CASE 2163: Application of YATES DRLG. Co. for automatic custody transfer system - Roosevelt County, N.M.

Case No.

2163

Application, Transcript,
Small Exhibits. Etc.

DRAFT

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. 2163
Order No. R- 1863

APPLICATION OF Yates Drilling Company
FOR APPROVAL OF AN AUTOMATIC CUSTODY TRANSFER
SYSTEM, ~~IN THE~~ Southern Allison-Pennsylvanian Pool,
Roosevelt COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on January 25, 1961, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this _____ day of February, 1961, 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, Yates Drilling Company, is the ~~owner and~~ operator of ~~the~~ Federal Lease NM 03283, ~~lease,~~ comprising the W/2

of Section 31, Township 8 South, Range 37 East, NMPM, Roosevelt County, New Mexico.

(3) That the applicant proposes to install an automatic custody transfer system to handle the Allison-Pennsylvanian Pool ~~Junction Pool~~, production from all wells presently completed or hereafter drilled on the above-described Federal Lease NM 03283, ~~lease.~~

(4) 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:

That the applicant, Yates Drilling Company, be and the same is hereby authorized to install an automatic custody transfer system to handle the Allison - Pennsylvanian Pool ~~Pool~~ production from all wells presently completed or hereafter drilled on the Federal Lease NM 03283, ~~Lease~~, comprising the W/2

of Section 31, Township 8 South, Range 37 East, NMPM, Roosevelt County, New Mexico.

PROVIDED HOWEVER, That the applicant shall install adequate facilities to permit the testing of all wells located on the above-described Federal Lease NM 03283 ~~Lease~~ at least once each month to determine the individual production from each well.

PROVIDED FURTHER, 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 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-in the lease production at the wellhead in the event the storage facilities become full.

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 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.

P. O. Box 1073, Midland, Texas

January 18, 1960

Ex. 4
2163

Mr. Ken Reynolds, Drilling Supt.
Yates Drilling Company
309 Carper Bldg.
Artesia, New Mexico

150 - LACT - YATES DRILLING CO. -
LILLIE M. YATES FEDERAL LEASE

Dear Mr. Reynolds:

Magnolia Pipe Line Company will be the gatherer and transporter of crude oil from the Yates Drilling Company's Lillie M. Yates Federal Lease in Section 31, T8S, R37E in the Allison Pennsylvania Field, Roosevelt County, New Mexico. We have received your proposal to install an automatic custody transfer system to deliver the crude oil from this lease to our pipe line.

It is our understanding that the liquid will be measured by a system utilizing a temperature compensated positive displacement meter. The unit will also be equipped with all the necessary sampling, allowable counting, and safety devices to prevent incorrect measurement or delivery of non-merchantable crude oil. This system should prove very satisfactory as our experience with units of similar design indicates they are an accurate and reliable means of receiving crude oil.

In regard to the proposed installation we would like to make the following comments:

1. The BS&W monitor should be equipped with a 0-60 second time delay and should be wired for fail-safe operation on power and component failure.

2. The unit should shutdown on high pressure, register failure, low fluid level in the surge tank and when the allowable has been reached. These shutdown functions should all be of fail-safe design.

3. We will want to test the unit for accuracy, reliability, and fail-safe operation prior to commencing automatic custody transfer.

4. It may be necessary to install a pump to empty the prover tank between calibrations.

5. We would prefer to have a bleeder located in the bottom of the discharge line upstream from the prover tank discharge valve in order to empty the tank completely without getting air in our line.

6. Although the prover tank has been factory calibrated, we hereby request a check calibration. A satisfactory arrangement would be to perform the check calibration before it is shipped from Jones & Laughlin Supply in Odessa.

Magnolia Pipe Line Company has no objections to a request by the Yates Drilling Company to the New Mexico Oil Conservation Commission for an exemption to State-wide Rule 309. We would appreciate receiving a copy of the application and the Commission's approval.

Yours very truly,

Kendall W. Miller

Kendall W. Miller
Division Manager

RWMalpert:ed

cc: K. B. Snider
C. M. Breshears
J. E. McGeath

Mobil

Magnolia Pipe Line Company
P. O. Box 1073, Midland, Texas

January 18, 1960

Mr. Ken Reynolds, Drilling Supt.
Yates Drilling Company
309 Carper Bldg.
Artesia, New Mexico

T36 - LACT - YATES DRILLING CO. -
LILLIE M. YATES FEDERAL LEASE

Dear Mr. Reynolds:

Magnolia Pipe Line Company will be the gatherer and transporter of crude oil from the Yates Drilling Company's Lillie M. Yates Federal Lease in Section 31, T8S, R37E in the Allison Pennsylvania Field, Roosevelt County, New Mexico. We have received your proposal to install an automatic custody transfer system to deliver the crude oil from this lease to our pipe line.

It is our understanding that the liquid will be measured by a system utilizing a temperature compensated positive displacement meter. The unit will also be equipped with all the necessary sampling, allowable counting, and safety devices to prevent incorrect measurement or delivery of non-merchantable crude oil. This system should prove very satisfactory as our experience with units of similar design indicates they are an accurate and reliable means of receiving crude oil.

In regard to the proposed installation we would like to make the following comments:

1. The BS&W monitor should be equipped with a 0-60 second time delay and should be wired for fail-safe operation on power and component failure.

2. The unit should shutdown on high pressure, register failure, low fluid level in the surge tank and when the allowable has been reached. These shutdown functions should all be of fail-safe design.

3. We will want to test the unit for accuracy, reliability, and fail-safe operation prior to commencing automatic custody transfer.

4. It may be necessary to install a pump to empty the prover tank between calibrations.

5. We would prefer to have a bleeder located in the bottom of the discharge line upstream from the prover tank discharge valve in order to empty the tank completely without getting air in our line.

6. Although the prover tank has been factory calibrated, we hereby request a check calibration. A satisfactory arrangement would be to perform the check calibration before it is shipped from Jones & Laughlin Supply in Odessa.

Magnolia Pipe Line Company has no objections to a request by the Yates Drilling Company to the New Mexico Oil Conservation Commission for an exemption to Statewide Rule 309. We would appreciate receiving a copy of the application and the Commission's approval.

Yours very truly,

Kendall W. Miller

Kendall W. Miller
Division Manager

RHHalpert:ed

cc: K. B. Snider
C. M. Brecheisen
J. E. McGeath

Artesia, New Mexico
January 23, 1961

New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

The undersigned owners of the production from the wells drilled and to be drilled on Federal Oil and Gas Lease NM 03283, described in the Application of Yates Drilling Company, Case No. 2163, before the Oil Conservation Commission of the State of New Mexico, do hereby acknowledge receipt of a copy of the Application and hereby give their consent to the installation of the automatic custody transfer system described in the Application.

Very truly yours

S. P. Yates

Martin Yates III

Nearburg & Ingram

John D. Ingram

Eugene Nearburg

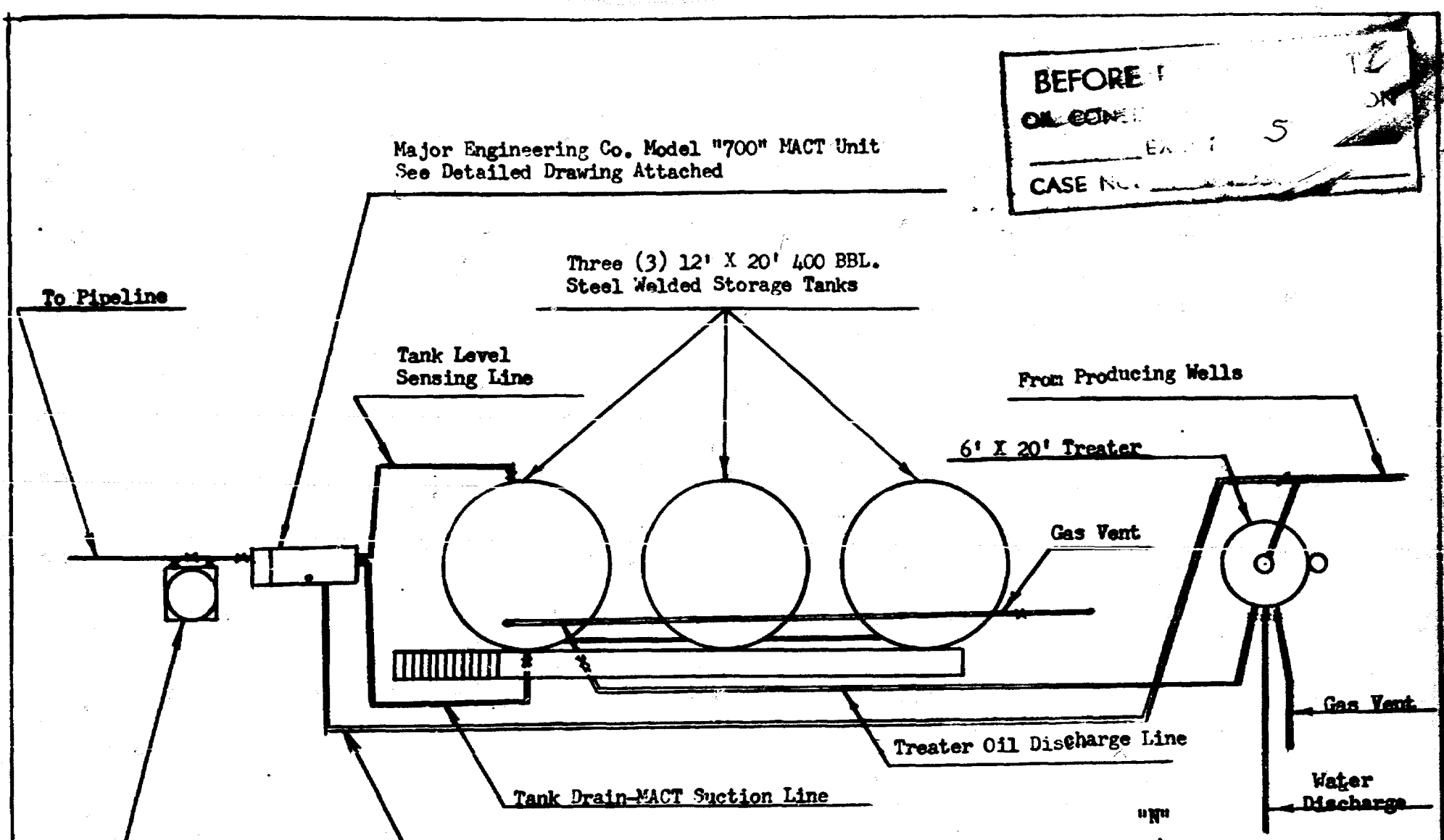
Frances Yates

by Ralph Yates

ARTESIA BROADCASTING CO.

By: Martin Yates III, Pres.

BEFORE [illegible]
OIL CONS[illegible]
EX[illegible] 5
CASE NO. [illegible]



BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 5
CASE NO. 2163

S.P. YATES DRILLING CO.

ROOSEVELT CO. NEW MEXICO

THE MAJOR ENGINEERING COMPANY

MACT

METER AUTOMATIC CUSTODY TRANSFER

UNIT

1,000 B/D "700" UNIT WITH MAJOR 10 BBL. PROVER TANK

- Eliminates conventional tank battery
- Increases liquid recovery by minimizing evaporation loss
- Frees pumpers for other duties
- COMPLETELY automatic
- LOW installation cost
- Quick, simple installation
- Designed for MINIMUM MAINTENANCE

MAJOR ENGINEERING COMPANY TULSA

FEATURES OF MAJOR ENGINEERING COMPANY TULSA MACT UNITS

ALL ELECTRIC — no instrument gas required. Since gas operated controls can malfunction due to dirty, wet, corrosive lease gas, an all electric unit is more dependable.

COMPLETELY PACKAGED — No field wiring (except connecting electric power to the unit) — no field assembly — no field poured foundation — no cutting into the surge tank for float-switches or any other connection — field installation saving from $400 to $1,200.

HOUSING — meters, sample and container, and instrument panel housed in rugged 14 gage steel housing built for 30 years of oil field handling. Provides protection for fine components against dust, rain, snow, and salt air. Provides a protected place for operating personnel while changing run tickets, proving meters, or working on components. Based on experience with other items of lease equipment, a typical automatic custody transfer unit will be moved at least twice during its life. Due to complete packaging, salvage value is 100%, and cost of transferring is negligible.

OPERATING CONVENIENCE: All components, controls, instruments, etc. face the front of the unit. No walking all around the unit to read instruments or service the unit. Not awkward to get at components.

REPAIR CONVENIENCE: All control panel relays are hermetically sealed, plug in for long life and quick replacement. A malfunctioning sampler or Major pressure switch can be exchanged without delay for a nominal exchange cost. The pump motor is separate from the pump for quick replacement from local sources. All major components are readily removable by unbolting grooved couplings.

DURABILITY: All purchased components are procured from leaders in their fields. Fabrication and assembly is closely supervised for quality workmanship. All units are pressure tested, and the entire electrical system is operated and checked for performance before shipment. All wiring in conduit is first run through plastic tubing to provide trouble free wiring for 30 years. All sampler tubing is stainless steel for rigidity and long life.

STANDARDIZATION: Standardization has resulted in years of experience with one design of unit, which has been perfected as a result of this experience to the point that it is as dependable and trouble free as possible. Because of standardization, a large inventory of components at the factory makes possible immediate delivery of any repair component or part. Since normal delivery from component suppliers runs from a week to 5 months, the Major stock assures of no delay in case of emergency. Standardization also makes feasible the stocking of parts by the sales and service organization, making it unnecessary for the user to stock repair components. Standardization has also made possible quantity production, reducing fabrication cost and improving quality of workmanship, to the ultimate benefit of the user.

RESPONSIBILITY: As the designer and manufacturer of Major MACT units, Major is responsible for the satisfactory performance of the equipment. Major guarantees the unit and its components against defects in materials and workmanship for a period of 1 year after installation. For the first 3 months of operation, Major and its sales and service representative are responsible for any malfunction not due to improper operation.

DESIGNED AND MANUFACTURED BY

MAJOR ENGINEERING COMPANY TULSA

BOX 15607 TULSA, OKLA.

SOLD AND SERVICED EXCLUSIVELY BY

Jones & Laughlin SUPPLY DIVISION - Tulsa

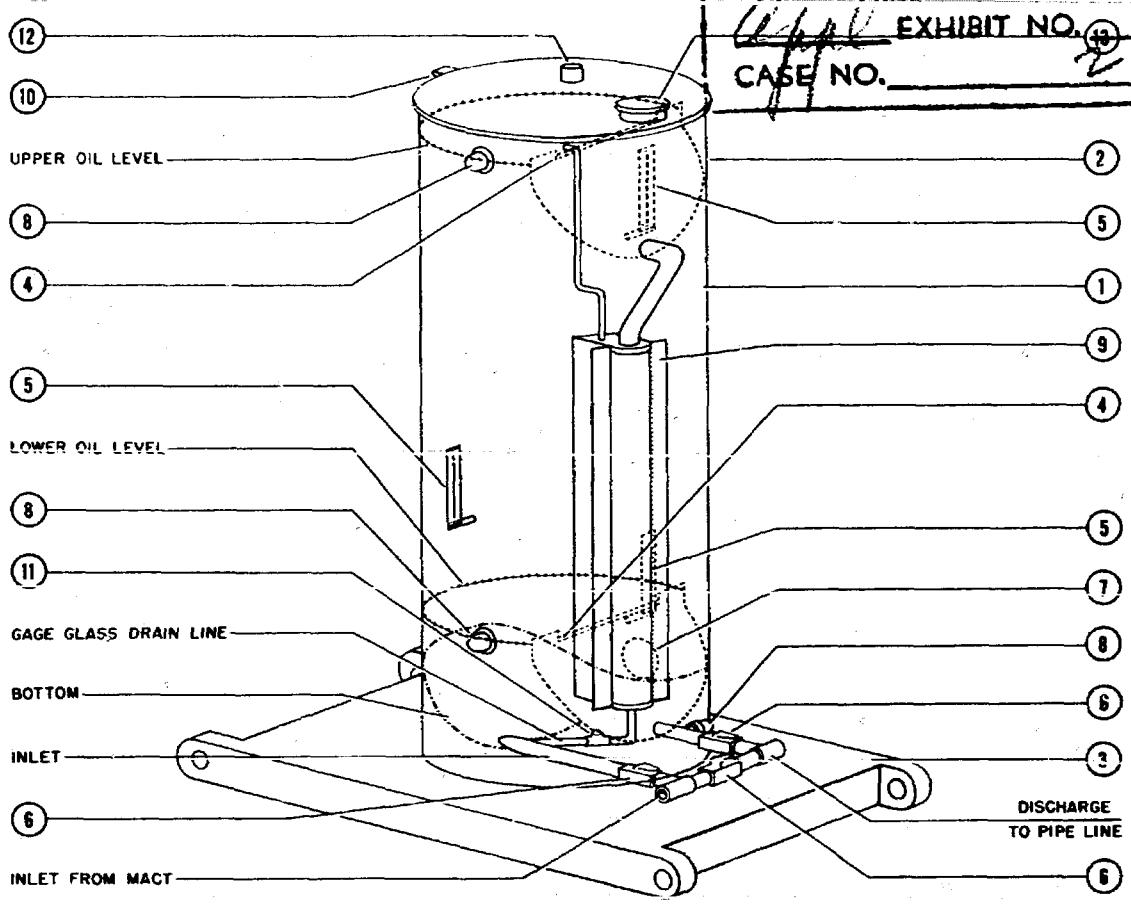
BULLETIN 961.35 9-1-60

PRINTED IN U.S.A.

THE MAJOR ENGINEERING COMPANY PROVER TANK

10 BBL

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 1
CASE NO. 2163



SPECIFICATIONS

STATIONARY UNIT

	Diameter	Height
10 BBL.	3½′	8′ (tank)
20 BBL.	5′	8′ (tank)

PORTABLE UNIT

	Overall Height	Tread
10 BBL.	10′ 2″	73″
20 BBL.	10′ 2″	73″

STANDARD EQUIPMENT

1. Internal Coating — 5 mils Epoxy
2. External Insulation — 1½″ Weatherproofed
3. Steel Skid Base 5′ wide by 6′ long-filled with light weight concrete
4. 2 Stainless Steel edged weirs
5. 3 Thermometers, 10° - 120°
   ½° Graduations
6. 3 Double Seal plug valves w/ tell tale bleed cock
7. 6″ Cleanout opening
8. 3 Sight glasses — high oil level, low oil level, & empty
9. 6″ Dia. x 48″ overflow gage glass w/ stainless steel calibrated scale
10. Plumb bob lugs for levelling, c/w plumb bob and wire
11. Check valve on gage glass drain
12. 2″ Female thread vent connection
13. 8″ Thief Hatch
    Complete piping
    Prime and finish — industrial enamel except tank (aluminum)
    Factory Calibrated and certified by U. S. Testing Company

* CONSTRUCTED IN CONFORMANCE WITH API STANDARD 1101

Same equipment as Stationary Unit plus:

21. 1 - Torsion Spring Axle
22. 2 - Wheels w/ 12 Volt electric brakes, tires and hub caps
23. 2 - Stop, turn and tail lights
24. 4 - Reflectors
25. 2 - Fenders
26. 2 - Hoses 2″ Dia. x 25′ w/ Quick Connect Couplings
27. 1 - Hose Rack
28. 3 - Levelling Jacks w/ pads
29. 2 - Levels (in place of plumb bob)
30. 1 - Trailer Hitch
31. 1 - Electrical plug & socket**
32. 1 - Brake and light Controller**

** *To be installed by user on user's vehicle*

OPERATION

The prover tank is first wetted and brought to oil temperature, and the lower oil level is established at the lower weir by filling tangentially from the inlet below the lower weir. The dump valve empties the tank to the lower weir level. The first run is then made by filling to and over the upper weir. The fill valve is closed as the oil is seen to enter the large gage glass at the side of the tank, and the gross volume is read directly from the 48" stainless steel gage glass scale. When proving is completed, the oil from below the lower weir is run to the pipe line by shutting down the meter charging pump and opening the fill valve. Detailed written instructions are furnished with the tank.

The double weir type prover tank assures no inaccuracy due to sediment and paraffin collection in the bottom, quick and effective draindown from all wetted surfaces, and no mis-reading due to inconvenient gage glass and thermometer locations. Other advantages are:

ACCURACY: The 0.001 barrel divisions on the gage glass scale are 0.35" apart, making it practical to interpolate to 0.0001 barrel, ten times the reading accuracy of the meter. The scale reads the calibrated volume directly in barrels.

DRAINDOWN: All oil wetted surfaces are vertical, making draindown fast and complete. There are no oil wetted horizontal surfaces for paraffin to collect on in the measuring portion.

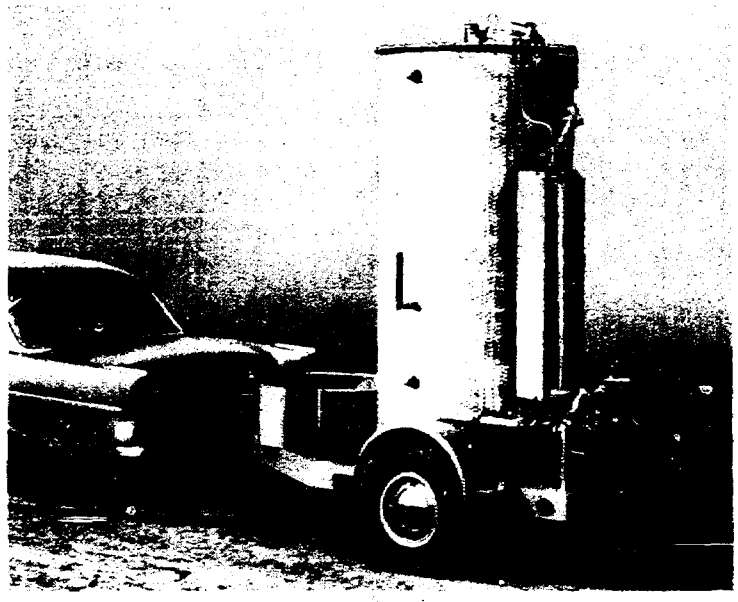
CONVENIENCE: All readings can readily be taken at ground level, eliminating the inconvenience and hazard of climbing ladders to read thermometers and gage glasses.

TEMPERATURES: More representative temperatures are possible, as each thermometer bulb can be accurately positioned at the mid-point of its proportionate volume of oil, not possible with a vessel of non-uniform cross section.

INTERNAL COATING: With the bolted deck removed, the entire interior is exposed for first class sandblasting and coating.

INSTALLATION COST: Installation consists only of connecting the inlet and discharge. No field assembly, foundation work, painting, or parts procurement is necessary.

LOW HEIGHT: Low overall height permits factory calibration, as the tank can be shipped vertically on its skid base, preventing damage in shipment. No exaggerated configuration is necessary to reduce the height of portable tanks.



MAJOR 10 BARREL PORTABLE PROVEN TANK

DESIGNED AND MANUFACTURED BY

MAJOR ENGINEERING COMPANY TULSA

BOX 15607 TULSA, OKLA.

SOLD AND SERVICED EXCLUSIVELY BY

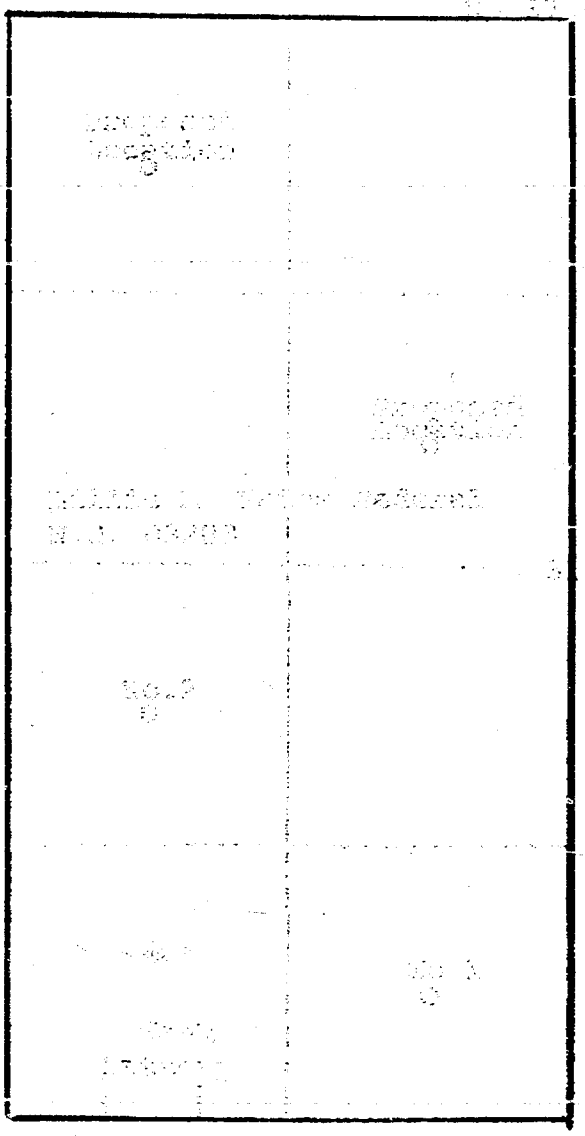
Jones & Laughlin

SUPPLY DIVISION - Tulsa

BULLETIN 961.347

PRINTED IN U.S.A.

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 1
CASE NO. 2163



IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

P. O. Box 6721
Roswell, New Mexico

RECEIVED JAN 19 1961

January 18, 1961

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 2
CASE NO. 2163

Yates Drilling Company
309 Carper Building
Artesia, New Mexico

Attention: Mr. Ken Reynolds

Gentlemen:

Your proposed automatic custody transfer system for lease New Mexico 03283 covering the W½ sec. 31, T. 8 S., R. 37 E., N.M.P.M., Roosevelt County, New Mexico, as described by the diagrams submitted with your letter of January 12, is hereby approved.

The two copies of the diagrams of the proposed automatic custody transfer system are being retained for our files.

Very truly yours,

JOHN A. ANDERSON
Regional Oil and Gas Supervisor

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 5
CASE NO. 2163

Artesia, New Mexico
January 23, 1961

New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

The undersigned owners of the production from the wells drilled and to be drilled on Federal Oil and Gas Lease NM 03283, described in the Application of Yates Drilling Company, Case No. 2163, before the Oil Conservation Commission of the State of New Mexico, do hereby acknowledge receipt of a copy of the Application and hereby give their consent to the installation of the automatic custody transfer system described in the Application.

Very truly yours

O. P. Yates

Martin Yates III

Neerburg & Ingram

Tom L. Ingram

Eugene Neerburg

Frances Yates
by Ralph Yates

ARTESIA BROADCASTING CO.

By: Martin Yates III, Pres.

Mobil

Magnolia Pipe Line Company

P. O. Box 1073, Midland, Texas

January 18, 1960

Mr. Ken Reynolds, Drilling Supt.
Yates Drilling Company
309 Carper Bldg.
Artesia, New Mexico

LEC - YACT - YATES DRILLING CO. - LILLIE M. YATES FEDERAL LEASE

Dear Mr. Reynolds:

Magnolia Pipe Line Company will be the gatherer and transporter of crude oil from the Yates Drilling Company's Lillie M. Yates Federal Lease in Section 31, T8S, R37E in the Allison Pennsylvania Field, Roosevelt County, New Mexico. We have received your proposal to install an automatic custody transfer system to deliver the crude oil from this lease to our pipe line.

It is our understanding that the liquid will be measured by a system utilizing a temperature compensated positive displacement meter. The unit will also be equipped with all the necessary sampling, allowable counting, and safety devices to prevent incorrect measurement or delivery of non-merchantable crude oil. This system should prove very satisfactory as our experience with units of similar design indicates they are an accurate and reliable means of receiving crude oil.

In regard to the proposed installation we would like to make the following comments:

1. The BS&W monitor should be equipped with a 0-60 second time delay and should be wired for fail-safe operation on power and component failure.

2. The unit should shutdown on high pressure, register failure, low fluid level in the surge tank and when the allowable has been reached. These shutdown functions should all be of fail-safe design.

3. We will want to test the unit for accuracy, reliability, and fail-safe operation prior to commencing automatic custody transfer.

4. It may be necessary to install a pump to empty the prover tank between calibrations.

5. We would prefer to have a bleeder located in the bottom of the discharge line upstream from the prover tank discharge valve in order to empty the tank completely without getting air in our line.

6. Although the prover tank has been factory calibrated, we hereby request a check calibration. A satisfactory arrangement would be to perform the check calibration before it is shipped from Jones & Laughlin Supply in Odessa.

Magnolia Pipe Line Company has no objections to a request by the Yates Drilling Company to the New Mexico Oil Conservation Commission for an exemption to State-wide Rule 309. We would appreciate receiving a copy of the application and the Commission's approval.

Yours very truly,

Kendall W. Miller

Kendall W. Miller
Division Manager

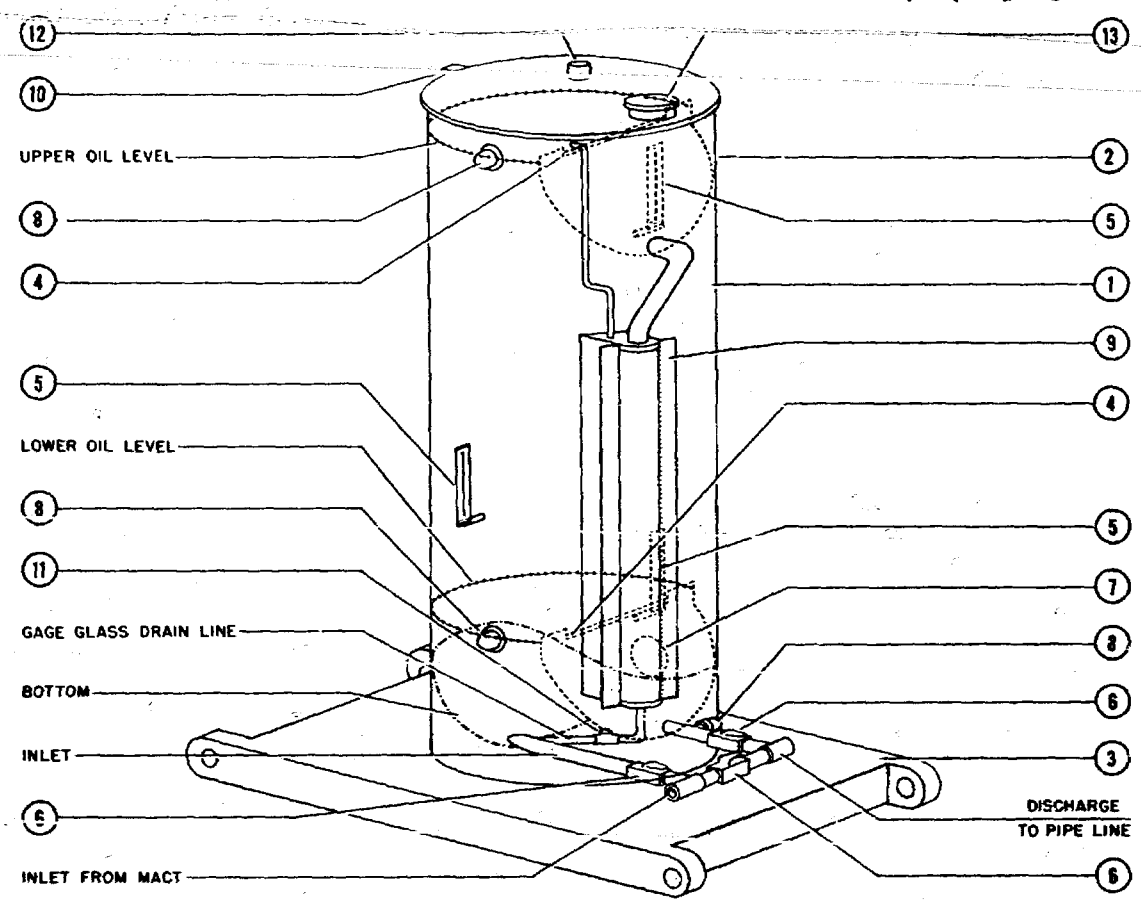
RHHalpert:ed

cc: K. B. Snider
C. M. Brecheisen
J. E. McGeath

THE MAJOR ENGINEERING COMPANY TULSA PROVER TANK*

10 BBL 20 BBL

2163



SPECIFICATIONS

STATIONARY UNIT

	Diameter	Height
10 BBL.	3½′	8′ (tank)
20 BBL.	5′	8′ (tank)

PORTABLE UNIT

	Overall Height	Tread
10 BBL.	10′ 2″	73″
20 BBL.	10′ 2″	73″

STANDARD EQUIPMENT

1. Internal Coating — 5 mils Epoxy
2. External Insulation — 1½″ Weatherproofed
3. Steel Skid Base 5′ wide by 6′ long-filled with light weight concrete
4. 2 Stainless Steel edged weirs
5. 3 Thermometers, 10° - 120°
   ½° Graduations
6. 3 Double Seal plug valves w/ tell tale bleed cock
7. 6″ Cleanout opening
8. 3 Sight glasses — high oil level, low oil level, & empty
9. 6″ Dia. x 48″ overflow gage glass w/ stainless steel calibrated scale
10. Plumb bob lugs for levelling, c/w plumb bob and wire
11. Check valve on gage glass drain
12. 2″ Female thread vent connection
13. 8″ Thief Hatch

Complete piping
Prime and finish — industrial enamel except tank (aluminum)
Factory Calibrated and certified by U. S. Testing Company

Same equipment as Stationary Unit plus:

21. 1 - Torsion Spring Axle
22. 2 - Wheels w/ 12 Volt electric brakes, tires and hub caps
23. 2 - Stop, turn and tail lights
24. 4 - Reflectors
25. 2 - Fenders
26. 2 - Hoses 2″ Dia. x 25′ w/ Quick Connect Couplings
27. 1 - Hose Rack
28. 3 - Levelling Jacks w/ pads
29. 2 - Levels (in place of plumb bob)
30. 1 - Trailer Hitch
31. 1 - Electrical plug & socket**
32. 1 - Brake and light Controller**

** To be installed by user on user's vehicle

* CONSTRUCTED IN CONFORMANCE WITH API STANDARD 1101

OPERATION

The prover tank is first wetted and brought to oil temperature, and the lower oil level is established at the lower weir by filling tangentially from the inlet below the lower weir. The dump valve empties the tank to the lower weir level. The first run is then made by filling to and over the upper weir. The fill valve is closed as the oil is seen to enter the large gage glass at the side of the tank, and the gross volume is read directly from the 48" stainless steel gage glass scale. When proving is completed, the oil from below the lower weir is run to the pipe line by shutting down the meter charging pump and opening the fill valve. Detailed written instructions are furnished with the tank.

The double weir type prover tank assures no inaccuracy due to sediment and paraffin collection in the bottom, quick and effective draindown from all wetted surfaces, and no mis-reading due to inconvenient gage glass and thermometer locations. Other advantages are:

ACCURACY: The 0.001 barrel divisions on the gage glass scale are 0.35" apart, making it practical to interpolate to 0.0001 barrel, ten times the reading accuracy of the meter. The scale reads the calibrated volume directly in barrels.

DRAINDOWN: All oil wetted surfaces are vertical, making draindown fast and complete. There are no oil wetted horizontal surfaces for paraffin to collect on in the measuring portion.

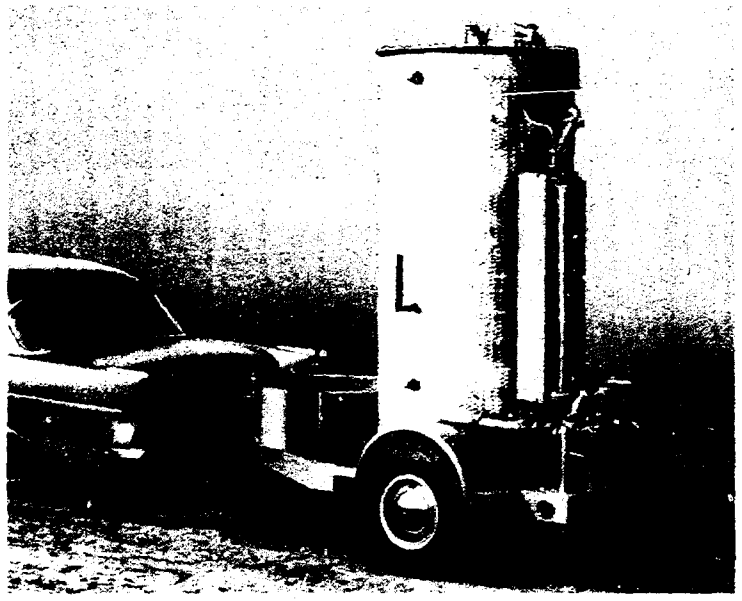
CONVENIENCE: All readings can readily be taken at ground level, eliminating the inconvenience and hazard of climbing ladders to read thermometers and gage glasses.

TEMPERATURES: More representative temperatures are possible, as each thermometer bulb can be accurately positioned at the mid-point of its proportionate volume of oil, not possible with a vessel of non-uniform cross section.

INTERNAL COATING: With the bolted deck removed, the entire interior is exposed for first class sandblasting and coating.

INSTALLATION COST: Installation consists only of connecting the inlet and discharge. No field assembly, foundation work, painting, or parts procurement is necessary.

LOW HEIGHT: Low overall height permits factory calibration, as the tank can be shipped vertically on its skid base, preventing damage in shipment. No exaggerated configuration is necessary to reduce the height of portable tanks.



MAJOR 10 BARREL PORTABLE PROVEN TANK

DESIGNED AND MANUFACTURED BY

MAJOR ENGINEERING COMPANY
TULSA

BOX 15607 TULSA, OKLA.

SOLD AND SERVICED EXCLUSIVELY BY

Jones & Laughlin
SUPPLY DIVISION - Tulsa

BULLETIN 961.347

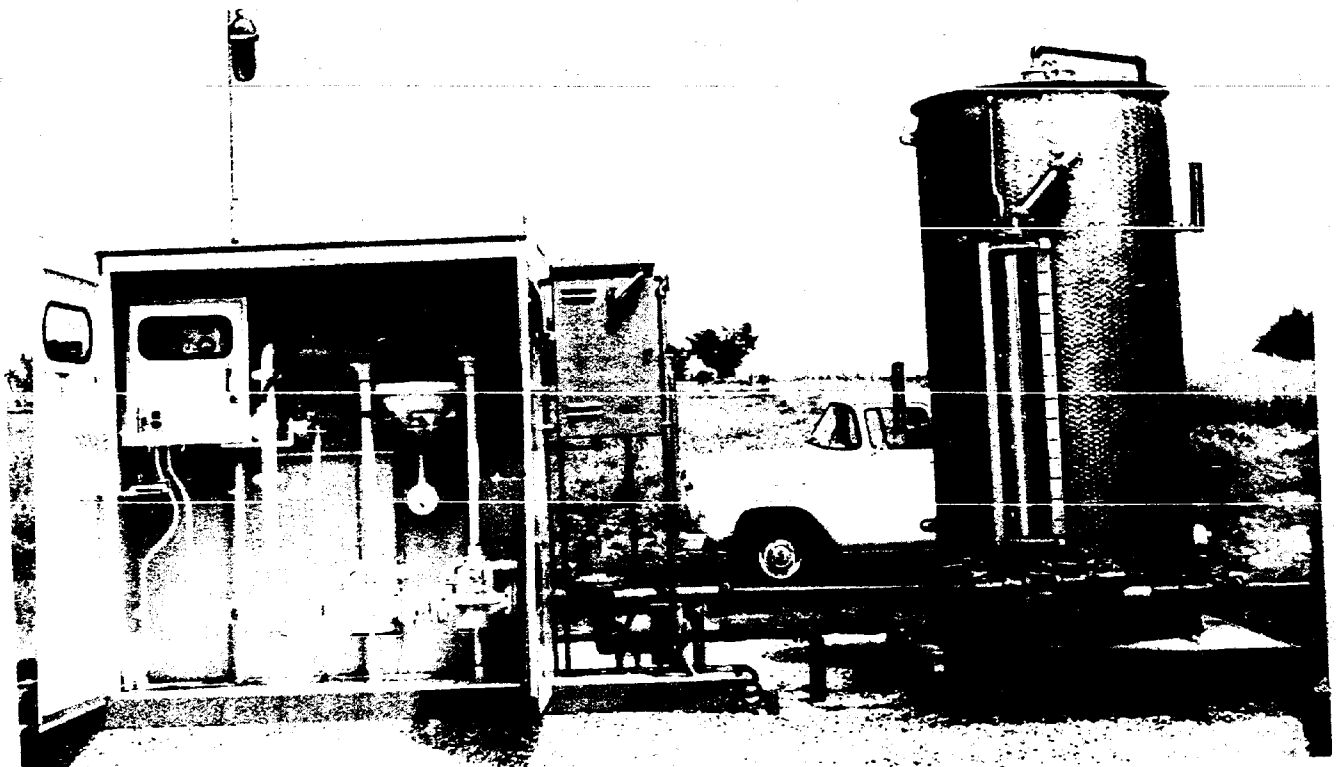
PRINTED IN U.S.A.

THE MAJOR ENGINEERING COMPANY

MACT

METER AUTOMATIC CUSTODY TRANSFER

UNIT



1,000 B/D "700" UNIT WITH MAJOR 10 BBL. PROVER TANK

- Eliminates conventional tank battery
- Increases liquid recovery by minimizing evaporation loss
- Frees pumpers for other duties
- COMPLETELY automatic
- LOW installation cost
- Quick, simple installation
- Designed for MINIMUM MAINTENANCE

MAJOR ENGINEERING COMPANY TULSA

FEATURES OF MAJOR ENGINEERING COMPANY TULSA MACT UNITS

ALL ELECTRIC — no instrument gas required. Since gas operated controls can malfunction due to dirty, wet, corrosive lease gas, an all electric unit is more dependable.

COMPLETELY PACKAGED — No field wiring (except connecting electric power to the unit) — no field assembly — no field poured foundation — no cutting into the surge tank for float-switches or any other connection — field installation saving from $400 to $1,200.

HOUSING — meters, sample and container, and instrument panel housed in rugged 14 gage steel housing built for 30 years of oil field handling. Provides protection for fine components against dust, rain, snow, and salt air. Provides a protected place for operating personnel while changing run tickets, proving meters, or working on components. Based on experience with other items of lease equipment, a typical automatic custody transfer unit will be moved at least twice during its life. Due to complete packaging, salvage value is 100%, and cost of transferring is negligible.

OPERATING CONVENIENCE: All components, controls, instruments, etc. face the front of the unit. No walking all around the unit to read instruments or service the unit. Not awkward to get at components.

REPAIR CONVENIENCE: All control panel relays are hermetically sealed, plug in for long life and quick replacement. A malfunctioning sampler or Major pressure switch can be exchanged without delay for a nominal exchange cost. The pump motor is separate from the pump for quick replacement from local sources. All major components are readily removable by unbolting grooved couplings.

DURABILITY: All purchased components are procured from leaders in their fields. Fabrication and assembly is closely supervised for quality workmanship. All units are pressure tested, and the entire electrical system is operated and checked for performance before shipment. All wiring in conduit is first run through plastic tubing to provide trouble free wiring for 30 years. All sampler tubing is stainless steel for rigidity and long life.

STANDARDIZATION: Standardization has resulted in years of experience with one design of unit, which has been perfected as a result of this experience to the point that it is as dependable and trouble free as possible. Because of standardization, a large inventory of components at the factory makes possible immediate delivery of any repair component or part. Since normal delivery from component suppliers runs from a week to 5 months, the Major stock assures of no delay in case of emergency. Standardization also makes feasible the stocking of parts by the sales and service organization, making it unnecessary for the user to stock repair components. Standardization has also made possible quantity production, reducing fabrication cost and improving quality of workmanship, to the ultimate benefit of the user.

RESPONSIBILITY: As the designer and manufacturer of Major MACT units, Major is responsible for the satisfactory performance of the equipment. Major guarantees the unit and its components against defects in materials and workmanship for a period of 1 year after installation. For the first 3 months of operation, Major and its sales and service representative are responsible for any malfunction not due to improper operation.

DESIGNED AND MANUFACTURED BY

MAJOR ENGINEERING COMPANY TULSA

BOX 15607 TULSA, OKLA.

SOLD AND SERVICED EXCLUSIVELY BY

Jones & Laughlin SUPPLY DIVISION - Tulsa

BULLETIN 961.35 9-1-60

PRINTED IN U.S.A.

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

P. O. Box 6721
Roswell, New Mexico

RECEIVED JAN 19 1961

January 18, 1961

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 2
CASE NO. 2163

Yates Drilling Company
309 Carper Building
Artesia, New Mexico

Attention: Mr. Ken Reynolds

Gentlemen:

Your proposed automatic custody transfer system for lease New Mexico 03283 covering the W½ sec. 31, T. 8 S., R. 37 E., N.M.P.M., Roosevelt County, New Mexico, as described by the diagrams submitted with your letter of January 12, is hereby approved.

The two copies of the diagrams of the proposed automatic custody transfer system are being retained for our files.

Very truly yours,

JOHN A. ANDERSON
Regional Oil and Gas Supervisor

LAW OFFICES
LOSEE AND STEWART
CARPER BUILDING - P. O. BOX 1117
ARTESIA, NEW MEXICO

A. J. LOSEE
EDWARD B. STEWART

20 December 1960

Case 2163

Mr. A. L. Porter, Jr., Secretary
New Mexico Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Mr. Porter:

Enclosed herewith you will please find Application of Yates Drilling Company for an exception to Rule 309(a) of the New Mexico Oil Conservation Commission rules and regulations, to permit the installation of an automatic custody transfer system on Federal Oil and Gas Lease New Mexico 03283, insofar as it covers the W/2 Section 31, Township 8 South, Range 37 East. We will appreciate your setting this matter for hearing before an examiner on or about January 25, 1961.

With a carbon copy of this letter we are furnishing each of the owners of production from this lease with a copy of this Application and with a request that they advise your office if they consent or object to the proposed automatic custody transfer system.

Thank you in advance for your attention to this matter.

Very truly yours

A. J. Losee

Enclosure

cc: United States Geological Survey
Mr. S. P. Yates
Mrs. Francis Nix
Mrs. Lillie M. Yates and
Mr. Martin Yates, III
Nearburg and Ingram
Artesia Broadcasting Company

Docket Mailed 1-12-61 JR

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF YATES DRILLING COMPANY FOR AN ORDER AUTHORIZING AN AUTOMATIC CUSTODY TRANSFER SYSTEM, IN EXCEPTION TO RULE 309(a) OF THE RULES AND REGULATIONS OF THE NEW MEXICO OIL CONSERVATION COMMISSION, ON FEDERAL OIL AND GAS LEASE NEW MEXICO 03283, EMBRACING THE W/2 OF SECTION 31, TOWNSHIP 8 SOUTH, RANGE 37 EAST, IN ROOSEVELT COUNTY, NEW MEXICO.

No. 2163

APPLICATION

COMES YATES DRILLING COMPANY and in support of this Application, respectfully states:

1. That Applicant is the Operator of Federal Oil and Gas Lease New Mexico 03283, from the surface down to and including the Bough "C" sand of the Pennsylvanian formation, insofar as it covers the following lands in Roosevelt County, New Mexico:

Township 8 South, Range 37 East, N.M.P.M.,

Section 31: Lots 1, 2, 3, 4, E/2 W/2

containing 313.80 acres, more or less.

2. The Applicant has drilled its No. 1 well and completed the same as a producer in the Bough "C" sand of the Pennsylvanian formation within the SE/4 SW/4 said Section 31, and is now drilling its No. 2 well in the NW/4 SW/4 of Section 31. It appears probable that Applicant will, in the near future, drill its No. 3 well in the SE/4

Mailed 2-12-61

NW/4 and its No. 4 well in the NW/4 NW/4 said Section 31.

3. The ownership of the production from said wells is vested as follows:

United States	1/8	R.I.
S. P. Yates	1/8	O.R.I.
Francis Nix	1/16	O.R.I.
Artesia Broadcasting Company	35.15625%	O.P.
Lillie M. Yates and Martin Yates III. .	1/4	W.I.
Nearburg and Ingram, a partnership . .	1/4	W.I.
Yates Drilling Company	1/2	W.I.

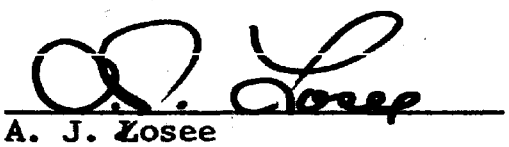
Simultaneously with the filing of this Application the Applicant has furnished each of the above owners of production with a copy of this instrument.

4. Applicant proposes to install an automatic custody transfer system on said lease so that the oil will be transported and measured on the lease without the necessity of storing the same in tanks on the lease. The Applicant will submit a schematic diagram and full details of the proposed automatic custody transfer system at the time of the hearing on this Application.

WHEREFORE, Applicant prays that this Application be set for hearing after due notice as required by law; that such hearing be heard before an examiner on or about January 25, 1961; and that an order be entered granting Applicant permission, in exception to Rule 309(a) of the New Mexico Oil Conservation Commission rules and regulations, to install an automatic custody transfer system on Federal

Oil and Gas Lease New Mexico 03283 embracing the W/2 Section 31, Township 8 South, Range 37 East, in Roosevelt County, New Mexico.

LOSEE AND STEWART

By 

A. J. Losee
Carper Building
Artesia, New Mexico
Attorneys for Applicant

No. 3-61

DOCKET: EXAMINER HEARING - WEDNESDAY, JANUARY 25, 1961

OIL CONSERVATION COMMISSION - 9 a.m., CONFERENCE ROOM - STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Elvis A. Utz Examiner, or Oliver E. Payne, attorney, as alternate examiner:

CASE 2159: Application of Continental Oil Company for three non-standard gas proration units. Applicant, in the above-styled cause, seeks the establishment of the following-described non-standard gas proration units in the Jalmat Gas Pool, Lea County, New Mexico:

A 320-acre non-standard gas proration unit consisting of the W/2 E/2 and E/2 W/2 of Section 19, Township 25 South, Range 37 East, to be dedicated to the Sholes B-19 Well No. 1, located in the center of the SE/4 SW/4 of said Section 19.

A 320-acre non-standard gas proration unit consisting of the E/2 and NE/4 NW/4 of Section 1, Township 25 South, Range 36 East, to be dedicated to the Wells B-1 Well No. 1, located in the center of the NE/4 NE/4 of said Section 1.

A 360-acre non-standard gas proration unit consisting of the SE/4, E/2 W/2 and SW/4 SW/4 of Section 29, Township 22 South, Range 36 East, to be dedicated to the Meyer A-29 Well No. 3, located in the center of the SE/4 SW/4 of said Section 29.

CASE 2160: Application of Continental Oil Company for a quadruple completion . Applicant, in the above-styled cause, seeks an order authorizing the quadruple completion of its Northeast Haynes-Apache 9 No. 1 Well, 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 hydrocarbons from the Greenhorn formation through a string of 2 7/8-inch casing, the production of hydrocarbons from the Dakota formation through 2 3/8-inch tubing installed within a string of 4 1/2-inch casing, the production of hydrocarbons from the Mesaverde formation through the 2 3/8 x 4 1/2-inch annulus of the latter casing string, and the production of hydrocarbons from the Gallup formation through 2 3/8-inch tubing installed within a second string of 4 1/2-inch casing, the three strings of casing being cemented in a common well bore.

CASE 2161: Application of Texaco, Inc. for a triple completion. Applicant, in the above-styled cause, seeks an order authorizing the triple completion of the C. H. Weir "B" Well No. 4, located in Unit I, Section 11, Township 20 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of gas from the Eumont Gas Pool, the production of oil from the Skaggs-Glorieta Pool and the production of oil from the Skaggs-Drinkard Pool through the casing-tubing annulus, through 2 3/8-inch tubing, and through 2 3/8-inch tubing respectively.

CASE 2162: Application of The Atlantic Refining Company for an automatic custody transfer system. Applicant, in the above-styled cause, seeks permission to install an automatic custody transfer system to handle the commingled Justis Tubb-Drinkard and Justis-Blinebry production from the following-described leases:

Langlie Federal Lease, N/2 SE/4 of Section 14

Langlie Federal "A" Lease, S/2 NE/4 of Section 14

Langlie Federal "B" Lease, N/2 NE/4 of Section 14

all in Township 25 South, Range 37 East, Lea County, New Mexico.

CASE 2163: Application of Yates Drilling Company for an automatic custody transfer system. Applicant, in the above-styled cause, seeks permission to install an automatic custody transfer system to handle the Pennsylvanian formation production from all wells presently completed or hereafter drilled on Federal Lease NM 03283, comprising the W/2 of Section 31, Township 8 South, Range 37 East, Roosevelt County, New Mexico.

CASE 2164: Application of Hudson and Hudson for an exception to Rule 506 (A) of the Commission Rules and Regulations and for permission to transfer allowables. Applicant, in the above-styled cause, seeks an exception to Rule 506 (A) by increasing the limiting gas-oil ratio for the West Tonto Yates Seven Rivers Pool, Lea County, New Mexico, from 2,000 to 6,000 cubic feet of gas per barrel of oil. Applicant further seeks permission to shut-in one well in said pool and transfer its allowable to another well.

CASE 2165: Application of Pan American Petroleum Corporation for two unorthodox oil well locations and a non-standard oil proration unit. Applicant, in the above-styled cause, seeks approval of two unorthodox oil well locations in the Cha Cha-Gallup Oil Pool, San Juan County, New Mexico, said locations to be as follows:

Navajo Tribal "E" Well No. 7, to be located 250 feet from the South line and 800 feet from the West line of Section 16.

Navajo Tribal "G" Well No. 5, to be located 1830 feet from the South line and 885 feet from the East line of Section 18, both in Township 29 North, Range 14 West.

Applicant also seeks an 88.7-acre non-standard oil proration unit in said pool comprising that portion of the SW/4 of Section 16, within the Navajo Reservation lying South of the mid-channel of the San Juan River, Township 29 North, Range 14 West, to be dedicated to said Navajo Tribal "E" Well No. 7.

CASE 2166: Application of Pan American Petroleum Corporation for permission to take interference tests and transfer allowables. Applicant, in the above-styled cause, seeks permission to take interference tests in the Cha Cha-Gallup Oil Pool, San Juan County, New Mexico, by shutting in its Navajo Tribal "E" Well No. 3, located in the NE/4 SW/4 of Section 21, Township 29 North, Range 14 West and transferring the allowable of said well in equal parts to the other five wells on the said Navajo "E" Lease.

CASE 2167: Application of Chambers & Kennedy for a 200-acre non-standard gas proration unit and for an unorthodox gas well location. Applicant, in the above-styled cause, seeks the establishment of a 200-acre non-standard gas proration unit in the Eumont Gas Pool, Lea County, New Mexico, comprising the NE/4 NE/4, S/2 NE/4, and the N/2 SE/4 of Section 34, Township 19 South, Range 37 East. Said unit is to be dedicated to the Monument State Well No. 1, located on an unorthodox location at a point 1649 feet from the South line and 2197 feet from the East line of said Section 34.

CASE 2168: Application of Continental Oil Company for permission to shut-in one well and transfer its allowable to other wells. Applicant, in the above-styled cause, seeks permission to shut-in its Wilder Well No. 20, located 1980 feet from the South and East lines of Section 26, Township 26 South, Range 32 East, El Mar-Delaware Pool, Lea County, New Mexico, and transfer its allowable to the following offset wells in said Section 26: Wilder Lease Well Nos. 17, 18, 22 and 25.

CASE 2169: Application of Gulf Oil Corporation for a salt water disposal well. Applicant, in the above-styled cause, seeks an order authorizing the disposal of produced salt water into the Grayburg and San Andres formations through its J. F. Janda "F" Well No. 17, located in Unit A, Section 4, Township 22 South, Range 36 East, Lea County, New Mexico, with the proposed injection interval from 3999 feet to 5650 feet.

CASE 2170: Application of Amerada Petroleum Corporation for an amendment of Order R-1750. Applicant, in the above-styled cause, seeks an amendment of Order No. R-1750, which authorized the triple completion of its Wimberly Well No. 13, located in Unit M, Section 24, Township 25 South, Range 37 East, NMPM, Lea County, New Mexico, to substitute an undesignated oil pool, probably Paddock, for the Langlie-Mattix which was previously authorized. Applicant also proposes to use three parallel strings of tubing rather than two as provided in Order R-1750.

Case. 2163
Heard. 1-25-61
1-30-61

1. Grant Yates Drilling Co. their request for a L.A.C.T. system for their Lillie M. Yates Fed. lease # 03283 consisting of the W/2 sec. 31-85-37E, Allison-Pennsylvanian pool.

1. The system shall be equipped with sufficient storage to hold the allowable from the lease during max. unattended hours. or in the alternative to install a high level safety shut-in switch and such gathering lines and wellhead shut-in equipment as is necessary to prevent the waste of oil in the event of line breakage.

Elvis A. Utz

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

February 3, 1961

Mr. A. J. Losee
Carper Building
P. O. Box 1117
Artesia, New Mexico

Re: Case No. 2163
Order No. R-1962
Applicant:
Yates Drilling Company

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. 2163
Order No. R-1863

APPLICATION OF YATES DRILLING COMPANY
FOR APPROVAL OF AN AUTOMATIC CUSTODY
TRANSFER SYSTEM IN THE ALLISON-
PENNSYLVANIAN POOL, ROOSEVELT COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on January 25, 1961, 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 3rd day of February, 1961, 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, Yates Drilling Company, is the operator of Federal Lease NM 03283, comprising the W/2 of Section 31, Township 8 South, Range 37 East, NMPM, Roosevelt County, New Mexico.

(3) That the applicant proposes to install an automatic custody transfer system to handle the Allison-Pennsylvanian pool production from all wells presently completed or hereafter drilled on the above-described Federal Lease NM 03283.

(4) 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:

That the applicant, Yates Drilling Company, be and the same is hereby authorized to install an automatic custody transfer system to handle the Allison-Pennsylvanian Pool production from all wells presently completed or hereafter drilled on the Federal Lease NM 03283, comprising the W/2 of Section 31, Township 8 South, Range 37 East, NMPM, Roosevelt County, New Mexico.

PROVIDED HOWEVER, That the applicant shall install adequate facilities to permit the testing of all wells located on the above-described Federal Lease NM 03283 at least once each month to determine the individual production from each well.

PROVIDED FURTHER, 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 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-in the lease production at the wellhead in the event the storage facilities become full.

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 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

EDWIN L. MECHEM, Chairman

E. S. WALKER, Member

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

esr/

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
January 25, 1961

EXAMINER HEARING

IN THE MATTER OF:

Application of Yates Drilling Company for an automatic custody transfer system. Applicant, in the above-styled cause, seeks permission to install an automatic custody transfer system to handle the Pennsylvanian formation production from all wells presently completed or hereafter drilled on Federal Lease NM 03283, comprising the W/2 of Section 31, Township 8 South, Range 37 East, Roosevelt County, New Mexico. Case 2163

BEFORE:

Elvin A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case 2163.

MR. PAYNE: Application of Yates Drilling Company for an automatic custody transfer system.

MR. LOSEE: Mr. Examiner, A. J. Losee of Losee & Stewart, Artesia, for Yates. I have two witnesses, Mr. Reynolds and Mr. Bailey.

(Witnesses sworn.)

MR. UTZ: Other appearances in this case?

KENNETH D. REYNOLDS,

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

DIRECT EXAMINATION

BY MR. LOSEE:

Q Will you state your name?

A Kenneth D. Reynolds.

Q Do you live in Artesia, New Mexico?

A Yes, sir.

Q What is your occupation?

A Drilling superintendent for Yates Drilling Company.

Q How long have you been employed with Yates Drilling Company in that capacity?

A Year and a half.

Q Are you familiar with the application of Yates Drilling Company in this case No. 2163 to install an automatic custody transfer system?

A Yes, sir.

Q Is Yates Drilling Company the operator of the Federal Lease New Mexico 03283 insofar as it covers the Bagley sands of the Pennsylvanian formation in Roosevelt County, New Mexico, Township 8 South, Section 31, Range 37 East, the W/2?

A Yes, sir.

Q Has Yates Drilling Company drilled any wells on this lease at this time?

A We have drilled one well, and we are T.D. on the second well, and have run casing and we are perforating today.

Q Is the first well located in the SE SW/4 of that section?

A Yes, sir.

Q What is the total depth of this first well?

A 9690.

Q Did you plug it back any?

A Yes, sir. We plugged it back 33 feet.

Q 9657?

A Right.

Q What is the gross pay in the well?

A Gross pay is 32 feet.

Q What is the net pay?

A 22 feet.

Q This second well that you are on total depth and are perforating today, what is the depth?

A 9700 feet, and it was plugged back 34 feet.

Q By the log what was the gross pay?

A The log showed 22 feet of gross pay and 16 feet of net pay.

Q You have two other locations on the lease, is that correct?

A Yes, sir.

Q One would be in the SE NW and the other in the NW NW?

A Right.

Q Based upon the present production in the area, does Yates contemplate continuing development continuously?

A Yes, sir.

Q So that you expect to drill two more wells?

A Yes, sir.

Q I will hand you what has been marked Applicant's Exhibit 1 and ask if you would state what that is?

A This is the half section, west half of Section 31 in Range 37 East, Township 8 South that we operate.

Q This is the section that you have been testifying to, or half section?

A Yes, sir.

Q It shows the location of your existing wells, and the proposed future locations?

A Yes, sir, also the location of the LACT unit, and present tank batteries.

Q Is the ownership of this lease the same throughout?

A Yes, sir, on this part right here.

Q On this half section there is no divided ownership?

A No, sir.

Q The United States is the royalty holder?

A Yes, sir.

Q Yates Drilling Company, Nearburg & Ingram, and Lillie and Martin Yates, are they the working interest owners?

A Yes, sir.

Q Does Frances Nix and Artesia Broadcasting Company hold overriding royalty interests?

A Yes, sir.

Q ~~I will hand you what has been marked Applicant's Exhibit~~

2 and ask you if you will state what that is, sir?

A This is a letter from the U.S.G.S. approving our application to install a LACT unit on this lease, which we sent to them diagrams and what we propose to do on it, and this is their letter of approval to us.

Q Is the information you furnished the U.S.G.S. as to plans and specifications of this LACT unit identical to what you will present before the Commission?

A Yes, sir.

Q I hand you what has been marked Applicant's Exhibit 3, and ask if you will state what that is?

A This is a letter of approval from the working interest owners and overriding royalty owners, and royalty owners.

Q Of the installation of this LACT unit?

A Yes, sir.

Q What is the name of the pipeline purchaser in this area?

A Magnolia Pipeline.

Q Have they consented to the installation of this LACT unit?

A Yes, sir.

Q Is their consent evidenced by the letter marked Exhibit 4?

A Yes, sir.

Q Why does Yates Drilling Company wish to install this LACT unit on this lease?

A Due to the allowable that now exists in that area; should it remain the same after we complete the next two wells it will take

approximately 2500 barrels of storage on this lease, and due to the money that we can save in tankage alone, which will pay approximately a third or half of the LACT unit, we feel that that is one justification for installing the LACT unit, and due to the gaugers' tight schedule in that area in the pipeline, tight schedule on being able to run the oil, we feel that being able to get the allowable out each month with this will more than pay for it.

Q Actually, then, in that area, by reason of the gaugers' schedule it is difficult to get the allowable run?

A Yes, sir.

Q And this LACT unit will overcome that difficulty?

A Yes, sir.

Q What with respect to evaporation loss?

A We feel like it will save enough in evaporation loss and waste to pay for the remaining cost of it within a year.

MR. LOSEE: I think that is all of this witness.

MR. UTZ: Any other questions of the witness?

BY MR. NUTTER:

Q Do you have any idea at all what this savings in evaporation would amount to?

A We feel like it will amount to approximately ten to twelve barrels a month.

BY MR. PAYNE:

Q Is your other witness going to testify as to the installation?

MR. LOSEE: Yes.

MR. UTZ: Witness may be excused.

JAMES A. BAILEY

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

DIRECT EXAMINATION

BY MR. LOSEE:

Q Would you state your name, please, sir?

A James A. Bailey.

Q Where do you live, Mr. Bailey?

A Midland, Texas.

Q What is your occupation?

A I am a regional salesman for Jones & Laughlin Supply.

Q You propose to testify to the installation and operation of this LACT unit that Yates desires to install?

A Yes, sir.

Q Would you briefly tell the Commission your qualifications on this subject?

A I took petroleum engineering in Tulsa University for three years. I attended Tulsa Technical College for two years, where I took industrial electronics and instrumentation.

Q You obtained a certificate from that school?

A Yes, sir.

Q What did you do then?

A I worked for Black, Sivalls & Bryson for a period of

three years, Research and Development Laboratory, on design of instrumentation for oil field use such as is used in a LACT unit, and worked with Jones & Laughlin in the Production Equipment Section for three years. I attended a month's school at Major Engineering Company in which we went quite detailed into the manufacture and the component parts of the unit.

Q During the first two and a half years you were were Jones & Laughlin you said you served as a technical advisor; on what type of equipment?

A It was on, primarily, production equipment, on tank equipment, on waterflood and LACT equipment.

Q You had one month schooling with Major Engineering that installed this unit?

A That's right.

MR. LOSEE: I ask the Commission if Mr. Bailey's qualifications are accepted?

MR. UTZ: His qualifications are acceptable so far as the testimony in this case is concerned.

Q (By Mr. Losee) Mr. Bailey, is the unit you propose to install for Yates Drilling Company on this lease a standard LACT unit?

A Yes, sir, from the standpoint that we make only a standard package LACT unit. We do not take other specifications and build to their specifications like many other manufacturers, job shops, do. We build our own unit and stock them in our stores and sell from our

stock.

Q All of the LACT units installed under this brand-name are standard as to size and equipment?

A That's correct.

Q How many of these units are in actual use in the United States?

A Twenty-nine, and this will be the thirtieth.

Q Any in New Mexico?

A One at Eunice, New Mexico.

Q Who is the operator of that lease?

A Continental Oil.

Q How long have they had it?

A Approximately a year.

Q I will hand you what has been marked Applicant's Exhibit 5 and ask you if you will state what that is, sir?

A It is a schematic drawing of how we propose to install this equipment as far as physical layout.

Q Would you briefly explain that drawing?

A The four wells that are proposed would be routed to the inlet of the 6-foot by 20-foot vertical motion treater in which the oil would be separated from the gas and water. At that time the oil will be piped to the oil discharge valve into the storage tank. From this point the LACT system will be started and stopped by the levels in the tank by hydrostatic switch. When the level reaches 10-foot it will come on; three or four foot, the unit will stop.

Actually, the operation from there on is from discharge of the unit through a prover loop and on to the pipeline.

Q I hand you what has been marked Exhibit 6 and ask if that is the plans and specifications of the package LACT unit?

A Yes, sir, that is correct. It is marked our Model 700 in this literature.

Q What is the capacity of that unit?

A The unit will deliver a thousand barrels a day at 25 pounds, or 1200 barrels at 20 pounds.

Q I will refer you to the diagram on the inside of the page which is the plan of the unit itself and ask you if you will explain that, having in mind the equipment that Yates has ordered to be installed on this lease?

A Yes, sir. Actually, this drawing is of a little bit larger unit. For that reason, some of the components, being separate components in this particular unit, would be a combination.

Q Would you explain, after the flow of oil goes into the unit, what takes place?

A The hydrostatic switch turns on the unit, at which time the centrifugal pump starts and draws the fluid from the tank, through the pump, and it is pumped up the vertical run of piping to the strainer and air eliminator, which are a combination on the unit we propose. It is then pumped on horizontally across the top of the unit and down through an instrument, BS&W monitor probe, at which time the monitor, which is, technically, tied to the probe,

analyzes the product passing, and if the BS & W is below the pipeline allowable the oil is passed through the meter. However, if the BS & W content exceeds that specified the monitor sends a signal to this No. 7 on the drawing, electric 3-way valve, which diverts the flow of the oil to the heater treater to be cleaned up. After passing the probe, (9), the electric sampler, takes a sample.

Q Would you refer to the numbers in the process?

A Yes, sir. This No. 10 is the sample container, and No. 9 is the sampler -- at which time the sampler draws a sample proportionate to the rate of flow from the stream, pumps it into a pressurized sampling container. This will store an adequate sampling for a period of a month, or whatever the runs are planned to be taken.

After the sample is taken it passes, it being good oil, on through the 3-way valve to the meter. Bad oil is passed on to the treater.

Q And recirculates through the same system?

A Yes, sir, until it becomes merchantable. After passing through the 3-way valve, if good oil, we come to a No. 20, 25, and No. 8, which are temperature compensated positive displacement type meters which we propose to put in (Brodie, Granco, Rockwell or A. O. Smith,) whatever is acceptable to the Commission. In this case, probably a Rockwell or any other meter that would be acceptable. From the discharge of the meter, flow of oil goes through a back-pressure valve which maintains a constant pressure on the unit, and,

in turn, constant flow rate through the unit controls the flow of the centrifugal pump. The discharge of the back pressure valve passes on, then, through the three valve prover bypass and on to the pipeline.

Q Exhibit 7 is a specification sheet and diagram of the prover tank. Would you briefly explain that, sir?

A Yes, sir. In an effort to maintain the accuracy of the meter that is required we propose to supply Major double-wear type prover tank with which to calibrate the meters at any specified time during the month. Whatever the case may be we feel that it will offer much more accurate calibration than any other type tank, and, therefore, maintain better accuracy in measurement of oil to the pipeline. We feel that is accomplished by the fact we have no horizontal surfaces in which to collect paraffin. It has better insulation externally. It is plastic-coated inside to prevent paraffin build-up. We feel it is most accurate and will provide a means of keeping the meter very accurate.

Q Would you explain how it operates?

A At any time you want to prove, you close valve 6 and open -- well, they are all valve 6. You open valve 6 which goes to the pipeline and open the valve to the prover tank. At this time you fill the tank and drain it. This wets down the walls, brings the temperature of the tank up, and when you drain it you drain only from this bottom weir, and you don't drain the bottom. It leaves a liquid bottom in the tank. You would never have a horizontal

surface for paraffin build-up. Then you would read your meter, start another run, fill up until it spills over the top. This level is controlled by the stainless steel weir located in the top. The amount that spills over is that which is in excess of ten barrels. This is a ten barrel proving tank we propose. Along this large gauge is a calibrated scale which is calibrated in thousandths of a barrel. Calibrations are three-tenths of an inch apart which enables interpolation to ten-thousandths of a barrel, which is ten times more accurate than a meter you are proving. When this has been effected you take your temperature readings and correct the capacity in the tank to 60 degrees, divide this valve into the meter reading and establish a meter facotr with which you can adjust your meter readings for that period of time. You do this a second time and if the readings agree within five-hundredths of one percent you consider the proving valid and feel your meter factor is correct. You use this meter factor to correct your meter readings until you prove again.

Q Do you know how Yates proposes to test each of the wells on this lease?

A Yes. I feel they are going to manually test these wells, and shut in three wells while they test one.

Q While they produce one?

A Right.

MR. LOSEE: I have no further questions of the witness.

BY MR. UTZ:

Q In regard to your storage tanks, you have only a high-level and a low-level switch?

A That's correct, sir.

Q To actuate and shut off your pump?

A Yes, sir.

Q Do you know how much storage will be in that tank?

A How much additional storage?

Q Yes. What is the total storage for the system?

A Well, actually, we feel that we will operate primarily on half a tank, being a 400-barrel tank, somewhere in the vicinity of 200 barrels, which will be active, 200 more which will be non-active; two additional 400-barrel tanks, giving a thousand additional storage which we won't use.

Q Your total storage would be around 1200 barrels?

A Yes, sir, total storage, 1200, in the tanks.

Q Do you know how much the lease is producing at this time?

A No, sir, I sure don't.

MR. UTZ: Can you answer that, sir?

MR. REYNOLDS: 163 barrels a day until we get our second well in production.

MR. UTZ: Do you intend to drill four wells on this lease?

MR. REYNOLDS: Yes, sir.

MR. UTZ: What will the alloable be on these wells, do you know?

MR. REYNOLDS: On other leases up there I understand it is 167 barrels a day, and we feel that ours will be 163 to 167 barrels a day per well.

MR. UTZ: In other words, your storage capacity here is almost two days production?

MR. REYNOLDS: Yes, sir.

MR. UTZ: How often will your pumpers visit this lease?

MR. REYNOLDS: At least once a day.

MR. UTZ: What type of flow lines do you intend to lay to this system?

MR. REYNOLDS: Two and one-half inch.

MR. UTZ: What would their test be?

MR. REYNOLDS: 1500 pounds.

MR. UTZ: And how about flowing wellhead pressures?

MR. REYNOLDS: Approximately 11 to 1500.

MR. UTZ: So that if the system did shut down you would build up an excess of 1500 pounds on these flow lines, wouldn't you?

MR. REYNOLDS: Yes, sir. These lines are tested for testing pressure of 2500, 1500 working pressure.

MR. UTZ: What is your shut in wellhead pressure?

MR. REYNOLDS: 18 to 1900 pounds on this one well.

MR. UTZ: You anticipate that is about what it will be on the other wells?

MR. REYNOLDS: Our geologist seems to think it will be around 1500 on the others.

BY MR. UTZ:

Q What type of crude are you going to meter in this unit?

A (By Mr. Bailey) It is 49 gravity.

Q Is it corrosive?

A Not particularly, apparently.

Q Do you anticipate any paraffin problems with this crude?

A Yes, sir.

Q What type of meter is best suited to handle the paraffin problem?

A Well, sir, the meter we propose is an aluminum-fitted meter which the manufacturer claims to be the best meter for the application.

Q Is that a positive displacement meter?

A Yes, sir.

MR. UTZ: Any other questions of the witness?

BY MR. NUTTER:

Q Mr. Bailey, is it the intention of Yates to install this prover tank as a permanent part of this installation?

A Yes, sir.

Q And the discharge from the ACT unit, which is in a package, comes in at this little opening right here on this Exhibit No. 7; is that correct?

A Yes, sir.

Q When you want to test your meter you close valve 6, ~~right there, and open this valve; is that correct, this valve 6?~~

A Yes, sir.

Q And you fill the tank up?

A Yes, sir.

Q Then you open this valve 6 over here to drain the prover tank?

A Yes, sir.

Q This prover tank, I presume, is calibrated at your factory?

A That's right, sir.

Q And it is plastic-coated?

A Yes, sir.

Q In the event you had a paraffin build-up on the inside of this tank, even though it is plastic-coated, could that be detected?

A Only by examination of the tank itself, sir. It has a very small opening there in which to check the tank. However, the entire top can be removed to clean it.

Q This little 13, I suppose that is readily openable, isn't it?

A Yes, sir.

Q And you can look down in there and detect whether there is a paraffin build-up or not?

A Yes, sir.

Q The unit you are selling to Yates, does it have two meters as you show on the diagram in Exhibit No. 6?

A No, sir.

Q It is a single meter unit, then?

A Yes, sir. We have one thing I failed to mention, meter monitor, which there is an electric pulse transmitter in the register of the meter which sends a signal to this electronic time delay which, if the register ever fails for any reason, this monitor will shut the unit down, or if it slows down, even, it will.

Q Where does the sample come from that goes into the sampler; is that from this vertical, you are sampling a vertical flow of fluid?

A Yes, sir, that is correct.

Q What is the little line that comes off of the sampler downward and then runs across over here to No. 26, which is the liquid control pressure switch; what is that little line for?

A When you get through taking your sample -- you have, say, five gallons of this -- and you take a very small sample to see how good oil your are getting, rather than pump it on the ground or in a bucket you take this, a bicycle pump and pump air in the diaphragm, which forces the fluid back and you see it there.

BY MR. UTZ:

Q That comes back and joins the flow of the liquid into the surge tank?

A Yes, sir.

BY MR. NUTTER:

Q You are going to install three tanks, 12-foot diameter and 20-feet high?

A Yes, sir.

Q Normally, a high-level working tank is ten feet?

A Yes, sir.

Q There will be ten feet available above that?

A That's right.

Q The normal storage in two 400-barrel tanks adjacent is zero, is that correct?

A That's right.

Q 800 barrels, plus 200 in the working tank?

A Yes, sir.

MR. UTZ: Other questions? The witness may be excused. Other statements in this case?

MR. LOSEE: I will move for the introduction of Applicant's Exhibits 1 through 7.

MR. UTZ: Without objection Exhibits 1 through 7 will be entered into the record.

MR. LOSEE: I have no further statement.

MR. UTZ: Any other statements? Case will be taken under advisement.

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, JUNE PAIGE, 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 3rd day of February, 1961.

June Paige
Notary Public-Court Reporter

I N D E X

E X H I B I T S

NUMBER	EXHIBIT	IDENTIFIED	OFFERED	ADMITTED
Ex.#1	Plat	4	19	19
Ex.#2	Letter, USGS	5	19	19
Ex.#3	Letter, Royalty Owners	5	19	19
Ex.#4	Letter, Pipeline Co.	5	19	19
Ex.#5	Schematic Drawing	9	19	19
Ex.#6	LACT Unit, Plans	10	19	19
Ex.#7	Specification Sheet	12	19	19

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2163, heard by me on Jan. 25, 1961.

....., Examiner
New Mexico Oil Conservation Commission