# BEFORE THE OIL CONSERVATION COMMISSION STATE OF NEW MEXICO

TRANSCRIPT OF PROCEEDINGS
CASES NO. 412 & 413

October 15, 1952

Regular Hearing



#### BEFORE THE

# OIL CONSERVATION COMMISSION

STATU OF NEW MEXICO

Santa Fe, New Mexico. October 15, 1952.

#### 1: the Watter of:

Aztec Oil and Gas Company's application to dually complete Dauron No. 2, NE NE 10-218-37E, Lew County (Drinkard Pool)

Case No.

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413 Consolidated

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(Yotice of publication read by Mr. Graham.)

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- A Prentice R. Watts, Jr.

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# OIL CONSERVATION COMMISSION STATE OF NEW MEXICO

Santa Fe, New Mexico. October 15, 1952.

#### In the Matter of:

Aztec Oil and Gas Company's application to dually complete Dauron No. 2, NE NE 10-215-37E, Lea County (Drinkard Pool) and

Case No. 412

Aztec Oil and Gas Company's application to dually complete State No. 1, 4620' from N and E lines 2-21S-37E, Lea County (also Drinkard Pool).

413 Consolidated

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MR. DAVIS: Mr. Chairman, we also have Case No. 413 which has some of the same information for dual completion. If it is acceptable we will consolidate them and, I believe, expedite the hearing on two cases.

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# DIRECT EXAMINATION

## By MR. DAVIS:

- Q Will you please state your name for the record?
- A Prentice R. Watts, Jr.

Q Mr. Watts, I don't believe you have qualified as an expert witness before this Commission. Will you state briefly your qualifications to testify as an expert, giving your educational background and your employment for the last --

A (Interrupting) I graduated from Texas A & M and with bachelor of Petroleum in engineering in 1947. I was with Stanolind Oil and Gas Company for approximately four years as petroleum engineer and with Southern Union, or Aztec Oil and Gas Company for two years.

- Q Where are you located?
- A In Hobbs.

MR. DAVIS: His qualifications are acceptable?
MR. SPURRIER: They are.

- Q Mr. Watts, you are familiar with Aztec Oil and Gas Company's applications designated as Cases 412 and 413, are you not?
  - A Yes.
- Q Will you state briefly the general nature of these two applications?

A Yes. These applications to the Commission are seeking permission to dually complete the Aztec Oil and Gas Company Dauron Well No. 2, located in Section 10, Township 21 R-37. It is State No. 1, located in Section 2 of the same township and range, both in the north Drinkard Field, Lea County or the Drinkard Field.

- Q What is the method you propose for dual completion of the well?
  - A We propose to dually complete these wells and produce oil

from the Drinkard Zone, through the tubing, and gas from the Blinebry formation through the tubing casing annulus. We propose to do it in such a manner that there will be no co-mingling of oil and gas in the well bore.

Q Has this method been acceptable, the method we propose to use been acceptable to the Commission?

A Yes, there have been several cases before the Commission and approved by the Commission.

MR. DAVIS: We would like to offer this map as Exhibit 1 in both cases.

MR. SPURRIER: Without objection Exhibit No. 1 will be received.

(Marked Aztec's Exhibit No. 1, for identification and is hereto received in evidence.)

Q Mr. Watts, will you identify the information shown on this map?

A Yes, the two wells we propose to dually complete are indicated by the red arrows. They are in Section 2 and Section 10 and also on this map we show dual completions of other operators that have either been approved or actually are existing. We show both dual completions of Drinkard and Blinebry and the Drinkard formation and the Tubbs formation, which is also gas.

In addition to that there are wells, straight gas wells, from Blinebry formation and the Tubbs formation shown on the map. They are indicated by the red triangles or the green triangles.

Q What are the approximate depths that we find the oil in

the Drinkard formation and the approximate depths which we propose to dually complete in the Blinebry formation?

A Well, in this area the Blinebry is found at approximately 5,700 and the Drinkard at a depth of approximately 6,600. Specifically, in Dauron No. 2 we propose to produce the Blinebry through 5,680 to 5,710 and the Drinkard from 6,530 to 6,550 and 6,619 to 6,696. From the State No. 1 we propose to produce Blinebry through 5,680 to 5,710 and Drinkard oil through existing per 6,681 to 6,786.

Q Mr. Watts, will you state for the record the specific information as to, any additional information as to depths as well as completion data on the two existing wells? You have a diagram there too?

A Yes, I believe we can show the information by presenting the two exhibits, and I will go over what is on the diagram.

MR. DAVIS: I would like to have these introduced as Exhibits 2 and 3.

MR. SPURRIER: Without objection they will be received.

(Aztec's Exhibits No. 2 and 3 marked for identification and received in evidence.)

A First, let's consider the Dauron No. 2. It was originally completed January 16, 1951 at a total depth of 7,462. Five and a half inch casing was set at that depth with 500 sacks of cement and the well initially completed in the Drinkard Zone perforations I have outlined. At present it is producing 40 barrels per day flowing.

We propose to dually complete this well by setting a

Baker Model D retainer production packer at 6,510 and then perforating it, perforating opposite the Blinebry 5,680 to 5,710.

The Baker production packer will be set and the tubing will be run through the packer and sealed off in such a manner that there will be no co-mingling of the well flows in the well bore.

Similarly, State No. 1 will be dually completed. This well was originally completed June 17, 1949 at a total depth of 6,810 and 7 inch casing was cemented at that depth with 600 sacks. Current Drinkard is producing through perforation 6,681 to 6,786 and producing approximately 18 to 20 barrels a day. We propose to set a Baker production packer at 6,620 and run the tubing through the packer in such a manner that there will be no comingling of fluid in the well bore. The Blinebry will be perforated at 5,760 to 5,790.

- Q Have you run temperature surveys on these two wells?
- A Yes, we ran temperature surveys on both wells which indicated the cement behind the casing was well above the top of the Blinebry.
- Q Will those two wells be equipped so that tests may be made separately to show the reservoir pressure, both through the Blinebry and the Drinkard formations?
- A Yes, if the Commission desires the information, we can do it.
- Q Will it also be possible to install any kind of recording devices that may be necessary or requested by the Commission?
  - A Yes.

Q I believe you have already stated, in your opinion, by this method of dual completion there will be no co-mingling of the gas and oil in the well bore?

A That is true.

Q You are familiar with the orders previously issued by the Commission on other dual completions, are you not?

A Yes.

Q Is Aztec Oil and Gas Company prepared to accept a similar order in these cases and abide by the terms and provisions of such order?

A Yes.

MR. DAVIS: That is all.

MR. GRAHAM: On the plat there are three closely grouped wells. What is the significance of that? - The wells in Section 2?

A There are three wells of ours in that section, producing from five formations, the Drinkard, Amacee and Ellenburger.

Q (By MR. GRAHAM) Mr. Watts, let me ask you one other question. That by use of the dual completion method to produce gas from the Blinebry formation, is it not recognized that the company can save considerable money, both in drilling the well, or in the dual completion operations rather than drilling a new well as well as considerable amount of casing tubular goods?

A Yes.

Q Due to material shortage, that is a material fact in this case?

A Yes.

MR. GRAHAM: That is all.

MR. SPURRIER: Any question of this witness?

MR. MACEY: Are you being offset in either well by Blinebry gas?

A Not at present.

Q (By MR. NACEY) When you drilled your well - Let's take the State No. 1, when you drilled it did you drill stem the Blinebry Zone?

A We did not drill stem test the Blinebry in the State No. 1, although we did in other wells in that area and also I have looked at other information from other drill stem tests of other operators.

Q About the Dauron, did you drill stem that?

A Not the No. 2, Mr. Macey, however, we drill stem tested the No. 3 and it indicated gas in the Blinebry.

Q Did you get any oil on the drill stem tests in the Blinebry zone?

A Well, on the Dauron No. 3, which is 330 feet away from the Dauron No. 2, the drill stem test data on the Blinebry was an estimated one half million cubic feet of gas, with a half barrel per hour of distillate. It was 54 gravity. Further south on our Guttman 2, located south as I recall, the drill stem test on it was two million three hundred thousand gas, with a distillate that was too small to measure.

Q You are aware of the Fullerton producing a well in the

Blinebry Zone in southwest quarter of Section 1?

A Yes.

Q (By R. DAVIS) Mr. Watts, the information we have to date as to wells or tests made in the area there do not show too much oil in the Blinbry between our location and the present boundaries?

A No, some tests in the section - Section 2, have shown s small amounts in the Blinebry but other tests have been relatively bearing.

MR. GRAHAM: Those closely spaced wells, the different zones as constituting a fire hazard of any sort?

A No, sir, in that area almost all operators have three wells on each 40. They are different fields and in general the locations are from 150 to 330 feet apart.

MR. SPURKIER: Any further questions? If not the witness may be excused. Is there any other comment in this case?

(Witness excused.)

STATE OF NEW MEXICO )
: SS.
COUNTY OF BERNALILLO )

I hereby certify that the above and foregoing transcript of proceedings in Cases Nos. 412 and 413 Consolidated, taken before the Oil Conservation Commission on October 15, 1952, at Santa Fe, New Mexico, is a true and correct record.

Dated in Albuquerque, New Mexico, this 25th day of October, 1952.

Notary Public

My Commission Expires: June 19, 1955.