



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

GOVERNOR

4/28/95

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

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

DAC-1136

RE: Proposed:

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

Gentlemen:

I have examined the application for the:

Marathon Oil Co Dayton Hardy #3-T 20-21s-37e
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 552
Midland, TX 79702-0552
Telephone 915/682-1626

April 20, 1995

**Mr. David Catanach
State of New Mexico
Oil Conservation Division
Energy and Minerals Department
2040 South Pacheco
Santa Fe, New Mexico 87501**

**Re: Request for Exception to Rule 303-A
Downhole Commingling
Dayton Hardy No. 3
UL 'J' 1980' FSL & 1980' FEL
Sec. 20, T-21-S, R-37-E
Blinebry and Drinkard Pools
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.

This well was recently plugged back and recompleted, then swab tested in the Tubb oil and gas pool. A retrievable bridge plug was set isolating the Tubb. The Blinebry was then perforated, acidized and is now being rod pumped.

Commingling of the two zones will allow for incremental production to be gained from the Drinkard while continuing to produce the Blinebry Pool. This will reduce waste and maximize the productive capability of the wellbore. It will also allow Marathon to use its existing production equipment to its optimum efficiency. The well will continue to be rod pumped keeping producing reservoir pressures and minimizing cross flow.

Enclosed is the pertinent data supporting this application as outlined in Rule 303-A. If additional information is necessary, please contact Tom Price at (915) 687-8324.

Sincerely,

**Thomas M. Price
Advanced Engineering Technician**

TMP\9507\jb

Attachments

REQUEST FOR EXCEPTION TO RULE 303-A
Dayton Hardy # 3
Downhole Commingle Blinebry Oil & Gas & Drinkard Pools

- A: Operator
Marathon Oil Company
P.O. Box 552
Midland, Texas 79702
- B: Lease Name & Well No
Dayton Hardy No. 3
UL "J" 1980' FSL & 1980' FEL
Sec 20, T-21-S, R-37-E
Lea Co., New Mexico
- C: Plats and Offset Operators
Attached
- D: C-116's
Attached
- E: Production Decline Curves
The Blinebry is a recent completion and no production data is available for Drinkard since 1970. See attached notices and completion reports in lieu of production decline curves as per Rule 303-A section "D" item (5).
- F: Estimated Bottomhole Pressures
Blinebry - calculated - 400
Drinkard - measured - 414
- G: Fluid Characteristics
Marathon has surface commingled the produced fluids from both zones without compatibility problems.
- H: Value
Marathon receives the same price for product from both zones and value will not be adversely affected. If the Downhole Commingling is permitted additional reserves will be recovered from the Tubb, while maximizing recoveries from the Blinebry.

I: Production Allocation

<u>Pool</u>	<u>BOPD</u>	<u>MCFPD</u>	<u>BWPD</u>	<u>ESTIMATE METHOD</u>
Blinebry	14	107	19	Pump Tests
Drinkard	6	30	43	Swab Tests
TOTAL	20	137	62	

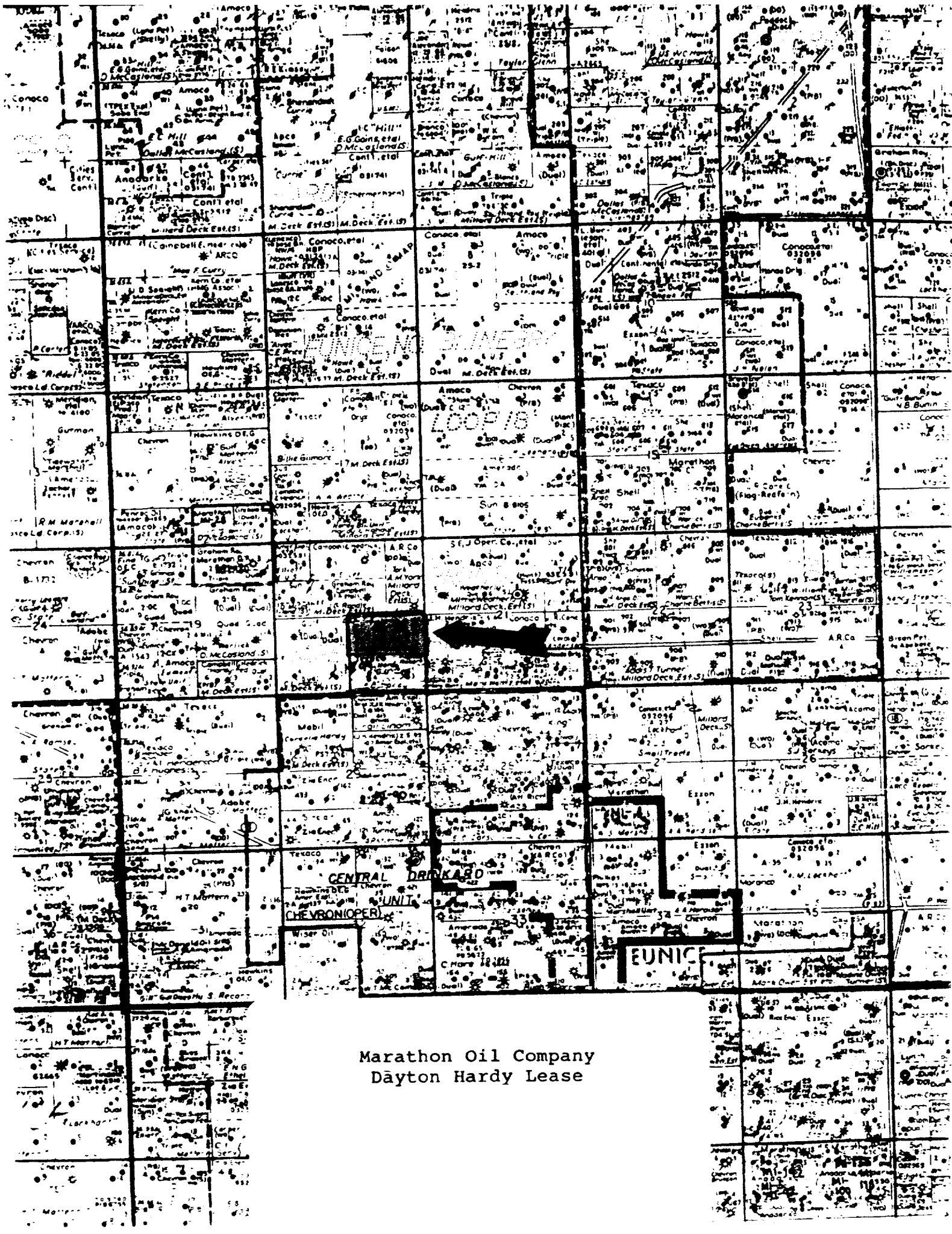
<u>Allocated Percentages</u>	<u>Oil %</u>	<u>Gas %</u>	<u>Water %</u>
Blinebry	70	78	31
Drinkard	30	22	69
TOTAL	100	100	100

J: Ownership

Ownership of all zones is in common and correlative rights will not be violated.

K: Offset Operator Notification

By copy of this letter we are notifying all offset operators (see list, Item C) of the proposed commingling, by certified mail.



Marathon Oil Company
Dayton Hardy Lease

**Marathon Oil Company
Dayton Hardy Lease
N/2 SE/4 Section 20, T-21-S, R-37-E
Lea County, New Mexico
Offset Operators and Addresses**

Section 20, Township 21-S, Range 37-E

**Cross Timbers Operating Company
810 Houston St., Ste 2000
Ft. Worth, TX 76102-6298**

**Campbell and Hedrick
P.O. Box 401
Midland, TX 79702-0401**

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

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

**P & P Producing Incorporated
P.O. Box 3178
Midland, TX 79702-3178**

**Chevron USA Incorporated
15 Smith Rd., Midland, TX 79705
P.O. Box 1150
Midland, TX 70702-1150**

**Texaco Exploration and Production Inc.
Heritage Center, Midland, TX 79701
P.O. Box 3109, Midland, TX 79702-3109**

Section 21, Township 21-S, Range 37-E

**Stevens and Johnson Operating Co.
P.O. Box 2249
Witcha Falls, TX 76307-2249**

**Conoco Incorporated
10 Desta Drive, Ste 100W
Midland, TX 79705**

Mid-Continent Region
Production United States



**Marathon
Oil Company**

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

April 20, 1995

**Offset Operators
Dayton Hardy Lease
(Mailing List Attached)**

**Re: Request for Exception to Rule 303-A
Downhole Commingling
Dayton Hardy No. 3
UL 'J' 1980' FSL and 1980' FEL
Sec. 20, T-21-S, R-37-E
Blinbry and Drinkard Pools
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 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 attached addressed envelope. Also, please return one copy to Marathon at the letterhead address.

Sincerely,

**Thomas M. Price
Advanced Engineering Technician**

TMP/9509/tr
Enclosure

Agreed and accepted this _____ day of _____ 1995

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 S. Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

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

WELL API NO.
30-025-06689

5. Indicate Type of Lease
STATE ☐ FEE ☒

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 ☒ GAS WELL ☐ OTHER

2. Name of Operator
Marathon Oil Company

8. Well No.
3

3. Address of Operator
P.O. Box 552, Midland, TX 79702

9. Pool name or Wildcat
BLINEBRY/DRINKARD

4. Well Location
Unit Letter J 1980 Feet From The SOUTH Line and 1980 Feet From The EAST Line

Section 20 Township 21-S Range 37-E NMPM LEA County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)
GL:3495 KB:3506

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

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐ REMEDIAL WORK ☐ ALTERING CASING ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐ COMMENCE DRILLING OPERATIONS ☐ PLUG AND ABANDONMENT ☐
PULL OR ALTER CASING ☐ CASING TEST AND CEMENT JOB ☐
OTHER ☐ OTHER RECOMPLETE BLINEBRY & DRINKARD ☒

11. 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)

3-7- MIRU PU. POOH W/RODS & PUMP. NU BOP. POOH W/TBG. TESTED BOP. C/O TO 3869'. SQZD
PERF 3940-64 W/50SX CLASS "C" CMT. SQZD GRAYBURG PERFS 3709-3822 W/125 SX CLASS "C" CMT.
DRILED OUT CMT & RETAINER FROM 3620-3828. TESTED 3709-3822 SQZ TO 1000 PSI. TEST OK.
DRILED CMT & RETAINER 3884-3967. TESTED SQZ 3940-64 TO 1000 PSI. DRILLED OUT CIBP @ 5352.
C/O TO 6671' TD. ACIDIZED OPEN HOLE SECTION W/4500 GALLONS 15% HCL. SWABBED BACK TO
FRAC TANK. RAN STATIC BHP. SET RBP @ 6605'. LOADED HOLE W/2% KCL. PERFORATED DRINKARD
6479-6592 W/2JSP4 -116 HOLES. ACIDIZED 6479-6592 W/5500 GALLONS 15% HCL. SWABBED TO FRAC
TANK. RETRIEVED RBP & RESET @ 5910'. LOADED HOLE W/2% KCL. PERFED BLINEBRY 5586-90, 5600-10,
5620-35, 5648-52, 5665-80, 5774-85, 5805-10, 5815-20, 5830-35, 5858-62 W/2 JSPF. (156
HOLES). ACIDIZED BLINEBRY W/3000 GALLONS 15% HCL. FRACTURED W/50,000 GALLONS 65 QUALITY CO2
FOAM & 133,000# SAND. BLEW BACK TO FRAC TANK TO CLEAN UP. POOH W/STIMULATION STRING. C/O TO
5872'. INSTALLED 2 3/8" PRODUCTION TBG. ND BOP. NU TREE. INSTALL 1 1/2" PUMP & RODS. RDMO
PU. SET PUMPING UNIT TURNED WELL TO TEST BLINEBRY 4-5-95.

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

SIGNATURE TOM PRICE TITLE AET DATE 4-19-95

TYPE OR PRINT NAME TOM M. PRICE TELEPHONE NO 915-682-1626

This space for State Use

APPROVED BY _____ TITLE _____ DATE _____

FOR THE STATE OF NEW MEXICO

Submit to Appropriate
District Office
State Lease - 6 copies
Fee Lease - 5 copies
DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-105
Revised 1-1-89

OIL CONSERVATION DIVISION

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

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

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

WELL API NO. 30-025-06689
5. Indicate Type Of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well: OIL WELL ☒ GAS WELL ☐ DRY ☐ OTHER _____	7. Lease Name or Unit Agreement Name DAYTON HARDY "C"
b. Type of Completion: NEW WELL ☐ WORK OVER ☒ DEEPEN ☐ PLUG BACK ☐ DIFF RESVR ☒ OTHER _____	
2. Name of Operator Marathon Oil Company	8. Well No. 3
3. Address of Operator P.O. Box 552, Midland, TX 79702	9. Pool name or Wildcat BLINEBRY

4. Well Location Unit Letter J : 1980 Feet From The SOUTH Line and 1980 Feet From The EAST Line Section 20 Township 21-S Range 37-E NMPM LEA County
--

10. Date Spudded 3-7-95	11. Date T.D. Reached	12. Date Compl.(Ready to Prod.) 4-5-95	13. Elevations(DF & RKB, RT, GR, etc.) GL:3495 KB:3506	14. Elev. Casinghead
15. Total Depth 6617	16. Plug Back T.D. RBP @ 5910'	17. If Multiple Compl. How Many Zones 2	18. Intervals Drilled By ALL	19. Rotary Tools ALL
19. Producing Interval(s) of this completion - Top, Bottom, Name 5586-5862 BLINEBRY				20. Was Directional Survey Made NO
21. Type Electric and Other Logs Run NONE				22. Was Well Cased NO

23. CASING RECORD (Report all strings set in well)					
CASING SIZE	WEIGHT LB. FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
NO CHANGE SEE	ORIGINAL	COMPLETION	REPORT		

24. LINER RECORD				25. TUBING RECORD			
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					2 3/8"	5553	NONE

26. Perforation record - interval, size, and number 5586 - 5862 SELECTIVE 156 .5' HOLES	27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC DEPTH INTERVAL AMOUNT AND KIND MATERIAL USED 5586-5862 3000 GALLONS 15% HCL 5586-5862 50,000 GALLONS 65 QUAL CO2 5586-5862 133,000# SAND
---	--

28. PRODUCTION							
Date First Production 4-5-95		Production Method - Flowing, gas lift, pumping - Size and type pump 1 1/2" ROD PUMP				Well Status: Prod. or Shut-in PROD	
Date of Test 4-15-95	Hours Tested 24	Choke Size NONE	Prod'n For Test Period	Oil - Bbl. 14	Gas - MCF 107	Water - Bbl. 19	Gas - Oil Ratio 7643
Flow Tubing Press. PUMP	Casing Pressure 25	Calculated 24-Hour Rate	Oil - Bbl. 14	Gas - MCF 107	Water - Bbl. 19	Oil Gravity - API (Corr.) 37.7	
29. Disposition of Gas (Sold, used for fuel, vented, etc.) VENTED						Test Witnessed By T. W. HALLUM	

30. List Attachments			
31. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief			
Signature _____	Printed Name TOM M. PRICE	Title AET	Date 4-19-95

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 BLINEBRY OIL & GAS / DRINKARD				County LEA									
Address P.O. Box 552, Midland, TX 79702		TYPE OF TEST - (X)		SCHEDULED		Completion		Special							
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 BBLs.	GRAV. OIL		OIL BBLs.	GAS M.C.F.
DAYTON HARDY "C" BLINEBRY OIL & GAS	3	J	20	21S	37E	4/15/95	P	NONE	NA	24	19	37.7	14	107	7643
	3	J	20S	21S	37E	3/22/95	S	NONE	NA	24	43	38.2	6	30	5000
DAYTON HARDY "C" DRINKARD CALCULATED FROM SWAB TEST DHC PERMITTING USE 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.

(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

Thomas M. Price

Printed name and title

4/20/95

Date

915/687/8324

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 BLINEBRY OIL & GAS / DRINKARD		County LEA											
Address P.O. Box 552, Midland, TX 79702		TYPE OF TEST - (X)		Completion ☐ Special ☒											
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 BBLs	GRAV. OIL		OIL BBLs	GAS M.C.F.
DAYTON HARDY "C" BLINEBRY OIL & GAS	3	J	20	21S	37E	4/15/95	P	NONE	NA	24	19	37.7	14	107	7643
DAYTON HARDY "C" DRINKARD CALCULATED FROM SWAB TEST DHC PERMITTING USE ONLY	3	J	20S	21S	37E	3/22/95	S	NONE	NA	24	43	38.2	6	30	5000

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Signature

Thomas M. Price

Printed name and title

4/20/95

Date

915/687/8324

Telephone No.