

Houston Division
Production Operations, United States



**Marathon
Oil Company**

OIL CONSERVATION DIVISION

RECEIVED

04 SEP 14 AM 8 50

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

September 9, 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
EDITH BUTLER "B" WELL NO. 1
UNIT I, 1980' FSL & 660' FEL
SECTION 13, T-22-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 Tubb and Drinkard formations in the above mentioned well.

Currently, the well is a Tubb-Drinkard dual producer with the Tubb flowing up the casing and the Drinkard on plunger lift below a packer (see attached wellbore sketch). It is proposed that the packer isolating the two zones be removed thus downhole commingling the Tubb and Drinkard. Both zones will be plunger lifted or rod pumped. The Tubb is currently loaded up, being unable to remove liquids up the casing and the Drinkard is being produced inefficiently under a packer. The downhole commingling of the two zones will allow for both zones to be produced to a lower abandonment pressure and recover additional reserves hereby 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, appearing to read 'T.A. Deines'.

T.A. Deines
Northwest Operations
Production Superintendent

RDG:TAD/94107/kc
Attachments

REQUEST FOR EXCEPTION TO RULE 303-A

EDITH BUTLER "B" WELL NO. 1 DRINKARD FIELD

- (A) Marathon Oil Company
PO Box 2409
Hobbs, NM 88240
- (B) Edith Butler "B" Well No. 1
Unit I, 1980' FSL and 660' FEL
Section 13, T-22-S, R-37-E
Lea County, New Mexico
Commingle Zones: Tubb
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 each pool will be based upon the current and historical production declines along with the latest GOR tests.
- (E) Production curves for both the Tubb and Drinkard are attached.
- (F) Estimated bottomhole pressure for each zone:
- | | |
|----------|----------|
| Tubb | 600 psia |
| Drinkard | 700 psia |
- (G) Marathon is commingling the fluids at the surface and has not encountered incompatibility problems.
- (H) If the downhole commingling is approved, additional reserves will be recovered from each formation.

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

<u>FORMATION</u>	<u>OIL (BPD)</u>	<u>GAS (MCFD)</u>	<u>WATER (BPD)</u>
Tubb	0	20	0
Drinkard	<u>3</u>	<u>50</u>	<u>0</u>
TOTAL	<u><u>3</u></u>	<u><u>70</u></u>	<u><u>0</u></u>

Predicted Production Is:

<u>FORMATION</u>	<u>OIL (BPD)</u>	<u>GAS (MCFD)</u>	<u>WATER (BPD)</u>
Tubb	1	60	1
Drinkard	<u>5</u>	<u>100</u>	<u>1</u>
TOTAL	<u><u>6</u></u>	<u><u>160</u></u>	<u><u>2</u></u>

Allocated Percentages should be:

<u>FORMATION</u>	<u>OIL (%)</u>	<u>GAS (%)</u>	<u>WATER (%)</u>
Tubb	16.7	28.6	50.0
Drinkard	<u>83.3</u>	<u>71.4</u>	<u>50.0</u>
TOTAL	<u><u>100.0</u></u>	<u><u>100.0</u></u>	<u><u>100</u></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.

District I
 PO Box 1980, Hobbs, NM 88241-1980
 District II
 PO Drawer DD, Artesia, NM 88211-0719
 District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 District IV
 PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
 Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
 PO Box 2088
 Santa Fe, NM 87504-2088

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

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-025-10252		2 Pool Code		3 Pool Name South Brunson Drinkard	
4 Property Code		5 Property Name Edith Butler "B"			6 Well Number 1
7 OGRID No. 14021		8 Operator Name Marathon Oil Company			9 Elevation 3326' GL

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	13	22S	37E	--	1980	South	660	East	Lea

11 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

12 Dedicated Acres 40	13 Joint or Infill N	14 Consolidation Code	15 Order No.
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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

16	13	17 OPERATOR CERTIFICATION	
		<i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</i>  Signature Rick D. Gaddis Printed Name Petroleum Engineer Title August 25, 1994 Date	
		18 SURVEYOR CERTIFICATION	
		<i>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.</i>  Date of Survey Signature and Seal of Professional Surveyer: See Original Plat Certificate Number	

District I
 PO Box 1980, Hobbs, NM 88241-1980
 District II
 PO Drawer DD, Artesia, NM 88211-0719
 District III
 1000 Rio Brazos Rd., Aztec, NM 87410
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 PO Box 2088, Santa Fe, NM 87504-2088

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 Energy, Minerals & Natural Resources Department

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 PO Box 2088
 Santa Fe, NM 87504-2088

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

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-025-10252		2 Pool Code		3 Pool Name South Brunson - Tubb	
4 Property Code		5 Property Name Edith Butler "B"			6 Well Number 1
7 OGRID No. 14021		8 Operator Name Marathon Oil Company			9 Elevation 3326' GL

10 Surface Location

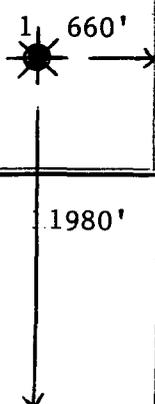
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	13	22S	37E	--	1980	South	660	East	Lea

11 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

12 Dedicated Acres 80	13 Joint or Infill N	14 Consolidation Code	15 Order No.
--------------------------	-------------------------	-----------------------	--------------

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					Date of Survey Signature and Seal of Professional Surveyer: See Original Plat Certificate Number				
									

Energy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

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

GAS - OIL RATIO TEST

Operator		Pool		County										
Marathon Oil Company		South Brunson Tubb		Lea										
Address		TYPE OF TEST - (X)		Completion		Special								
PO Box 552, Midland, TX 79702		S		<input type="checkbox"/>		<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		OIL BBL.S.
Edith Butler "B"	1	I	13	22S	37E	7/15/94	F	--	24	0	--	0	20	--

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.
Rick D. Gaddis
Signature
Rick D. Gaddis Petroleum Engineer
Printed name and title
8/25/94
Date
(505) 393-7106
Telephone No.

EDITH BUTLER "B" WELL NO. 1
DRINKARD-TUBB

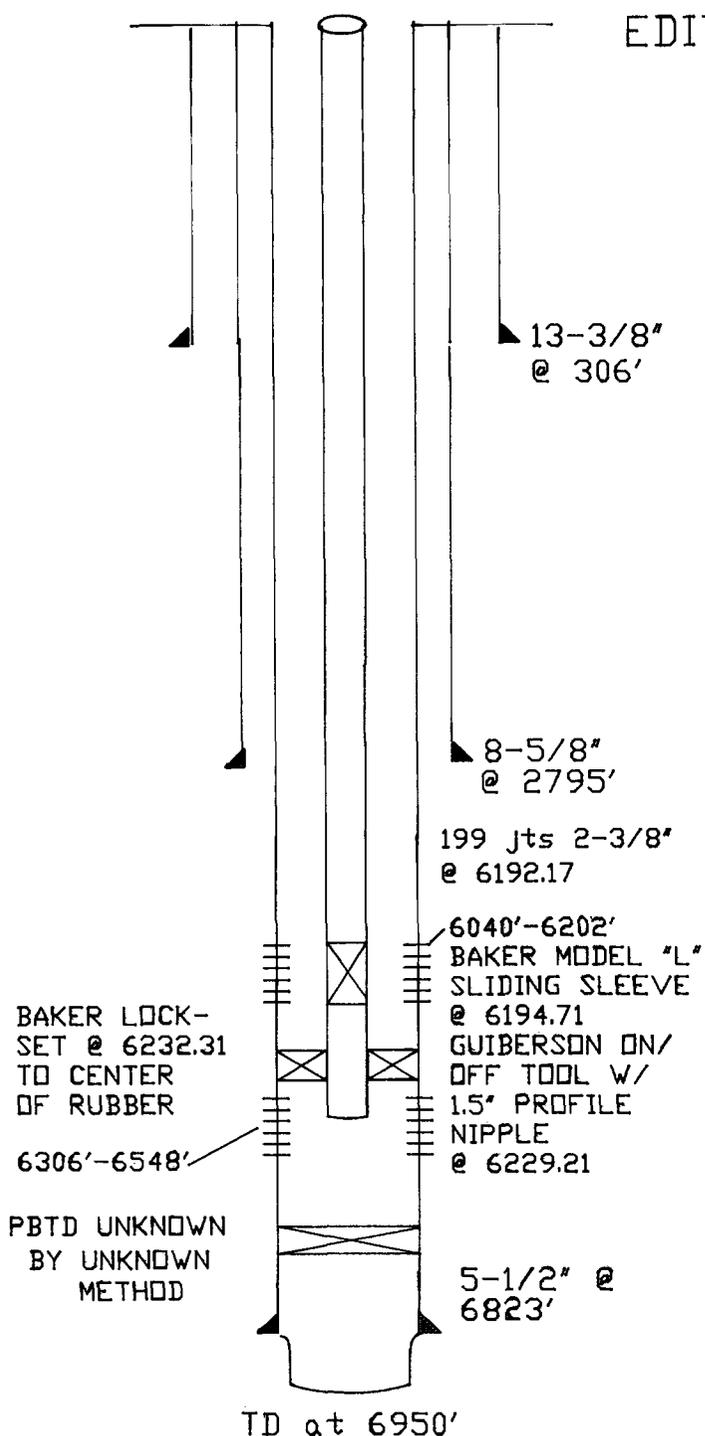
1980' FSL & 660' FEL
SECTION 13, T-22S, R-37E
LEA COUNTY, NEW MEXICO

TD: 6950' PBSD: NA
KB: 3340' GL: NA

SURFACE: 13 3/8", 48#, H-50
SET @ 306'. CMT'D W/ 250 SX.
CIRC'D TO SURFACE.

INTERMEDIATE: 8-5/8", 32#, J-55 SET @
2795'. CMT'D W/1500 SX. TOC UNKNOWN.

PRODUCTION: 5-1/2", 17#, J-55 SET @
6823'. CMT'D W/500 SX. TOC @ 1725'.



TUBING: 2-3/8", 4.6#, H-40, OTIS SLEEVE, 1 JOINT TUBING, 2-3/8" OTIS TUBING DIVIDER N PROFILE, & DOUBLE GRIP PACKER.

PRESENT COMPLETIONS:

TUBB:

6040'-6140' W/ 4 SPF, 400 HOLES.
6164', 66', 71', 75', 77', 79',
81', 88', 90', 92', 94', 96', 98',
6200', & 02' W/ 1 SPF, 16 HOLES.

DRINKARD:

6306'-6548' W/ 1 SPF, 20 HOLES.

HISTORY: DRILLED IN 1947. COMPLETED OPENHOLE IN THE DRINKARD F/ 6823'-6950'. ADDED TUBB INTERVAL F/ 6040'-6140' IN 1957. ABANDONED OPENHOLE DRINKARD AND ADDED DRINKARD F/ 6306'-6548' IN 1974. ADDED PERFORATIONS IN TUBB F/ 6164'-6202'. ACIDIZED W/ 3000 GALS. FRAC'D ENTIRE TUBB W/ 50000 GALS 64000# 20/40 SD.

Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

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

GAS - OIL RATIO TEST

Operator Marathon Oil Company		Pool South Brunson Drinkard		County Lea											
Address PO Box 552, Midland, TX 79702		TYPE OF TEST - (X) <input checked="" type="checkbox"/> Scheduled <input type="checkbox"/> Completion		Special <input checked="" type="checkbox"/> XX											
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	T.B.G. 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		OIL BBL.S.	GAS M.C.F.
Edith Butler "B"	1	I	13	22S	37E	7/15/94	P --	200	--	24	0	40	3	50	16,667
P = Plunger Lift															

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.

Rick D. Gaddis
Signature

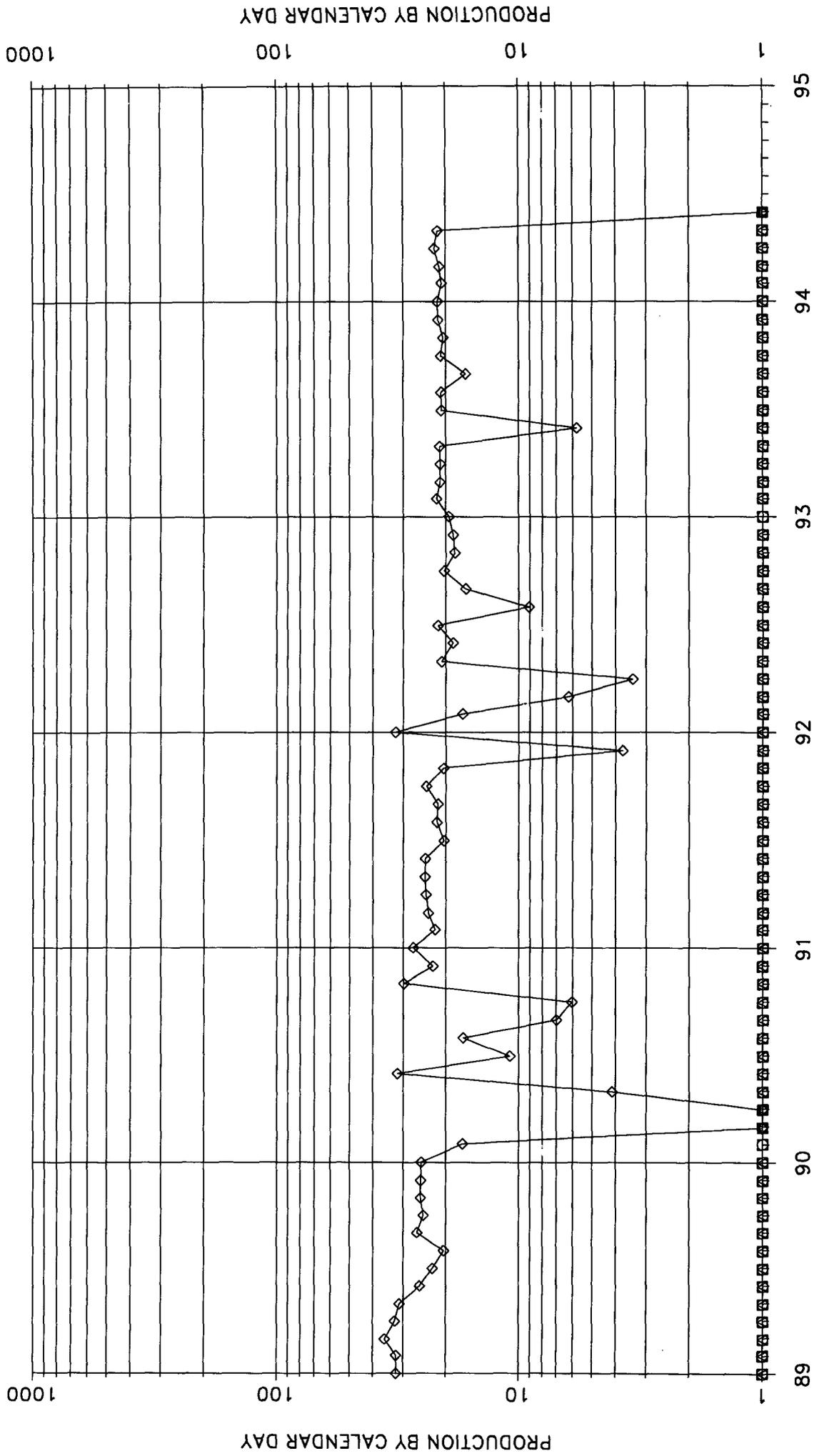
Rick D. Gaddis
Printed name and title
Petroleum Engineer

August 25, 1994
Date
(505) 393-7106
Telephone No.

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

Midland Operations

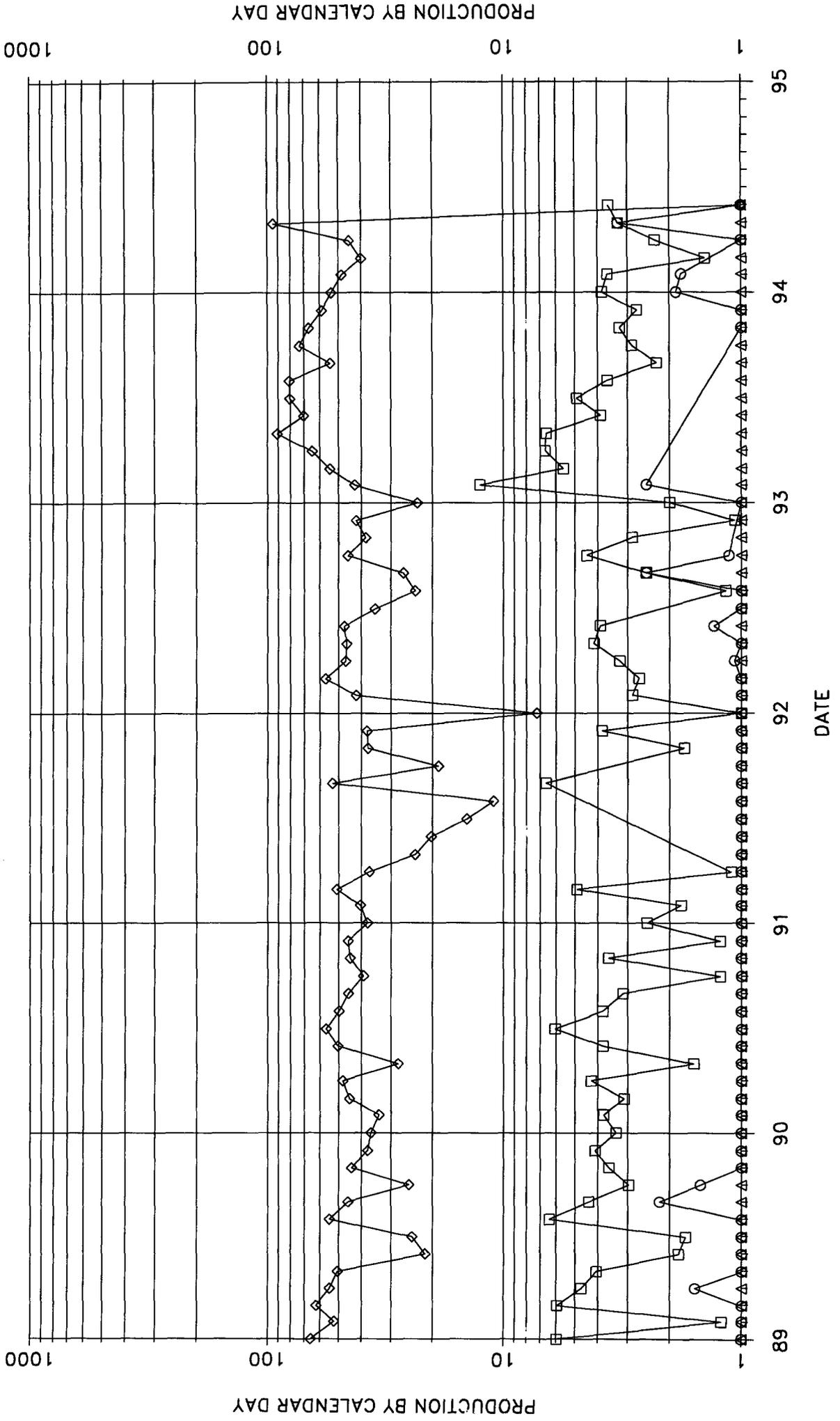
Field=DRINKARD WNAME=EDITH BUTLER-B-NO. 1 -Tubb



□ OIL, BOPD ○ WTR, BWPD ◇ GAS, MCFPD △ COND, BPD

Midland Operations

Field=DRINKARD WNAME=EDITH BUTLER-B-NO. 1 - DRINKARD



OFFSET OPERATORS

EDITH BUTLER "B" LEASE SECTION 13, T-22-S, R-37-E LEA COUNTY, NEW MEXICO

SECTION 13, T-22-S, R-37-E

Chevron U.S.A. Incorporated
15 Smith Road
PO Box 1150
Midland, TX 79702-1150

Exxon Company USA
3300 N. "A" Street
PO Box 1600
Midland, TX 79702-1600

John H. Hendrix Corp.
223 W. Wall, Suite 525
Midland, TX 79701-4519

SECTION 18, T-22-S, R-38-E

Fina Oil & Chemical Co.
6 Desta Drive Suite 4400
PO Box 2990
Midland, TX 79702-2990

September 9, 1994

Offset Operators
Edith Butler "B" Well No. 1
(mailing list attached)

RE: **REQUEST FOR EXCEPTION TO RULE 303-A
DOWNHOLE COMMINGLING
MARATHON OIL COMPANY
EDITH BUTLER "B" WELL NO. 1
UNIT I, 1980' FSL & 660' FEL
SECTION 13, T-22-S, R-37-E
TUBB 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,



T.A. Deines
Northwest Operations
Production Superintendent

RDG:TAD/94110/kc
Attachments

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

Submit 3 Copies
to Appropriate
District Office

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

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

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

WELL API NO. 30-025-10252
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)			
1. Type of Well: OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> Dual Oil and Gas Well		7. Lease Name or Unit Agreement Name Edith Butler "B"	
2. Name of Operator Marathon Oil Company		8. Well No. 1	
3. Address of Operator PO Box 2409, Midland, TX 79702		9. Pool name or Wildcat S. Brunson Drinkard Abo/Tubb	
4. Well Location Unit Letter <u>I</u> : <u>1980</u> Feet From The <u>South</u> Line and <u>660</u> Feet From The <u>East</u> Line Section <u>13</u> Township <u>22S</u> Range <u>37E</u> NMPM Lea County			
		10. Elevation (Show whether DF, RKB, RT, GR, etc.) DF: 3338' GL: 3326'	

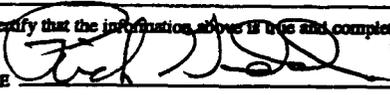
11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>		CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER: <u>Downhole Commingle</u> <input checked="" type="checkbox"/>		OTHER: _____ <input type="checkbox"/>	

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Marathon Oil Company respectfully proposes the downhole commingling of the Tubb and Drinkard Abo formations within the Edith Butler "B" Well No. 1. The packer isolating the two zones will be removed and both zones plunger lifted or rod pumped. This work will commence upon the approval to downhole commingle from the NMOCD.

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

SIGNATURE  TITLE Petroleum Engineer DATE 8/25/94

TYPE OR PRINT NAME Rick D. Gaddis TELEPHONE NO. 505 393-7106

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:



STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

RECEIVED
OIL CONSERVATION DIVISION
94 SEP 19 AM 8 50

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

9-15-94

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

RE: Proposed:

- MC _____
- DHC ✓ _____
- NSL _____
- NSP _____
- SWD _____
- WFX _____
- PMX _____

Gentlemen:

I have examined the application for the:

<i>Marathon Oil Co</i>	<i>Edith Butler</i>	<i>#1-I</i>	<i>13-22-37</i>
Operator	Lease & Well No.	Unit	S-T-R

and my recommendations are as follows:

[Handwritten Signature]

Yours very truly,

[Handwritten Signature]
 Jerry Sexton
 Supervisor, District 1

/ed