

CASE 1813: Application of GULF for
a ~~new~~ ^{new} deal of its TRAVIS WELL
No. 1, and also to commingle oil.

Case No.

1813

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. 1813
Order No. R-1542

APPLICATION OF GULF OIL CORPO-
RATION FOR A GAS-OIL DUAL COM-
PLETION IN AN UNDESIGNATED ABO
GAS POOL AND IN THE TEAGUE
(SIMPSON) POOL, LEA COUNTY,
NEW MEXICO, AND TO COMMINGLE
THE LIQUID HYDROCARBON PRO-
DUCTION FROM SAID POOLS

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on November 24, 1959, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 16th day of December, 1959, 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 is the owner and operator of the G. G. Travis Well No. 1, located 1980 feet from the South line and 660 feet from the East line of Section 21, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico.

(3) That the applicant proposes to dually complete the above-described G. G. Travis Well No. 1 in such a manner as to permit the production of gas from an undesignated Abo pool through the casing-tubing annulus, the production of oil from the Teague (Simpson) Pool through 2-3/8 inch tubing, and the injection of a portion of said Abo gas through 2-3/8 inch tubing to gas-lift the Teague oil.

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Case No. 1813
Order No. R-1542

(4) That the mechanics of the proposed dual completion are feasible and in accord with good conservation practices.

(5) That the applicant further proposes to commingle the Abo and Teague liquid hydrocarbon production from said G. G. Travis Well No. 1 without separately metering the production from each pool prior to commingling.

(6) That the applicant should be permitted to commingle the Abo liquid hydrocarbons and the Teague (Simpson) oil without separate metering until such time as either zone becomes a top allowable oil well; provided, however, that the Abo gas should be separately metered prior to reinjection.

IT IS THEREFORE ORDERED:

(1) That the applicant be and the same is hereby authorized to dually complete the G. G. Travis Well No. 1, located 1980 feet from the South line and 660 feet from the East line of Section 21, Township 23 South, Range 37 East, N44W, Lea County, New Mexico, in such a manner as to permit the production of gas from an undesignated Abo pool through the casing-tubing annulus, the production of oil from the Teague (Simpson) Pool through 2-3/8 inch tubing, and the injection of a portion of said Abo gas through 2-3/8 inch tubing to gas-lift the Teague oil.

PROVIDED HOWEVER, That applicant shall complete, operate, and produce said well in accordance with the provisions of Section V, Rule 112-A.

PROVIDED FURTHER, That applicant shall take packer-leakage tests upon completion and annually thereafter during the Annual Gas-Oil Ratio Test Period for the Teague (Simpson) Pool.

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.

(2) That the applicant be and the same is hereby authorized to commingle the Abo and the Teague liquid hydrocarbon production from said G. G. Travis Well No. 1 without separately metering the oil production from each pool prior to commingling, provided that the Abo gas shall be separately metered prior to reinjection.

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Case No. 1813
Order No. R-1542

PROVIDED HOWEVER, That in the event that either zone in the subject well becomes a top unit allowable oil well, the production from each of said pools shall be separately metered prior to commingling.

PROVIDED FURTHER, That each zone in the subject well shall be tested every six months to determine its gas-oil ratio and its ability to produce.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

John Burroughs

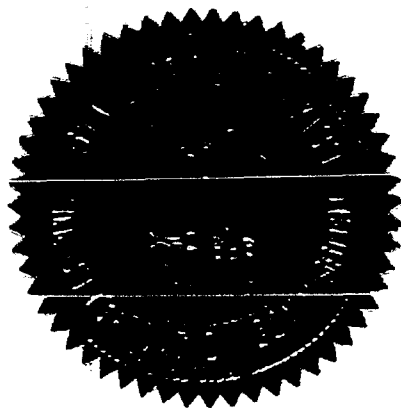
JOHN BURROUGHS, Chairman

Murray E. Morgan

MURRAY E. MORGAN, Member

A. L. Porter, Jr.

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



ven/

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

December 10, 1959

Mr. Bill Kastler
Box 669
Roswell, New Mexico

Dear Mr. Kastler:

We enclose two copies of Order No. R-1542 in Case 1813
and two copies of Order No. R-1548 in Case 1812, issued
by the Oil Conservation Commission on this date.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ir

Copies to Kastler

C
O
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Y

HF: vem
Dec. 7

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

Order No. R- 1542

APPLICATION OF GULF OIL CORPORATION FOR A GAS-OIL DUAL COMPLETION IN AN UNDESIGNATED ABO GAS POOL AND IN THE TEAGUE (SIMPSON) POOL, LEA COUNTY, NEW MEXICO, AND TO COMMINGLE THE LIQUID HYDROCARBON PRODUCTION FROM SAID POOLS

BY THE COMMISSION:

~~This cause came on for hearing at _____ o'clock a.m. on _____, 1959, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."~~

NOW, on this _____ day of _____, 1959, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being ~~fully advised in the premises~~

This cause came on for hearing at 9 o'clock a.m. on November 24, 1959, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this _____ day of December, 1959, 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,

(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 is the owner and operator of the G. G. Travis Well No. 1, located 1980 feet from the South line and 660 feet from the East line of Section 21, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico.

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Case No. 1813

Order No. R-_____

(3) That the applicant proposes to dually complete the above-described G. G. Travis Well No. 1 in such a manner as to permit the production of gas from an undesignated Abo pool through the casing-tubing annulus, the production of oil from the Teague (Simpson) Pool through 2-3/8 inch tubing, and the injection of a portion of said Abo gas through 2-3/8 inch tubing to gas-lift the Teague oil.

(4) That the mechanics of the proposed dual completion are feasible and in accord with good conservation practices.

(5) That the applicant further proposes to commingle the Abo and Teague liquid hydrocarbon production from said G. G. Travis Well No. 1 without separately metering the production from each pool prior to commingling.

(6) That the applicant should be permitted to commingle the Abo liquid hydrocarbons and the Teague (Simpson) oil without ^{separate} metering until such time as either zone becomes a top allowable oil well. *provided however, that the Abo gas should be separately metered prior to reinjection.*
IT IS THEREFORE ORDERED:

(1) That the applicant be and the same is hereby authorized to dually complete the G. G. Travis Well No. 1, located 1980 feet from the South line and 660 feet from the East line of Section 21, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico, in such a manner as to permit the production of gas from an undesignated Abo pool through the casing-tubing annulus, the production of oil from the Teague (Simpson) Pool through 2-3/8 inch tubing, and the injection of a portion of said Abo gas through 2-3/8 inch tubing to gas-lift the Teague oil.

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Case No. 1813

Order No. R-

PROVIDED HOWEVER, That applicant shall complete, operate, and produce said well in accordance with the provisions of Section V, Rule 112-A, ~~as amended by Order No. 2224.~~

PROVIDED FURTHER, That applicant shall take packer-leakage tests upon completion and annually thereafter during the Annual Gas-Oil Ratio Test Period for the Teague (Imperial) Pool.

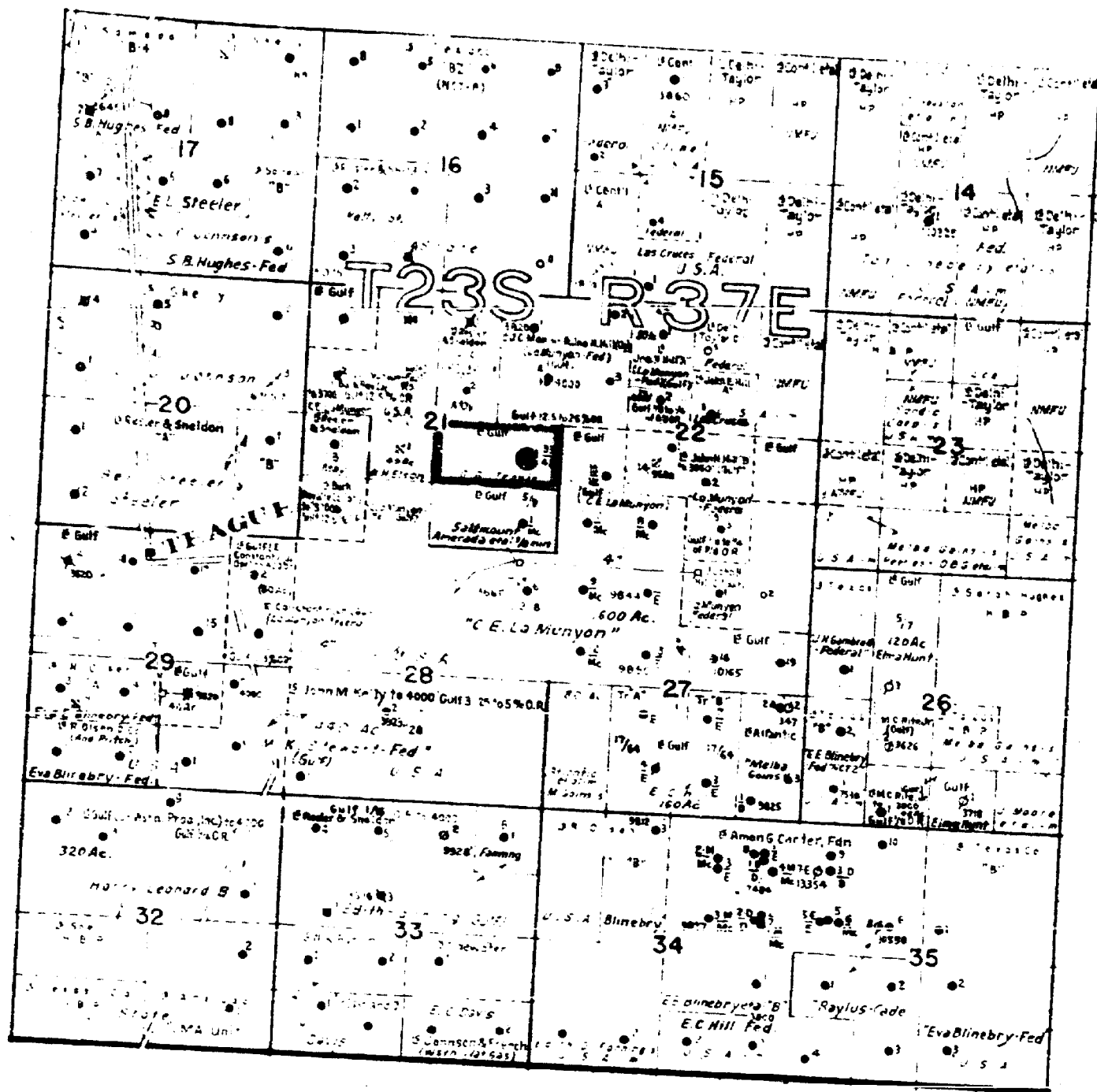
IT IS FURTHER ORDERED: That jurisdiction of this cause is hereby retained by the Commission for such further order or orders as may seem necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of applicant to comply with any requirement of this order, 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.

(2) That the applicant be and the same is hereby authorized to commingle the Abo and the Teague liquid hydrocarbon production from said G. G. Travis Well No. 1 without separately metering ~~the~~ ^{oil} production from each pool prior to commingling, provided that the Abo gas shall be separately metered prior to reinjection.

PROVIDED HOWEVER, That in the event that either zone in the subject well becomes a top unit allowable oil well, the production from each of said pools shall be separately metered prior to commingling.

PROVIDED FURTHER, That each zone in the subject well shall be tested every six months to determine its gas-oil ratio and its ability to produce, at ~~the~~ top unit allowable.

DONE at SFNM-----



LEASE PLAT
G. G. TRAVIS
TEAGUE POOL
LEA COUNTY, NEW MEXICO
-LEGEND-

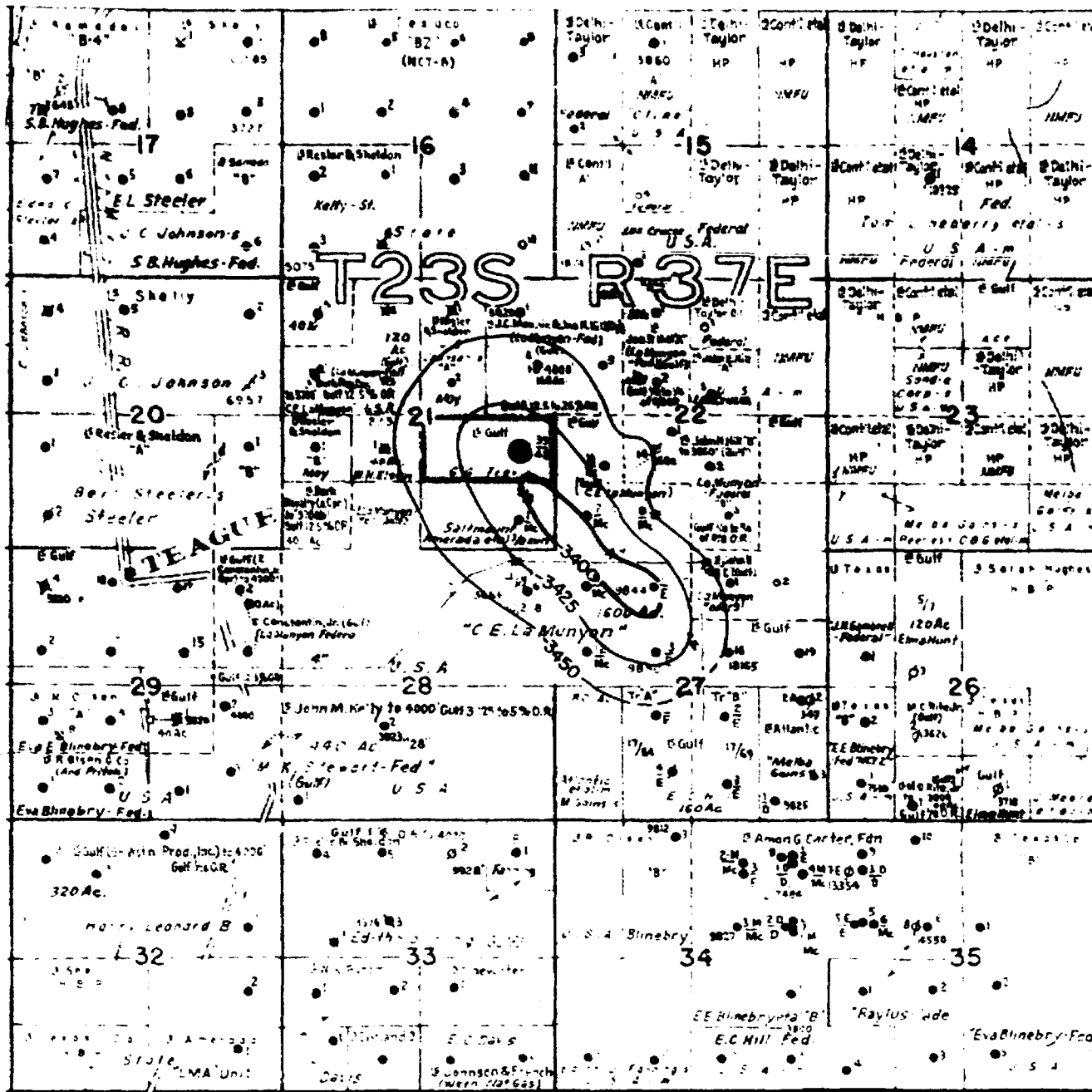
- Pertinent Gulf Lease
- Pertinent Gulf Well

Gulf Oil Corporation

Nov. 24, 1959

Case No 1813
Exhibit No 1

DEED EXAMINER UTZ
APPROVED
1813



Contour Map on Top of Abo Formation
 Case No. 1813 Exhibit No. 2
 Gulf Oil Corporation Nov. 24, 1959

BEFORE EXAMINER UTZ
 OIL CONSERVATION COMMISSION
 CASE NO. 1813

DOCKET: EXAMINER HEARING NOVEMBER 24, 1959Oil Conservation Commission - 9 a.m., Mabry Hall, State Capitol, Santa Fe, New Mexico

The following cases will be heard before Elvis A. Utz, Examiner, or A. L. Porter, Jr., Secretary.

- CASE 1811: Application of The Atlantic Refining Company for permission to commingle the production from three separate pools from three separate leases. Applicant, in the above-styled cause, seeks an order authorizing it to commingle the Tubb, Blinberry, and Drinkard production from three Federal leases in Section 14, Township 25 South, Range 37 East, Lea County, New Mexico.
- CASE 1812: Application of Gulf Oil Corporation for permission to commingle the production from two separate leases. Applicant, in the above-styled cause, seeks permission to commingle the production from the Eumont Pool from its Ramsay (NCT-D) Lease consisting of the NE/4 of Section 31 and from its Ramsay (NCT-J) Lease consisting of the SW/4 SW/4 of Section 25, both in Township 20 South, Range 37 East, Lea County, New Mexico.
- CASE 1813: Application of Gulf Oil Corporation for a gas-oil dual completion and for permission to commingle the production from two separate pools. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Travis Well No. 1, located 1980 feet from the South line and 660 feet from the East line of Section 21, Township 23 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of gas from an undesignated Abo gas pool and the production of oil from the Teague Pool. Applicant further seeks permission to commingle the oil produced from the Teague Pool from said well with the distillate produced from an undesignated Abo gas pool from said well.
- CASE 1814: Application of Leonard Latch for two water flood projects. Applicant, in the above-styled cause, seeks an order authorizing it to institute two water flood projects in the Empire Pool in Eddy County, New Mexico. In one project, applicant proposes to inject water into the Seven Rivers formation through ten wells located in the N/2 of Section 19, Township 17 South, Range 28 East. In the other project, applicant proposes to inject water into the Seven Rivers formation through seven wells located in the S/2 SE/4 of Section 12 and the NE/4 of Section 13, Township 17 South, Range 27 East.
- CASE 1815: Application of Leonard Oil Company for an unorthodox gas well location. Applicant, in the above-styled cause, seeks an order authorizing an unorthodox gas well location in the Jalmat Gas Pool at a point 2310 feet from the North and East lines of Section 21, Township 25 South, Range 37 East, Lea County, New Mexico. Applicant proposes that said well serve as the unit well for a non-standard gas proration unit in the Jalmat Gas Pool consisting of the E/2 NW/4 and W/2 NE/4 of said Section 21.
- CASE 1816: Application of Shell Oil Company for permission to commingle the production from several separate pools from several separate leases. Applicant, in the above-styled cause, seeks permission to commingle the production from an undesignated Abo pool and an undesignated San Andres pool from two separate leases in Sections 23, 26, and 35, Township 19 South, Range 35 East, Lea County, New Mexico, and to transport said production from said leases

prior to measurement and to commingle such production with the commingled Pearl-Queen production authorized by Order No. R-1101. Applicant further seeks authorization to expand the automatic custody transfer system authorized by said Order No. R-1101.

CASE 1817: Application of Sunray Mid-Continent Oil Company for an automatic custody transfer system and for permission to produce more than sixteen wells into a common tank battery. Applicant, in the above-styled cause, seeks an order authorizing it to install an automatic custody transfer system to handle the production from all Bisti-Lower Gallup Oil Pool wells on its Central Bisti Unit comprising certain acreage in Townships 25 and 26 North, Range 12 West, San Juan County, New Mexico.

CASE 1818: Application of Texaco Inc., for a gas-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its State "BN" Well No. 1, located in the NW/4 SW/4 of Section 25, Township 11 South, Range 32 East, Lea County, New Mexico, in such a manner as to produce gas from the Moore-Wolfcamp Gas Pool and to produce oil from the Moore-Permsylvanian Pool through the casing-tubing annulus and tubing respectively.

CASE 1819: Application of Hamilton Dome Oil Company, Ltd., for an order authorizing the commingling of production from two separate pools. Applicant, in the above-styled cause, seeks permission to commingle the Blinebry and Tubb production from a lease consisting of the S/2 SE/4 of Section 25, Township 25 South, Range 37 East, Lea County, New Mexico.

CASE 1820: Application of Carper Drilling Company, Inc., and T. J. Sivley for permission to commingle the production from two separate leases. Applicant, in the above-styled cause, seeks permission to commingle the Empire-Abo Pool production from that portion of State Lease B-1483 consisting of lot 2 of Section 2 and that portion of State lease 2029 consisting of lot 3 of said Section 2, Township 18 South, Range 27 East, Eddy County, New Mexico.

CASE 1821: Application of Cities Service Oil Company for establishment of a water flood project allowable. Applicant, in the above-styled cause, seeks an order establishing a project allowable for its Drickey Queen Sand Unit in Chaves County, New Mexico, and providing for the conversion of wells to water injection at the operator's election.

CASE 1822: Application of Cities Service Oil Company for approval of automatic custody transfer facilities. Applicant, in the above-styled cause, seeks an order authorizing the installation of automatic custody transfer facilities to handle the Caprock-Queen Pool production from the Drickey Queen Sand Unit in Chaves County, New Mexico.



PETROLEUM AND ITS PRODUCTS

GULF OIL CORPORATION

P. O. DRAWER 1290 - FORT WORTH 4, TEXAS 33

H. P. REARDON
DIVISION
PETROLEUM ENGINEER

FORT WORTH
PRODUCTION DIVISION

October 29, 1959

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

Re: Application for Approval to Complete Gulf Oil Corporation's G. G. Travis No. 1 as a Gas-Oil Dual, Undesignated Abo Gas and Teague Oil Pools, and for Exception to Rule 309 to Permit Commingling of Distillate from Undesignated Abo Gas and Oil Production from Teague Pools, Lea County, New Mexico

Gentlemen:

Gulf Oil Corporation respectfully submits application to gas-oil dually complete subject well and requests that the Commission set this matter for Examiner Hearing at an early date. Hearing is being requested for this gas-oil dual since this is the first dual completion of this type. At the hearing Gulf will also request an exception to Rule 309 to commingle distillate production from the Undesignated Abo Gas Pool with McKee oil production from the Teague Pool.

The following facts are offered in support of this application:

- (1) Gulf Oil Corporation is the owner and operator of 80-acre G. G. Travis Lease which consists of the N/2 of the SE/4 of Section 21, T-23-S, R-37-E, Lea County, New Mexico. Subject well is located 660 feet from the east line and 1980 feet from the south line of said Section 21.
- (2) The 13-3/8" casing in this well was set at 316 feet and cement circulated with 300 sacks; 9-5/8" casing was set at 2900 feet and cemented with 1300 sacks, top of cement being at 1115 feet; 7" casing was set at 9661 feet and cemented with 700 sacks, top of cement being at 5400 feet.
- (3) Subject well was originally completed November 25, 1948 in the Teague Field at a total depth of 9555 feet, plugged back from 9662 feet. Subsequently this well was plugged back to 9486 feet and recompleted in the Teague Pool, producing through perforations 9412-9483 feet. This pay is presently closed in awaiting approval of this dual completion application.

Handwritten:
Booklet Mailed
11-12-59
HCR

Handwritten:
Nov 24
25
Ex. 1813

October 29, 1959

- (4) On September 17, 1959, 7" casing was perforated at intervals from 6764 to 7200 feet, opposite the Abo formation. This pay was acidized on 9-23-59 and on 15-minute OCC test ending 7:15 A. M., 9-24-59, flowed 2602 MCF of gas. It is estimated that distillate production will amount to approximately 18 barrels per day.
- (5) If approved, the subject well will be dually completed as shown on the diagrammatic sketch attached hereto. The Teague McKee oil will be produced through the long tubing string by means of gas lift, using the Abo gas from this well for the lifting mechanism. The Abo gas will be produced through the casing-tubing annulus and at the surface will be reinjected down the short string to gas-lift the McKee oil. The remaining Abo gas will be utilized for gas-lift operations on another lease. The two producing intervals will be separated by means of a Baker Retrievable Packer set at approximately 7250 feet, which is capable of withstanding any differential in pressures expected to be encountered between the two producing formations.
- (6) There is no diversity of royalty or working interests underlying the above-described lease.
- (7) The existing storage and testing facilities on this lease are adequate to handle production from the two formations and to take all required tests, from which the oil and distillate production from each pay will be estimated.

The manner and method of the proposed dual completion is 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 underground separation of the production from the two pays. The approval of the commingling application will result in substantial savings in steel, reduce the cost of operation and maintenance, prevent waste, and also protect correlative rights.

By copy of this letter of application, the only offset operator is being notified of this proposed dual completion and commingling request.

Respectfully submitted,

GULF OIL CORPORATION

By H. P. Pearson
Division Petroleum Engineer

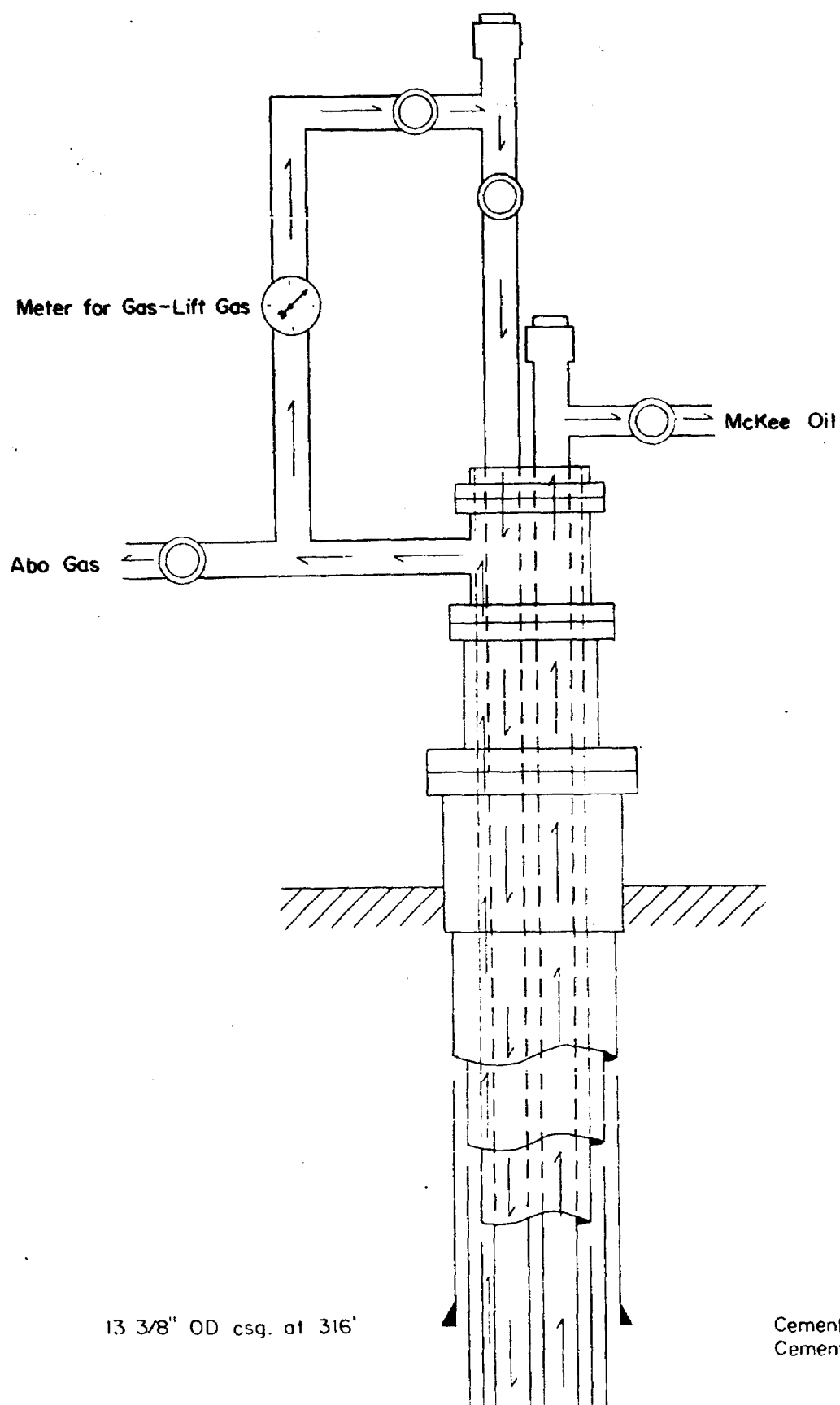
Oil Conservation Commission

- 3 -

October 29, 1959

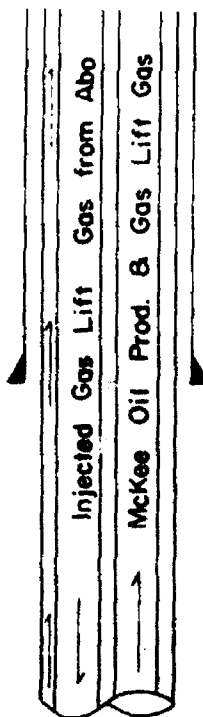
cc: Oil Conservation Commission
State of New Mexico
P. O. Box 2045
Hobbs, New Mexico

Resler & Sheldon
Carper Building
Artesia, New Mexico



9 5/8" OD csg. at 2900'

Cemented w/1300 sax
Top cement at 1115'



Abo Gas perforations

6764'

7200'

Baker Retrievable Pkr.

2 3/8" tbg. open ended
beneath pkr.

Baker Receptacle Seal Assembly

One Retrievable Flow Valve

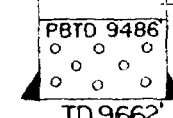
Baker Model "D" Pkr.
Set at 9305'

McKee Oil perforations

9412'

9483'

7" OD csg. at 9661'



TD 9662'

Cemented w/700 sax
Top cement at 5400'

Note:

Drawing not to scale

PROPOSED MECHANICAL INSTALLATION OIL-GAS DUAL COMPLETION

G. G. TRAVIS NO. 1

TEAGUE MCKEE & UNDESIGNATED ABO GAS POOL

Gulf Oil Corporation

Roswell District

Pet. Engineering

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
November 24, 1959

EXAMINER HEARING

IN THE MATTER OF:

Application of Gulf Oil Corporation for a gas-oil dual completion and for permission to commingle the production from two separate pools. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Travis Well No. 1, located 1980 feet from the South line and 660 feet from the East line of Section 21, Township 23 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of gas from an undesignated Abo gas pool and the production of oil from the Teague Pool. Applicant further seeks permission to commingle the oil produced from the Teague Pool from said well with the distillate produced from an undesignated Abo gas pool from said well.

Case 1813

BEFORE:

Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: The next case will be Case 1813.

MR. PAYNE: "Application of Gulf Oil Corporation for a gas-oil dual completion and for permission to commingle the production from two separate pools."

MR. KASTLER: Bill Kastler, District lawyer for Gulf Oil Corporation, from Roswell, New Mexico, Appearing on behalf of Gulf are two witnesses, Mr. Gerald J. Savage and Mr. Vance Hendricks, who has previously testified.

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6591

ALBUQUERQUE, NEW MEXICO



(Witnesses sworn.)

GERALD J. SAVAGE

called as a witness, having previously been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. KASTLER:

Q Will you please take the stand and state your name and your position with Gulf Oil Corporation?

A Gerald J. Savage. I'm a Production Geologist for the Gulf Oil Corporation at Roswell, New Mexico.

Q Have you previously appeared and qualified as a Production Geologist and testified as such before the New Mexico Oil Conservation Commission?

A Yes, sir, I have.

Q Are you familiar with Gulf's application in Case No. 1813?

A Yes, sir.

Q Will you explain what the application involves, briefly?

A In Gulf's application in Case No. 1813 they request permission to gas-oil dually complete their G. G. Travis Well No. 1 which is located 1980 feet from the South line and 660 feet from the East line, Section 21, Township 23 South, Range 37 East.

This well is to be completed in an undesignated Abo gas pool in the Teague-McKee Pool, and to also commingle the



distillate production from the undesignated Abo Gas Pool with the McKee oil from the Teague-McKee.

Q Have you prepared or had prepared a lease plat? First, let me ask you, will you please outline the well's history briefly?

A The subject well was originally completed in November of 1948 in the Teague-McKee at a total depth of 9,553 feet and at a plugged back depth of 9,662. In March of 1959 this well was plugged back to 9486 feet and the two lowermost sets of perforations from 9515 to 9585 feet were plugged off.

This well is currently open through two sets of perforations between 9412 feet and 9483 feet, and it's currently closed in.

Q Was the well in Teague-McKee fractured at that time, March, 1959?

A No, sir, I don't believe that it was.

Q Do you have a lease plat showing the location of Gulf's lease, the well on the Gulf's lease, and the names of the offset operators, other completions?

A Yes, sir, I have.

MR. KASTLER: We have prepared this for introduction in evidence as Exhibit No. 1.

(Marked Gulf's Exhibit No. 1, for identification.)

Q Will you refer to Exhibit No. 1 and state what is shown and what is marked and outlined in there?



DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

A Specifically shown on Gulf's Exhibit No. 1 in Case No. 1813 is Gulf's G. G. Travis Lease outlined in yellow, being the North Half of the Southeast Quarter of Section 21, Township 23 South, 37 East.

Q Is the total acreage of this lease 80 acres?

A That is correct.

Q Proceed.

A Also shown is Gulf's G. G. Travis Well No. 1 marked in red. All offset operators and producing wells are also shown.

Q Have you prepared a structure plat contoured on top of the Abo formation for introduction here as Exhibit No. 2?

A Yes, sir, I have.

(Marked Gulf's Exhibit No. 2, for identification.)

Q Referring to Exhibit No. 2, will you please explain what can be seen there?

A On Gulf's Exhibit No. 2 in this case is shown structure contours on top of the Abo formation, using subsea datums and contour interval of 25 feet. Also specifically shown are Gulf's G. G. Travis Lease outlined in yellow and Gulf's G. G. Travis Well No. 1 marked in red.

Q Is this the only well that is presently completed in this undesignated Abo Gas Pool?

A Yes, it is.



Q Have you also had prepared for introduction as Exhibit No. 3 a well log?

A Yes, sir, copies of a well log which I have caused to be labeled Exhibit No. 3 in this case.

(Marked Gulf's Exhibit No. 3, for identification.)

Q Will you testify what is shown on Exhibit No. 3 pertinent to this case?

A Specifically shown on this log at a depth of 6764 feet is the top of the Abo formation, and five sets of perforations in the interval 6764 feet to 7200 feet. Also specifically at a depth of 9412 feet, the top of the McKee formation two sets of perforations in the McKee between 9412 feet and 9483 feet. Also shown, to more clearly show the relative position of these formations, are various other formation tops in between and above.

Q Is there any data pertinent to a well test of the Abo gas undesignated formation shown on there as well?

A Yes, sir. Shown at about a depth of 7100 feet for information, a fifteen-minute OCC test on September 23rd of this year which showed the Abo flowed 2602 million cubic feet of gas through 2 2/8 tubing with 1252 back pressure.

Q Were Exhibits Nos. 1, 2 and 3 either prepared by you or prepared at your request and under your direction and at your supervision?

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6591

ALBUQUERQUE, NEW MEXICO



DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

A Yes, sir, they were.

Q Do you have any other conclusions or additions you wish to state?

A Yes, I neglected to mention in the well history that it was in September of this year that the seven inch casing was perforated at various intervals between 6764 feet to 7200 feet, opposite the Abo formation, and that the distillate production with the Abo gas amounts to approximately 13 barrels per day.

Q That's 13 barrels of distillate with the Abo gas?

A Yes, sir.

MR. KASTLER: Mr. Utz, this concludes the direct questions I have of this witness at this time.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Savage, is the Teague Pool in question here, the pool that is designated as the Teague-Simpson Pool by the Oil Commission?

A Yes, sir, I believe that is correct. That the McKee is part, the McKee, as I referred to it, is part of the Simpson formation.

Q I see.

MR. UTZ: Will your other witness testify as to the dual completion?

MR. KASTLER: Yes, he will. He has a schematic



DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

drawing of a proposed completion.

Q Mr. Savage, in regard to your absolute open flow test, was this 2602 MCF?

A Yes, sir, however that was with a 1252 pound back pressure rather than an open flow test.

Q To clarify the thing, where was the 1252 back pressure?

A According to my information the back pressure was on the 2 3/8" tubing.

Q Actually producing to the atmosphere, was it not?

A Yes, sir, during the test.

Q And your 1252 was actually working pressure, in other words?

A Yes, sir.

Q Do you have a bottomhole pressure on this zone?

A No, sir, I do not.

MR. KASTLER: Mr. Hendricks has that information.

MR. UTZ: Are there any other questions of the witness?

MR. PAYNE: Yes, sir.

BY MR. PAYNE:

Q Do you propose just to commingle the Teague production and the Abo production from this one well?

A At the present time that is all we are requesting.

Q Do you anticipate drilling any further Abo or Teague wells on this lease?



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A At the present time there are no plans to drill any additional Teague wells. To my knowledge we will not recomplete any more Abo wells in the immediate vicinity.

Q So your application is limited to the request to commingle the production from the two pools from this well?

A Yes, sir.

MR. PAYNE: Thank you.

MR. UTZ: Any other questions? If not, the witness may be excused.

(Witness excused.)

MR. KASTLER: Mr. Hendricks, please take the stand.

VANCE HENDRICKS

called as a witness, having previously been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. KASTLER:

Q Will you please state your name, position, employer, and location of work?

A Vance Hendricks, Petroleum Engineer for the Gulf Oil Corporation, Roswell, New Mexico.

Q Are you the same Vance Hendricks who was previously sworn this morning to give testimony for Gulf Oil Corporation in Case No. 1812?

A Yes, sir, I am.



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Q Are you familiar with Gulf's G. G. Travis Well No. 1 and with the application that Gulf has submitted requesting Commission approval of its dual completion and are you also familiar with the request Gulf has submitted seeking permission to commingle oil produced from the Teague Pool with condensate produced from an undesignated Abo Pool?

A Yes, sir, I am.

MR. KASTLER: Are the witness' qualifications acceptable?

MR. UTZ: Yes, they are.

Q Have you prepared, or have you supervised the preparation of a sketch showing the proposed mechanical installation in G. G. Travis Well No. 1?

A Yes, sir, I have.

MR. KASTLER: This has been labeled Exhibit No. 4 for introduction in this case.

(Marked Gulf's Exhibit No. 4, for identification.)

Q Will you please testify as to what Exhibit No. 4 shows?

A Exhibit No. 4 is a diagrammatic sketch of the proposed mechanical installation of the oil and gas dual completion of Gulf Oil Corporation's G. G. Travis Well No. 1. This schematic shows that the well was originally completed at a total depth of 6,000, pardon me, 9,662 feet and has been plugged back to 9,486 feet. The 13-3/8 inch O.D. surface string was cemented at 316



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feet and cemented with 315 sacks of cement, circulated. The 9-5/8 inch O.D. intermediate string was cemented at 2,900 feet with 1300 sacks, which resulted in a cement top at 1,115 feet. The 7-inch O.D. producing string was cemented at 9,661 feet with 700 sacks of cement. The top of the cement behind the oil string is at 5,400 feet. The various Teague Pool perforations in the McKee interval are from 9,412 to 9,483 feet, while gas perforations in the undesignated Abo Pool are in various intervals from 6,764 feet to 7,200 feet. Continuing, the schematic shows that a Baker Model D permanent type retainer production packer is set at 9,305 feet. The 2-3/8 inch Teague oil producing string, shown in red on the exhibit, is latched into a Baker receptacle seal assembly located directly above the Model D packer. As can be seen, a tail pipe assembly extends below the packer. This is made up of 2 four foot 2-3/8 inch nipples, to which a seating nipple, standing valve and pin collar have been added.

Directly above the Baker receptacle seal assembly and described on the exhibit as one retrievable flow valve is a Garrett Oil Tool Company Type SSC sliding sleeve mandrel in which a GOT Type SO retrievable flow valve is housed. The Type SSC mandrel, which has the appearance of nothing more than a 2-1/2 foot tubing nipple having two sets of four closely spaced vertical ports, is run into the well on the long string. The Type SO wire line retrievable flow valve and Type SSC mandrel are so



designed that the ports in the mandrel can be opened when the flow valve is lowered into place. Similarly, the mandrel ports can be closed upon the withdrawal of the flow valve. The GOT Type SO retrievable flow valve is designed to open at 700 pounds per square inch.

Immediately below the Abo gas perforations at 7,253 feet a Baker Model J packer is set. This Baker Model J retrievable packer has been especially designed for installations such as this. The packer is run into the well on the long string, and the long string seats into the Baker Model D packer through the use of an anchor. This Baker Model J packer is set by applying a small amount of set down weight on the long string. This short string seats into the Baker Model J packer through the use of a Baker snap latch seal nipple which effectively seals the packer from above and below. Just above the Baker Model J packer is a Garrett Oil Tool Co. Type BC circulating valve which is located at 7,220 feet. This valve contains an internal sliding sleeve which may be opened and closed with a wire line shifting tool. This particular valve has been set so that a jarring motion downward by a shifting tool will close the valve.

Now, the colors have been added to the exhibit to aid in the explanation of the proposed gas lift installation. Abo gas entering the perforations from 6,764 to 7,200 feet into the tubing casing annulus is shown in yellow and can be followed in the

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tubing casing annulus to the surface where it passes through a high pressure separator, a meter run, and is sold to the Gulf Teague Gas Lift System. It is proposed that a portion of this produced Abo gas be used in the gas lift operation of Teague oil in this subject well. The injection gas from the Abo is shown in green, is first metered and then flows down the short string into the casing below the Baker Model J retrievable packer and activates the flow valve in the long string at 700 pounds. This causes the Teague oil, shown in red, to be lifted to the surface.

A bottom hole pressure determination was made on November 11, 1959, indicating a bottom hole pressure of 2600 pounds per square inch in the Abo formation at 6,982 feet after shut in time of 26-1/2 hours.

MR. UTZ: What was that again?

A That test again was 2600 pounds opposite the Abo after 26 hour shut in at 6,982 feet. No recent Teague bottom hole pressure has been taken in the subject well, so it is estimated that the Teague pressure, bottom hole pressure that is, is approximately 1,000 pounds per square inch, based on pressure tests taken this year in nearby Teague Pool wells. Therefore, from these pressures a pressure differential across the Baker Model J packer could be as high as approximately 1,900 pounds per square inch, a force which in effect aids in the seating of the Baker Model J packer even more securely. Similarly, a pressure differential



of only approximately 300 pounds per square inch exists.

Q Do I understand that the Abo gas is proposed to be produced through the tubing casing annulus and that the McKee oil, or the Teague oil, is to be produced through the 2-3/8 inch tubing that's designated in red on Exhibit No. 4?

A That is correct.

Q Now, the tubing that is shown as exhibit, on Exhibit No. 4 as green going through the Baker Model J retrievable packer is tubing for the purpose of injecting gas for the purpose of gas lift?

A That is correct.

Q Is Gulf requesting the commingling of oil production from the Teague Pool and condensate from the Undesignated Abo Pool?

A Yes, Gulf wishes to commingle the Teague Pool oil with the condensate.

Q What surface equipment is provided for doing this then?

A Gulf proposes to produce the gas from the Undesignated Abo Pool through a high pressure separator which will dump the Abo condensate into the Teague flow line near the well when both pays are producing together. The commingled Teague oil and the Abo condensate will then pass through the flow line to a low pressure separator at the tank battery. The low pressure separator will then dump into the two existing 250 barrel tanks. Based on the most recent test, it is estimated the daily Abo

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production will be approximately 13 barrels. This, coupled with 35 barrels from the Teague Pool, means that existing tankage will provide approximately ten days storage.

Q Well, all of the Abo gas that is produced after being run through a high pressure separator will then be metered?

A All the Abo gas produced from this well will be metered.

Q Before any of that gas is taken and reinjected into the well for gas lift purposes?

A That is correct.

Q And the gas that is taken and reinjected, will it then be separately metered?

A It will be separately metered before injection.

Q Does this proposed installation provide a means of accurately measuring production from both pays at reasonable intervals?

A Yes, it does.

Q How is the Abo Pool measured again?

A The testing of the Undesignated Abo production can be facilitated by merely shutting the Teague pay and then measuring the condensate produced into the tanks.

Q Abo gas is metered separately?

A It is metered separately.

Q How is the Teague pay measured?

A Well, to test the Teague pay, the two pays are produced

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as a normal production. However, the Abo condensate that was previously dumped from the high pressure separator into the Teague flow line is diverted into a separate flow line which empties into the tank not receiving the Teague production.

Q Then I understand you have actually two tanks, one of which can be used for the purpose of diverting the flow from one pay zone during the time you are taking measurements?

A That is correct.

Q Nevertheless, you are proposing to commingle the production of the condensate with the Teague oil?

A Under normal operation, yes, sir.

Q Are the two oils compatible?

A Yes, sir.

Q What is their relative gravity?

A Based on recent run tickets from the purchaser, the gravity of the condensate has been approximately 55.2 degrees API while the Teague --

Q For which?

A That's the Abo condensate.

Q That's the Abo condensate.

A While the Teague oil is approximately 42.5 degrees.

Q Both of them have the same characteristics as to either being sweet or sour crude oil?

A That is correct.

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Q They're both sweet perhaps?

A They're the same.

MR. UTZ: Are they sweet or sour?

A They're sour.

Q Mr. Hendricks, actually you have two packers set between the Teague-McKee pay and the Abo pay, is that correct?

A Yes, sir, a Baker Model D and a Baker Model J.

Q So, therefore, it would necessitate a leakage of both packers before oil or gas could be commingled in the relative zones?

A In the well bore, yes, sir.

Q Now, then, if there was leakage on the top or the retrievable packer, how would this come to your attention?

A It would come to our attention by causing a leakage into the pressure chamber, would cause the pressure to increase and cause the retrievable flow line valve to open, at which time the gas would go to the surface on the long string and give an extremely high GOR.

Q As I understand it, above the Baker Model J packer, the retrievable packer, you have Abo gas production that will build up to approximately 2600 pounds pressure?

A If it is shut in, yes.

Q Whereas below you have the injected gas lift gas that has been reinjected. And what is the approximate pressure of that?



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A 700 pounds per square inch.

Q So that leaves a pressure differential of perhaps as high as 1900 pounds?

A Yes, sir.

Q What is the pressure differential across the Baker Model D packer between the injected gas and the Teague oil?

A Approximately 300 pounds per square inch.

Q If there were any leakage between this or in the Baker Model D packer, how would this matter come to your attention?

A Similarly, a gas would flow into the long string and cause an extremely high gas-oil ratio in the McKee production.

Q Is there a present market for the high pressure Abo gas?

A Yes, there is.

Q What is that market?

A That high pressure gas is being sold to the Gulf Teague Gas Lift System.

Q For the purpose of injecting for gas lift purposes?

A That is correct.

Q Is there a present market for the low pressure gas that is produced with the Teague-McKee oil?

A Yes, sir, El Paso Natural Gas is taking the low pressure gas.

MR. KASTLER: I believe that concludes the questions I have on direct testimony, except for this:



Q Was Exhibit No. 4 sketched or drawn by you or at your direction or supervision?

A Yes, it was.

MR. KASTLER: I would like to move that Exhibit 4 be made a part of the evidence in this case.

MR. UTZ: Without objection it will be received.

CROSS EXAMINATION

BY MR. UTZ:

Q I wonder if you will tell me how you are going to make packer leakage tests on both of these packers?

A Packer leakage tests can be facilitated by closing in one string with a pressure gauge and by permitting the other pay to flow, and if there is any increase in the shutin pressure of the shutin pay, then you would know that you had communication between the flowing pay and the shutin pay. Likewise, if the other pay was shutin and the other pay was permitted to flow, the same test could be made.

Q Actually, though, you have two packers between the pays, don't you?

A Yes, sir.

Q How do you determine which packer is leaking?

A I believe if you would make a series of tests you could eliminate and determine which packer was leaking.

Q Is it your intention in regard to the packer leakage

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~~tests to test both packers together then, if you determine leakage,~~
to figure out which one, and make further tests in order to determine which packer is leaking?

A I have not given it considerable thought, but it is our full intention if there is a leakage to determine actually where the leak is occurring and diligently see that it is repaired.

Q If just Baker J packer is leaking, unless you test these packers separately, the only way you can determine leakage is by high gas-oil ratio on the produced McKee zone, is that correct?

A Well, I would have to go into it in detail. If a leak existed in the Baker Model J and the pressure went into the chamber between the Model J and Model D, first, your injection pressure would go up. That would facilitate knowing that a leak is occurring across the Baker Model J packer. If the leak occurs across the Baker Model D packer, an increase in pressure at the well head will also occur.

Q Each of these packers, in your opinion, can be tested separately?

A Yes, sir, that's what I'm trying to say.

Q You would have no objection to this order, if it's granted, to require that those packers be tested?

A Certainly not.

MR. UTZ: Are there other questions of the witness?

MR. PAYNE: Yes, sir.



BY MR. PAYNE:

Q Mr. Hendricks, as I understand it, you propose to produce the Abo gas through the casing tubing annulus, measure it and then reinject a portion of it?

A Yes, sir.

Q And the remainder of the Abo gas you propose to utilize for gas lift operations on another lease?

A That is correct.

Q Now, how do you determine that amount?

A The amount that actually leaves this lease?

Q Yes, sir.

A There is a meter run and it is constantly measured.

Q On the flow line that's leaving this lease?

A Yes, sir.

Q All right, now, since you do propose to produce the gas through the casing tubing annulus rather than through tubing, could you tell me if you have any liquid problem in this Abo zone?

A Based on the latest test, it does not appear that the liquid will be of sufficient magnitude to give a problem.

Q So that you feel that this well should be entitled to an exception and the gas not be produced through the tubing?

A Yes, sir.

Q Now, when you commingle the condensate from the Abo with the Teague oil it's going to raise your commingled gravity,

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isn't it?

A Yes, sir, it is.

Q Is that going to have any effect on the price paid?

A I've looked in that and it indicates, based on the proportion of oil that is being produced from the Teague to the condensate in the Abo, it indicates that the commingled gravity will be approximately 46 degrees. Now, in regard to the exception, based on that and based on the current price will continue, it will mean that there will be approximately a dollars difference in the daily revenue by the fact of its being commingled. It will be a dollar less than if it were measured and sold separately.

Q So that this installation would save you more money than what you are going to lose --

A By all means.

Q -- except that the royalty owner, he doesn't have to worry about the cost of operation, does he? His royalty is going to be less under this installation than it would be producing them separately?

A You direct that question to me?

Q Yes.

A Pardon me. It will be very, very slight.

Q Not enough to worry about? A That's right.

MR. PAYNE: Thank you. That's all.

BY MR. UTZ:



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Q What type meter are you going to use to measure the gas lift gas that goes back into this same well bore?

A As I understand it, the meter run that now exists is an orifice type and with a pressure recorder.

Q Do you have a gas-oil ratio for the Abo zone?

A Yes, sir, based on the test recently, it's approximately 200,000 to 1.

Q Now, in regard to measuring the liquids from the Abo, did I understand you to say that you would measure all of the liquids from the Abo into the separate tank before you commingled or just measure during the testing period?

A The production from the Abo will be measured during tests.

Q So most of the time it will not be measured?

A That is correct, Mr. Utz. Production will be allocated by the test.

Q Is the McKee side of this completion, top allowable well?

A No, sir, it is not. It's currently, last test was 35 barrels per day.

Q It's a marginal well? A Yes, sir.

Q That makes it worse. Would Gulf have any objection to continuously metering the Abo liquid production?

A Only to the extent that it would entail additional cost.

Q How many tanks did you say you had on this lease?



A Two tanks.

Q You need them both for storage?

A To facilitate production and test, it's advisable to have the two tanks, yes, sir.

Q You would have to add another tank in order to continuously measure the Abo production before commingling?

A Yes, sir, that would be required.

Q In view of the fact this is a marginal well and you are commingling liquids from an oil prorated pool, it might be necessary to do that.

A I see.

MR. UTZ: Are there other questions of the witness?

BY MR. PAYNE:

Q Do you feel that you could take a deliverability test on the Abo gas well due to the fact that it is not tubed and is producing considerable liquids?

A To my knowledge as to the test necessary for deliverability, that is possible.

MR. PAYNE: I see, thank you.

BY MR. UTZ:

Q When you ran the open flow test stated by you earlier, did you flow the well through the annulus?

A The test that was quoted by the previous witness?

Q Yes, sir.



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A That was through the tubing.

Q That was flowed through the tubing?

A Yes, sir.

Q You actually don't know whether you could test the well through the casing then, due to your liquid problems?

A I do not know that if a test has actually been done, but I believe that it can be tested flowing through the tubing casing annulus.

Q In case you do have liquid problems, you could clean the well out by opening your sleeve valve on the bottom of your gas lift injection tubing, is that correct?

A That's correct, using a shifting line tubing.

MR. UTZ: Are there any other questions?

MR. KASTLER: May I ask a couple of questions on re-direct examination?

REDIRECT EXAMINATION

BY MR. KASTLER:

Q Mr. Hendricks, is there a common royalty ownership throughout in this lease?

A Yes, sir.

Q Or through all pays? A Yes, sir.

Q What would be the top allowable for the Teague-McKee pay if this well were able to produce it?

A 132 barrels per day.



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Q Do you contemplate in the realm of possibilities of things that your distillate production would in any event exceed, what is the present distillate production?

A Approximately 13 barrels per day.

Q Or condensate.

A From the last test.

Q 13 barrels per day?

A Yes, sir.

Q Do you have any reasonable expectation that that might increase?

A I have no reason to believe that it will. I have nothing to base it on.

Q So then you don't believe that the totaled commingled production would in any event or approximate 132 barrels per day?

A I would think not.

MR. KASTLER: Thank you.

MR. UTZ: From both zones?

MR. KASTLER: Yes, in both zones.

MR. UTZ: Are there other questions? If not, the witness may be excused.

(Witness excused.)

MR. UTZ: Are there other statements to be made in this case? If there are none, the case will be taken under advisement.



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STATE OF NEW MEXICO)
 : ss
 COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 5th day of December, 1959.

Ada Dearnley
 Notary Public-Court Reporter

My commission expires:

June 19, 1963.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiners hearing of Case No. 1813, heard by me on Nov. 24, 1959.

Frank A. [Signature] Examiner
 New Mexico Oil Conservation Commission



STATE OF NEW MEXICO)
 : ss
 COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 5th day of December, 1959.

Ada Dearnley
 Notary Public-Court Reporter

My commission expires:

June 19, 1963.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner's office of Case No. 1813, heard by me on Nov. 24, 1959.
[Signature] Examiner
 New Mexico Oil Conservation Commission

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PETROLEUM AND ITS PRODUCTS

GULF OIL CORPORATION

P. O. DRAWER 1290 · FORT WORTH 1, TEXAS

H. P. REARDON
DIVISION
PETROLEUM ENGINEER

FORT WORTH
PRODUCTION DIVISION

October 29, 1959

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

Re: Application for Approval to Complete Gulf Oil Corporation's G. G. Travis No. 1 as a Gas-Oil Dual, Undesignated Abo Gas and Teague Oil Pools, and for Exception to Rule 309 to Permit Commingling of Distillate from Undesignated Abo Gas and Oil Production from Teague Pools, Lea County, New Mexico

Gentlemen:

Gulf Oil Corporation respectfully submits application to gas-oil dually complete subject well and requests that the Commission set this matter for Examiner Hearing at an early date. Hearing is being requested for this gas-oil dual since this is the first dual completion of this type. At the hearing Gulf will also request an exception to Rule 309 to commingle distillate production from the Undesignated Abo Gas Pool with McKee oil production from the Teague Pool.

The following facts are offered in support of this application:

- (1) Gulf Oil Corporation is the owner and operator of 80-acre G. G. Travis Lease which consists of the N/2 of the SE/4 of Section 21, T-23-S, R-37-E, Lea County, New Mexico. Subject well is located 660 feet from the east line and 1980 feet from the south line of said Section 21.
- (2) The 13-3/8" casing in this well was set at 316 feet and cement circulated with 300 sacks; 9-5/8" casing was set at 2900 feet and cemented with 1300 sacks, top of cement being at 1115 feet; 7" casing was set at 9661 feet and cemented with 700 sacks, top of cement being at 5400 feet.
- (3) Subject well was originally completed November 25, 1948 in the Teague Field at a total depth of 9555 feet, plugged back from 9662 feet. Subsequently this well was plugged back to 9486 feet and recompleted in the Teague Pool, producing through perforations 9412-9483 feet. This pay is presently closed in awaiting approval of this dual completion application.

October 29, 1959

- (4) On September 17, 1959, 7" casing was perforated at intervals from 6764 to 7200 feet, opposite the Abo formation. This pay was acidized on 9-23-59 and on 15-minute OCC test ending 7:15 A. M., 9-24-59, flowed 2602 MCF of gas. It is estimated that distillate production will amount to approximately 18 barrels per day.
- (5) If approved, the subject well will be dually completed as shown on the diagrammatic sketch attached hereto. The Teague McKee oil will be produced through the long tubing string by means of gas lift, using the Abo gas from this well for the lifting mechanism. The Abo gas will be produced through the casing-tubing annulus and at the surface will be reinjected down the short string to gas-lift the McKee oil. The remaining Abo gas will be utilized for gas-lift operations on another lease. The two producing intervals will be separated by means of a Baker Retrievable Packer set at approximately 7250 feet, which is capable of withstanding any differential in pressures expected to be encountered between the two producing formations.
- (6) There is no diversity of royalty or working interests underlying the above-described lease.
- (7) The existing storage and testing facilities on this lease are adequate to handle production from the two formations and to take all required tests, from which the oil and distillate production from each pay will be estimated.


The manner and method of the proposed dual completion is 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 underground separation of the production from the two pays. The approval of the commingling application will result in substantial savings in steel, reduce the cost of operation and maintenance, prevent waste, and also protect correlative rights.

By copy of this letter of application, the only offset operator is being notified of this proposed dual completion and commingling request.

Respectfully submitted,

GULF OIL CORPORATION

By


Division Petroleum Engineer

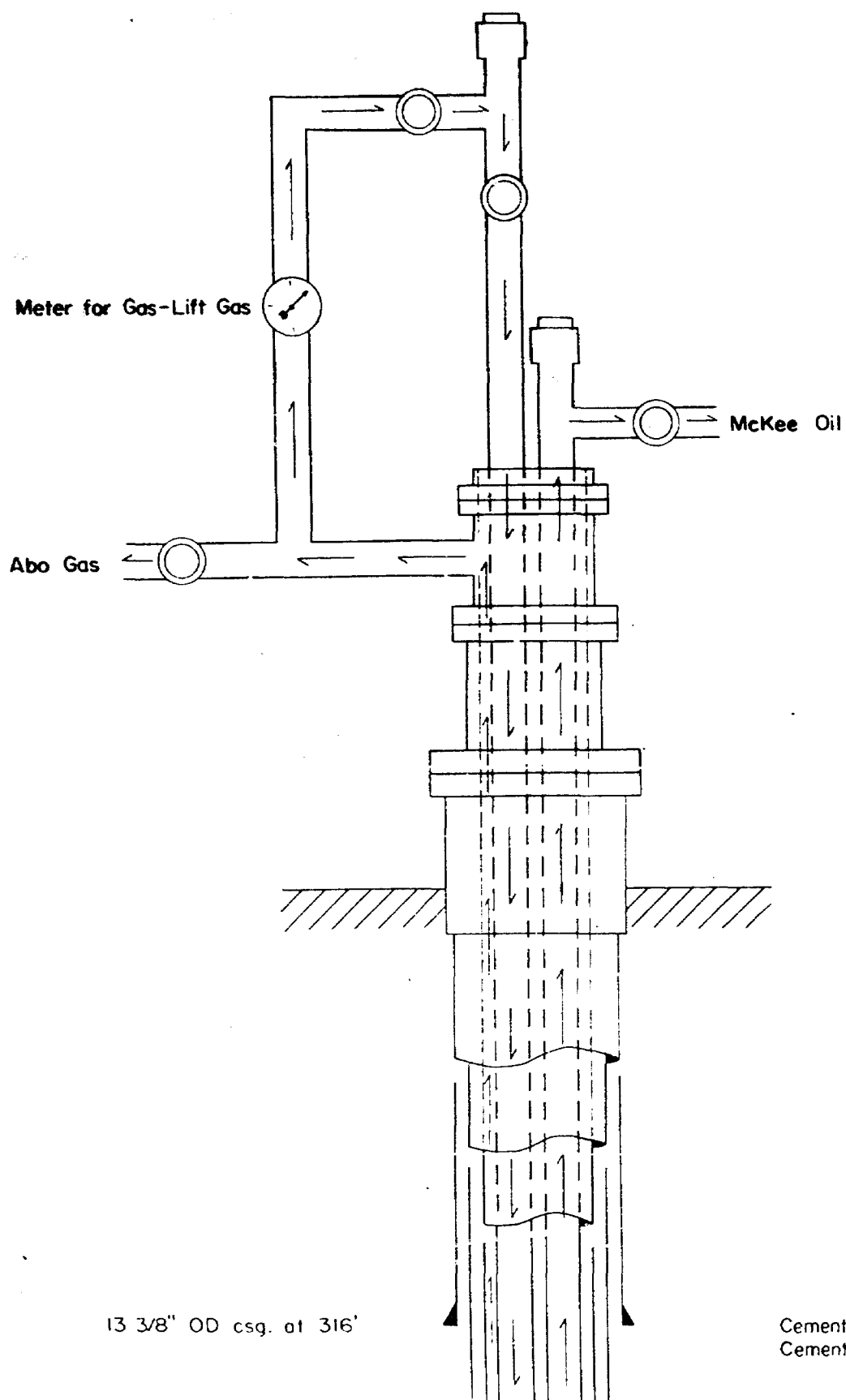
Oil Conservation Commission

- 3 -

October 29, 1959

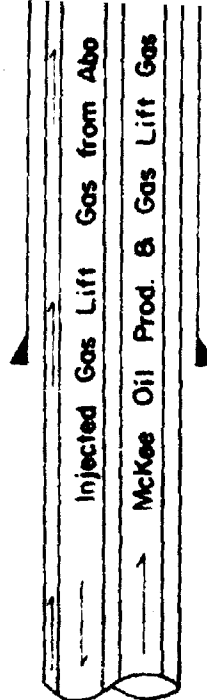
cc: Oil Conservation Commission
State of New Mexico
P. O. Box 2045
Hobbs, New Mexico

Resler & Sheldon
Carper Building
Artesia, New Mexico



9 5/8" OD csg. at 2900'

Cemented w/1300 sax
Top cement at 1115'



Abo Gas perforations

6764'

7200'

Baker Retrievable Pkr.

2 3/8" tbg. open ended
beneath pkr.

Baker Receptacle Seal Assembly

One Retrievable Flow Valve

Baker Model "D" Pkr.
Set at 9305'

McKee Oil perforations

9412'

9483'

P8TD 9486

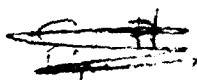
TD 9662'

7" OD csg. at 9661'

Cemented w/700 sax
Top cement at 5400'

Note!

Drawing not to scale



PROPOSED MECHANICAL INSTALLATION
OIL-GAS DUAL COMPLETION

G. G. TRAVIS NO. 1

TEAGUE MCKEE & UNDESIGNATED ABO GAS POOL

Gulf Oil Corporation
Pet. Engineering

Roswell District

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Date 11-27-59

CASE 1813

Hearing Date 11-25-59

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

Grant Gulf - Dual and Comm. as follows:

1. Dual:
Upper zone - Designated A to the
Lower League - Simpson Oil.
2. 2 strings of 2 3/8 tubing.
Gas is to be used for gas lifting Deugea pool
in Gulf Domes #1, 1980/S, 660/E sec. 21-
235-37 E and other wells in Area.
3. All Gas shall be metered.
4. A to liquid Hydrocarbons and the Deugea
Simpson Oil may be commingled
without metering. Metered such time
as either zone becomes top allowable
oil producing well.
5. Each zone shall ~~be~~ be tested to determine
its GOR + capability of producing top allowable
each 6 mo.

Wm. A. Mc



PETROLEUM AND ITS PRODUCTS

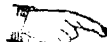
GULF OIL CORPORATION

P. O. DRAWER 1290 · FORT WORTH 1, TEXAS

H. P. REARDON
DIVISION
PETROLEUM ENGINEER

FORT WORTH
PRODUCTION DIVISION

October 29, 1959

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

Re: Application for Approval to Complete Gulf Oil Corporation's G. G. Travis No. 1 as a Gas-Oil Dual, Undesignated Abo Gas and Teague Oil Pools, and for Exception to Rule 309 to Permit Commingling of Distillate from Undesignated Abo Gas and Oil Production from Teague Pools, Lea County, New Mexico

Gentlemen:

Gulf Oil Corporation respectfully submits application to gas-oil dually complete subject well and requests that the Commission set this matter for Examiner Hearing at an early date. Hearing is being requested for this gas-oil dual since this is the first dual completion of this type. At the hearing Gulf will also request an exception to Rule 309 to commingle distillate production from the Undesignated Abo Gas Pool with McKee oil production from the Teague Pool.

The following facts are offered in support of this application:

- (1) Gulf Oil Corporation is the owner and operator of 80-acre G. G. Travis Lease which consists of the N/2 of the SE/4 of Section 21, T-23-S, R-37-E, Lea County, New Mexico. Subject well is located 660 feet from the east line and 1980 feet from the south line of said Section 21.
- (2) The 13-3/8" casing in this well was set at 316 feet and cement circulated with 300 sacks; 9-5/8" casing was set at 2900 feet and cemented with 1300 sacks, top of cement being at 1115 feet; 7" casing was set at 9661 feet and cemented with 700 sacks, top of cement being at 5400 feet.
- (3) Subject well was originally completed November 25, 1948 in the Teague Field at a total depth of 9555 feet, plugged back from 9662 feet. Subsequently this well was plugged back to 9486 feet and recompleted in the Teague Pool, producing through perforations 9412-9483 feet. This pay is presently closed in awaiting approval of this dual completion application.

October 29, 1959

- (4) On September 17, 1959, 7" casing was perforated at intervals from 6764 to 7200 feet, opposite the Abo formation. This pay was acidized on 9-23-59 and on 15-minute OCC test ending 7:15 A. M., 9-24-59, flowed 2602 MCF of gas. It is estimated that distillate production will amount to approximately 18 barrels per day.

*produce Abo gas
thru high pressure
separator.*

- (5) If approved, the subject well will be dually completed as shown on the diagrammatic sketch attached hereto. The Teague McKee oil will be produced through the long tubing string by means of gas lift, using the Abo gas from this well for the lifting mechanism. The Abo gas will be produced through the casing-tubing annulus and at the surface will be reinjected down the short string to gas-lift the McKee oil. The remaining Abo gas will be utilized for gas-lift operations on another lease. The two producing intervals will be separated by means of a Baker Retrievable Packer set at approximately 7250 feet, which is capable of withstanding any differential in pressures expected to be encountered between the two producing formations.

after measurement?

- (6) There is no diversity of royalty or working interests underlying the above-described lease.
- (7) The existing storage and testing facilities on this lease are adequate to handle production from the two formations and to take all required tests, from which the oil and distillate production from each pay will be estimated.

The manner and method of the proposed dual completion is 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 underground separation of the production from the two pays. The approval of the commingling application will result in substantial savings in steel, reduce the cost of operation and maintenance, prevent waste, and also protect correlative rights.

By copy of this letter of application, the only offset operator is being notified of this proposed dual completion and commingling request.

Respectfully submitted,

GULF OIL CORPORATION

By

H. P. Pearson
Division Petroleum Engineer

Oil Conservation Commission

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October 29, 1959

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

Resler & Sheldon
Carper Building
Artesia, New Mexico