EXAMINER HEARING OIL CONSERVATION COMMISSION Santa Fe, New Mexico May 6, 1958

IN THE MATTER OF: Case No. 1425

TRANSCRIPT OF PROCEEDINGS

DEARNLEY - MEIER & ASSOCIATES
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ALBUQUERQUE. NEW MEXICO
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NEW MEXICO OIL CONSERVATION COMMISSION

Mabry Hall

Santa Fe , NEW MEXICO

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NEW MEXICO OIL CONSERVATION COMMISSION

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EXAMINER HEARING OIL CONSERVATION COMMISSION Santa Fe, New Mexico May 6, 1958

IN THE MATTER OF:

Application of Continental Oil Company for a non-standard gas proration unit. Applicant, in the above-styled cause, seeks an order establish-) Case 1425 ing a 160-acre non-standard gas proration unit in) the Tubb Gas Pool consisting of the E/2 E/2 of Section 14, Township 21 South, Range 37 East, Lea County, New Mexico, said unit to be dedicated to the applicant's Lockhart B-14 "A" Well No. 2, located 660 feet from the South and East lines of said Section 14.

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF PROCEEDINGS

MR. NUTTER: The hearing will come to order, please. The first case on the docket this morning will be Case 1425.

MR. PAYNE: Case 1425: Application of Continental Oil Company for a non-standard gas proration unit.

MR. FOX: I would like to enter the appearance of Kellahin and Fox, appearing by Robert Fox. I would like to call Mr. Lyon.

(Witness sworn.)

VICTOR T. LYON

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

DIRECT EXAMINATION

By MR. FOX:

- Q State your name, please?
- A Victor T. Lyon.
- Q By whom are you employed, Mr. Lyon?
- A Continental Oil Company.
- Q What is your position?
- A Acting district engineer.
- Q Have you testified before the Commission previously as an expert petroleum engineer?
 - A Yes, sir.
 - Q And have your qualifications been accepted by the Commission?
 - A Yes, sir.
- MR. FOX: Does the Examiner accept the qualifications of Mr. Lyon?
 - A MR. NUTTER: Yes, sir, he may proceed.
- Q Are you familiar with the application in Case 1425 before the Commission?
 - A Yes, I am.

(Continental's Exhibits 1, 2, 3, & 4 marked for identification.)

- Q Will you describe the nature of the application, Mr. Lyon?
- A This is Continental's application for approval of a 160-acre non-standard gas proration unit in the Tubb Pool for our Lockhart B-14 "A" No. 2, which is located 660 feet from the south and east

lines of Section 14, Township 21 South, Range 37 East, Lea County, New Mexico. The reason this is a non-standard unit is that it is requested to consist of the East Half of the East Half of the Section, which makes it a mile long.

Q Is Continental the operator of the Lockhart B-14"A" Lease involved in the application?

- A Yes, sir.
- Q Referring to Exhibit 1 -- those are all marked, are they?
- A They're in order. I don't believe they are marked.
- Q What is Exhibit No. 1?

A Exhibit No. 1 is a location and ownership plat of the Lockhart B-14 "A" lease and the immediately surrounding area. It shows the Lockhart B-14 "A" lease outlined in red, and the No. 2 well circled in red.

Q Does this exhibit show the lease ownership and the well locations in the vicinity of the proposed non-standard unit?

- A Yes, sir, it does.
- Q Referring to Exhibit 2, which is the contour plat, will you state what this shows, Mr. Lyon?

A Exhibit No. 2 is a plat of the same area shown on Exhibit No. 1, showing the structural contours of the Tubb formation on ten foot contour intervals. It also shows the Lockhart B-14 "A" lease outlined in red, the No. 2 well circled in red. It shows the other producing Tubb wells in the area circled in green, and proration units allocated to those wells outlined in green.

Q Based on the information in this plat, can it reasonably be said in your opinion that all of the acreage which you propose to dedicate to the well in question is productive of gas from the Tubb Gas Pool?

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A In my opinion it is productive of gas in its entirety.

Q In regard to this pool and this unit, is the proposed unit within the horizontal limits of the Tubb Gas Pool as defined by the Commission?

A If my nomenclature list is correct, this well, or this unit is outside the presently defined Tubb Gas Pool. I believe that in this section, the West Half of the section is included in the Pool. The East Half is not.

Q Referring to Exhibit 3, which is the log, what does this exhibit show, Mr. Lyon?

A Exhibit No. 3 is a copy of the radioactivity log which was run on this well, and the top of the Blinebry formation and the top of the Tubb formation and the top of the Drinkard formation and the perforations in the Tubb formation are shown by redpencilled notations.

- Q Is this particular well a dual completion well?
- A Yes, sir, it is.
- Q In what formation is the well completed?

A It's completed in the Tubb formation for gas and in the Blinebry formation for oil, producing from the Terry-Blinebry Oil Pool.

- Q As it is presently completed, is it located within the vertical limits of the Tubb Gas Pool, as defined by the Commission?
 - A Yes, it is.
 - Q Now, referring to Exhibit 4, what does this exhibit show?
- A Exhibit No. 4 is a copy of the Commission's Form C-122 showing the result of a multi-point back pressure test on this well. Actually we were unable to get the points to line up on this well, and therefore an extrapolation at a 45-degree angle was drawn through the 20-hour rate of flow, and this exhibit shows the deliverability at 600 pounds to be 2,370 mcf per day; deliverability of 150 pounds to be 2,630 mcf per day. I think this is quite conservative because some of the shorter flow rates were actually in excess of this.
- Q In your opinion, if this application is approved, is this well capable of producing 160-acre allowable from the Tubb Gas Pool?
 - A Yes, sir, in my opinion it is.
 - Q Is this unit within one Section?
 - A Yes, sir.
 - Q Is it composed of contiguous quarter-sections?
 - A Yes, it is quarter-quarter sections.
 - Q Does it exceed in length or width 5,280 feet?
 - A It is 5,240 feet in length.
- Q Is the entire acreage in your opinion reasonably presumed to be productive of gas?

A It is.

Q Were all of these Exhibits 1 through 4 prepared by you or under your direction and supervision?

A Yes, they were.

MR. FOX: If the Examiner please, I would at this time like to offer Exhibits 1 through 4 in evidence.

MR. NUTTER: Is there objection to the introduction of Continental's Exhibits 1 through 4? If not, they will be received.

Q Is the approval of the application in the interest of preventing waste and the protection of correlative rights?

A Yes, sir.

MR. FOX: That's all we have.

MR. NUTTER: Does anyone have any questions of the witness

CROSS EXAMINATION

By MR. NUTTER:

Q What evidence do you have that the 80-acres in the northern-most portion of this unit is productive from the Tubb?

A If you will notice, the lowest contour line which passes through the Magnolia Williamson lease goes through the northern part of that 80 acres, so we feel quite certain that at least the Tubb is productive to that point, and we feel that it is productive below that, also.

- Q What control did you have in drawing your contour lines?
- A We have --
- Q (Interrupting) Are there any Tubb wells to the north of

this well?

- A Not immediately, no.
- Q Did you have any tops for the Tubb formation in Section 11 or the northeast corner of Section 14?

A I am not certain what formations these wells are producing from except on those four leases. I believe that the Western Oil Field Bunin No. 1 is producing from the Drinkard, but I'm not certain. Actually these contours were given to us by our geologists.

- Q What is the lowest contour that is shown on this plat that is a gas producing zone in the Tubb formation, Mr. Lyon?
 - A Sir?
- Q What is the lowest contour on this plat that goes through a well which is producing from the Tubb formation?

A I believe that the Magnolia Williamson is the lowest well, which is producing from approximately a minus 2695. Also, let me point out, if I may, that our No. 1-D on the Lockhart B-14 "A" is a Drinkard well and of course we have a Tubb top on it.

- Q However, the contour that goes through your No. 1-D is outside the Magnolia Williamson unit, is it not?
 - A Yes, it is. We haven't tested the Tubb in that well.
- Q So without any control to positively indicate that the Tubb is productive, your assumption that the northernmost 80 acres in this proposed unit is based on a certain amount of conjecture, is it not?
 - A No, I don't believe it is. If you will note, these contour

intervals are ten feet, so there's only about 30 feet structural difference shown on this plat throughout this lease.

- Q What's the total interval that you have perforated in this well?
 - A There is an interval of approximately 50 feet.
- Q Mr. Lyon, has any effort been made to communitize the 80 acres in the East Half of the Southeast Quarter of Section 14 with the West Half of the Southwest Quarter of Section 14?
 - A No, sir, I don't believe that there has been.
- Q So no effort has been made to form a standard unit for this well?

A No, sir, but may I point out that should this acreage be communitized in order to develop the entire lease, it would take two communitizations, one with Gulf and one with Shell.

MR. NUTTER: Are there any further questions of the witness?

MR. UTZ: Yes, I have one.

MR. NUTTER: Mr. Utz.

By MR. UTZ:

Q Did I understand you to say that the slope in excess of one was plotted on the data that you have submitted here from whatever exhibit it was?

A I don't believe I stated it was in excess of one. I said that we could not get the points to line up. I really didn't check the slope.

Q Do you happen to have a plat that you plotted the slopes oh?

- A Let me see if I have.
- Q What I am driving at, I think you plotted the points on the C-121 "C" and while there are only three outer points, the point is considerably less than point five?
 - A That is true.
- Q So that an O.F. based on 45-degree slope would be considerably in error?
 - A Yes, sir, it is considerably.
- Q Rather than one point zero, it ought to be on a point five so your points fell on less than point five?
- A Yes, sir. We drew it on a one point slope just to stay on the conservative side. It didn't line up on a point five slope
- Q I wouldn't say that was on the conservative; I would say it was on the other side of the conservative, too high.
- A I believe we had flow rates in excess of our calculated open flow.
- Q The pressure information you got gave you a bad figure; that is your reason for saying that 2650 is on the conservative side?
 - A Yes, sir.
 - Q In the flow rates?
 - A Yes.
 - Q It was not due to the point of alignment?
 - A That is true.
 - Q This slope that you have here is that last point stabilized,

- A Well, yes, sir, they were all stabilized.
- Q The last point of 2329 Q is stabilized?
- A Yes, sir.
- Q Then tell me why you drew the slope where you did.
- A We drew the slope through the 20-hour point which was the longest rate of flow, longest period of flow on one rate, and felt that it was the most representative.
- Q Perhaps I'm in error due to having plotted these real quick.

 I wonder if I gave you this, you would plot me that stabilized point; this being the stabilized point here, the 2329 and the 3181.

 The point I get is this one.
 - A Well, your Q here is only 200.
 - Q That's okay, I was too fast. That's all I have.

MR. NUTTER: Anything further, Mr. Utz?

MR. UTZ: No.

By MR. NUTTER:

Q In drilling its Continental Lockhart No. 1-D, was any gas encountered in the Tubb formation?

A Not to my knowledge. It's quite unusual to pick up traces of gas in the Tubb, because it has to be in nearly every case stimulated considerably in order to get it to produce.

Q No effort was made to see if there was any gas in the Tubb when that well was drilled?

A No, the Tubb was not under development at that time.

MR. NUTTER: Anyone else? If not, the witness may be excused.

(Witness excused.)

NEWS TO NEW

MR. NUTTER: Does anyone have anything further they wish to offer in Case 1425? If not, we will take the case under advisement.

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STATE OF NEW MEXICO)

COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in stenotype and reduced to typewritten transcript under my personal supervision, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this /2 day of May, 1958, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

NOTARY PUBLIC

My commission expires:

June 19, 1959.

I do hereby cartify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1933. heard by me on 1933.

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