

DHC 9/30/98

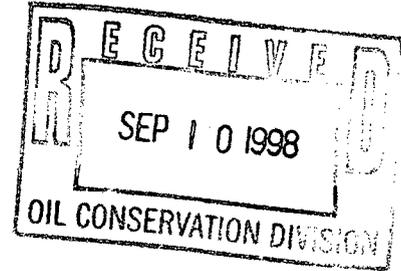
Houston Division
Production Operations, United States



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 Blinebry 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 Blinebry. For this reason, Marathon is requesting to downhole commingle the Abo, Wolfcamp, and Blinebry 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 that reads 'Andrew J. Schwandt'.

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

n:/regitry/comming/dhc/coverpag/mcal5_h
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

n:/reglatory/commingling/dhc/coverpag/mca15_g
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 Blinebry Pools
Vacuum Field
Lea County, New Mexico

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Andrew J. Schwandt
Production Engineer

n:/regitory/comming/dhc/coverpag/mca15_i
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 compatibility problems.

H: Value

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

I: Production Allocation

<u>Pool</u>	<u>BOPD</u>	<u>MCFPD</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

Allocated Percentages Oil % Gas % Water %

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.

MARATHON OIL COMPANY
MID-CONTINENT REGION

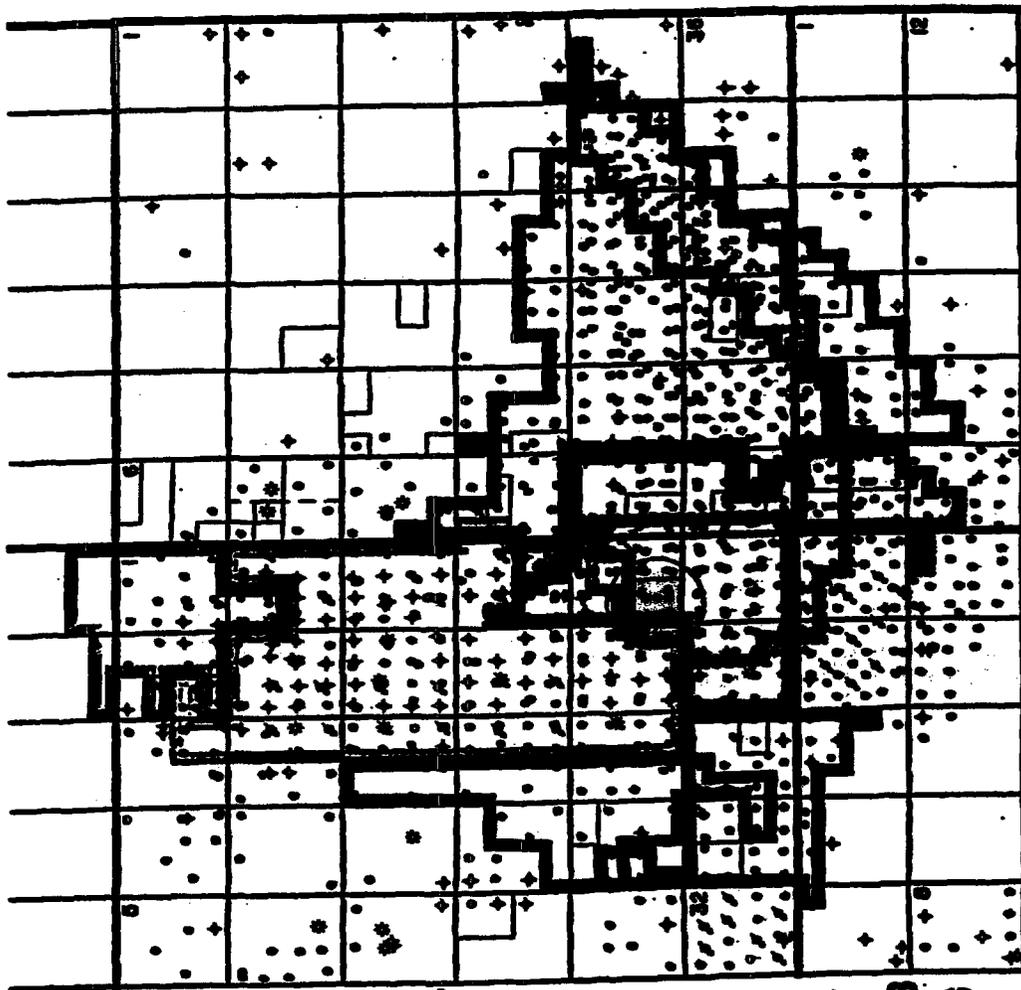
VACUUM FIELD

LEA COUNTY, NEW MEXICO



R 35 E

R 34 E



T 17 S

T 18 S

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

NORTH VACUUM ALSO NORTH
(SAGE OPER.)
MOG WL 4.89955X

WEST VACUUM UNIT
(TEXACO OPER.)
MOG WL 12.415X

NORTH VACUUM
ALSO WEST UNIT
(TEXACO OPER.)
MOG WL 8.89925X

EAST VACUUM UNIT
(SHELLS OPER.)
MOG WL 4.44875X

VACUUM ALSO REEF UNIT
(SHELLS OPER.)
MOG WL 2.045X

NORTH VACUUM ALSO UNIT
(SHELL OPER.)
MOG WL 6.96465X

CENTRAL VACUUM UNIT
(TEXACO OPER.)
MOG WL 24.775X

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**

State of New Mexico
Energy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION
2040 Pacheco St.
Santa Fe, NM 87505

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

GAS - OIL RATIO TEST

Operator		Pool		County		Lea							
Marathon Oil Company		Vacuum: Blinbry / Abo / Wolfcamp											
Address		TYPE OF TEST - (X)		Completion		Special							
P.O. Box 2409, Hobbs, NM 88240		<input type="checkbox"/>		<input type="checkbox"/>		<input checked="" type="checkbox"/>							
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TRG. 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	
McCallister State	5	M	25	17S	34E	8/24/98	P	M	24	16	72	107	1486
DHC Application													
Zone 011%	Gasx												
Blinbry	86								6		62	77	1242
Abo	13								9.5		9.5	28.5	3000
Wolfcamp	1								0.5		0.5	1.5	2800

FOR INFORMATION ONLY

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.

Andrew J. Schwandt
Signature

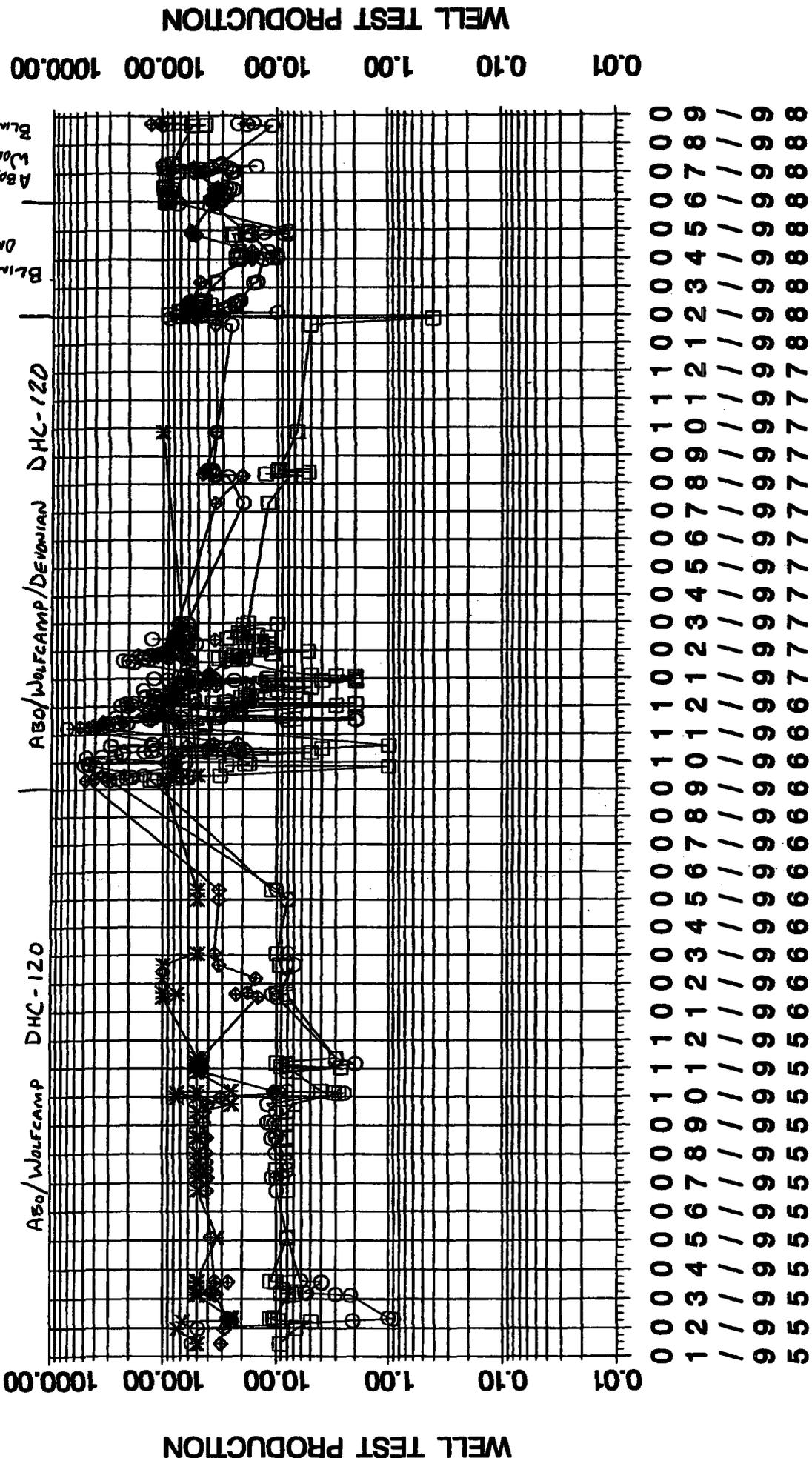
Andrew J. Schwandt
Printed name and title
Production Engineer

9/2/98
Date
393-7106
Telephone No.

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

Midland Operations

VACUUM MCCALLISTER STATE - NO. 5



DATE

TEST OIL, BOPD
 TEST WTR, BWPD
 TEST GAS, MCFPD
 % RUN TIME

**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

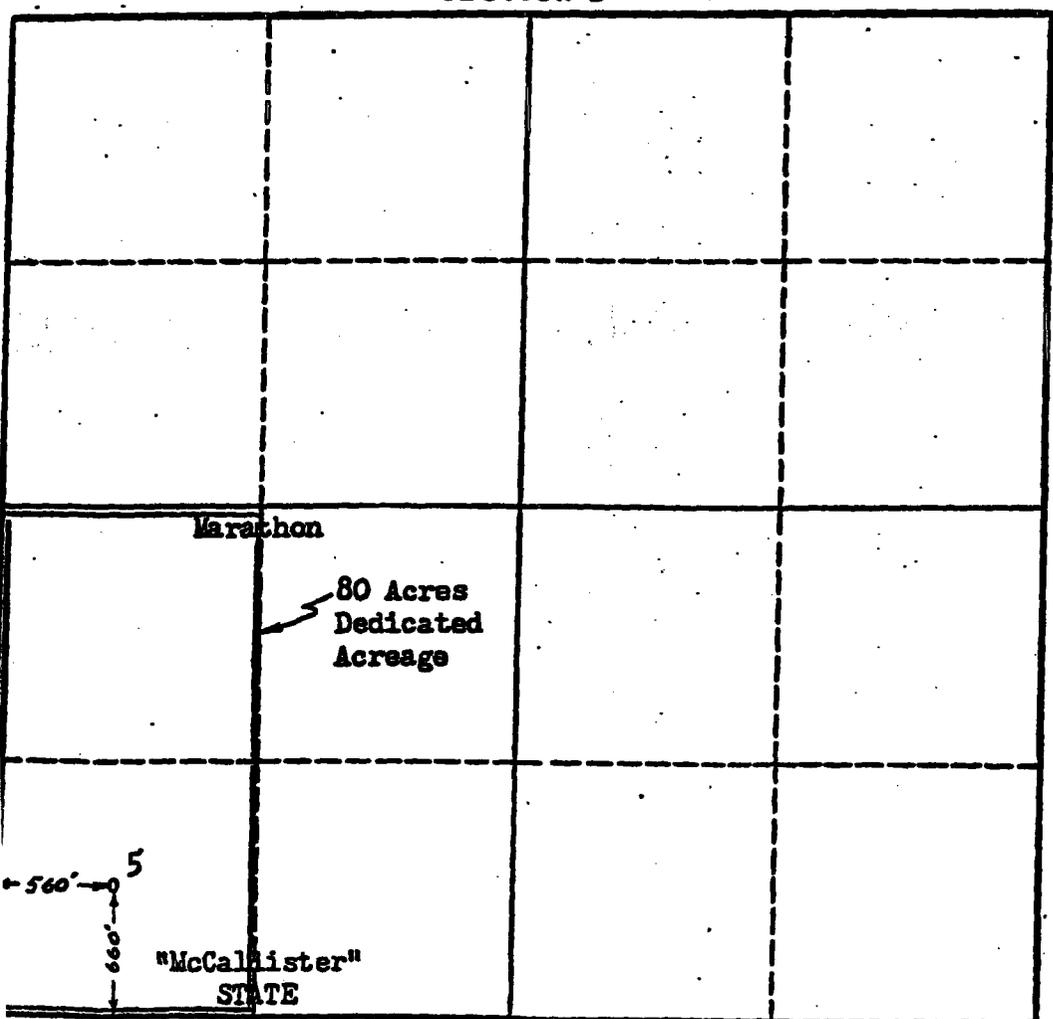
SECTION A

Operator Marathon Oil Company		Lease State McCallister, or A All 10		Well No. 5
Unit Letter N	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 Abo	Pool North Vacuum Abo	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 an other. (65-3-29 (e) 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

Marathon Oil Company
Company

April 2, 1962
Date

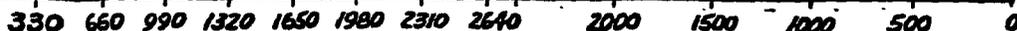
I hereby certify that the well location shown on the plat in SECTION B was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

12-7-62
Date Surveyed

Registered Professional Engineer and/or Land Surveyor

/s/ John W. West.

Certificate No.



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

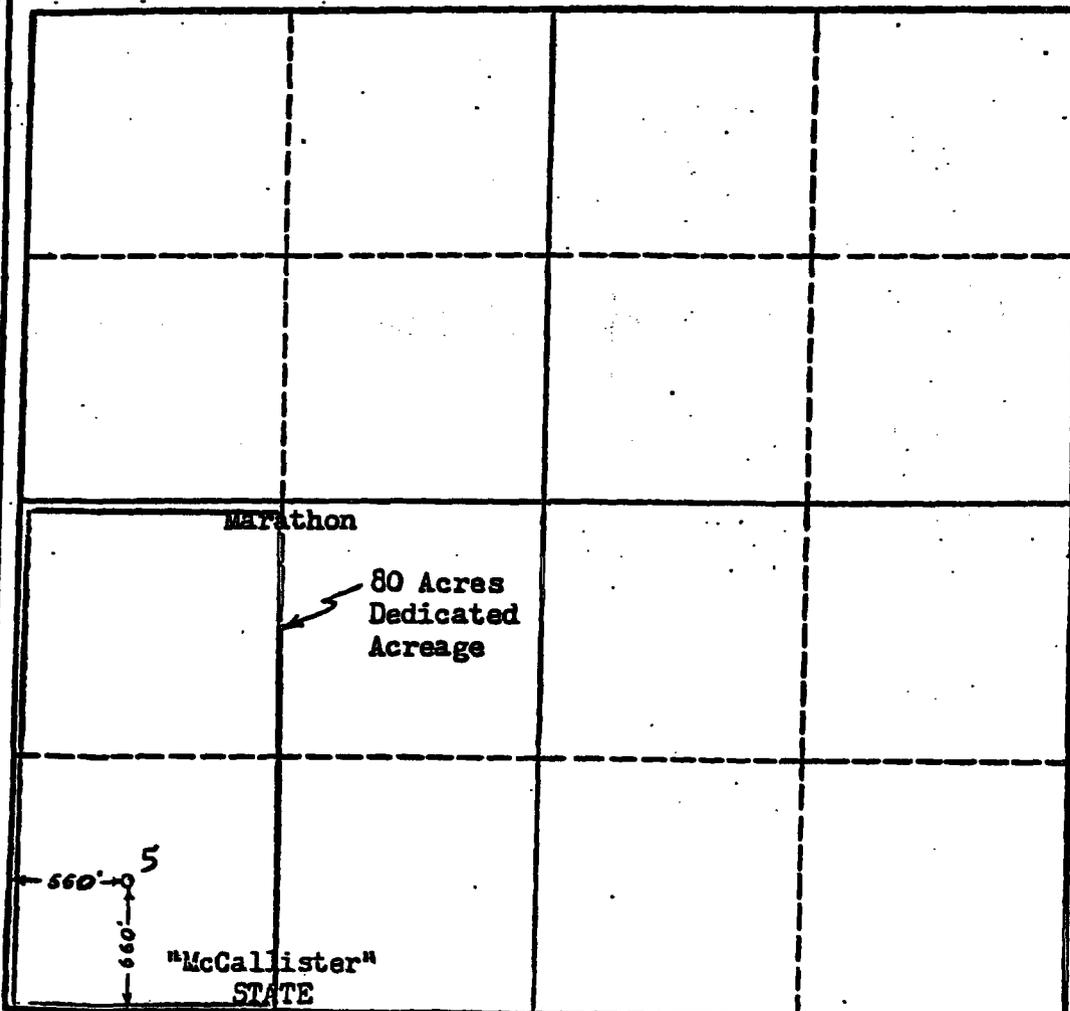
SECTION A

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 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 (e) NMSA 1955 Comp.)
2. If the answer to question one is "no," have the interests of all the owners been consolidated by communitization 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.



Houston Division
Production Operations, United States



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
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Abo, Wolfcamp, and Blinbry 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 that reads '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



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:\reg\tory\comming\dhc\wio\mcal#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
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Andrew J. Schwandt
Production Engineer

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

Agreed and accepted this _____ day of _____ 1998

by _____, as representative of

EXHIBIT "B" - CASE NO. 11353, ORDER NO. R-10470-A

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 87805-8429

Form C-107-A
New 3-12-96

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 Cr. - Sec - Twp - Rps UL M, Sec 25, T-17-S, R-34-E Lea County

OGRID NO. 014021 Property Code 6431 API NO. 30-025-20116 Spacing Unit Lease Types: (check 1 or more) Federal State (and/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	a. 100 psi Producing fluid level below perfs	a. 100 psi Producing fluid level below perfs.
	b. (Original)	b.	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 * If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: Rates:	Date: Rates:	Date: Rates:
	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