

DHC 9/30/98

Houston Division  
Production Operations, United States

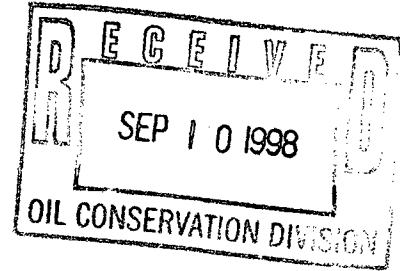


**Marathon  
Oil Company**

P.O. Box 2490  
Hobbs, New Mexico 88240  
Telephone 505/393-7106

September 1, 1998

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



Re: Request for Exception to Rule 303-A  
Downhole Commingling  
McCallister St. No. 5  
UL "M", 660' FSL & 560' FWL  
Sec. 25, T-17-S, R-34-E  
Abo, Wolfcamp, and Blinbry Pools  
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, Abo; Vacuum, Wolfcamp; and Vacuum, Penn pools.

Prior to September 1996, the McCallister St. No. 5 was downhole commingled in the Abo and Wolfcamp per DHC-120. However, in late 1996, the Devonian was completed and downhole commingled (DHC-120) to improve well economics. Unfortunately, well production remained marginal. Therefore, work was performed to abandon the Devonian and test the Blinbry. For this reason, Marathon is requesting to downhole commingle the Abo, Wolfcamp, and Blinbry to maximize the economical production from the well. Rod pumping equipment will be utilized to keep the PBHP as low as possible to prevent crossflow.

Enclosed is pertinent data supporting this application as outlined in Rule 303-A. If additional information is necessary, please advise.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Andrew J. Schwandt'.

Andrew J. Schwandt  
Production Engineer  
(505) 393-7106

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Enclosure

Houston Division  
Production Operations, United States



P.O. Box 2490  
Hobbs, New Mexico 88240  
Telephone 505/393-7106

September 1, 1998

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

Re: Request for Exception to Rule 303-A  
Downhole Commingling  
McCallister St. No. 5  
UL "M", 660' FSL & 560' FWL  
Sec. 25, T-17-S, R-34-E  
Abo, Wolfcamp, and Blinebry Pools  
Vacuum Field  
Lea County, New Mexico

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Andrew J. Schwandt  
Production Engineer  
(505) 393-7106

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Enclosure

Houston Division  
Production Operations, United States



P.O. Box 2490  
Hobbs, New Mexico 88240  
Telephone 505/393-7106

September 1, 1998

Mr. Chris Williams  
District I Supervisor  
Oil Conservation Division  
P.O. Box 1980  
Hobbs, NM 88240

Re: Request for Exception to Rule 303-A  
Downhole Commingling  
McCallister St. No. 5  
UL "M", 660' FSL & 560' FWL  
Sec. 25, T-17-S, R-34-E  
Abo, Wolfcamp, and Blinbry Pools  
Vacuum Field  
Lea County, New Mexico

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Andrew J. Schwandt  
Production Engineer

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Enclosure

**REQUEST FOR EXCEPTION TO RULE 303-A**  
**McCallister St. No. 5**  
**Vacuum Field**

**A: Operator**

Marathon Oil Company  
P.O. Box 2409  
Hobbs, NM 88241-2409

**B: Lease Name and Well Number**

McCallister St. No. 5  
UL "M" 660' FSL & 560' FWL  
Sec. 25, T-17-S, R-34-E  
Lea Co., New Mexico  
Vacuum: Abo, Wolfcamp, Blinebry Pools

**C: Plats and Offset Operators**

Attached

**D: Form C-116**

Attached

**E: Production Decline Curves**

Attached

**F: Estimated Bottomhole Pressures**

Vacuum (Abo) - 2000 psi  
Vacuum (Wolfcamp) - 2150 psi  
Vacuum ( Blinebry) - 1000 psi

**G: Fluid Characteristics**

Marathon has downhole commingled the produced fluids from the Abo and Wolfcamp zones without compatibility problems. The addition of the Blinebry production will not cause any compatability problems.

**H: Value**

Marathon receives the same price for the products from each zone and value will not be adversely affected.

Request for Exemption to Rule 303-A

McCallister St. No. 5

Page 2

**I: Production Allocation**

<u>Pool</u>	<u>BOPD</u>	<u>MCEPD</u>	<u>BWPD</u>	<u>Estimate Method</u>
Vacuum (Abo)	9.5	28.5	9.5	Pre-work allocated production
Vacuum (Wolfcamp)	0.5	1.5	0.5	Pre-work allocated production
Vacuum (Blinbry)	<u>62</u>	<u>77</u>	<u>6</u>	Post-work incremental production
	72	107	16	Well test on 8/24/98

<u>Allocated Percentages</u>	<u>Oil %</u>	<u>Gas %</u>	<u>Water %</u>
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Administrative Order No. DHC-120

Vacuum (Abo)	95%	95%	95%
Vacuum (Wolfcamp)	5%	5%	5%

Post-workover utilizing above production

Vacuum (Abo)	13%	27%	59%
Vacuum (Wolfcamp)	1%	1%	3%
Vacuum (Blinbry)	<u>86%</u>	<u>72%</u>	<u>38%</u>
Total	100%	100%	100%

**J: Ownership**

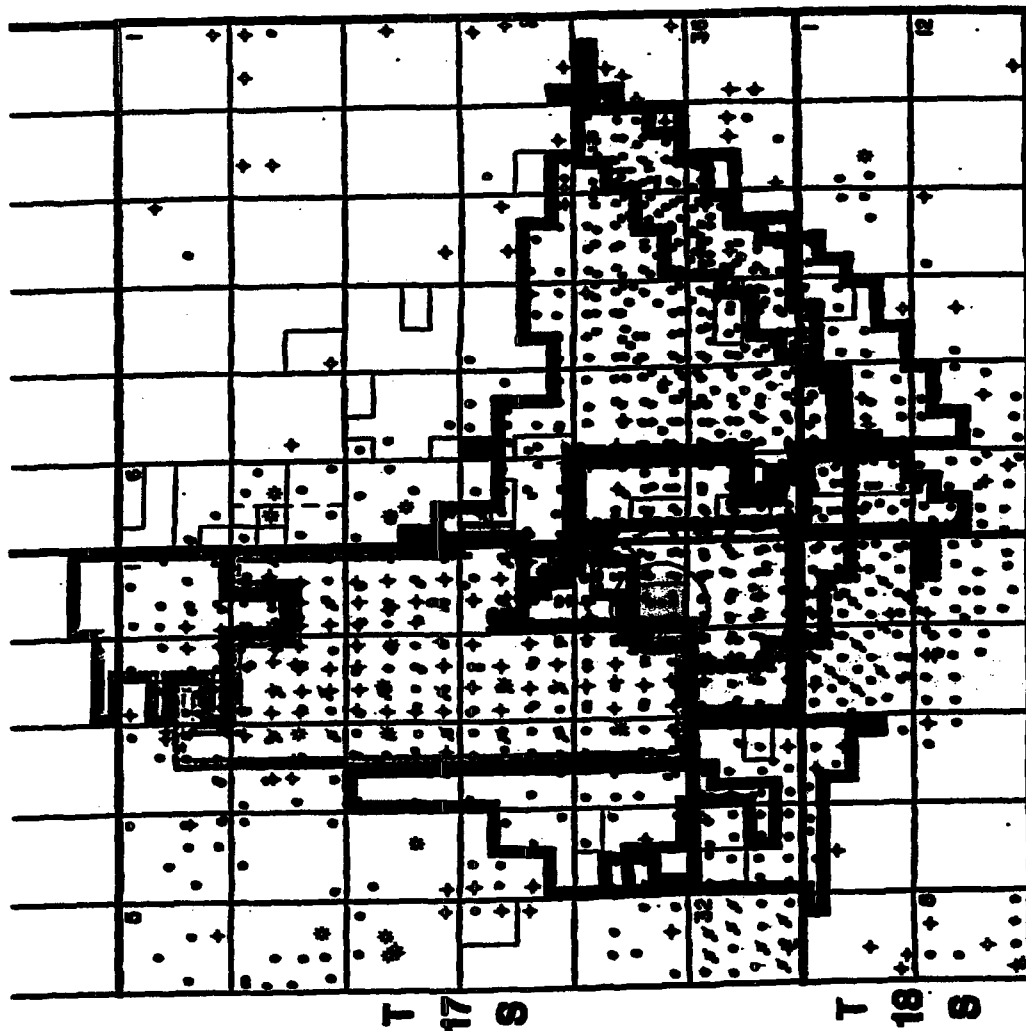
Ownership of all zones is common and correlative rights will not be violated.

**K: Offset Operator Notification**

This letter serves as notice that we are notifying all offset operators (attached) of the proposed commingling by certified mail.

R 34 E

R 35 E



MARATHON OIL COMPANY  
MID-CONTINENT REGION

# VACUUM FIELD

LEA COUNTY, NEW MEXICO



VACUUM GLOBETA WEST UNIT  
(TEXACO OPER.)  
MOG WL 15.925%

NORTH VACUUM ALSO NORTH  
(SAGE OPER.)  
MOG WL 4.9995%

WEST VACUUM UNIT  
(TEXACO OPER.)  
MOG WL 12.45%

NORTH VACUUM  
ALSO WEST UNIT  
(TEXACO OPER.)  
MOG WL 8.9995%

NORTH VACUUM ALSO UNIT  
(SAGE OPER.)  
MOG WL 4.9945%

CENTRAL VACUUM UNIT  
(TEXACO OPER.)  
MOG WL 24.75%

EAST VACUUM UNIT  
(SHELLS OPER.)  
MOG WL 4.4487%

VACUUM ALSO REEF UNIT  
(SHELLS OPER.)  
MOG WL 2.04%

9/84



**Marathon Oil Company  
McCallister St. No. 5  
UL "M", 660' FSL & 560' FWL  
Section 25, T-17-S, R-34-E  
Lea County, New Mexico  
Vacuum Field**

**Offset Operators and Addresses**

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

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

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

Submit 2 copies to Appropriate District Office.

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
311 S. 1st Street, Artesia, NM 88210-2834  
DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico  
Energy, Minerals and Natural Resources Department

# OIL CONSERVATION DIVISION 2040 Pacheco St. Santa Fe, NM 87505

Form C-116  
Revised 1/1/89

## GAS - OIL RATIO TEST

Operator Marathon Oil Company		Pool Vacuum: Blinbry / Abo / Wolfcamp		County Lea									
Address P.O. Box 2409, Hobbs, NM 88240		TYPE OF TEST - (X) <input type="checkbox"/> Scheduled <input type="checkbox"/> Completion		Special <input checked="" type="checkbox"/> X									
LEASE NAME  McCallister State DHC Application  Zone 011% Gas Blinbry 86 72 Abo 13 27 Wolfcamp 1 1	WELL NO. 5	LOCATION U S T R			DATE OF TEST 8/24/98	CHOKE SIZE P	TBG. PRESS. 150	DAILY ALLOW-ABLE M	LENGTH OF TEST HOURS 24	PROD. DURING TEST			GAS-OIL RATIO CUFT/BBL 1486
		FOR INFORMATION ONLY	WATER BBL'S	GRAV. OIL						OIL BBL'S	GAS M.C.F.		

### 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.

*Andrew J. Schwandt*  
Signature

Andrew J. Schwandt  
Printed name and title

Production Engineer

9/2/98  
Date

393-7106

Telephone No.

**Midland Operations**  
VACUUM MCCALLISTER STATE - NO. 5

**VACUUM MCCALLISTER STATE - NO. 5**



**NEW MEXICO OIL CONSERVATION COMMISSION**  
**WELL LOCATION AND ACREAGE DEDICATION PLAT**

FORM C-128  
 Revised 5/1/57

SEE INSTRUCTIONS FOR COMPLETING THIS FORM ON THE REVERSE SIDE

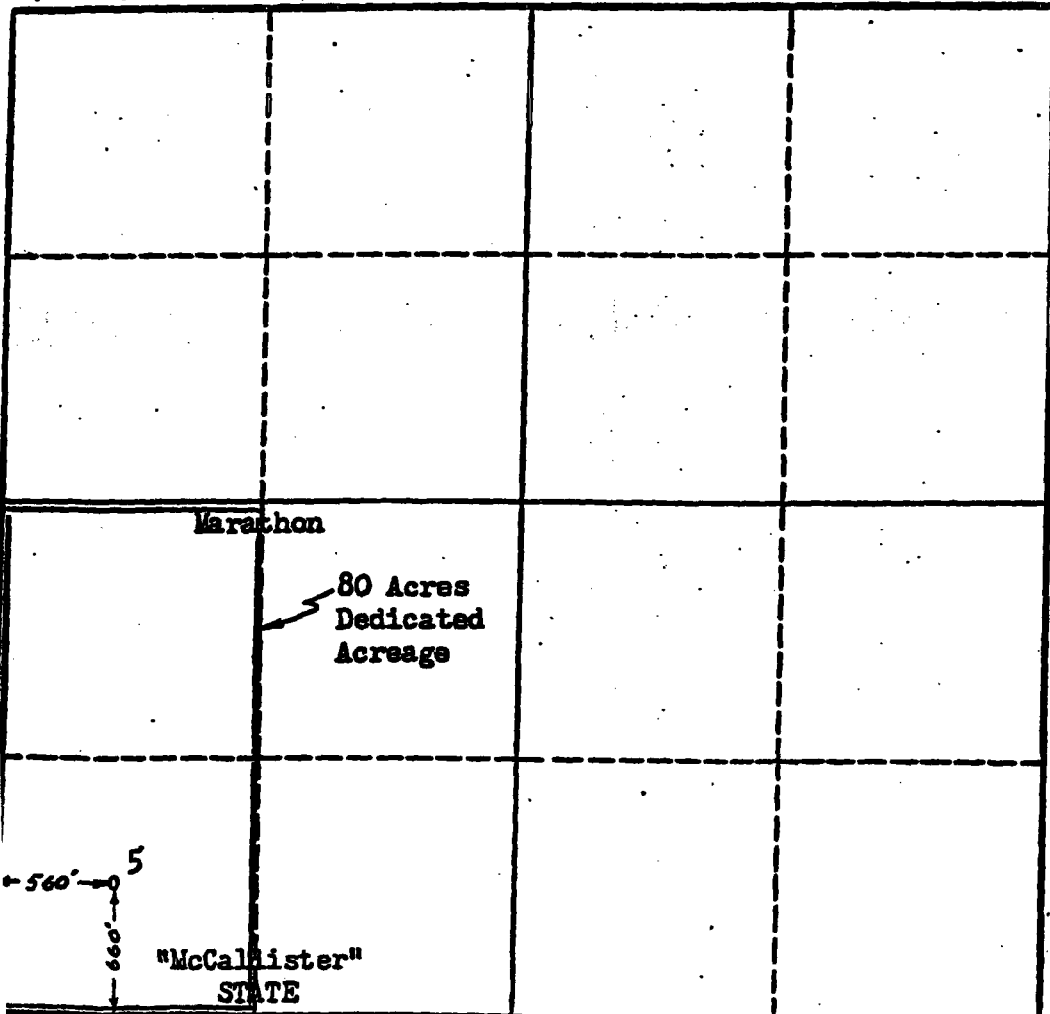
**SECTION A**

Operator <b>Marathon Oil Company</b>			Lease <b>State McCallister, A</b>			Well No. <b>10 5</b>	
Unit Letter <b>N</b>	Section <b>25</b>	Township <b>17 S</b>	Range <b>34 E</b>	County <b>Lea</b>			
Actual Footage Location of Well: <b>660</b> feet from the <b>South</b> line and <b>560</b> feet from the <b>West</b> line							
Ground Level Elev. <b>4007</b>	Producing Formation <b>Abo</b>		Pool <b>North Vacuum Abo</b>			Dedicated Acreage: <b>80</b> Acres	

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES X NO \_\_\_\_ . ("Owner" means the person who has the right to drill into and to produce from any pool and to appropriate the production either for himself or for himself and an other. (63-3-29 (c) NMSA 1935 Comp.)
2. If the answer to question one is "no," have the interests of all the owners been consolidated by communization agreement or otherwise? YES \_\_\_\_ NO \_\_\_\_ . If answer is "yes," Type of Consolidation \_\_\_\_\_
3. If the answer to question two is "no," list all the owners and their respective interests below:

Owner	Land Description

**SECTION B**



**CERTIFICATION**

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

*John R. Barber*

Name  
**John R. Barber**  
 Position  
**Area Petroleum Engineer**  
 Company  
**Marathon Oil Company**  
 Date  
**April 2, 1962**

I hereby certify that the well location shown on the plat in SECTION B was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed  
**12-7-62**  
 Registered Professional Engineer and/or Land Surveyor

/s/ John W. West

Certificate No.

330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

FORM C-128  
Revised 5/1/57

SEE INSTRUCTIONS FOR COMPLETING THIS FORM ON THE REVERSE SIDE

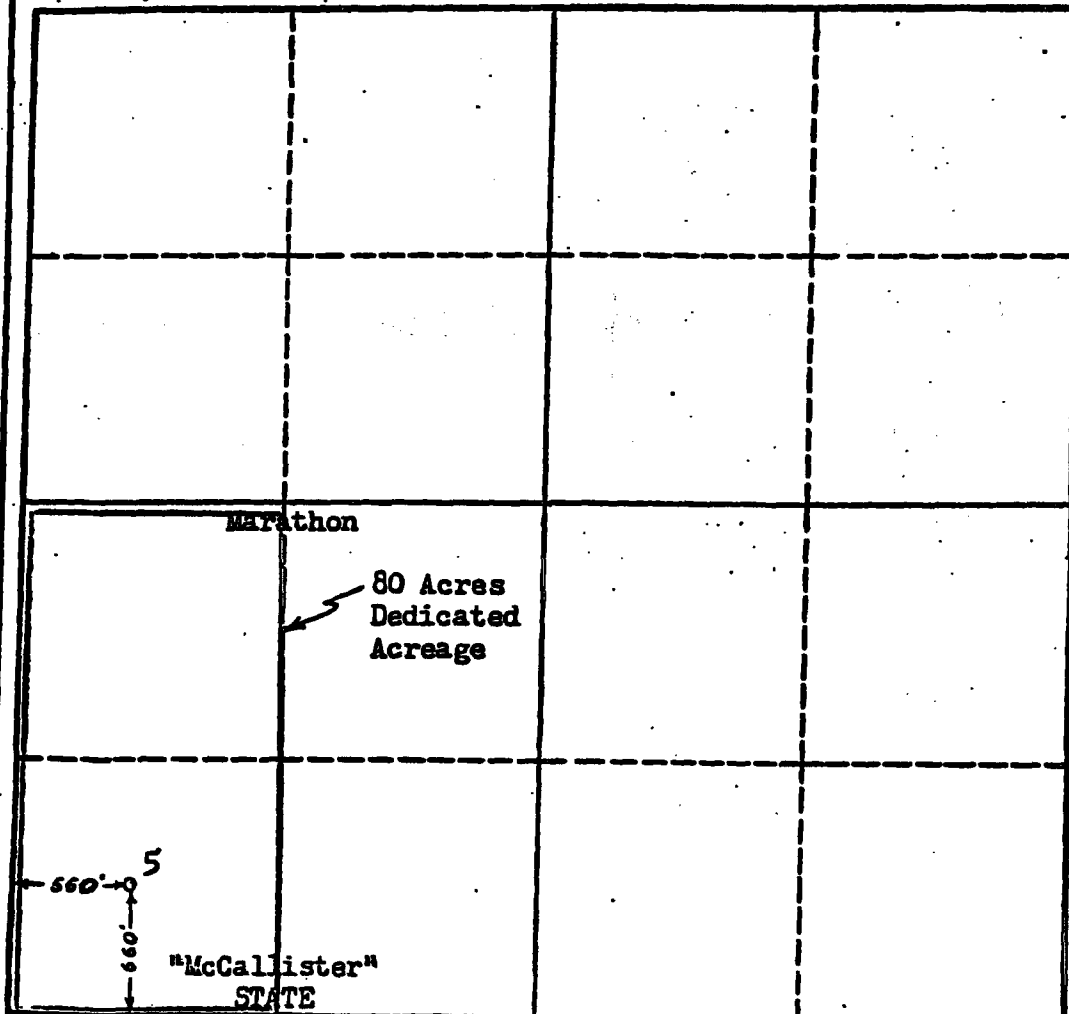
SECTION A

Operator Marathon Oil Company		Lease State McCallister		APR. 2, 1963	Well No. 50 00
Unit & Letter M	Section 25	Township 17 S	Range 34 E	County Lea	
Actual Footage Location of Well: 660 feet from the South line and 560 feet from the West line					
Ground Level Elev. 4007	Producing Formation Wolfcamp		Pool Vacuum Wolfcamp	Dedicated Acreage: 80 Acres	

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES X NO \_\_\_\_ . ("Owner" means the person who has the right to drill into and to produce from any pool and to appropriate the production either for himself or for himself and another. (65-3-29 (a) NMSA 1955 Comp.)
2. If the answer to question one is "no," have the interests of all the owners been consolidated by communization agreement or otherwise? YES \_\_\_\_ NO \_\_\_\_ . If answer is "yes," Type of Consolidation \_\_\_\_
3. If the answer to question two is "no," list all the owners and their respective interests below:

Owner	Land Description

SECTION B



CERTIFICATION

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

*John R. Barber*

Name  
John R. Barber  
Position  
Area Petroleum Engineer  
Company  
Marathon Oil Company  
Date  
April 2, 1963

I hereby certify that the well location shown on the plat in SECTION B was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed  
12-7-62  
Registered Professional Engineer  
and/or Land Surveyor

/s/ John W. West  
Certificate No.

District I  
PO Box 1980, Hobbs, NM 88241-1980  
District II  
811 S. 1st Street, Artesia, NM 88210-2834  
District III  
1000 E. El Brazo Rd., Aztec, NM 87410  
District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Form C-102  
Revised October 18, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION FLAT

<sup>1</sup> API Number 30-025-20116		<sup>2</sup> Pool Code 61850		<sup>3</sup> Pool Name Vacuum; Blinebry	
<sup>4</sup> Property Code 6431		<sup>5</sup> Property Name McCallister State			<sup>6</sup> Well Number 5
<sup>7</sup> OGRID No. 014021		<sup>8</sup> Operator Name Marathon Oil Company			<sup>9</sup> Elevation GL 4007 KB 4019

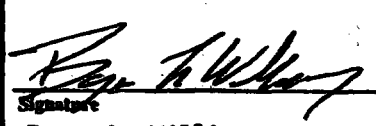
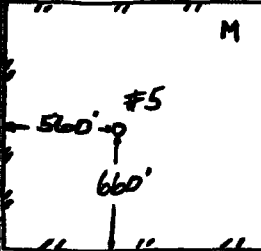
<sup>10</sup> Surface Location

UL of lot no. H	Section 25	Township 17S	Range 34E	Lot. Ida	Feet from the 660	North/South Line South	Feet from the 560	East/West line West	County Lee
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<sup>11</sup> Bottom Hole Location If Different From Surface

UL of lot no.	Section	Township	Range	Lot. Ida	Feet from the	North/South Line	Feet from the	East/West line	County
<sup>12</sup> Dedicated Acres 40		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> Order No.			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

				25	<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.   Signature Bryan L. Williams Printed Name Production Engineer Title March 10, 1998 Date
					<sup>18</sup> SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.  Date of Survey Signature and Seal of Professional Surveyor:  Certificate Number
					

Houston Division  
Production Operations, United States



**Marathon  
Oil Company**

P.O. Box 2490  
Hobbs, New Mexico 88240  
Telephone 505/393-7106

September 1, 1998

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

Re: Request for Exception to Rule 303-A  
Downhole Commingling  
McCallister St. No. 5  
UL "M", 660' FSL & 560' FWL  
Sec. 25, T-17-S, R-34-E  
Abo, Wolfcamp, and Blinberry Pools  
Vacuum Field  
Lea County, New Mexico

Ladies and/or Gentlemen:

Marathon Oil Company has filed an application with the New Mexico Oil Conservation Division to downhole commingle the above 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 enclosed addressed envelope. Also, please return one copy to Marathon at the letterhead address.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Andrew J. Schwandt'.

Andrew J. Schwandt  
Production Engineer

n:\regitory\commingling\dhc\wio\mcal#5\_g  
Enclosure

Agreed and accepted this \_\_\_\_\_ day of \_\_\_\_\_ 1998

by \_\_\_\_\_, as representative of

Houston Division  
Production Operations, United States



**Marathon  
Oil Company**

P.O. Box 2490  
Hobbs, New Mexico 88240  
Telephone 505/393-7106

September 1, 1998

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

Re: Request for Exception to Rule 303-A  
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Andrew J. Schwandt  
Production Engineer

a:\regl\ory\comming\dhc\wio\mccl#5\_h  
Enclosure

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by \_\_\_\_\_, as representative of

Houston Division  
Production Operations, United States



P.O. Box 2490  
Hobbs, New Mexico 88240  
Telephone 505/393-7106

September 1, 1998

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

Re: Request for Exception to Rule 303-A  
Downhole Commingling  
McCallister St. No. 5  
UL "M", 660' FSL & 560' FWL  
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Andrew J. Schwandt  
Production Engineer

n:\regitory\commiling\dhc\wio\mcal#5\_i  
Enclosure

Agreed and accepted this \_\_\_\_\_ day of \_\_\_\_\_ 1998

by \_\_\_\_\_, as representative of

**DISTRICT I**  
P.O. Box 1990, Hobbs, NM 88240

**DISTRICT II**  
811 South First St., 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

2040 S. Pacheco  
Santa Fe, New Mexico 87505-8429

Form C-107-A  
New 3-12-88

APPROVAL PROCESS:

☐ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

## APPLICATION FOR DOWNHOLE COMMINGLING

Operator Marathon Oil Company Address PO Box 2490 Hobbs, NM 88240

Lessee McCallister State Well No. 5 Unit Loc. UL M, Sec 25, T-17-S, R-34-E Lea Lea County Lea

OGRID NO. 014021 Property Code 6431 API NO. 30-025-20116 Spacing Unit Lease Types: (check 1 or more)  
Federal ☐ State ☒ (land/or) Fee ☐

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zones	Lower Zone
1. Pool Name and Pool Code	Vacuum; Blinebry 61850	N.Vacuum; Abo 61760	Vacuum; Wolfcamp 62340
2. Top and Bottom of Pay Section (Perforations)	6200-6525'	8336-9177'	9510-9951'
3. Type of production (Oil or Gas)	Oil	Oil	Oil
4. Method of Production (Flowing or Artificial Lift)	Artificial Lift	Artificial Lift	Artificial Lift
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	a. (Current) 100 psi Producing fluid level below perfs b. (Original)	a. 100 psi Producing fluid level below perfs b.	a. 100 psi Producing fluid level below perfs. b.
6. Oil Gravity (°API) or Gas BTU Content	36.0	39.0	38.3
7. Producing or Shut-In?	Producing	Producing	Producing
Production Marginal? (yes or no)	Yes	Yes	Yes
* If Shut-In, give date and oil/gas/water rates of last production Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data	Date: Rates:	Date: Rates:	Date: Rates:
* If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: 8/24/98 Rates: 62/77/6	Date: 8/24/98 Rates: 9.5/28.5/9.5	Date: 8/24/98 Rates: 0.5/1.5/0.5
8. Fixed Percentage Allocation Formula - % for each zone	Oil: 86.0 % Gas: 72.0 %	Oil: 13.0 % Gas: 27.0 %	Oil: 1.0 % Gas: 1.0 %

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.
10. Are all working, overriding, and royalty interests identical in all commingled zones? ☒ Yes ☐ No  
If not, have all working, overriding, and royalty interests been notified by certified mail? ☒ Yes ☐ No  
Have all offset operators been given written notice of the proposed downhole commingling? ☒ Yes ☐ No
11. Will cross-flow occur? ☐ Yes ☒ No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. ☐ Yes ☐ No (If No, attach explanation)
12. Are all produced fluids from all commingled zones compatible with each other? ☒ Yes ☐ No
13. Will the value of production be decreased by commingling? ☐ Yes ☒ No (If Yes, attach explanation)
14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ☐ No
15. NMOCD Reference Cases for Rule 303(C) Exceptions: ORDER NO(S) \_\_\_\_\_
16. ATTACHMENTS:
- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
  - Production curve for each zone for at least one year. (If not available, attach explanation.)
  - For zones with no production history, estimated production rates and supporting data.
  - Data to support allocation method or formula.
  - Notification list of all offset operators.
  - Notification list of working, overriding, and royalty interests for uncommon interest cases.
  - Any additional statements, data, or documents required to support commingling.

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

SIGNATURE Andrew J. Schwandt TITLE Production Engineer DATE 9/1/98

TYPE OR PRINT NAME Andrew J. Schwandt TELEPHONE NO. ( 505 ) 393-7106