



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
HOBBS DISTRICT OFFICE

9-23-94

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

DHC-1046

RE: Proposed:

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

Gentlemen:

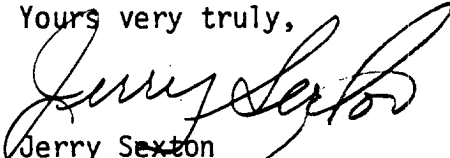
I have examined the application for the:

<u>Marathon Oil Co</u>	<u>WS Marshall B</u>	<u>#1-N</u>	<u>27-215-370</u>
Operator	Lease & Well No.	Unit	S-T-R

and my recommendations are as follows:

OK

Yours very truly,

  
Jerry Sexton  
Supervisor, District 1

/ed



**Marathon  
Oil Company**

P.O. Box 2409  
Hobbs, NM 88241-2409  
Telephone 505/393-7106

September 16, 1994

State of New Mexico  
Oil Conservation Division  
Energy and Mineral Department  
Mr. David Catanach  
PO Box 2088  
Santa Fe, NM 87501

RE: REQUEST FOR EXCEPTION TO RULE 303-A  
DOWNHOLE COMMINGLING  
W.S. MARSHALL "B" WELL NO. 1  
UNIT N, 589' FSL & 2051' FWL  
SECTION 27, T-21-S, R-37-E  
BLINEBRY AND DRINKARD FORMATIONS  
DRINKARD FIELD  
LEA COUNTY, NEW MEXICO

Dear Mr. Catanach:

Marathon Oil Company respectfully requests administrative approval for an exception to Rule 303-A to permit the downhole commingling of the Blinebry and Drinkard formations in the above mentioned well.

Currently, the well is produced by plunger lift but is loaded up due to the high fluid volumes. The Blinebry has the capacity to produce 4 BOPD and 162 MCFD when the plunger lift is operating efficiently. The Drinkard consists of two zones, a perforated interval and an open hole interval. To downhole commingle the two formations, a CIBP will be drilled out and if possible a retrievable bridge plug removed from the wellbore. Production from the Drinkard is expected to be 3 BOPD and 100 MCFD.

The proposed downhole commingling will allow the Drinkard to be reactivated and economically justify the installation of rod pumping equipment. The rod pumping will allow for a lower abandonment pressure for both zones thus lengthening the life of the well and minimizing waste.

Enclosed is the pertinent data supporting this application as outlined in Rule 303-A. If additional information is necessary, please contact Rick Gaddis at (505) 393-7106 ext 201.

Sincerely,

A handwritten signature in cursive script that reads 'T.A. Deines'.

T.A. Deines  
Northwest Operations  
Production Superintendent

RDG:TAD/94114/kc  
Attachments

# **REQUEST FOR EXCEPTION TO RULE 303-A**

## **W.S. MARSHALL "B" WELL NO. 1 DRINKARD FIELD**

- (A) Marathon Oil Company  
PO Box 2409  
Hobbs, NM 88240
- (B) W.S. Marshall "B" Well No. 1  
Unit N, 589' FSL & 2051' FWL  
Section 27, T-21-S, R-37-E  
Lea County, New Mexico  
Commingling Zones: Blinebry  
Drinkard
- (C) A plat of the area is attached showing the lease and offset operations. Also attached is a C-102 for each formation.
- (D) The Form C-116 for each of the formations is attached. The allocated production for the Blinebry will be based upon the current rate and the rate for the Drinkard will be based upon the rates prior to abandonment along with the historical production declines.
- (E) Production curves for both the Blinebry and Drinkard are attached.
- (F) Estimated bottomhole pressure for each zone:
- |          |          |
|----------|----------|
| Blinebry | 450 psia |
| Drinkard | 500 psia |
- (G) Marathon is commingling the fluids at the surface and has not encountered incompatibility problems.
- (H) If the downhole commingling is approved, the lost production and reserves of the Drinkard will be recovered while maximizing recoveries from the Blinebry, thus preventing waste.

(I) Production from the latest GOR test as follows:

<u>FORMATION</u>	<u>OIL (bpd)</u>	<u>GAS (mcf/d)</u>	<u>WATER (bpd)</u>
Blinebry	4.0	162	2.0
Drinkard*	<u>2.0</u>	<u>76</u>	<u>1.0</u>
TOTAL	<u>6.0</u>	<u>238</u>	<u>3.0</u>

\* Zone is currently TA. Rates are based upon production prior to abandonment.

Expected production from each formation:

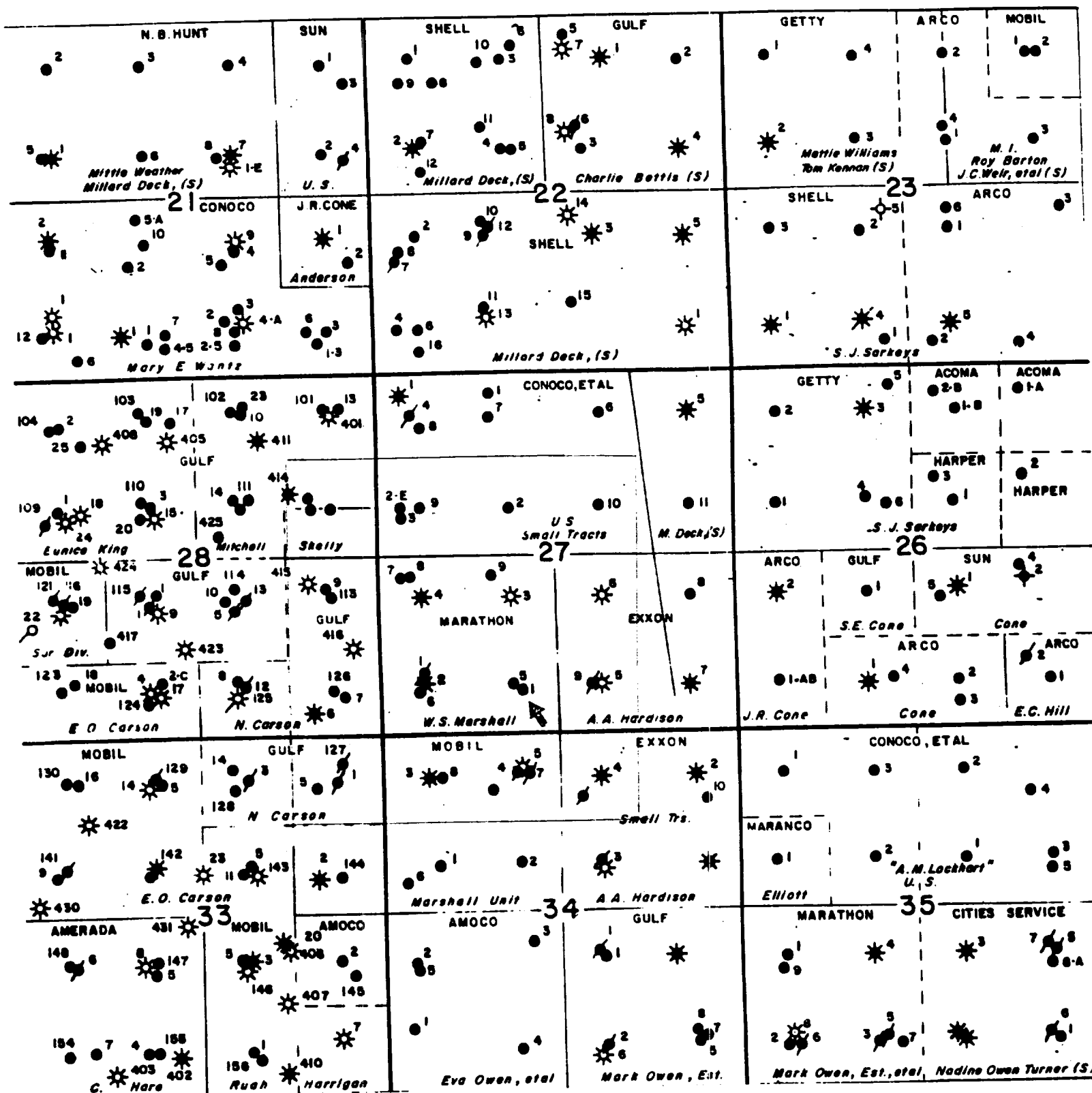
<u>FORMATION</u>	<u>OIL (bpd)</u>	<u>GAS (mcf/d)</u>	<u>WATER (bpd)</u>
Blinebry	5	180	3
Drinkard	<u>3</u>	<u>100</u>	<u>2</u>
TOTAL	<u>8</u>	<u>280</u>	<u>5</u>

Allocated percentages should be:

<u>FORMATION</u>	<u>OIL (%)</u>	<u>GAS (%)</u>	<u>WATER (%)</u>
Blinebry	62.5	64.3	60.0
Drinkard	<u>37.5</u>	<u>35.7</u>	<u>40.0</u>
TOTAL	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

- (J) Ownership of the two pools to be commingled are in common and correlative rights will not be violated.
- (K) By copy of this letter, we are notifying all offset operators of the proposed commingling.

# Map of Offset Operators Lea County, New Mexico





**Marathon  
Oil Company**

P.O. Box 2409  
Hobbs, NM 88241-2409  
Telephone 505/393-7106

September 16, 1994

Offset Operators  
W.S. Marshall "B" Well No. 1  
(mailing list attached)

RE: REQUEST FOR EXCEPTION TO RULE 303-A  
DOWNHOLE COMMINGLING  
MARATHON OIL COMPANY  
W.S. MARSHALL "B" WELL NO. 1  
UNIT N, 589' FSL & 2051' FWL  
SECTION 27, T-21-S, R-37-E  
BLINEBRY AND DRINKARD FORMATIONS  
DRINKARD FIELD  
LEA COUNTY, NEW MEXICO

Gentlemen:

Marathon Oil Company has filed an application with the New Mexico Oil Conservation Division to downhole commingle the above captioned well. Enclosed, please find 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 return one copy to Marathon at the above address.

Sincerely,

A handwritten signature in cursive script, appearing to read 'T.A. Deines'.

T.A. Deines  
Northwest Operations  
Production Superintendent

RDG:TAD/94117/kc  
Attachments

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Agreed and accepted this \_\_\_\_\_ day of \_\_\_\_\_,  
1994 by \_\_\_\_\_, as representative of  
\_\_\_\_\_.

# **OFFSET OPERATORS**

## **W.S. MARSHALL "B" LEASE SW/4, SECTION 27, T-21-S, R-37-E, NMPM LEA COUNTY, NEW MEXICO**

<u>LOCATION</u>	<u>OPERATOR</u>
Section 27, N/2	Conoco, Inc. PO Box 1959 Midland, TX 79702-1959
Section 27, SE/4	Exxon Company USA PO Box 1600 Midland, TX 79702-1600
Section 28, E/2	Chevron USA, Inc. PO Box 1150 Midland, TX 79702-1150
Section 33, NE/4	Mobil E & P US, Inc. PO Box 633 Midland, TX 79702-0633  Chevron USA, Inc.
Section 34, NE/4	Exxon Company USA
Section 34, NW/4	Mobil E & P US, Inc.