

DHC

8/17/98

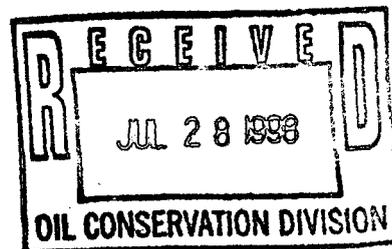
Mid-Continent Region  
Production United States



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

July 24, 1998

2083



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  
Warn State A/C 2 #26  
Lot 5, 2180' FNL & 400' FWL  
Sec. 6, T-18-S, R-35-E  
Atoka, Wolfcamp and Upper Penn 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 (Wolfcamp) and Vacuum (Penn) pools.

The Warn State A/C 2 #26 was recently drilled an Atoka producer. However, the Atoka was shut-in due to uneconomical production and was completed in the Penn formation. Unfortunately, the Penn production has also proved to be uneconomical. For this reason, Marathon is requesting to downhole commingle the Penn, Wolfcamp, and Atoka formations to maximize the economical production from this well.

The proposed method for allocating production from the individual intervals is as follows: Originally, the well was completed in the Atoka. A substantial amount of production data was gathered during this period and a curve was fit to the subsequent decline. The Atoka was then temporarily plugged back and the Wolfcamp was perforated and produced to obtain a similar decline curve. The result of this is that both the Atoka and Wolfcamp production rates are known quantities and therefore, when the Penn is added to the total, all one has to do is subtract the known rates from the total to obtain the incremental Penn allocation.

Rod pumping equipment will be utilized to keep the PBHP as low as possible to prevent crossflow.

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

Sincerely,

A handwritten signature in black ink that reads 'Walter J. Dueease'.

Walter J. Dueease

WJD/dit  
Enclosure

h:\dueease\ocd\warn226

**Marathon Oil Company  
Warn State A/C 2 #26  
Lot 5, 2180' FNL & 400' FWL  
Sec. 6, T-18-S, R-35-E  
Atoka, Wolfcamp, and Upper Penn Pools  
Vacuum Field  
Lea County, New Mexico**

Offset Operator and Address:

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



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

July 23, 1998

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

Re: Request for Exception to Rule 303-A  
Downhole Commingling  
Warn State A/C 2 #26  
Lot 5, 2180' FNL & 400' FWL  
Sec. 6, T-18-S, R-35-E  
Atoka, Wolfcamp and Upper Penn 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 'Walter J. Dureese'.

Walter J. Dureese

WJD/dit  
Enclosure

AGREED TO AND ACCEPTED THIS \_\_\_\_ DAY OF \_\_\_\_\_, 1998.

TEXACO EXPLORATION & PRODUCTION

\_\_\_\_\_  
By:  
Title:

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico  
Energy, Minerals and Natural Resources Department

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

DISTRICT II  
811 South First St., Artesia, NM 88210-2835

**OIL CONSERVATION DIVISION**

APPROVAL PROCESS:

2040 S. Pacheco  
Santa Fe, New Mexico 87505-6429

\_\_\_ Administrative \_\_\_ Hearing

DISTRICT III  
1000 Rio Brazos Rd, Aztec, NM 87410-1693

**APPLICATION FOR DOWNHOLE COMMINGLING**

EXISTING WELLBORE  
\_\_\_ YES \_\_\_ NO

Marathon Oil Company

Operator Warn State A/C 2 Address Lot 5, Sec. 6, T-18-S, R-35-E, Lea County, NM  
Lease 26 Well No. 26 Unit Ltr. Sec - Twp - Rge County Lea

OGRID NO. 14021 Property Code 6484 API NO. 30-025-33541 Spacing Unit Lease Types: (check 1 or more)  
Federal \_\_\_ State X (and/or) Fee \_\_\_

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	<u>Vacuum - Wolfcamp 62340</u>	<u>Vacuum - Penn 62330</u>	<u>Vacuum - Atoka</u>
2. Top and Bottom of Pay Section (Perforations)	<u>9330 - 10,069</u>	<u>10,259 - 10,556</u>	<u>11,153 - 11,206</u>
3. Type of production (Oil or Gas)	<u>Oil</u>	<u>Oil</u>	<u>Oil</u>
4. Method of Production (Flowing or Artificial Lift)	<u>RP</u>	<u>RP</u>	<u>RP</u>
5. Bottomhole Pressure Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	a. (Current) <u>3,000 Est.</u>	a. <u>4,700 RFT</u>	a. <u>3,200 Est.</u>
	b. (Original) <u>3,375 RFT</u>	b. <u>4,700 RFT</u>	b. <u>4,180 PBU</u>
6. Oil Gravity (° API) or Gas BTU Content	<u>42°</u>	<u>37°</u>	<u>39°</u>
7. Producing or Shut-In?	<u>Producing</u>	<u>SI</u>	<u>SI</u>
Production Marginal? (yes or no)	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>
* 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: <u>New</u>	Date: Rates: <u>5/20/98</u> <u>30/200/90</u>
	Date: <u>7/20/98</u> Rates: <u>46/45/111</u>	Date: Rates:	Date: Rates:
8. Fixed Percentage Allocation Formula - % for each zone	Oil: % Gas: %	Oil: % Gas: %	Oil: % Gas: %

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? X 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? X Yes \_\_\_ No

11. Will cross-flow occur? X 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. X Yes \_\_\_ No (If No, attach explanation)

12. Are all produced fluids from all commingled zones compatible with each other? X Yes \_\_\_ No

13. Will the value of production be decreased by commingling? \_\_\_ Yes X 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 X No

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S) \_\_\_\_\_

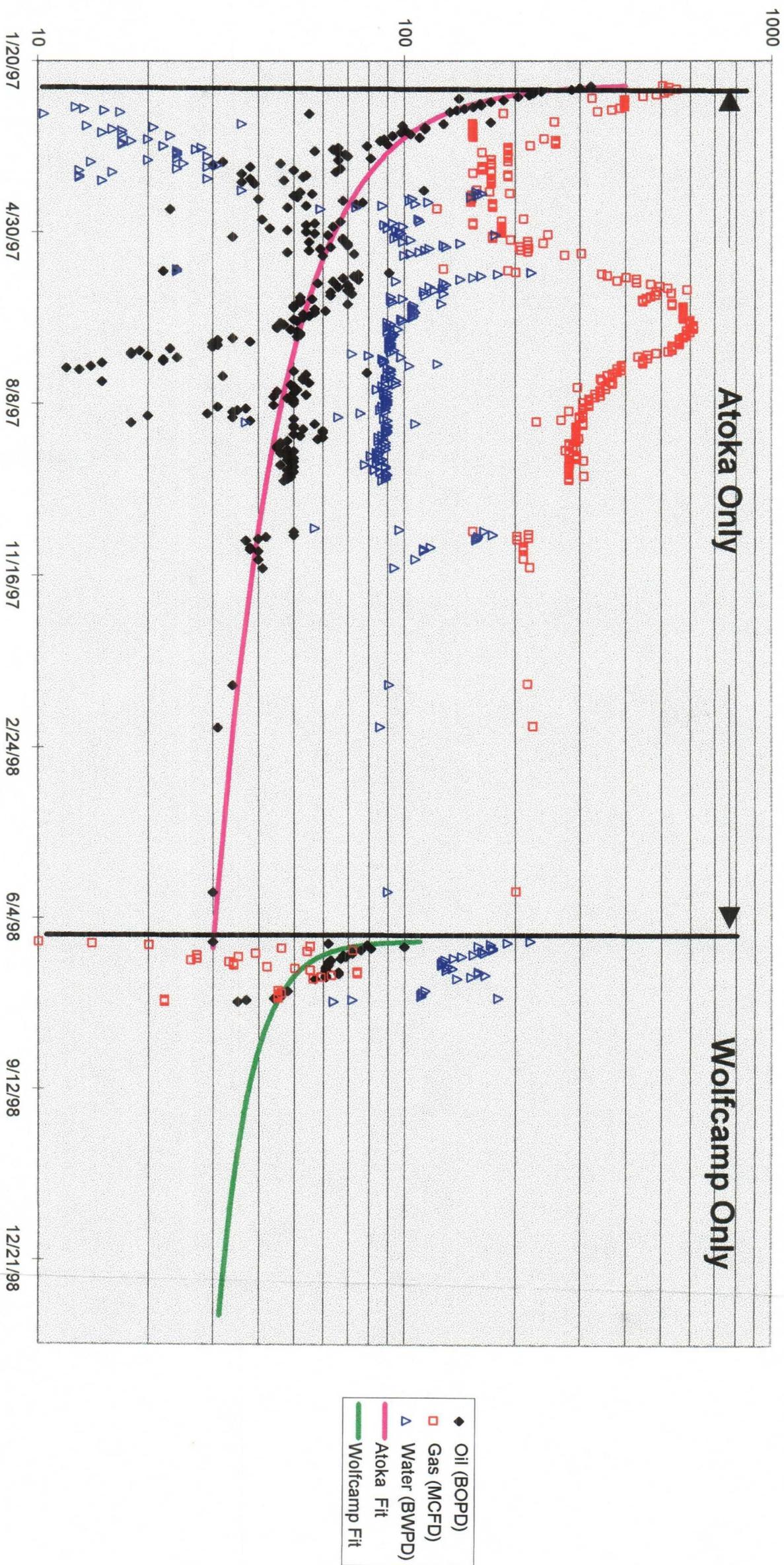
16. ATTACHMENTS:

- \* 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.

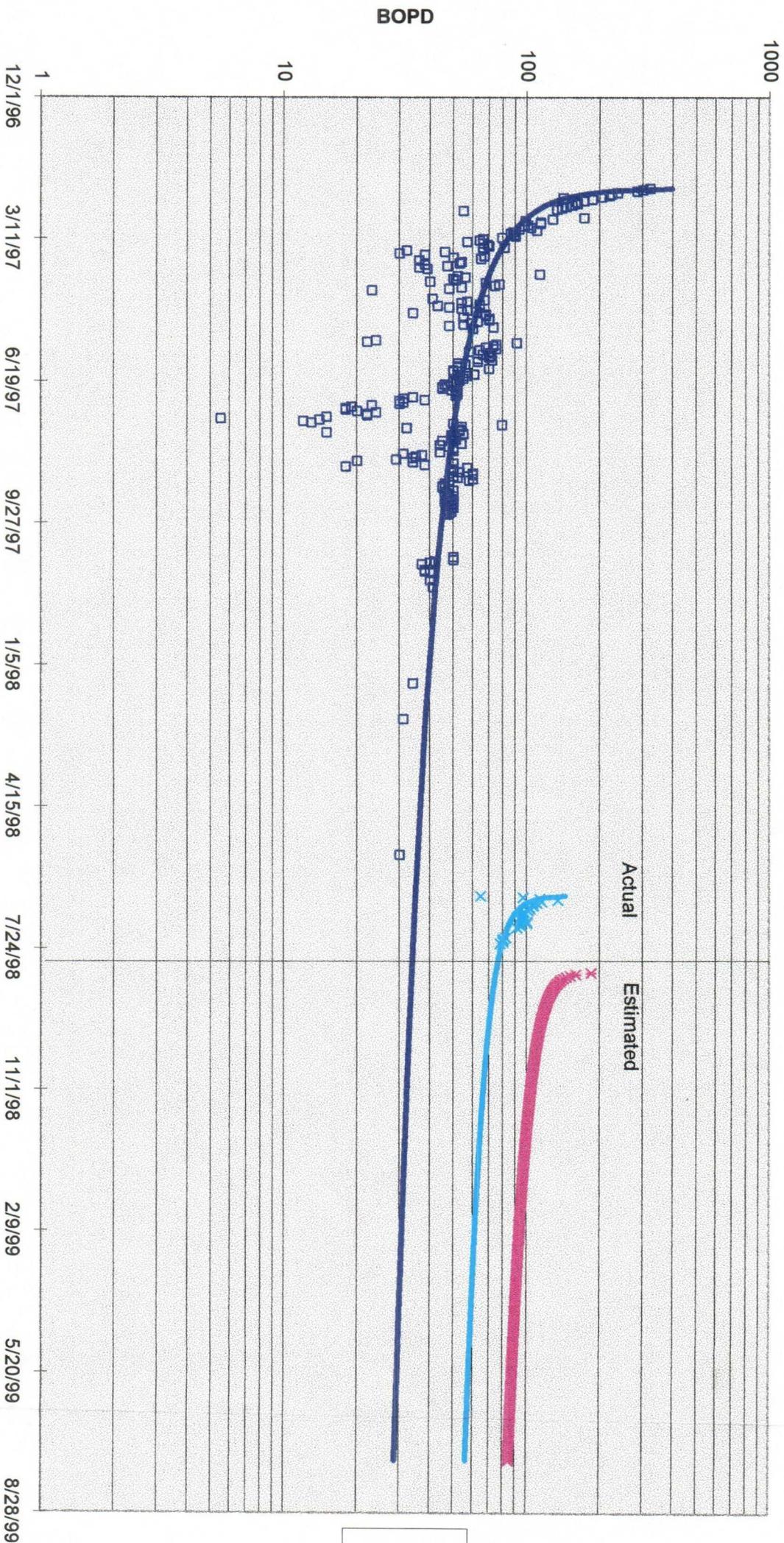
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Walter J. Duncan TITLE Drlg. Superintendent DATE 7/23/98

TYPE OR PRINT NAME D. P. Nordt TELEPHONE NO. ( 915 ) 587-8356



### Warn State A/C "2" #26 Production



DISTRICT I  
P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised February 10, 1994  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88211-0719

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

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV  
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-33541	Pool Code	Pool Name Vacuum - Atoka
Property Code 6484	Property Name WARN STATE ACCOUNT 2	Well Number 26
OGRID No. 14021	Operator Name MARATHON OIL COMPANY	Elevation 3967

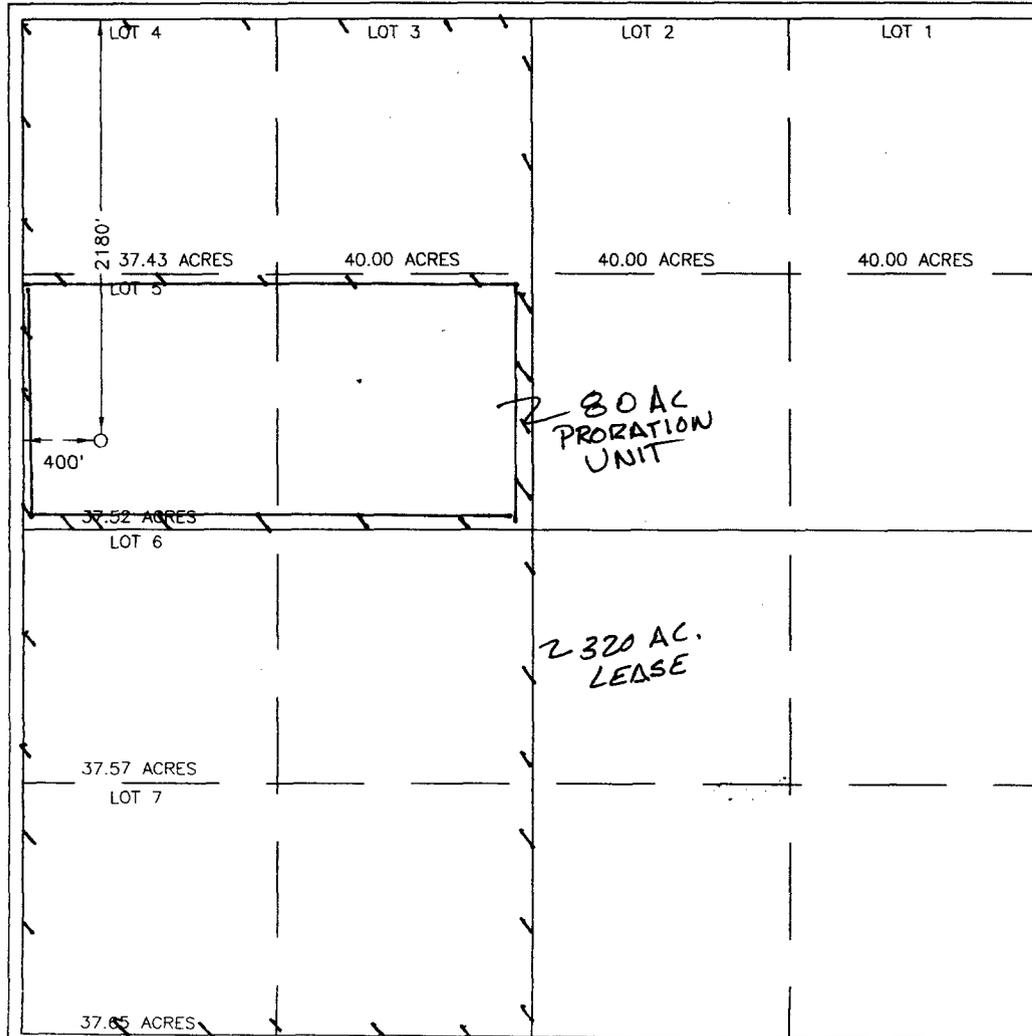
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
LOT 4	6	18 S	35 E		2180	NORTH	400	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						
80 - S/2, NW/4									

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



**OPERATOR CERTIFICATION**

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

*D.P. Nordt*  
Signature  
D.P. Nordt  
Printed Name  
Drilling Superintendent  
Title  
7/24/98  
Date

---

**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.

JULY 30, 1996

Date Surveyed \_\_\_\_\_ DMCC  
Signature & Seal of Professional Surveyor  
*Ronald J. Eidson*  
8-12-96  
96-11-0927

Certificate No. JOHN W. WEST 676  
RONALD J. EIDSON 3239  
GARY EIDSON 12641





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

July 24, 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  
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Sincerely,

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Walter J. Dueease

WJD/dlt  
Enclosure

h:\dueease\locd\warn226

DHC-2083



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
HOBBS DISTRICT OFFICE

7/17/00

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

GOVERNOR

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:

<u>Marathon Oil Co</u>	<u>Warn State A/c-2</u>	<u># 26-E, 6-185-35e</u>
Operator	Lease & Well No. Unit	S-T-R 30-025-33541

and my recommendations are as follows:

OK.

Yours very truly,

Chris Williams  
Supervisor, District 1

/ed

**Marathon Oil Company  
Warn State A/C 2 #26  
Lot 5, 2180' FNL & 400' FWL  
Sec. 6, T-18-S, R-35-E  
Atoka, Wolfcamp, and Upper Penn Pools  
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