



7C-308

CONTINENTAL OIL COMPANY

P. O. Box 1621
Durango, Colorado
May 24, 1966

MAIL OFFICE 000

'66 JUL 20 PM 1 20

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

Gentlemen:

Continental Oil Company respectfully requests authority to commingle in common surface facilities, the liquid hydrocarbon production from the Rattlesnake Dakota Pool and the Rattlesnake Pennsylvanian "BCD" Pool, T29N, R19W, San Juan County, New Mexico. Both pools underlie the same lease and have common royalty interest owners. Both pools are of a marginal producing status. The United States of America (represented by the Department of Interior-Bureau of Mines), has a 50 percent carried working interest in the Pennsylvanian "BCD" Pool. Continental Oil Company is responsible for 100 percent operating costs and royalty payment. The Dakota pool is 100 percent owned and operated by Continental.

The purpose of the proposed commingling is to reduce operating costs of these two stripper pools which are presently a marginal economic operation, and to salvage usable surface equipment for other operations.

A schematic diagram of the proposed installation is attached. Oil production from the Pennsylvanian "BCD" Pool will be separately metered at all times. The meter will be proven when proving the ACT sales meter or as required by the Commission. The production for the unmetered Dakota zone will be determined by the difference between the net pipeline runs through the automatic custody transfer unit, with beginning and ending stock adjustments, and the net production of the metered Pennsylvanian "BCD" Pool. Payment to the carried working interest owner for the Pennsylvanian "BCD" Pool oil production will be credited on the basis of actual gravity and production metered; therefore, no revenue difference will result due to gravity price reduction. An automatic sampler will be installed at the "BCD" Pool meter to sample the production prior to commingling.

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Page 1
Page 120

It is believed that the proposed commingling will be in the best interest of conservation and help to prevent premature abandonment of the two pools.

Very truly yours,



H. D. Naley
District Manager
Durango District
Production Department

GAB/ef

cc: H. M. O. C. C., P. O. Box 697, Aztec, New Mexico
U. S. G. S., P. O. Box 1857, Roswell, New Mexico
U. S. G. S., P. O. Box 959, Farmington, New Mexico
U. S. Bureau of Mines, P. O. Box 10085, Amarillo, Texas

Attachments

ILLEGIBLE



CONTINENTAL OIL COMPANY

P. O. Box 1521
Durango, Colorado
May 24, 1966

U. S. Bureau of Mines
P. O. Box 10085
Austin, Texas

ILLEGIBLE

Gentlemen:

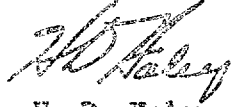
Attached is a copy of our application which we propose to submit to the New Mexico Oil Conservation Commission requesting approval to commingle in common surface facilities, the oil production from the Rattlesnake Dakota Pool and the Pennsylvanian "BCD" Pool in T29N, R19W, San Juan County, New Mexico. Both pools underlie the Rattlesnake lease and have common royalty ownership. The United States of America (represented by the Department of the Interior-Bureau of Mines), has a 50 percent carried working interest in the Pennsylvanian "BCD" operation by agreement entered into September 19, 1946.

The purpose of the proposed commingling is to reduce operating expenses on both pools which are presently in the stripper stage of operation, and to salvage usable surface equipment for credit to the lease. Reducing operating expenses is essential at this time to prevent abandonment of the pools and to continue lease operations. The salvage value of all equipment and materials salvaged by the proposed installation will be accounted for and properly credited. The estimated value of equipment to be salvaged by the proposed commingling is \$3500. All equipment required for the proposed installation is presently on the lease and in operation. The installation will require no installation of new equipment and will involve only the salvage of present equipment not required.

Attached is a schematic diagram of the proposed method for commingling. As shown, oil production from the Pennsylvanian "BCD" Pool will be separately metered at all times. This meter will be proven when the ACT meter is proven. The oil production for the unmetered Dakota zone will be determined by the difference between the total net pipeline runs through the automatic custody transfer unit, with beginning and ending stock adjustments, and the net production of the metered Pennsylvanian "BCD" Pool. Payment credited to the carried working interest owner for the Pennsylvanian "BCD" Pool oil production will be based on actual oil gravity and production determined through the "BCD" metering and sampling facilities rather than commingled production through the ACT Unit; therefore, revenue credited to the United States Government will not be affected by the oil gravity and price differential occurring by the proposed commingling. An automatic sampler will be utilized in conjunction with the "BCD" Pool meter system to determine oil gravity and price prior to commingling the fluid production (see attached diagram).

If as a carrying working interest owner, the Department of the Interior-Bureau of Mines consents to the proposed commingling, it is requested that a letter so stating be forwarded to our office at the above address for submittal with our application to the New Mexico Oil Conservation Commission.

Very truly yours,



H. D. Haley
District Manager
Durango District
Production Department

GAB/sf

cc: U.S.G.S., P. O. Box 1857, Roswell, New Mexico
U.S.G.S., P. O. Box 959, Farmington, New Mexico

Attn.

ILLEGIBLE



CONTINENTAL OIL COMPANY

P. O. Box 1521
Durango, Colorado
June 3, 1966

United States Geological Survey
P. O. Box 1847
Reston, New Mexico

ILLEGIBLE

Continental:

Attached is a copy of our application to be submitted to the New Mexico Oil Conservation Commission requesting approval to commingle in common surface facilities, the liquid hydrocarbon production from the Hatoanaka Dakota Oil Pool, and the Rattlesnake Pennsylvanian "3D" Oil Pool, Navajo Indian Lease L-27-IND-16, in T29N, R29W, San Juan County, New Mexico. Both pools underlie the same lease and have common royalty ownership. The United States of America (represented by the Department of Interior Bureau of Land Management) has a 50 percent carried working interest in the Pennsylvanian "3D" Pool. The purpose of the proposed commingling is to reduce operating costs of these two stripper pools, which are presently a marginal economic operation, and to salvage useable surface equipment.

Attached is a schematic diagram of the proposed installation which illustrates that production from the Pennsylvanian "3D" Pool will be separately metered at all times. This water will be proven when proving the Hatoanaka. The production for the unmetered Dakota zone will be determined by the difference between the net pipeline runs through the automatic custody transfer unit, with beginning and ending stock adjustments, and the net production of the unmetered Pennsylvanian "3D" Pool. Payments to the United States Government should be based on actual oil gravity and production determined through the Pennsylvanian "3D" metering and custody facilities instead of the value of the commingled production through the HAT unit; therefore, there will be no reduction in revenue credited to the working interest owner due to price reduction of the commingled fluids. An automatic sampler will be installed in conjunction with the "3D" meter for this purpose.

It is believed that the proposed installation is in the best interest of conservation and will help to prevent premature abandonment of the two pools.



IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Drawer 1857
Roswell, New Mexico 88201

RECEIVED	
DURANGO PROD.	
JUL 5 1966	
OFFICE MGR.	B
DIST. MGR.	100
June 27, 1966	445
DIST. ENG.	77
MG/M	
LAB	17

*Alvin Brady
17*

Continental Oil Company
P. O. Box 1621
Durango, Colorado

Attention: Mr. H. D. Haley

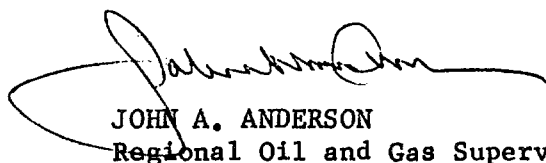
Gentlemen:

Your letter of June 6, 1966 requests permission to commingle Dakota and Pennsylvanian "BCD" liquid hydrocarbon production from the Rattlesnake Field, San Juan County, New Mexico, on Navajo Indian lease I-89-Ind-56.

Your proposal to commingle liquids on the surface and measure through a common LACT system with Dakota production determined as the difference between total net LACT pipeline runs and metered Pennsylvanian "BCD" production is satisfactory to this office, subject to the moving of the Pennsylvanian gas meter down stream from the junction of the gas lines from the separator and production treater. Form 9-361, Lessee's Monthly Report of Sales and Royalty, must show all computations used in the calculations of volumes from each formation.

You are requested to notify our Farmington office when the installation has been completed in order that a field inspection can be made.

Sincerely yours,


JOHN A. ANDERSON
Regional Oil and Gas Supervisor



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

Commingling File

RECEIVED	
DURANGO PROD.	
JUL 8 1966	
OFFICE MGR.	1 B
DIST. MGR.	
ASST. MGR.	BWS
DIST. ENG.	174
MGM	
LAB	

July 1, 1966

Mr. H. D. Haley
District Manager
Continental Oil Company
P. O. Box 1621
Durango, Colorado

Dear Mr. Haley:

This acknowledges receipt of your letter dated May 24, 1966, and the enclosed proposed application to the New Mexico Oil Conservation Commission for authority to commingle, in common surface facilities, the liquid hydrocarbon production from the Rattlesnake Dakota Pool and the Rattlesnake Pennsylvanian "BCD" Pool in Township 29 North, Range 19 West, San Juan County, New Mexico. Both pools underlie the same lease and have common royalty ownership. By the terms of the agreement dated September 19, 1946, the United States of America, represented by the Department of the Interior, Bureau of Mines, holds a 50 percent carried working interest in the formations below the base of the Dakota.

No objection is offered to the proposed commingling, in common surface facilities, the liquid hydrocarbon production from the Rattlesnake Dakota Pool and the Rattlesnake Pennsylvanian Pool, provided such commingling is conducted as set forth in your proposed application to the New Mexico Oil Conservation Commission, and provided further that the Commission, and any other agency having jurisdiction, grants the necessary authority for such commingling.

You are hereby authorized, at your discretion, to furnish this letter, or appropriate copies thereof, to the New Mexico Oil Conservation Commission, and to any other regulatory agency having jurisdiction, as part of, or in support of, the application to commingle.

Sincerely yours,

Walter R. Hornaday
Director

COMMINGLING DATA REQUIREMENTS

Rattlesnake Lease

San Juan County, New Mexico

NUMBER OF WELLS

Dakota Pool - 9
Pennsylvanian "BCD" Pool - 5

TOP UNIT ALLOWABLE

Dakota Pool - 630 BOPD
Pennsylvanian "BCD" Pool - 920 BOPD

PRESENT ALLOWABLE

Dakota (Recovery Project-March, 1966) - 1341 BOPD
Pennsylvanian "BCD" (Pool Total) - 74 BOPD

PRODUCTION DATA (Daily
Average)

	<u>Dakota Pool</u>	<u>Pennsylvanian "BCD" Pool</u>
January 1966	43 BOPD	64 BOPD
February 1966	37 BOPD	24 BOPD
March 1966	30 BOPD	29 BOPD
April 1966	20 BOPD	35 BOPD

CRUDE PURCHASER

Four Corners Pipe Line Co., Farmington, New Mexico

ROYALTY INTEREST OWNER

Common - Navajo Indian Tribe - 12 1/2 percent

WORKING INTEREST OWNERS

Dakota - Continental Oil Company - 100%
Penn. "BCD" - Continental Oil Company - 100%
(United States of America-U. S. Bureau
of Mines - 50% Carried Working Interest)

LIQUID HYDROCARBON

GRAVITIES

Dakota - 58.5° API
Penn. "BCD" - 44.4° API

COMMINGLED LIQUID

GRAVITY

47.7° API

Value of 58.5° API Crude - \$2.53/Bbl.
Value of 44.4° API Crude - \$2.75/Bbl.
Value of 47.7° API Crude - \$2.69/Bbl.

ILLEGIBLE

ANTICIPATED PRODUCING

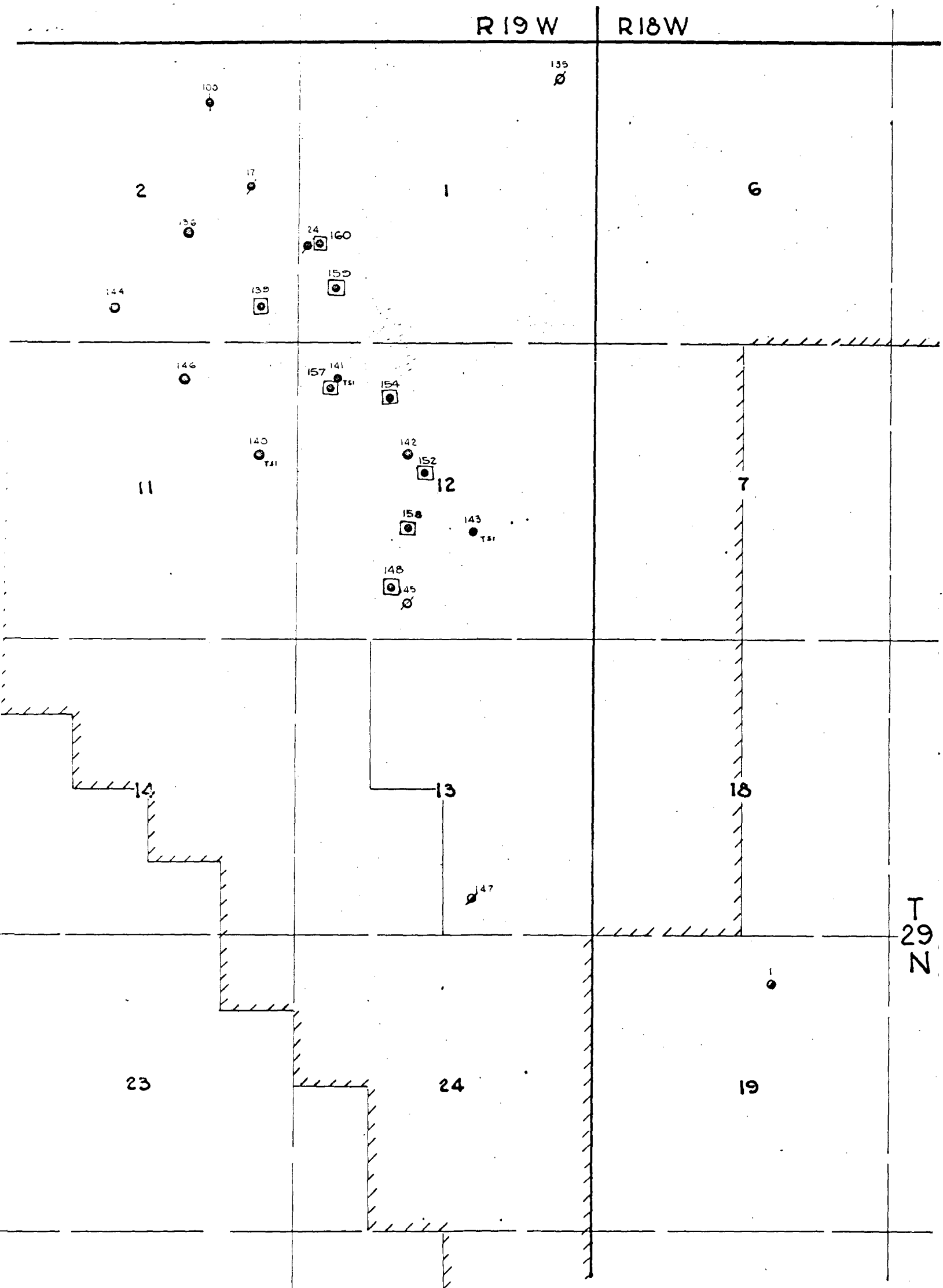
RATES

Dakota - 20 BOPD
Penn. "BCD" - 60 BOPD



VALUE CALCULATIONS

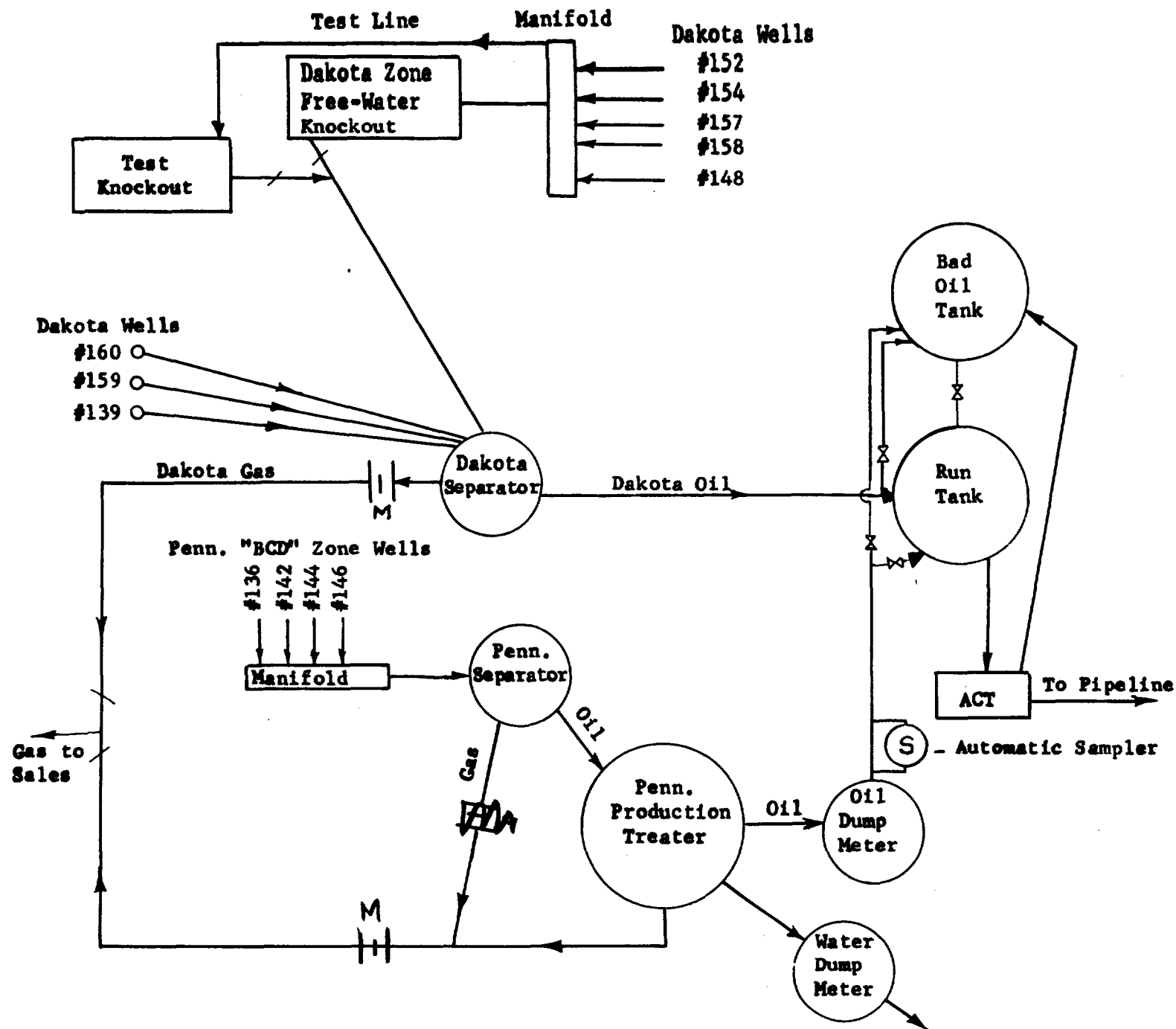
Dakota - 20 BOPD X 2.53 = \$ 50.60/Day
Penn. "BCD" - 60 BOPD X 2.75 = 165.00
Total Separate Value = \$215.60/Day
Commingled Value=80 BOPD x \$2.69 = \$215.20/Day

The value of the commingled production will be approximately the same as the total value of the production from each common source of supply.



○ Pennsylvanian "BCD" Well
□ Dakota Well

 CONTINENTAL OIL COMPANY PRODUCTION DEPARTMENT 		
DRAWN _____	SCALE <u>1" = 2000'</u>	FILE NO. _____
CHECKED _____	DATE _____	
APPROVED _____	SHEET _____ OF _____	
RATTLESNAKE FIELD SAN JUAN COUNTY, NEW MEXICO		



PROPOSED SURFACE COMMINGLING INSTALLATION
RATTLESNAKE PENNSYLVANIAN "BCD" OIL POOL
AND DAKOTA OIL POOL

SAN JUAN COUNTY, NEW MEXICO
T29N, R19W

Drawer 1857
Roswell, New Mexico 88201

June 27, 1966

MAIN OFFICE CITY
JUL 5 AM 7 50 '66

Continental Oil Company
P. O. Box 1621
Durango, Colorado

Attention: Mr. H. D. Haley

Gentlemen:

Your letter of June 6, 1966 requests permission to commingle Dakota and Pennsylvanian "BCB" liquid hydrocarbon production from the Rattlesnake Field, San Juan County, New Mexico, on Navajo Indian lease I-69-Ind-36.

Your proposal to commingle liquids on the surface and measure through a common LACT system with Dakota production determined as the difference between total net LACT pipeline runs and metered Pennsylvanian "BCB" production is satisfactory to this office, subject to the moving of the Pennsylvanian gas water down stream from the junction of the gas lines from the separator and production treater. Form 9-361, Lessee's Monthly Report of Sales and Royalty, must show all computations used in the calculations of volumes from each formation.

You are requested to notify our Farmington office when the installation has been completed in order that a field inspection can be made.

Sincerely yours,

(ORIG. SCD.) JOHN A. ANDERSON

JOHN A. ANDERSON
Regional Oil and Gas Supervisor

cc:
N.M.C.C.C. ✓ Santa Fe
Farmington
Roswell
Accounts

MLSeelinger:st
6-23-66

Denver 1027
New Mexico 28201

Continental Oil Company
P. O. Box 1021
Denver, Colorado

Attention: Mr. H. A. Haley

Enclosure

Enclosed for your information is a letter of June 6, 1966 requesting permission to continue to operate the Pennsylvania "BOD" liquid hydrocarbon production from the wellhead field, San Juan County, New Mexico, on Navajo Indian

your proposal to continue to operate the wellhead field on the surface and measure through a common LACT system with Dakota production determined as the difference between total wet LACT pipeline runs and metered Pennsylvania "BOD" production is satisfactory to this office, subject to the moving of the Pennsylvania gas meter down stream from the junction of the gas lines from the separator and production crest. Form 9-261, Bureau's Monthly Report of Sales and Receipts, must show all computations used in the calculation of volume from each formation.

You are requested to notify our Farmington office when the installation has been completed in order that a field inspection can be made.

Sincerely yours,

W. A. Haley

W. A. Haley

W. A. Haley
W. A. Haley
W. A. Haley
W. A. Haley
W. A. Haley

W. A. Haley
W. A. Haley