

Case No.

446

Unit Agreement
Active at time
of filming. See
Unit Agreement files.

Case No.

447

Application, Transcript,
Small Exhibits, Etc.



CONTINENTAL OIL COMPANY *Case 447*

FAIR BUILDING
FORT WORTH 2, TEXAS

H. L. JOHNSTON
REGIONAL MANAGER OF PRODUCTION
SOUTHWESTERN REGION

October 31, 1952

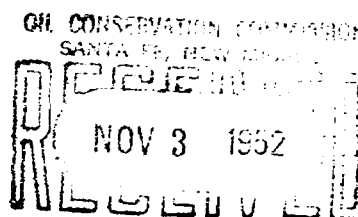
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Gentlemen:

Continental Oil Company, by means of the attached application, respectfully requests a hearing before the New Mexico Oil Conservation Commission and an order authorizing the dual completion of its Lynn A-28 well No. 5, located 660 feet South of North line and 660 feet West of the East line of Section 28, T. 23 S., R. 36 E., Lea County, New Mexico, in the Yates formation and the Seven Rivers formation.

Yours very truly,

HLJ-LP
Enc



BEFORE THE OIL CONSERVATION COMMISSION
OF THE
STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF
CONTINENTAL OIL COMPANY FOR AN ORDER
GRANTING IT PERMISSION TO DUALY COMPLETE
LYNN A-28 NO. 5 WELL, COOPER-JAL POOL,
NE/4 NE/4, SECTION 28, T-23-S, R-36-E,
N.M.P.M. LEA COUNTY, NEW MEXICO

CASE NO. 447

A P P L I C A T I O N

Comes now CONTINENTAL OIL COMPANY, a Delaware corporation, hereinafter called "Applicant," and respectfully requests the Oil Conservation Commission of the State of New Mexico to issue an order authorizing Applicant to dually complete its Lynn A-28 No. 5 Well located 660 feet South of the North line and 660 feet West of the East line of the NE/4 of NE/4, Section 28, T-23-S, R-36-E, N.M.P.M., Lea County, New Mexico, in the Yates formation and the Seven Rivers formation, and in support thereof would show the following:


Said well was completed on March 1, 1942 in the Yates formation as a gas well and Applicant now desires to complete the same in the Seven Rivers formation as an oil well, and Applicant represents that it is practical and economically feasible to so dually complete said well in such manner as that there will be no commingling of fluids between the two reservoirs.

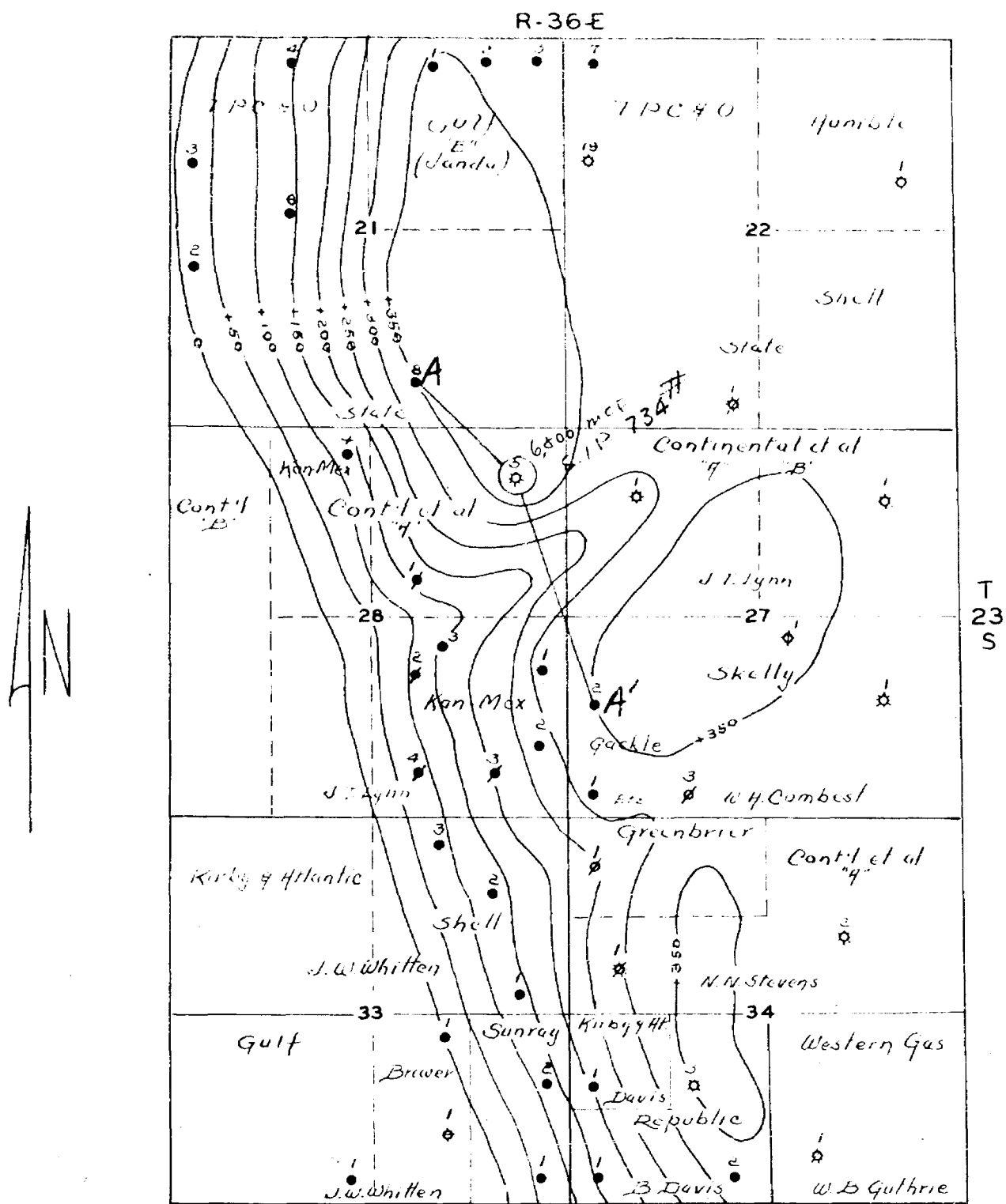
Attached to this Application is a plat showing the location of the subject well and surrounding wells and leaseholds.

WHEREFORE, Applicant respectfully requests that this matter be set down for hearing on due notice and that upon final hearing the Oil Conservation Commission of the State of New Mexico enter its order authorizing Applicant to dually complete said well in accordance with the foregoing application and the rules and regulations of the Commission.

DONE at Fort Worth, Texas, this 31st day of October,
1952.

CONTINENTAL OIL COMPANY

By 
H. L. Johnston
Regional Manager of
Production
Southwestern Region



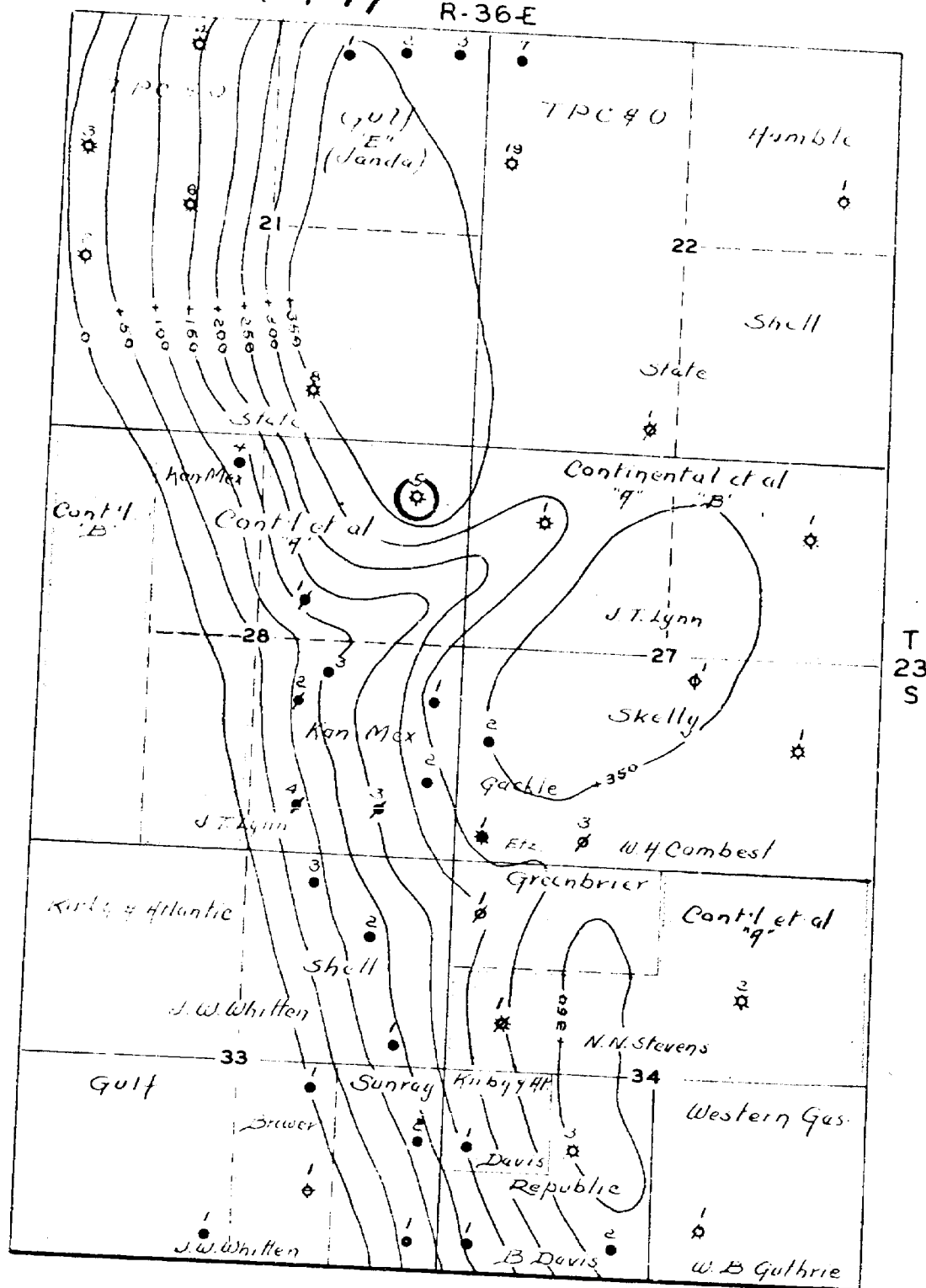
CONTINENTAL OIL COMPANY
STRUCTURE MAP — COOPER-JAL AREA
CONTOURED ON TOP OF YATES

CONTOUR INT: 50'
N. M. DIST. OFFICE

SCALE: 1" = 2000'
AUG. 20, 1952

C. 1

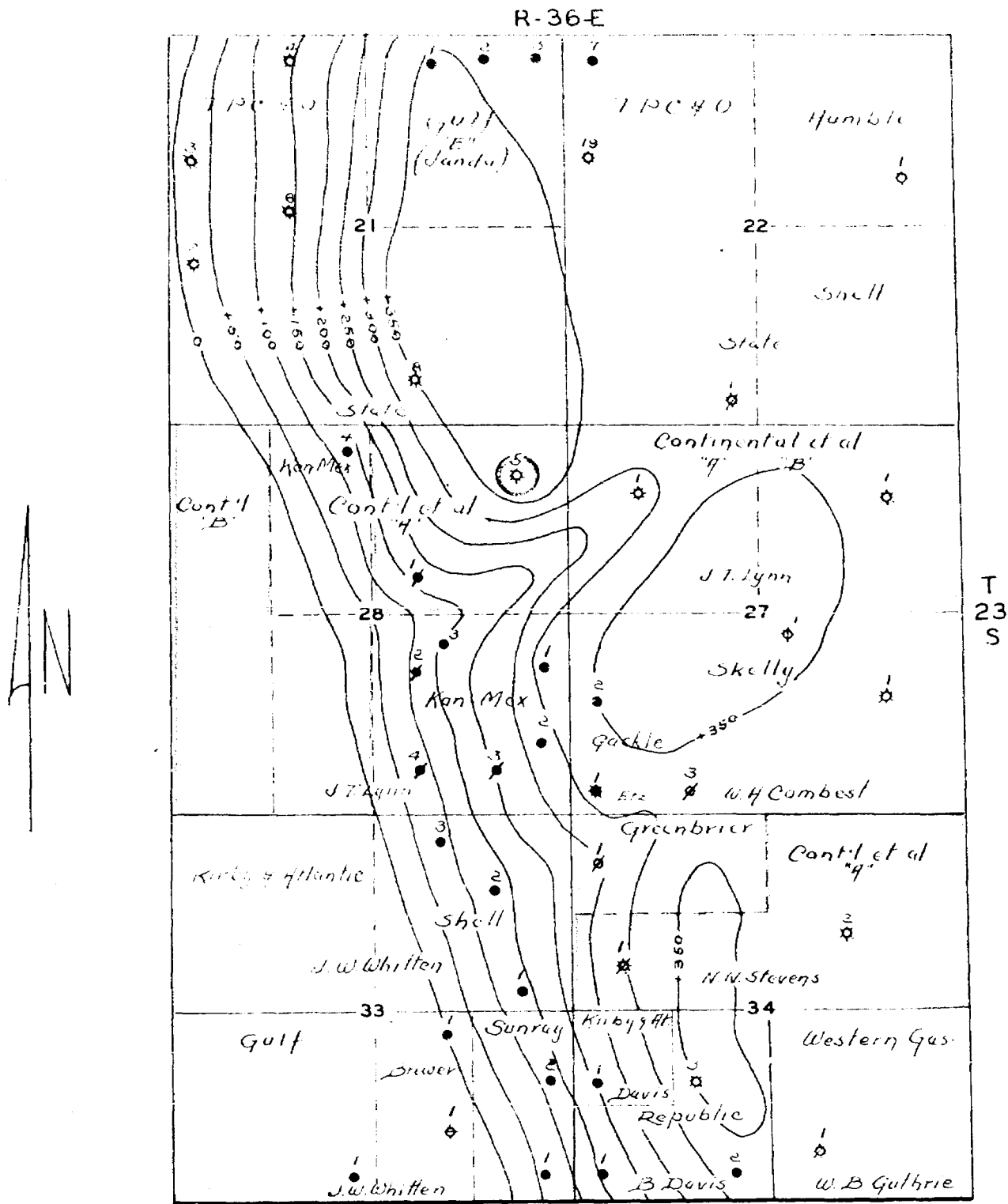
R-36-E



CONTOUR INT: 50'
N. M. DIST. OFFICE

SCALE: 1" = 2000'

AUG. 20, 1952



CONTINENTAL OIL COMPANY
STRUCTURE MAP — COOPER-JAL AREA
CONTOURED ON TOP OF YATES

CONTOUR INT: 50'
N. M. DIST. OFFICE

SCALE: 1" = 2000'
AUG. 20, 1952



CONTINENTAL OIL COMPANY

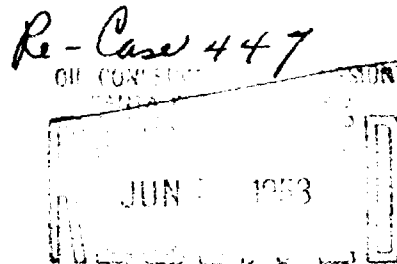
Hobbs, New Mexico
June 3, 1953

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

Gentlemen:

In accordance with the provisions of Order No. R-242, dated January 15, 1953, regarding Continental Oil Company's application to dually complete the J. T. Lynn A-28 No. 5 located in the NE/4 NE/4 Section 28, Township 23 South, Range 36 East, NMPM, Lea County, New Mexico, the Continental Oil Company wishes to present the following:

1. On May 2, 1953, the J. T. Lynn A-28 No. 5 was deepened from 3276 to 3375 feet, a radioactivity survey was run, and 479 feet of 5 inch OD liner was set at total depth and cemented with 100 sacks. As cement failed to hold, a 7 inch retainer was set at 2847 feet and the liner recemented with 150 sacks. After drilling out the retainer and cement in the liner to 3374 feet, the casing and liner were tested successfully under 1,000 psi pressure for 30 minutes.
2. The 5 inch liner was perforated opposite the Seven Rivers formation in the intervals 3366 to 3374 feet and 3340 to 3356 feet. These perforations flowed 228 barrels oil, no water in 6 hours on a 1 inch choke with 461 MCF gas per day for a gas oil ratio of 550 cubic feet per barrel. The tubing pressure was 50 psi.
3. The 5 inch liner was then perforated opposite the Yates formation in the intervals 3054 to 3087 feet, 3100 to 3130 feet, 3146 to 3170 feet, 3176 to 3193 feet, and 3200 to 3226 feet. A 5 inch Baker Model "D" Production Packer was set at 3300 feet, tubing was run with side door choke and seating nipple with standing valve, and the Yates perforations were acidized with 500 gallons. The well was swabbed in and the Yates formation flowed at the rate of 4,580 MCF gas per day by pitot tube measurement.



4. The side door choke was blanked off and the standing valve pulled. A back pressure test was made of the Yates gas flowing thru the annulus between the tubing and casing which indicated an open flow potential of 5400 MCF gas per day with a shut-in pressure of 698.2 psia. A copy of this back pressure test on Form C-122 is attached.

5. The Seven Rivers was completed flowing thru the tubing for an initial potential of 228 barrels oil, no water flowing on a 12/64" choke with 461 MCF gas per day for a gas-oil ratio of 550 cubic feet per barrel. The tubing pressure was 50 psi.

6. A static pressure gradient was run after a 36 hour shut-in on May 27, 1953 and a plot of this survey is attached.

The above information and the attached exhibits of the radioactivity survey, back pressure test, static pressure gradient and diagrammatic sketch of the mechanical installation which was actually used to complete and produce the seal between the Yates and Seven Rivers formations are respectfully submitted.

Done at Hobbs, New Mexico, this 3rd day of June, 1953.

CONTINENTAL OIL COMPANY

By: C. C. Wilson
C. C. WILSON
Dist. Supt., New Mexico District
West Texas-New Mexico Division
Production Department

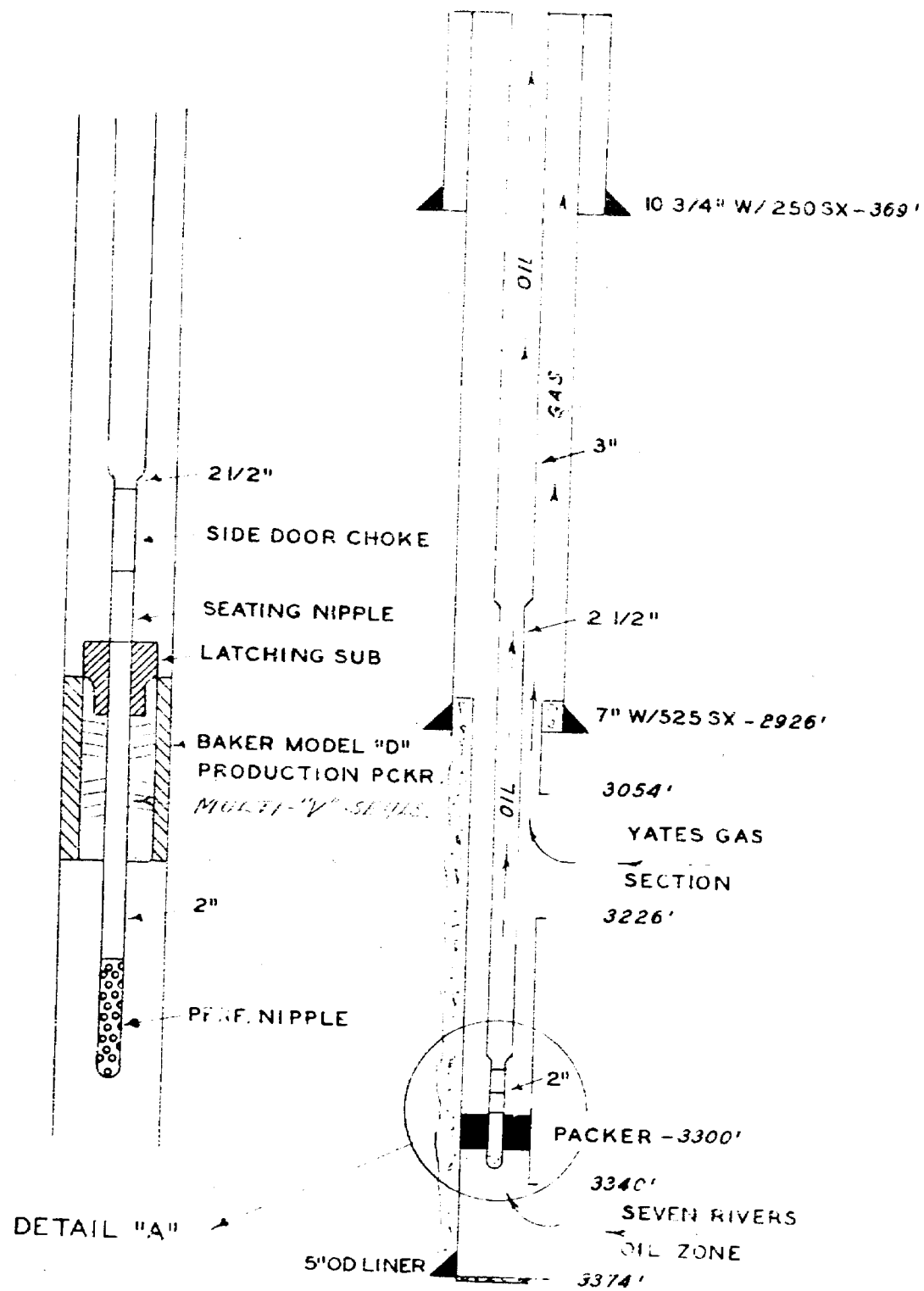
WR-BJE
Hobbs, N.M.
6-3-53

CONTINENTAL OIL COMPANY

LYNN A-28 NO.5

EL. 3431'

METHOD OF DUAL COMPLETION



NEW MEXICO
OIL CONSERVATION COMMISSION
Back Pressure Data Sheet

Form C-122

Pool: Cooper-Jal Date: 5-22-53

Company: Continental Oil Company Lease: Lynn A-28 Well No. 5

County: Lea Sec. 28 Twp. 23 Rge. 36 Loc. NE/4 NE/4

ID casing set @ _____ ; ID tubing _____ OD tubing set @ _____

Pay zone from _____ to _____ ; Separator gas gr. 0.660 Barometer rdg. 13.2

Reservoir temperature 90 ° Produced through: csg. X tbg. _____

Average gas/liquid ratio during test: _____ Cu. ft. /bbl. gravity of liquid _____ ° API

Size of meter run or prover: 4" Flow prover

OBSERVED DATA

Wellhead shut-in pressure, P_w Casing 696.2 Tubing _____ PSIA

Run No.	Orifice Size	Orifice x Line	Meter Pressures		Coefficient C Flg. tap _____ Pipe tap _____	Wellhead Pr.		Flowing Temp.	
			Static P_m Abs.	Diff. h_w		Casing P_{wc} Abs.	Tubing P_{wc} Abs.	Meter	Wellhead
<u>1</u>	<u>0.250</u>					<u>636.2</u>		<u>69</u>	
<u>2</u>	<u>0.750</u>					<u>349.2</u>		<u>67</u>	
<u>3</u>	<u>1.000</u>					<u>233.2</u>		<u>67</u>	

DATA FOR PLOTTING CURVE

Run No.	Delivery Rate in MCF per 24 hours (Q)	$P_f^2 - P_s^2$ (thousands)
<u>1</u>	<u>812</u>	<u>86,399</u>
<u>2</u>	<u>4045</u>	<u>416,549</u>
<u>3</u>	<u>4810</u>	<u>494,438</u>
<u>4</u>		
<u>5</u>		

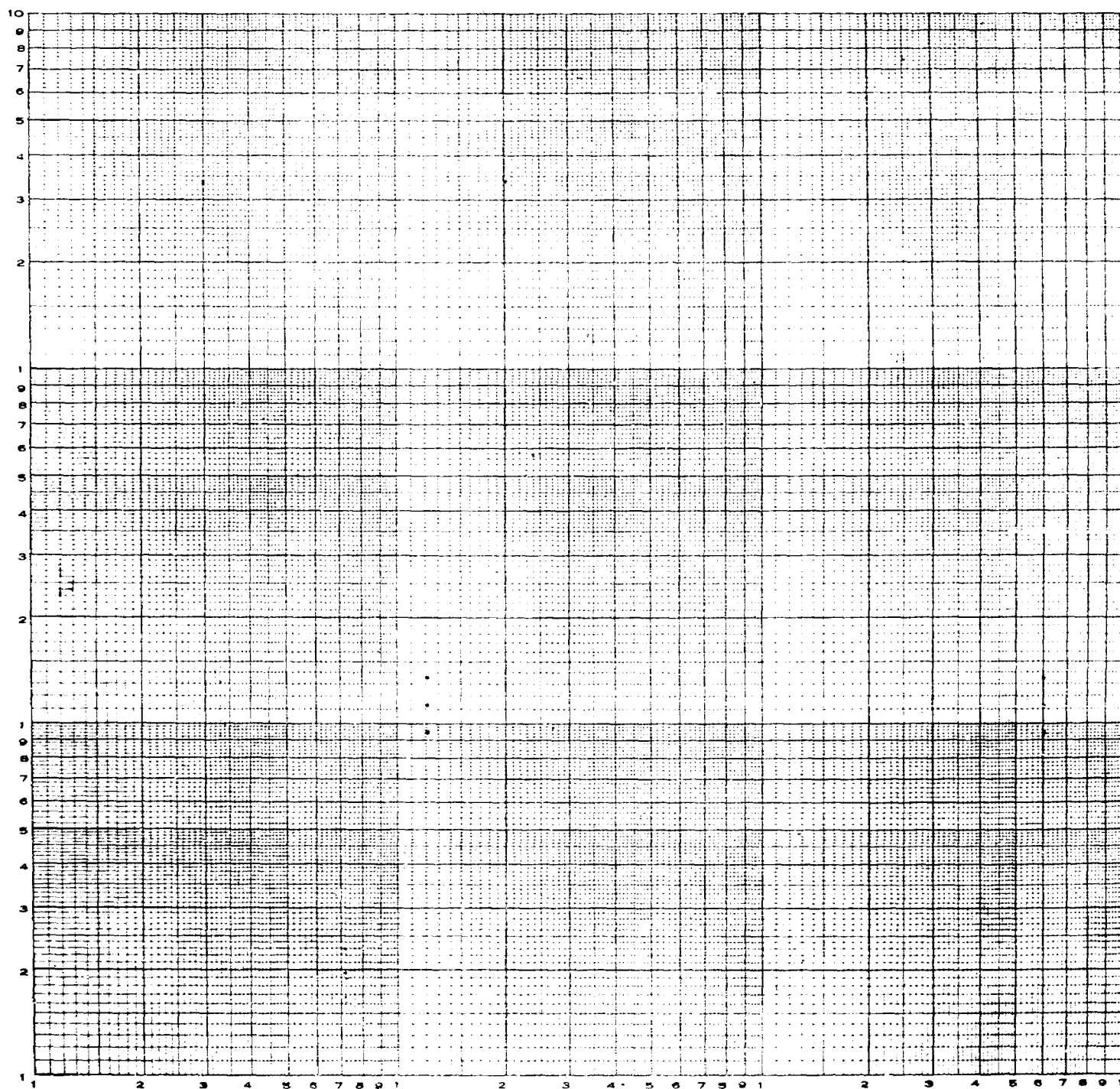
Absolute Open Flow 5,400 MCF

CERTIFICATION: I hereby swear or affirm that, to the best of my knowledge, the information given above is true and correct.

Name: C. E. Wilson Position: District Superintendent

Company: Continental Oil Company Address: Box 427, Hobbs, New Mexico

Please plot curve on back



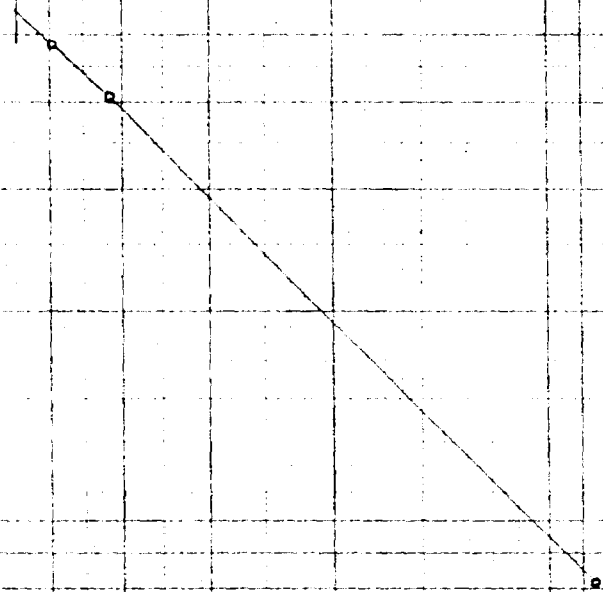


CALCULATED OPEN FLOW POTENTIAL

LYNN A-28 NO. 5

5/22/53

Open flow (DNC 5) 5,700.000



TIME - MIN

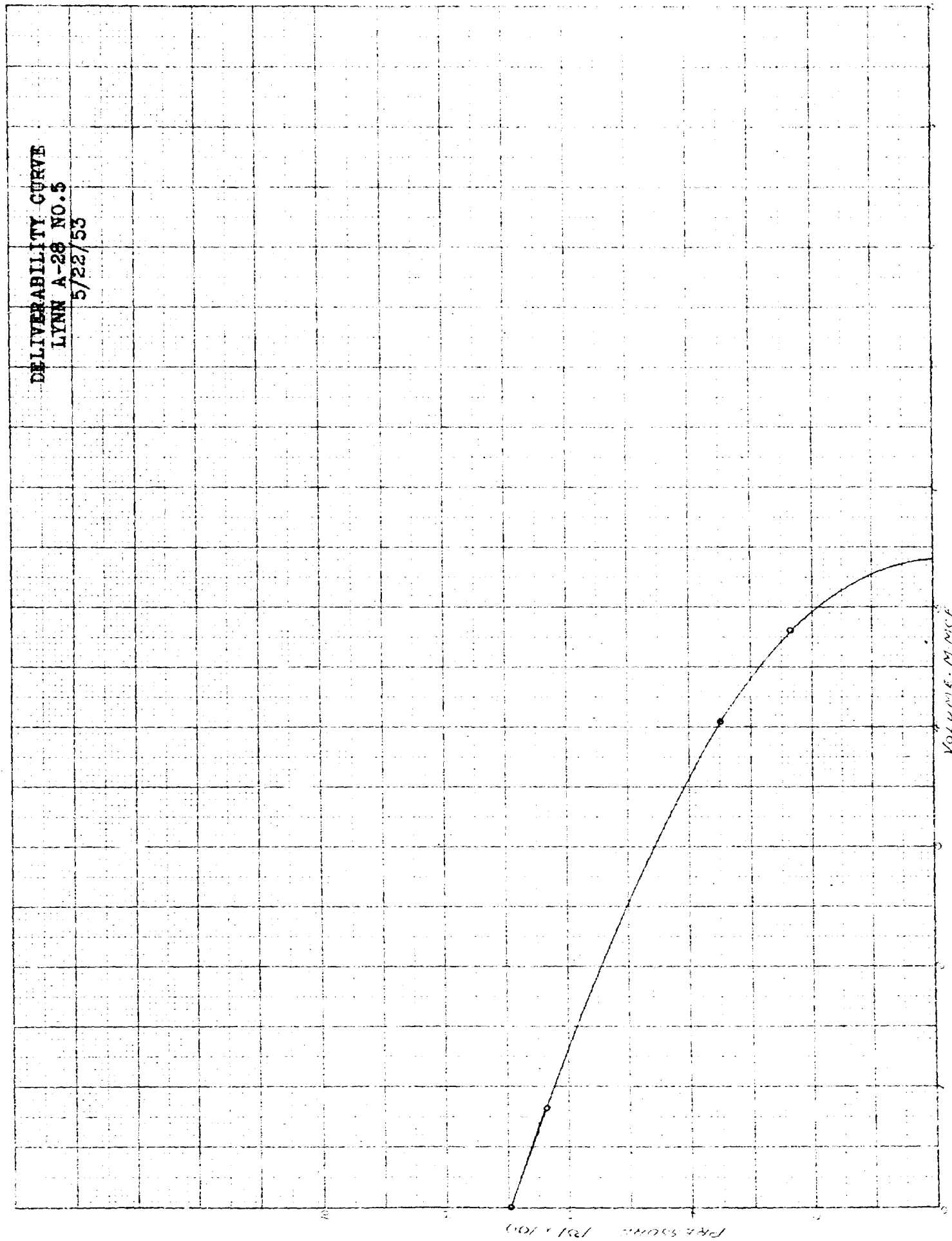
VOLUME MCF

NO. 31B 26 DIVISIONS PER INCH BOTH WAYS. 150 BY 200 DIVISIONS.



CODEx BOOK COMPANY, INC. NORWOOD, MASSACHUSETTS.
PRINTED IN U.S.A.

DELIVERABILITY CURVE
LYNN A-28 NO.5
5/22/53



SUBSURFACE PRESSURE SURVEY

CONTINENTAL OIL COMPANY

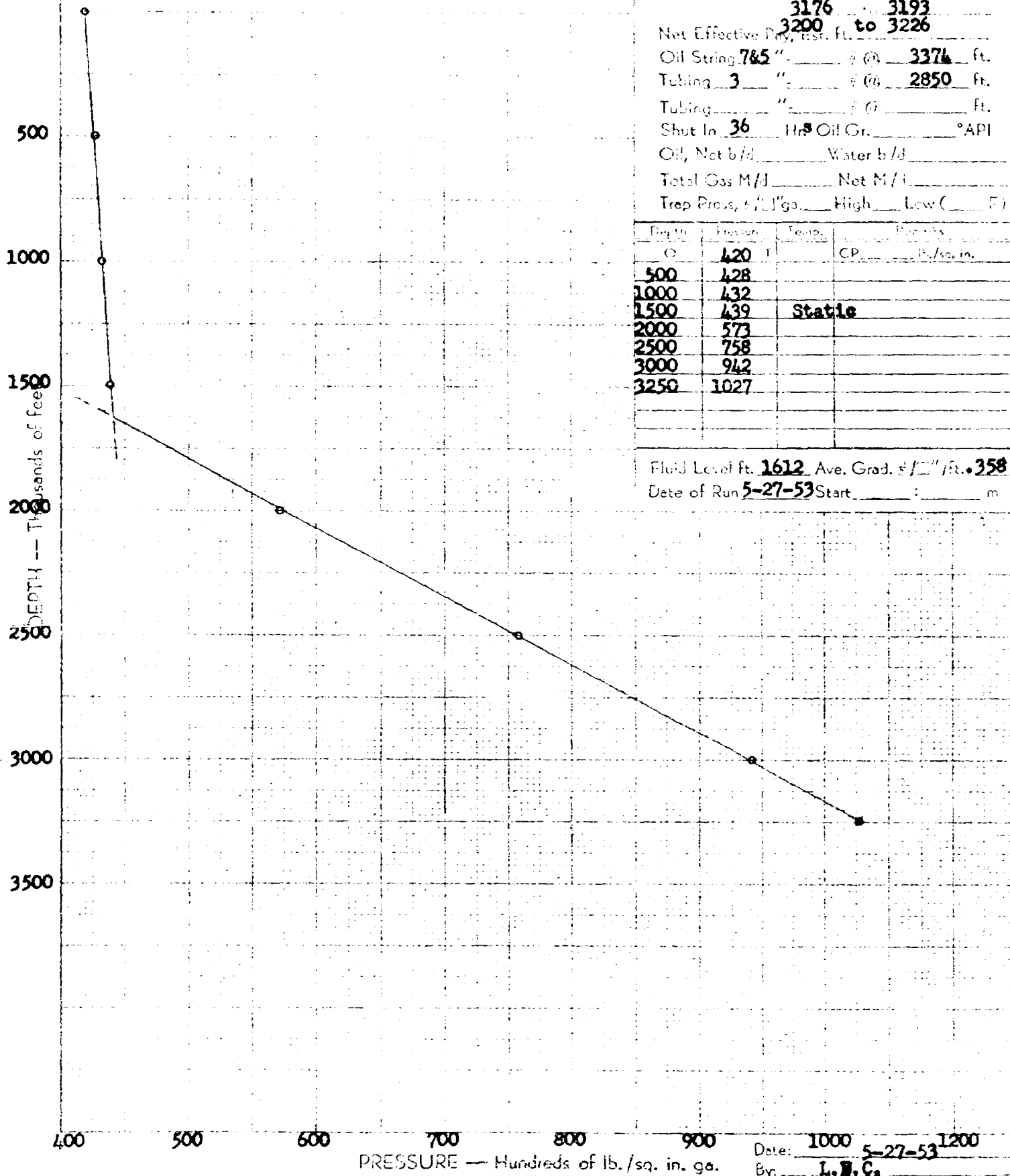
PRODUCTION & DRILLING DEPT.

County Lea Field Cooper-Jal
 State New Mexico Zone Seven Rivers
 Elev. ft. 3431.0 DF Well No. Lynn A-28 No. 5

Depth, ft. 3375 Total 3374
 Zone Open, ft. 3054 to 3087
3100 to 3130
3146 to 3170
3176 to 3193
 Net Effective Pay, test. ft. 3200 to 3226

Oil String 7.5 " @ 3374 ft.
 Tubing 3 " @ 2850 ft.
 Tubing " " @ " ft.
 Shut In 36 Hr. Oil Gr. " °API
 Oil, Net b/d " Water b/d "
 Total Gas M/d " Net M/d "
 Trep Press. #/sq. in. ga. High " Low (" F)

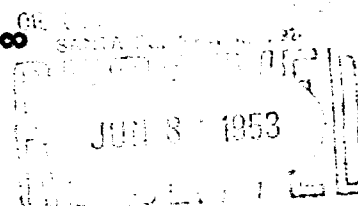
Depth	Pressure	Temp.	Remarks
0	420	1	CP " lb./sq. in.
500	428		
1000	432		
1500	439	Static	
2000	573		
2500	758		
3000	942		
3250	1027		





CONTINENTAL OIL COMPANY

Hobbs, New Mexico
June 5, 1953



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

Gentlemen:

Please be referred to our letter of June 3, 1953 having reference to order number R-242 dated January 15, 1953 regarding Continental Oil Company's application to dually complete the J. T. Lynn A-28 No. 5 located in the NE/4 of NE/4 Section 28, Township 23 South, Range 36 East, NMPM, Lea County, New Mexico.

In paragraph number five on page two of this letter the initial potential after the dual completion is indicated as being 228 barrels oil per day. The correct daily potential is 912 barrels oil per day as the figure of 228 barrels represents production for six hours only. We will appreciate your entering this correction on your record.

Yours truly,

CONTINENTAL OIL COMPANY

By: C. C. Wilson
C. C. WILSON
Dist. Supt., New Mexico Dist.
West Texas-New Mexico Divn.
Production Department

CCW-BJE

CC: Reg.Prod.-2, Div.Prod.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 447
ORDER No. R-242

THE APPLICATION OF C ONTINENTAL
OIL COMPANY FOR AN ORDER GRANTING
PERMISSION TO DUALLY COMPLETE AND
PRODUCE ITS LYNN A-28, NO. 5 WELL,
LOCATED IN THE NE/4 NE/4 SECTION 28,
TOWNSHIP 23 SOUTH, RANGE 36 EAST,
NMPM, LEA COUNTY, NEW MEXICO, IN
THE COOPER-JAL POOL.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on December 16, 1952, at Santa Fe, New Mexico, before the Oil Conservation Commission, hereinafter referred to as the "Commission".

NOW, on this th15 day of January, 1953, 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 Lynn A-28, No. 5 Well, NE/4 NE/4, Section 28, Township 23 South, Range 36 East, NMPM, Lea County, New Mexico, was completed in March, 1942, as a gas well producing from the Yates formation, in the open-hole interval 2926-3276.

(3) That geological information indicates that there is a possibility of obtaining a commercial oil well in the Seven Rivers formation by deepening the Lynn A-28, No. 5 Well to an approximate depth of 3376 feet.

(4) 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 practice, 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, Continental Oil Company, be, and it hereby is authorized to deepen its Lynn A-28, No. 5 Well, NE/4 NE/4, Section 28, Township 23 South, Range 36 East, NMPM, Lea County, New Mexico, to an approximate depth of 3376 feet and to dually complete and produce said well in such a manner that gas from the Yates formation may be produced through the annular space between the casing and the tubing, and oil from the Seven Rivers formation through the tubing by proper

-2-

Case No. 447
Order No. R-242

perforations and the installation of a proper packer.

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


E. S. WALKER, Member


R. R. SPURRER, Secretary

S E A L

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

JAN 13 1953

CASE 447:

Continental's application for dual completion of its
Lynn A-28 No. 5 well, NE NE 28-23S-36E (Cooper-Jal Pool)
in order to produce oil from the Seven Rivers formation
and gas from the Yates.

TRANSCRIPT OF HEARING
(December 6, 1952)

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

STATE OF NEW MEXICO
COUNTY OF BERNALILLO

ss

I HEREBY CERTIFY That the within transcript of
hearing in the above styled case before the Oil Conserva-
tion Commission of the State of New Mexico is a true rec-
ord 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

MR. SPURRIER: We will move on to Case 447.

(Mr. Graham reads the notice of publication.)

MR. SANDERS: I am H. W. Sanders with Continental Oil Company.

I have one witness I would like to swear, please.

This is an application to dually complete the J. T. Lynn A-28 No. 5 well. This application is somewhat different to the ordinary request for dual completions in that this is now a gas well and we are asking permission to deepen it and dually complete it as a gas and oil well.

WILLIAM RANDOLPH,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. SANDERS:

Q Will you state your name, please?

A William Randolph.

Q By whom are you employed?

A Continental Oil Company.

Q In what capacity?

A District Engineer for the New Mexico District, offices at Hobbs.

Q Have you ever qualified as an expert witness before this Commission?

A I have not.

Q Will you tell the Commission what college education you have had?

A I graduated from the University of Texas in 1942 with a Bachelor of Science degree in petroleum engineering.

Q Now, how many years of experience have you had as a petroleum engineer?

A Approximately five years since August of 1947 in the Hobbs district.

Q You have had all your experience as a petroleum engineer in the Hobbs district of Lea County?

A That is correct.

Q And other counties in southeastern New Mexico?

A That is correct.

MR. SANDERS: Is the Commission satisfied with his qualifications?

MR. SPURRIER: They are.

Q Now, Mr. Randolph, will you give a short history of this well, please?

A Continental Oil Company's J. T. Lynn A-28 No. 5 is located 660 feet from the north and east lines of Section 28, Township 23 South, Range 36 East, Lea County, New Mexico, and is in the Cooper-Jal Pool. It was initially completed on March 1st, 1942, for a potential of 54,000 MCF gas per day.

The well is producing Yates gas from the open hole section between the base of the 7-inch casing cemented at 2926 feet with 525 sacks of cement and the total depth of 3276 feet. A surface string of 10 3/4 inch casing was set at 369 feet and cemented with 250 sacks of cement which circulated.

A back pressure test was taken on this well on May 23rd, 1952, which indicated an open flow potential of 6800 MCF gas per day and the shut in pressure at that time was 734 psi. On October 20, 1952, the well head pressure was 732 psi.

Q Now, you have a copy of Continental's Exhibit 1, do you not?

A Yes, sir.

Q Will you explain to the Commission the contents of that exhibit?

A Exhibit 1 is a plat showing the location of the Lynn A-28 No. 5, designated by a red circle and the surrounding wells and leases. The acreage colored in yellow is Continental operated acreage. Also on this plat is a structural interpretation of the area contoured on top of the Yates.

Q You have before you a copy of Continental's Exhibit 2, do you not?

A I do.

Q Will you explain it to the Commission?

A It is a log comparison of three wells which as shown on Exhibit 1 have, or are believed to have, comparable structural positions. The wells included are the Texas Pacific Col and Oil State "A" Account 1 No. 8, located in the southwest quarter of the southeast quarter of Section 21, Township 23 South, Range 36 East; the Gackle Etz No. 2 located in the northwest quarter of the southwest quarter of Section 27, Township 23 South, Range 36 East; and the Continental Lynn A-28 No. 5. The two offsetting wells are now producing or have produced oil from the Seven Rivers formation from the intervals as shown on the log comparison.

This log comparison consists of the radioactivity surveys of the two offsetting wells and the sample description of the Lynn A-28 No. 5. It was necessary to use the sample description on the Lynn well as at the time the well was drilled radioactivity surveys were not available.

This log comparison shows the Lynn A-28 No. 5 can be completed in the same zone of the Seven Rivers as the Gackle Etz No. 2 is producing from by deepening approximately 100 feet.

4 Q Now, you have a copy of Continental's Exhibit 3 before you, do you not?

A I do.

Q Will you make a statement concerning that exhibit and then a statement to the Commission telling how we propose to dually complete this well?

A Exhibit 3 is a plat showing the present mechanical condition of the Lynn A-28 No. 5 and the mechanical condition of the well after the proposed dual completion.

To develop the Seven Rivers oil reserves believed to exist below the present total depth of our well and produce the Yates gas reserves, it is proposed to dually complete the J. T. Lynn A-28 No. 5 as a Yates gas well and a Seven Rivers oil well in the following manner:

1. Set a retainer in the base of the 7 inch casing with 1,000 pounds pressure and repair any leaks by squeeze cementing until a satisfactory pressure test is obtained.

2. Deepen approximately 100 feet to total depth of 3376 feet and drill stem test the oil zone of the Seven Rivers.

3. Set sufficient 5-inch OD casing to provide 30 feet of overlap above the base of the 7-inch casing and cement with sufficient cement to return to above the top of the liner. After 48 hours, drill out the cement plug in the liner to the casing shoe and pressure test the liner with 1000 pounds pressure. Perform any additional squeeze cementing which may be necessary until a satisfactory pres-

sure test is obtained.

4. Run a radioactivity survey.

And since we have only a sample description of the well at this time, we will submit a copy of the radioactivity log to the Commission after we have completed this work.

5. Selectively perforate the liner opposite the Seven Rivers oil zone as determined from the drill stem test, sample description and the radioactivity survey and acidize if necessary to produce the interval opened to production.

6. Set a 5-inch Baker Model "D" retainer production packer approximately 10 feet above the top of the perforated interval.

7. Perforate the Yates gas section between 3050 feet and 3200 feet.

8. Run tubing with side door choke and complete the well so there can be no co-mingling of well fluids in producing the Yates gas from the annulus between the casing and tubing and Seven Rivers oil through the tubing. The well head will be equipped with all necessary connections to permit accurate measurement of any natural gas, oil, or oil and gas produced from each separate zone as may be required by the Commission.

9. Perform and report the results of any and all

surveys and tests, including segregation tests, as may be required by the Commission and in such a manner as the Commission may designate.

That is so much for the manner in which we propose to dual it. One other thing. The mechanical equipment to be used in this dual completion is the same as has been approved previously by the Commission on numerous similar applications. And in this completion method, we propose, it will allow both zones to be produced to depletion as the gas zone is expected to flow to depletion, and the oil zone can either be pumped or gas-lifted whenever artificial lift becomes necessary.

MR. SANDERS: We do not have any further questions. Does the Commission have any questions?

MR. MACEY: Mr. Randolph, is there a possibility of getting a gas well in the Seven Rivers, is there a possibility?

A There is a possibility, it is true.

MR. MACEY: Would you still want to dual the well if you get a gas well in the Seven Rivers?

MR. SPURRIER: Don't make him commit himself.

A We would like to waive decision on this until such time --

MR. MACEY: You would want to come back in. In other words, your dual would be specifically for oil in the

Seven Rivers?

A That's right.

MR. SPURRIER: Any questions of the witness?

MR. GRAHAM: You are familiar with the usual type of dual completion order issued normally by the Commission?

A Yes, sir. We have had additional previous completions.

MR. SANDERS: We have nothing further.

MR. SPURRIER: The witness may be excused.

The case will be taken under advisement. And we will move on to Case 448.

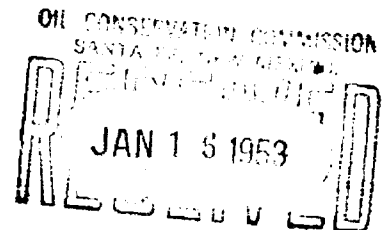
____o____

Case No.

448

Application, Transcript,
Small Exhibits, Etc.

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO



CASE 448:

Wilson Oil Company's application for permission to drill
14 unorthodox locations in Sections 7 and 18, Township 21 S,
Range 35 E, and in Sections 13 and 23, Township 21 S, Range
34 E, all in the Wilson Pool.

TRANSCRIPT OF HEARING

December 16, 1952

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

STATE OF NEW MEXICO
COUNTY OF BERNALILLO

ss

I HEREBY CERTIFY That the within transcript of
hearing in the above styled case before the Oil Conserva-
tion Commission of the State of New Mexico is a true rec-
ord 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

MR. SPURRIER: We will move on to Case 448.

(Mr. Graham reads the notice of publication.)

MR. SETH: Mr. Raymond Lamb will be our witness.

RAYMOND LAMB,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. SETH:

Q Will you state your name, please?

A Raymond Lamb.

Q Are you an officer of the Wilson Oil Company?

A That's right.

Q Are you familiar with this application for these unorthodox locations?

A I am.

Q Are you generally familiar with the conditions in the area covered by the applications?

A That's right.

Q Have you had occasion to do work in the field and to be in active charge of engineering and geology work of the company in this area?

A That's right.

Q Have you prepared a map showing the proposed locations?

(Whereupon the witness handed up a map which was

marked Exhibit 1.)

Q Will you describe to the Commission, please, Mr. Lamb, what this map shows, and describe the proposed locations?

A This map shows the proposed unorthodox locations shown by a large circle colored in red, and also a footage of these locations from the section lines. It also shows all the producing wells and all wells drilled in the 21-34-35 area.

Q Now, will you start at one end of it and describe the locations?

A On the northeast the Wilson State 1 A in the southwest of the northeast of Section 7-21-35. Shell State No. 15 in the northeast southwest of Section 7. Shell State 16 in the northwest of the northwest of Section 18-21-35. And an amended location, Shell State 17 to be in the northeast of the northeast of Section 13-21-34 instead of in the southwest northeast. This amendment has been filed.

Q But the change of location does not appear on Exhibit 1, does it?

A That's right.

MR. MACEY: What is the exact footage of that well, if you have it?

A The old or new one?

MR. MACEY: The new one.

A It will be 1270 feet from the north and 990 from the east.

The next one would be Amerada State No. 2A in the southwest of the northeast of Section 13. Wilson State A in the northwest of the southeast of Section 13. 9A in the southeast of the northwest. 7A in the northeast of the southwest. 8A in the southwest of the southwest. And 14A in the northwest of the southwest. Those are all in Section 13.

In Section 23-21-34, well No. 18A in the southeast of the northeast. 19A in the southwest of the northeast. And 21A in the northwest of the southeast. And in Section 24, 1 well, No. 24A in the northwest of the southwest.

4b

Q Are any of these proposed locations nearer than 330 feet to any offset acreage or other ownership?

A No.

Q How about No. 1A?

A No. 1A is offsetting a lease which is owned by Wilson Oil Company on a Shell farmout, and on which Shell holds one-eighth override.

Q The matter has been discussed with Shell, has it not?

A That's right.

Q Are any closer than 660 feet to any other well drilled or capable of producing from the same formation?

A No.

Q In other ownership.

A No.

Q Are you requesting any change or alteration of any kind in the allowable for the several 40-acre tracts upon which the proposed locations are to be made?

A No change over our allocation system.

Q Is there a previous unorthodox location indicated on this map?

A That's correct.

No. 14 in the center of the southwest quarter of Section 7.

Q Did you secure some further data on the reservoir conditions and the porous zones by reason of the drilling of this well?

A Yes, it was determined that the regular pay zone was somewhat erratic and varying in permeability and ferocity in the area.

Q Would that more or less confirm your previous opinion as to the condition of the porous zone?

A That is correct.

Q Are you otherwise familiar with the subsurface conditions in the area by reason of your direct experience in this area?

A Yes.

Q In your opinion will the drilling of these unorthodox locations lead to the greatest ultimate recovery and the prevention of waste?

A That's right. That is the basis on which they were selected.

MR. SETH: That is all the direct testimony we have, if the Commission please.

MR. SPURRIER: Does anyone have a question of the witness?

MR. WALKER: My name is Walker for Gulf.

Would you call that any particular pattern?

A No. The prediction of the locations were made upon engineering subsurface and geological data and there was no definite pattern because --

MR. WALKER: You don't assign anything to the wells as far as acreage is concerned, where you would have to --

A The tract upon which the well is located, the well will obtain its allowable from that 40-acre unit. There is no other allocation being set up.

MR. WALKER: Still be 40-acre allocation.

A Yes, sir.

MR. WALKER: Some of the tracts have two wells.

A Yes.

MR. WALKER: You do not call it a five-spot, or anything like that.

A No.

MR. SPURRIER: Anyone else?

MR. GRAHAM: What is the purpose of this, Lamb?

A To obtain additional oil that would otherwise not be recovered, George.

MR. GRAHAM: In other words, the existing wells, it is their belief, will not obtain maximum recovery and it will take these wells to recover that oil.

MR. SPURRIER: Any other questions?

MR. SETH: I would like to offer Exhibit 1 to the Commission, please.

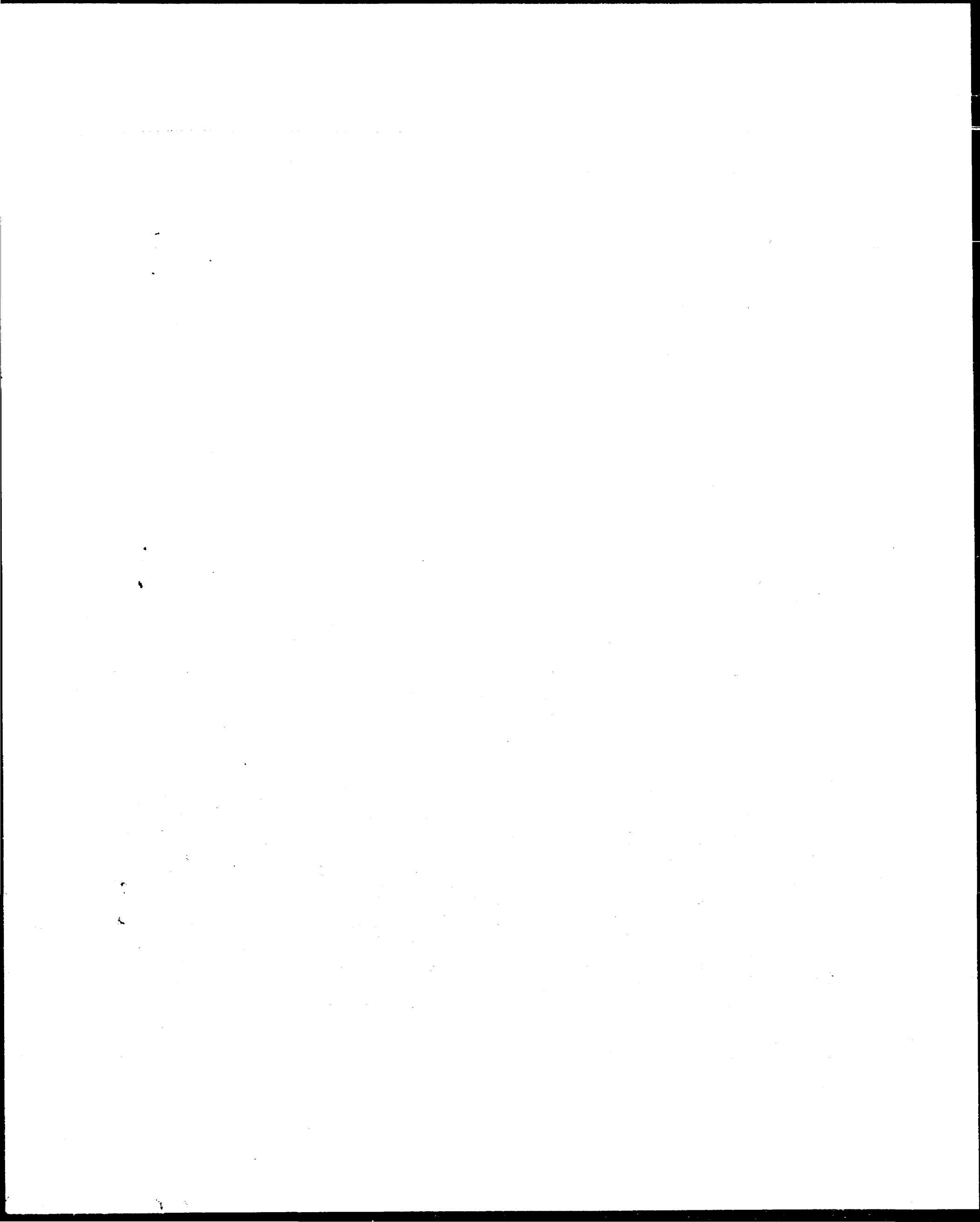
MR. SPURRIER: Without objection, it will be received.

MR. SETH: That is all the testimony we have.

The witness may be excused.

MR. SPURRIER: Is there any other comment in the case? If not, we will take the case under advisement and go on to Case 449.

_____o_____



BEFORE THE OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF }
WILSON OIL COMPANY FOR AN ORDER }
GRANTING UNORTHODOX LOCATIONS IN }
SW $\frac{1}{4}$ NE $\frac{1}{4}$, etc. }

No. 448

SECOND AMENDMENT OF APPLICATION

Comes now the Wilson Oil Company, a corporation, and
states:

1.

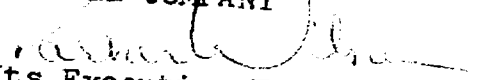
That it has heretofore filed a petition or application for
certain unorthodox locations, which application has received as
its case number No. 448.

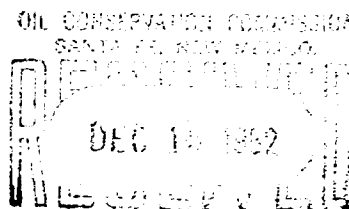
2.

Applicant desires to amend the said application to change
the proposed location described in paragraph 2 thereof as the
SE $\frac{1}{4}$ NE $\frac{1}{4}$, Section 13, Township 21 South, Range 34 East, N.M.P.M.,
named of proposed well, Shell 17, to read instead: the NE $\frac{1}{4}$ NE $\frac{1}{4}$,
Section 13, Township 21 South, Range 34 East, N.M.P.M.

Respectfully submitted,

WILSON OIL COMPANY

By 
Its Executive Vice President



BEFORE THE OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF
WILSON OIL COMPANY, etc.

No. 448

VERIFICATION

Comes now PARKER WILSON, the executive Vice President of
the Wilson Oil Company who having been first duly sworn, deposes
and says:

That he has read the application submitted by the Wilson
Oil Company, together with the Amendment of Application and Second
Amendment of Application, in the above entitled cause and knows
and states that the matters and things therein stated are true
and correct.

SUBSCRIBED and SWORN to before me this 12th day of
December, 1952.

Anna L. Hase
Notary Public

My Commission Expires:

June 12th 1956

Please take to
Oil Conservation Council
have filed with
Case 448

BEFORE THE OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF WILSON)
OIL COMPANY FOR AN ORDER GRANTING UNORTHODOX) NO. 448
LOCATIONS IN SW $\frac{1}{4}$ NE $\frac{1}{4}$, etc.)

AMENDMENT OF APPLICATION

Comes now the Wilson Oil Company, a corporation, and states:

1.

That it has heretofore filed a petition or application for certain unorthodox locations, which application has received as its case number No. 448.

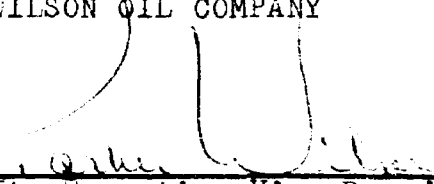
2.

Applicant desires to amend the said application to change the proposed location described in paragraph 2 thereof as the NE $\frac{1}{4}$ NE $\frac{1}{4}$, Section 23, Township 21 South, Range 34 East, N.M.P.M., to read instead:

NW $\frac{1}{4}$ SW $\frac{1}{4}$, Section 24, in said Township.

Respectfully submitted,

WILSON OIL COMPANY

BY 
Its Executive Vice-President

December 8th, 1952

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. 448
ORDER No. R-243

THE APPLICATION OF WILSON OIL
COMPANY, AS AMENDED, FOR AN
ORDER GRANTING PERMISSION TO
DRILL FOURTEEN UNORTHODOX
LOCATIONS IN SECTIONS 7 AND 18,
TOWNSHIP 21 SOUTH, RANGE 35 EAST,
NMPM, AND SECTIONS 13, 23 AND 24,
TOWNSHIP 21 SOUTH, RANGE 34 EAST,
NMPM, ALL IN LEA COUNTY, NEW
MEXICO, IN THE WILSON POOL.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This matter came on for hearing at 9 o'clock a.m. on December 16, 1952, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW, on the ¹⁵ day of January, 1953, the Commission, having before it for consideration the testimony adduced at said hearing, and being fully advised in the premises,

FINDS:

(1) That due notice having been given as provided by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That Wilson Oil Company is the lease owner or has the right to drill and produce from the following described tracts in Lea County, New Mexico.

Township 21 South, Range 35 East, NMPM
W/2 and NE/4 of Section 7, NW/4 Section 18

Township 21 South, Range 34 East, NMPM
S/2 of NW/4, S/2, and NE/4 Section 13,
N/2, SW/4, N/2 SE/4, SW/SE/4 of Section 23
SW/4 of Section 24.

(3) That it would be in the interest of conservation if approval were granted to drill the fourteen unorthodox locations in that it would provide a greater ultimate recovery of oil from the Wilson Pool reservoir.

IT IS THEREFORE ORDERED:

(1) That the application of Wilson Oil Company for permission to drill 14 unorthodox locations at the following designated locations be and the same hereby is approved.

(2) That the wells shall be located at the following described locations:

Township 21 South, Range 35 East, NMPM

Wilson State 1-A to be located 3860 feet from south line and 2540 feet from the east line of Section 7.

Shell State 15 to be located 2540 feet from the South line and 3860 feet from the east line of Section 7.

Shell State 16 to be located 90 feet from the north and west lines of Section 18.

Township 21 South, Range 34 East, NMPM

Amerada State 2-A to be located 2500 feet from the north and east lines of Section 13.

Shell State 17 to be located 1270 feet from the north line and 990 feet from the east line of Section 13.

Wilson State 5-A to be located 2600 feet from the south line and 1650 feet from the east line of Section 13.

Wilson State 9-A to be located 1650 feet from the north line and 2590 feet from the west line of Section 13.

Wilson State 7-A to be located 1650 feet from the south line and 2600 feet from the west line of Section 13.

Wilson State 14-A to be located 1650 feet from the south line and 1270 feet from the west line of Section 13.

Wilson State 8-A to be located 990 feet from the south line and 1650 feet from the east line of Section 13.

Wilson State 18-A to be located 2310 feet from the north line and 990 feet from the east line of Section 23.

Wilson State 19-A to be located 2440 feet from the north line and 2310 feet from the east line of Section 23.

Wilson State 21-A to be located 1950 feet from the south line and 1520 feet from the east line of Section 23.

Wilson State 24-A to be located 2310 feet from the south line and 330 feet from the west line of Section 24.

(3) That upon completion of each unorthodox well the allowable assigned to the newly completed unorthodox well plus the allowable assigned to the well which is located on the same 40-acre proration unit as the unorthodox well shall not exceed the normal top unit allowable as fixed by the Commission for the Wilson Pool reservoir.

Case No. 448
Order No. R-243

(4) That the 14 unorthodox locations, herein approved, may be drilled only to a depth necessary to test the producing horizon of the Wilson Pool.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Edwin L. Mechem

EDWIN L. MECHEM, Chairman

E. S. Walker

E. S. WALKER, Member

R. R. Spurr

R. R. SPURRIER, Secretary

S E A L

BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF)
 WILSON OIL COMPANY FOR AN ORDER)
 GRANTING PERMISSION TO DRILL WELLS AT)
 UNORTHODOX LOCATIONS IN SW $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$,)
 SECTION 7, Township 21 South, Range 35)
 East; the NW $\frac{1}{4}$ NW $\frac{1}{4}$, Section 18, Township)
 21 South, Range 35 East; SW $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$,)
 NW $\frac{1}{4}$ SE $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ SE $\frac{1}{4}$,)
 Section 13, Township 21 South, Range 34)
 East; also SE $\frac{1}{4}$ NE $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$,)
 Section 23, Township 21 South, Range 34)
 East, ALL IN LEA COUNTY, NEW MEXICO.)

CASE NO. 448

A P P L I C A T I O N

Comes now the Wilson Oil Company, a corporation, and states
 as follows:

1.

The applicant is the lease owner or has the right to drill
 and produce from the W $\frac{1}{2}$ and the NE $\frac{1}{4}$ of Section 7 and the NW $\frac{1}{4}$ of
 Section 18, Township 21 South, Range 35 East, and upon all of
 Section 13, Township 21 South, Range 34 East, except the N $\frac{1}{2}$ NW $\frac{1}{4}$, in
 Township 21 South, Range 34 East, and upon all of Section 23,
 Township 21 South, Range 34 East, except the SE $\frac{1}{4}$ SE $\frac{1}{4}$.

2.

Application is hereby made for unorthodox well locations as
 follows:

<u>Location</u>	<u>Name of Pro-</u> <u>posed Well</u>	<u>Existing Well on Same</u> <u>40 Acre Tract</u>
T. 21 S., R. 35 E.		
Sec. 7:		
SW $\frac{1}{4}$ NE $\frac{1}{4}$	Wilson 1-A	Wilson 1
NE $\frac{1}{4}$ SW $\frac{1}{4}$	Shell 15	Shell 1
Sec. 18:		
NW $\frac{1}{4}$ NW $\frac{1}{4}$	Shell 16	Shell 5

<u>Location</u>	<u>Name of Proposed Well</u>	<u>Existing Well on Same 40 Acre Tract</u>
T. 21 S., R. 34 E.		
Sec. 13:		
SW $\frac{1}{4}$ NE $\frac{1}{4}$	Amerada 2-A	Amerada 2
NE $\frac{1}{4}$ NW $\frac{1}{4}$ (SE $\frac{1}{4}$ NE $\frac{1}{4}$)	Shell 17	Shell 13
NW $\frac{1}{4}$ SE $\frac{1}{4}$	Wilson 5-A	Wilson 5
SE $\frac{1}{4}$ NW $\frac{1}{4}$	Wilson 9-A	Wilson 9
NE $\frac{1}{4}$ SW $\frac{1}{4}$	Wilson 7-A	Wilson 7
NW $\frac{1}{4}$ SW $\frac{1}{4}$	Wilson 14-A	Wilson 14
SW $\frac{1}{4}$ SE $\frac{1}{4}$	Wilson 8-A	Wilson 8
Sec. 23:		
SE $\frac{1}{4}$ NE $\frac{1}{4}$	Wilson 18-A	Wilson 18
SW $\frac{1}{4}$ NE $\frac{1}{4}$	Wilson 19-A	Wilson 19
NW $\frac{1}{4}$ SW $\frac{1}{4}$ (NE $\frac{1}{4}$ NE $\frac{1}{4}$)	Wilson 17-A	Wilson 17
NW $\frac{1}{4}$ SE $\frac{1}{4}$	Wilson 21-A	Wilson 21

3.

The said locations are in no event to be closer than 330 feet to any offset acreage of any other owners nor closer than 660 feet to the nearest well drilling or capable of producing from the same pool and of other ownership.

4.

Applicant does not ask for any allowable in excess of the normal unit allowable for the 40 Acre Tract upon which the unorthodox well will be located.

5.

The production history of the adjoining wells to the proposed unorthodox location indicates that the drilling of the unorthodox locations will result in the greatest ultimate recovery of oil from the pool and will ultimately prevent waste.

6.

The applicant has attached hereto a map showing the location of the existing wells indicating the proposed unorthodox locations.

WHEREFORE, the applicant prays that this matter be set down for hearing in due course by the Commission, and that upon the

hearing so held the applicant be granted an order giving permission to drill upon the unorthodox locations described hereinabove.

Respectfully submitted,

WILSON OIL COMPANY

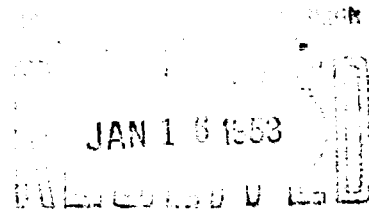
BY 
Its Executive Vice-President

Case No.

449

Application, Transcript,
Small Exhibits, Etc.

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO



CASE 449:

Phillips' application for dual completion of its Sims No. 4 well, NW NW 24-22S-37E (Drinkard Pool) in order to produce oil from the Drinkard formation and gas from the Blinebry.

TRANSCRIPT OF HEARING

December 16, 1952

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


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. Gresson
Reporter

MR. SPURRIER: We will go on to Case 449.

(Mr. Graham reads the notice of publication.)

MR. FOSTER: I just want to make this statement.

This witness will just read a short concise statement about the matter in order to save time.

MR. SPURRIER: Very well.

MR. FOSTER: Our engineer could not be here so Mr. Bramer is here to testify.

MR. SPURRIER: He hasn't been qualified?

MR. FOSTER: He hasn't been qualified and I am not going to attempt to qualify him as any expert in this matter, Mr. Spurrier. I do want him to read the statement. And if that doesn't satisfy the Commission, we will furnish additional testimony.

MR. SPURRIER: Very well.

J. R. BRAMER,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. FOSTER:

Q You may state your name, please.

A J. R. Bramer.

Q By whom are you employed, Mr. Bramer?

A Phillips Petroleum Company.

Q In what capacity?

A Assistant director of proration production department.

Q How long have you been employed in that capacity?

A About two years.

Q Do you have a statement that you desire to read here with respect to the application of the Phillips Petroleum Company for the dual completions?

A I do.

Q Will you just read that statement, please, sir?

A Phillips Petroleum Company's Sims Lease covering the northwest quarter and the west half of the southwest quarter of Section 24, Township 22, S, Range 37 E, Lea County, is located in the Drinkard Field. The No. 1 well on this lease is producing from the Blinebry gas zone, while the remaining wells, Nos. 2, 3, 4 and 5, are producing from the Drinkard formation. We propose dually completing well No. 4 located in the northwest quarter, northwest quarter of Section 24 in order to produce gas from the Blinebry zone and oil from the Drinkard zone.

Well No. 4 was completed August 8th, 1948, and is presently producing at the rate of nine barrels of oil and no water per day. Total depth of this well is 6462 feet. It is our intention to pull the two and a half inch tubing and kill the Drinkard zone perforations from 6360
5 6450 feet.

A bridge plug will be set up 5560 feet and the

Blinebry zone will be perforated from 5450 to 5540 feet. Tubing and packer will be run and the Blinebry perforations tested for gas flow.

This zone will then be acidized, if necessary, with 2500 gallons of acid. Thereafter, tubing and packer will be pulled and the bridge plug drilled out, and the well cleaned out to total depth.

A dual production string with side-door choke and packer will then be run, and both zones will be switched on production. The Blinebry zone will be produced through the casing annulus, and the Drinkard zone through the tubing.

The well will be completed and produced in such a manner that there will be no commingling within the well bore of the two producing zones.

In addition, the well will be equipped with all necessary well head connections in order that production from each separate formation may be accurately measured and the gas-oil ratio determined.

That is my statement.

Q Do you have a plat there that shows the Sims lease?

A Yes, sir, I do.

Q Just hand that to the reporter. I would like to mark it Exhibit 1. And do you have a diagramatic sketch

showing the proposed method of well completion?

A I have.

Q Hand it to the reporter, and I would like to have it marked Exhibit 2.

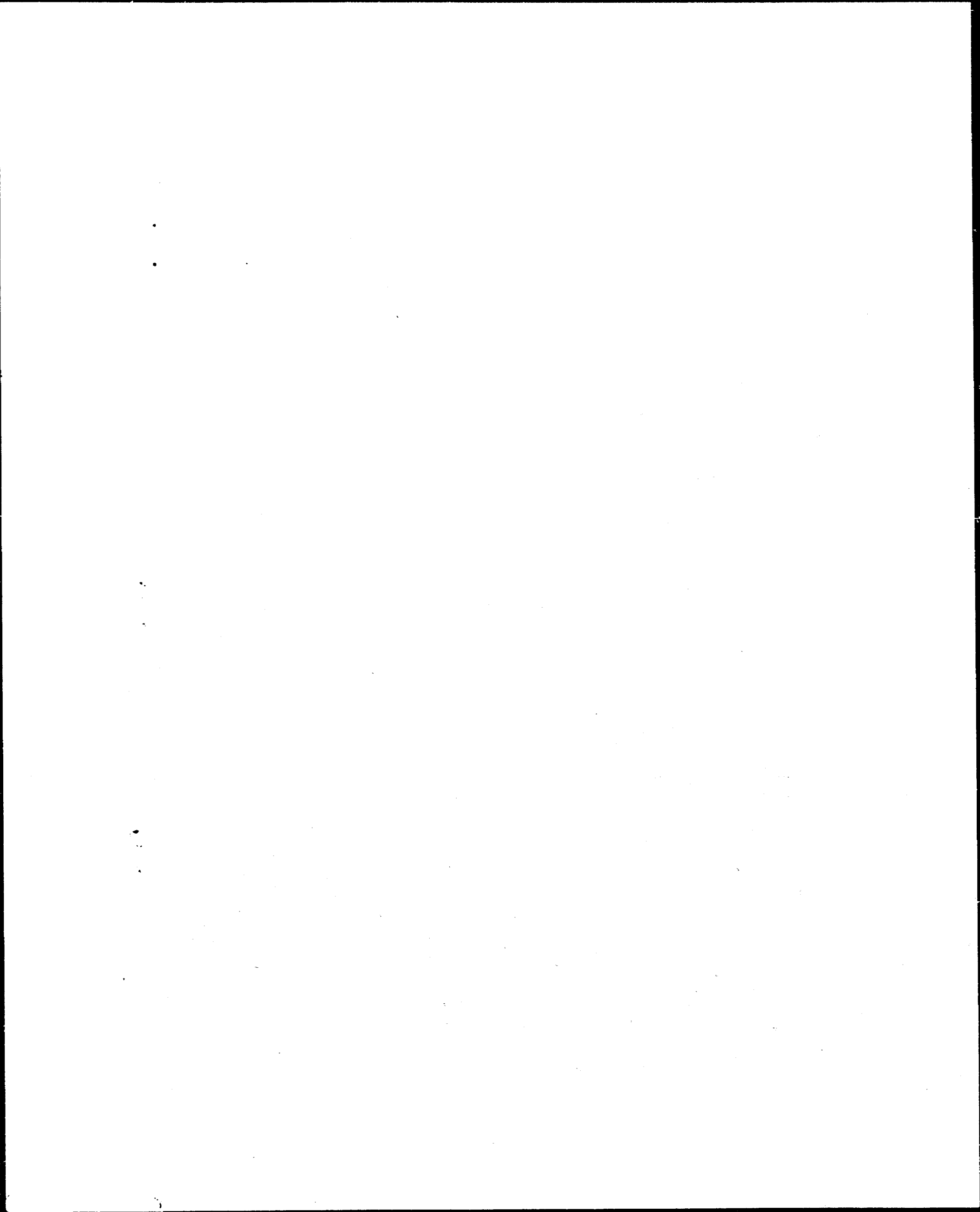
MR. FOSTER: I believe that is all, Mr. Commissioner.

MR. SPURRIER: Are there any questions of the witness? If not, the witness may be excused.

Is there any further comment in the case? If not, the case will be taken under advisement.

We will take a short recess.

— o —



BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 449
ORDER NO. R-255

THE APPLICATION OF PHILLIPS
PETROLEUM COMPANY FOR AN
ORDER GRANTING PERMISSION TO
DUALY COMPLETE AND PRODUCE
ITS SIMS, NO. 4 WELL, LOCATED IN
THE NW/4 NW/4 OF SECTION 24,
TOWNSHIP 22 SOUTH, RANGE 37 EAST,
NMPM, LEA COUNTY, NEW MEXICO,
IN THE DRINKARD POOL.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on December 16, 1952, at Santa Fe, New Mexico, before the Oil Conservation Commission, hereinafter referred to as the "Commission".

NOW, on this th15 day of January, 1953, 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 Sims, No. 4 Well, NW/4 NW/4, Section 24, Township 22 South, Range 37 East, NMPM, Lea County, New Mexico, was completed in August, 1948, as an oil well producing from the Drinkard formation through casing perforations 6390'-6450', having drilled through the Blinebry gas zone, 5450'-5540'.

(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 practice, 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, Phillips Petroleum Company, be, and it hereby is authorized to dually complete and produce its Sims No. 4 Well, NW/4 NW/4, Section 24, Township 22 South, Range 37 East, NMPM, 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 the tubing and oil from the Drinkard formation through the tubing by proper perforations and the installation of a 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
Edwin L. Mechem, Chairman

E. S. Walker
E. S. Walker, Member

R. R. Spurrier
R. R. Spurrier, Secretary

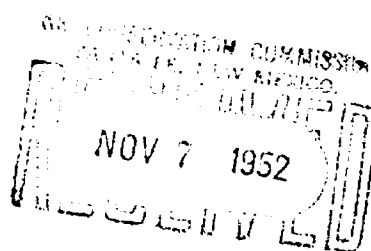
Case 479

PHILLIPS PETROLEUM COMPANY

BARTLESVILLE, OKLAHOMA

November 5, 1952

PRODUCTION DEPARTMENT
C. P. DIMIT
VICE PRESIDENT



L. E. FITZJARRALD
MANAGER
H. H. KAVELER
ASSISTANT MANAGER
J. M. HOUGHIN
GENERAL SUPERINTENDENT
H. S. KELLY
CHIEF ENGINEER

In re: Application of Phillips Petroleum Company for Dual Completion
of its Sims Well No. 4, Drinkard Field, Lea County, New Mexico.

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

Gentlemen:

Phillips Petroleum Company requests that a hearing be scheduled before the Oil Conservation Commission for the purpose of obtaining approval to dually complete its Sims well No. 4, Drinkard Field, Lea County, New Mexico.

This well, located in the center of the NE 1/4 NW 1/4, Section 24, Twp. 22S, Rge. 37E, Lea County, as shown on the attached plat, was completed on August 9, 1948, at a total depth of 6462 feet. The well is presently producing from the Drinkard formation. We propose dually completing this well by perforating from 5450-5540 feet and producing gas from the Blinbry Zone through the casing annulus and oil from the Drinkard Zone through the tubing.

It is our understanding that the New Mexico Oil and Gas Conservation Commission has approved the dual completion of these zones in a number of wells in this field. We therefore, respectfully request that a hearing be set at the earliest date in order that we may present the necessary testimony in support of this application. As this matter is urgent we would greatly appreciate it if this hearing could be scheduled for November 20, 1952. We would further request that temporary permission be granted to dually complete this well pending the hearing.

Yours very truly,

C. P. Dimit

CPD

FIGURE NO. 2

SIMS LEASE - DRINKARD FIELD
LEA COUNTY, NEW MEXICO
SCALE 1" = 3 MILE

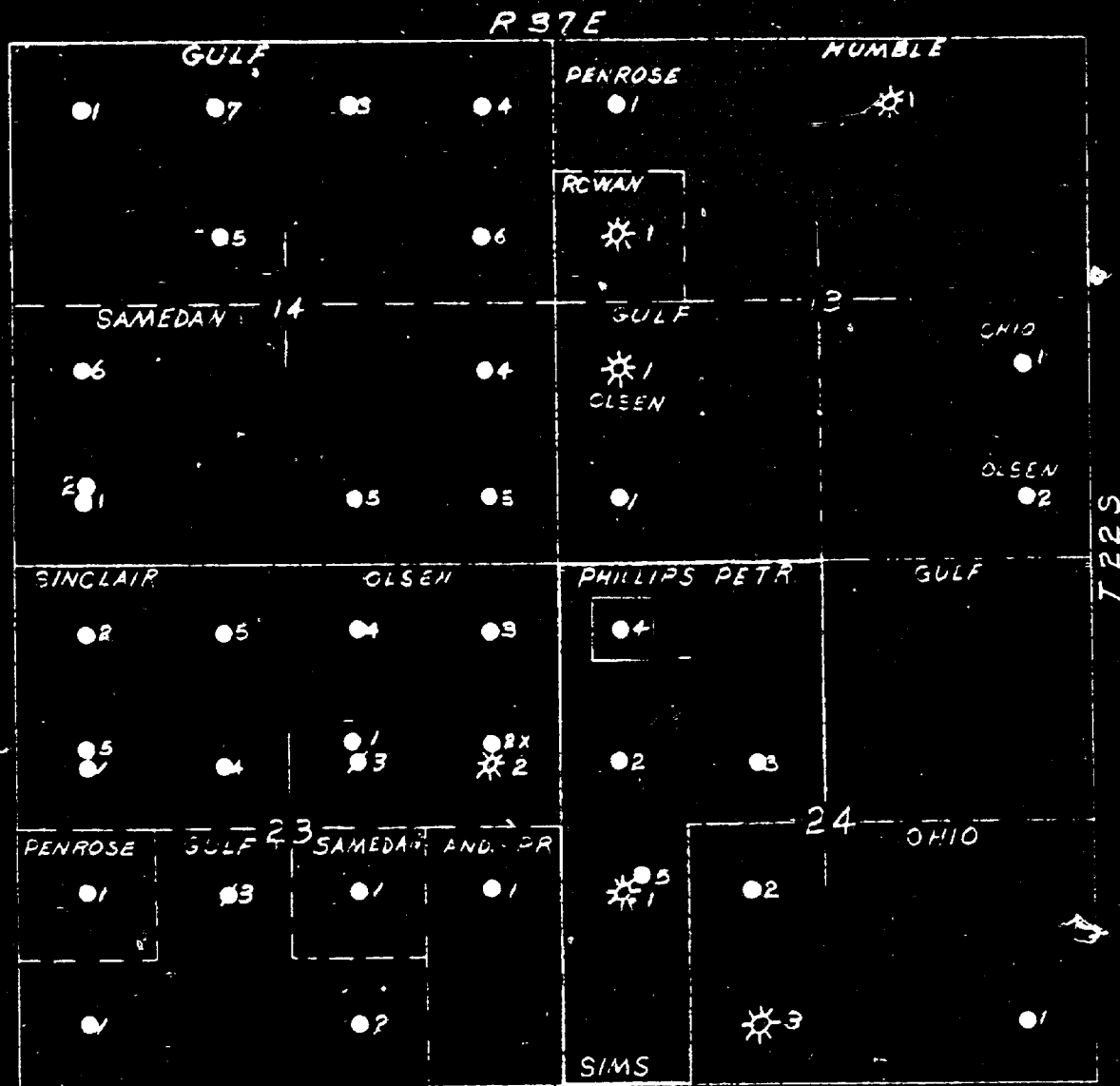
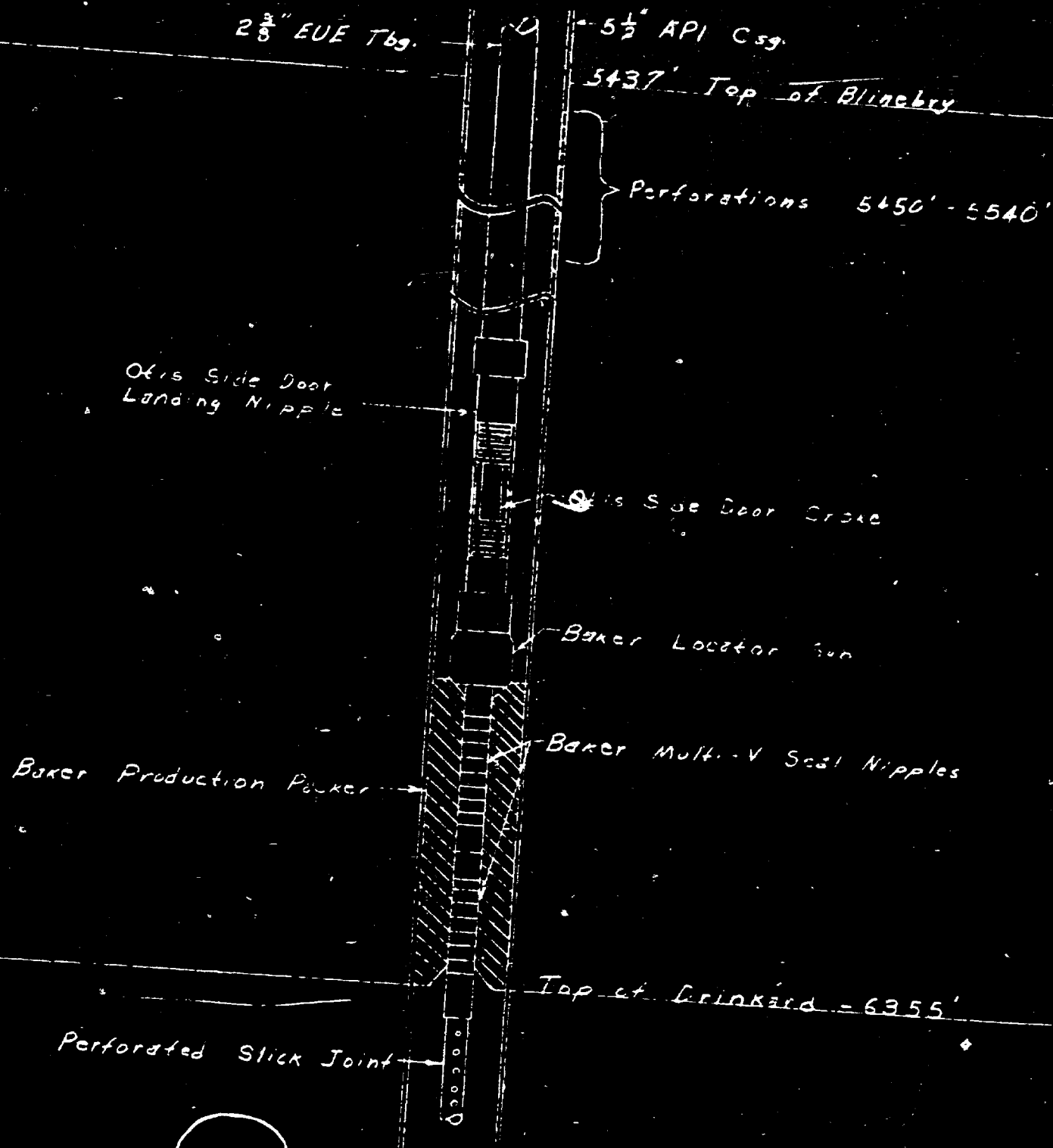


FIGURE No. 1
DUAL COMPLETION INSTALLATION
SCALE - NONE



Drawn By E.M. Barnett

92-

SIMS LEASE - DRINKARD FIELD
LEA COUNTY, NEW MEXICO
SCALE 1" = 3 MILE

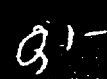
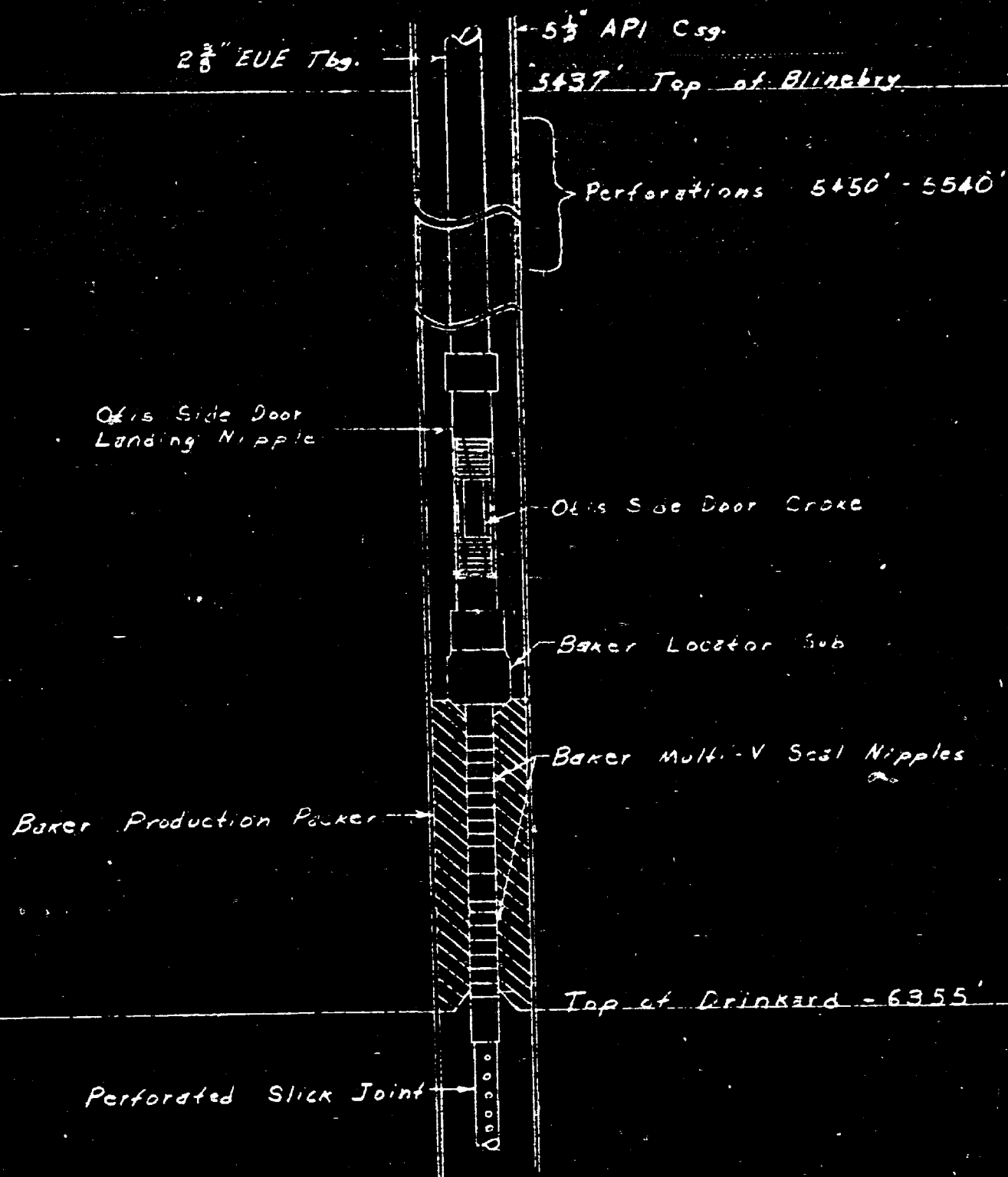


FIGURE No. 1

DUAL COMPLETION INSTALLATION

SCALE - NONE



Drawn By E.M. Barnett

92-

Case No.

450

Application, Transcript,
Small Exhibits, Etc.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 450
ORDER No. R-244

THE APPLICATION OF HUMBLE OIL
AND REFINING COMPANY FOR AN
ORDER GRANTING PERMISSION TO DUALY
COMPLETE AND PRODUCE ITS F. F. HARDISON
B, WELL NO. 4, LOCATED IN THE NW/4 NE/4,
SECTION 34, TOWNSHIP 21 SOUTH, RANGE 37
EAST, NMPM, LEA COUNTY, NEW MEXICO, IN
THE DRINKARD POOL.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a. m. on December 16, 1952, at Santa Fe, New Mexico, before the Oil Conservation Commission, hereinafter referred to as the "Commission".

NOW, on this ²¹/₅ day of January, 1953, 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 F. F. Hardison "B", Well No. 4, NW/4 NE/4 Section 34, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, was completed in September, 1946, as an oil well producing from the Drinkard formation through casing perforations 6448-6577, having drilled through the Blinbry gas zone 5470-5680.

(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 practice, 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, Humble Oil and Refining Company, be and it hereby is authorized to dualy complete and produce its F. F. Hardison "B", Well No. 4, NW/4 NE/4 Section 34, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, in such a manner that gas from the Blinbry formation may be produced through the annular space between the casing and the tubing and oil from the Drinkard formation through the tubing by proper perforations and the installation of a 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

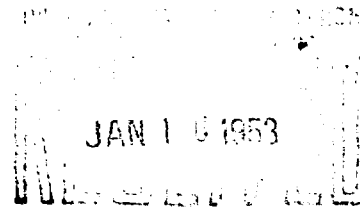
Edwin L. Mechem
EDWIN L. MECHEM, Chairman

E. S. Walker
E. S. WALKER, Member

R. R. Spurrier
R. R. SPURRIER, Secretary

S E A L

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 $5\frac{1}{2}$ -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 $5\frac{1}{2}$ -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 5 $\frac{1}{2}$ -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 5 $\frac{1}{2}$ -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 Blinbry pay through the tubing casing annulus. Our geological information indicates that the Tubb productive horizon is in the middle Clear Fork and that the Blinbry 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

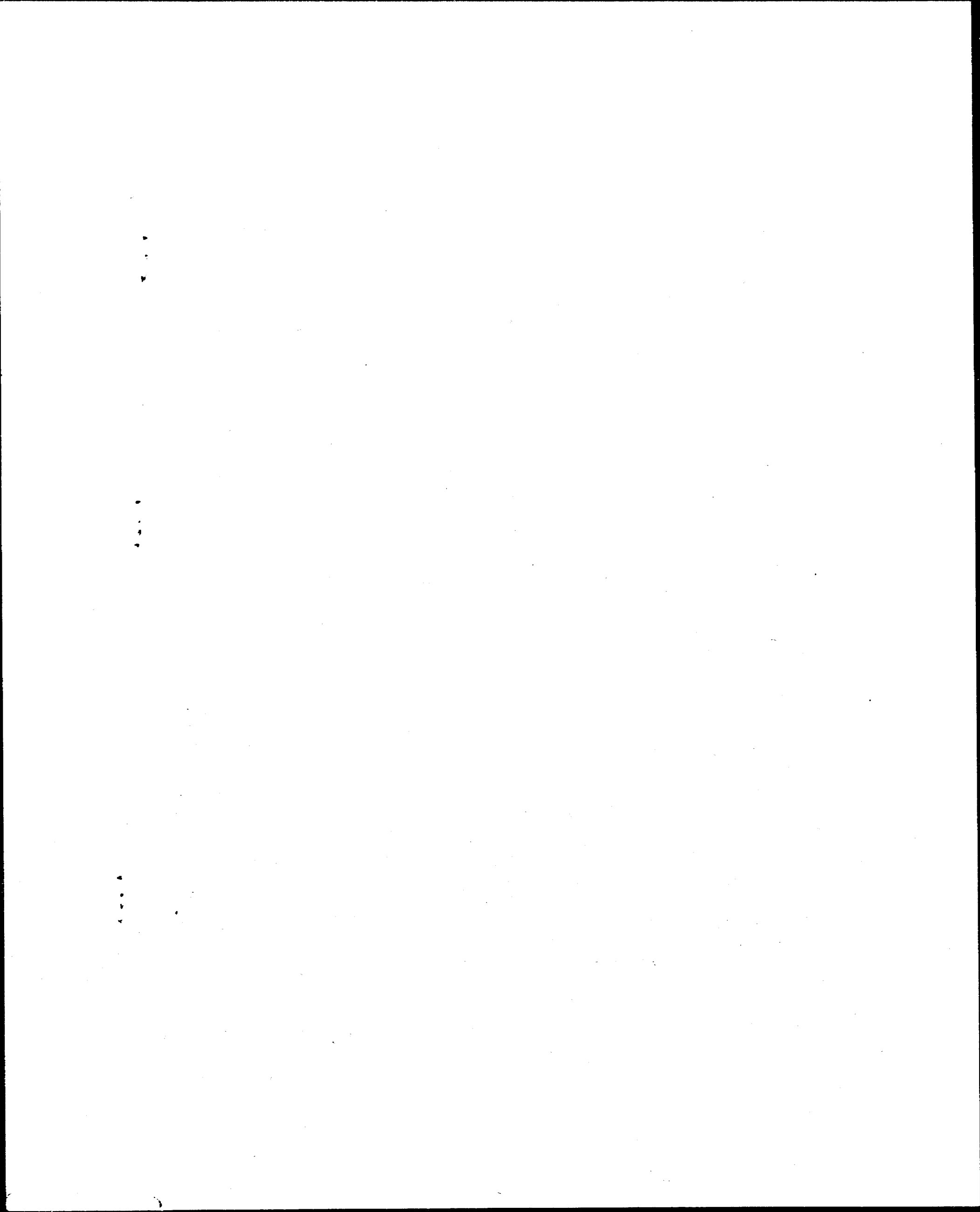
I HEREBY CERTIFY That the within transcript of hearing in the above styled case before the Oil Conservation Commission of the State of New Mexico is a true record of the same to the best of my knowledge, skill and ability.

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



E. E. Greeson
Reporter

— o —



Midland, Texas
November 6, 1952

File: 6-1
Re: Application to Dually Complete Humble F. F. Hardison B-4, Drinkard Pool, Lea County, New Mexico

Oil Conservation Commission
State of New Mexico
Santa Fe, New Mexico

Gentlemen:

By means of this application, Humble Oil & Refining Company wishes to state the following:

- (a) Humble Oil & Refining Company F. F. Hardison B-4, located in the NW/4 of NE/4, Section 34, T21S, R37E, Lea County, was completed September 5, 1946 at a total depth of 6584 feet. The 5-1/2-inch OD production string of casing was set at 6583 feet.
- (b) Exhibit A, attached, is a plat showing the location of subject well, other wells on the subject lease and all offset wells.
- (c) The subject well was completed as an oil well from the Drinkard pay producing through casing perforations from 6448 to 6577 feet. Exhibit B, attached, is a schematic diagram of the current completion status of the subject well.
- (d) The applicant proposes to dually complete the well to continue to produce oil from the Drinkard pay through the tubing and gas from the Blinebry pay through the tubing-casing annulus in the following manner.
 - (1) Perforate the 5-1/2-inch OD casing within the approximate interval of 5470 to 5680 feet opposite the Blinebry pay.
 - (2) Set a production type packer below the above casing perforations at approximately 5750 feet to separate the two pay zones.

The manner and method of the dual completion is shown in Exhibit C, attached.

- (e) Granting of this application for permission to produce the well as a dual completion with oil from the Drinkard and gas from the Blinebry is in the interest of conservation and protection of correlative rights.
- (f) The applicant will comply with all rules and regulations of the New Mexico Oil Conservation Commission to maintain separation of production from the two pay zones.

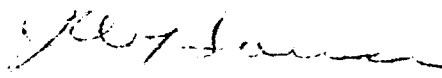
Oil Conservation Commission
State of New Mexico
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- (g) The manner and method of the proposed dual completion is mechanically feasible and practical.

Therefore, Humble Oil & Refining Company requests that the New Mexico Oil Conservation Commission set a certain day upon which this application may be heard and after said hearing to grant permission in order that the applicant may dually complete the subject well as proposed in this application.

Respectfully Submitted,

HUMBLE OIL & REFINING COMPANY



J. W. HOUSE
Division Superintendent

JEG/jl

Encl. Exhibit A - Plat showing location of subject well, other wells on the lease and all offset wells.

Exhibit B - Schematic Diagram of Current Completion, Humble New Mexico F. F. Hardison B-4.

Exhibit C - Schematic Diagram of Manner and Method of the Dual Completion, Humble New Mexico F. F. Hardison B-4.

Exhibit D- Radioactive Log of Humble New Mexico F. F. Hardison B-4.

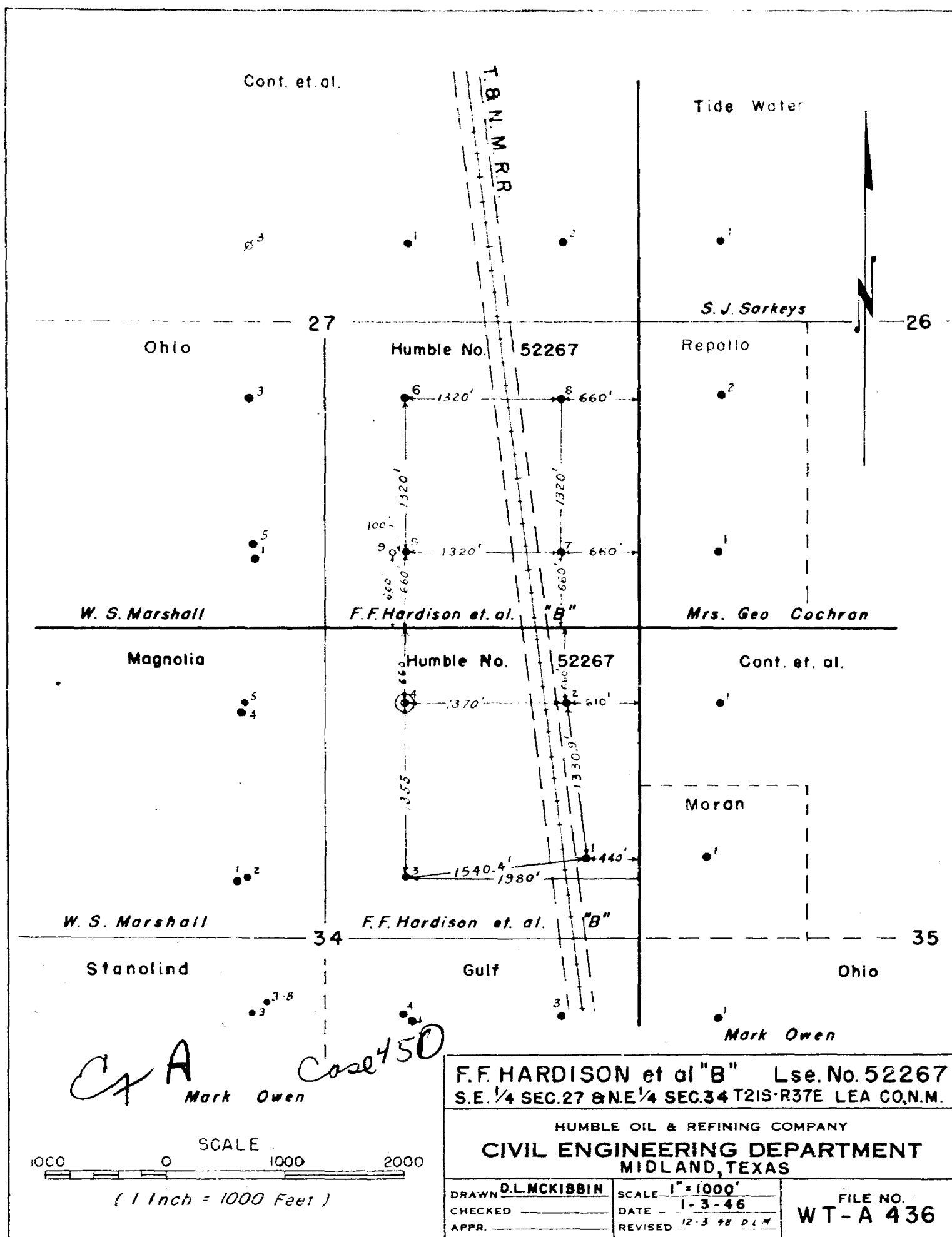


EXHIBIT B: SCHEMATIC DIAGRAM OF CURRENT
COMPLETION STATUS - HUMBLE S.F. HARDISON 9-4

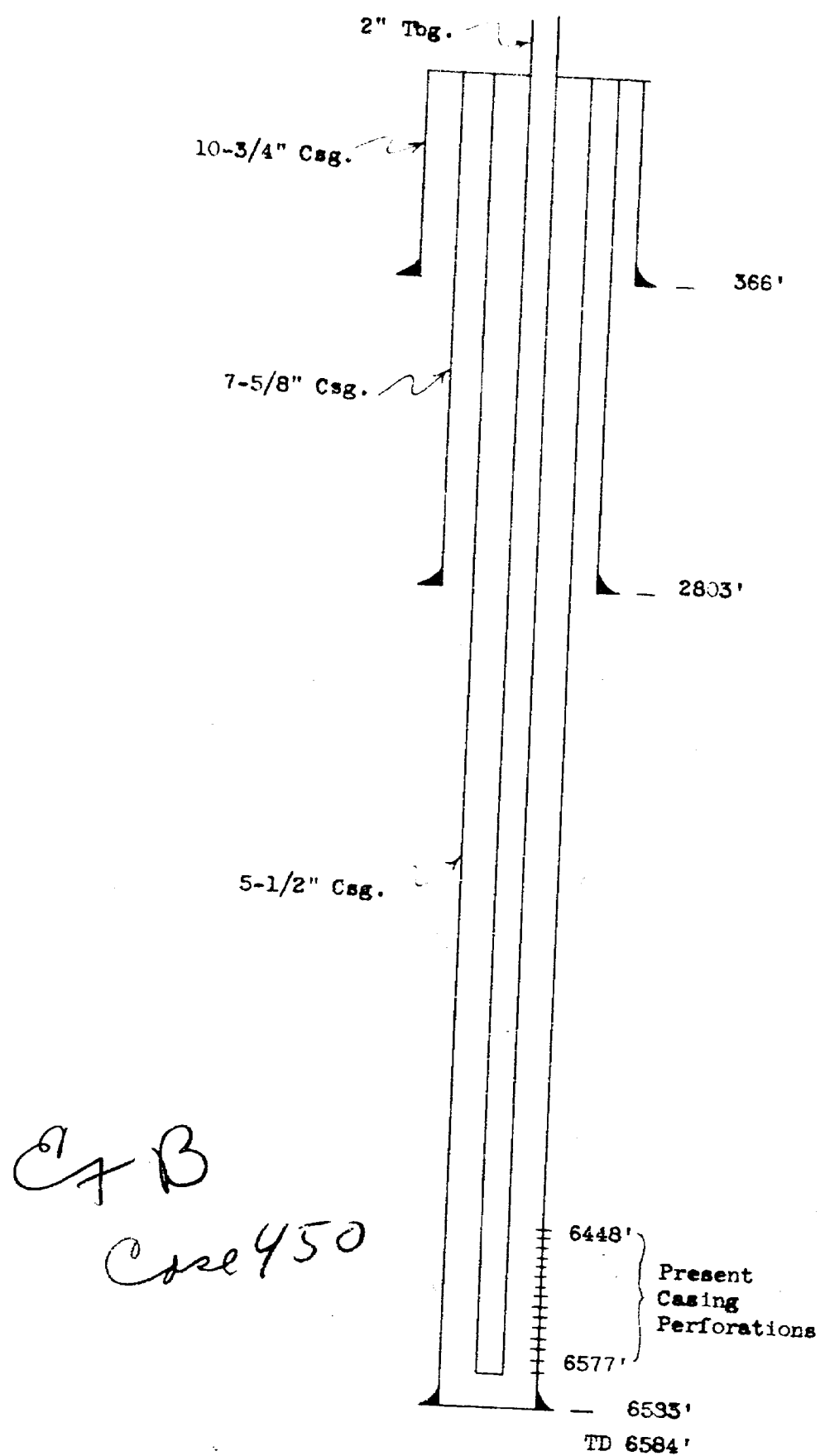
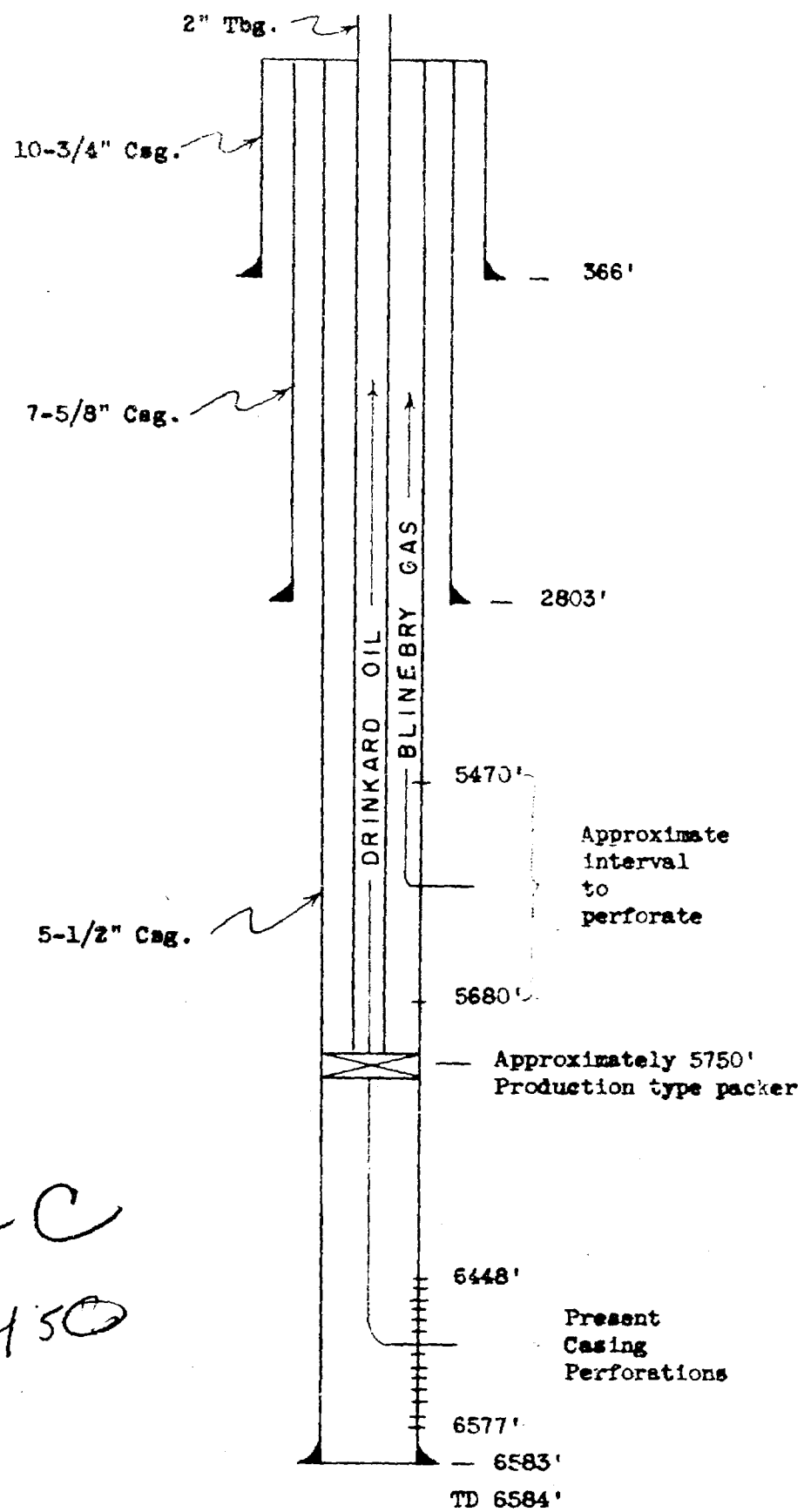


EXHIBIT C: SCHEMATIC DIAGRAM OF PROPOSED
DUAL COMPLETION - HUMBLE F. F. HARDISON B-4



Ex C
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