

Case No.

2042

Application, Transcript,
Small Exhibits, Etc.

TEXACO
INC.

PETROLEUM PRODUCTS



DATE

69 FEB 27 PM 1 06

DRAWER 728
HOBBS, NEW MEXICO 88240

February 26, 1969

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Cancellation of Authorization
to Commingle, Order No.
R-1608-A

Attention: Mr. Dan Nutter

Gentlemen:

Commission Order No. R-1608-A dated August 23, 1960 authorized the surface commingling of the Crossroads (Devonian) and Crossroads (Mississippian) Pools on TEXACO's U. D. Sawyer Lease located in Section 34, T-9-S, R-36-E, Lea County, New Mexico. Production from the Crossroads (Mississippian) Pool has ceased on this lease, therefore, it is respectfully requested that the commingling authorization be cancelled effective March 1, 1969.

Yours very truly,

H. D. Raymond
H. D. Raymond
District Superintendent

EDMc-jr

cc: Mr. Tom Savage
NMOCC-Hobbs

GOVERNOR
JOHN BURROUGHS
CHAIRMAN

State of New Mexico
Oil Conservation Commission

LAND COMMISSIONER
MURRAY E. MORGAN
MEMBER



STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY DIRECTOR

P. O. BOX 671
SANTA FE

August 23, 1960

Mr. Charles White
Gilbert, White & Gilbert
Bishop Building
Santa Fe, New Mexico

Re: Case No. 2042
Order No. 2043
Applicant: R-1608-A &
R-1753
Texaco Inc.

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,

A. L. PORTER, Jr.,
Secretary-Director

lr/

Carbon copy of order also sent to:

Hobbs OCC X
Artesia OCC
Aztec OCC

Other

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. 2042
Order No. R-1608-A

APPLICATION OF TEXACO INC. FOR
PERMISSION TO COMMINGLE THE PRO-
DUCTION FROM TWO SEPARATE POOLS,
AND FOR PERMISSION TO INSTALL AN
AUTOMATIC CUSTODY TRANSFER SYSTEM
TO HANDLE SAID COMMINGLED PRODUC-
TION, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on August 10, 1960, 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 23rd day of August, 1960, 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 U. D. Sawyer lease consisting of the E/2 of Section 34, Township 9 South, Range 36 East, NMPM, Lea County, New Mexico.

(3) That by Order No. R-1608 the applicant was authorized to install an automatic custody transfer system to handle the Crossroads-Devonian Pool production from all wells presently completed or thereafter drilled on the said U. D. Sawyer lease.

(4) That the applicant seeks an amendment of said Order No. R-1608 to provide that it be permitted to commingle the Crossroads-Devonian Pool production with the production from an undesignated Mississippian Pool from all wells presently completed or hereafter drilled on the said U. D. Sawyer lease, after separately metering the production from each Pool.

(5) That the applicant also seeks an amendment of Order No. R-1608 to provide that said commingled production may be

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CASE No. 2042
Order No. R-1608-A

handled by means of the automatic custody transfer system authorized in said Order No. R-1608.

(6) That all meters to be used in the above-described system, including the power-oil meters, should be checked for accuracy once each month and the results of such tests furnished to the Commission.

(7) That in order to prevent the over-flow and waste of oil in the event the automatic custody transfer system fails to transfer oil to the pipeline, the applicant should add additional storage facilities from time to time, as it becomes necessary, to store the production which will accrue during the maximum period that said lease is unattended, or in the alternative should so equip the existing facilities as to automatically shut-down the lease production in the event the storage facilities become full.

(8) That the previous use of automatic custody transfer equipment, similar to that proposed by the applicant, has shown that such equipment is a reliable and economic means of transferring the custody of oil, and that the use of such equipment should be permitted, provided adequate safety features are incorporated therein.

IT IS THEREFORE ORDERED:

(1) That Order No. R-1608 be and the same is hereby superseded.

(2) That the applicant, Texaco Inc., be and the same is hereby authorized to commingle the Crossroads-Devonian Pool production with the production from an undesignated Mississippian Pool from all wells presently completed or hereafter drilled on its U. D. Sawyer lease consisting of the E/2 of Section 34, Township 9 South, Range 36 East, NMPM, Lea County, New Mexico, after separately metering the production from each Pool.

(3) That the applicant be and the same is hereby authorized to install automatic custody transfer equipment to handle the said commingled production.

PROVIDED HOWEVER, That the applicant shall install adequate facilities to permit the testing of all wells on the said U. D. Sawyer lease at least once each month to determine the individual production from each well.

PROVIDED FURTHER, That all meters used in the above-described system, including the power-oil meters, shall be operated and maintained in such a manner as to ensure an accurate measurement of the liquid hydrocarbon production at all times.

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CASE No. 2042
Order No. R-1608-A

PROVIDED FURTHER, That all meters, including the power-oil meters, shall be checked for accuracy at least once each month until further direction by the Secretary-Director.

Meters shall be calibrated against a master meter or against a test tank of measured volume and the results of such calibration filed with the Commission on the Commission form entitled "Meter Test Report."

PROVIDED FURTHER, That in order to prevent the over-flow and waste of oil in the event the automatic custody transfer system authorized by this Order fails to transfer the oil to the pipeline, the applicant shall add additional storage facilities from time to time, as it becomes necessary, to store the production which will accrue during the maximum period that said lease is unattended; or, in the alternative, shall so equip the existing facilities as to automatically shut-down the lease production in the event the storage facilities become full.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION



John Burroughes
JOHN BURROUGES, Chairman

Murray E. Morgan
MURRAY E. MORGAN, Member

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

esr/

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Date 8-10-60

CASE 2042

Hearing Date 8-10-60

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

1. Supersede R-1608 and add. the Cross-roads Mississippi pool on. Teravick's W.D. Sawyer lease to the new order.
2. Lease consists of E1/2 34-95-36E.
3. The actual Production from each ~~Lease~~ ^{Pool} shall be metered.
4. The lease production from each Pool shall be determined by subtracting the Power-oil meter reading from the lease meter reading. Therefore both Power-oil meters and lease meters shall be tested once each month.
5. Lease meter shall be down stream from the lease separator.
6. In lieu of wellhead shut in feature the lease shall maintain at least 1 1/2 days available storage.

Thos. H. H.

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. 1881
Order No. R-1608

APPLICATION OF TEXACO INC.
FOR PERMISSION TO INSTALL AN
AUTOMATIC CUSTODY TRANSFER
SYSTEM ON ITS U. D. SAWYER
LEASE, LEA COUNTY, NEW MEXICO

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on January 27, 1960, 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 8th day of February, 1960, 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 U. D. Sawyer lease, consisting of the E/2 of Section 34, Township 9 South, Range 36 East, NMPM, Lea County, New Mexico.

(3) That the applicant proposes to install an automatic custody transfer system to handle the Crossroads-Devonian Pool production from all wells presently drilled or hereafter completed on said U. D. Sawyer lease.

(4) That the applicant proposes to measure the oil passing through said automatic custody transfer equipment by means of either dump-type or positive displacement meters.

(5) That the meters to be used in the above-described system should be checked for accuracy once each month and the results of such tests furnished the Commission.

(6) That the above-described system should be so equipped as to prevent the undue waste of oil in the event of malfunction or flow-line break.

(7) That in order to prevent the overflow and waste of oil in the event the automatic custody transfer system fails to transfer oil to the pipeline, the applicant should add additional storage facilities from time to time, as it becomes necessary, to store the production which will accrue during the hours that said lease is unattended, or in the alternative should so equip the existing facilities as to automatically shut down the lease production in the event the storage facilities become full.

(8) That the previous use of automatic custody transfer equipment, similar to that proposed by the applicant, has shown that such equipment is a reliable and economic means of transferring the custody of oil, and that the use of such equipment should be permitted.

IT IS THEREFORE ORDERED:

That the applicant be and the same is hereby authorized to install automatic custody transfer equipment to handle the Crossroads-Devonian Pool production from all wells presently drilled or hereafter completed on its U. D. Sawyer lease, consisting of the E/2 of Section 34, Township 9 South, Range 36 East, NMPM, Lea County, New Mexico.

PROVIDED HOWEVER, That the applicant shall install adequate facilities to permit the testing of all wells on the said U. D. Sawyer lease at least once each month to determine the individual production from each well.

PROVIDED FURTHER, That the above-described system shall be so equipped as to prevent the undue waste of oil in the event of malfunction or flow-line break.

PROVIDED FURTHER, That all meters used in the above-described system shall be operated and maintained in such a manner as to ensure an accurate measurement of the liquid hydrocarbon production at all times.

PROVIDED FURTHER, That all meters shall be checked for accuracy at least once each month until further direction by the Secretary-Director. Meters shall be calibrated against a master meter or against a test tank of measured volume and the results of such calibration filed with the Commission on the Commission form entitled "Meter Test Report."

PROVIDED FURTHER, That in order to prevent the overflow and waste of oil in the event the automatic custody transfer system

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Case No. 1881

Order No. R-1608

authorized by this order fails to transfer oil to the pipeline, the applicant shall add additional storage facilities from time to time, as it becomes necessary, to store the production which will accrue during the hours that said lease is unattended; or, in the alternative, shall so equip the existing facilities as to automatically shut down the lease production in the event the storage facilities become full.

DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JOHN BURROUGHS, Chairman

MURRAY E. MORGAN, Member

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

S E A L

vem/

DOCKET: EXAMINER HEARING AUGUST 10, 1960

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

The following cases will be heard before ELVIS A. UTZ, Examiner, or OLIVER E. PAYNE, Attorney, as alternate examiner:

- CASE 2041: Application of Amerada Petroleum Corporation for permission to commingle the production from several separate leases. Applicant, in the above-styled cause, seeks permission to commingle the production from the Saunders (Permo-Pennsylvanian) Pool from three State leases in Sections 3 and 4, Township 15, Range 33 East, Lea County, New Mexico.
- CASE 2048: Application of Rice Engineering & Operating, Inc. for an order authorizing a salt water disposal well. Applicant, in the above-styled cause, seeks an order authorizing the disposal of produced salt water through its Gladiola SWD Well No. H-5, formerly known as the Sinclair Kendrick Estate Well No. 3, located 1980 feet from the North line and 660 feet from the East line of Section 5, Township 12 South, Range 38 East, Gladiola Pool, Lea County, New Mexico, with injection to be in the Devonian formation in the interval from 12,223 feet to 12,500 feet.
- CASE 2042: Application of Texaco Inc. for permission to commingle the production from two separate pools and for an amendment of Order No. R-1608. Applicant, in the above-styled cause, seeks permission to commingle the production from the Crossroads-Devonian Pool and from an undesignated Mississippian Pool from all wells on its U. D. Sawyer lease comprising the E/2 of Section 34, Township 9 South, Range 36 East, Lea County, New Mexico. Applicant further seeks an amendment of Order No. R-1608 to provide that the automatic custody transfer system therein authorized can be utilized to handle said commingled production.
- CASE 2043: Application of Texaco Inc. for an oil-oil-oil triple completion. Applicant, in the above-styled cause, seeks an order authorizing the triple completion of its C. P. Falby "B" Well No. 4, located in unit L, Section 8, Township 22 South, Range 37 East, Lea County, New Mexico, in such a manner as to produce oil from the Eumont Gas Pool, oil from the Penrose-Skelly Pool, and oil from the Drinkard Pool through 3 parallel strings of 2 3/8-inch tubing.
- CASE 2044: Application of Gulf Oil Corporation for an amendment of Order No. R-1605. Applicant, in the above-styled cause, seeks an amendment of Order No. R-1605 to permit the inclusion of the Lea State "AR" Lease, consisting of the S/2 of Section 33 and the SW/4 of Section 34, Township 19 South, Range 35 East, Pearl-Queen Pool, Lea County, New Mexico, in the commingling authorization granted by said order. Applicant further seeks an amendment of said order to provide that the automatic custody transfer system therein authorized be permitted to handle said commingled production.

- CASE 2045: Application of The Ohio Oil Company for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Lea Unit Federal Well No. 1, located in unit L, Section 12, Township 20 South, Range 34 East, Lea County, New Mexico, in such a manner as to permit the production of oil from an undesignated Bone Springs Pool and the production of oil from an undesignated Devonian Pool through parallel strings of 2 3/8-inch tubing.
- CASE 2046: Application of Tennessee Gas and Oil Company for permission to transfer oil well allowables. Applicant, in the above-styled cause, seeks an order authorizing it to transfer, for a period of 60 days, the allowable assigned to its Glenn Callow Well No. 11 to its Glenn Callow Well No. 9, both in Section 28, Township 29 North, Range 13 West, San Juan County, New Mexico, in order to conduct pressure interference tests.
- CASE 2047: Application of Tennessee Gas Transmission Company for an order force-pooling all mineral interests in a 320-acre gas unit in the West Kutz-Dakota Pool. Applicant, in the above-styled cause, seeks an order force-pooling all Dakota Producing Interval mineral interests in the 320 acres comprising the W/2 of Section 27, Township 29 North, Range 13 West, West Kutz-Dakota Pool, San Juan County, New Mexico. The mineral interest owners in the said 320-acre tract include Hugh J. Mitchell, Raimonda Mitchell, Barbara Head Couturi, Robert H. Clifton, Mildred C. Foutz, Dorothy C. Malloy, Martha Head, Lucy M. Marcelino, Hattie M. McClure, Willard H. Head, George J. Head, Helen C. Hayes, Harry T. Head, Mary E. Hodgson, Dorothy G. Head, Gladys Slaughter Smith, Frederick J. Head, Pan American Petroleum Corporation, H. K. Riddle, Glenn H. Callow, Arnold E. Carle, Ivan Otstot and Mabel Otstot.

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
August 10, 1960

EXAMINER HEARING

IN THE MATTER OF:

Application of Texaco Inc. for permission to commingle the production from two separate pools and for an amendment of Order No. R-1608. Applicant, in the above-styled cause, seeks permission to commingle the production from the Crossroads-Devonian Pool and from an undesignated Mississippian Pool from all wells on its U. D. Sawyer lease comprising the E/2 of Section 34, Township 9 South, Range 36 East, Lea County, New Mexico. Applicant further seeks an amendment of Order No. R-1608 to provide that the automatic custody transfer system therein authorized can be utilized to handle said commingled production.

Case 2042

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: Case 2042.

MR. PAYNE: Application of Texaco Inc. for permission to commingle the production from two separate pools and for an amendment of Order No. R-1608.

MR. WHITE: Charles White of Gilbert, White & Gilbert,
Santa Fe, New Mexico, appearing on behalf of the applicant. We
have one witness to be sworn at this time, Mr. J. E. Robinson, Jr.

(Witness sworn.)

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PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO



MR. UTZ: Are there other appearances in this case?

Would you mark your exhibits at this time, please?

(Texaco Inc.'s Exhibits 1
through 4 were marked for
identification.)

J. E. ROBINSON, JR.

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

DIRECT EXAMINATION

BY MR. WHITE:

Q Mr. Robinson, by whom are you employed and in what
capacity?

A Texaco, Inc., as a proration engineer for Midland Division.

Q Have you previously testified before the Commission?

A Yes, sir, I have.

Q Are you acquainted with the subject application?

A Yes, I am.

MR. WHITE: Are the witness's qualifications acceptable?

MR. UTZ: Yes, sir, they are.

Q Are you also acquainted with Oil Conservation Commission
Case 1881 and Order R-1608 issued?

A Yes, I am.

Q What authority did Texaco obtain under Order R-1608 and
what was the date of its issuance?

A Case No. 1881 was heard on January the 27th, 1960 and

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in that application we asked for authority to install an automatic custody transfer system on our U. D. Sawyer for the Crossroads-Devonian production, and Order No. R-1608 was granted on February the 8th, 1960, which gave us the authority to run the Devonian production through the LACT.

Q At that time how many wells did you have producing on the lease?

A At that time we had three wells on our U. D. Sawyer lease all producing from the Devonian horizon.

Q When did you spud in on your Well No. 4, which is part of the subject of this application?

A Well No. 4 was spudded in on April 4, 1960 and it was drilled as a Devonian well. We drilled it to a total depth of 12,400 feet and were unable to obtain Devonian production. The well was plugged back and completed in the Mississippian.

Q What's the present status of this well?

A The well is shut in at the present time waiting on installation of Cobe pumping equipment.

Q What do you seek by the present application?

A We are seeking in this application the authority to commingle the Mississippian and Devonian production and run this commingled production through the existing LACT.

Q In other words, you seek permission to extend the Order R-1608 to cover this well?

A That is correct. We would like to have the authority granted under R-1608 to be expanded to include both Devonian and Mississippian production.

Q Will you refer to Exhibit No. 1, being an ownership plat, and explain that, please?

A Exhibit No. 1 is an ownership plat where Texaco's U. D. Sawyer lease is outlined with a yellow border located in the East Half of Section 34, Township 9 South, Range 36 East. Wells 1, 2 and 3 are located in the Crossroads-Devonian Field and Well No. 4 is an undesignated Mississippian well. It also lists other wells in the immediate vicinity, all of these wells are located in the Crossroads-Devonian. It also lists offset operators with their addresses.

Q Is this the only well producing in the Mississippian Pool?

A Yes, sir, it is.

Q Will you refer to Exhibit No. 2 and state the production characteristics?

A Exhibit No. 2 is the production characteristics of both the Devonian and Mississippian production on the U. D. Sawyer lease. The Devonian is an intermediate sweet type crude and the Mississippian is also intermediate sweet. The Devonian has a gas-oil ratio of too small to measure. At this time we do not have a gas-oil ratio test available on our Mississippian since we've only run swabbing tests on the well.

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Q Will that be supplied at a later date?

A Yes, sir, it will. The gravity of the Devonian is 44 degrees, the Mississippian is 41.5 degrees, corrected as 60 degrees; the commingling statistics, the Devonian, we have three wells all being top allowable wells at the present rate of 223 barrels per day. That would give a productivity of 669 barrels of oil per day. It has a gravity of 44. The price per barrels is \$3.01, between 40 and 44 degrees gravity. The Mississippian, we estimate that this well will make 80 barrels of oil per day. It has a gravity of 41.5 with the same price per barrel of \$3.01. After commingling, then we will have a composite total of 749 barrels of oil per day with a weighted composite gravity of 43.7 degrees, and since this gravity is still within the range of 40 to 44, it will still have a \$3.01 price per barrel and, therefore, there will be no gain or loss in the revenue per day.

Q Refer to Exhibit 3 and explain that diagrammatic sketch.

A Exhibit No. 3 is a diagrammatic sketch of the commingling installation. I would like to point out that our Devonian well, our Well No. 3 is being pumped by a Cobe pump, Wells 1 and 2 are flowing Devonian wells, they flow with a pressure from 25 to 40 pounds, and then our Mississippian well will also have to be pumped with a Cobe pump.

I might start out on this exhibit with the location of the power oil reservoir. Actually, we have three 500-barrel tanks

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that serve as a power oil reservoir. The purpose of this having the three 500 barrels, this oil carries a gritty material Gilsonite and we like to provide ample settling time that the oil will have plenty of time to settle out any material to keep from plugging up the screenings on our Cobe pump.

The oil will leave the power reservoir tank. It will go to a triplex pump. Then as the oil comes out of the triplex pump we will meter through a P.D. meter the power oil going to the Mississippian well. The power oil will go down the tubing of the Mississippian well where we will pump the Mississippian by a Cobe pump, then the power oil and the production will leave the Mississippian well, go into a separator where the free gas will be taken off and then it will go on downstream where we will read through a P.D. meter the amount of oil that is passing through this separator. Actually, this oil will be production plus the power oil. We will take the P.D. meter reading and subtract the amount of oil, or the amount of power oil that was measured going into the well, and after we extract the power oil from the P.D. meter reading downstream from the separator, we will get the amount of production that we have actually produced.

Then the oil will go into the power oil reservoir; from there it will distill out and go on downstream to three 500-barrel stock tanks that is connected with our LACT operations. The Devonian production will be measured in the identical manner as the



Mississippian in that we will measure the power oil that is being used to pump the Devonian production and the Devonian production will go through a separator and then its production will be measured and then we will extract the power oil from the metered volume going through the separator, and that will give us our production there.

We have also installed a test separator with also a P.D. meter in that we can test any of these wells at any time that we so desire.

Q Mr. Robinson, has the Commission approved similar installations of this type?

A Yes, sir, they have. When using Cobe installations, a similar type installation has been approved.

Q Have you found such installation successful and satisfactory?

A Yes, sir, we believe so.

Q Will you now refer to Exhibit 4 and explain that?

A Exhibit No. 4 is a copy of an exhibit that was introduced at the January 27th hearing where we asked for authority to install LACT. This has now been amended to show the installation as we now propose to install it. At the previous hearing I testified that we had two 500-barrel storage tanks connected with the LACT operations and that we plan to drill an additional well, and at such time that we drill the well we would install an additional

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500-barrel tank. Well, that is what we propose to do now, actually we will have tanks A, B and C, by adding an additional 500-barrel storage to the amount of reservoir space that we will have available at the high level control switch on tank A, if some malfunction should occur, we will, then we will have 177 barrels in tank A plus 500 barrels in tank B and 500 barrels in tank C, for a total of 1177 barrels of reservoir storage space.

At the present rate of 223 barrels per day for Devonian, well, that will give, plus the 80 barrels for the Mississippian production, we will have approximately 749 barrels of production a day. That will give us 1.57 days or 37.6 hours storage time in case of an emergency.

Our operations of this lease will not change in any way as it previously was. We will continue pumping this with a 7 day pumper and the maximum time the lease will go unattended will be 18 hours.

Q In your opinion, is this ample storage in case of a malfunction?

A Yes, sir, I certainly think that it is.

Q Mr. Robinson, is the remaining part of the LACT system the same as we presented in Case 1881?

A Yes. There is actually no change in the LACT system that we requested, with the exception that we are installing an additional 500-barrel tank to provide ample storage.



MR. WHITE: We offer Exhibits 1 through 4.

MR. UTZ: Without objection, Exhibits 1 through 4 will be entered into the record.

MR. WHITE: That concludes our direct examination.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Robinson, refer to Exhibit No. 3. You say you have three 500 power oil tanks?

A Yes, sir.

Q Does all the oil go through these tanks before it goes on to the stock tanks?

A Yes, sir. We have these three 500-barrel tanks setting up in parallel, the oil will go into the first 500-barrel tank and from there it will flow, overflow into the second one and into the third one and actually we will take our power oil off of the third tank and also the remaining overflow will then go to the three 500-barrel tanks located in the LACT battery.

Q So you actually have six tanks on the lease?

A On the lease we have six 500-barrel tanks.

Q How will you charge back the gas production to each formation, on each well actually?

A By gas-oil ratio test.

Q You'll just have one meter for all four wells?

A Yes, sir.



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Q Will you take the same type of tests on your power oil meters as you do on the production meters?

A Yes, sir. We will. We have installed facilities where we can put the power oil through the meter and then reroute it back and test it in a tank.

Q In an installation such as this, the accuracy of your power oil meter is just as important as your production meter, isn't that correct?

A Yes, it is.

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

MR. PAYNE: Yes, sir.

BY MR. PAYNE:

Q Mr. Robinson, do you use this power oil only on the well you are producing with the Cobe pump?

A Yes, sir, that is correct, only on the well that we're producing the Cobe pump from.

Q Which one is that?

A Well No. 3, which is a Devonian well, and Well No. 4 is a Mississippian well.

Q Do you anticipate dually completing any of these four wells in both the Mississippian and Devonian?

A Not at the present time we do not. We'll have to wait, and see just what type of Mississippian production we are going to get from this well. Of course, we did not get a top allowable well



and we'll have to wait and see just what type of well it is, but it can be done with pumping dual completion with Cobe pumps, but actually, it's an expensive operation in dualling the wells.

Q Assuming you did, it wouldn't change the figures on the value of the oil? value of the well?

A No, sir, we would continue metering all power oil for these zones.

Q But the price per barrel would remain the same?

A That's right, the price per barrel would remain the same.

Q Is the ownership under this lease common at both of these depths?

A Yes, sir. Texaco owns 100% of the working interest in this. There are approximately five or six royalty owners, but they have a common ownership to all depths.

Q Do you anticipate any paraffin problems?

A No, sir, we are not troubled at all with paraffin there.

Q So you don't propose to plastic coat your meters?

A No, sir.

MR. PAYNE: Thank you.

BY MR. PORTER:

Q Is this the only Mississippian well in the area?

A Yes, sir. In the area it is the only Mississippian well.

Q Do you recall whether any others have been previously completed in the Mississippian?

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ALBUQUERQUE, NEW MEXICO



A None of Texaco's wells, Mr. Porter. I couldn't say about any of the other operators, I really don't know, but it is the only Mississippian well in this general vicinity.

BY MR. PAYNE:

Q One further question, Mr. Robinson. Any of these wells flowing wells?

A Yes, sir, Wells 1 and 2 are flowing wells. The Devonian wells are flowing wells. They have a tubing pressure varying between 25 and 40 pounds and later on during the life of this pool we will have to pump these wells with Cobe pump installations.

Q Do you have any fail-safe features which would shut in the wells at the well head or at the header in the event of a malfunction?

A We will have Murphy switches on the triplex pump, in case of either high or low pressures that we would encounter, that would shut down the triplex pump.

MR. PAYNE: I see. Thank you.

BY MR. PORTER:

Q That's a switch controlled by floats?

A In the LACT system, yes, Mr. Porter, it is a float actuated switch that the LACT system goes on stream when the float, the level reaches the upper float in the boot connected with tank A and the LACT system will stay on stream until it reaches a low level switch, at which time it will shut off and will remain

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shut off until such time as the level builds back up to the top switch.

MR. PORTER: Thank you. That's all the questions I have.

MR. UTZ: The witness may be excused.

(Witness excused.)

MR. UTZ: The case will be taken under advisement.

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 13th day of August, 1960.


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 hearing of Case No. 2042, heard by me on Aug 10, 1960.


Examiner
New Mexico Oil Conservation Commission

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO



PETROLEUM PRODUCTS

MIDLAND DIVISION



P. O. Box 352
Midland, Texas
June 30, 1960

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

Attention: Mr. A. L. Porter, Jr.

Re: Application for Permit to Commingle
Production, TEXACO Inc.'s U. D.
Sawyer Lease, Crossroads Devonian and
Undesignated Mississippian Pools,
Lea County, New Mexico

Gentlemen:

In accordance with New Mexico Oil Conservation Commission Rule 303 (b), TEXACO Inc. hereby makes application for administrative approval of an exception to Rule 303 (a) to permit commingling operations to be conducted on the U. D. Sawyer Lease involving production from the Crossroads Devonian and Undesignated Mississippian Pools, in support of which is stated the following:

1. TEXACO Inc. is the owner and operator of the U. D. Sawyer Lease comprising 320 acres, being the E/2 of Section 34, T-9-S, R-36-E, Lea County, New Mexico Attached is a plat showing the location of all wells on this lease and the pools from which they are producing.
2. The U. D. Sawyer Well No. 4 is being completed as an oil producer in the Mississippian formation and will have to be pumped from approximately 11,800 feet. A Devonian tank battery currently exists which is comprised of three 500-barrel stock tanks and three 500-barrel tanks used as the power oil reservoir for the hydraulic pumping system now in operation for the Devonian production which makes it economically attractive to commingle the Mississippian liquid hydrocarbon production into this battery. An additional economic advantage of the proposed commingling would be realized since lease automatic custody transfer has been approved for this battery and is currently

Robert
M. Miller
July 26, 1968
H.

June 30, 1960

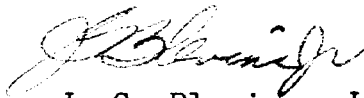
being placed into operation. It is to be noted that Order No. R-1608 authorizes automatic custody transfer for the Devonian production only; therefore, it is respectfully requested that Order No. R-1608 be extended administratively to include Mississippian production.

3. The expected liquid hydrocarbon production from the Mississippian is 80 barrels of 41.5° API gravity oil per day at \$3.01 per barrel, and that from the Devonian is 669 barrels of 44.0° API gravity oil at \$3.01 per barrel, therefore no gain or loss will be realized from the proposed commingling operations since both crudes are within the 40 - 44° API gravity range. Both crudes are considered as intermediate sweet.
4. The liquid hydrocarbon production from the Mississippian and Devonian formations will be accurately measured by positive displacement type meters located on both the power oil lines and the production lines of the system. A diagrammatic sketch of the proposed commingling installation is attached.
5. Royalty interests in the subject lease are as noted on the attached list and are being sent copies of the application this date by registered mail.

In view of the facts recited in this application, it is respectfully requested that administrative approval of an exception to Rule 303 (a) be granted TEXACO Inc. to permit the commingling into a common tank battery of liquid hydrocarbon production from the Mississippian and Devonian formations presently completed on the U. D. Sawyer Lease and from all wells on this lease which may be completed in these reservoirs in the future. In addition, administrative extension of automatic custody transfer Order No. R-1608 to include Mississippian production is requested.

Yours very truly,

TEXACO Inc.



J. G. Blevins, Jr.
Asst. Dist. Supt.

LMF-LJW
ERF, Jr.
Attach.
cc: All royalty interests
Attach.

ROYALTY INTEREST OWNERS
TEXACO Inc. U. D. Sawyer Lease
Lea County, New Mexico

Price Y-CIA, Inc.
925 Dixie Terminal Bldg.
Cincinnati 2, Ohio

Susie L. Wadley
Box 718
Texarkana, Arkansas

Emily W. DeWare
Box 718
Texarkana, Arkansas

Elloine W. Moseley
Box 718
Texarkana, Arkansas

U. D. Sawyer and Wife, Dessie Sawyer
Crossroads, New Mexico

Oil Dev. of Texas Sunray Mid-Cont. Mobil Oil Oil Dev. of Texas

28 Mobil Oil 27 Santa Fe Pacific Sunray Mid-Cont. 26 Santa Fe Pacific

"Santa Fe Ry." (Skelly) "Bessie Sawyer" (Mid-Cont.) "U.D. Sawyer" TEXACO Inc. Mobil Oil "G" "Santa Fe Pacific"

33 "U.D. Sawyer" Pure C.B. King Mobil Oil 34 "Santa Fe Pacific" 35 TEXACO Inc.

"U.S." "U.S." "U.S." "U.D. Sawyer" U.S. Sunray

Honolulu Amerada Superior Gulf Tenn. Gas

"State" 4 "State" 3 Amerada 2 Tenn. Gas T.P.C. & O

"State"

PLAT OF TEXACO INC., U. D. SAWYER LEASE AND OFFSET LEASES

Scale: 1 inch = 2000 feet

June 30, 1960

OFFSET OPERATORS

Mobil Oil Company, P.O. Box 2406, Hobbs, New Mexico
The Superior Oil Co., P.O. Box 1900, Midland, Texas
Sunray-Mid-Continent Oil Co., Box 128, Hobbs, New Mexico

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

July 15, 1960

Texaco Inc.
P. O. Box 352
Midland, Texas

Attention: J. G. Blevins, Jr.

Gentlemen:

Reference is made to your letter of June 30, 1960, containing an application for permission to commingle the Crossroads-Devonian production and undesignated Mississippian production from your U. D. Sawyer lease, and for administrative approval to utilize your Devonian IACT system to handle this commingled production.

We cannot approve automatic custody transfer systems administratively, nor can we extend approval of an existing system to cover the production from another pool except after notice and hearing.

It will be necessary to docket a hearing on your request that Order No. R-1608 be amended to authorize your IACT system to handle the commingled Devonian and Mississippian production.

It would be possible to authorize the commingling portion of your request administratively, but such authorization would be of no use to you unless it was accompanied by authority to handle this commingled production by way of your IACT system.

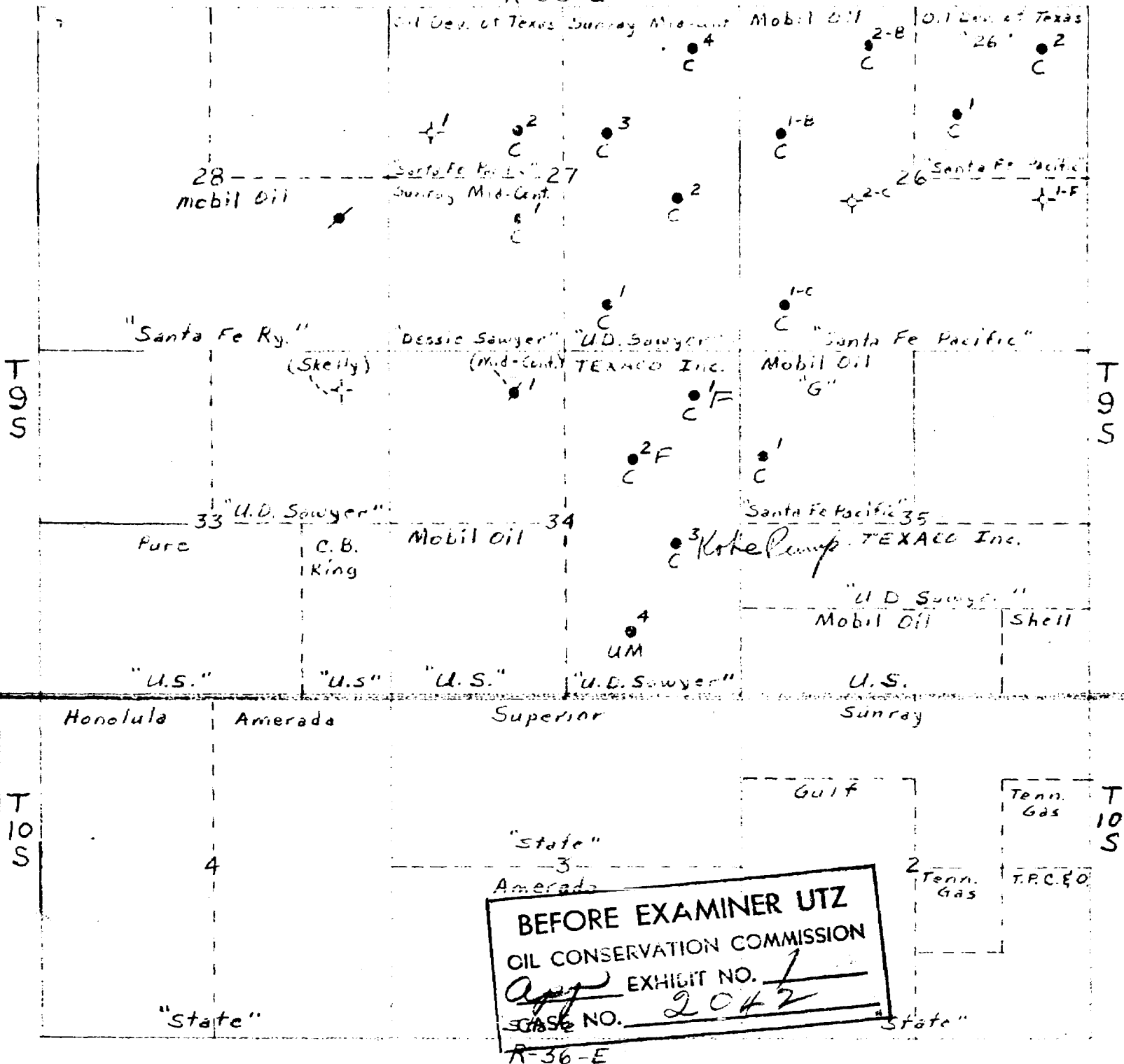
Unless we hear from you to the contrary, we will docket your application for an examiner hearing to be held in Santa Fe on August 10, 1960.

Very truly yours,

OLIVER E. PAYNE
General Counsel

OEP/esr

R 36-E



PLAT OF TEXACO INC., U. D. SAWYER LEASE AND OFFSET LEASES

Lea County, New Mexico

Scale: 1 inch = 2000 feet

LMF

June 30, 1960

LEGEND

C—Crossroads Devonian Pool

UM—Undesignated Mississippian Pool

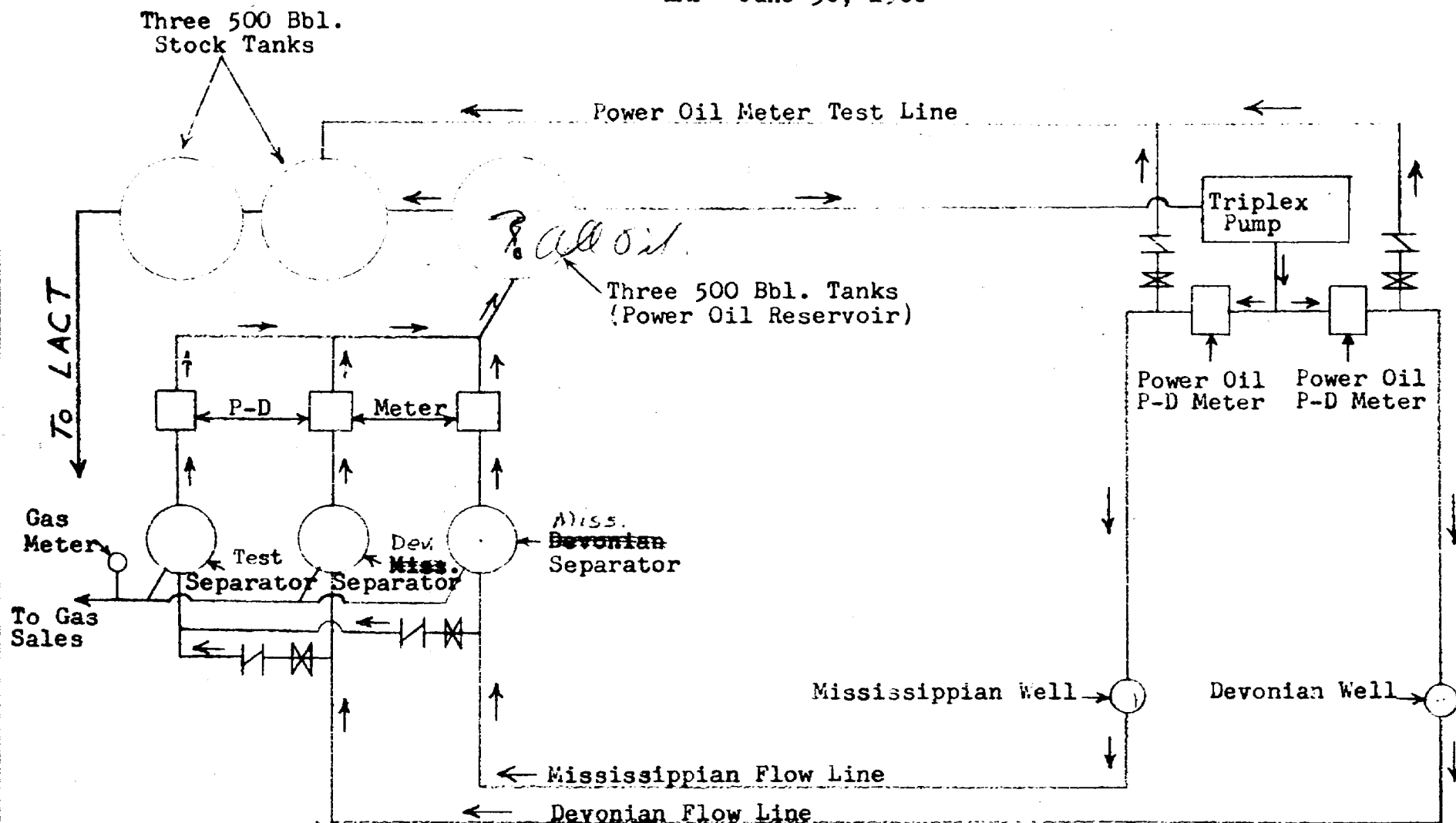
OFFSET OPERATORS

Mobil Oil Company, P.O. Box 2406, Hobbs, New Mexico

The Superior Oil Co., P.O. Box 1900, Midland, Texas

Sunray-Mid-Continent Oil Co., Box 128, Hobbs, New Mexico

DIAGRAMMATIC SKETCH OF COMINGLING INSTALLATION
 TEXACO INC. U. D. SAWYER LEASE
 CROSSROADS DEVONIAN AND UNDESIGNATED MISSISSIPPIAN POOLS
 LEA COUNTY, NEW MEXICO
 LMF--June 30, 1960



LEGEND

- N -- Check Valve
 X -- Gate Valve

BEFORE EXAMINER UTZ
 OIL CONSERVATION COMMISSION
 CASE NO. 7042
 EXHIBIT NO. 3