

Let [illegible] to [illegible]  
separate [illegible] [illegible]  
custody transfer [illegible]

Case No.

2028

Application, Transcript,  
and Exhibits. Etc.

EXHIBIT  
PAN AMERICAN PETROLEUM CORPORATION

CENTRAL BATTERY AND AUTOMATIC CUSTODY  
TRANSFER FACILITIES  
STORAGE SYSTEM V - EMPIRE ABO POOL  
EDDY COUNTY, NEW MEXICO

NEW MEXICO OIL CONSERVATION COMMISSION  
EXAMINER HEARING  
JULY 27, 1960

#### IX. ATTACHMENTS

1. Lease Plat - Proposed Storage System V
2. Schematic Flow Drawing - Proposed Storage System V
3. Pipeline Company Letter of Approval of Automatic Custody Transfer Facilities - Proposed Storage System V
- ~~4. Commissioner of Public Lands, State of New Mexico, Letter of Approval, Commingling and LACT, Proposed Storage System V~~

**WEST TEXAS**



DIVISION

July 13, 1960

RECEIVED  
Lubbock District Office  
JUL 14 1960

1	DS
	ADS
2	DE
	DC
405	
619278	

Subject: ~~Commingleing~~ and LACT Facilities  
Empire Abo Field  
Eddy County, New Mexico

Dear Mr. Whitmore:

Service Pipe Line Company has no objection to your planned method of lease operation and will accept custody of lease produced crude through your proposed meter type LACT unit.

Charles E. Wilson

CEW: 1

cc: Mr. H. G. Mariner  
General Manager  
Service Pipe Line Company  
P. O. Box 1979  
Tulsa 2, Oklahoma

EXHIBIT  
PAN AMERICAN PETROLEUM CORPORATION

CENTRAL BATTERY AND AUTOMATIC CUSTODY  
TRANSFER FACILITIES  
STORAGE SYSTEM V - EMPIRE ABO POOL  
EDDY COUNTY, NEW MEXICO

NEW MEXICO OIL CONSERVATION COMMISSION  
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## I. INTRODUCTION

Pan American Petroleum Corporation respectfully submits this exhibit in support of its request to the Oil Conservation Commission of the State of New Mexico for

1. Approval to commingle in a central battery, to be located in the NE/4 SW/4 Section 34, T-17-S, R-28-E and to be designated Storage System V, the production from the following Pan American operated State leases in the Empire Abo Pool of Eddy County, New Mexico

<u>State Lease Number</u>	<u>Pan American Lease Name</u>	<u>Description</u>
B-2071-17	BZ	S/2 NW/4, S/2 NE/4, N/2 SE/4 SE/4 SE/4 Sec. 27, T-17-S, R-28-E
B-8814	BW	SW/4 SW/4 Sec. 27, T-17-S, R-28-E
E-7832	BY	NE/4 NE/4 Sec. 34, T-17-S, R-28-E
E-7116	BT	W/2 NE/4, NE/4 NW/4 Sec. 34, T-17-S, R-28-E
647-85	BU	SW/4 NW/4 Sec. 34, T-17-S, R-28-E
647-360	BS	SE/4 NW/4 Sec. 34, T-17-S, R-28-E
B-2071	BX	SE/4 NE/4 Sec. 34, T-17-S, R-28-E
B-2071	BC	SW/4 Sec. 34, T-17-S, R-28-E

2. Approval to install and operate automatic custody transfer facilities at the site of the central battery to handle the commingled production from the State leases listed above.

Attachment No. I is a plat showing the location of the above described State leases and the proposed central battery and LACT unit installation. The installation of these facilities to accurately record the volumes of lease produced crude and automatically transfer that crude to pipeline custody will:

1. Conserve natural resources in the form of light hydrocarbons which are lost from produced crude oil to the atmosphere during conventional tank gauging operations at which time accumulated light ends escape from the tanks and others flash from the stored oil to the atmosphere.
2. Substantially reduce the crude oil residence time in the storage tanks thereby lessening vapor losses by way of normal tank venting or breathing.



3. Conserve manpower and improve lease operations by substantially reducing tank battery attendance time which will in turn release lease operating personnel and pipeline personnel for performance of other duties.
4. Release those monies in excess of the cost of LACT equipment which would otherwise be invested in conventional lease storage facilities for use in finding and developing additional oil reserves in the State of New Mexico.

## II. CENTRAL BATTERY EQUIPMENT

In addition to the piping, valves, separators, tanks, etc., that make up a conventional tank battery, the proposed central battery will be equipped with individual automatic well flow control valves, individual lease production meters and an emergency high level float switch in one of the interconnected storage tanks to shut in all wells connected to the central battery in the event of an emergency high fluid level in the storage tanks. All well flowlines will be capable of withstanding pressures in excess of the wellhead shut in pressure.

## III. LACT UNIT EQUIPMENT

The positive displacement meter LACT unit to be installed at the proposed Storage System V central tank battery is basically the same as the four other NMOCC approved LACT units Pan American now has in operation in the Empire Abo Pool. The LACT unit will include a pipeline pump; a strainer; an air eliminator; a BS&W monitor; a valve to divert unmerchantable oil into a recycle tank for further treating; a proportional pipeline sampler; a temperature compensated positive displacement meter (equipped with net barrels counter, set-stop counter, electric impulse transmitter to pace the pipeline sampler and a fail-safe safety shut-down switch); a back pressure valve to assure that the line to and from the meter is packed with oil at a pressure in excess of the vapor pressure of the metered liquid; a calibrated meter prover tank; a back flow check valve and a LACT unit control panel.

## IV. CENTRAL BATTERY AND LACT UNIT OPERATION

Operation of the central battery and LACT unit is described below and can be followed by reference to the schematic flow drawing included as Attachment 2.

Oil production will flow from each well through individual high pressure flowlines into the tank battery area and then through the individual well automatic flow control valves and into the respective lease production or well flowline headers (A). From the individual lease headers (A) the oil flows through the respective lease production separators (B) and meters (C) into a common header where production from the several leases is for the first time commingled. From this point the commingled stream flows into the LACT unit surge tank (D). When the oil level in the surge tank (D) reaches the high working level float switch (E) the pipeline pump (G) is automatically started. Oil then passes through strainer (H), air eliminator (I) and the BS&W monitor (J). If the oil is of merchantable quality as determined by the BS&W monitor (J), flow continues through the diverting valve (K), sampling point (L), PD meter (M), back pressure valve (N), check valve (P) and on to the pipeline past the meter prover tank (O). When sufficient oil has been transferred to the pipeline to lower the fluid level in surge tank (D) to the low working level float switch (F), power is automatically shut off to the pipeline pump (G) and the transfer of oil to the pipeline is stopped. When the fluid level in the surge tank (D) returns to the high working level float switch (E), automatic transfer of oil to pipeline custody again takes place.

In the event the BS&W monitor (J) detects unmerchantable oil, valve (K) will close to the meter run and direct the flow of oil into the recycle tank (Q). When the BS&W content of the oil entering the LACT unit returns to a satisfactory range as determined by the BS&W monitor (J) the diverting valve (K) will close to the recycle tank and again direct the flow of oil to the LACT meter run and to the pipeline. Any unmerchantable oil which is collected in the recycle tank (Q) will be chemically treated in the tank to break the oil-water emulsion. Following this, water will be drawn from the tank bottom, and the treated oil will be returned to the pipeline surge tank (D) by recycle pump (R).

With the proposed facilities all wells on all leases can be individually tested by the proper manipulation of block valves in the lease production headers (A) and flowing the oil from the single well on test from the header (A) into the well test separator (T) and on through the well test meter (U). After the production from the well on test is metered it is commingled with the production from the other wells and flows into the surge tank (D).

#### V. PIPELINE OIL SAMPLING

A composite representative sample of all oil delivered to the pipeline will be obtained by the sampler (L). The positive displacement meter (M) will be equipped with an electric impulse transmitter which will cause the electrically driven sampler pump to extract proportionate samples of all oil passing through the meter. Collection of the composite sample will be accomplished in a vapor proof container for

subsequent testing by a representative of the pipeline company. Calibration of the BS&W monitor and adjustment of the treating procedure will be made on the basis of the analysis of the composite sample.

#### VI. LEASE PRODUCTION AND LACT UNIT METER PROVING

Individual proving of the lease production meters (C) will be accomplished by closing a normally open block valve (Y) and opening a normally closed block valve (X) to direct the lease production into the meter prover tank (O). The metered volume will then be compared to the prover tank gauged volume. The oil accumulated in the prover tank (O) during meter proving tests will be returned by way of the recycle pump (R) to the pipeline surge tank (D). For added flexibility piping will be installed so that the lease production meters (C) can also be proved by flowing oil through the meters into the calibrated recycle oil tank (Q).

The LACT unit positive displacement meter will be proven by directing the flow of oil from the LACT unit into the meter prover tank (O). The metered volume will then be compared to the prover tank gauged volume. When excessive meter error is indicated by this procedure, immediate action will be taken to return the meter to a condition that will guarantee the desired measuring accuracy.

The meter prover tank (O) will be constructed to conform to API standards. The inside surfaces of the tank will be plastic coated to prevent corrosion and the adherence of crude products, thereby maintaining the prover tank calibration.

#### VII. PROTECTIVE FEATURES

The LACT unit will be checked periodically by the producer's representative to assure satisfactory operation. In addition, the following features will be built into the LACT system to protect the royalty owner, the producer, and the pipeline and to prevent waste.

1. During normal operation no oil can be delivered to the pipeline from this battery without first passing through the positive displacement meter (M).
2. The inlet and outlet valves on the LACT unit side of the meter prover tank (O) will be closed and equipped with pipeline company seals during normal operations.

This will prevent inadvertent by-passing of the LACT unit meter and transfer of non-recorded volumes of oil to the pipeline during the lease production meter proving operation.

3. The positive displacement meter (M) will be equipped with set stop controls to prevent over production.
4. The positive displacement meter (M) will be equipped with a non-resettable barrels counter to maintain a positive record of the quantity of oil delivered to the pipeline.
5. The back pressure valve (N) will hold a positive pressure on the meter (M) thereby insuring proper conditions for accurate measurement.
6. The positive displacement meter (M) will be equipped with a safety switch which is geared to the counter shaft. In the event the shaft rotation stops due to shaft failure, the safety switch will assume a position that will cause power to the pipeline pump (G) to be shut off thereby preventing the delivery of non-recorded volumes of oil to the pipeline.
7. All oil produced into the Storage System V central battery will be monitored for BS&W content and only that oil of merchantable quality will be delivered to the pipeline.
8. Performance of the BS&W monitor (J) will be checked by the manual determination of sample BS&W content at the end of each sample collection period.
9. The sampler (L) will collect and store under pressure, a representative composite sample of all oil delivered to the pipeline. Periodically, the sample thus collected will be analyzed for BS&W content and gravity by a representative of the pipeline.
10. In the event of failure of the low working level float switch (F) the fluid level in the surge tank (D) will be drawn down to the point at which vapors will be drawn into the pipeline pump suction. Because the pump (G) will then lose suction, flow through the

meter (M) will immediately drop below the pre-determined rate range and the safety switch built into the meter will cause the power to be shut-off to the pipeline pump.

11. In the event of failure of high working level float switch (E) the pipeline pump will not be energized by the rising fluid level in the surge tank (D). Subsequently, the incoming oil will rise to the point where it will overflow through an equalizing line into the recycle tank (Q). With continuing production into the tanks, the oil level in the recycle tank will rise and actuate the emergency high level float switch (S) which will in turn cause all of the flow control valves to close and shutin all wells connected to the central battery. All well flowlines will be constructed to withstand pressures in excess of wellhead shutin pressures.

#### VIII. TAMPER PROOF DESIGN OF LACT UNIT

The BS&W monitor controller will be locked against tampering and the block valves on the LACT unit side of the proving tank will be sealed at all times except during proving runs by authorized personnel.

OIL CONSERVATION COMMISSION  
P. O. BOX 2088  
SANTA FE, NEW MEXICO

April 14, 1965

C  
O  
P  
Y  
  
Pan American Petroleum Corporation  
Post Office Box 68  
Hobbs, New Mexico

Attention: Mr. V. E. Staley

Re: State "BZ" Lease, Lease No. B-2071-17,  
Empire Abo Pool

Gentlemen:

Reference is made to your letter dated March 23, 1965, wherein you advise that your State "BZ" Lease is now producing water in excess of one per cent of the total lease production. In accordance with the provisions of Commission Order No. R-1747, your plan to use separate treating facilities for the production from this lease is hereby approved.

Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director

ALP/DSH/esr

cc: Oil Conservation Commission - Artesia  
State Land Office - Santa Fe  
Case file 2028

6 PAN AMERICAN PETROLEUM CORPORATION

Post Office Box 68  
Hobbs, New Mexico

March 23, 1965

File: VES-86-400x986.510.1

Subject: Revisions in Battery Facilities  
Empire Abo Storage System V

Mr. A. L. Porter, Jr. (3)  
Secretary-Director  
New Mexico Oil Conservation Commission  
Post Office Box 871  
Santa Fe, New Mexico

Dear Sir:

In accordance with provisions set forth in the New Mexico Oil Conservation Commission Order No. R-1747, dated August 9, 1960, Pan American Petroleum Corporation hereby submits notification that the State "BZ" Lease, Lease No. B-2071-17, Empire Abo Field, is now producing water and/or emulsion in excess of one per cent of the total lease production.

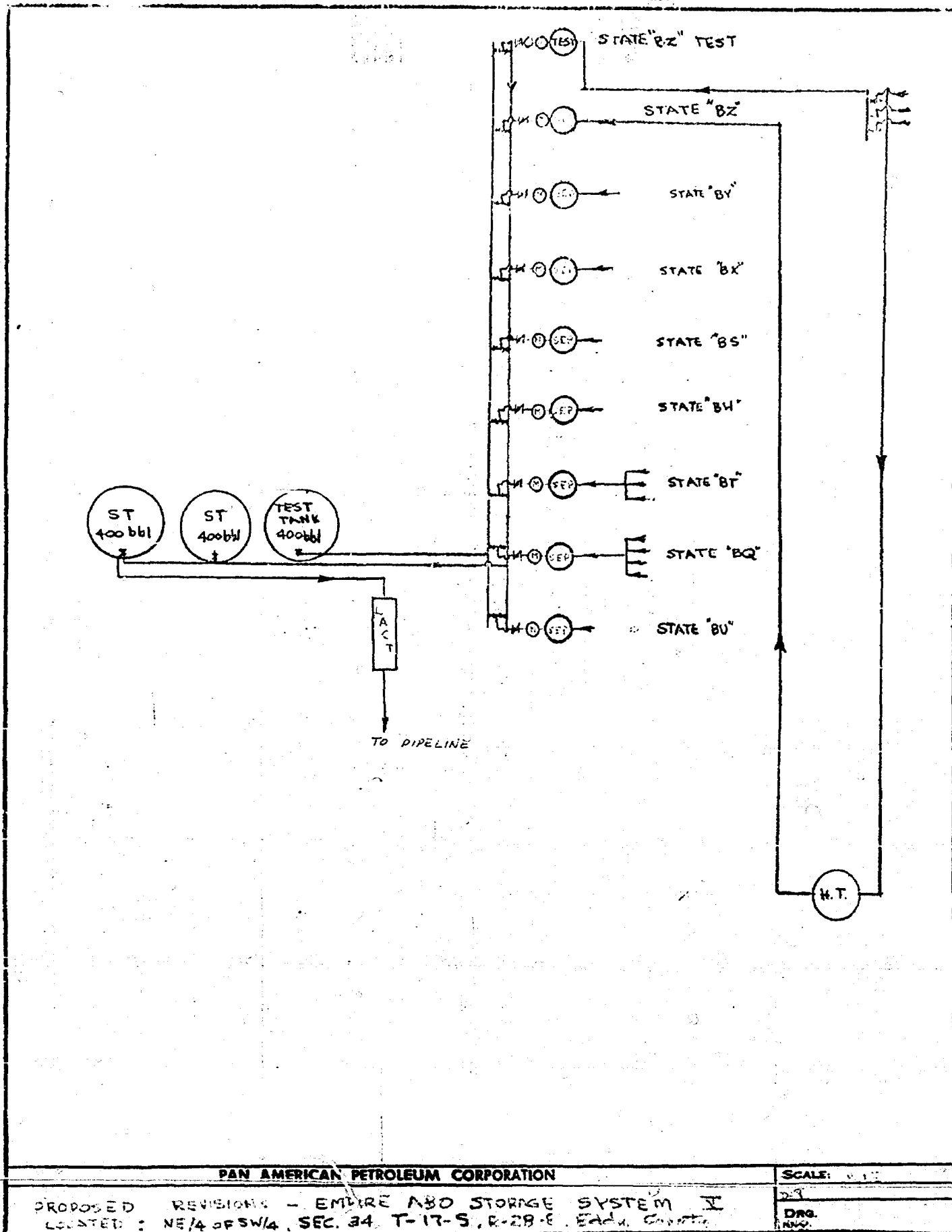
As provided in Order No. R-1747, your approval is requested to utilize separate treating facilities for this lease, as shown on the attached battery plat, in order to eliminate water production prior to commingling.

Yours very truly,

  
V. E. Staley  
Area Superintendent

Attachment





OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

May 31, 1961

C Pan American Petroleum Corporation  
P. O. Box 68  
Hobbs, New Mexico

O Attention: Mr. V. E. Staley

Gentlemen:

P Reference is made to your letter of May 8, 1961, in which you  
notify the Commission that your State "BV" Well No. 1, in your  
Empire-Abo System No. IV, is presently making in excess of 1%  
water, and that you have installed continuous sampling facilities  
on the said State "BV" Lease.

Y You will note that Order No. R-1747, which authorizes the com-  
mingling of the subject lease with several other leases requires  
that continuous sampling facilities shall be installed on all of  
the leases in the event the production from any of the leases  
should constitute one percent or more water and/or emulsion.

Please advise whether such sampling facilities have been installed  
on the other leases connected to this battery.

Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director

ALP/ir

cc: Oil Conservation Commission  
Artesia, New Mexico

# PAN AMERICAN PETROLEUM CORPORATION

Post office Box 68  
Hobbs, New Mexico

May 8, 1961

File: VES-242-400 x 986.510.1

Subject: Notification Of Proposed  
Installation Of Continuous  
Sampling Facilities On The  
State "BV" Lease, Empire  
Abo Storage System IV,  
Empire Abo Field, Eddy County,  
New Mexico


Mr. A. L. Porter  
Secretary-Director  
New Mexico Oil Conservation Commission  
Post Office Box 871  
Santa Fe, New Mexico

Dear Sir:

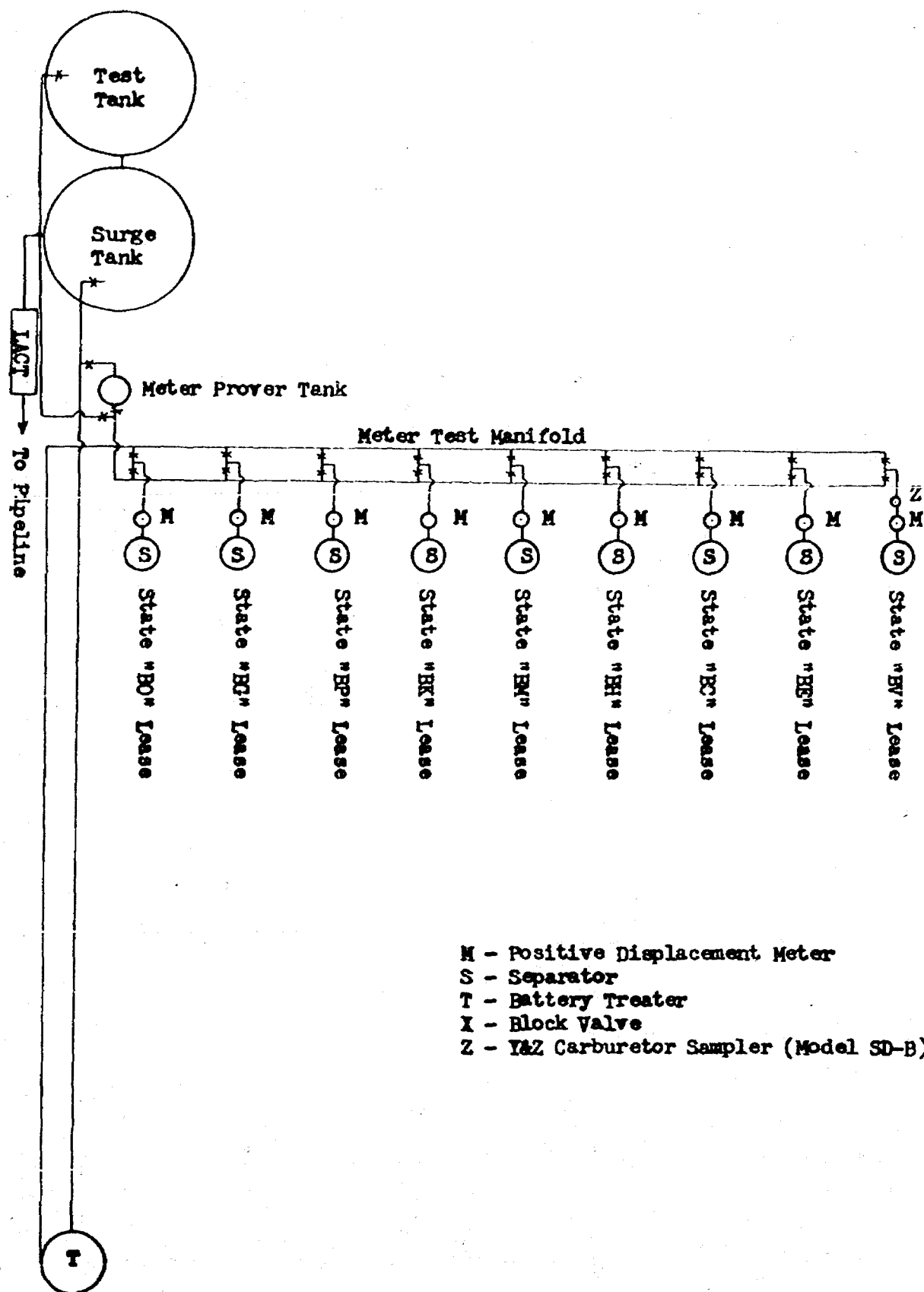
This has reference to the comingling order issued for Empire Abo Storage System IV, Case No. 2028, Order No. R-1747, where Pan American Petroleum Corporation shall notify the Secretary-Director of the Commission and shall, subject to the approval of the Secretary-Director, install adequate continuous sampling facilities to determine the amount of water and/or emulsion produced from any lease producing in excess of 1% water and/or emulsion.

Presently the State "BV" Well No. 1, a one well lease, is presently producing in excess of 1% water; therefore, in accordance with the above order, Pan American Petroleum Corporation is hereby requesting the Secretary-Director's permission to install continuous sampling facilities on the State "BV" Lease as shown in the attached drawing. The sampler will be a Y & Z Carburetor Automatic Crude Sampler Model SD-B installed on an A. O. Smith T-6 positive displacement meter. The sampler automatically takes four samples per barrel of produced fluid.

Yours very truly,

  
V. E. Staley  
Area Superintendent

BAK:cl



PAN AMERICAN PETROLEUM CORPORATION

Empire Abo Storage System IV Battery Installation Plat showing State "BW" Lease With Continuous Sampling Facilities, Eddy County, New Mexico.

SCALE:

DRG.  
NO.

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 871  
SANTA FE

August 9, 1960

Mr. Kirk Newman  
Atwood & Malone  
P. O. Box 867  
Roswell, New Mexico

Re: Case No. 2025  
Order No. R-1747

Applicant:

Pan American Petroleum Corp.

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

ir/

Carbon copy of order also sent to:

Hobbs OCC X  
Artesia OCC X  
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. 2028  
Order No. R-1747

APPLICATION OF PAN AMERICAN PETROLEUM  
CORPORATION FOR PERMISSION TO COMMINGLE  
THE PRODUCTION FROM EIGHT SEPARATE LEASES,  
AND FOR PERMISSION TO INSTALL AN AUTOMATIC  
CUSTODY TRANSFER SYSTEM, EDDY COUNTY, NEW  
MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on  
July 27, 1960, at Santa Fe, New Mexico, before Daniel S. Nutter,  
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 9th day of August, 1960, the Commission,  
a quorum being present, having considered the application, the  
evidence adduced, and the recommendations of the Examiner,  
Daniel S. Nutter, 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  
following-described State leases, located in Eddy County, New  
Mexico:

Lease No. B-2071-17, comprising the S/2 NW/4,  
S/2 NE/4, N/2 SE/4, and the SE/4 SE/4 of  
Section 27, Township 17 South, Range 28 East.

Lease No. B-8814, comprising the SW/4 SW/4 of  
Section 27, Township 17 South, Range 28 East.

Lease No. E-7832, comprising the NE/4 NE/4 of  
Section 34, Township 17 South, Range 28 East.

Lease No. B-2071, comprising the SE/4 NE/4 of  
Section 34, Township 17 South, Range 28 East.

Lease No. E-7116, comprising the W/2 NE/4 and the  
NE/4 NW/4 of Section 34, Township 17 South, Range  
28 East.

-2-

CASE No. 2028  
Order No. R-1747

Lease No. 647-360, comprising the SE/4 NW/4 of  
Section 34, Township 17 South, Range 28 East.

Lease No. 647-85, comprising the SW/4 NW/4 of  
Section 34, Township 17 South, Range 28 East.

Lease No. B-2071, comprising the SW/4 of  
Section 34, Township 17 South, Range 28 East.

(3) That the applicant proposes to commingle the Empire-Abo Pool production from each of the above-described leases into a common battery to be located on the said State lease No. B-2071, after separately metering the liquid production from each lease.

(4) That water and/or emulsion presently constitutes less than one per cent of the total production from each lease.

(5) That in the event that water and/or emulsion should constitute one per cent or more of the total production from any such lease, the applicant should install adequate continuous-sampling facilities to determine the amount of water and/or emulsion produced from each lease, or should eliminate such water and/or emulsion from the individual lease production prior to commingling.

(6) That the State beneficiary is the same under all of the subject leases, but there is a diversity in overriding royalty interests.

(7) That the applicant proposes to install an automatic custody transfer system to handle the commingled production.

(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 that adequate safety features are incorporated therein.

(9) That approval of the subject application will neither cause waste nor impair correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Pan American Petroleum Corporation, be and the same is hereby authorized to commingle the production from the Empire-Abo Pool from all wells presently completed on the following-described State leases in Eddy County, New Mexico, after separately metering the liquid production from each lease:

Lease No. B-2071-17, comprising the S/2 NW/4,  
S/2 NE/4, N/2 SE/4, and the SE/4 SE/4 of  
Section 27, Township 17 South, Range 28 East.



Lease No. B-8814, comprising the SW/4 SW/4 of Section 27, Township 17 South, Range 28 East.

Lease No. E-7832, comprising the NE/4 NE/4 of Section 34, Township 17 South, Range 28 East.

Lease No. B-2071, comprising the SE/4 NE/4 of Section 34, Township 17 South, Range 28 East.

Lease No. E-7116, comprising the W/2 NE/4 and the NE/4 NW/4 of Section 34, Township 17 South, Range 28 East.

Lease No. 647-360, comprising the SE/4 NW/4 of Section 34, Township 17 South, Range 28 East.

Lease No. 647-85, comprising the SW/4 NW/4 of Section 34, Township 17 South, Range 28 East.

Lease No. B-2071, comprising the SW/4 of Section 34, Township 17 South, Range 28 East.

PROVIDED HOWEVER, That in the event that water and/or emulsion should constitute one per cent or more of the total production from any such lease then the applicant shall notify the Secretary-Director of the Commission, and shall, subject to the approval of the Secretary-Director, install adequate continuous-sampling facilities to determine the amount of water and/or emulsion produced from each lease, or shall eliminate such water and/or emulsion from the individual lease production prior to commingling.

(2) That the applicant be and the same is hereby authorized to install automatic custody transfer equipment to handle the said commingled production from all wells located on the above-described leases.

PROVIDED HOWEVER, That the applicant shall install adequate facilities to permit the testing of all wells located on the above-described leases at least once each month to determine the individual production from each well on each lease, and a monthly tabulation indicating the per cent of water and/or emulsion produced by each well shall be filed with the Commission.

PROVIDED FURTHER, That the applicant shall install high level safety shut-in switches in the storage tanks which will shut-in the wells at the wellhead in the event of malfunction of the equipment.

PROVIDED FURTHER, That the flowlines used in the automatic custody transfer system shall be high pressure tubing which has been tested to at least 1500 psi.

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CASE No. 2028  
Order No. R-1747

IT IS FURTHER ORDERED:

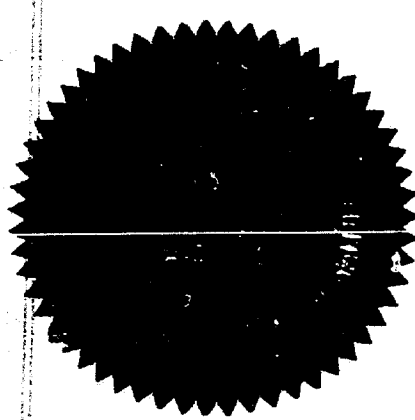
That all meters used in the above-described automatic custody transfer system shall be operated and maintained in such a manner as to ensure an accurate measurement of the liquid hydrocarbon production at all times.

That all meters shall be checked for accuracy at least once each month until further direction by the Secretary-Director.

That 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."

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

esr/

DOCKET: EXAMINER HEARING JULY 27, 1960

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

The following cases will be heard before Daniel S. Nutter, Examiner, or Oliver E. Payne, Attorney, as alternate Examiner:

CASE NOS. 2023 through 2033 will not be heard before 1 p.m. on July 27, 1960.

CASE NOS. 2034 through 2040 will not be heard before 9 a.m. on July 28, 1960.

CASE 2017: Application of Continental Oil Company for an order authorizing an automatic custody transfer system to handle the Maljamar Pool production from its Miller "BX" lease comprising in pertinent part the E/2 of Section 14, Township 17 South, Range 32 East, Lea County, New Mexico.

CASE 2018: Application of Continental Oil Company for an order authorizing the triple completion of its Jicarilla Apache Well No. 27-2, located in the NW/4 NW/4 of Section 27, Township 25 North, Range 4 West, Rio Arriba County, New Mexico, in such a manner as to permit the production of oil from the Gallup formation, the production of oil from the Greenhorn formation and the production of oil from the Dakota formation through parallel strings of 4½ inch, 2 7/8 inch, and 4½ inch casing cemented in a common well bore. Applicant proposes to install tubing to the Gallup and the Dakota formations.

CASE 2019: Application of Continental Oil Company for an order authorizing the triple completion of its Northeast Haynes Apache Well No. 9-1, located in the NW/4 SW/4 of Section 9, Township 24 North, Range 5 West, Rio Arriba County, New Mexico, in such a manner as to permit the production of gas from the Mesaverde formation, the production of gas from the Gallup formation and the production of gas from the Greenhorn formation through parallel strings of 2 7/8 inch, 4½-inch, and 4½-inch casing respectively, cemented in a common well bore. Applicant also proposes to install tubing in the latter two zones.

CASE 2020: Application of Amerada Petroleum Corporation for an order authorizing the triple completion of its Wimberly Well No. 13, located in Unit M, Section 24, Township 25 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of gas from the Langlie Mattix Pool, the disposal of salt water into the Grayburg and San Andres formations in the interval from 3500 feet to 4200 feet, and the production of oil from the Justis-Blinbry Pool by means of two parallel strings of 3½-inch casing cemented in a common well bore. Applicant would dispose of the salt water through one string of casing, produce the Blinbry oil through 1½-inch tubing set in the second string of casing, and produce Langlie Mattix gas through the annulus of the 1½-inch tubing and the second casing string.

CASE 2021: Application of Shell Oil Company for authority to recomplete its State BUA Well No. 2 (formerly its Bluitt Unit Well No. 2) at an unorthodox oil well location in the Pennsylvanian formation within one mile of the Bluitt Pennsylvanian Pool. Said well is located 1980 feet from the North line and 660 feet from the West line of Section 16, Township 8 South, Range 37 East, Roosevelt County, New Mexico.

CASE 2022: Application of Sinclair Oil & Gas Company for an order authorizing the dual completion of its Turner "B" SP Well No. 67, located in Unit L, Section 20, Township 17 South, Range 31 East, Eddy County, New Mexico, in such a manner as to permit the production of oil from the Grayburg-Jackson Pool and the production of oil from an undesignated Abo pool through parallel strings of 2-inch tubing.

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The following cases will not be heard before 1 p.m. on July 27, 1960:

CASE 2023: Application of Honolulu Oil Corporation for an order authorizing it to institute a pressure maintenance project in the Horseshoe-Gallup Oil Pool by the injection of water into the Gallup formation through its Navajo Well No. 4, located in the SE/4 SE/4 of Section 5, Township 31 North, Range 17 West, San Juan County, New Mexico; applicant further seeks the adoption of special rules governing the operation of said project.

CASE 2024: Application of Humble Oil & Refining Company for an order authorizing it to institute a pressure maintenance project in the Horseshoe-Gallup Oil Pool by the injection of water into the Gallup formation through 29 wells located in Sections 3, 4, 9, 10, and 11, Township 31 North, Range 17 West, San Juan County, New Mexico; Applicant further seeks the adoption of special rules governing the operation of said project.

CASE 2025: Application of Socony Mobil Oil Company for permission to convert to water injection its Navajo "A" Well No. 9, located in NE/4 NW/4 of Section 14, Township 31 North, Range 17 West, Rio Arriba County, New Mexico, in conjunction with a proposed adjacent pressure maintenance project in the Horseshoe-Gallup Oil Pool.

CASE 2026: Application of The British American Oil Producing Company for an order authorizing the "slim-hole" completion of its Fullerton Well No. 7, located 1850 feet from the South and West lines of Section 11, Township 27 North, Range 11 West, Dakota Producing Interval, San Juan County, New Mexico, utilizing 2 7/8-inch tubing as casing.

- CASE 2027: Application of Hondo Oil & Gas Company for an amendment of Order No. R-1643 to provide an alternative to the fail-safe features required in the automatic custody transfer system authorized therein for the Hondo-Western-Yates State 647 lease, Empire-Abo Pool, Eddy County, New Mexico.
- CASE 2028: Application of Pan American Petroleum Corporation for an order authorizing it to commingle the production from the Empire-Abo Pool from all wells on eight separate leases in Sections 27 and 34, Township 17 South, Range 28 East, Eddy County, New Mexico. Applicant also seeks authorization of an automatic sustody transfer system to handle said commingled production.
- CASE 2029: Application of Pan American Petroleum Corporation for an amendment of Order R-1399 to permit the commingling of Empire-Abo Pool production from Federal Lease No. IC-064050-A, E/2 SE/4 of Section 34 and NW/4 SW/4 of Section 35, Township 17 South, Range 27 East, with the Empire-Abo Pool production from those leases for which commingling was approved by paragraph one of said order and to permit the commingling of Empire-Abo Pool production from Federal Lease No. NM-025602, NW/4 and N/2 SW/4 of Section 15, Township 18 South, Range 27 East with the Empire-Abo Pool production from those leases for which commingling was approved by paragraph two of said order. Applicant also seeks an amendment of Order No. R-1399-A to permit production from the above-described leases in Eddy County, to be handled by the automatic custody transfer systems authorized in said order.
- CASE 2030: Application of Pan American Petroleum Corporation for permission to commingle the Empire-Abo Pool production from eleven separate State leases in Townships 17 and 18 South, Range 28 East, Eddy County, New Mexico. Applicant further seeks permission to install automatic custody transfer facilities to handle said commingled production.
- CASE 2031: Application of Union Oil Company of California for approval of its South Caprock Queen Unit Agreement, which unit is to embrace 9526 acres in Townships 14 and 15 South, Ranges 30 and 31 East, Caprock Queen Pool, Chaves County, New Mexico.
- CASE 2032: Application of Union Oil Company of California for an order authorizing it to institute a waterflood project in the Caprock-Queen Pool on its proposed South Caprock Queen Unit by the injection of water into the Queen formation through ten wells located in Township 15 South, Range 31 East, Chaves County, New Mexico, and for authority to drill a water injection well at an unorthodox location, being 330 feet West of the East line and 1320 feet South of the North line of Section 18, Township 15 South, Range 31 East.

CASE 2033: Application of Cabeen Exploration Corporation for permission to complete its State 1-K Well located 1980 feet from the South and West lines of Section 11, Township 10 South, Range 32 East, in an undesignated Permo-Pennsylvanian pool in Lea County, New Mexico as a "slim-hole" completion, using 2-7/8 inch casing.

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The following cases will not be heard before 9 a.m. on July 28, 1960

CASE 2034: Application of Gulf Oil Corporation for an order authorizing the dual completion of its J. N. Carson Well No. 6, located 330 feet from the South line and 965 feet from the East line of Section 28, Township 21 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Penrose-Skelley Pool and the production of gas from the Blinebry Gas Pool through parallel strings of 2 3/8-inch tubing.

CASE 2035: Application of Gulf Oil Corporation for an order authorizing the dual completion of its W. T. McCormack Well No. 12, located 554 feet from the North line and 1874 feet from the East line of Section 32, Township 21 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Drinkard Pool and the production of oil from the Wantz-Abo Pool through parallel strings of 2 3/8-inch tubing.

CASE 2036: Application of Charles Loveless, Jr., for the establishment of a 280-acre non-standard gas unit in the Atoka-Pennsylvanian Gas Pool consisting of the NE/4, N/2 NW/4 and SW/4 NW/4 of Section 21, Township 18 South, Range 26 East, Eddy County, New Mexico. Applicant proposes that said unit be dedicated to the Brunner No. 1 Dayton Townsite Well to be located on an unorthodox location at a point 1650 feet from the North line and 2310 feet from the East line of said Section 21.

CASE 2037: Application of Sun Oil Company for the creation of a new oil pool for Wolfcamp production to be designated as the Jenkins-Wolfcamp pool and to consist of Sections 2, 3, 4, 8, 9, 10 and 11 of Township 9 South, Range 34 East, Lea County, and Sections 34 and 35, Township 8 South, Range 34 East, Roosevelt County, New Mexico. Applicant further seeks the promulgation of special rules and regulations for said pool including a provision for 80-acre drilling and proration units.

CASE 2038: Application of Benson-Montin-Greer Drilling Corporation for an order authorizing the dual completion of the Jones Well No. 1, located in Unit P, Section 17, Township 28 North, Range 13 West, San Juan County, New Mexico, in such a manner as to permit the production of oil from an undesignated Gallup Pool and the production of gas from the West Kutz-Dakota Pool through parallel strings of 1 1/2-inch OD tubing.

CASE 2039:

Application of Southwest Production Company for approval of an unorthodox oil well location in the Gallegos-Gallup Oil Pool for its Rummel Federal Well No. 1, located 790 feet from the North line and 1190 feet from the West line of Section 36, Township 27 North, Range 12 West, San Juan County, New Mexico.

CASE 2040:

Application of Neville G. Penrose, Inc., for an order authorizing the dual completion of its Grizzel Well No. 1, located in Unit G, Section 5, Township 22 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of gas from the Tubb Gas Pool and the production of oil from the Drinkard Pool through the casing-tubing annulus and 2 3/8-inch tubing respectively.



# PAN AMERICAN PETROLEUM CORPORATION

Box 268  
Lubbock, Texas  
June 28, 1960

*Case 2028*

File: WJS-5540-541.113 x 986.510.1

Subject: Commingling and LACT Hearing  
Various State Leases  
Empire Abo Pool  
Eddy County, New Mexico

Mr. A. L. Porter, Jr. (2)  
New Mexico Oil Conservation Commission  
P. O. Box 871  
Santa Fe, New Mexico

Dear Sir:

We respectfully request that the New Mexico Oil Conservation Commission set on an early docket a hearing wherein Pan American Petroleum Corporation can present application for approval to commingle in a central battery the production from various State leases in the Empire Abo Pool of Eddy County, New Mexico, and to install and operate an automatic custody transfer unit to handle that commingled production. The State leases to be served by the proposed central battery and LACT unit are as follows:

State Lease No.	Description of Acreage
B-2071 ✓	SW/4 Sec. 34 T-17-S R-28-E
647-85 ✓	SW/4 NW/4 Sec. 34 T-17-S R-28-E
✓ 647-360 ✓	SE/4 NW/4 Sec. 34 T-17-S R-28-E
E-7116 ✓	✓ NE/4 NW/4
	✓ W/2 NE/4 Sec. 34 T-17-S R-28-E
✓ B-2071 ✓	✓ SE/4 NE/4 Sec. 34 T-17-S R-28-E ✓
✓ E-7832 ✓	✓ NE/4 NE/4 Sec. 34 T-17-S R-28-E
✓ B-8814 ✓	✓ SW/4 SW/4 Sec. 27 T-17-S R-28-E
8 ✓ B-2071-17 ✓	S/2 NW/4 ✓
	S/2 NE/4 ✓
	N/2 SE/4 ✓
	SE/4 SE/4 ✓ Sec. 27 T-17-S R-28-E

Attached hereto is a lease plat of that portion of the Empire Abo Pool which shows the location of the above described leases and the proposed central battery and LACT installation.

Yours very truly,

*A. J. Inderrieden*  
A. J. Inderrieden  
District Engineer

*Rec'd  
mailed  
7-15-60*

ABG:es

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

Date July 28, 1960

CASE NO. 2028

HEARING DATE DSN. Santa Fe. 9 a.m. 7/27

My recommendations for an order in the above numbered case(s) are as follows:

Approve the application of Pan American Petroleum Corporation to commingle the production from several State leases and transfer said production by means of an LACT unit in the Empire-Abo field in Eddy County, New Mexico.

Make provisions that applicant shall install adequate facilities to determine the amount of water or emulsion produced from each lease on a continuous basis, when said water or emulsion consists of 1 per cent or more of the total production from any lease or that such water or emulsion shall be eliminated from the stream prior to commingling the production from that lease with that of any other lease.



Staff Member

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
July 27, 1960.

IN THE MATTER OF:

APPLICATION OF PAN AMERICAN PETROLEUM CORPORATION for an order authorizing it to commingle the production from the Empire-Abo Pool from all wells on eight separate leases in Sections 27 and 34, Township 17 South, Range 28 East, Eddy County, New Mexico. Applicant also seeks authorization of an automatic custody transfer system to handle said commingled production.

CASE  
NO. 2028

BEFORE:

Hon. Daniel S. Nutter, Examiner.

TRANSCRIPT OF PROCEEDINGS

MR. NUTTER: The hearing will come to order, please.

Next case will be Case 2028.

MR. PAYNE: Case 2028. Application of Pan American Petroleum Corporation for an order authorizing it to commingle the production from the Empire-Abo Pool.

MR. NEWMAN: Kirk Newman, of Atwood and Malone, Roswell, New Mexico, representing the applicant. We have one witness.

(Witness sworn.)

\*\*\*\*\*

ALBERT H. GREEN, a witness, called by the Applicant,



having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. NEWMAN:

Q Will you state your name and employment, please, sir?

A I am Albert H. Green, petroleum engineer, Pan American Petroleum in Lubbock, Texas.

Q Have you previously testified before this Commission?

A Yes, sir, I have.

MR. NEWMAN: Are the witness qualifications acceptable?

MR. NUTTER: Yes, sir.

Q (By Mr. Newman) Would you state the nature and purpose of this application?

A Pan American's application in this case is for permission to commingle production from various State leases, and to install automatic custody transfer systems to handle that production.

Q You have in your hand, and I pass it to the Commission and staff, what will be referred to as Applicant's Exhibit 1, and attachments thereon. Would you refer to the map of the area which is an attachment of the exhibit, and state what that attachment shows, please sir?

(Whereupon, Applicant's Exhibit 1 marked for identification.)

A Attachment 1 of Exhibit 1, is a plat which shows the location of the proposed central battery, and the Lact installation. The acreage to be reserved by these facilities are outlined with

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a dashed or broken orange colored line.

Q For the record, would you state what the acreage is, section description?

A The acreage to be reserved by these facilities include the South Half ( $S\frac{1}{2}$ ) of the Northwest Quarter ( $NW\frac{1}{4}$ ), the South Half ( $S\frac{1}{2}$ ) of the Northeast Quarter ( $NE\frac{1}{4}$ ), the North Half ( $N\frac{1}{2}$ ) of the Southeast Quarter ( $SE\frac{1}{4}$ ), the Southeast Quarter ( $SE\frac{1}{4}$ ) of the Southeast Quarter ( $SE\frac{1}{4}$ ) of Section 27, Township 17 South, Range 28 East; The Southwest Quarter ( $SW\frac{1}{4}$ ) of the Southwest Quarter ( $SW\frac{1}{4}$ ) of Section 27, Township 17 South, Range 28 East; The Northeast ( $NE\frac{1}{4}$ ) of the Northeast Quarter ( $NE\frac{1}{4}$ ) of Section 34. The West Quarter ( $W\frac{1}{4}$ ) of the Northeast Quarter ( $NE\frac{1}{4}$ ), the Northeast Quarter ( $NE\frac{1}{4}$ ) of the Northwest Quarter ( $NW\frac{1}{4}$ ) of Section 34, and the Southwest Quarter ( $SW\frac{1}{4}$ ) of the Northwest Quarter ( $NW\frac{1}{4}$ ) of Section 34, the Southeast Quarter ( $SE\frac{1}{4}$ ) of the Northwest Quarter ( $NW\frac{1}{4}$ ) of Section 34, the Southeast Quarter ( $SE\frac{1}{4}$ ) of the Northeast Quarter ( $NE\frac{1}{4}$ ) of Section 34, all of the Southwest Quarter ( $SW\frac{1}{4}$ ) of Section 34, all of those 40-acres tracts being in Township 17 South, Range 28 East.

Quarter quarter sections Central Battery are located in the Northeast Quarter ( $NE\frac{1}{4}$ ) of the Southwest Quarter ( $SW\frac{1}{4}$ ) of Section 34.

Q Is the number of the leases to be served by these tank batteries, as defined in the application, shown on this plat?

A Yes, sir.

Q Can you give me the royalty ownership under these leases?

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A You are referring to the beneficiary?

Q Yes.

A The beneficiaries are the common schools in the State of New Mexico.

Q Do you know, are all of the leases all State of New Mexico leases?

A That is correct.

Q Do you have any further remarks in connection with this exhibit?

A No, sir, in regard to this attachment.

Q Will you refer to what has been designated as attachment 2, and state what that attachment shows?

A Attachment 2 of Exhibit 1, is a schematic flow drawing showing the proposed facilities, including the central stores in a lact system to be located in Section 34.

Q Would you outline for the Commission the procedure of flow pattern, of flow through this system?

A Yes, sir. The flow from individual wells to be served by these facilities enters the battery through individual flow lines, through individual automatic well flow control valves, and into the production headers, which are marked item "A". From the production header, a flow passes to the individual lease production separators, and then through the individual lease production meters, which are marked "C" on the attachment. Then the individual lease production is commingled for the first time, and flows into



the Lact unit surge tank, marked item "D". When sufficient oil has entered the surge tank to rise to the level of the float switch, that switch actually actuates the Lact transfer pump, which is item "G". Delivery of oil then commences to the pipeline. From the pipeline pump, oil passes through a strainer, a deaerator, and a B. S. and W. monitor which is marked item "J" in the flow drawing.

If the oil is of commercial quality, then the flow continues through the diverting valve and past the sampling point, then through another positive displacement meter, and through a back pressure valve, and past the meter prover tank in a loop and through a back pressure valve, then to the pipeline. If, in the event that the B. S. and W. monitor detects an uncommercial quality, the diverting valve then stops the flow of oil to the pipeline, and diverts that oil into the resurgical tank, which is item "Q".

As I understand it, at the present time, production on those leases to be served by the facilities, make little if any water. We will collect any unmerchantable oil in tank "Q", and subsequently economically treat it in that tank. After the oil-water emulsion is broken down by economic treatment, the water will be drawn off the tank bottom; the treated oil will be returned to the Lact surge tank. I believe that covers it.

Q What kind of diverters are used in this system?

A Meter devices, all meters including those to serve the

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individual lease are the positive displacement meter type.

Q Do you have systems with similar equipment presently in use in the Empire-Abo Field?

A Yes, sir, we have similar installations which have been approved by the Commission and now in operation in the Empire-Abo Field.

Q Is this system designed to permit individual well testing?

A Yes, sir. This particular installation is set up so that every well and every lease could be individually tested, as prescribed by the Commission. That testing can be done by manipulation of the valves in the production headers, item "A", and causing the oil to flow from any one particular well from the production header into the lease -- or, excuse me, -- the well test separator, which is marked item "T", and through the individual well test meter which is marked item "U"; thence from that point into the commingled header, and into the surge tank "D".

Q What safety factors are included in this to prevent the escaping of oil under any circumstances?

A In the event that the Lact unit working level float switches in the surge tank "D", that is, the high level float switch should fail to operate, production will overflow from the surge tank through the equalizing line into the resurgical tank. If this situation continues until the fluid level in the resurgical tank reaches an emergency high level, the fluid level will cause the float, which is item "I", to actuate and cause all of the well,

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flow control wells to shut in.

Q Do you have any further remarks in connection with this attachment?

A One other; I might add that all flow lines from the wells to this central battery are the high pressure design, and will exceed any well-head shut-in pressures that may be encountered in this field.

Q Is this system designed to protect the correlative rights of both adjoining lease-hold owners and royalty owners?

A Yes, sir, it is.

Q What is the effect of the installation of this system with regard to waste?

A I feel that it will prevent the waste of hydrocarbons to the extent that it will reduce vapor losses and other than the hydrocarbon saving, it will effect labor savings for the producer as well as the pipeline, and it will save capital expenditures for the producer, because such facilities are less expensive than would be individual lease batteries to serve similar acreage.

Q Was this entire exhibit, including the attachments thereto, prepared by you or under your direction?

A Yes, sir, they were.

MR. NEWMAN: That completes the direct examination. We would like at this time to offer the Exhibit 1 in evidence.

MR. NUTTER: Pan American's Exhibit 1 will be received. Any further questions of Mr. Green?



CROSS-EXAMINATION

BY MR. PAYNE:

Q Mr. Green, what is the average well-head shut-in pressure in this area?

A I am a little bit in doubt about that. I would say it averages between 500 and 1,000 pounds, depending on the well.

Q Have you actually pressure-tested your flow lines?

A No, sir, not to my knowledge. The flow lines which we are installing, however, are high pressure tubing, which is rated at 3,000 pounds.

Q 3,000, you said?

A Yes.

Q Has Pan American, with any other of their Lact systems, had any difficulty when they first put the wells on, by getting a big slug of gas which throws it out in the pipe in the separator, thereby causing oil to go out the gas line to the pit?

A Not to my knowledge. Now --

Q Have you actually worked in the field with any of Pan American's existing Lact systems?

A No, sir, my duties have been limited to engineering design in the Lubbock district office.

MR. PAYNE: I see. Thank you.

QUESTIONS BY MR. NUTTER:

Q Mr. Green, these wells eventually make a certain amount of emulsion, is that correct?

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A Very little, if any. Some of the newer wells make some emulsion while they are cleaning up load waters.

Q They are not making any free water?

A No, sir.

Q Well, now, you stated that the royalty is identical under all these leases, being 100 percent common school lands. How about overrides?

A The overrides vary. We have contacted the overrides by registered mail, notifying them of our plans, and soliciting their approval. We have that approval from all those from whom we have heard, they have given their approval, and we have received, I believe, the return card on a registered letter from all the overrides.

Q Is the working interest identical throughout?

A No, sir, it is not. The working interest is varied, and working interest owner approval will be obtained.

Q If you turn up with some emulsion in your final commingled stream, how do you -- now, then, how do you distribute the emulsion to the proper lease it came from?

A The first time we detect this, it will then necessarily have to be allocated on an equal basis. It's when we do find there has been, or there is a well producing water, then we will take the necessary steps to determine which well that it is, and if it is consistently making enough water to justify, we will substitute a heater treater for a separator to accomplish the



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proper treatment.

Q You have properly received production from the lessor from a well?

A From each one of these.

Q From each one of these?

A Yes, sir.

Q You are not using heat at all at this time?

A Not at this time, no, sir.

Q Mr. Green, what do you think about the advisability, in the event a lessor, some lease makes emulsion of various quantities, of installing samplers on the oil outlet of the separators to determine the amount of emulsion that is being produced into that separator?

A We have considered that for certain particular installations where the quantity of oil may be insufficient to load up a commercially available heater treater. However, if the quantity of the emulsion coming into the separator from a particular lease is of sufficient quantity to justify a heater treater installation, then it is our first thought -- or if it is suitable to install a heater treater, because sooner or later we have to make the separation of oil and water, any one of which can accomplish the separation prior to water metering, then we meter nothing but the emergent oil, and the need for a sampler at that point would be eliminated, it seems to me.

Q I noticed on some installations that have been made in New Mexico where rather than spend five or six thousand dollars on the heater on the one individual lease, you have some 40-acre leases



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which is a rather large expenditure of money for a small lease, that they would install samplers downstream from where there may be any water knocked out of the separator, or past the commingled production, through a heater treater.

A As a matter of fact, I am very interested in that, and while that doesn't particularly apply to our application, maybe, I would like to know more about the Commission's thinking on that very subject, because we have been considering that from the standpoint of economics where we have -- Well, the sum and substance, leases which have some production and do make water, we would like to consider some knowledge of say, a water knock-out installation, and then commingle and heat treat.

Q The commingled production?

A Yes, sir. Under certain conditions, we feel that would be very attractive from the economic standpoint.

Q It can save money, and I am sure you can get an accurate measurement of the production and the emulsion from each lease.

A Has the Commission previously approved installations of this type?

Q Yes, sir, we do have some.

A I am glad to know that.

Q What percentage of the oil that is being produced at this present time, do you believe will require chemical treatment?

A I would say less than one percent at the present time.

Q I see. So you are producing a very small percentage of



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emulsion at this time?

A That is right.

MR. PAYNE: Then your present test system is actually metering prior to separating water and emulsion from the oil?

A Yes, sir, when there is any water produced; as I said previously, about the only water that we are producing now is that water that is produced when a well is cleaning up after initial completion.

Q (By Mr. Nutter) Now, as they start making water, you are going to either put a heater treater or --

A We will have to go to heat treating prior to metering, or sampling with metering, and then heat treating the commingled.

Q And Pan American is willing to make those arrangements?

A Yes, sir.

MR. PAYNE: You do not feel it is necessary at this time?

A No, sir, I do not feel it is necessary at this time. When the day comes when these leases do make water, if they do, then certainly to make proper allocation of production, we have to separate the oil and water.

MR. PAYNE: I see.

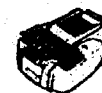
MR. NUTTER: Any further questions of Mr. Green?

(No response.)

MR. NUTTER: You may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr. Newman?





MR. NEWMAN: No, sir.

MR. NUTTER: Does anyone have anything further for Case  
2028?

(No response.)

MR. NUTTER: We will take the case under advisement.

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STATE OF NEW MEXICO )  
COUNTY OF BERNALILLO ) ss.

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

WITNESS My Hand and Seal, this the 2nd day of August, 1960, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

*Llewellyn F. Nelson*  
NOTARY PUBLIC.

My Commission Expires:

June 14, 1964.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 7028 heard by me on 7/27 19 60.

*[Signature]*, Examiner  
New Mexico Oil Conservation Commission

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ALBUQUERQUE, NEW MEXICO



I N D E X

WITNESS

PAGE

ALBERT H. GREEN  
Direct Examination by Mr. Newman  
Cross Examination by Mr. Payne  
QUESTIONS by Mr. Nutter

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<u>NUMBER</u>	<u>EXHIBIT</u>	<u>MARKED FOR IDENTIFICATION</u>	<u>OFFERED</u>	<u>RECEIVED</u>
APP.#1	Plat	2	7	7

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