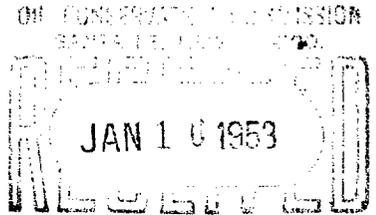


BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO



- CASE 450: Humble dual completion of F. F. Hardison B-4 well, NW NE 34-21S-37E, Drinkard Pool, to produce oil from Drinkard formation, gas from Blinebry.
- CASE 451: Humble dual completion of F. F. Hardison B-6 well, NW SE 27-21S-37E, Drinkard Pool, to produce oil from Drinkard formation, gas from the Blinebry.
- CASE 452: Humble dual completion of State D-1 well, SE NE 20-19S-37E, Eunice-Monument Pool, to produce oil from Grayburg formation, gas from the Queen.
- CASE 453: Humble dual completion of State V-2 well, SE SW 10-21S-37E, Drinkard Pool, to produce oil or gas from the Tubb zone and gas from the Blinebry.
- CASE 454: Humble dual completion of State V-8 well, NE SW 10-21S-37E, Drinkard Pool, to produce oil from the Drinkard formation and gas from Blinebry.
- CASE 455: Humble dual completion of State E-1 well, NW SW 21-19S-37E, Eunice-Monument Pool, to produce oil from Grayburg formation, gas from Queen.
- CASE 456: Humble dual completion of State S-12 well, NE NE 2-22S-37E, Drinkard Pool, to produce oil from Drinkard formation, gas from Blinebry.
- CASE 457: Humble dual completion of State S-21 well, NW SW 2-22S-37E, Drinkard Pool, to produce oil from Drinkard formation, gas from Blinebry.

BEFORE: Hon. Ed Mechem, Governor and Chairman
Hon. Guy Shepard, Land Commissioner and Member
Hon. R. R. Spurrier, Director and Member

TRANSCRIPT OF HEARING

December 16, 1952

MR. SPURRIER: The next case on the docket is Case 450. And I presume you want to take all those --

MR. SHAVER: We would like to consolidate those, Mr. Chairman.

I am Charles Shaver, representing the Humble Oil & Refining Company, and we would like to call Mr. Dewey as our witness. He has been sworn. Would you like for him to be sworn in this particular case?

MR. SPURRIER: Yes.

(Mr. Dewey is sworn.)

MR. SPURRIER: Let the record show Mr. Graham read the advertisements.

MR. SHAVER: 450 to -57, inclusive.

R. S. DEWEY,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. SHAVER:

Q Mr. Dewey, will you state your name and the name of your employer and the position you occupy with your employer?

A I am R. S. Dewey, Division Petroleum Engineer, Humble Oil & Refining Company, located at Midland, Texas.

MR. SHAVER: Is the Commission satisfied with Mr. Dewey's qualifications?

MR. SPURRIER: Yes, sir.

MR. SHAVER: I would like to point out to the Commission that six of these cases all request permission to dually complete and produce gas from the Blinebry Pool. We would like to invite your attention to Case No. 245, which was heard by this Commission on April the 24th, 1951. At that hearing Mr. W. L. Caruthers of Humble testified in some detail as to the extent and productive characteristics of the Blinebry reservoir.

Q Mr. Dewey, how many wells have been completed in the Blinebry reservoir since that hearing I refer to?

A My information indicates there has been one additional oil well and one additional gas well completed in the Blinebry field since the hearing to which Mr. Shaver has made reference.

Q Mr. Dewey, did these additional wells supply any information which in your estimation would alter the opinions expressed by Mr. Caruthers at that hearing?

A In my opinion these two wells have not changed in any way the opinion that was expressed by Mr. Caruthers, and in which I concur.

Q Will you explain to the Commission just generally to what extent the Blinebry produces oil?

A As outlined in Mr. Caruthers' testimony, the Blinebry is rather an extensive area in which, at a few small and

isolated spots, oil production has been obtained. The wells that have been found, the oil wells which have been found, are generally rather small. Our information, based on a November 1952 report, indicates that the largest currently producing well is 25 barrels. And the majority of the wells are in the productive range of five to ten barrels.

5b Q Mr. Dewey, do you consider the chance of getting a gas well greater than an oil well if it is completed in the Blinebry reservoir?

A From the information we have at this time, it seems to me that there is a very much greater opportunity to discover gas in the Blinebry area than there is to discover oil.

Q In the event any of the wells to be completed -- to be dually completed -- in the Blinebry produce oil, would you submit a request to this Commission to determine whether such well is predominantly an oil well or gas well? Would you like the privilege of doing that?

A I think that would be the proper procedure.

Q I believe we are ready to proceed with the cases. Will you please explain to the Commission the matter set forth in Case No. 450?

A Case 450 is concerned with the application dated November 6, 1952, of Humble Oil & Refining Company to dually

complete their F. F. Hardison B-4, located in the Drinkard Pool, Lea County, New Mexico.

This well is located in the NW quarter of the NE quarter of Section 34, T-21-S, R-37-E. Its location with reference to other wells on the same lease and to wells of operators who offset this lease is shown on the plat, Exhibit A.

It was completed September 5, 1946, at a total depth of 6584 feet with 5½-inch O.D. production string of casing set at 6583 feet. It is and has been produced through casing perforations from 6448 feet to 6557 feet from the Drinkard Pool. Our geological information indicates that the Drinkard Pool produces from the lower Clear Fork formation. Exhibit B is a schematic diagram of current completion status of this well.

It is proposed to dually complete this well in such a way as to continue to produce oil from the Drinkard Pool through tubing and to produce gas from the Blinebry pay through the tubing casing annulus. Our geological information indicates that the Blinebry pay occurs in the upper Clear Fork formation. To accomplish this proposal, the 5½-inch casing will be perforated within the approximate interval from 5470 to 5680 feet. A production type packer will be set at 5750 feet and between the Blinebry and Drinkard perforated interval. A schematic diagram of the proposed dual completion is shown in Exhibit C.

Exhibit D is a radioactive log of Humble's New Mexico F. F. Hardison B-4.

We offer Exhibits A, B, C and D for identification as Exhibits in this case.

It is my opinion that the proposed dual completion is mechanically feasible and practical with conventional equipment designed for this purpose.

It is my opinion that the granting of this application for dual completion with oil from the Drinkard and gas from the Blinebry is in the interest of conservation and protection of correlative rights.

The applicant is acquainted with and will comply with all rules and regulations of the New Mexico Conservation Commission relative to maintaining separation of production from the two pay horizons.

A marketing arrangement has been made to sell this gas.

MR. SHAVER: I would like to enter the application and attachments as Humble's Exhibit 1 in Case 450.

Q Mr. Dewey, will you proceed to explain to the Commission the matter set forth in Case No. 451?

A Case 451 is concerned with the application dated November 6, 1952, of Humble Oil & Refining Company to dually complete their F. F. Hardison B-6, located in the Drinkard Pool, Lea County, New Mexico.

This well is located in the NW quarter of the SE quarter of Section 27, T-21-S, R-37-E. Its location with reference to other wells on the same lease and to wells of operators who offset this lease is shown on the plat, Exhibit A.

It was completed November 23, 1946, at a total depth of 6580 feet with 5½-inch O.D. production string of casing set at 6579 feet. It is currently produced through casing perforations from 6517 to 6573 feet. These perforations are below a packer set at 6506 feet to reduce gas-oil ratio. Our geological information indicates that the Drinkard Pool produces from the lower Clear Fork formation. Exhibit B is a schematic diagram of current completion status of this well.

It is proposed to dually complete this well in such a way as to continue to produce oil from the Drinkard Pool through tubing and to produce gas from the Blinebry pay through the tubing casing annulus. Our geological information indicates that the Blinebry pay occurs in the upper Clear Fork formation. To accomplish this proposal, the 5½-inch casing will be perforated within the approximate interval from 5485 to 5650 feet. A production type packer will be set at 5700 feet and between the Blinebry and Drinkard perforated interval. The casing perforations from 6440 to 6468 and from 6486 to 6495 feet will be squeez-

ed off or otherwise repaired to exclude production through them. A schematic diagram of the proposed dual completion is shown in Exhibit C.

Exhibit D is a radioactive log of Humble's New Mexico F. F. Hardison B-6.

We offer Exhibits, A, B, C and D for identification as Exhibits in this case.

It is my opinion that the proposed dual completion is mechanically feasible and practical with convention equipment designed for this purpose.

It is my opinion that the granting of this application for dual completion with oil from the Drinkard and gas from the Blinebry is in the interest of conservation and protection of correlative rights.

The applicant is acquainted with and will comply with all rules and regulations of the New Mexico Conservation Commission relative to maintaining separation of production from the two pay horizons.

A marketing arrangement has been made to sell this gas.

MR. SHAVER: We would like to enter this application and the attachments as Humble's Exhibit 1 in Case No. 451.

Q Mr. Dewey, will you please proceed to explain to the Commission the matters set forth in Case No. 452?

A Case 452 is concerned with the application dated November 6, 1952, of Humble Oil & Refining Company to dually complete their New Mexico State D-1, located in the Eunice-Monument Pool, Lea County, New Mexico.

This well is located in the SE quarter of NE quarter of Section 20, T-19-S, R-37-E. Its location with reference to other wells on the same lease and to wells of operators who offset this lease is shown on the plat, Exhibit A.

It was completed November 2, 1936 at a total depth of 3996 feet with 5½-inch O.D. production string of casing set at 3750 feet. It is and has been producing from the open hole below the casing seat from the Grayburg formation. Exhibit B is a schematic diagram of current completion status of this well.

It is proposed to dually complete this well in such a way as to continue to produce oil from the Eunice-Monument Pool through tubing and to produce gas from the Queen formation through the tubing casing annulus. To accomplish this proposal, the 5½-inch casing will be perforated within the approximate interval from 3525 to 3700 feet. A production type packer will be set at 3725 feet and between the Queen and Grayburg formations. A schematic diagram of the proposed dual completion is shown in Exhibit C.

We offer Exhibits, A, B and C for identification as Exhibits in this case.

It is my opinion that the proposed dual completion is mechanically feasible and practical with conventional equipment designed for this purpose.

It is my opinion that the granting of this application for dual completion with oil from the Grayburg and gas from the Queen is in the interest of conservation and protection of correlative rights.

The applicant is acquainted with and will comply with all rules and regulations of the New Mexico Conservation Commission relative to maintaining separation of production from the two pay horizons.

A marketing arrangement has been made to sell this gas.

MR. SHAVER: We would like to offer this application and the attachments as Humble's Exhibit 1 in Case No. 452.

Q Mr. Dewey, will you please explain to the Commission the matters set forth in Case No. 453?

A Case 453 is concerned with the application dated October 23, 1952, of Humble Oil & Refining Company to dually recomplete their New Mexico State V-2 well which was originally completed in the Drinkard Pool, Lea County, New Mexico.

This well is located in the SE quarter of SW quarter of Section 10, T-21-S, R-37-E. Its location with refer-

ence to other wells on the same lease and to wells of operators who offset this lease is shown on the plat, Exhibit A.

It was completed February 16, 1949, at a total depth of 6751 feet with 5½-inch O.D. production string of casing set at 6655 feet. It was produced from the open hole section from 6655 to 6751 feet and also from a series of casing perforations in the interval between 6536 to 6653 feet. The open hole and casing perforations permitted the well to produce from the Drinkard formation. Both open hole and casing perforations were cemented off when an unsuccessful attempt was made in April and May 1949 to recomplete the well progressively through casing perforations from 5115 to 5270 feet in the Glorietta formation and from 3780 to 3810 feet in the Grayburg formation. The well was plugged and abandoned May 15, 1949. Exhibit B is a schematic diagram of the original completion and present physical status of the well.

It is proposed to dually complete this well in such a way as to permit producing either an oil well or a gas well from the Drinkard Tubb productive horizons through the tubing and gas from the Blinebry pay through the tubing casing annulus. Our geological information indicates that the Tubb productive horizon is in the middle Clear Fork and that the Blinebry pay occurs in the upper Clear Fork formation. To

accomplish this proposal, the cement plugs will be drilled out to approximately 6360 feet for a new total depth.

An attempt will be made to reconnect at approximately 2000 feet to the 5½-inch casing now in the well and bring the top of the productive string to the surface. The productive string will be tested. The 5½-inch casing will be perforated within the approximate interval from 5550 to 5660 feet opposite the Blinebry pay and from 6100 to 6350 feet opposite the Tubb pay. A production type packer will be set at approximately 5670 feet and between the Blinebry and Tubb perforated interval. A schematic diagram of the proposed dual completion is shown in Exhibit C.

Exhibit D is a radioactive log of Humble's New Mexico State V-2 well.

We offer Exhibits A, B, C and D for identification as Exhibits in this case.

It is my opinion that the proposed dual completion is mechanically feasible and practical with conventional equipment designed for this purpose.

It is my opinion that the granting of this application for dual completion with oil or gas from the Tubb and gas from the Blinebry is in the interest of conservation and protection of correlative rights.

The applicant is acquainted with and will comply with all rules and regulations of the New Mexico Conserva-

tion Commission relative to maintaining separation from the two pay horizons.

A marketing arrangement has been made to sell the gas which may be produced.

It is also my opinion that our chance of obtaining a gas well are better than that we will obtain an oil well.

MR. SHAVER: We would like to enter this application and the attachments as Humble's Exhibit 1 in Case No. 453.

Q Now, Mr. Dewey, will you please explain to the Commission the matters set forth in Case No. 454?

A Case 454 is concerned with the application dated October 30, 1952, of Humble Oil & Refining Company to dually complete their New Mexico State V-8 well, located in the Drinkard Pool, Lea County, New Mexico.

This well is located in the NE quarter of the SW quarter of Section 10, T-21-S, R-37-E. Its location with reference to other wells on the same lease and to wells of operators who offset this lease is shown on the plat, Exhibit A.

It was completed January 30, 1952, at a total depth of 7573 feet with 5½-inch O.D. production string of casing set 7573 feet. This well has been plugged back to 6725 feet. It is currently produced through casing perforations from

6608 to 6670 feet. Our geological information indicates that the Drinkard Pool produces from the lower Clear Fork formation. Exhibit B is a schematic diagram of current completion status of this well.

It is proposed to dually complete this well in such a way as to continue to produce oil from the Drinkard Pool through tubing and to produce gas from the Blinebry pay through the tubing casing annulus. Our geological information indicates that the Blinebry pay occurs in the upper Clear Fork formation. To accomplish this purpose, the 5½-inch casing will be perforated within the approximate interval from 5600 to 5680 feet. A production type packer will be set to approximately 5750 feet and between the Blinebry and Drinkard perforated interval. A schematic diagram of the proposed dual completion is shown in Exhibit C.

Exhibit D is a radioactive log of Humble's New Mexico State V-8 well.

We offer Exhibits A, B, C and D for identification as Exhibits in this case.

It is my opinion that the proposed dual completion is mechanically feasible and practical with conventional equipment designed for this purpose.

It is my opinion that the granting of this application for dual completion with oil from the Drinkard and

gas from the Blinebry pay is in the interest of conservation and protection of correlative rights.

The applicant is acquainted with and will comply with all rules and regulations of the New Mexico Conservation Commission relative to maintaining separation of production from the two pay horizons.

A market arrangement has been made to sell this gas.

MR. SHAVER: We would like to enter this application and the attachments as Humble Exhibit 1 in Case 454.

Q Now, Mr. Dewey, will you please explain to the Commission the matters set forth in Case No. 455?

A Case 455 is concerned with the application dated November 13, 1952, of Humble Oil & Refining Company to dually complete their New Mexico State E-1, located in the Eunice-Monument Pool, Lea County, New Mexico.

This well is located in the NW quarter of the SW quarter, Section 21, T-19-S, R-37-E. Its location with reference to other wells on the same lease and to wells of offset operators is shown on the plat, Exhibit A.

It was completed December 21, 1936 at a total depth of 3985 feet with 5½-inch O.D. production string of casing set at 3740 feet. It is and has been produced from open hole below the casing seat from the Grayburg formation. Exhibit B is a schematic diagram of current completion

status of this well.

It is proposed to dually complete this well in such a way as to continue to produce oil from the Grayburg formation through tubing and to produce gas from the Queen formation through the tubing casing annulus. To accomplish this purpose, the $5\frac{1}{2}$ -inch casing will be perforated within the approximate interval from 3550 to 3700 feet. A production type packer will be set at approximately 3720 feet and between the Queen and Grayburg formations. A schematic diagram of the proposed dual completion is shown on Exhibit C.

We offer Exhibits A, B and C for identification as Exhibits in this case.

It is my opinion that the proposed dual completion is mechanically feasible and practical with conventional equipment designed for this purpose.

It is my opinion that the granting of the application for dual completion with oil from the Grayburg and gas from the Queen is in the interest of conservation and protection of correlative rights.

The applicant is acquainted with and will comply with all rules and regulations of the New Mexico Conservation Commission relative to maintaining separation of production from the two pay horizons.

A market arrangement has been made to sell this gas.

MR. SHAVER: We would like to enter this application and the attachments as Humble Exhibit 1 in Case 455.

Q Now, Mr. Dewey, will you please explain to the Commission the matters set forth in Case No. 456?

A Case 456 is concerned with the application dated November 7, 1952, of Humble Oil & Refining Company to dually complete their New Mexico State S-12, located in the Drinkard Pool, Lea County, New Mexico.

This well is located in the Northeast quarter of the Northeast quarter of Section 2, T-22-S, R-37-E. Its location with reference to other wells on the same lease and to wells of operators who offset this lease is shown on the Plat, Exhibit A.

It was completed November 28, 1946, at a total depth of 6540 feet. It is currently produced through casing perforations 6427 to 6447, 6460 to 6490, 6500 to 6510 and 6522 to 6530 feet. Our geological information indicates that the Drinkard Pool produces from the lower Clear Fork formation. Exhibit B is a schematic diagram of current completion status of this well.

It is proposed to dually complete this well in such a way as to continue to produce oil from the Drinkard Pool through tubing and to produce gas from the Blinebry pay through the tubing casing annulus. Our geological information indicates that the Blinebry pay occurs in the up-

per Clear Fork formation. To accomplish this purpose, the 5½-inch casing will be perforated within the approximate interval from 5515 to 5650 feet. A production type packer will be set at approximately 5700 feet and between the Blinebry and Drinkard perforated interval. A schematic diagram of the proposed dual completion is shown in Exhibit C.

Exhibit D is a radioactive log of Humble's New Mexico State S-12.

We offer Exhibits A, B, C and D for identification as Exhibits in this case.

It is my opinion that the proposed dual completion is mechanically feasible and practical with conventional equipment designed for this purpose.

It is my opinion that the granting of this application for dual completion with oil from the Drinkard and gas from the Blinebry is in the interest of conservation and protection of correlative rights.

The applicant is acquainted with and will comply with all rules and regulations of the New Mexico Conservation Commission relative to maintaining separation of production from the two pay horizons.

A market arrangement has been made to sell this gas.

MR. SHAVER: We would like to enter this applica-

tion and the attachments as Humble's Exhibit 1 in Case 456.

Q Mr. Dewey, will you please explain to the Commission the matters set forth in Case 457?

A Case 457 is concerned with the application dated November 10, 1952, of Humble Oil & Refining Company to dually complete their New Mexico State S-21, located in the Drinkard Pool, Lea County, New Mexico.

This well is located in the NW quarter of the SW quarter of Section 2, T-22-S, R-37-E. Its location with reference to other wells on the same lease and to wells of offset operators is shown on the plat, Exhibit A.

It was completed May 18, 1950, at a total depth of 6520 feet with 5½-inch O.D. production string of casing set at 6519 feet. It is currently produced through casing perforations from 6460 to 6490 feet. Our geological information indicates that the Drinkard Pool produces from the lower Clear Fork formation. Exhibit B is a schematic diagram of current completion status of this well.

It is proposed to dually complete this well in such a way as to continue to produce oil from the Drinkard Pool through tubing and to produce gas from the Blinebry pay through the tubing casing annulus. Our geological information indicates that the Blinebry pay occurs in the upper Clear Fork formation. To accomplish this purpose, the 5½-inch casing will be perforated within the approximate interval from

5450 to 5580 feet. A production type packer will be set at approximately 5650 feet and between the Blinebry and Drinkard perforated interval. A schematic diagram of the proposed dual completion is shown in Exhibit C.

Exhibit D is a radioactive log of Humble New Mexico State S-21.

We offer Exhibits A, B, C and D for identification as Exhibits in this case.

It is my opinion that the granting of the application for dual completion with oil from the Drinkard and gas from the Blinebry is in the interest of conservation and protection of correlative rights.

The applicant is acquainted with and will comply with all rules and regulations of the New Mexico Conservation Commission relative to maintaining separation of production from the two pay horizons.

A market arrangement has been made to sell this gas.

MR. SHAVER: I would like to enter this application and attachments as Humble's Exhibit 1 in Case 457.

Q Mr. Dewey, I would like to hand you the application in Case 454 and ask you if there should be a correction in the record showing that the well, New Mexico State V-8, is located in the NE quarter of the SE quarter of Section 10 rather than as stated and shown in the application,

the Northeast Southwest of Section 10? Will you check that and give the correct location, please, sir?

A Humble Oil New Mexico State V-8 well is located in the NE quarter of the Southeast quarter of Section 10 as indicated correctly on Exhibit A. And the application to dually complete this well is in error and should read that this well is located in the NE SE rather than the NE SW of Section 10.

Q Mr. Dewey, in view of the possible error in the notice, would it be possible for you to furnish the Commission with waivers from the offset operators that might be affected by this dual completion? Will you undertake to do that?

A Yes, we will undertake to obtain waivers.

MR. SHAVER: If it please the Commission, we would respectfully request your approval of these applications on that basis. I don't believe we have anything further.

MR. SPURRIER: Is there any question of this witness on any of these cases? If there is no question of the witness, the witness may be excused.

Is there any further comment in these cases? If not, we will take them under advisement and go on to Case 458.

_____o_____

STATE OF NEW MEXICO

SS

COUNTY OF BERNALILLO

I HEREBY CERTIFY That the within transcript of hearing in the above styled case before the Oil Conservation Commission of the State of New Mexico is a true record of the same to the best of my knowledge, skill and ability.

DONE at Albuquerque, New Mexico, December 20,
1952.



E. E. Greeson
E. E. Greeson
Reporter

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