

Mid-Continent Region
Production United States

OIL CONSERVATION DIVISION
RECEIVED



**Marathon
Oil Company**

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

NOV 18 1994

November 17, 1994

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
Staplin State A/C 1 No. 6
UL "N" 525' FSL, 1980' FWL
Section 30, T-17-S, R-35-E
Upper Penn, Wolfcamp, Abo
Vacuum Field
Lea County, New Mexico

*North Vacuum Abo
Vacuum Upper Penn
Vacuum Wolfcamp*

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 Upper Penn Pool was tested when the well was completed. A CIBP was set isolating the Penn from the Wolfcamp during the Wolfcamp completion. Based on log evaluation and historic offset production, commercial Abo 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,

Thomas M. Price

Thomas M. Price
Advanced Engineering Technician

TMP/9413/lr

Enclosure

REQUEST FOR EXCEPTION TO RULE 303-A
STAPLIN STATE A/C 1 NO. 6
VACUUM FIELD

- A. Operator
Marathon Oil Company
P. O. Box 552
Midland, Texas 79702
- B. Lease Name and Well No.
Staplin State A/C 1 No. 6
UL "N" 525' FSL & 1980' FWL
Sec. 30, T-17-S, R-35-E
Vacuum: Upper Penn, Wolfcamp, Abo Pools
- C. Plats and Offset Operators
Attached
- D. C-116's
Attached
- E. Production Decline Curves
Attached
- F. Estimated Bottom Hole 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 compatability problems of any kind.
- 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	15.98	\$ 399.50
Vacuum (Wolfcamp)	30	38.3	15.96	\$ 478.80
Vacuum Upper Penn)	<u>15</u>	39.9	16.00	<u>\$ 240.00</u>
	70			\$1,118.30

$$\text{WTD API Grav} = ((25 \times 39.0) + (30 \times 38.3) + (15 \times 39.9)) / 70 = 38.9^\circ.$$

$$70 \text{ BPD} \times 15.96 = \$1,117.20 \text{ Avg revenue commingled prod.}$$

$$\$1,118.30 - \$1,117.20 = \$0.50/\text{d Loss in value due to commingling.}$$

I. Production Allocation (Estimated)

<u>Pool</u>	<u>Oil (BOPD)</u>	<u>Gas (MCFPD)</u>	<u>Water (BWPD)</u>	<u>Test Method</u>
Vacuum (Upper Penn)	15	17	15	Swab test
Vacuum (Wolfcamp)	30	45	20	Pumping
Vacuum (Abo)	<u>25</u>	<u>75</u>	<u>5</u>	Est.
	70	137	40	

Wolfcamp water estimate after squeeze work done week of 11/14/94.

Allocated Percentages

	<u>Oil %</u>	<u>Gas %</u>	<u>Water %</u>
Vacuum (Upper Penn)	21	12	38
Vacuum (Wolfcamp)	43	33	50
Vacuum (Abo)	<u>36</u>	<u>55</u>	<u>12</u>
	100	100	100

J. Ownership

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

K. Offset Operator Notification

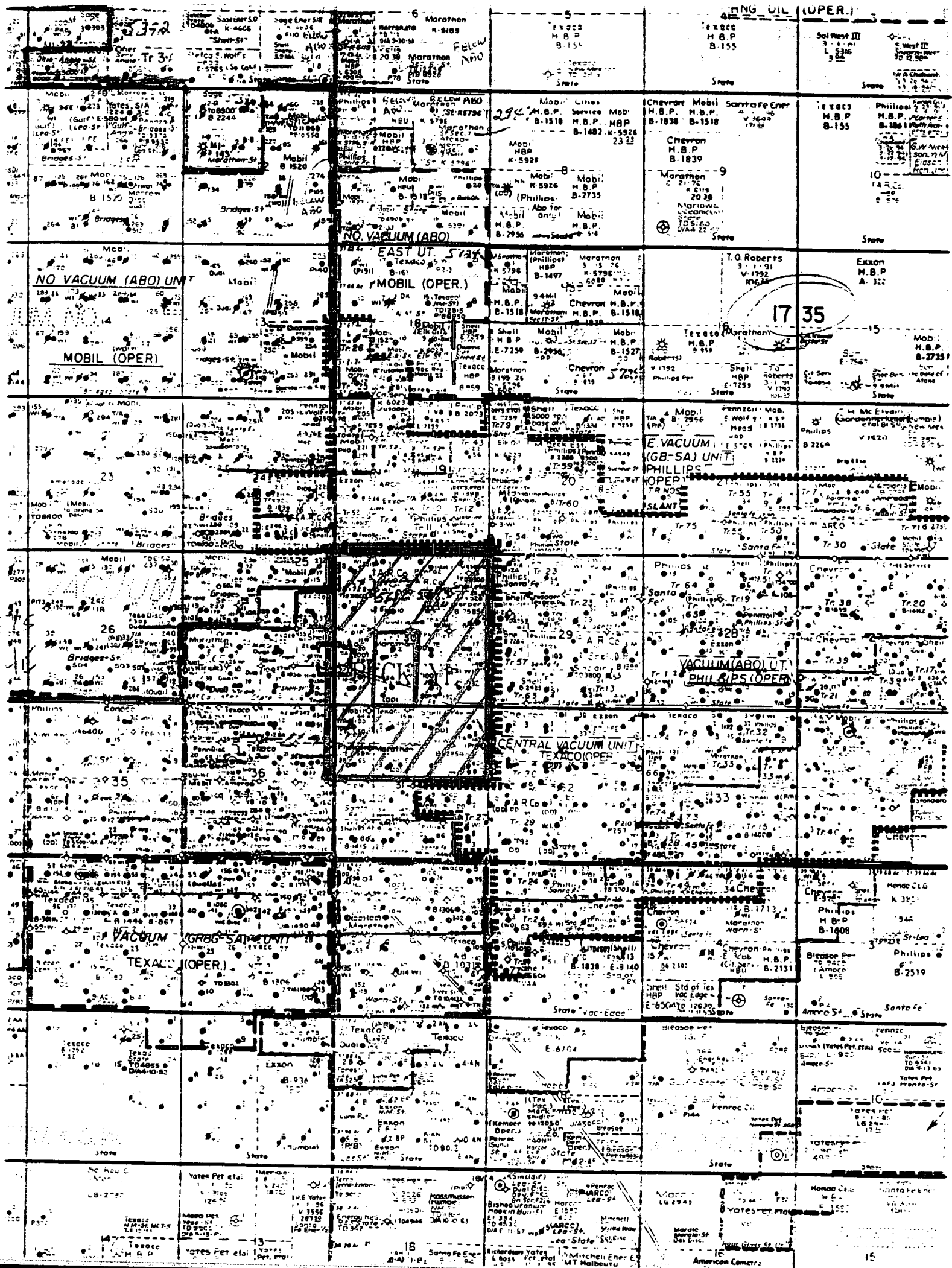
By copy of this letter we are notifying all offset operators (see list, item C) of the proposed commingling by certified mail.

*Latest Production Test -
 3/7/95 by Tom Price*

<i>Abo</i>	<i>Oil</i> 10	<i>Gas</i> 20	<i>Water</i> 38
<i>WC.</i>	4	10	4
<i>Upper Penn</i>	15	15	17

Allocation:

<i>Abo</i>	<i>Oil</i> 35	<i>Gas</i> 44
<i>WC</i>	14	22
<i>UP.</i>	51	34



Staplin State A/C 1 No. 6
UL "N" 525' FSL & 1980' FWL
Sec. 30, T-17-S, R-35-E
Vacuum Field
Upper Penn, Wolfcamp, Abo
Lea County, New Mexico

OFFSET OPERATORS

Mobil Exploration and Producing U.S. Inc.
500 W. Illinois, Midland, TX 79701
P. O. Box 633, Midland, TX 79702-0633

Texaco Exploration and Production Inc.
Heritage Center, Midland, TX 79701
P. O. Box 3109, Midland, TX 79702-3109

Conoco Inc.
10 Desta Drive, Suite 100W
Midland, TX 79705

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

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 Abo		County Lea									
Address P.O. Box 552, Midland, TX 79702		TYPE OF TEST - (X)		Completion <input type="checkbox"/> Special <input checked="" type="checkbox"/>									
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	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	
Staplin State A/C 1	6	N	30	17S	35E	Estimate				5	25	75	3000
Information purposes only. Estimated from offset Abo production.													

Instructions:

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.)

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

Thomas M. Price

Signature

Thomas M. Price, Adv. Eng. Tech.

Printed name and title

November 17, 1994

Date

(915) 682-1626

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

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 Wolfcamp		County Lea										
Address P.O. Box 552, Midland, TX 79702		TYPE OF TEST - (X)		Completion <input type="checkbox"/> Special <input checked="" type="checkbox"/>										
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	STAGE	CHOKESIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU.FT./BBL
		U	S	T							R	WATER BBL.S.	GRAV. OIL	
Staplin State A/C 1 Information only. Current water production will be reduced by squeezing prior to downhole commingling.	6	N	30	17S	35E	11/14/93	P	--	M	24	284	27	65	2407

Instructions:

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.

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

Thomas M. Price
Signature

Thomas M. Price Adv. Eng. Tech.

Printed name and title

11/17/94 (915) 682-1626

Date Telephone No.

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

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

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)		Completion <input type="checkbox"/> Special <input checked="" type="checkbox"/>										
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	STATUS	CHOKESIZE	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	
Staplin State A/C 1 Information only. Swab test @ completion.	6	N	30	17S	35E	10/17/94				Swab	15	15	17	1133

Instructions:

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.

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

Thomas M. Price
Signature

Thomas M. Price Adv. Eng. Tech.

Printed name and title

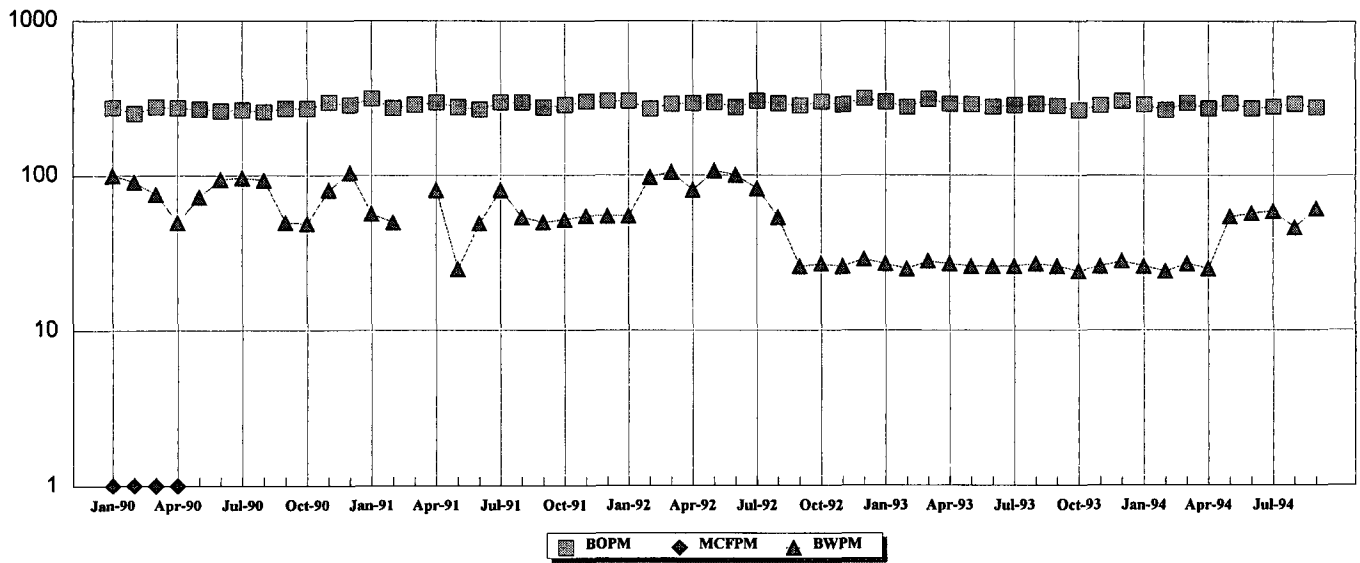
11/17/94

Date

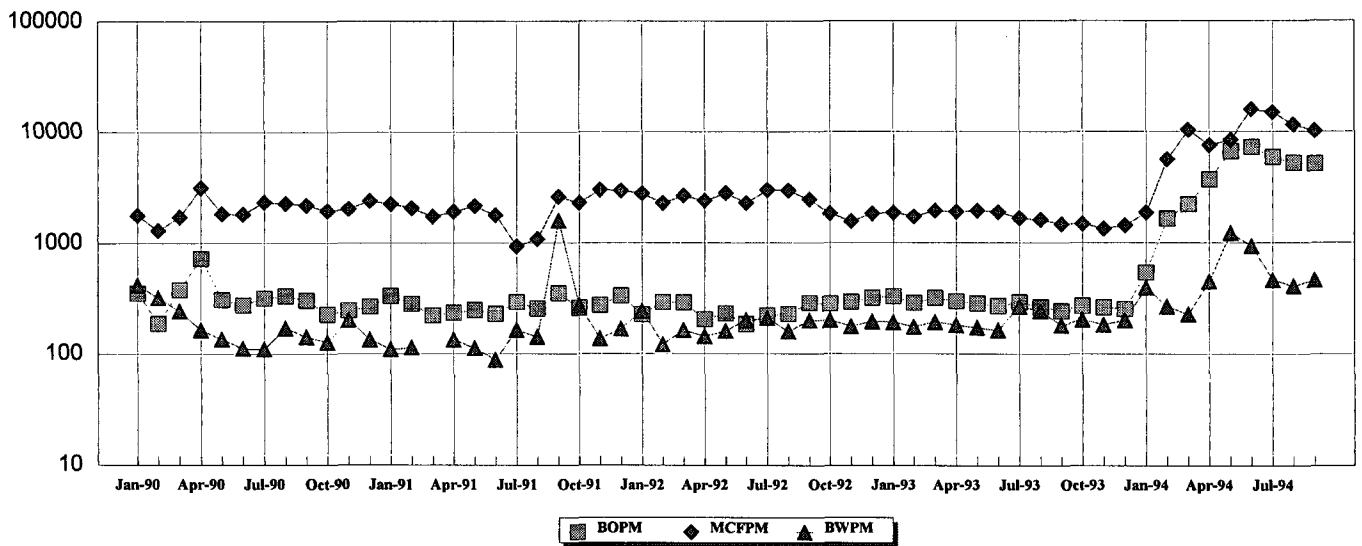
(915) 682-1626

Telephone No.

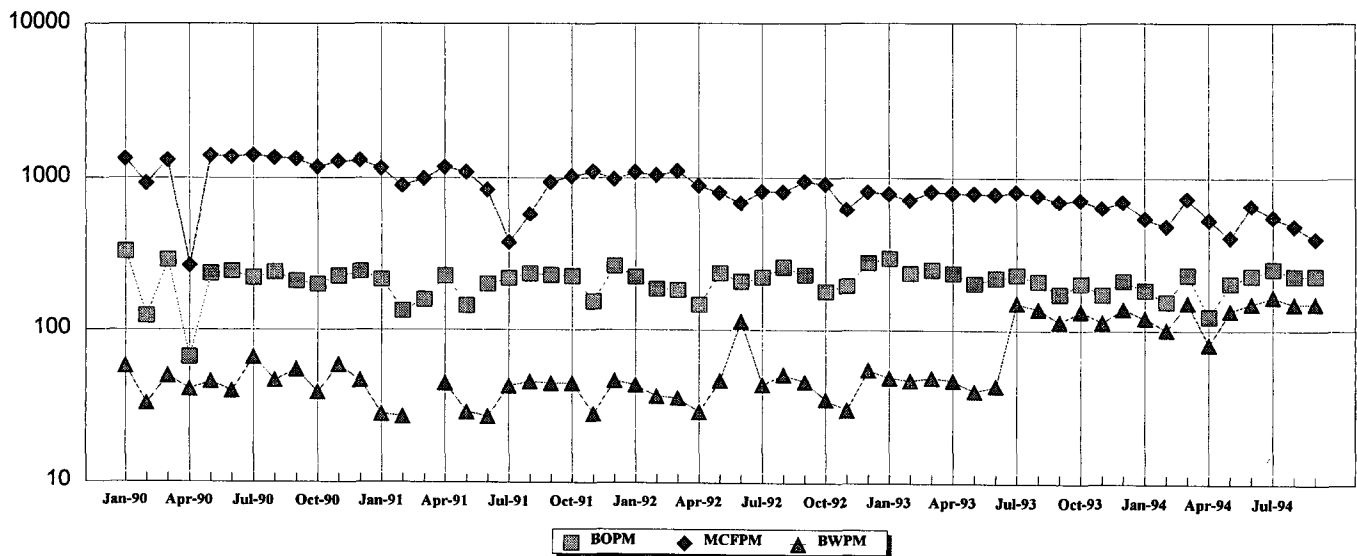
NORTH VACUUM ABO



VACUUM WOLFCAMP



VACUUM UPPER PENN



Mid-Continent Region
Production United States



**Marathon
Oil Company**

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

November 17, 1994

Texaco Exploration and Production Inc.
P. O. Box 3109
Midland, TX 79702-3109

Re: Request for Exception to Rule 303-A
Downhole Commingling
Marathon Oil Company
Staplin State A/C 1 No. 6
UL "N" 525' FSL & 1980' FWL
Sec. 30, T-17-S, R-35-E
Lea County, New Mexico

Gentlemen:

Marathon Oil Company has filed an application with the New Mexico Oil Conservation Division to downhole commingle the referenced well. Please find enclosed a copy of the application as outlined in Rule 303-A.

If you are in agreement and waive all objections to the downhole commingling, please sign below and mail the original to the NMOCD in the attached addressed envelope. Also, please return one copy to Marathon at the letterhead address.

Sincerely,

Thomas M Price

Thomas M. Price
Advanced Engineering Technician

TMP/9418/r
Enclosure -

Agreed and accepted this _____ day of _____ 1994

by _____, as representative of



**Marathon
Oil Company**

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

November 17, 1994

Conoco Inc.
10 Desta Drive, Suite 100W
Midland, Texas 79705

Re: Request for Exception to Rule 303-A
Downhole Commingling
Marathon Oil Company
Staplin State A/C 1 No. 6
UL "N" 525' FSL & 1980' FWL
Sec. 30, T-17-S, R-35-E
Lea County, New Mexico

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If you are in agreement and waive all objections to the downhole commingling, please sign below and mail the original to the NMOCD in the attached addressed envelope. Also, please return one copy to Marathon at the letterhead address.

Sincerely,

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

Thomas M. Price
Advanced Engineering Technician

TMP/9419/r
Enclosure

Agreed and accepted this _____ day of _____ 1994

by _____, as representative of



**Marathon
Oil Company**

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

November 17, 1994

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

Re: Request for Exception to Rule 303-A
Downhole Commingling
Marathon Oil Company
Staplin State A/C 1 No. 6
UL "N" 525' FSL & 1980' FWL
Sec. 30, T-17-S, R-35-E
Lea County, New Mexico

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Sincerely,

Thomas M. Price

Thomas M. Price
Advanced Engineering Technician

TMP/9417/r
Enclosure

Agreed and accepted this _____ day of _____ 1994

by _____, as representative of



State of New Mexico
Commissioner of Public Lands

RAY POWELL, M.S., D.V.M.
COMMISSIONER

310 OLD SANTA FE TRAIL P.O. BOX 1148

(505) 827-5760
FAX (505) 827-5766

SANTA FE, NEW MEXICO 87504-1148

December 13, 1994

Marathon Oil Company
P. O. Box 552
Midland, Texas 79702-0552

Attn: Mr. Thomas M. Price

Re: Downhole Commingling Application
Staplin State A/C 1 No. 6
SE/4SW/4 Sec. 30-17S-35E, Lease No. B-2245
Upper Penn, Wolfcamp, Abo, Vacuum Field, Lea County, New Mexico

Dear Mr. Price:

This office is in receipt of your application requesting our approval to downhole commingle the production from the above subject well from the Vacuum (Upper Penn), Vacuum (Wolfcamp) and Vacuum (Abo) Pools in Lea County, New Mexico.

Since it appears that there will be no loss of revenue to the State of New Mexico as a result of your proposed operation, your request for downhole commingling the production from the above-mentioned well is hereby approved. Any deviation from the substance of your request will be sufficient grounds for rescinding our approval. Our approval is subject to like approval by the New Mexico Oil Conservation Division.

Your filing fee in the amount of \$30.00 Dollars has been received.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

RAY POWELL, M.S., D.V.M.
COMMISSIONER OF PUBLIC LANDS

BY: 

FLOYD O. PRANDO, Director
Oil/Gas and Minerals Division
(505) 827-5744
RP/FOP/pm

cc: Reader File
OCD-Santa Fe Attn: David Catanach, Ben Stone
B0-2245-0



State of New Mexico
Commissioner of Public Lands

310 OLD SANTA FE TRAIL P.O. BOX 1148

SANTA FE, NEW MEXICO 87504-1148

RAY POWELL, M.S., D.V.M.
COMMISSIONER

(505) 827-5760
FAX (505) 827-5766

December 8, 1994

Marathon Oil Company
P. O. Box 552
Midland, Texas 79702-0552

Attn: Mr. Thomas M. Price

Re: Downhole Commingling Request
Staplin State A/C 1 No. 6
SE/4SW/4 Sec. 30-17S-35E
Upper Penn, Wolfcamp, Abo Vacuum Field
Lea County, New Mexico

Dear Mr. Price:

This office is in receipt of your commingling application dated November 17, 1994. In your letter of November 17, 1994, you request our approval to downhole commingle the production in the above subject well from the Vacuum (upper Penn), Vacuum (Wolfcamp) and Vacuum (Abo) pools.

In your letter you advise that "the three zones have been downhole commingled in offset production with no loss of product value or production. In reviewing the data in your application, it appears that there will be a \$0.50 loss per day in the value of the commingled product for the above mentioned well.

Since it appears that there will be a loss in value due to commingling of the above zones, we can not justify approving this application without additional data or justification.

Marathon Oil Company
December 8, 1994
Page 2

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

RAY POWELL, M.S., D.V.M.
COMMISSIONER OF PUBLIC LANDS

BY: 

FLOYD O. PRANDO, Director
Oil/Gas and Minerals Division
(505) 827-5744
RP/FOP/pm

cc: Reader File
OCD-Santa Fe Attn: Mr. David Catanach
OCD-Santa Fe Attn: Mr. Ben Stone

Production United States

**Marathon
Oil Company**P.O. Box 552
Midland, Texas 79702
Telephone 915/682-1626PANAFAX TRANSMITTAL SHEET

SEND THE FOLLOWING PAGES TO:

NAME _____

COMPANY NAME _____ NMOCD

LOCATION _____ Santa Fe, NM

PANAFAX NUMBER: _____ 505/827-8177

FROM:

NAME _____ Tom Price EXT. 915/687-8324

TOTAL NUMBER OF PAGES: _____ 3 (including cover sheet)

IF YOU DO NOT RECEIVE ALL THE PAGES, PLEASE CALL BACK ASAP

PHONE _____ 915/687-8336

COMMENTS _____ Corrected oil prices.

**REQUEST FOR EXCEPTION TO RULE 303-A
STAPLIN STATE A/C 1 NO. 6
VACUUM FIELD**

- A. Operator
Marathon Oil Company
P. O. Box 552
Midland, Texas 79702
- B. Lease Name and Well No.
Staplin State A/C 1 No. 6
UL "N" 525' FSL & 1980' FWL
Sec. 30, T-17-S, R-35-E
Vacuum: Upper Penn, Wolfcamp, Abo Pools
- C. Plats and Offset Operators
Attached
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Marathon has surface commingled the produced fluids from all three zones without compatability problems of any kind.
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	70			\$1,120.00

$$\text{WTD API Grav} = ((25 \times 39.0) + (30 \times 38.3) + (15 \times 39.9)) / 70 = 38.9^\circ.$$

$$70 \text{ BPD} \times 16.00 = \$1,120.00 \text{ Avg revenue commingled prod.}$$

$$\$1,120.00 - \$1,120.00 = \$0.0/\text{d Loss in value due to commingling.}$$

Request for Exception to Rule 303-A
 Staplin State A/C 1 No. 6
 Page 2

I. Production Allocation (Estimated)

<u>Pool</u>	<u>Oil (BOPD)</u>	<u>Gas (MCFPD)</u>	<u>Water (BWPD)</u>	<u>Test Method</u>
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Wolfcamp water estimate after squeeze work done week of 11/14/94.

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Vacuum (Abo)	36	55	12
	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.

TMP/9420/r

Mid-Continent Region
Production United States

OIL CONSERVATION DIVISION
REC'D



**Marathon
Oil Company**

1994 NOV 24 PM 8 52

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

November 17, 1994

Texaco Exploration and Production Inc.
P. O. Box 3109
Midland, TX 79702-3109

Re: Request for Exception to Rule 303-A
Downhole Commingling
Marathon Oil Company
Staplin State A/C 1 No. 6
UL "N" 525' FSL & 1980' FWL
Sec. 30, T-17-S, R-35-E
Lea County, New Mexico

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Sincerely,

Thomas M Price

Thomas M. Price
Advanced Engineering Technician

TMP/9418/r
Enclosure

Agreed and accepted this 22 day of November 1994
by *Louise Neal*, as representative of
Texaco E&P



**Marathon
Oil Company**

Mid-Continent Region
Production United States
Box 552
Midland, TX 79702-0552
Telephone 915/682-1626

RECEIVED

NOV 21 1994

Midland South Land/JI

November 17, 1994

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

Re: Request for Exception to Rule 303-A
Downhole Commingling
Marathon Oil Company
Staplin State A/C 1 No. 6
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Sincerely,

Thomas M. Price

Thomas M. Price
Advanced Engineering Technician

TMP/9417/lr
Enclosure

Agreed and accepted this 2nd day of December 1994
by R. Reguena, as representative of
Mobil Exploration & Producing U.S. Inc. As Agent for Mobil
Producing Texas & New Mexico Inc.