



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

BRUCE KING
GOVERNOR

6/17/94

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

DHC 4-21

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:

Marathon Oil Co Walter Lynch #4-D-1-22-37
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK

Yours very truly,

Jerry Sexton
Jerry Sexton
Supervisor, District 1

/ed



**Marathon
Oil Company**

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

June 13, 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
WALTER LYNCH WELL NO. 4
UNIT D, 660' FNL AND 585' FWL
SECTION 1, T-22-S, R-37-E
TUBB AND BLINEBRY 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 Blinebry formations in the above mentioned well.

Currently, the well is a dual Blinebry and Tubb producer. The Tubb flows up one 2 1/16" production string with the Blinebry being rod pumped up the second 2 1/16" production string. A recent workover was conducted to install rod pumping equipment to allow the rod pumping of the Blinebry, however difficulties were encountered due to a paraffin build-up inside the casing. The removal of the paraffin resulted in ± 400 bbls of load water being placed on both formations. The Blinebry has responded to rod pumping by producing at a rate of 8 BOPD, 310 MCFD and 2 BWPD. The Tubb will not flow due to the fluid load that was placed upon it. Several attempts to swab the well in and an attempt to dry up the formation with CO₂ has failed.

The proposed downhole commingling will allow the Tubb to be pumped from a point below the perforations to allow for the maximum drawdown needed to remove the load water that has been placed upon it. The rod pumping will ensure that cross flow will not occur and the current production level of the Blinebry will be maintained. The production level of the Tubb is expected to return to the pre-workover level of 332 MCFD.

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.

Sincerely,

T.A. Deines
Northwest Operations
Production Superintendent

RDG:SPG/9476/kc

Attachments

REQUEST FOR EXCEPTION TO RULE 303-A

WALTER LYNCH WELL NO. 4 DRINKARD FIELD

- (A) Marathon Oil Company
PO Box 2409
Hobbs, NM 88240
- (B) Walter Lynch Well No. 4
Unit D, 660' FNL & 585' FWL
Section 1, T-22-S, R-37-E
Lea County, New Mexico
Commingling Zones: Tubb
 Blinebry
- (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 Tubb will be based upon the preworkover rates along with the historical production declines.
- (E) Production curves for both the Tubb and Blinebry are attached.
- (F) Estimated bottomhole pressure for each zone:
- | | |
|----------|----------|
| Tubb | 460 psia |
| Blinebry | 442 psia |
- (G) These pressures are based upon shut-in tubing pressures obtained during the shut-ins for packer leakage tests. 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 Tubb will be recovered while maximizing recoveries from the Blinebry, 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>
Tubb*	0	332	0
Blinebry	<u>8</u>	<u>310</u>	<u>2</u>
TOTAL	<u>8</u>	<u>642</u>	<u>2</u>

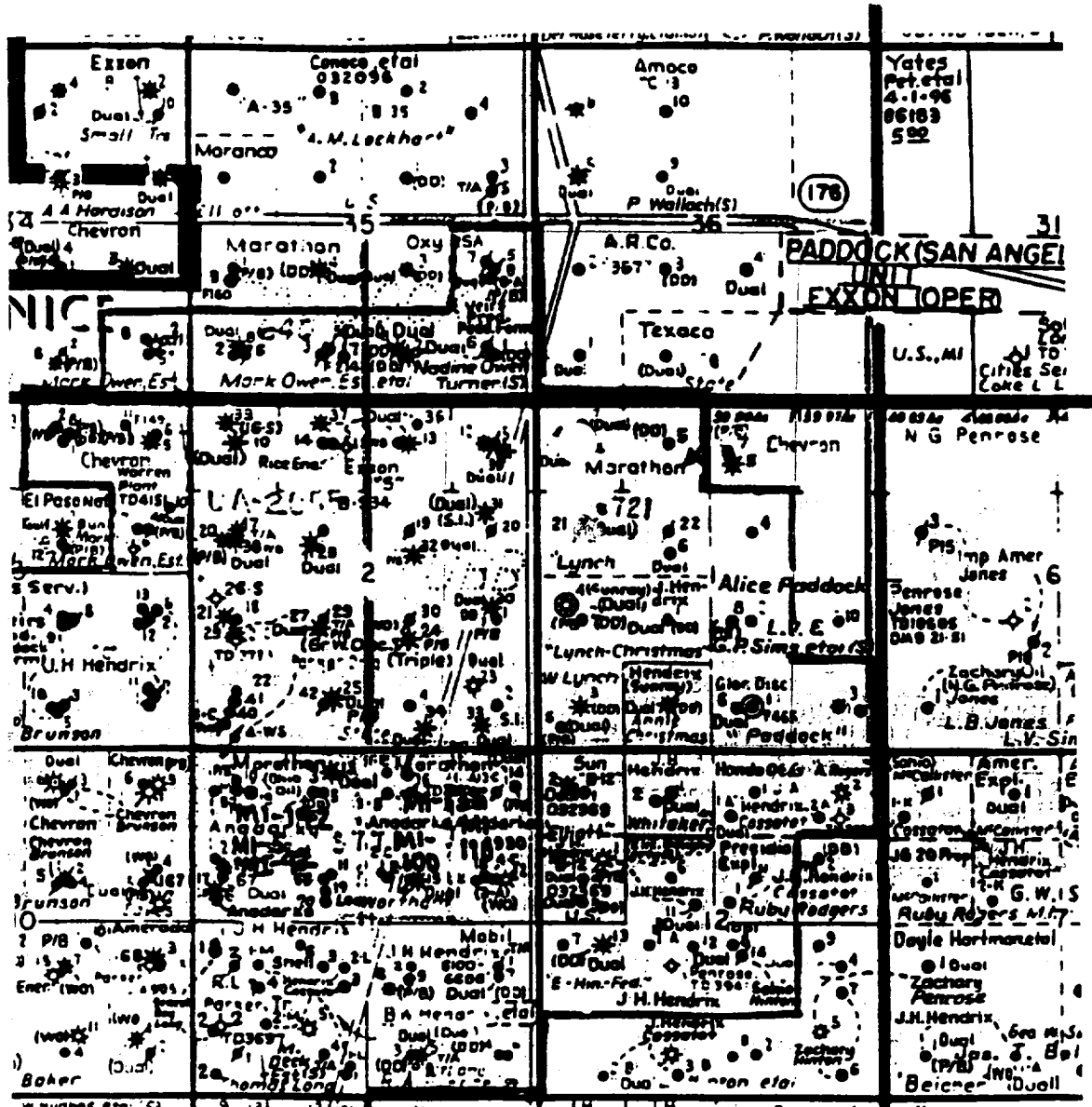
* Well is currently dead. Rates are based upon production prior to a workover.

Allocated Percentages should be:

<u>FORMATION</u>	<u>OIL (%)</u>	<u>GAS (%)</u>	<u>WATER (%)</u>
Tubb	0	51.7	0.0
Blinebry	<u>100.0</u>	<u>48.3</u>	<u>100.0</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.



**LAND PLAT
DRINKARD AREA**

LEA COUNTY, NEW MEXICO

1" = 2800'

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 APT Number 30-025-09949		1 Pool Code		1 Pool Name Blinebry	
1 Property Code		1 Property Name Walter Lynch			1 Well Number 4
1 OGRID No. 14021		1 Operator Name Marathon Oil Company			1 Elevation 3358' GR

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
D	1	22S	37E		660	North	585	West	Lea

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County

12 Dedicated Acres 160	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

				<p>17 OPERATOR CERTIFICATION</p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</i></p> <p></p> <p>Signature Rick D. Gaddis Printed Name Production Engineer Title June 13, 1994 Date</p>

				<p>18 SURVEYOR CERTIFICATION</p> <p><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></p> <p>Date of Survey Signature and Seal of Professional Surveyor: Certificate Number</p>

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 30-025-09949		2 Pool Code		3 Pool Name Tubb	
4 Property Code		5 Property Name Walter Lynch			6 Well Number 4
7 OGRID No. 14021		8 Operator Name Marathon Oil Company			9 Elevation 3358' GR

10 Surface Location

UL or lot no. D	Section 1	Township 22S	Range 37E	Lot Idn	Feet from the 660	North/South line North	Feet from the 585	East/West line West	County 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 160	13 Joint or Infill N	14 Consolidation Code		15 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

				1	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 Production Engineer Title June 13, 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 Surveyor: Certificate Number

OIL CONSERVATION DIVISION

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

GAS - OIL RATIO TEST

Submit 2 copies to Appropriate
District Office.

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

Operator Marathon Oil Company		Pool Blaine		County Lea											
Address PO Box 2409, Hobbs, NM 88240		TYPE OF TEST - (X)		Completion <input type="checkbox"/> Special <input checked="" type="checkbox"/>											
LEASE NAME Walter Lynch * Back pressure valve installed to help prevent gas locking. Casing pressure is 40 psi.	WELL NO. 4	LOCATION			DATE OF TEST 6/6/94	CHOKE SIZE N/A	TBG. PRESS. 150*	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS 24	PROD. DURING TEST			GAS - OIL RATIO CU FT/BBL.		
		U	S	T						R	WATER BBLs.	GRAV. OIL		OIL BBLs.	GAS M.C.F.
		D	1	22S	37E				N/A		2	40	8	310	38,750

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.



Signature

Rick D. Gaddis, Production Engineer

Printed name and title

June 13, 1994

(505) 393-7106

Date

Telephone No.

Submit 2 copies to Appropriate District Office.

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

State of New Mexico

Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

Form C-116
Revised 1/1/89

GAS - OIL RATIO TEST

Operator Marathon Oil Company		Pool Tubb		County Lea												
Address PO Box 2409 Hobbs, NM 88240		TYPE OF TEST - (X)		Completion <input type="checkbox"/> Scheduled <input type="checkbox"/>		Special <input checked="" type="checkbox"/>										
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	STATUS	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.	GAS M.C.F.
Walter Lynch	4	D	1	22S	37E	3/15/94	F	N/A	20	--	24	0	N/A	0	332*	--
* Gas rate prior to workover Well is currently dead.																

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.

Signature

Rick D. Gaddis

Rick D. Gaddis, Production Engineer
Printed name and title

June 13, 1994

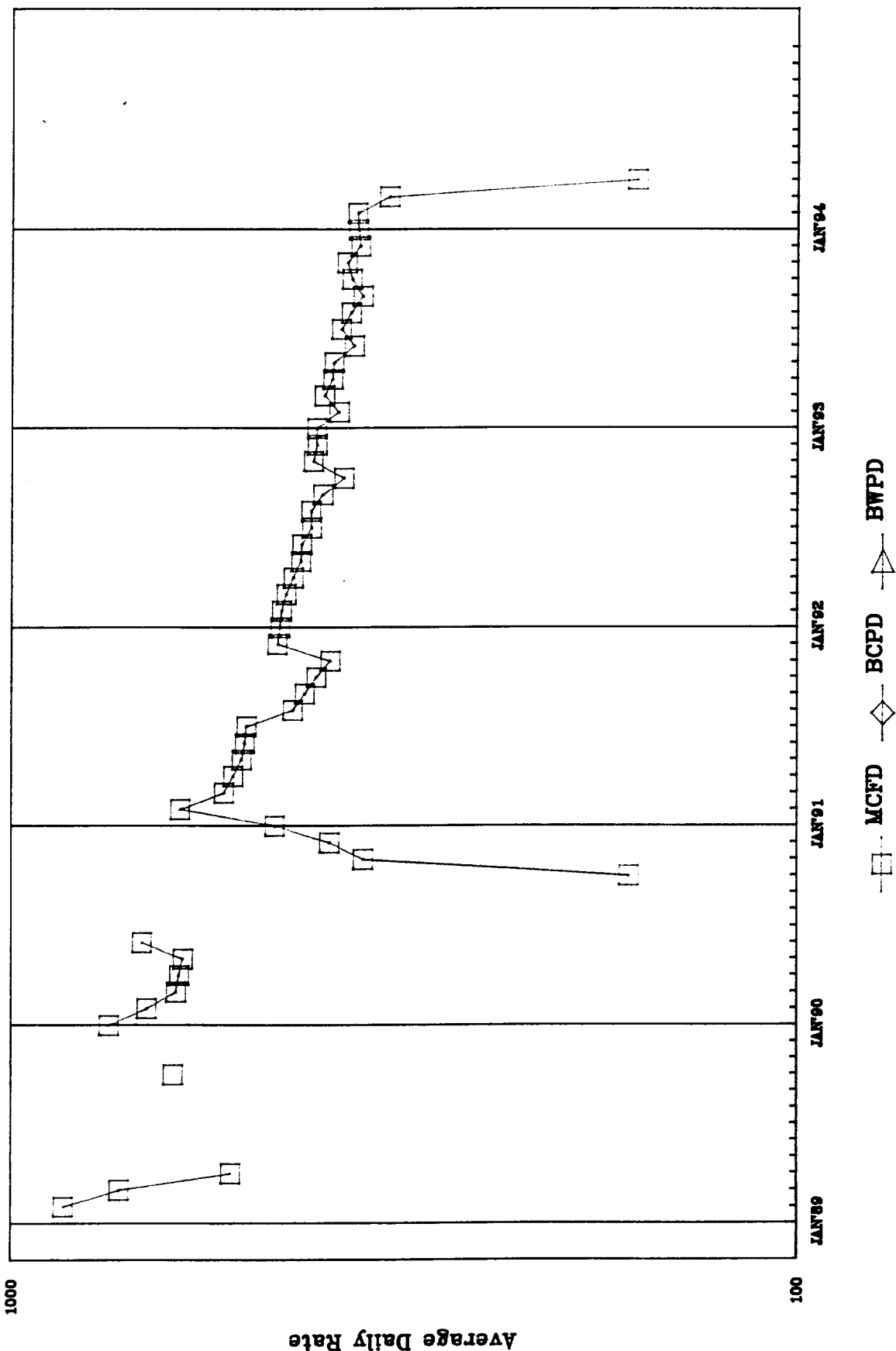
Date

(505) 393-7106

Telephone No.

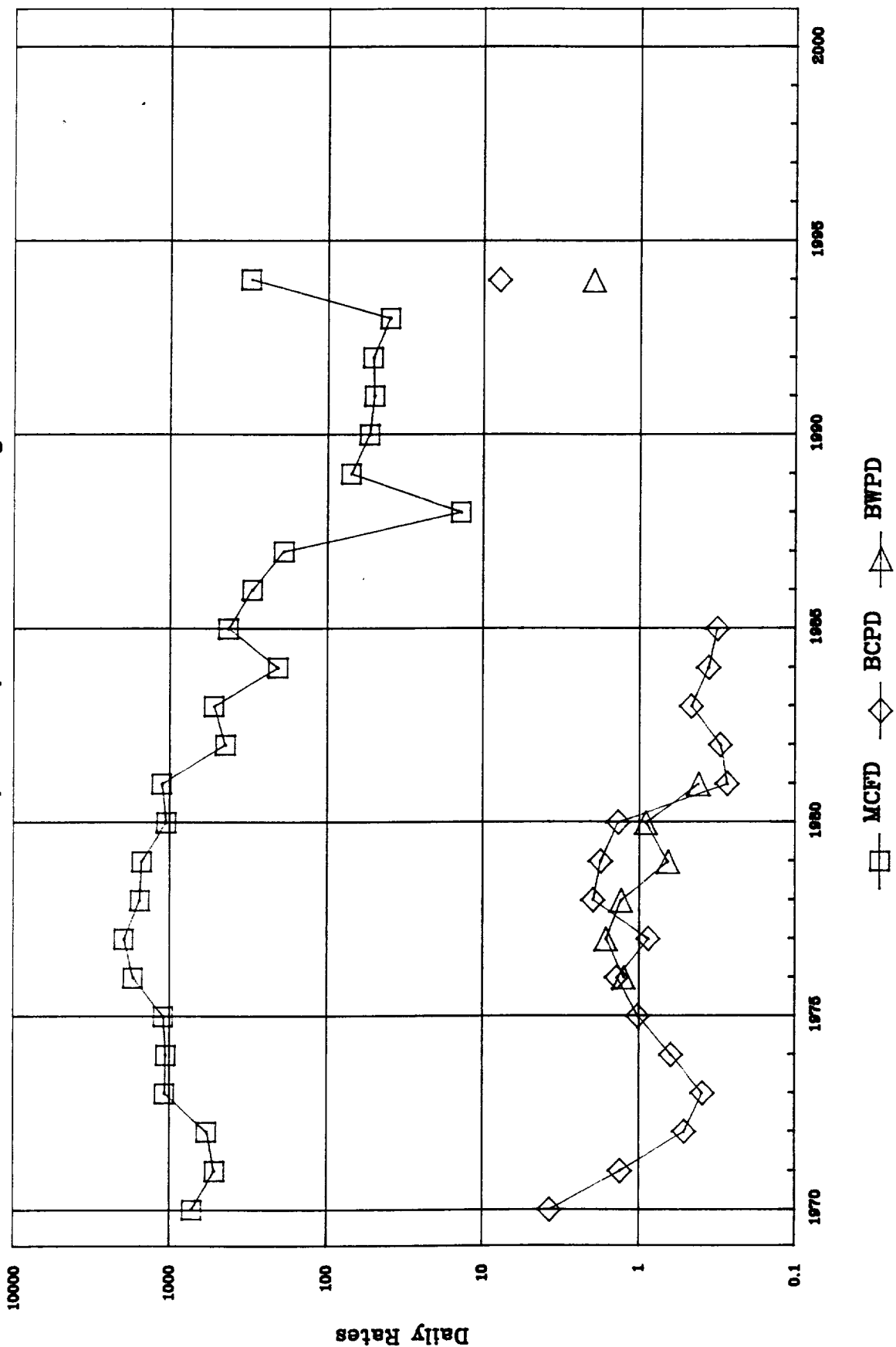
WALTER LYNCH WELLS NO. 4C

Average Daily Tubb Production Rate



WALTER LYNCH WELL No. 4C

Daily Blinebry Production Averages



WALTER LYNCH WELL NO. 4

DRINKARD FIELD

Unit D, 660' FSL & 585' FEL

Section 1, T-22S, R-37E

Lea County, New Mexico

TD: 6535' PBTD: 6366'

KB: 3371' GL: 3358'

SURFACE: 13 3/8" set at 310' cmt'd
250 sxs.

INTERMEDIATE: 8 5/8" set to 2796'.
Cmt'd w/ total of 1500 sxs.

PRODUCTION: 5 1/2", 17#/ft, set at
6430'. Cemented with 500 sxs.

TUBING STRINGS: 2 1/16", 3.25#/ft,
J-55, IJ tubing.

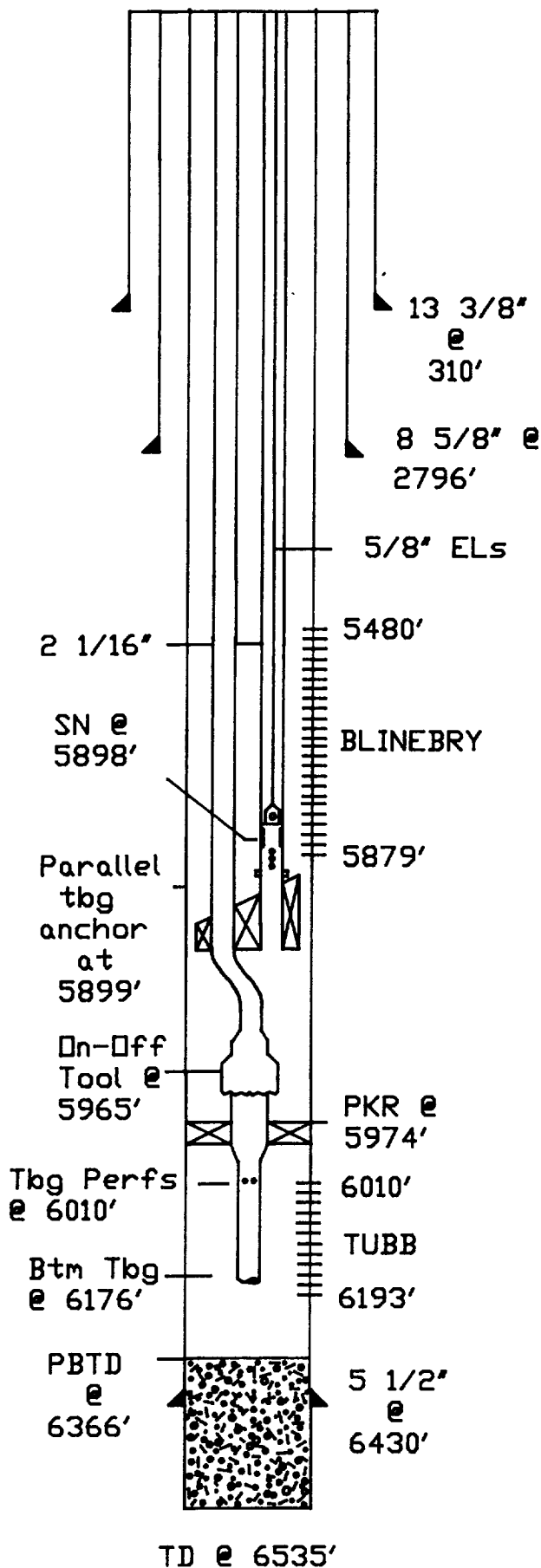
Short String: Blinebry, 1.5"
seating nipple at 5898', 4' perf-
sub latched into parallel tubing
anchor at 5899'.

Long String: Tubbi, Btm of 2 1/16"
tbg at 6176'. 5 1/2" Baker Lok-
packer at 5974', 8'-2 3/8" N-80
sub Baker on-off tool w/ 1.43"
profile at 5965' with x-over.

PRESENT COMPLETIONS:

Tubbi: 6010-68', 6075-85', 6088-
6127' & 6155-6193', 4 JSPF.

Blinebry: 5480-5515', 5530-60', 5580-
5630', & 5645-75', 4 JSPF.
5690', 92', 97', 5701', 04', 06',
12', 15', 66', 68', 70', 82', 87',
92', 99', 5801', 03', 05', 07',
09', 18', 20', 61', 63', 70', 72',
77' & 79', 1 JSPF.



OFFSET OPERATORS

WALTER LYNCH LEASE SECTION 1, T-22-S, R-37-E LEA COUNTY, NEW MEXICO

American Exploration Company
1331 Lamar, Suite 900
Houston, TX 77010-3088

Chevron USA, Inc.
PO Box 1150
Midland, TX 79702

Cross Timbers Oil Company
810 Houston, Ste 2000
Ft. Worth, Texas 76102-6298

Exxon Company USA
PO Box 1600
Midland, TX 79702

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

OXY USA, Inc.
PO Box 50250
Midland, TX 79705

Texaco Exploration and Production Company, Inc.
PO Box 3109
Midland, TX 79702

June 13, 1994

Offset Operators
Walter Lynch Well No. 4
(mailing list attached)

RE: REQUEST FOR EXCEPTION TO RULE 303-A
DOWNHOLE COMMINGLING
MARATHON OIL COMPANY
WALTER LYNCH WELL NO. 4
UNIT D, 660' FNL & 585' FWL
SECTION 1, T-22-S, R-37-E
TUBB AND BLINEDRY 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:SPG/9479/kc
Attachments

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

Submit 3 Copies
to Appropriate
District Office

State of New Mexico
E. gy, Minerals and Natural Resources Departm.

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. 30-025-09949
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 checked="" type="checkbox"/> OTHER Dual Gas Well		7. Lease Name or Unit Agreement Name Walter Lynch	
2. Name of Operator Marathon Oil Company		8. Well No. 4	
3. Address of Operator PO Box 2409 Hobbs, NM 88240		9. Pool name or Wildcat Blinebry/Tubb	
4. Well Location Unit Letter D : 660 Feet From The North Line and 585 Feet From The West Line Section 1 Township 22S Range 37E NMPM Lea County			
		10. Elevation (Show whether DF, RKB, RT, GR, etc.) 3358' GR	

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: Downhole Commingling <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 proposes the downhole commingling of the Blinebry and Tubb formations of the Walter Lynch Well No. 4. The Blinebry currently produces 8 BOPD, 310 MCFD, and 2 BWPD by rod pump. The Tubb currently will not flow due to workover fluids loading up the formation. Production of the Tubb is expected to return to 332 MCFD by downhole commingling and rod pumping both zones. Total production is expected to be 8 BOPD, 642 MCFD, and 2 BWPD. This project will commence upon NMOCD approval of the downhole commingling request.

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

SIGNATURE 	TITLE Production Engineer	DATE June 13, 1994
TYPE OR PRINT NAME Rick D. Gaddis		(505) TELEPHONE NO. 393-7106

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY: