

2-21-95

OIL CONSERVATION DIVISION
RECEIVED



**Marathon
Oil Company**

95 FEB 1 AM 8 52

Mid-Continent Region
Production United States

P.O. Box 552
Midland, TX 79702-0552
Telephone 915/682-1626

January 27, 1995

Mr. David Catanach
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Request for Exception to Rule 303-A
Downhole Commingling
Marathon Oil Company
McCallister State No. 11
UL "K" 1927' FSL & 2134' FWL
Section 25, T-17-S, R-34-E
Upper Penn, Wolfcamp, Abo
Vacuum Field
Lea County, New Mexico

Dear Mr. Catanach:

Marathon Oil Company requests administrative approval for an exception to Rule 303-A to permit the downhole commingling of production in the above subject well from the Vacuum (Upper Penn), Vacuum (Wolfcamp) and Vacuum (Abo) Pools in Lea County, New Mexico.

The Wolfcamp zone was completed and is now producing. Based on log evaluation and historic offset production, commercial Abo and Upper Penn production is anticipated. The three zones have been downhole commingled in offset production with no loss of product value or production. By commingling production from the three zones, production will be realized that could not economically justify the cost of equipment to segregate the zones. Rod pumping equipment will be utilized which will keep the PBHP as low as possible preventing crossflow.

Enclosed is pertinent data supporting this application as outlined in Rule 303-A. If additional information is necessary, please contact me at (915) 682-1626.

Sincerely,

A handwritten signature in cursive script that reads 'Thomas M. Price'.

Thomas M. Price
Advanced Engineering Technician

TMP/9504/lr

Enclosure

REQUEST FOR EXCEPTION TO RULE 303-A
McCallister State No. 11
Vacuum Field

- A. Operator
Marathon Oil Company
P. O. Box 552
Midland, TX 79702
- B. Lease Name and Well No.
McCallister State No. 11
UL "K" 1927' FSL & 2134' FWL
Sec. 25, T-17-S, R-34-E
Lea County, New Mexico
- C. Plats and Offset Operators
Attached
- D. C-116's
Attached
- E. Production
Decline Curves attached
- F. Estimated Bottomhole Pressures
Vacuum (Upper Penn) - 1750
Vacuum (Wolfcamp) - 2150
Vacuum (Abo) - 2000
- G. Fluid Characteristics
Marathon has surface commingled the produced fluids from all three zones without compatibility problems.
- H. Value

| | Est Daily Prod <u>BOPD</u> | API <u>Gravity</u> | Avg <u>\$/Bbl</u> | Avg Daily <u>Income</u> |
|---------------------|-------------------------------------|-----------------------|----------------------|-------------------------------|
| N. Vacuum (Abo) | 25 | 39.0 | 16.00 | \$400.00 |
| Vacuum (Wolfcamp) | 37 | 38.3 | 16.00 | \$592.00 |
| Vacuum (Upper Penn) | <u>15</u> | <u>39.9</u> | 16.00 | <u>\$240.00</u> |
| | 77 | | | \$1,232.00 |

$$\text{WTD API Grow} = ((25 \times 39.0) + (37 \times 38.3) + (15 \times 39.9)) / 77 = 38.8$$

$$77 \text{ BPD} \times \$16.00 = \$1232 \text{ Avg Revenue Commingled Prod.}$$

\$1232.00 - \$1232.00 = \$0/day loss in value.

Request for Exception to Rule 303-A
McCallister State No. 11
Page 2

I. Production Allocation (Estimated)

| <u>Pool</u> | <u>BOPD</u> | <u>MCFPD</u> | <u>BWPD</u> | <u>Test Method</u> |
|------------------------------|--------------|--------------|----------------|-----------------------|
| N. Vacuum (Abo) | 25 | 75 | 5 | Est Pumping Est |
| Vacuum (Wolfcamp) | 37 | 82 | 21 | |
| Vacuum (Upper Penn) | <u>15</u> | <u>17</u> | <u>15</u> | |
| | 77 | 174 | 41 | |
| <u>Allocated Percentages</u> | <u>Oil %</u> | <u>Gas %</u> | <u>Water %</u> | |
| N. Vacuum (Abo) | 32.5 | 43.1 | 12.2 | |
| Vacuum (Wolfcamp) | 48.1 | 47.1 | 51.2 | |
| Vacuum (Upper Penn) | <u>19.4</u> | <u>9.8</u> | <u>36.6</u> | |
| | 100 | 100 | 100 | |

J. Ownership

Ownership of all zones is in common and correlative rights will not be violated.

K. Offset Operator Notification

By copy of this letter we are notifying all offset operators (see list, Item C) of the proposed commingling, by certified mail.

INTRACOMPANY CORRESPONDENCE

TO T. M. Price
OFFICE Midland, Texas
SUBJECT

DATE January 23, 1995
FROM J. F. Rusnak *J. F. Rusnak*
OFFICE Midland, Texas

Re: Downhole Commingle Application
Our Lease NM-268 - State of New Mexico B-2706
SW/4 Section 25, T-17-S, R-34-E,
Lea County, New Mexico

Pursuant to your request dated January 19, 1995, the following are the offset operators to our McCallister State Lease, referenced above, for the Abo and Wolfcamp formations:

T-17-S, R-34-E:

Section 25: N/2 & SE/4

Mobil Exploration & Producing U.S. Inc.
P. O. Box 633
Midland, TX 79702-0633

Texaco Exploration and Production Inc.
P. O. Box 46513
Denver, CO 80201-6513

Section 26: E/2

Mobil Exploration & Producing U.S. Inc.

Section 35: NE/4

Conoco Inc.
10 Desta Dr., Ste 100W
Midland, TX 79705

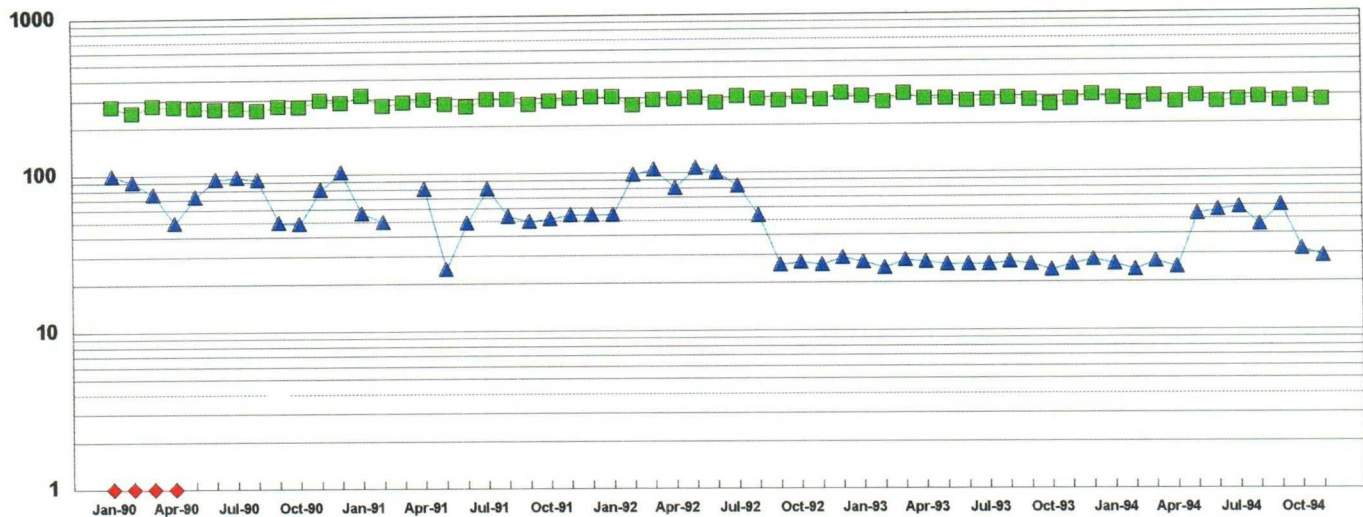
Section 36: N/2

Texaco Exploration and Production Inc.

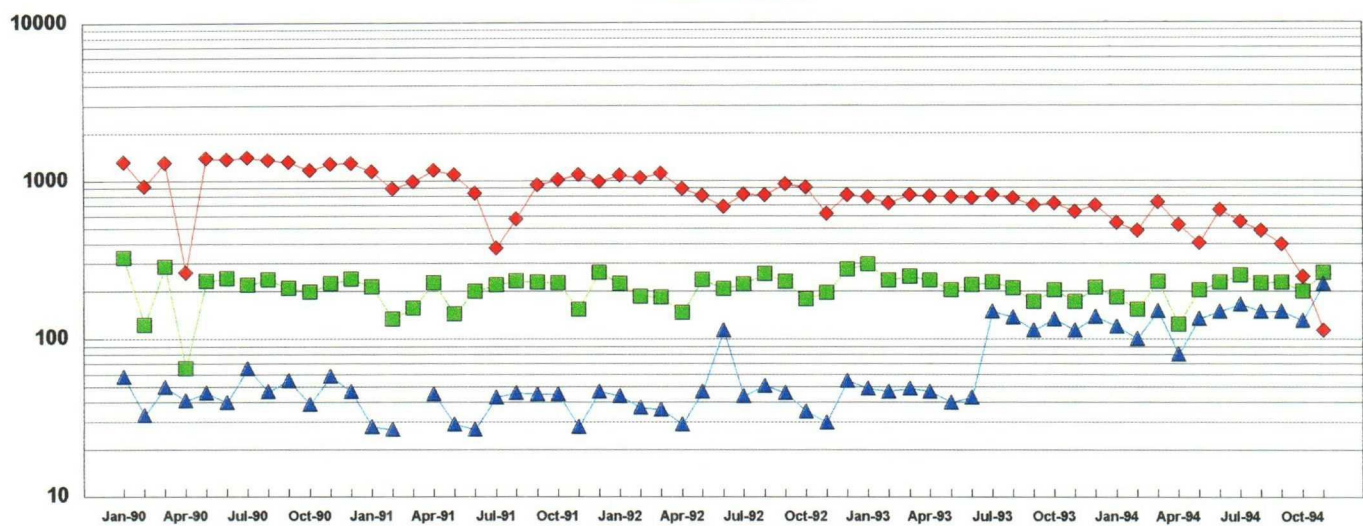
If anytning furhter is needed, please advise.

JFR;mmc'

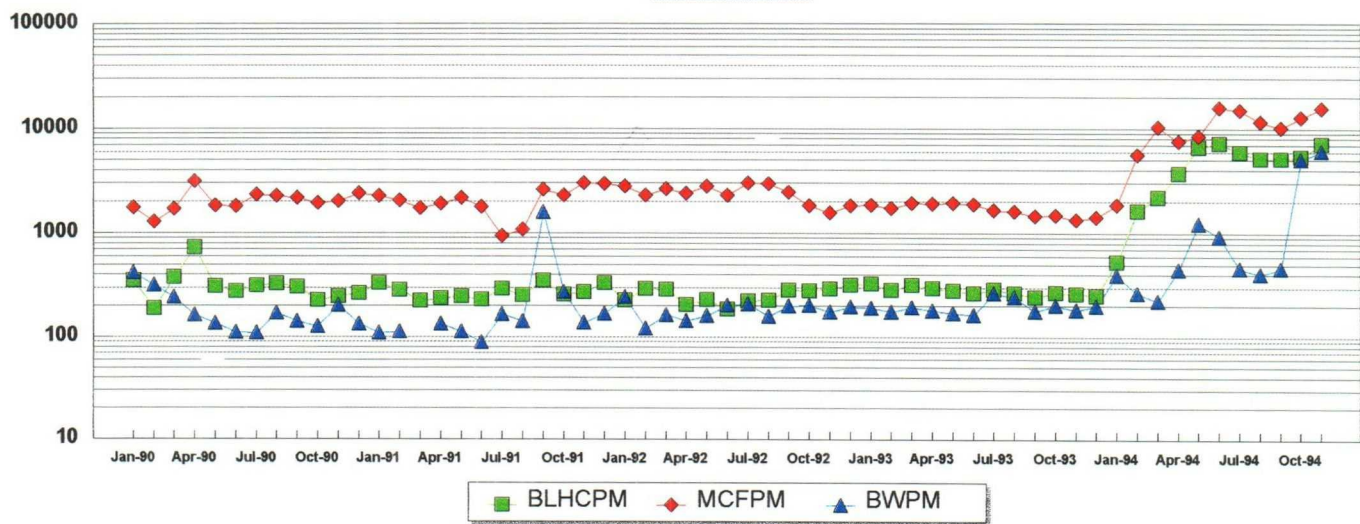
ABO



UPPER PENN



WOLFCAMP



VACUUM FIELD POOL PLOTS

**State of New Mexico
Energy, Minerals and Natural Resources Department**

Form C-116
Revised 1/1/89

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II

P.O. Drawer DD, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

OIL CONSERVATION DIVISION

GAS-OIL RATIO TEST

| Operator Marathon Oil Company | | | | Pool VACUUM ABO | | County LEA | | | | | | | | | | |
|--|----------|----------|----|--------------------|----|---------------|--------|---|-------------|------------------|----------------------|-------------------|-----------|------------|------------|----------------------------|
| Address P.O. Box 552, Midland, TX 79702 | | | | TYPE OF TEST - (X) | | Completion | | Special <input checked="" type="checkbox"/> | | | | | | | | |
| LEASE NAME | WELL NO. | LOCATION | | | | DATE OF TEST | STATUS | CHOKE SIZE | TBG. PRESS. | DAILY ALLOW-ABLE | LENGTH OF TEST HOURS | PROD. DURING TEST | | | | GAS - OIL RATIO CU.FT./BBL |
| | | U | S | T | R | | | | | | | WATER BBL.S. | GRAV. OIL | OIL BBL.S. | GAS M.C.F. | |
| McCallister State | 11 | K | 25 | 17 | 34 | ESTIMATE | | NA | NA | | 24 | 5 | 39 | 25 | 75 | 3000 |
| Estimated Test. | | | | | | | | | | | | | | | | |
| For informational use only | | | | | | | | | | | | | | | | |

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Division.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60°F.

Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing

(See Rule 301, Rule 1116 & appropriate pool rules.)

Signature
Thomas M. Price

Printed name and title

1/26/95

915/682/1626

Date _____

Telephone No.

Submit 2 copies to Appropriate
District Office.
DISTRICT I
P.O. Box 1980, Hobbs, NM 88240
DISTRICT II
P.O. Drawer DD, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-116
Revised 1/1/89

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

GAS - OIL RATIO TEST

| | | | | | | | | | | | | | | |
|---|-------------|--------------------------------|--|------------------------------------|----------|--|----------------|----------------------------------|-------------------------------|-----------------|---|-----------|-----------|-------------|
| Operator Marathon Oil Company | | Pool VACUUM WOLFCAMP | | | | County LEA | | | | | | | | |
| Address P.O. Box 552, Midland, TX 79702 | | TYPE OF TEST - (X) | | Scheduled <input type="checkbox"/> | | Completion <input checked="" type="checkbox"/> | | Special <input type="checkbox"/> | | | | | | |
| LEASE NAME | WELL NO. | LOCATION U S T R | | DATE OF TEST | STATUS | CHOKE SIZE | TBQ. PRESS. | DAILY ALLOW- ABLE | LENGTH OF TEST HOURS | WATER BBL.S. | PROD. DURING TEST GRAV. OIL BBL.S. OIL BBL.S. GAS M.C.F. GAS - OIL RATIO CU/FT/BBL | | | |
| McCallister State | 11 | K 25 17 34 | | 1/20/95 | P | NA | NA | M | 24 | 21 | 38.3 | 37 | 82 | 3905 |

Instructions:

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Signature
Thomas M. Price

Printed name and title
1/26/95

915/682/1626

Date

Telephone No.

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1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-116
Revised 1/1/89

GAS - OIL RATIO TEST

| Operator Marathon Oil Company | | Pool VACUUM UPPER PENN | | County LEA | | | | | | | | | | | | |
|---|-----------|----------------------------------|-----------|--|-----------|-----------------|--------|------------|-------------|------------------|----------------------|-------------------|-------------|-----------|---------------------------|-------------|
| Address P.O. Box 552, Midland, TX 79702 | | TYPE OF TEST - (X) | | Scheduled <input type="checkbox"/> Completion <input type="checkbox"/> Special <input checked="" type="checkbox"/> | | | | | | | | | | | | |
| LEASE NAME | WELL NO. | LOCATION | | | | DATE OF TEST | STATUS | CHOKE SIZE | TBG. PRESS. | DAILY ALLOW-ABLE | LENGTH OF TEST HOURS | PROD. DURING TEST | | | GAS - OIL RATIO CU/FT/BBL | |
| | | U | S | T | R | | | | | | | WATER BLS. | GRAV. OIL | OIL BLS. | | GAS M.C.F. |
| McCallister State | 11 | K | 25 | 17 | 34 | ESTIMATE | | NA | NA | | 24 | 15 | 39.9 | 15 | 17 | 1133 |
| Estimate test. | | | | | | | | | | | | | | | | |
| For informational use only | | | | | | | | | | | | | | | | |

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Signature Thomas M. Price

Signature
Thomas M. Price

Printed name and title

1/26/95

915/682/1626

Date

Telephone No.



**Marathon
Oil Company**

P.O. Box 552
Midland, TX 79702-0552
Telephone 915/682-1626

January 27, 1995

Mr. Pete Martinez
Commissioner of Public Lands
State Land Office Building
P. O. Box 1148
Santa Fe, New Mexico 87504-1148

Re: Request for Exception to Rule 303-A
Downhole Commingling
Marathon Oil Company
McCallister State No. 11
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Vacuum Field
Lea County, New Mexico

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Sincerely,

Thomas M. Price
Advanced Engineering Technician

TMP/9506/r

Enclosure



STATE OF NEW MEXICO

OIL & ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
RECEIVED

OIL CONSERVATION DIVISION

'95 FEB 21 AM 8 52 HOBBS DISTRICT OFFICE

2-2-95

BRUCE KING
GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RE: Proposed:

MC _____
DHC _____ X
NSL _____
NSP _____
SWD _____
WFX _____
PMX _____

Gentlemen:

I have examined the application for the:

Marathon Oil Co McCallister State #11-K 25-17s-34e
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK

Yours very truly,

Jerry Sexton
Jerry Sexton
Supervisor, District 1

/ed