for some time. On the right the schematic diagram indicates that a cement retainer will be set at approximately 6580 and the present perforations will be squeezed. We propose then to perforate the Tubb in the interval shown and treat and test. We will then set a retrievable bridge plug above the plug perforating the Drinkard in the interval shown, treat and test the Drinkard.

Q You say the Drinkard. You mean the Blinebry?

A Pardon me, the Blinebry. We will then remove the retrievable bridge plug, run a Baker Model 415 D packer at approximately 6280, run two inch tubing through the packer and then a short string of tubing which will be either ~~hydrill~~ or tubing with turndown couplings alongside, swab both zones off and place on production.

Q The type of production packer you contemplate using, is it such that it will achieve complete separation between the two zones?

A Yes, sir.

Q There is no danger of communication?

A No, sir. Of course a packer leakage test will be run and we will be assured there is no leakage across the packer.

Q With that type of completion is it possible for you to make all the tests that may be required by the Oil Conservation Commission?

A Yes, sir.

Q Referring to Exhibit No. 5, will you state what that is?

A Exhibit No. 5 is a drawing of the tubing hanger and well head assembly which we propose to use on this well. The proposed equipment is adequate to maintain complete separation of the fluids produced from both zones and will enable us to take all tests required by the Commission.

Q Will there be separate production and measurement of the fluids from the two zones with this type of completion?

A Yes, sir.

Q In your opinion will this proposed dual completion result in the economical recovery of oil or gas or both from these zones?

A Yes, sir.

Q And would it be economical to produce both zones with a single completion?

A Well, since we haven't tested the Tubb, it would be difficult to say, but in my opinion economic recovery of the Tubb would be extremely doubtful.

Q Is this proposed dual completion in the interest of the prevention of waste and the protection of correlative rights?

A Yes, sir.

MR. KELLAHIN: At this time we would like to offer in evidence Exhibits 1 through 5 inclusive.

MR. NUTTER: Is there an objection to the introduction of Continental's Exhibits 1 through 5? If not they will be admitted.

Q Do you have anything further you want to add?

A I believe not.

MR. KELLAHIN: That completes our case.

MR. NUTTER: Any questions of the witness? Mr. Cooley.

CROSS EXAMINATION

By MR. COOLEY:

Q Mr. Lyons, Section 3 in which the subject well is located is a correctional section of some sort, is it not?

A Yes, sir.

Q What is the acreage contained in that portion of the Hawk lease to the extreme northeast of the lease which would square off this area?

A You mean Lots 5 and 6?

Q It's difficult for me to tell. A The Shell lease.

Q It has four oil wells in that area.

MR. NUTTER: How would you define the acreage containing the four - forty acre tracts in the northeast part of Section 3, Mr. Lyon?

A Lots 1, 2, 7 and 8 would be equivalent to the Commission's designation of A, B, G and H.

Q Lots 1, 2, 7 and 8 contain 160 acres?

A Approximately.

Q Is there another Tubb completion in this area?

A No, sir. The nearest Tubb well is in Lot 16. That is our

Continental Hawk B-3 No. 1-T which is in the southern or southwestern tract of the lease.

MR. NUTTER: Mr. Lyon, in Exhibit No. 1 there are several wells on the plat that are indicated as Nos. 1, 2, 3, 4 and so forth.

A Yes.

MR. NUTTER: With the suffix TB, does that indicate Tubb or Terry-Blinebry?

A Terry-Blinebry.

Q Then this completion would constitute your last developmental well on that portion of the Hawk lease in the Terry-Blinebry?

A That's correct.

MR. COOLEY: No further questions. Thank you.

MR. NUTTER: Any further questions?

By MR. NUTTER:

Q Mr. Lyon, as I understand it, you want an order broad enough to provide for the dual completion of an oil well in the Terry-Blinebry Pool and a gas well or an oil well in the Tubb Pool?

A Whichever we find in there we would like to have permission to produce.

Q Which do you feel is the more likely production to obtain?

A The Tubb is quite erratic. I'm afraid I would be sticking my neck out too far to make a prediction as to which it would be. We drillstem tested the Tubb when the well was drilled, and it produced a small quantity of gas. However, upon stimulation it very well could produce oil. We just don't know.

Q Do you feel that this proposed dual completion is efficient as a gas-oil or gas-gas dual completion, either one?

A Yes, sir.

Q I mean as an oil-oil or an oil-gas.

A I feel whether you produce oil or gas from either zone, that it is equally efficient as a single completion.

Q Very good. I notice, Mr. Lyon, on your Exhibit No. 4 that you propose to use in the dual completion two inch "EUE" tubing and two inch hydril.

A Yes, that is the way the schematic indicates it. However, we may substitute turndown couplings for the two inch hydril.

Q Is this the normal size of the two inch or would that be two and sixteen inch?

A The normal sized OD is two inch.

Q For the hydril? A I am not sure.

Q What type of joint hydril tubing would this be?

A The normal hydril joint.

Q CS joint?

A You have got me there. I'm not sure.

Q The tubing wouldn't be any smaller than two inch, however?

A No. Actually this is twenty-three pound seven inch casing and there is room for the couplings on full size two inch EUE tubing to pass. However, for ease in running we propose to use hydril or turndown couplings.

Q Is the Drinkard Formation in this well completed?

A Yes, sir.

Q And when was it shut in?

A It is indicated on the bottom of Exhibit No. 3 I think. No, it isn't. It has been shut in for several months at least.

Q It was shut in as a result of 100% water production, is that correct?

A Correct.

Q Mr. Lyon, would the internal diameter of the two inch hydril tubing be the same as the internal diameter on the two inch EUE tubing?

A I don't believe I have that information with me, but I'm reasonably certain there is not a great deal of variation.

Q Would you furnish us with the actual size and type of tubing strings that may be inserted in this well at your earliest convenience?

A The ones that possibly may be or the ones we proposed?

Q Yes, the actual internal diameter of the two inch hydril and the internal diameter of the two inch EUE which you suggest may be used as an alternative.

A Yes, sir, we will do it.

MR. NUTTER: Any further questions of Mr. Lyon? Does anyone have anything further to offer in Case 1396? If not we'll

