

Case No.

1456

Application, Transcript,  
Small Exhibits, Etc.

1496

CASE 1496 Bill H. Case Application for  
Bill H. Case and application of his  
Leasey McDuffington Bill H. Case, Los County.

OIL CONSERVATION COMMISSION  
P. O. BOX 871  
SANTA FE, NEW MEXICO

June 23, 1958

Mr. William Kastler  
Gulf Oil Corporation  
P.O. Box 669  
Roswell, New Mexico

Dear Mr. Kastler:

We enclose two copies of each of the following orders:

Order R-1196, Case 1454  
Order R-1197, Case 1455  
Order R-1199, Case 1456

These orders were issued by the Oil Conservation Commission  
on June 18, 1958.

Very truly yours,

A. L. Porter, Jr.  
Secretary - Director

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Encls.

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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. 1456  
Order No. R-1199

APPLICATION OF GULF OIL CORPORATION  
FOR AN OIL-OIL DUAL COMPLETION IN AN  
UNDESIGNATED BLINERY OIL POOL AND  
IN THE MCKEE FORMATION ADJACENT TO  
THE JUSTIS-MCKEE POOL IN LEA COUNTY,  
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on May 28, 1958, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, herein-after referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 18<sup>th</sup> day of June, 1958, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Gulf Oil Corporation, is the owner and operator of the Learcy McBuffington Well No. 6, located 330 feet from the South line and 1980 feet from the East line of Section 13, Township 25 South, Range 37 East, NMPN, Lea County, New Mexico.
- (3) That the applicant proposes to dually complete the above-described Learcy McBuffington Well No. 6 in such a manner as to permit the production of oil from an undesignated Blinery oil pool and the production of oil from the McKee formation adjacent to the Justis-McKee Pool through parallel strings of 2 3/8-inch tubing.
- (4) That the mechanics of the proposed dual completion are feasible and in accord with good conservation practices.
- (5) That approval of the subject application will not cause waste nor impair correlative rights.
- (6) That the subject application should be approved.

IT IS THEREFORE ORDERED:

1. That the applicant, Gulf Oil Corporation, be and the same is hereby authorized to dually complete its Learcy McBuffington

Well No. 6, located 330 feet from the South line and 1980 feet from the East line of Section 13, Township 25 South, Range 37 East, NMPM, Lea County, New Mexico, in such a manner as to permit the production of oil from an undesignated Blinbry oil pool and the production of oil from the McKee formation adjacent to the Justis-McKee Pool through parallel strings of 2 3/8-inch tubing.

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,

PROVIDED HOWEVER, That prior to the actual dual completion the operator shall make pressure tests of the casing to prove that no casing leaks exist. In the event a casing leak is apparent the operator shall take appropriate steps to adequately repair the leak. The results of these tests shall be reported to the Commission on Form C-103.

PROVIDED FURTHER, That upon the actual dual completion of such subject well applicant shall submit to the appropriate District Office of the Commission copies of Oil Conservation Commission Form C-103, Form C-104, Form C-110, and Form C-122, outlining the information required on those forms by existing Rules and Regulations, and two copies of the electric log of the well.

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 or gas-liquid ratio thereof determined, and

PROVIDED FURTHER, That the operator shall make any and all tests, including segregation and packer-leakage tests upon completion and annually thereafter during the Annual Gas-Oil Ratio Test Period for the Larcy McBuffington Well No. 6, commencing in the year 1959, and whenever the packer is disturbed, but not excluding any other tests and/or determinations as deemed necessary by the Commission; the original and all subsequent tests shall be witnessed 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, shall be filed with the Commission within fifteen (15) days after the completion of such tests, and further, that applicant shall file with the Commission in duplicate a packer-setting affidavit, which affidavit shall be due within fifteen (15) days of the dual completion or whenever the packer is disturbed, 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 or gas-liquid ratio, and reservoir pressure determination for each producing zone or stratum immediately following completion.

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Case No. 1456  
Order No. R-1199

**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

*E. L. Mechem*

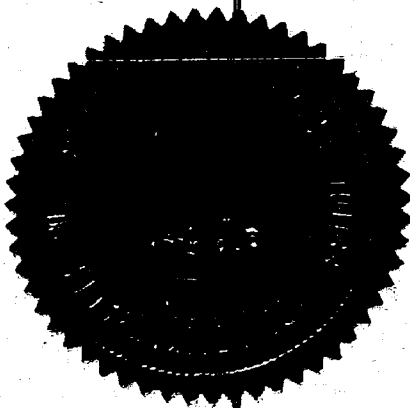
EDWIN L. MECHAM, Chairman

*M. E. Morgan*

MURRAY E. MORGAN, Member

*A. L. Porter, Jr.*

A. L. PORTER, Jr., Member & Secretary



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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

Date 6-5-58

CASE 1456

Hearing Date 5-28-58

My recommendations for an order in the above numbered cases are as follows:

1. Approve as requested manual oil - oil & slurry dual completion order.
2. Upper completion Undesignated Blinbury  
Lower " - Justice - McKee

*James H. McKee*

Staff Member



PETROLEUM AND ITS PRODUCTS

# GULF OIL CORPORATION

P.O. DRAWER 1290 FORT WORTH 1, TEXAS

E. HOSFORD  
DIVISION PRODUCTION COORDINATOR

May 1, 1958

FORT WORTH  
PRODUCTION DIVISION

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

Re: Application for Authorization to Dually Complete Wells Nos. 4, 5 and 6 on Gulf's Learcy McBuffington Lease, Justis Area, Section 13, T-25-S, R-37-E, Lea County, New Mexico

Gentlemen:

Gulf Oil Corporation respectfully submits application for permission to oil-oil dually complete the above-referenced wells on the Learcy McBuffington Lease and requests that the Commission set this matter for hearing at an early date.

The following facts are offered in support of this application:

- (1) Gulf Oil Corporation is the owner and operator of all producing rights below 3800 feet in the Learcy McBuffington Lease, which consists of the S/2 of Section 13, T-25-S, R-37-E, Lea County, New Mexico.
- (2) Applicant plans to oil-oil dually complete Well No. 4 on subject lease in such a manner that the Ellenburger and Blinebry Reservoirs may be produced through parallel strings of tubing, as shown on Diagrammatic Sketch No. 4 attached hereto. This well, located 660 feet from the south line and 1980 feet from the west line of said Section 13, was drilled to 8264 feet. The 7-inch casing was set and cemented at 8230 feet with top of cement outside the pipe indicated at 3610 feet. Applicant proposes to perforate the Ellenburger Zone from 8220 to 8230 feet and the Blinebry Zone from the approximate interval 5134 to 5547 feet.
- (3) Applicant proposes to oil-oil dually complete L. McBuffington No. 5 in such a manner that the Ellenburger and Blinebry Reservoirs may be produced through parallel strings of tubing, as shown on the Diagrammatic Sketch No. 5 attached hereto. This well, located 1650 feet from the south line and 1980 feet from the east line of said Section 13, was drilled to a total depth of 8300 feet. The 7-inch casing was set and cemented with 1000 sacks at 8260 feet, with top of cement outside the 7-inch indicated at 2575 feet. Gulf plans

No. 6  
Adjacent to Justis  
McFee w/ one  
mile



May 1, 1958

to perforate the 7-inch casing opposite the Blinebry Zone from the approximate interval 5130 to 5650 feet. The Ellenburger horizon will produce from open hole interval 8260 to 8300 feet.

- (4) Applicant proposes to oil-oil dually complete Well No. 6 on subject lease in such manner that the Blinebry and McKee Reservoirs may be produced through parallel strings of tubing as shown on Diagrammatic Sketch No. 6 attached hereto. This well is located 330 feet from the south line and 1980 feet from the east line of said Section 13, and was drilled to a total depth of 7600 feet and plugged back to 7525 feet. The 7-inch casing was set and cemented with 900 sacks at 7600 feet with top of cement outside the 7-inch indicated at 3220 feet. The Blinebry interval was perforated with FI Gun at intervals from 5158 to 5598 feet. The 7-inch casing was perforated in the McKee Zone with four 1/2-inch jet holes per foot at intervals from 7356 to 7484 feet.

The two producing intervals in each of these three wells will be separated by means of Baker Production Packers capable of withstanding any differential in pressures expected to be encountered between the producing formations. If approved, Gulf will run 2-3/8" O.D. EUE tubing from each producing horizon.

The manner and method of the proposed dual completions are mechanically feasible and practical and the granting of this application is in the interest of conservation and the protection of correlative rights. Applicant will comply with all rules and regulations of the New Mexico Oil Conservation Commission to maintain separation of production from the two pays in each well.

By copy of this letter of application, all offset operators are notified of the proposed dual completions.

Respectfully submitted,

GULF OIL CORPORATION

By E. Hasbrouck  
Division Production Coordinator

cc: Oil Conservation Commission  
State of New Mexico  
P. O. Box 2045  
Hobbs, New Mexico

May 1, 1958

cc: Anderson-Prichard Oil Corporation  
P. O. Box 196  
Midland, Texas

Atlantic Refining Company  
P. O. Box 871  
Midland, Texas

W. K. Byrom  
1000 Dal Paso  
Hobbs, New Mexico

R. Olsen Oil Company  
Drawer Z  
Jal, New Mexico

The Texas Company  
P. O. Box 1270  
Midland, Texas

Tidewater Oil Company  
Att'n: J. B. Holloway  
P. O. Box 1404  
Houston, Texas

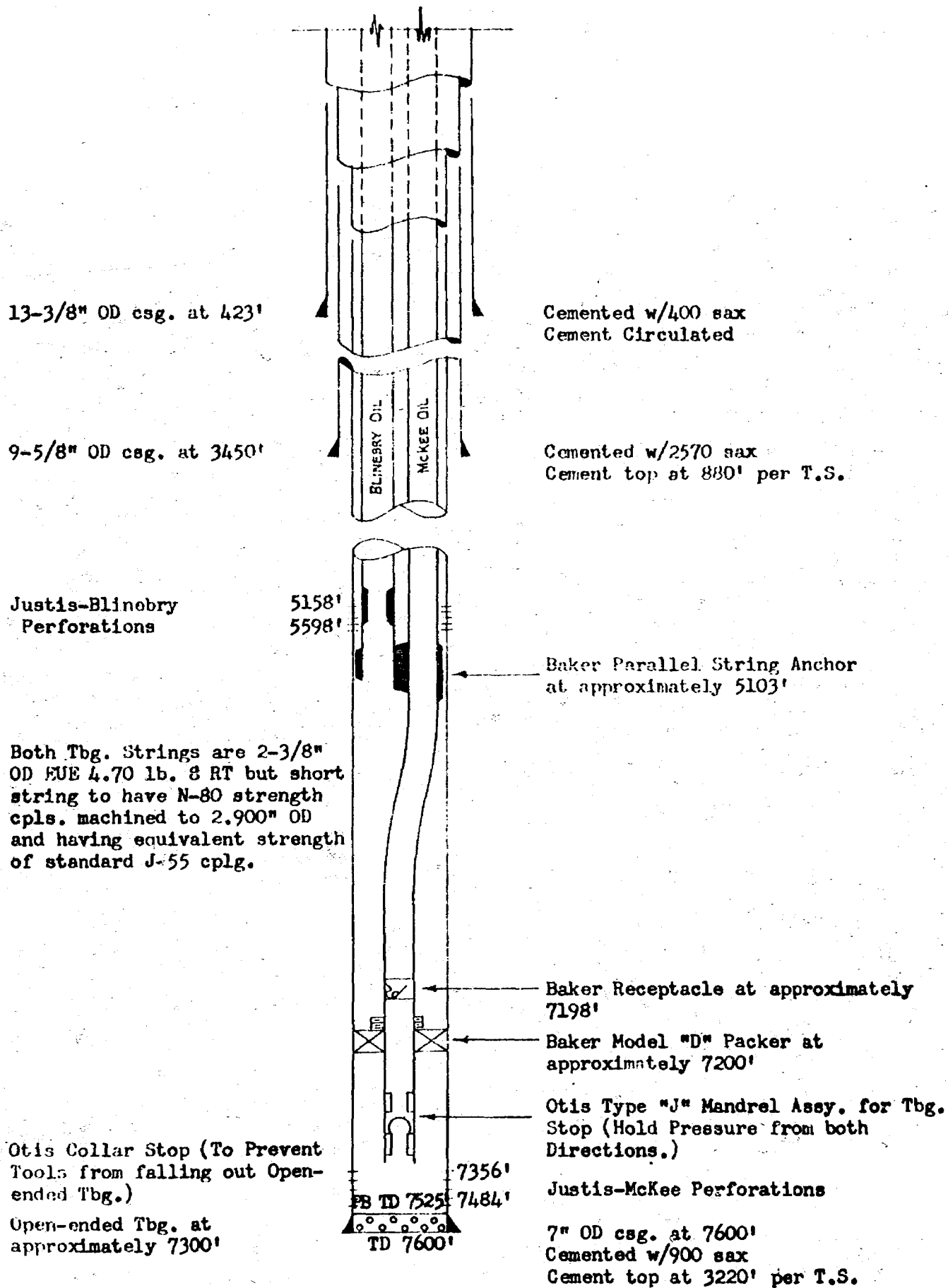
Western Natural Gas Company  
Midland Tower Building  
Midland, Texas

Western Petroleum Company  
291 Sutter Street  
San Francisco, California

Texas-New Mexico Pipe Line Company  
P. O. Box 1510  
Midland, Texas



NO. 6



PROPOSED MECHANICAL INSTALLATION  
OIL-OIL DUAL COMPLETION

Learcy McBuffington No. 6  
Justis-Blinobry & McKee Oil Pools  
Lea County, New Mexico

NOTE:  
DRAWING NOT TO SCALE

GULF OIL CORPORATION

FT. WORTH PROD. DIV.

DOCKET: EXAMINER HEARING MAY 28, 1958

Oil Conservation Commission 9 a.m. Mabry Hall, State Capitol, Santa Fe

The following cases will be heard before Elvis A. Utz, Examiner:

- CASE 1225: Application of Moab Drilling Company and Utex Exploration Company for an order amending Order No. R-975. Applicant, in the above-styled cause, seeks an order amending Order No. R-975 to permit the conversion to a water injection well of the Utex Exploration Company Donohue-Federal No. 3 Well, located in the SE/4 SW/4 of Section 15, Township 16 South, Range 29 East, Eddy County, New Mexico.
- CASE 1446: Application of The Texas Company for approval of a unit agreement. Applicant, in the above-styled cause, seeks an order approving its Cotton Draw Unit embracing 35,144 acres, more or less, of Federal, State of New Mexico, and patented lands, located in Township 24 South, Ranges 31 and 32 East; Township 25 South, Ranges 31 and 32 East, in Eddy and Lea Counties, New Mexico.
- CASE 1447: Application of The Texas Company for a non-standard gas proration unit. Applicant, in the above-styled cause, seeks an order establishing a 320-acre non-standard gas proration unit in the Eumont Gas Pool comprising the E/2 of Section 11, Township 20 South, Range 37 East, Lea County, New Mexico, said unit to be dedicated to the applicant's C. H. Weir "B" Well No. 3, located 330 feet from the North line and 660 feet from the East line of said Section 11.
- CASE 1448: Application of Ambassador Oil Corporation for approval of a unit agreement. Applicant, in the above-styled cause, seeks an order approving its North Caprock Queen Unit No. 2 embracing 1808 acres, more or less, of State of New Mexico lands located in Township 13 South, Ranges 31 and 32 East, in Chaves and Lea Counties, New Mexico.
- CASE 1449: Application of Graridge Corporation for an exception to Rule 309 of the Commission Rules and Regulations. Applicant, in the above-styled cause, seeks an order permitting the consolidation of tank batteries to receive the production from more than sixteen wells in the North Caprock Queen Unit No. 1 in Chaves and Lea Counties, New Mexico, which was established by Order No. R-1145. The applicant further seeks permission to install automatic custody transfer equipment on the above-referenced Unit.
- CASE 1450: Application of Neville G. Penrose, Inc. for approval of a unit agreement. Applicant, in the above-styled cause, seeks an order approving its November State Unit comprising 913 acres, more or less, of State of New Mexico and patented lands, located in Township 10 South, Range 37 and 38 East, and Township 11 South, Range 38 East, Lea County, New Mexico.

CASE 1451: Application of Amerada Petroleum Corporation for a non-standard gas proration unit. Applicant, in the above-styled cause, seeks an order establishing a 280-acre non-standard gas proration unit in the Justis Gas Pool consisting of the W/2 SW/4 Section 24, NW/4 and SW/4 NE/4 of Section 25, all in Township 25 South, Range 37 East, Lea County, New Mexico, said unit to be dedicated to the applicant's proposed well to be drilled in the NE/4 NW/4 of said Section 25.

CASE 1452: Application of Amerada Petroleum Corporation for the dual completion of a producing oil well to permit the disposal of salt water therein. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its H. C. Posey "A" No. 4 Well, located in the NW/4 NE/4 of Section 14, Township 12 South, Range 32 East, Lea County, New Mexico, in such a manner as to permit the production of oil through the tubing from the Pennsylvanian formation, adjacent to the East Caprock-Pennsylvanian Pool, and to permit the disposal of salt water through the casing tubing annulus into the Devonian formation between 11,205 feet and 11,370 feet.

CASE 1453: Application of Magnolia Petroleum Company for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Stephens Estate No. 1 Well, located in the NW/4 SW/4 of Section 24, Township 21 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Terry-Blinebry Pool and Wantz-Abo Pool.

CASE 1454: Application of Gulf Oil Corporation for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Learcy McBuffington No. 4 Well, located 660 feet from the South line and 1980 feet from the West line of Section 13, Township 25 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of oil from an undesignated Blinebry oil pool and oil from the Justis-Ellenburger Pool through parallel strings of tubing.

CASE 1455: Application of Gulf Oil Corporation for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Learcy McBuffington Well No. 5, located 1650 feet from the South line and 1980 feet from the East line of Section 13, Township 25 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of oil from an undesignated Blinebry oil pool and oil from the Justis-Ellenburger pool through parallel strings of tubing.

CASE 1456: Application of Gulf Oil Corporation for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Learcy McBuffington Well No. 6, located 330 feet from the South line and 1980 feet from the East line of Section 13, Township 25 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of oil from an undesignated Blinbry oil pool and oil from the McKee formation, adjacent to the Justis-McKee Pool, through parallel strings of tubing.

CASE 1457: Application of Sinclair Oil & Gas Company for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its State Lea Well No. 1, located 660 feet from the South and West lines of Section 24, Township 16 South, Range 33 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Kennitz-Wolfcamp Pool and from the Pennsylvanian formation adjacent to the Kennitz-Pennsylvanian Pool through parallel strings of tubing.

CASE 1458: Application of Albert Gackle for a non-standard gas proration unit. Applicant, in the above-styled cause, seeks an order establishing a 320-acre non-standard gas proration unit in the Jalmat Gas Pool consisting of the S/2 of Section 23, Township 23 South, Range 36 East, Lea County, New Mexico, said unit to be dedicated to the applicant's Sinclair State No. 1 Well, located 1650 feet from the South line and 990 feet from the East line of said Section 23.

CASE 1459: Application of Continental Oil Company for a dual completion and non-standard gas proration unit. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Farney A-17 Well No 3, located in Section 17, Township 23 South, Range 36 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Lower Yates formation of the Jalmat Gas Pool and gas from the Upper Yates formation of the Jalmat Gas Pool through the tubing and casing-tubing annulus respectively. The applicant further seeks the establishment of a 160-acre non-standard gas proration unit in the Jalmat Gas Pool comprising the NW/4 of said Section 17, to be dedicated to the said Farney A-17 Well No. 3.

CASE 1460: Application of Phillips Petroleum Company for an oil-oil dual completion and for permission to commingle production from two separate pools. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its New Mex "A" Well No. 1 located 1983 feet from the South line and 2313 feet from the West line of Section 25, Township 16 South, Range 33 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Kennitz-Wolfcamp Pool and oil from an undesignated Pennsylvanian pool through parallel strings of tubing. The applicant also proposes to produce the Wolfcamp and Pennsylvanian production from said well into common storage.

CASE 1461: Application of A. A. Greer, et al., for an exception to the acreage factors established by Order No. R-565-C for certain wells in San Juan County, New Mexico. Applicant, in the above-styled cause, seek an order granting an exception to the acreage factors provided in the Special Rules and Regulations for the Aztec-Pictured Cliffs Gas Pool and Fulcher Kutz-Pictured Cliffs Gas Pool, as set forth in Order No. R-565-C, for one well in the Aztec-Pictured Cliffs Gas Pool and eight wells in the Fulcher Kutz-Pictured Cliffs Gas Pool which were drilled on 40-acre spacing prior to the establishment of 160-acre spacing in the aforementioned pools.

CASE 1462: Application of El Paso Natural Gas Company for a non-standard gas proration unit. Applicant, in the above-styled cause, seeks an order establishing a 335-acre, more or less, non-standard gas proration unit in the Blanco Mesaverde Gas Pool consisting of the SW/4 of Section 7 and the W/2 of Section 18, all in Township 30 North, Range 8 West, San Juan County, New Mexico, said unit to be dedicated to the applicant's Howell No. 4-C Well, located 933 feet from the South line and 931 feet from the West line of said Section 18.

CASE 1463: Application of Pan American Petroleum Corporation for an oil-gas dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its O. H. Randel "A" No. 1 Well, located 1650 feet from the South line and 990 feet from the West line of Section 9, Township 26 North, Range 11 West, San Juan County, New Mexico, in such a manner as to permit the production of oil from an undesignated Gallup oil pool and gas from an undesignated Dakota gas pool through parallel strings of tubing.



BEFORE THE  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASES NOS. 1454, 1455 and 1456

TRANSCRIPT OF HEARING

MAY 28, 1958

DEARNLEY - MEIER & ASSOCIATES  
INCORPORATED  
GENERAL LAW REPORTERS  
ALBUQUERQUE, NEW MEXICO  
3-6691 5-9546

BEFORE THE  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO  
MAY 28, 1958

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IN THE MATTER OF

CASE NO. 1454 Application of Gulf Oil Corporation for:  
an oil-oil dual completion. Applicant, :  
in the above-styled cause, seeks an :  
order authorizing the dual completion :  
of its Learcy McBuffington No. 4 Well, :  
located 660 feet from the South line :  
and 1980 feet from the West line of Sec- :  
tion 13, Township 25 South, Range 37 :  
East, Lea County, New Mexico, in such a :  
manner as to permit the production of :  
oil from an undesignated Blinebry oil :  
pool and oil from the Justis-Ellenburg- :  
er Pool through parallel strings of :  
tubing. :

CASE NO. 1455 Application of Gulf Oil Corporation for:  
an oil-oil dual completion. Applicant, :  
in the above-styled cause, seeks an :  
order authorizing the dual completion :  
of its Learcy McBuffington Well No. 5, :  
located 1650 feet from the South line :  
and 1980 feet from the East line of :  
Section 13, Township 25 South, Range 37 :  
East, Lea County, New Mexico, in such a :  
manner as to permit the production of :  
oil from an undesignated Blinebry oil :  
pool and oil from the Justis-Ellen- :  
burger pool through parallel strings of :  
tubing. :

CASE NO. 1456 Application of Gulf Oil Corporation for:  
an oil-oil dual completion. Applicant, :  
in the above-styled cause, seeks an :  
order authorizing the dual completion :  
of its Learcy McBuffington Well No. 6, :  
located 330 feet from the South line :  
and 1980 feet from the East line of :  
Section 13, Township 25 South, Range 37 :  
East, Lea County, New Mexico, in such a :  
manner as to permit the production of :

oil from an undesignated Blinebry oil :  
pool and oil from the McKee formation,:  
adjacent to the Justis-McKee Pool, :  
through parallel strings of tubing. :  
:  
- - - - -:

BEFORE:

Elvis A. Utz, Examiner

T R A N S C R I P T    O F    P R O C E E D I N G S

MR. UTZ: Next case on the docket is Case 1454.

MR. PAINE: Application of Gulf Oil Corporation for an oil-oil dual completion.

MR. KASTLER: My name is Bill Kastler, appearing for Gulf Oil Corporation. If the Examiner please, we would like permission to consolidate Cases 1454, 55 and 56 for the purpose of hearing, for the reasons that all three cases involved wells recently drilled on our Learcy McBuffington 320-acre lease, and all three proposed dual completions are identical in design.

MR. UTZ: Are they in the identical formations?

MR. KASTLER: Two of them are. The third one is not. However, I believe we can save time by consolidating the cases and making separate statements concerning each well where that is necessary.

MR. UTZ: You are requesting to consolidate these only for the purpose of testimony?

MR. KASTLER: Yes.

MR. UTZ: Is there objection to the consolidation of these

cases for the purpose of testimony? If not, that will be done.

MR. KASTLER: Our witness in these three cases will be Mr. John H. Hoover, senior engineer from Roswell.

(Witness sworn)

JOHN H. HOOVER,  
called as a witness, having been first duly sworn on oath, testified  
as follows:

DIRECT EXAMINATION

BY MR. KASTLER:

Q Please state your name, who you are employed by, and where you are employed, and how long you have been so employed.

A John Hoover, employed by Gulf Oil Corporation, Roswell, New Mexico. Been employed by Gulf for twelve years.

Q Have you previously appeared and testified as an expert witness before the Oil Conservation Commission of New Mexico?

A Yes, I have.

Q Are you familiar with wells Nos. 4, 5 and 6 on Gulf's Learcy McBuffington lease and with the proposed dual completion installation in each well?

A Yes, I am.

Q Are you familiar with the three applications involved in Cases 1454, 55 and 56?

A Yes.

Q Have you prepared or caused to be prepared lease plats showing the subject wells, the general lease area, and the surrounding wells?

A Yes, I have.

Q Have these been previously labeled Gulf Oil Corporation

Exhibit No. 1 in Case 1454, Gulf Oil Corporation's Exhibit No. 1 in 1455, and Gulf Oil Corporation's Exhibit No. 1 in Case 1456?

A Yes, they have.

Q Will you please explain what is shown on those three -- those location plats?

A These are lease plats, and they show the Learey McBuffington lease, this lease being outlined with hashed marks, and this lease is described as the south half of Section 13, Township 25 South, Range 37 East, of Lea County, New Mexico. Exhibit 1 in Case 1454 shows Well No. 4 outlined in red. This well is located 660 feet from the South line and 1980 feet from the West line of this Section 13. Exhibit No. 1 in Case No. 1455 shows the -- our Learey McBuffington Well No. 5, which is also circled in red, this well being located 1650 feet from the South line and 1980 feet from the East line of Section 13. Exhibit No. 1 in Case 1456 shows the location of our Well No. 6, being 330 feet from the South line and 1980 feet from the East line of Section 13.

Q Have you prepared or caused to be prepared three schematic diagrams to explain the features of each proposed installation in Cases 1454, 55 and 45 respectively?

A Yes.

Q Have these been labeled Gulf Oil Corporation's Exhibit No. 2?

A Yes, they have.

Q Are all three installations identical insofar as the mechanical features are concerned?

A Yes, they are.

Q Will you please explain each one by well now, giving the

Exhibit No. 1 in Case 1454, Gulf Oil Corporation's Exhibit No. 1 in 1455, and Gulf Oil Corporation's Exhibit No. 1 in Case 1456?

A Yes, they have.

Q Will you please explain what is shown on those three -- those location plats?

A These are lease plats, and they show the Learcy McBuffington lease, this lease being outlined with hashed marks, and this lease is described as the south half of Section 13, Township 25 South, Range 37 East, of Lea County, New Mexico. Exhibit 1 in Case 1454 shows Well No. 4 outlined in red. This well is located 660 feet from the South line and 1980 feet from the West line of this Section 13. Exhibit No. 1 in Case No. 1455 shows the -- our Learcy McBuffington Well No. 5, which is also circled in red, this well being located 1650 feet from the South line and 1980 feet from the East line of Section 13. Exhibit No. 1 in Case 1456 shows the location of our Well No. 6, being 330 feet from the South line and 1980 feet from the East line of Section 13.

Q Have you prepared or caused to be prepared three schematic diagrams to explain the features of each proposed installation in Cases 1454, 55 and 45 respectively?

A Yes.

Q Have these been labeled Gulf Oil Corporation's Exhibit No. 2?

A Yes, they have.

Q Are all three installations identical insofar as the mechanical features are concerned?

A Yes, they are.

Q Will you please explain each one by well now, giving the

perforations in each well?

A Yes. Exhibit No. 2 in Case No. 1454, which is the proposed mechanical installation for Well No. 4 for dual completion in the Blinebry and Ellenburger Pool in the Justis area, shows we have thirteen and three-eighths inch OD casing set at 410 feet. Cement was circulated to the surface. We have nine and five-eighths inch OD casing set at 3,449 feet, cement also circulated to the surface. We have seven inch casing set at 8,230 feet, cemented with 1250 sacks and by temperature survey, the top of the cement is at 3,610 feet. We will have two strings of parallel tubing of two and three eighths inch OD. We will have a Baker Model D packer set at 8,135 feet with a long tubing string set through the packer. We will have a Baker parallel string anchor at approximately 5,050 feet, and the short two inch tubing string will be anchored into this string anchor. We propose to perforate the Blinebry zone within the interval of 5,134 feet to 5,547 feet. The Ellenburger is perforated 8,220 feet to 8,245 feet. The well is at a total depth of 8,264 feet.

Q Can you give the respective pressures of the two zones in Case No. -- in Well No. 4 at this time?

A Yes. The bottom hole pressure of the Ellenburger at a datum of minus 5,050 feet is approximately 3,253 pounds. The pressure of the Blinebry at a datum of a minus 2,209 feet, is approximately 2,478 pounds. Correcting these bottom hole pressures to the packer depth, we will have a pressure below the packer of 3,256 pounds; on

top of the packer 3,463 pounds.

Q What is the differential, then?

A Two hundred and seven pounds.

Q Thank you. Unless you have something to add on Well No. 4, will you go next to Well No. 5 and explain Exhibit No. 2 in Case No. 1455?

A This is the proposed mechanical installation for Learcy McBuffington No. 5, also to be dually completed in the Blinebry and Ellenburger formation. We have thirteen and three-eighths inch casing set at 433 feet, cement circulated, nine and five-eighths inch casing at 3,450 feet, cement circulated. Seven inch casing at 8,260 feet, cemented with one thousand sacks and by temperature survey the cement was at 2,575 feet. We will have two strings of two and three-eighths inch OD tubing, the long string set through a Baker Model D production packer which is set at 8,150 feet, a Baker parallel string anchor at approximately 5,100 feet. The short tubing string will be anchored in the string anchor. We propose to perforate the Blinebry within the interval 5,130 feet to 5,650 feet. The Ellenburger is completed in the open hole interval 8,260 feet to 8,300 feet. Total depth of the well, 8,300 feet.

Q Mr. Hoover, can you give the relative pressures and the pressure differential on this well that is expected to be encountered?

A Well, a bottom hole pressure on the Ellenburger has a bottom hole pressure at a datum of 5,050 feet, of 3,253 pounds. Blinebry,



at a datum of minus 2,290 feet, 2,478 pounds. Correcting this to our packer depth, we will have a pressure underneath the packer of 3,263 pounds, on top of the packer 3,473 pounds.

Q Is it correct that both -- Well No. 3 and Well No. 4 and Well No. 5 are presently completed in the Justis-Ellenburger Pool?

A Yes, they are.

Q Unless you have something else to add, would you now go to Exhibit No. 2 in Case 1456, and likewise explain it?

A Yes. This is the proposed mechanical installation for Learcy McBuffington No. 6 as a dual completion in the Blinebry and McKee. We have thirteen and three-eighths inch OD casing set at 432 feet, cement circulated to the surface, nine and five-eighths inch OD casing at 3,450 feet, cemented with 2,570 sacks. Temperature survey indicates the top of the cement at 880 feet. We have seven inch casing set at 7,600 feet cemented with 900 sacks and by temperature survey the top of the cement is at 3,220 feet. Total depth of the well, 7,600 feet, plugged back to 7,525 feet. We have two strings of parallel two and three eighths inch OD tubing. We have a Baker Model D production packer set at 7,200 feet. We have a Baker parallel string anchor set at 5,103 feet with the short string anchored into this string anchor.. The Blinebry is perforated within the interval 5,158 feet to 5,598 feet. The McKee is perforated within the interval 7,356 feet to 7,484 feet.

Q Would you now give the relative pressure differentials?

A The Blinebry bottom hole pressure at a minus -- at a datum

of minus 2,290 feet is 2,478 pounds. The McKee at a datum of minus 4,250 feet, has a pressure of 2,934 pounds. Correcting these bottom hole pressures to our packer setting depth, we will have a bottom hole pressure on top of the packer in the Blinebry of 3,133 pounds, underneath the packer in the McKee 2,891 pounds.

Q Which zone is presently being produced in Learcy McBuffington No. 6? A The McKee.

Q Mr. Hoover, in all three proposed installations, did Gulf Oil Corporation install two and three-eighths inch tubing?

A Yes.

Q Have installations of this type or similar type previously been approved by this Commission -- A They have.

Q -- in this same area or similar area?

A Yes.

Q Is the capacity of each string of tubing adequate to permit production from each zone by pumping, if necessary, each zone independent of the others?

A Yes, it can be.

Q Is it possible to tell if any commingling of oil should occur? A Yes, it is.

Q How would this be possible?

A In the case of our Learcy McBuffington No. 4, which is Case 1454, the gravity of the Ellenburger oil by test indicated to be 45.8 degrees, the Blinebry oil 39.8 degrees. Also, we -- the Ellenburger oil is sweet and the Blinebry oil is sour. We also

have a differential pressure -- tubing pressure which is sufficient to adequately make packer leakage tests in that the Ellenburger tubing pressure is approximately 150 pounds, Blinbry tubing pressure approximately 450 pounds. In the case of our Learcy McBuffington Well No. 5, Case 1455, the Ellenburger oil, again, is 45.8 degree gravity; the Blinbry 39.8; and again, the Ellenburger oil is sweet, the Blinbry oil is sour, and the tubing pressure on the Ellenburger 11,050 pounds approximately, and Blinbry 450 pounds approximately. In the case of our Learcy McBuffington No. 6, Case No. 1456, the Blinbry oil gravity 39.8 degrees, the McKee gravity, 42.5 degrees. As mentioned, the Blinbry oil is sour, the McKee oil is classified as sweet. The tubing pressure on the Blinbry, approximately 450 pounds, the McKee, approximately 1,000 pounds.

Q As I understand it, then, there are three tests which would aid you in determining if there were any commingling. Namely, there would be a great differential, there is a difference in the sulphur content of the two pays, and there is a pressure differential?

A Yes, that's correct.

Q If these applications or any of them should be granted, would Gulf comply with the operating tests, reports and procedures which might be required by the Commission?

A Yes, they will.

Q Are these applications in the interest of prevention of economic waste?

A Yes, they are.

Q In which way?

A By means of this dual completion, it allows the production of oil which otherwise might not be economically justified to produce, and I would like to quote some costs to give an idea of the saving. "Ellenburger Well, cost approximately \$155,000, single zone. A single zone Blinebry Well, approximately \$70,000, making a total of \$225,000 to drill two wells." We can dual in the Ellenburger, Blinebry for a cost of \$182,600 or a saving of approximately \$42,400. In the case of Blinebry and McKee dual, the Blinebry -- cost of a single zone Blinebry Well, \$70,000; single zone McKee Well, \$130,000, or \$200,000 for twin wells. We can dual one well in these two pays for approximately \$159,000 or a saving of \$41,000.

MR. KASTLER: This concludes the number of questions I have, Mr. Utz. At this time I would like to move that Exhibits Nos. 1 and 2 in Cases 1454, 1455 and 1456 be admitted into evidence.

MR. UTZ: Without objection they will be admitted.

#### CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Hoover, the gravity on the No. 4 McBuffington Well, would you give me that again?

A The gravity of the Ellenburger, 45.8 degrees.

Q Is that sweet or sour?

A That's sweet. The Blinebry 39.8, and sour.

Q And the Ellenburger on the No. 5?

A 45.8 degrees. Sweet. Blinebry 39.8, sour.

Q And the Blinebry or the McBuffington No. 6, is that sour too?

A That's sour. Gravity 39.8. And McKee, did you get that?

Q Is that sweet or sour?

A That's sweet. Gravity 42.5.

Q I believe you stated that you had these wells already completed?

A No 4 and No. 5 are only completed in the Ellenburger. No. 6 is dual completed. It is only producing one zone.

Q Which zone is it producing?

A McKee on the No. 6.

Q And did you state that you intend to take the required packer leakage tests --

A Yes, sir.

Q -- through separation?

A Yes, sir.

MR. UTZ: Are there any questions of the witness? If there are no questions of the witness, you may be excused.

(Witness excused)

MR. UTZ: Are there any other statements in these cases? If there is nothing further in these cases, we will take them under advisement.

## C E R T I F I C A T E

STATE OF NEW MEXICO )  
 ) ss  
 COUNTY OF BERNALILLO )

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

Witness my Hand and Seal, this, the 1<sup>st</sup> day of July, 1958, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Joseph A. Trujillo  
 Notary Public

My Commission Expires:  
 October 5, 1960.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1954-57054 heard by me on May 2, 1958.  
Frank L. White, Examiner  
 New Mexico Oil Conservation Commission



LEASE PLAT  
LEARCY McBUFFINGTON  
JUSTIS-BLINEBRY & MCKEE OIL POOLS  
LEA COUNTY, NEW MEXICO

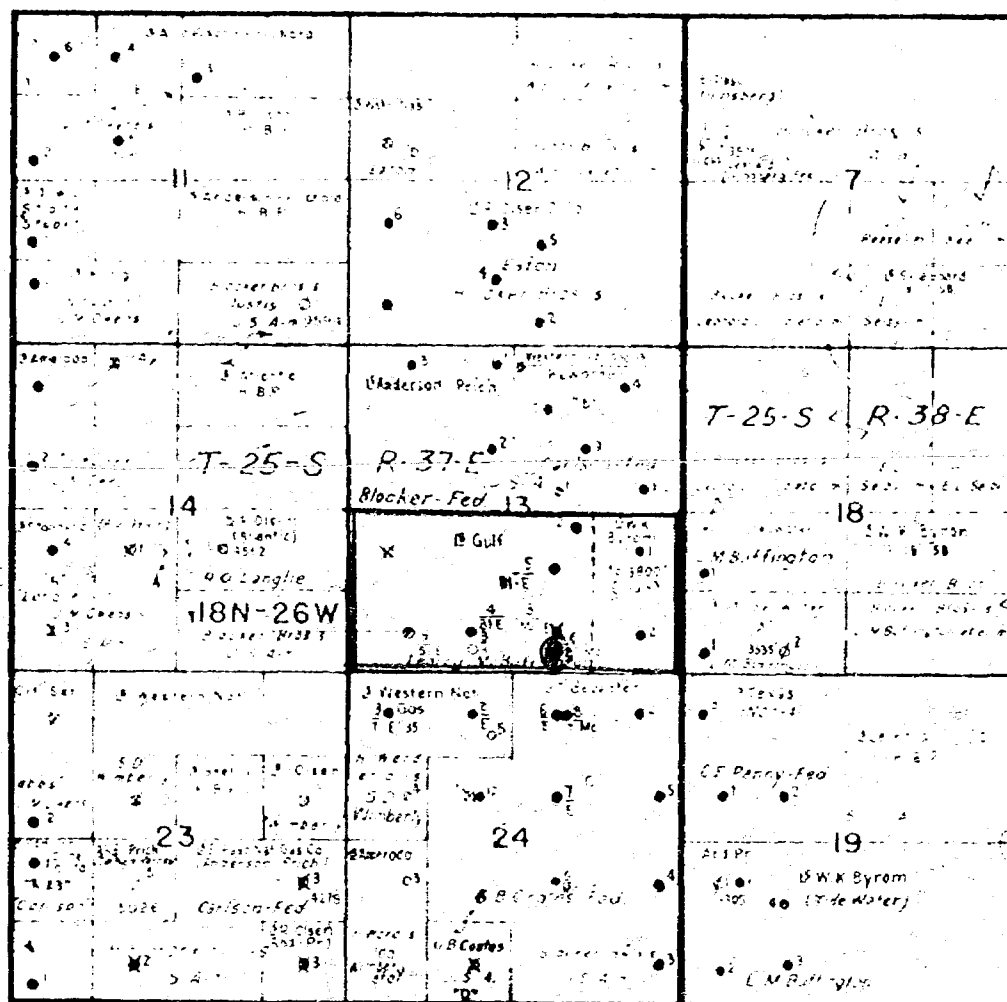
- LEGEND -  
 Pertinent Gulf Lease  
 Pertinent Gulf Well

Gulf Oil Corporation

Case No. 1456  
Exhibit No. 1

BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
EXHIBIT NO. 1  
CASE NO. 1456

**ILLEGIBLE**



GULF'S LEARCY McBUFFINGTON LEASE  
LEA COUNTY, NEW MEXICO

Legend

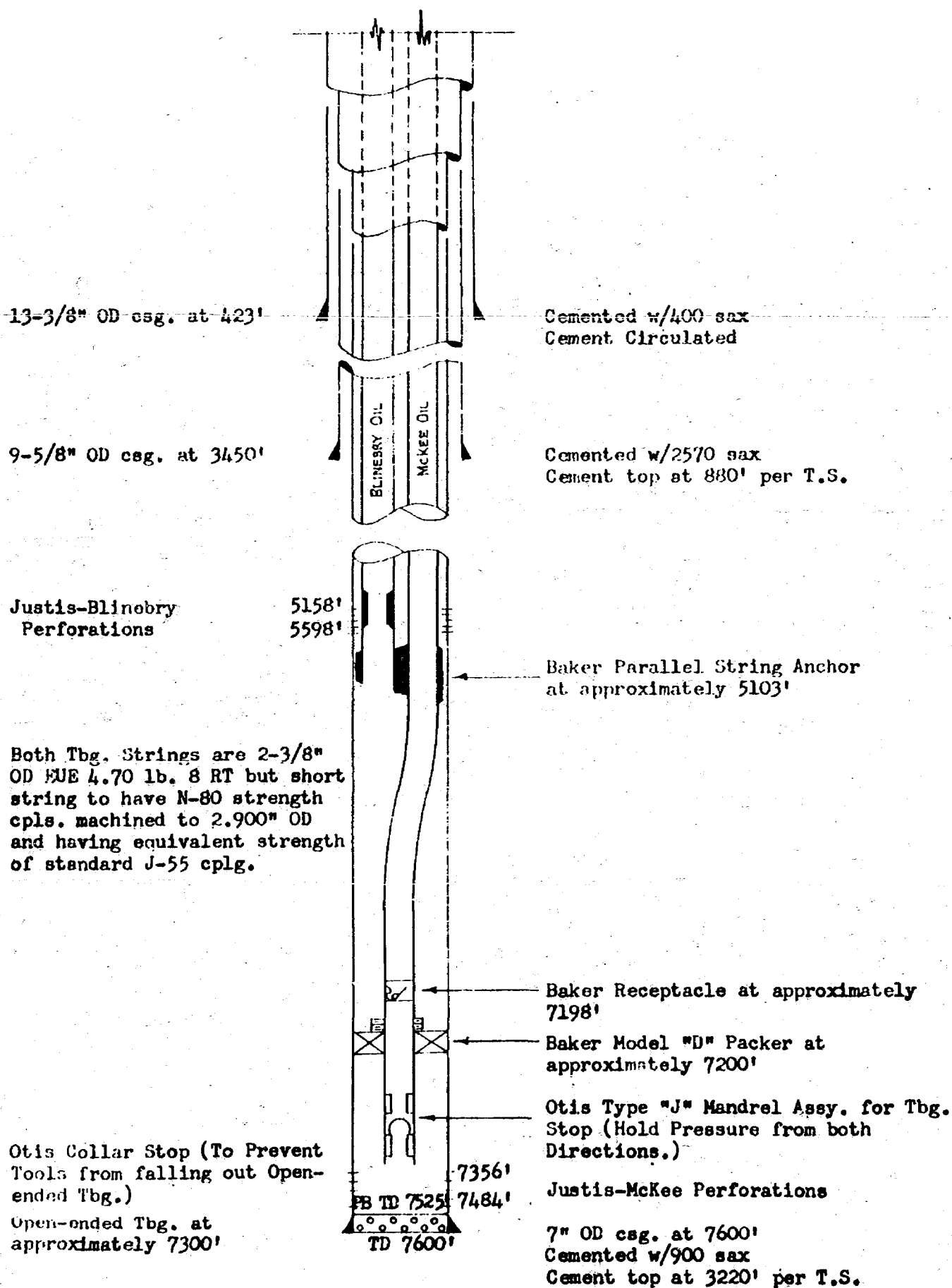
6  
Bl-Mc Proposed Blinebry-  
McKee Oil-Oil Dual

GULF OIL CORPORATION

SCALE 1" = 3000'

**ILLEGIBLE**





PROPOSED MECHANICAL INSTALLATION  
OIL-OIL DUAL COMPLETION

Learcy McBuffington No. 6  
Justis-Blinebry & McKee Oil Pools  
Lea County, New Mexico

NOTE:

DRAWING NOT TO SCALE