

Case No.

412

Application, Transcript,
Small Exhibits, Etc.

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF AZTEC)
OIL & GAS COMPANY FOR AN ORDER GRANTING)
PERMISSION TO DUALY COMPLETE ITS DAURON)
NO. 2 WELL, DRINKARD POOL, NE $\frac{1}{4}$ NE $\frac{1}{4}$ OF SEC-)
TION 10, TOWNSHIP 21 SOUTH, RANGE 37 EAST,)
N.M.P.M., LEA COUNTY, NEW MEXICO.)

CASE NO. 412

APPLICATION


Comes now Aztec Oil & Gas Company, Applicant, and respectfully petitions the Commission for the issuance of an order authorizing Applicant to dually complete its Dauron No. 2 well in the manner as hereinafter provided.

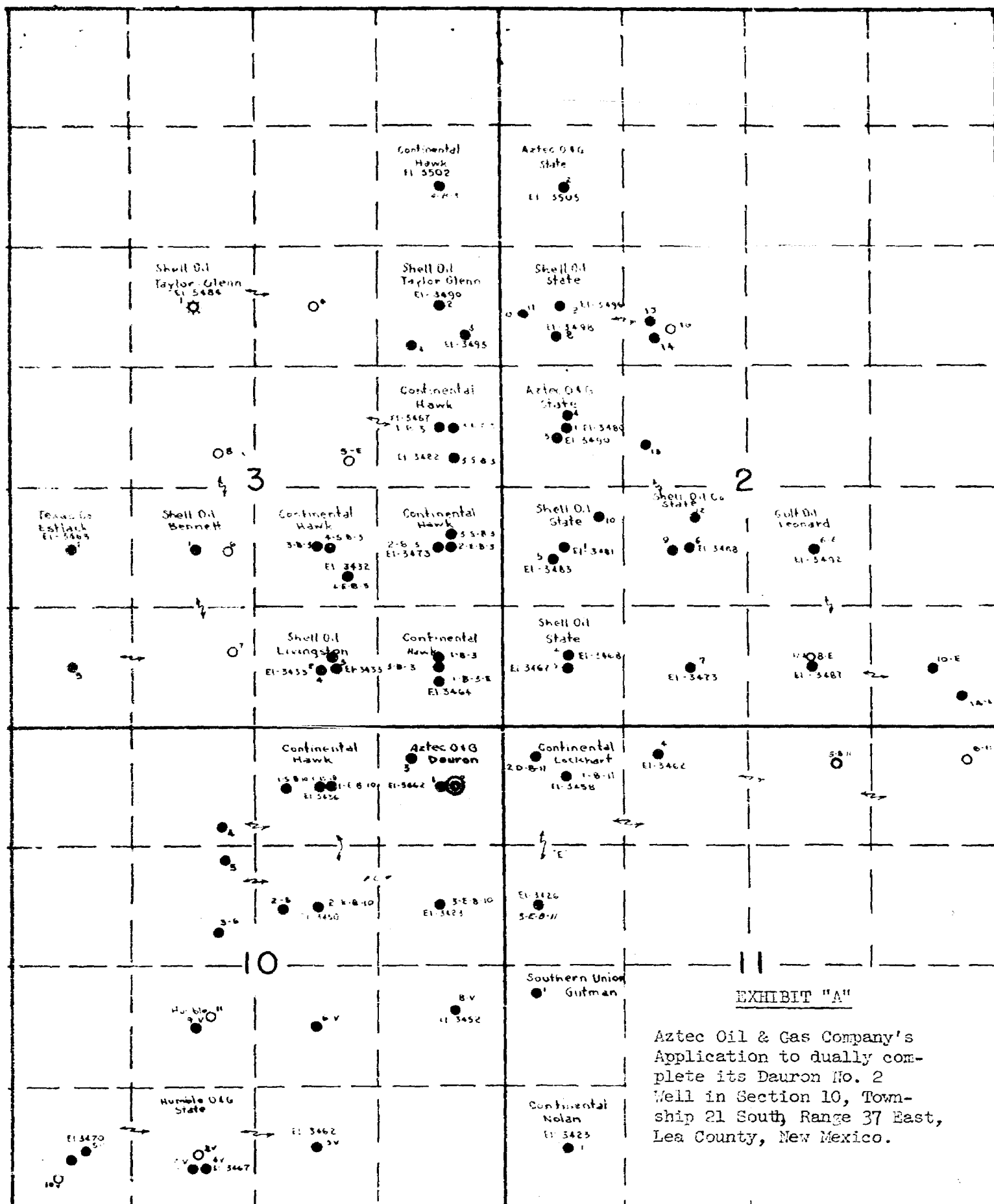
In support of the above, Applicant alleges and states:

1. That on January 16, 1951, Applicant completed its Dauron No. 2 well, located 660 feet South of the North line and 525 feet West of the East line of Section 10, Township 21 South, Range 37 East, N.M.P.M., Lea County, New Mexico.
2. That said well is capable of producing oil from the Drinkard formation between the interval of 6520 feet to 6710 feet.
3. That said well was drilled to a total depth of 7463 feet and is equipped with an intermediate string of 8-5/8" casing set at 2999 feet, cemented with 1700 sacks of cement, and a production string of 5-1/2" casing was set and cemented with 500 sacks of cement at 7462 feet.
4. Applicant represents that a high-pressure gas zone exists in the Blinebry formation in the area of Applicant's well and that such zone is producing gas from other dually completed wells in this area.
5. Applicant further represents that it is practical and economically feasible to dually complete its Dauron No. 2 well to produce oil from the Drinkard formation through the tubing, and gas from the Blinebry gas formation through the tubing-casing annulus with proper packing and wellhead connections, and in such manner that there will be no commingling of fluids between the two reservoirs.
6. The Applicant proposes to complete its Dauron No. 2 well in the Blinebry formation by perforation of the casing between the depths of 5680 feet and 5710 feet.
7. Attached hereto is a plat showing the location of the well proposed for dual completion and surrounding wells and leaseholds.

Wherefore, Applicant respectfully requests that this matter be set down for hearing; that notice thereof be given as required by law and the regulations of the Commission; and that upon final hearing this Commission enter an order authorizing Applicant to dually complete said well in accordance with the foregoing petition and the rules and regulations of the Commission.

DONE at Dallas, Texas, on this the 28th day of August, 1952.


Quilman B. Davis
Attorney for Aztec Oil & Gas Company



AZTEC OIL & GAS COMPANY

BURT BUILDING
DALLAS 1, TEXAS

September 5, 1952

Miss Nancy Royal
Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Nancy:

Thank you for your letter of September 2 concerning our applications for dual completion of Aztec Oil & Gas Company's Dauron No. 2 and State No. 1 wells in Lea County, New Mexico.

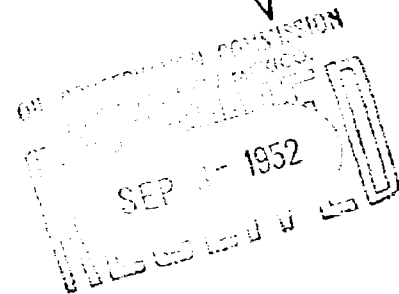
The setting of these two cases for the regular October 15 hearing is satisfactory unless you already have a special hearing scheduled for an earlier date.

With thanks and best personal regards, I am

Yours very truly,

Q. B. Davis

QBD:NL



OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

September 2, 1952

C
O
P
Y

Mr. Quilman Davis, Attorney
Astec Oil & Gas Company
Burt Building
Dallas 1 - Texas

Dear Mr. Davis:

Mr. Macey asked that receipt be acknowledged of your two applications for dual completion of Astec Oil and Gas Company's Dauron No. 2 and State No. 1 wells in Township 21 S, Range 37 E. Under the customary 30-day limit, legal notices for publication had already been issued for the September 16 hearing before your applications were received. However, these cases are set up for hearing at the regular October 15 hearing, if that is satisfactory, and proper notice will be issued. Mr. Macey is now attending the Compact Commission meeting in Banff, but will return later this week, in case you desire to contact him.

Very truly yours,

For W. B. Macey, Chief Engineer

WBM:nr

AZTEC OIL & GAS COMPANY
BURT BUILDING
DALLAS 1, TEXAS

*October
Hearing*

August 28, 1952

AIR MAIL
SPECIAL DELIVERY

Mr. William Macey
Oil Conservation Commission
Santa Fe, New Mexico

Dear Bill:

I am enclosing herewith two applications on behalf of Aztec Oil & Gas Company for dual completion of its Dauron No. 2 well and State No. 1 well which we would like to have set down for the regular hearing on September 15. Should there be any questions concerning these applications, do not hesitate to call me collect in Dallas.

With thanks and best personal regards, I am

Yours very truly,

Chilman

QBD:NL
Encs.

OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

October 28, 1952

C
O
P
Y

Mr. Quilman Davis
Artes Oil and Gas Company
Bart Building
Dallas, Texas

Dear Mr. Davis: RE: Cases 412 and 413

We enclosed official copies of Orders R-209 and R-210 as
issued in the above cases.

Yours very truly,

W. B. Macey,
Chief Engineer

WBM:mr

OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

September 25, 1952

C
O
P
Y

Mr. Quilman Davis
Astee Oil & Gas Co.
Burt Building
Dallas, Texas

Dear Mr. Davis:

Your two dual completion applications have been set for
the regular October 15 hearing as Case 412 (Duron No. 2)
and Case 413 (State No. 1).

Very truly yours,

W. B. Macey
Chief Engineer

WBM:mr

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF THE STATE OF NEW
MEXICO FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 412
ORDER NO. R-209

THE APPLICATION OF AZTEC OIL
AND GAS COMPANY FOR AN ORDER
GRANTING PERMISSION TO DUALY
COMPLETE AND PRODUCE ITS DAURON
NO. 2 WELL, IN THE DRINKARD POOL,
LOCATED IN THE NE/4 NE/4, SECTION
10, TOWNSHIP 21 SOUTH, RANGE 37 EAST,
NMPM, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a. m. on October 15, 1952, at Santa Fe, New Mexico, before the Oil Conservation Commission, herein-after referred to as the "Commission".

NOW, on this th20 day of October, 1952, the Commission, a quorum being present, having considered the records and the testimony adduced, and being fully advised in the premises,

FINDS:

(1) That due notice having been given as required by law, the Commission has jurisdiction of the case and the persons and subject matter thereof.

(2) That applicant's Dauron No. 2 Well, NE/4 NE/4, Section 10, Township 21 South, Range 37 East, NMPM, was completed in January 1951 as an oil well producing from the Drinkard formation through perforations (6619'-6696') having drilled through the Blinebry gas zone (5680'-5710').

(3) That although recent experiments tend to show that mechanical packers and other devices are ordinarily available for successful dual/multiple completions of oil - gas wells, the Commission is unconvinced of the soundness, as a waste-prevention measure, of such dual/multiple completions as a general practice in New Mexico without specific controls over each such project.

IT IS THEREFORE ORDERED:

That the applicant herein, Aztec Oil and Gas Company, be and it hereby is authorized to dualy complete and produce its Dauron No. 2 Well, NE/4 NE/4, Section 10, Township 21 South, Range 37 East, NMPM, in the Drinkard Pool, Lea County, New Mexico, in such a manner that gas from the Blinebry formation may be produced through the annular space between the casing and tubing, and oil from the Drinkard formation through the tubing by proper perforations and installation of proper packer or packers;

PROVIDED, HOWEVER, That subject well shall be completed, and thereafter produced, in such a manner that there will be no commingling within the well bore, either within or outside the casing, of gas, oil and gas, or oil produced from either or both of the separate strata, and,

PROVIDED FURTHER, That said subject well for dual completion and production shall be equipped in such a way that reservoir pressures may be determined separately for each of the two specified strata, and further, be equipped with all necessary connections required to permit recording meters to be installed and used, at any time, as may be required by the Commission or its representatives, in order that natural gas, oil, or oil and gas from each separate stratum may be accurately measured and the gas-oil ratio thereof determined, and,

PROVIDED FURTHER, That the operator applicant shall make any and all tests, including segregation tests, but not excluding other tests and/or determinations at any convenient time and in such manner as deemed necessary by the Commission; the original and all subsequent tests shall be witnessed by representatives of the Commission and by representatives of offset operators, if any there be, at their election, and the results of each test properly attested to by the applicant herein and all witnesses, and shall be filed with the Commission within ten (10) days after the completion of such test, and,

PROVIDED FURTHER, That upon the actual dual completion of such subject well, applicant shall submit to the Commission a diagrammatic sketch of the mechanical installation which was actually used to complete and produce the seal between the strata, and a special report of production, gas/oil ratio and reservoir pressure determination of each producing zone or stratum immediately following completion.

IT IS FURTHER ORDERED, That jurisdiction of this cause is hereby retained by the Commission for such further order or orders as may seem necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of applicant to comply with any requirement of this order after proper notice and hearing, the Commission may terminate the authority hereby granted and require applicant or its successors and assigns to limit its activities to regular single-zone production in the interests of conservation.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


EDWIN L. MECHEM, Chairman

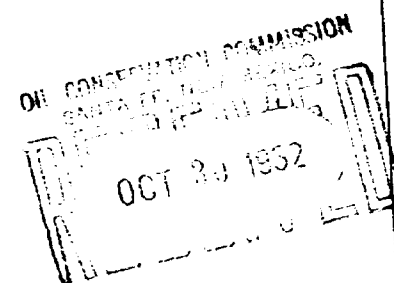

GUY SHEPARD, Member


R. R. SPURRIER, Secretary

STATE OF NEW MEXICO
COUNTY OF SANTA FE
SUPERIOR COURT

TRANSCRIPT OF PROCEEDINGS
CASES NO. 412 & 413

October 18, 1952
Regular Hearing



E. E. GREESON
ADA DEARNLEY
COURT REPORTERS
BOX 1303
PHONES 5-9422 AND 5-9547
ALBUQUERQUE, NEW MEXICO

BEFORE THE
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
10-21S-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

TRANSCRIPT OF HEARING

(Notice of publication read by Mr. Graham.)

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.

MR. SPURRIER: Very well.

PRENTICE R. WATTS, JR.

having been first duly sworn, testified as follows:

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

ADA DEARNLEY & ASSOCIATES
COURT REPORTERS
ROOM 105-103, EL CORTEZ BLDG.
PHONES 7-9645 AND 5-9546
ALBUQUERQUE, NEW MEXICO

from the Drinkard zone, through the Tubbs, and gas from the Blinebry formation through the Tubbs 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. SPURNIER: 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 is the same as the one which we propose to drill complete in the Alibey formation?

A Well, in this area, the Alibey is found at approximately 5,700 and the Drinkard at a depth of approximately 6,600. Specifically, in Dauren No. 2 we propose to produce the Alibey through 5,680 to 5,710 and the Drinkard from 6,520 to 6,640 and 6,619 to 6,696. From the State No. 1 we propose to produce Alibey through 5,680 to 5,710 and Drinkard oil through existing perforations 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 Dauren 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 drill complete this well by setting a

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Baker Model is set down production packer at 6,810 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 set 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 fully 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 co-mingling 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 run 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.

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COURT REPORTERS
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PHONES 7-9645 AND 5-9546
ALBUQUERQUE, NEW MEXICO

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 cove 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 Blinbry 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. SPURLIN: Any question of this witness?

MR. NACEY: 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. Nacey, 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

Blinbry Zone in southeast quarter of Section 2?

A Yes.

Q (By R. DAVIN) Mr. Wills, 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 small amounts in the Blinbry 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.

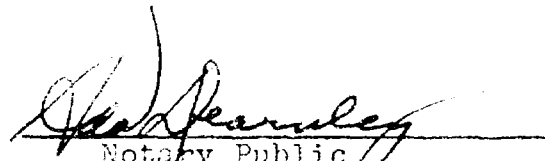
MR. SPURMER: Any further questions? If not the witness may be excused. Is there any other comment in this case?

(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.

E.E. GREESON
ADA DEARNLEY
COURT REPORTERS
BOX 1308
PHONES 5-9422 AND 5-9546
ALBUQUERQUE, NEW MEXICO