

EXHIBIT I

PRESENT AND PROPOSED MESAVERDE COMPLETIONS  
JICARILLA APACHE LEASE  
RIO ARriba COUNTY, NEW MEXICO

Present Blanco Mesaverde/Basin Dakota dually completed wellbores:

Well No. 8E	1685' FSL	1685' FEL,	Sec. 27, T26N-R5W
Perforated Intervals:			
	Basin Dakota:	7250' - 7490'	
	Blanco Mesaverde:	5250' - 5274	
Well No. 9E	1040' FSL	1685' FEL,	Sec. 28, T26N-R5W
Perforated Intervals:			
	Basin Dakota:	7234' - 7466'	
	Blanco Mesaverde:	5232' - 5336'	
Well No. 13E	1850' FNL	930' FWL,	Sec. 33, T26N-R5W
Perforated Intervals:			
	Basin Dakota:	7100' - 7195'	
	Blanco Mesaverde:	5126' - 5150'	
Well No. 14E	1850' FNL	1685' FWL,	Sec. 34, T26N-R5W
Perforated Intervals:			
	Basin Dakota:	7100' - 7332'	
	Blanco Mesaverde:	4950' - 5241'	
Well No. 16E	825' FNL	955' FEL,	Sec. 34, T26N-R5W
Perforated Intervals:			
	Basin Dakota:	7200' - 7430'	
	Blanco Mesaverde:	5148' - 5278'	

Present Basin Dakota only wellbores to be recompleted in the Blanco Mesaverde and downhole commingled with the Basin Dakota by January 1, 1991.

Well No. 8	990' FSL,	990' FEL,	Sec. 27, T26N-R5W
Well No. 9	990' FNL,	1100' FEL,	Sec. 28, T26N-R5W
Well No. 10E	1040' FNL,	1685' FWL,	Sec. 27, T26N-R5W
Well No. 11E	955' FNL,	1685' FWL,	Sec. 28, T26N-R5W
Well No. 12	800' FNL,	800' FEL,	Sec. 33, T26N-R5W
Well No. 16	1600' FSL,	900' FEL,	Sec. 34, T26N-R5W

BLL/014.274/cb

BEFORE EXAMINER CATANACH	
OIL CONSERVATION DIVISION	
<i>Marathon</i>	EXHIBIT NO. <u>1</u>
CASE NO.	<u>9733</u>

EXHIBIT II

OFFSET OPERATORS  
JICARILLA APACHE LEASE  
Sections 27, 28, 33, 34, T26N, R5W  
RIO ARriba COUNTY, NEW MEXICO

Amoco Production Company  
2325 E. 30th Street  
Farmington, New Mexico

Union Texas Petroleum  
375 U.S. Highway 64, NBU 3004  
Farmington, New Mexico 87401

Conoco Inc.  
P. O. Box 1959  
Midland, Texas 79702

Southern-Union Exploration  
324 Highway 64, NBU 3001  
Farmington, New Mexico 87401

Meridian Oil Inc.  
P. O. Box 4289  
Farmington, New Mexico 87499

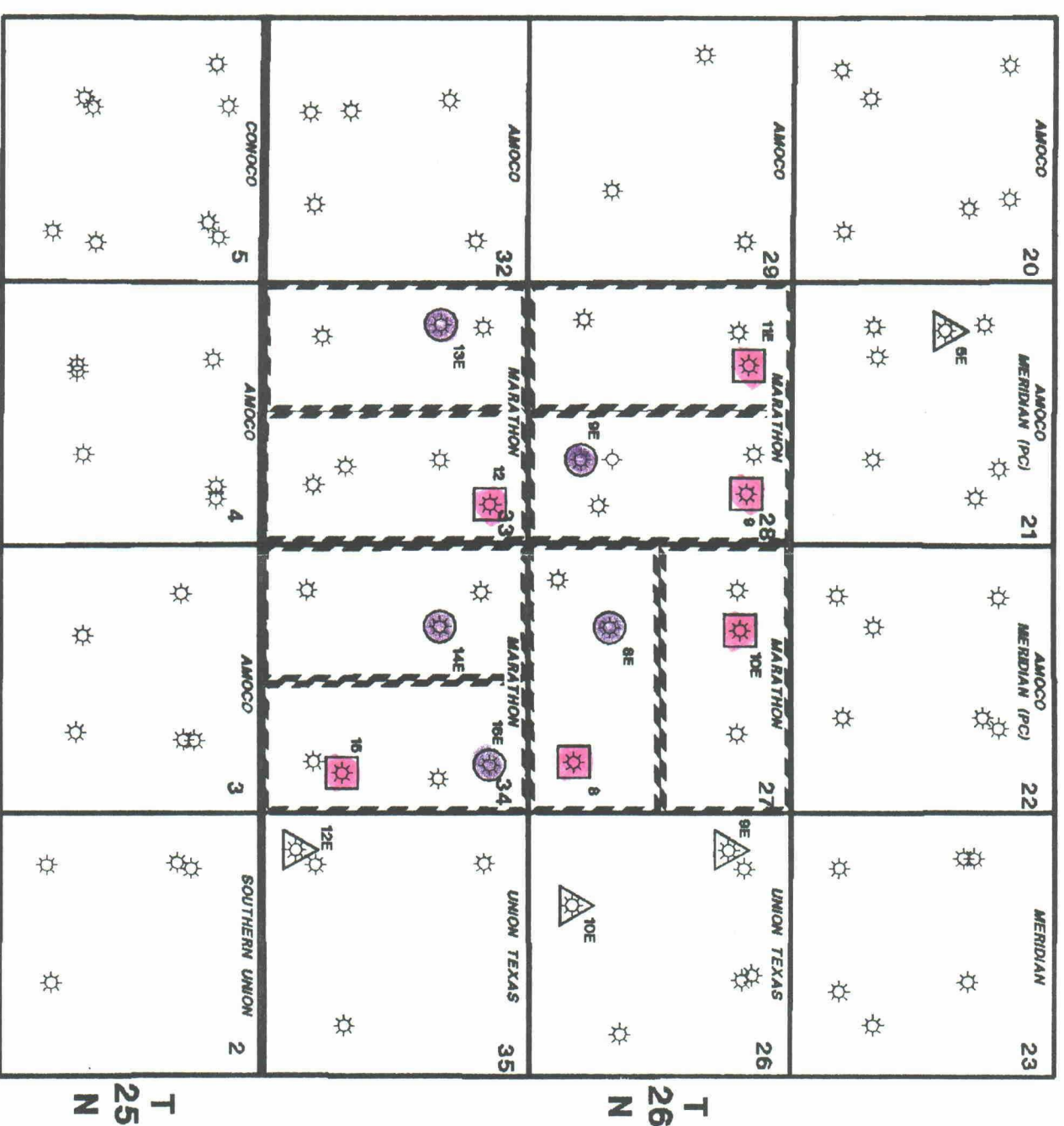
BLL/014.274/cb

BEFORE EXAMINER CATANACH	
OIL CONSERVATION DIVISION	
<i>Mauson</i>	EXHIBIT NO. <u>2</u>
CASE NO. <u>9733</u>	

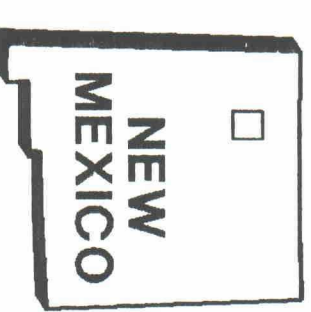
## EXHIBIT 3

# JICARILLA APACHE

**R-5-W**



- ☐ CURRENT DUAL MV/DK COMPLETION
- ☐ MV/DK DOWNHOLE COMMINGLED
- ☐ PROPOSED MV RECOMPLETION
- ☒ ACREAGE DEPLICATION OUTLINE



# EXHIBIT 4

Mid-Continent Region  
Exploration United States



**Marathon  
Oil Company**

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

May 19, 1989

State of New Mexico  
Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Attention: Division Director

Re: Rule 303 C - Downhole Commingling

Marathon Oil Company requests permission to downhole commingle production in its Jicarilla Apache Well No. 14E. The legal description for this well is 1850' FNL and 1685' FWL, Section 34, T26N, R5W, Rio Arriba County, New Mexico. This well is a dual completion under Division Order No. MC-2973. This well produces from the Basin Dakota from perforations at 7100'-7332' and from the Blanco Mesaverde from perforations at 4952'-5243'.

An attached C-116 shows the most recent production from the Basin Dakota formation. The Blanco Mesaverde formation has not produced separately. However, during a 30 day commingled test of these formations the well produced at a stabilized rate of 549 MCFPD, 10.2 BCPD and 2.6 BWPD. Previous commingling of these two zones by other operators in this area have shown that the gas, condensate and waters produced by these two formations are compatible and will not result in formation damage if commingled. The value of the commingled gas and condensate will not be reduced by commingling. Ownership of the two zones is also the same. The bottomhole pressures of the two zones corrected to a depth of 5000' for purposes of comparison is 1287 psia for the Blanco Mesaverde and 1191 psia for the Basin Dakota.

Letters have been sent to all offset operators and the BLM notifying them of the proposed commingling. A copy of one of these letters is attached. Also attached is a production decline curve for the past 5 years for the Basin Dakota formation. A map showing the location of the well is also attached. Production should be assigned to the Basin Dakota based on extrapolation of the decline curve. The difference between total production and extrapolated Dakota production should be assigned to the Blanco Mesaverde.

BEFORE EXAMINER CATANACH  
OIL CONSERVATION DIVISION

*Marathon* EXHIBIT NO. 4

CASE NO: 9733

Marathon Oil Company

May 19, 1989

Page 2

If any further questions or comments should arise, please contact Mr. M. A. Zoller, Production Superintendent at (915) 682-1626. Thank you.

Sincerely,

MARATHON OIL COMPANY

A handwritten signature in cursive script that reads "Nancy Engler". The signature is written in dark ink and is positioned above the printed name and title.

Nancy Engler  
Production Engineer

NCE/akp  
002-89



**Marathon  
Oil Company**

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

May 16, 1989

Union Texas Petroleum  
4001 Bloomfield Highway  
Farmington, New Mexico 87410

Attention: Operations Manager

Re: Marathon Oil Company - Jicarilla Apache Well No. 14E  
1850' FNL, 1685' FWL, Sec. 34, T26N, R5W, Unit F  
Rio Arriba County, New Mexico

Dear Sir:

Marathon Oil Company is requesting permission from the Oil Conservation Division to downhole commingle production in the above referenced well. The Jicarilla Apache Well No. 14E is presently dually completed in the Blanco Mesaverde and the Basin Dakota. Combined production from this well will average approximately 600 MCFGPD, 10 BCPD, and 2.5 BWPD.

If you have no objection to this request, please sign the waiver at the bottom of this letter and return it to my attention. If you have any questions, please contact this office. Thank you.

Sincerely,

MARATHON OIL COMPANY

A handwritten signature in cursive script that reads 'Nancy Engler'.

Nancy Engler  
Production Engineer

NCE/akp  
003-89

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This is to acknowledge that the undersigned waives objection to the downhole commingling, as proposed by Marathon Oil Company in this letter.

\_\_\_\_\_  
Company

\_\_\_\_\_  
Date

\_\_\_\_\_  
Company Representative

\_\_\_\_\_  
Title



**Marathon  
Oil Company**

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

May 16, 1989

Amoco  
P.O. Box 800  
Denver, Colorado 80201

Attention: Micheal Cuba

Re: Marathon Oil Company - Jicarilla Apache Well No. 14E  
1850' FNL, 1685' FWL, Sec. 34, T26N, R5W, Unit F  
Rio Arriba County, New Mexico

Dear Sir:

Marathon Oil Company is requesting permission from the Oil Conservation Division to downhole commingle production in the above referenced well. The Jicarilla Apache Well No. 14E is presently dually completed in the Blanco Mesaverde and the Basin Dakota. Combined production from this well will average approximately 600 MCFGPD, 10 BCPD, and 2.5 BWPD.

If you have no objection to this request, please sign the waiver at the bottom of this letter and return it to my attention. If you have any questions, please contact this office. Thank you.

Sincerely,

MARATHON OIL COMPANY

A handwritten signature in cursive script that reads 'Nancy Engler'.

Nancy Engler  
Production Engineer

NCE/akp  
003-89

-----  
This is to acknowledge that the undersigned waives objection to the downhole commingling, as proposed by Marathon Oil Company in this letter.

\_\_\_\_\_  
Company

\_\_\_\_\_  
Date

\_\_\_\_\_  
Company Representative

\_\_\_\_\_  
Title



**Marathon  
Oil Company**

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

May 16, 1989

Meridian Oil  
3535 E. 30th  
Farmington, New Mexico 87401

Attention: Alan Alexander

Re: Marathon Oil Company - Jicarilla Apache Well No. 14E  
1850' FNL, 1685' FWL, Sec. 34, T26N, R5W, Unit F  
Rio Arriba County, New Mexico

Dear Sir:

Marathon Oil Company is requesting permission from the Oil Conservation Division to downhole commingle production in the above referenced well. The Jicarilla Apache Well No. 14E is presently dually completed in the Blanco Mesaverde and the Basin Dakota. Combined production from this well will average approximately 600 MCFGPD, 10 BCPD, and 2.5 BWPD.

If you have no objection to this request, please sign the waiver at the bottom of this letter and return it to my attention. If you have any questions, please contact this office. Thank you.

Sincerely,

MARATHON OIL COMPANY

A handwritten signature in cursive script that reads 'Nancy Engler'.

Nancy Engler  
Production Engineer

NCE/akp  
003-89

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This is to acknowledge that the undersigned waives objection to the downhole commingling, as proposed by Marathon Oil Company in this letter.

\_\_\_\_\_  
Company

\_\_\_\_\_  
Date

\_\_\_\_\_  
Company Representative

\_\_\_\_\_  
Title



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 Blanco Mesaverde/Basin Dakota		County Rio Arriba										
Address P. O. Box 552, Midland, Texas 79703		TYPE OF TEST - (X)		Completion <input type="checkbox"/> Special <input checked="" type="checkbox"/>										
LEASE NAME	WELL NO.	LOCATION U S T R		DATE OF TEST	CHOKE SIZE	TBQ. PRESS.	DAILY ALLOW. ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST WATER BBL'S GRAV. OIL BBL'S GAS M.C.F.		GAS - OIL RATIO CU FT/BBL			
Jicarilla Apache														
Blanco Mesaverde	14E	F	34	26N	5W	11-2-88	*P 1.000	299		24	2.9	10	560	56000
Basin Dakota	14E	F	34	26N	5W		P							

\*Commingled Test includes production from both formations.

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 *Nancy Engler*

Nancy Engler Production Engineer  
Printed name and title

Date 5/19/89 (915) 682-1626 Telephone No.

Jicarilla Apache Well No. 14E

Allocation formula for production from  
Blanco Mesaverde and Basin Dakota

Exponential decline factors: Mesaverde (MV) = unk.  
Dakota (DK) = .0334/month

Where  $DK_1$  => current production  
 $MV_1$ ,  $DK_2$  => estimated production for following month

$$\ln (DK_1) - .0334 = \ln (DK_2)$$

After estimating the production for the Basin Dakota formation,  
production can be allocated to the Mesaverde based on the  
difference between actual production (T) and estimated Dakota  
production ( $DK_2$ ),

$$[T - DK_2 = MV_2]$$

or production can be allocated based on a straight percentage:

50% Blanco Mesaverde  
50% Basin Dakota

NE:akp

File No. 006-89

November 1988

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPPLICATE  
(Other instructions on reverse side)

1. LEASE DESIGNATION AND SERIAL NO.  
Federal Tribal #154  
2. IF INDIAN ALLOTTEE OR TRIBE NAME

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" for such proposals.

1. WELL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> #344320520	7. UNIT AGREEMENT NAME 14E
2. NAME OF OPERATOR Marathon Oil Company	8. FARM OR LEASE NAME Jicarilla Apache
3. ADDRESS OF OPERATOR P.O. Box 552, Midland, Texas 79702	9. WELL NO. 14E
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below) At surface  SE NW Unit Letter F 1850' FNL & 1685' FWL	10. FIELD AND POOL, OR WILDCAT Blanco Mesaverde/Basin Dako
14. PERMIT NO. 30-039-22591	15. ELEVATIONS (Show whether OF, RT, CR, etc.) 6566' GL, 6579' KB
	11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA Sec. 34, T26N, R5W
	12. COUNTY OR PARISH Rio Arriba
	13. STATE N. Mexico

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETION <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	(Other) <input type="checkbox"/>
(Other) <input checked="" type="checkbox"/> <b>Commingling Zones</b>	<input checked="" type="checkbox"/> <b>X</b>	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Marathon is applying for permission from the Oil Conservation Division to downhole commingle production from the Blanco Mesaverde and Basin Dakota formations.

These two formations were commingled for a 30 day test period from Oct. 2, 1988 to Nov. 2, 1988.

The well will begin commingled production upon receiving approval from the NMOCD, estimated to be received by July 1, 1989.

18. I hereby certify that the foregoing is true and correct

SIGNED m. c. jeller

TITLE Production Superintendent

DATE 6-12-89

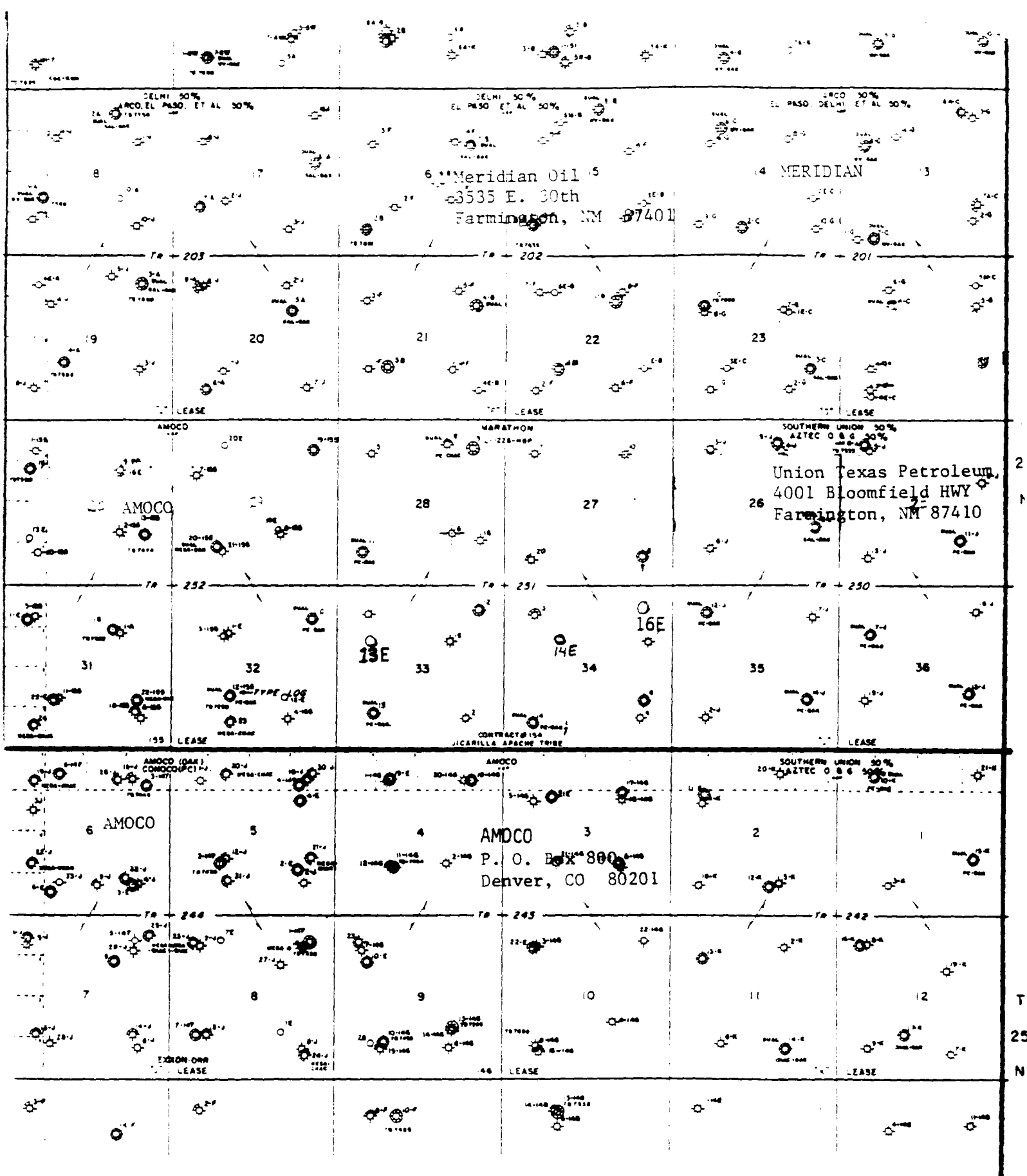
(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

\*See Instructions on Reverse Side



R 5 W

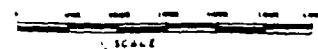


MARATHON OIL COMPANY

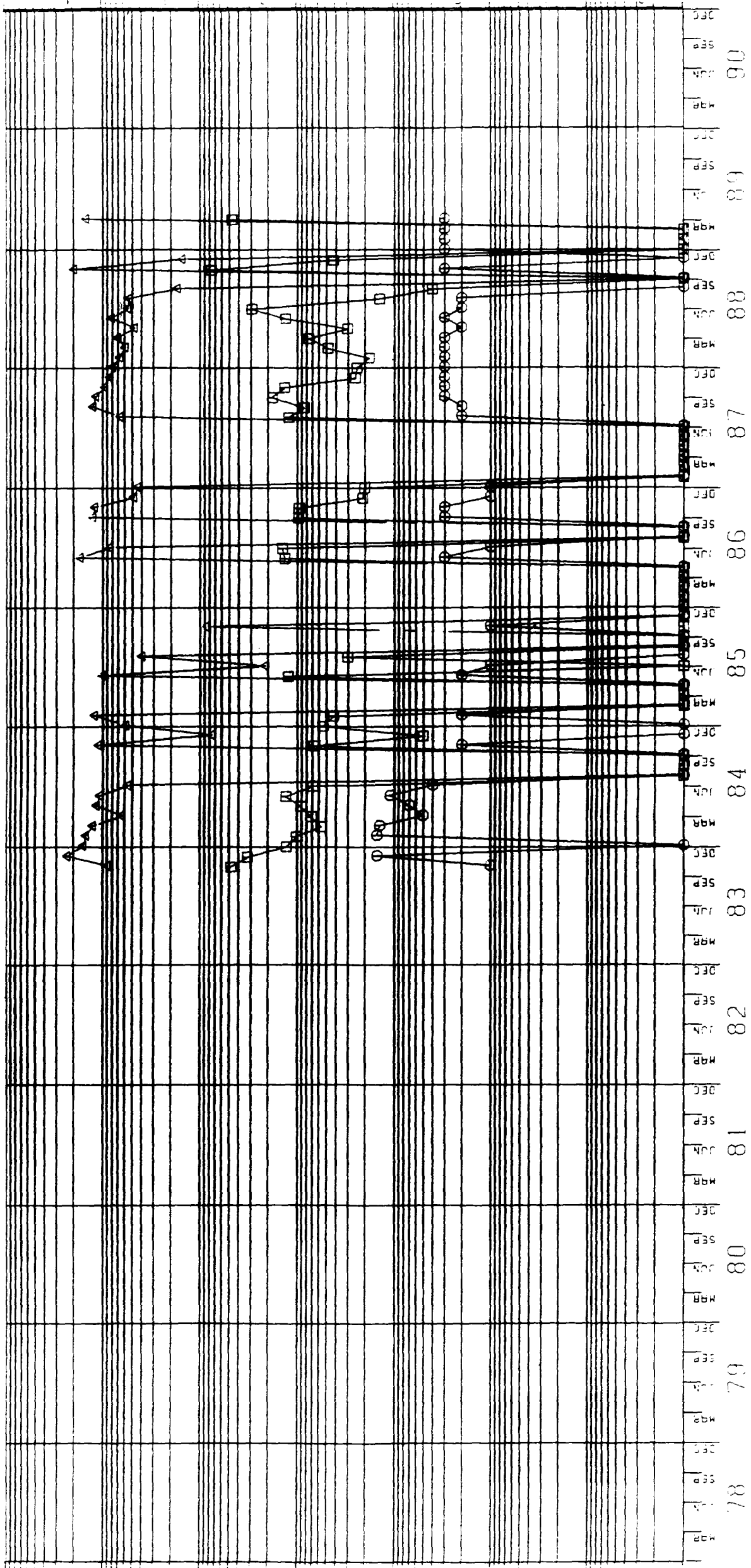
- LEGEND -

- ⊗ PICTURED CLIFFS GAS WELL
- ⊗ MESAVARDE GAS WELL
- ⊗ DAKOTA OIL WELL
- ⊗ DAKOTA GAS WELL
- ⊗ PICTURE CLIFFS & CHACRA GAS WELL
- ⊗ PICTURE CLIFFS DEEPEMED TO DAKOTA
- ⊗ CHACRA GAS WELL

JICARILLA AREA  
RIO ARriba COUNTY, NEW MEXICO



FIELD JICABILLA  
 RESERVOIR BASIN DAKOTA  
 LEASE JICABILLA APACHE BLANCO PICTURE CLIFFS CONT-90154  
 WELL JICABILLA BD 14E



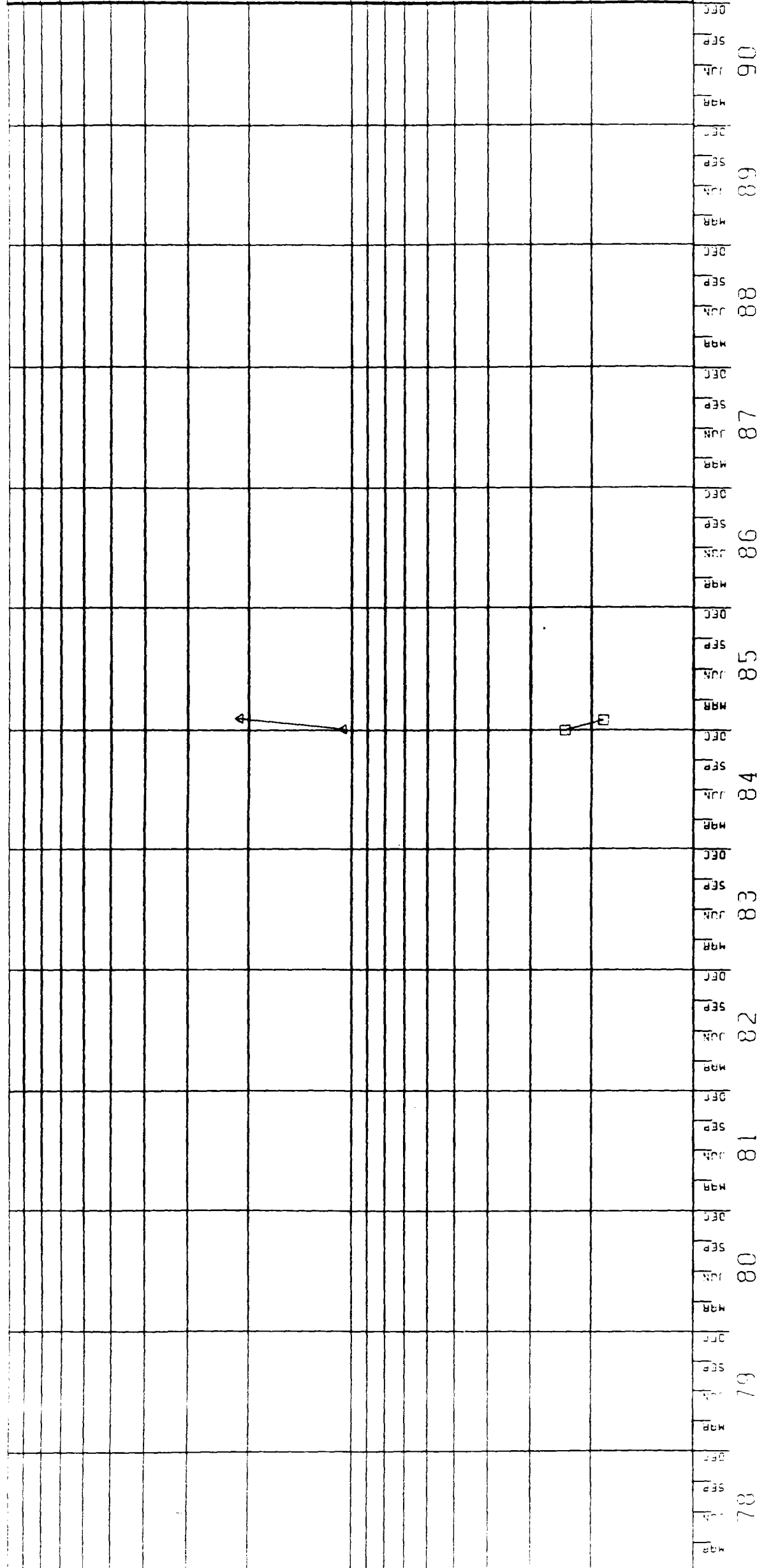
OIL MONTHLY VOL \_\_\_\_\_ □  
 GAS MONTHLY VOLUME \_\_\_\_\_ ○  
 WATER MONTHLY VOLUME \_\_\_\_\_ ▲

FIELD - JICARILLA  
 RESERVOIR - BLANCO MESAVEDE  
 LEASE - JICARILLA APACHE  
 WELL - JICARILLA PL 14E

BLANCO PICTURE CLIFFS CONT-90154

10<sup>4</sup>  
 9  
 8  
 7  
 6  
 5  
 4  
 3  
 2  
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10<sup>4</sup>  
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 5  
 4  
 3  
 2  
 1  
 0



COND MONTHLY VOL   
 GAS MONTHLY VOLUME



**Marathon  
Oil Company**

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

August 21, 1989

State of New Mexico  
Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Attention: Division Director

RE: Rule 303 A - Exception

Marathon Oil Company requests permission to downhole commingle production in its Jicarilla Apache Well No. 8E. The legal description for this well is 1685' FSL and 1685' FWL, Section 27, T26N, R5W, Rio Arriba County, New Mexico. This well is a dual completion under Administrative Order No. MC-2974 and produces from the Basin Dakota Pool through perforations at 7250'-7490' and from the Blanco Mesaverde Pool through perforations at 5250'-5312'.

An attached C-116 shows the most recent production from the Basin Dakota and the Blanco Mesaverde. Previous commingling of these two zones by other operators in this area have shown that the gas, condensate and waters produced by these two formations are compatible and will not result in formation damage if commingled. The value of the commingled gas and condensate will not be reduced by commingling. Ownership of the two zones is also the same. The bottom-hole pressures of the two zones corrected to a depth of 5250' for purposes of comparison is 917 psia for the Blanco Mesaverde and 820 psia for the Basin Dakota.

This well is currently not capable of lifting the Mesaverde condensate to the surface. This loading up of liquid as evidenced by 290 feet of fluid above the perforations (from fluid level measurements) applies a backpressure on the formation which restricts the gas flow. The proposed downhole commingling will allow the Dakota gas, while there are still reserves and pressure available, to "gas lift" the reservoir fluids from the Mesaverde and to relieve the reservoir backpressure. Thus, the downhole commingling should prevent the loss of gas and liquid hydrocarbon reserves. This well last produced condensate in September, 1987.

Letters have been sent to all offset operators notifying them of the proposed commingling. A copy of one of these letters is attached. Also attached is a production decline curve for the past 7 years for the Basin Dakota and the Blanco Mesaverde Pools. A map showing the location of the well is also attached. Production should be assigned to each of the zones using a straight percentage split: Mesaverde - 40%, Dakota - 60%. This split is based upon the latest production figures for the well.

Sincerely,

A handwritten signature in cursive script that reads 'Robert L. Ellis'.

Robert L. Ellis  
Production Engineer

RLE/BLL/011.274/cb

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 Blanco Mesaverde/Basin Dakota		County Rio Arriba										
Address P. O. Box 552, Midland, Texas 79702		TYPE OF TEST - (X)		Completion <input type="checkbox"/> Special <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		
		U	S	T						R	WATER BBLs.	GRAV. OIL	OIL BBLs.	GAS MCF
Jicarilla Apache														
Blanco Mesaverde	8E	K	27	26N	5W	6-8-89	F	0.875	271			0	186	-
Basin Dakota	8E	K	27	26N	5W	6-8-89	F	0.875	275			0.5	232	105,455

#### 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.

*Robert L. Ellis*  
Signature

Robert L. Ellis  
Printed name and title

6/18/89  
Date

Production Engineer

(915) 682-1626

Telephone No.



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE\*  
(Other instructions on re-  
verse side)

Form approved.  
Budget Bureau No. 1004- 105  
Expires August 31, 1985

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—" for such proposals.)

1. <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER		5. LEASE DESIGNATION AND SERIAL NO. Jicarilla Contract No. 15
2. NAME OF OPERATOR Marathon Oil Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME Jicarilla Apache
3. ADDRESS OF OPERATOR P. O. Box 552, Midland, Texas 79702		7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below) At surface NE/4 SW/4 (Unit Letter K) 1685' FSL & 1685' FWL Section 27, T26N, R5W		8. FARM OR LEASE NAME Jicarilla Apache
14. PERMIT NO. 30-049-22588		9. WELL NO. 8E
15. ELEVATIONS (Show whether DF, RT, GR, etc.) 6660' GL, 6673' KB		10. FIELD AND POOL, OR WILDCAT Blanco MV/Basin DK
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 27, T26N, R5W
		12. COUNTY OR PARISH Rio Arriba
		13. STATE New Mexico

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
(Other) <u>Please see below</u>	<u>XX</u>

SUBSEQUENT REPORT OF:

WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
(Other) _____	

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Marathon is applying to the New Mexico Oil Conservation Division to downhole commingle production from the Blanco Mesaverde and Basin Dakota Pools. Upon receiving approval from the NMOCD, a sliding sleeve will be opened and the production from the two pools will be commingled. The estimated start date of this work is January 1, 1990.

18. I hereby certify that the foregoing is true and correct

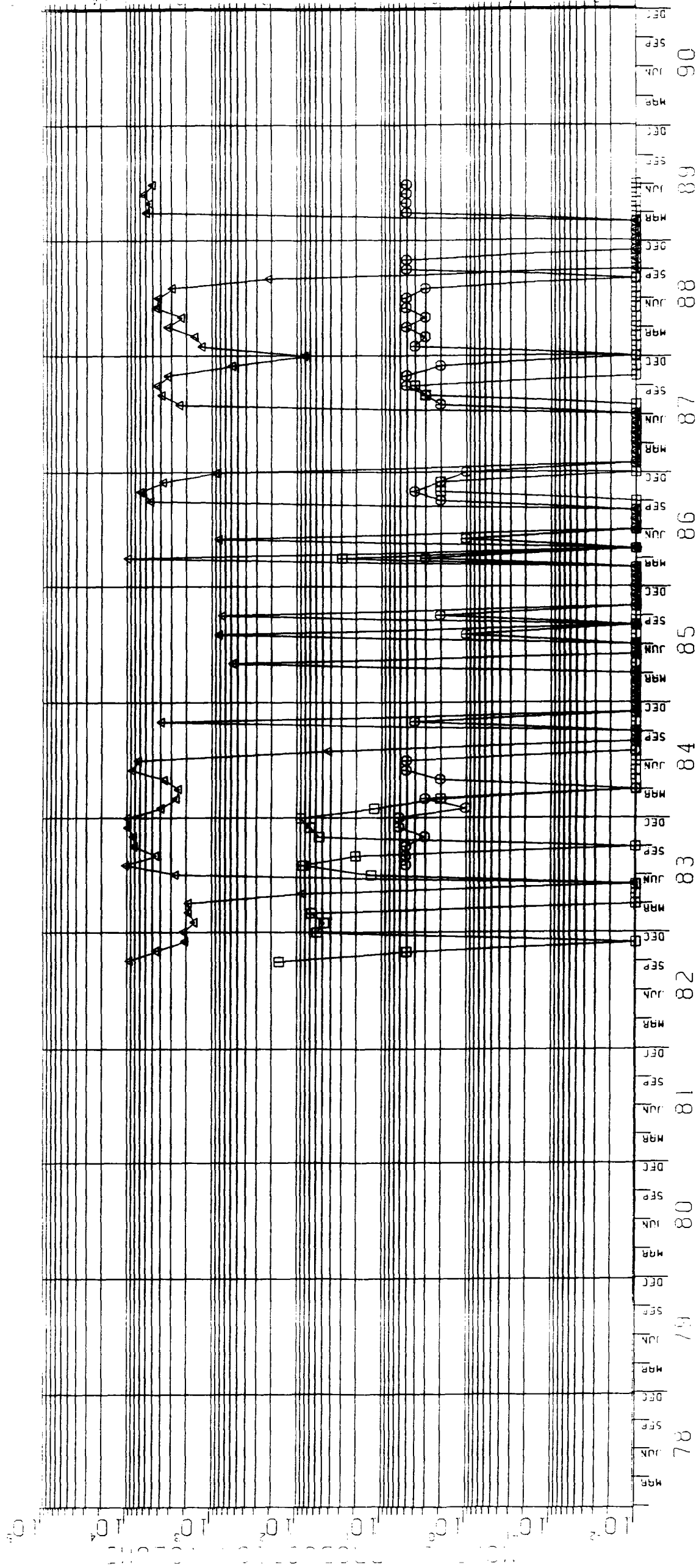
SIGNED Robert L. Ellis TITLE Production Engineer DATE 8-21-89

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

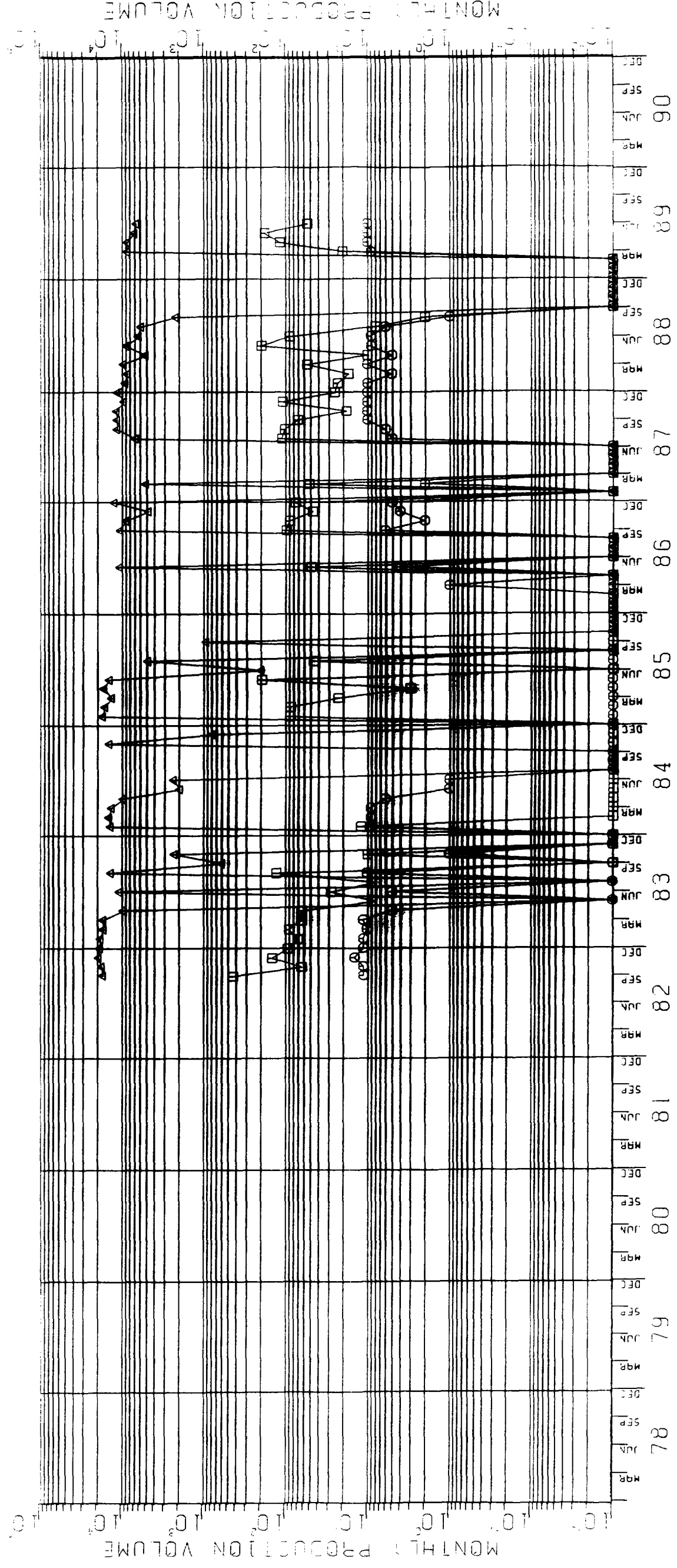
\*See Instructions on Reverse Side

# AGARILLA APACHE #8E (MV)



OIL COND MONTHLY VOL   
 GAS MONTHLY VOLUME   
 WATER MONTHLY VOLUME

JICARILLA APACHE #8E (DK)



OIL + COND MONTHLY VOL

GAS MONTHLY VOLUME

WATER MONTHLY VOLUME

KELLAHIN, KELLAHIN and AUBREY

*Attorneys at Law*

W. Thomas Kellahin  
Karen Aubrey

El Patio - 117 North Guadalupe  
Post Office Box 2265

Telephone 982-4285  
Area Code 505

Jason Kellahin  
Of Counsel

Santa Fe, New Mexico 87504-2265

Fax: 505/982-2047

August 1, 1989

RECEIVED

AUG 1 1989

OIL CONSERVATION DIVISION

HAND-DELIVERED

Mr. William J. LeMay  
Oil Conservation Division  
Post Office Box 2088  
Santa Fe, New Mexico 87501

Re: Marathon Oil Company's Application  
for Downhole Commingling of Production  
in Certain Basin Dakota and Mesaverde  
Well, Rio Arriba County, New Mexico

Dear Mr. LeMay:

On behalf of Marathon Oil Company, please find enclosed our application for hearing to be held on August 23, 1989 for authority to downhole commingling production in the wells set forth on the enclosed application.

By copy of this letter to offsetting operators, we are advising them of our application and their right to appear at the hearing if they desire.

Very truly yours,



W. Thomas Kellahin

WTK/rs  
Encl.

cc: Brent Lowrey - Marathon Oil Company  
Larry Garcia - Marathon Oil Company

"Certified Mail, Return-Receipt Requested"  
All parties shown in application.

RECEIVED

AUG 1 1989

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE APPLICATION OF  
MARATHON OIL COMPANY FOR APPROVAL  
TO DOWNHOLE COMMINGLE PRODUCTION IN  
THE BLANCO MESAVERDE AND BASIN DAKOTA  
IN CERTAIN WELLS, RIO ARriba COUNTY,  
NEW MEXICO.

CASE NO. \_\_\_\_\_

A P P L I C A T I O N

COMES NOW MARATHON OIL COMPANY, by and through its attorneys Kellahin, Kellahin & Aubrey and applies to the New Mexico Oil Conservation Division for authority to downhole commingle production from the Blanco Mesaverde pool with the Basin Dakota pool in the following described wells:

Well No. 8E 1685' FSL, 1685' FWL, S/2 Section 27, T26N, R5W

Perforated Intervals:

Basin Dakota: 7250' - 7490'

Blanco Mesaverde: 5250' - 5274'

Well No. 9E 1040' FSL, 1685' FEL, E/2 Section 28, T26N, R5W

Perforated Intervals:

Basin Dakota: 7234' - 7466'

Blanco Mesaverde: 5232' - 5336'

Well No. 13E 1850' FNL, 930' FWL, W/2 Section 33, T26N, R5W

Perforated Intervals:

Basin Dakota: 7100' - 7195'

Blanco Mesaverde: 5126' - 5150'

Well No. 14E 1850' FNL, 1685' FWL, W/2 Section 34, T26N, R5W  
Perforated Intervals:  
    Basin Dakota: 7100' - 7332'  
    Blanco Mesaverde: 4950' - 5241'

Well No. 16E 825' FNL, 955' FEL, E/2 Section 34, T26N, R5W  
Perforated Intervals:  
    Basin Dakota: 7200' - 7430'  
    Blanco Mesaverde: 5148' - 5278'

Well No. 8 990' FSL, 990' FEL, N/2 Section 27, T26N, R5W

Well No. 9 990' FNL, 1100' FEL, E/2 Section 28, T26N, R5W

Well No. 10E 1040' FNL, 1685' FWL, N/2 Section 27, T26N, R5W

Well No. 11E 955' FNL, 1685' FWL, W/2 Section 28, T26N, R5W

Well No. 12 800' FNL, 800' FEL, E/2 Section 33, T26N, R5W

Well No. 16 1600' FSL, 900' FEL, E/2 Section 34, T26N, R5W

1. Applicant is the operator of the above described wells.

2. By copy of this application to all offsetting operators as setforth on Exhibit (1), Applicant has notified said operators in accordance with Division Notice Rules of the hearing on this matter on August 23, 1989.

WHEREFORE, Applicant requests that this matter be set for hearing and after hearing, the application be granted as requested.

Kellahin, Kellahin & Aubrey

By:   
W. Thomas Kellahin

Post Office Box 2265  
Santa Fe, New Mexico 87504

(505) 982-4285

TABLE II  
OFFSET OPERATORS  
JICARILLA APACHE LEASE  
Sections 27, 28, 33, 34, T26N, R5W  
RIO ARriba COUNTY, NEW MEXICO

Amoco Production Company  
2325 E. 30th Street  
Farmington, New Mexico

Union Texas Petroleum  
375 U.S. Highway 64, NBU 3004  
Farmington, New Mexico 87401

Conoco Inc.  
P. O. Box 1959  
Midland, Texas 79702

Southern-Union Exploration  
324 Highway 64, NBU 3001  
Farmington, New Mexico 87401

Meridian Oil Inc.  
P. O. Box 4289  
Farmington, New Mexico 87499

Exhibit (1)





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

August 21, 1989

State of New Mexico  
Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Attention: Division Director

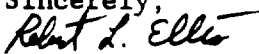
RE: Rule 303 A - Exception

Marathon Oil Company requests permission to downhole commingle production in its Jicarilla Apache Well No. 9E. The legal description for this well is 1040' FSL and 1685' FEL, Section 28, T26N, R5W, Rio Arriba County, New Mexico. This well is a dual completion under Administrative Order No. MC-2975 and produces from the Basin Dakota Pool through perforations at 7234'-7466' and from the Blanco Mesaverde Pool through perforations at 5232'-5336'.

An attached C-116 shows the most recent production from the Basin Dakota and the Blanco Mesaverde. Previous commingling of these two zones by other operators in this area have shown that the gas, condensate and waters produced by these two formations are compatible and will not result in formation damage if commingled. The value of the commingled gas and condensate will not be reduced by commingling. Ownership of the two zones is also the same. The bottom-hole pressures of the two zones corrected to a depth of 5232' for purposes of comparison is 873 psia for the Blanco Mesaverde and 1078 psia for the Basin Dakota.

This well is currently not capable of lifting all of the Mesaverde condensate to the surface. It currently produces approximately 10 barrels of condensate per month, mostly in slugs. This loading up of liquid as evidenced by 737 feet of fluid above the perforations (from fluid level measurements) applies a backpressure on the formation which restricts the gas flow. The proposed downhole commingling will allow the Dakota gas, while there are still reserves and pressure available, to "gas lift" the reservoir fluids from the Mesaverde and to relieve the reservoir backpressure. Thus, the downhole commingling should prevent the loss of gas and liquid hydrocarbon reserves.

Letters have been sent to all offset operators notifying them of the proposed commingling. A copy of one of these letters is attached. Also attached is a production decline curve for the past 7 years for the Basin Dakota and the Blanco Mesaverde Pools. A map showing the location of the well is also attached. Production should be assigned to each of the zones using a straight percentage split: Mesaverde - 20%, Dakota - 80%. This split is based upon the latest production figures for the well.

Sincerely,  
  
Robert L. Ellis  
Production Engineer

RLE/BLL/013.274/cb

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

Form C-116  
Revised 1/1/89

## OIL CONSERVATION DIVISION

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

### GAS - OIL RATIO TEST

Operator Marathon Oil Company		Pool Blanco Mesaverde/Basin Dakota		County Rio Arriba										
Address P. O. Box 552, Midland, Texas 79702		TYPE OF TEST - (X)		Completion <input type="checkbox"/> Special <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.
Jicarilla Apache Blanco Mesaverde Basin Dakota	9E	0	28	26N	5W	6-8-89	F	0.750	274	24	0	0	68	--
	9E	0	28	26N	5W	6-8-89	F	1.375	327	24	0.2	0	734	--

#### 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.

*Robert L. Ellis*  
Signature

Robert L. Ellis  
Printed name and title

6/18/89  
Date

Production Engineer

(915) 682-1626

Telephone No.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE\*  
(Other instructions on re-  
verse side)

Form approved.  
Budget Bureau No. 1004-0135  
Expires August 31, 1985

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—" for such proposals.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. Jicarilla Contract No. 154
2. NAME OF OPERATOR Marathon Oil Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME Jicarilla Apache
3. ADDRESS OF OPERATOR P. O. Box 552, Midland, Texas 79702		7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface  SW/4 SE/4 (Unit Letter O) 1040' FSL & 1685' FEL Section 28, T26N, R5W		8. FARM OR LEASE NAME Jicarilla Apache
14. PERMIT NO. 30-039-22589		9. WELL NO. 9E
15. ELEVATIONS (Show whether DF, ST, OR, etc.) 6684' GL, 6697' KB		10. FIELD AND POOL, OR WILDCAT Blanco MV/Basin DK
		11. SEC., T., R., N., OR S.E.K. AND SURVEY OR AREA Sec. 28, T26N, R5W
		12. COUNTY OR PARISH Rio Arriba
		13. STATE New Mexico

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐  
FRACTURE TREAT ☐  
SHOOT OR ACIDIZE ☐  
REPAIR WELL ☐  
(Other) ☐

PULL OR ALTER CASING ☐  
MULTIPLE COMPLETE ☐  
ABANDON\* ☐  
CHANGE PLANS ☐

Please see below ☒

SUBSEQUENT REPORT-UP:

WATER SHUT-OFF ☐  
FRACTURE TREATMENT ☐  
SHOOTING OR ACIDIZING ☐  
(Other) ☐

REPAIRS- WELLS ☐  
ALTERING CASING ☐  
ABANDONMENT\* ☐

(NOTE: Report results of multiple completion or recompletion operations.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths to each subsurface location pertinent to this work.)

Marathon is applying to the New Mexico Oil Conservation Division to downhole commingle production from the Blanco Mesaverde and Basin Dakota Pools. Upon receiving approval from the NMOC, a sliding sleeve will be opened and the production from the two pools will be commingled. The estimated start date of this work is January 1, 1990.

18. I hereby certify that the foregoing is true and correct

SIGNED

*Robert L. Ellis*

TITLE

*Production Engineer*

DATE

*8-21-89*

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

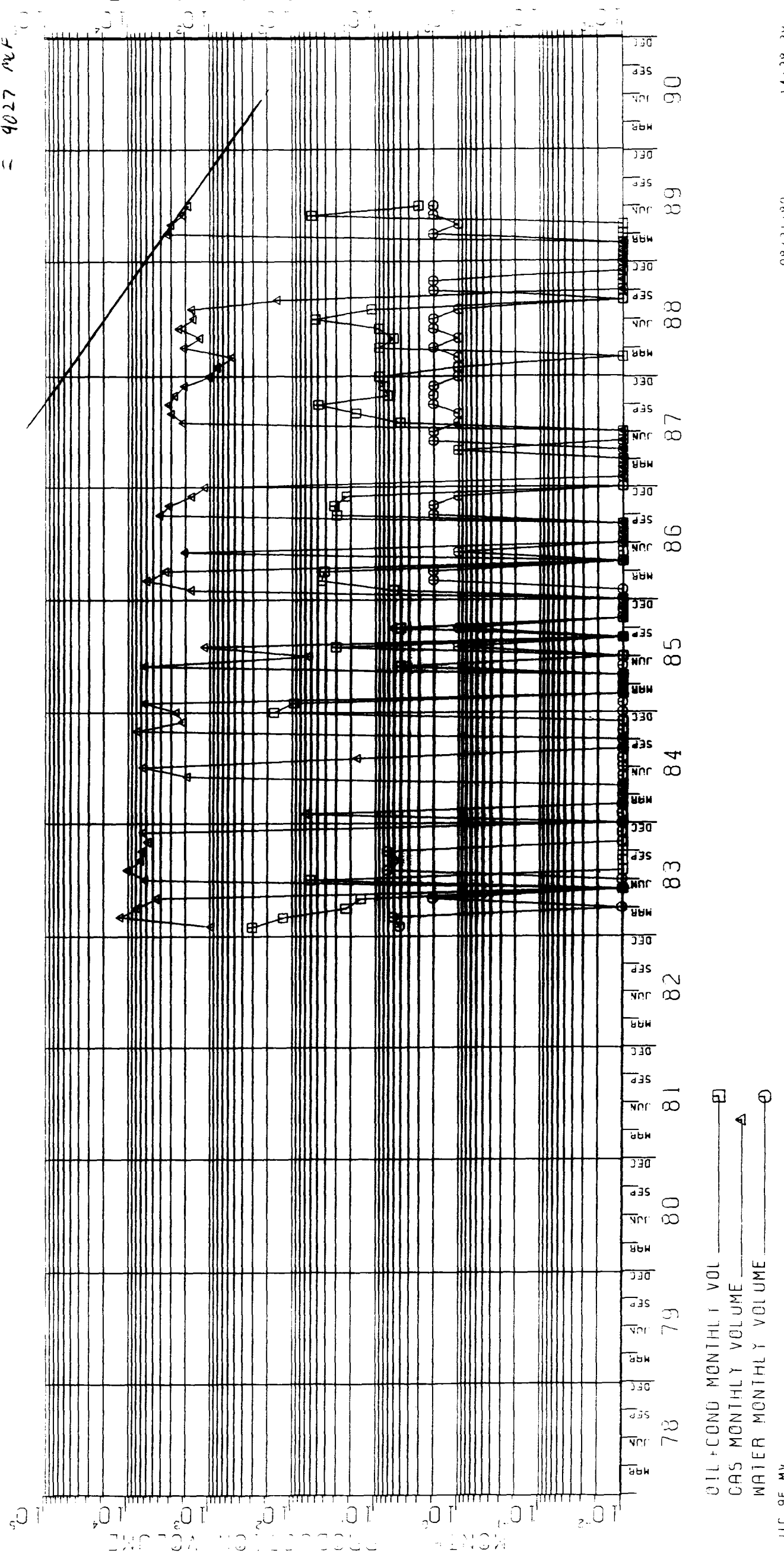
CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side

$$D_1 = \frac{\ln(6000/650)}{2 \text{ YR}} = 2.26/\text{YR}$$

$$\text{REM RESERVES} = \frac{2000 - 300}{2.26} = 9027 \text{ MCF}$$

JICARILLA APACHE #9E (MV)



The graph displays monthly production volume on a logarithmic scale from  $10^2$  to  $10^5$  against time from 1978 to 1990. The data is presented in quarterly intervals (MAR, JUN, SEP, DEC) for each year. Several distinct data series are visible, each represented by a different marker. The series show a general upward trend over the period, with some series exhibiting significant fluctuations and others remaining relatively stable. The production volume for most series increases from around  $10^2$  in 1978 to between  $10^3$  and  $10^4$  by 1990.

11C 9E DK

68/12/80

14:09:32

KELLAHIN, KELLAHIN and AUBREY  
*Attorneys at Law*

W. Thomas Kellahin  
Karen Aubrey

Jason Kellahin  
Of Counsel

El Patio - 117 North Guadalupe  
Post Office Box 2265  
Santa Fe, New Mexico 87504-2265

Telephone 982-4235  
Area Code 505

Fax: 505/982-2047

August 1, 1989

RECEIVED

AUG 1 1989

OIL CONSERVATION DIVISION

HAND-DELIVERED

Mr. William J. LeMay  
Oil Conservation Division  
Post Office Box 2088  
Santa Fe, New Mexico 87501

Re: Marathon Oil Company's Application  
for Downhole Commingling of Production  
in Certain Basin Dakota and Mesaverde  
Well, Rio Arriba County, New Mexico

Dear Mr. LeMay:

On behalf of Marathon Oil Company, please find enclosed our application for hearing to be held on August 23, 1989 for authority to downhole commingling production in the wells setforth on the enclosed application.

By copy of this letter to offsetting operators, we are advising them of our application and their right to appear at the hearing if they desire.

Very truly yours,



W. Thomas Kellahin

WTK/rs  
Encl.

cc: Brent Lowrey - Marathon Oil Company  
Larry Garcia - Marathon Oil Company

"Certified Mail, Return-Receipt Requested"  
All parties shown in application.

RECEIVED

AUG 1 1989

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE APPLICATION OF  
MARATHON OIL COMPANY FOR APPROVAL  
TO DOWNHOLE COMMINGLE PRODUCTION IN  
THE BLANCO MESAVERDE AND BASIN DAKOTA  
IN CERTAIN WELLS, RIO ARriba COUNTY,  
NEW MEXICO.

CASE NO. \_\_\_\_\_

A P P L I C A T I O N

COMES NOW MARATHON OIL COMPANY, by and through its attorneys Kellahin, Kellahin & Aubrey and applies to the New Mexico Oil Conservation Division for authority to downhole commingle production from the Blanco Mesaverde pool with the Basin Dakota pool in the following described wells:

Well No. 8E 1685' FSL, 1685' FWL, S/2 Section 27, T26N, R5W  
Perforated Intervals:  
    Basin Dakota: 7250' - 7490'  
    Blanco Mesaverde: 5250' - 5274'

Well No. 9E 1040' FSL, 1685' FEL, E/2 Section 28, T26N, R5W  
Perforated Intervals:  
    Basin Dakota: 7234' - 7466'  
    Blanco Mesaverde: 5232' - 5336'

Well No. 13E 1850' FNL, 930' FWL, W/2 Section 33, T26N, R5W  
Perforated Intervals:  
    Basin Dakota: 7100' - 7195'  
    Blanco Mesaverde: 5126' - 5150'

Well No. 14E 1850' FNL, 1685' FWL, W/2 Section 34, T26N, R5W  
Perforated Intervals:  
    Basin Dakota: 7100' - 7332'  
    Blanco Mesaverde: 4950' - 5241'

Well No. 16E 825' FNL, 955' FEL, E/2 Section 34, T26N, R5W  
Perforated Intervals:  
    Basin Dakota: 7200' - 7430'  
    Blanco Mesaverde: 5148' - 5278'

Well No. 8 990' FSL, 990' FEL, N/2 Section 27, T26N, R5W

Well No. 9 990' FNL, 1100' FEL, E/2 Section 28, T26N, R5W

Well No. 10E 1040' FNL, 1685' FWL, N/2 Section 27, T26N, R5W

Well No. 11E 955' FNL, 1685' FWL, W/2 Section 28, T26N, R5W

Well No. 12 800' FNL, 800' FEL, E/2 Section 33, T26N, R5W

Well No. 16 1600' FSL, 900' FEL, E/2 Section 34, T26N, R5W

1. Applicant is the operator of the above described wells.

2. By copy of this application to all offsetting operators as setforth on Exhibit (1), Applicant has notified said operators in accordance with Division Notice Rules of the hearing on this matter on August 23, 1989.



WHEREFORE, Applicant requests that this matter be set for hearing and after hearing, the application be granted as requested.

Kellahin, Kellahin & Aubrey

By:   
W. Thomas Kellahin

Post Office Box 2265  
Santa Fe, New Mexico 87504

(505) 982-4285

TABLE II  
OFFSET OPERATORS  
JICARILLA APACHE LEASE  
Sections 27, 28, 33, 34, T26N, R5W  
RIO ARriba COUNTY, NEW MEXICO

Amoco Production Company  
2325 E. 30th Street  
Farmington, New Mexico

Union Texas Petroleum  
375 U.S. Highway 64, NBU 3004  
Farmington, New Mexico 87401

Conoco Inc.  
P. O. Box 1959  
Midland, Texas 79702

Southern-Union Exploration  
324 Highway 64, NBU 3001  
Farmington, New Mexico 87401

Meridian Oil Inc.  
P. O. Box 4289  
Farmington, New Mexico 87499

Exhibit (1)



**Marathon  
Oil Company**

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

August 21, 1989

State of New Mexico  
Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Attention: Division Director

RE: Rule 303 A - Exception

Marathon Oil Company requests permission to downhole commingle production in its Jicarilla Apache Well No. 16E. The legal description for this well is 825' FNL and 955' FEL, Section 34, T26N, R5W, Rio Arriba County, New Mexico. This well is a dual completion under Administrative Order No. MC-2918 and produces from the Basin Dakota Pool through perforations at 7200'-7430' and from the Blanco Mesaverde Pool through perforations at 5148'-5278'.

An attached C-116 shows the most recent production from the Basin Dakota and the Blanco Mesaverde. Previous commingling of these two zones by other operators in this area have shown that the gas, condensate and waters produced by these two formations are compatible and will not result in formation damage if commingled. The value of the commingled gas and condensate will not be reduced by commingling. Ownership of the two zones is also the same. The bottom-hole pressures of the two zones corrected to a depth of 5148' for purposes of comparison is 569 psia for the Blanco Mesaverde and 813 psia for the Basin Dakota.

This well is currently not capable of lifting the Mesaverde condensate to the surface. This loading up of liquid as evidenced by 498 feet of fluid above the perforations (from fluid level measurements) applies a backpressure on the formation which restricts the gas flow. The proposed downhole commingling will allow the Dakota gas, while there are still reserves and pressure available, to "gas lift" the reservoir fluids from the Mesaverde and to relieve the reservoir backpressure. Thus, the downhole commingling should prevent the loss of gas and liquid hydrocarbon reserves. This well last produced condensate in October, 1987.

Letters have been sent to all offset operators notifying them of the proposed commingling. A copy of one of these letters is attached. Also attached is a production decline curve for the past 7 years for the Basin Dakota and the Blanco Mesaverde Pools. A map showing the location of the well is also attached. Production should be assigned to each of the zones using a straight percentage split: Mesaverde - 10%, Dakota - 90%. This split is based upon the latest production figures for the well.

Sincerely,

A handwritten signature in cursive script that reads 'Robert L. Ellis'.

Robert L. Ellis  
Production Engineer

RLE/BLL/012.274/cb

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

Form C-116  
Revised 1/1/89

## OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

### GAS - OIL RATIO TEST

Operator Marathon Oil Company		Pool Blanco Mesaverde/Basin Dakota		County Rio Arriba										
Address P. O. Box 552, Midland, Texas 79702		TYPE OF TEST - (X)		Completion <input type="checkbox"/> Special <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 BBLS.	GRAV. OIL		OIL BBLS.
Jicarilla Apache	16E	A	34	26N	5W	6-8-89	F	0.500	268	24	0	0	35	--
Blanco Mesaverde	16E	A	34	26N	5W	6-8-89	F	0.875	279	24	1.1	0.5	191	382,000
Basin Dakota														

#### 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.

*Robert L. Ellis*  
Signature

Robert L. Ellis

Production Engineer

Printed name and title

6/18/89

Date

(915) 682-1626

Telephone No.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPPLICATE\*  
(Other instructions on re-  
verse side)

Budget Bureau No. 1004-0135  
Expires August 31, 1985

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—" for such proposals.)

1. <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER		5. LEASE DESIGNATION AND SERIAL NO. Jicarilla Contract No. 154	
2. NAME OF OPERATOR Marathon Oil Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME Jicarilla Apache	
3. ADDRESS OF OPERATOR P. O. Box 552, Midland, Texas 79702		7. UNIT AGREEMENT NAME	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface NE/4 NE/4 (Unit Letter A) 825' FNL & 955' FEL Section 34, T26N, R5W		8. FARM OR LEASE NAME Jicarilla Apache	
14. PERMIT NO. 30-039-22434		9. WELL NO. 16E	
15. ELEVATIONS (Show whether DP, ST, CR, etc.) 6650' GL, 6662' KB		10. FIELD AND POOL, OR WILDCAT Blanco MV/Basin DK	
		11. SEC., T., R., N., OR S.E. AND SUBDIV OF AREA Sec. 34, T26N, R5W	
		12. COUNTY OR PARISH Rio Arriba	13. STATE New Mexico

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON\*

CHANGE PLANS

Please see below ☒

SUBSEQUENT REPORTS ON:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

(NOTE: Report results of multiple completions on  
Completion or Recombination Report and Log Form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of completing any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all sections and zones pertinent to this work.)\*

Marathon is applying to the New Mexico Oil Conservation Division to downhole commingle production from the Blanco Mesaverde and Basin Dakota Pools. Upon receiving approval from the NMOCDD, a sliding sleeve will be opened and the production from the two pools will be commingled. The estimated start date of this work is January 1, 1990.

18. I hereby certify that the foregoing is true and correct

SIGNED

*Robert L. Ellis*

TITLE

Production Engineer

DATE

8-21-89

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

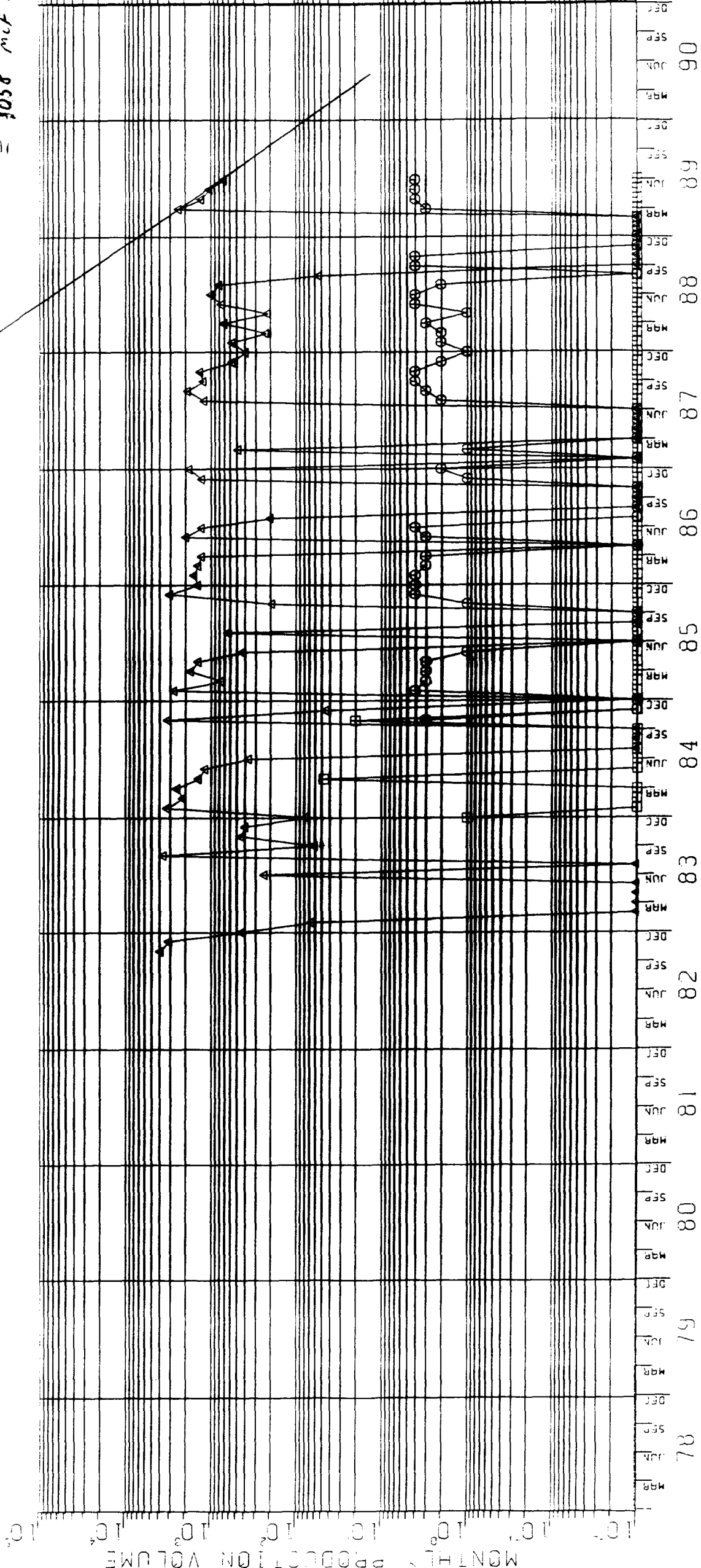
\*See Instructions on Reverse Side

$$D_0 = \frac{\ln(2000/75)}{1 \text{ YR}} = 4.54/\text{YR}$$

$$\text{REM ADDED} = \frac{700 - 300}{4.54} \times 12$$

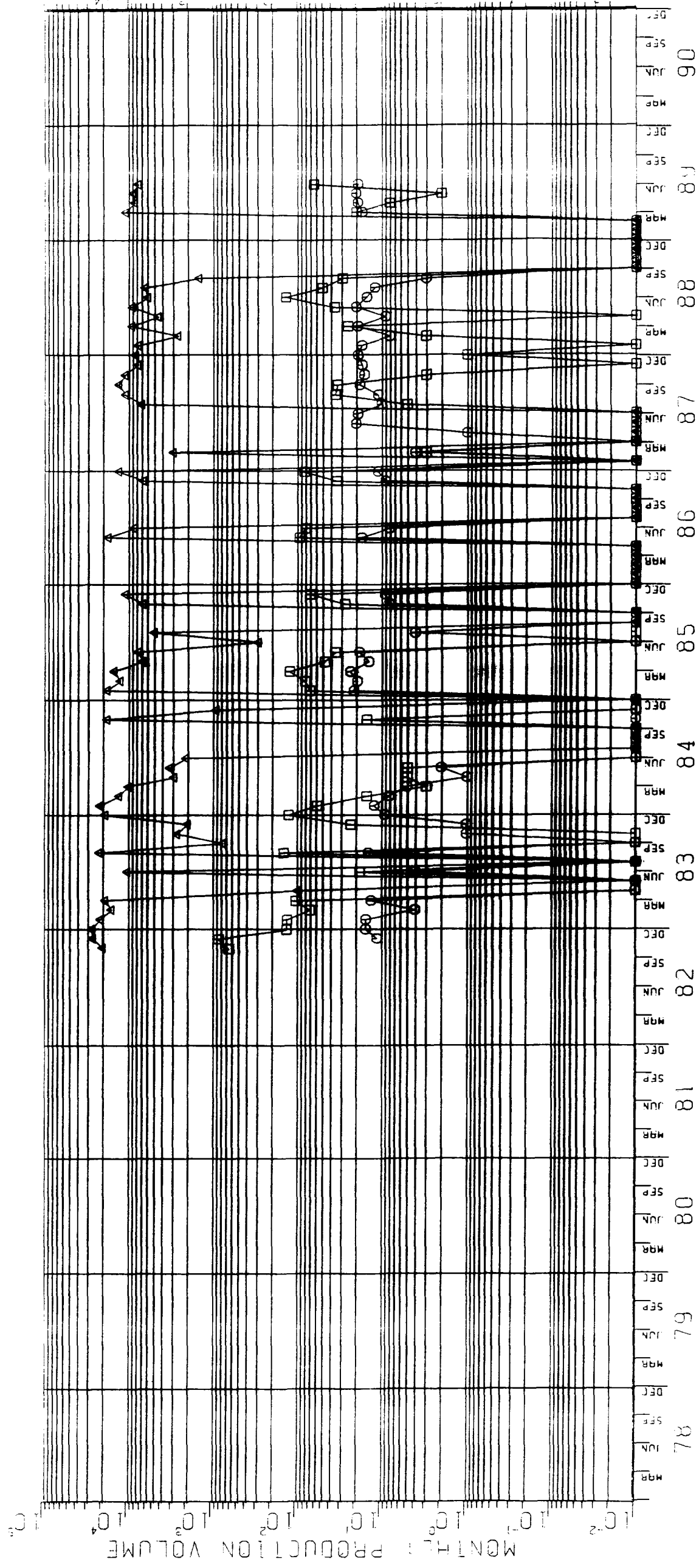
$$= 1058 \text{ MCF}$$

ICARILLA APACHE #16E (MV)



OIL COND MONTHLY VOL □  
 GAS MONTHLY VOLUME △  
 WATER MONTHLY VOLUME ○

# JICARILLA APACHE #16E (OK)



OIL+COND MONTHLY VOL □  
 GAS MONTHLY VOLUME △  
 WATER MONTHLY VOLUME ○

KELLAHIN, KELLAHIN and AUBREY

*Attorneys at Law*

W. Thomas Kellahin  
Karen Aubrey

El Patio - 117 North Guadalupe  
Post Office Box 2265

Santa Fe, New Mexico 87504-2265

Telephone 982-4225  
Area Code 505

Fax: 505/982-2047

Jason Kellahin  
Of Counsel

August 1, 1989

RECEIVED

AUG 1 1989

OIL CONSERVATION DIVISION

HAND-DELIVERED

Mr. William J. LeMay  
Oil Conservation Division  
Post Office Box 2088  
Santa Fe, New Mexico 87501

Re: Marathon Oil Company's Application  
for Downhole Commingling of Production  
in Certain Basin Dakota and Mesaverde  
Well, Rio Arriba County, New Mexico

Dear Mr. LeMay:

On behalf of Marathon Oil Company, please find enclosed our application for hearing to be held on August 23, 1989 for authority to downhole commingling production in the wells set forth on the enclosed application.

By copy of this letter to offsetting operators, we are advising them of our application and their right to appear at the hearing if they desire.

Very truly yours,



W. Thomas Kellahin

WTK/rs  
Encl.

cc: Brent Lowrey - Marathon Oil Company  
Larry Garcia - Marathon Oil Company

"Certified Mail, Return-Receipt Requested"  
All parties shown in application.



RECEIVED

AUG 1 1969

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE APPLICATION OF  
MARATHON OIL COMPANY FOR APPROVAL  
TO DOWNHOLE COMMINGLE PRODUCTION IN  
THE BLANCO MESAVERDE AND BASIN DAKOTA  
IN CERTAIN WELLS, RIO ARRIBA COUNTY,  
NEW MEXICO.

CASE NO. \_\_\_\_\_

A P P L I C A T I O N

COMES NOW MARATHON OIL COMPANY, by and through its attorneys Kellahin, Kellahin & Aubrey and applies to the New Mexico Oil Conservation Division for authority to downhole commingle production from the Blanco Mesaverde pool with the Basin Dakota pool in the following described wells:

Well No. 8E 1685' FSL, 1685' FWL, S/2 Section 27, T26N, R5W

Perforated Intervals:

Basin Dakota: 7250' - 7490'

Blanco Mesaverde: 5250' - 5274'

Well No. 9E 1040' FSL, 1685' FEL, E/2 Section 28, T26N, R5W

Perforated Intervals:

Basin Dakota: 7234' - 7466'

Blanco Mesaverde: 5232' - 5336'

Well No. 13E 1850' FNL, 930' FWL, W/2 Section 33, T26N, R5W

Perforated Intervals:

Basin Dakota: 7100' - 7195'

Blanco Mesaverde: 5126' - 5150'

Well No. 14E 1850' FNL, 1685' FWL, W/2 Section 34, T26N, R5W  
Perforated Intervals:

Basin Dakota: 7100' - 7332'  
Blanco Mesaverde: 4950' - 5241'

Well No. 16E 825' FNL, 955' FEL, E/2 Section 34, T26N, R5W  
Perforated Intervals:

Basin Dakota: 7200' - 7430'  
Blanco Mesaverde: 5148' - 5278'

Well No. 8 990' FSL, 990' FEL, N/2 Section 27, T26N, R5W

Well No. 9 990' FNL, 1100' FEL, E/2 Section 28, T26N, R5W

Well No. 10E 1040' FNL, 1685' FWL, N/2 Section 27, T26N, R5W

Well No. 11E 955' FNL, 1685' FWL, W/2 Section 28, T26N, R5W

Well No. 12 800' FNL, 800' FEL, E/2 Section 33, T26N, R5W

Well No. 16 1600' FSL, 900' FEL, E/2 Section 34, T26N, R5W

1. Applicant is the operator of the above described wells.

2. By copy of this application to all offsetting operators as setforth on Exhibit (1), Applicant has notified said operators in accordance with Division Notice Rules of the hearing on this matter on August 23, 1989.

WHEREFORE, Applicant requests that this matter be set for hearing and after hearing, the application be granted as requested.

Kellahin, Kellahin & Aubrey

By:   
W. Thomas Kellahin

Post Office Box 2265  
Santa Fe, New Mexico 87504

(505) 982-4285

TABLE II  
OFFSET OPERATORS  
JICARILLA APACHE LEASE  
Sections 27, 28, 33, 34, T26N, R5W  
RIO ARriba COUNTY, NEW MEXICO

Amoco Production Company  
2325 E. 30th Street  
Farmington, New Mexico

Union Texas Petroleum  
375 U.S. Highway 64, NBU 3004  
Farmington, New Mexico 87401

Conoco Inc.  
P. O. Box 1959  
Midland, Texas 79702

Southern-Union Exploration  
324 Highway 64, NBU 3001  
Farmington, New Mexico 87401

Meridian Oil Inc.  
P. O. Box 4289  
Farmington, New Mexico 87499

Exhibit (1)

Mid-Continent Region  
Exploration United States



**Marathon  
Oil Company**

P.O. Box 552  
Midland, Texas 79702  
Telephone 915/682-1020

May 19, 1989

State of New Mexico  
Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Attention: Division Director

Re: Rule 303 C - Downhole Commingling

Marathon Oil Company requests permission to downhole commingle production in its Jicarilla Apache Well No. 13E. The legal description for this well is 1850' FNL and 930' FWL, Section 33, T26N, R5W, Rio Arriba County, New Mexico. This well is a dual completion under Division Order No. MC-2919. This well produces from the Basin Dakota from perforations at 7107'-7295' and from the Blanco Mesaverde from perforations at 5126'-5150'.

An attached C-116 shows the most recent production from the Basin Dakota formation and the Blanco Mesaverde formation. Previous commingling of these two zones by other operators in this area have shown that the gas, condensate and waters produced by these two formations are compatible and will not result in formation damage if commingled. The value of the commingled gas and condensate will not be reduced by commingling. Ownership of the two zones is also the same. The bottomhole pressures of the two zones corrected to a depth of 5126' for purposes of comparison is 1054 psia for the Blanco Mesaverde and 1001 psia for the Basin Dakota.


Letters have been sent to all offset operators and the BLM notifying them of the proposed commingling. A copy of one of these letters is attached. Also attached is a production decline curve for the past 5 years for the Basin Dakota formation. A map showing the location of the well is also attached. Production should be assigned to each of the zones using the allocation formula attached or using a straight percentage split: Mesaverde - 31%, Dakota - 69%.

Marathon Oil Company  
May 19, 1989  
Page 2

If any further questions or comments should arise, please contact Mr.  
M. A. Zoller, Production Superintendent at (915) 682-1626. Thank you.

Sincerely,

MARATHON OIL COMPANY

  
Nancy Engler  
Production Engineer

NCE/akp  
005-89



**Marathon  
Oil Company**

P.O. Box 552  
Midland, Texas 79702  
Telephone 815.602-1000

May 15, 1989

Union Texas Petroleum  
4001 Bloomfield Highway  
Farmington, New Mexico 87410

Attention: Operations Manager

Re: Marathon Oil Company - Jicarilla Apache Well No. 13E  
1850' FNL, 930' FWL, Sec. 33, T26N, R5W, Unit E  
Rio Arriba County, New Mexico

Dear Sir:

Marathon Oil Company is requesting permission from the Oil Conservation Division to downhole commingle production in the above referenced well. The Jicarilla Apache Well No. 13E is presently dually completed in the Blanco Mesaverde and the Basin Dakota. Combined production from this well will average approximately 200 MCFGPD, 1 BCPD, and 0.5 BWPD.

If you have no objection to this request, please sign the waiver at the bottom of this letter and return it to my attention. If you have any questions, please contact this office. Thank you.

Sincerely,

MARATHON OIL COMPANY

A handwritten signature in cursive script that reads 'Nancy Engler'.

Nancy Engler  
Production Engineer

NCE/akp  
003-89

-----

This is to acknowledge that the undersigned waives objection to the downhole commingling, as proposed by Marathon Oil Company in this letter.

\_\_\_\_\_  
Company

\_\_\_\_\_  
Date

\_\_\_\_\_  
Company Representative

\_\_\_\_\_  
Title



**Marathon  
Oil Company**

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

May 16, 1989

Meridian Oil  
3535 E. 30th  
Farmington, New Mexico 87401

Attention: Alan Alexander

Re: Marathon Oil Company - Jicarilla Apache Well No. 13E  
1850' FNL, 930' FWL, Sec. 33, T26N, R5W, Unit E  
Rio Arriba County, New Mexico

Dear Sir:

Marathon Oil Company is requesting permission from the Oil Conservation Division to downhole commingle production in the above referenced well. The Jicarilla Apache Well No. 13E is presently dually completed in the Blanco Mesaverde and the Basin Dakota. Combined production from this well will average approximately 200 MCFGPD, 1 BCPD, and 0.5 BWPD.

If you have no objection to this request, please sign the waiver at the bottom of this letter and return it to my attention. If you have any questions, please contact this office. Thank you.

Sincerely,

MARATHON OIL COMPANY

A handwritten signature in cursive script that reads 'Nancy Engler'.

Nancy Engler  
Production Engineer

NCE/akp  
003-89

-----

This is to acknowledge that the undersigned waives objection to the downhole commingling, as proposed by Marathon Oil Company in this letter.

\_\_\_\_\_  
Company

\_\_\_\_\_  
Date

\_\_\_\_\_  
Company Representative

\_\_\_\_\_  
Title





**Marathon  
Oil Company**

P.O. Box 552  
Midland, Texas 79702  
Telephone 915/682-1628

May 16, 1989

Amoco  
P.O. Box 800  
Denver, Colorado 80201

Attention: Micheal Cuba

Re: Marathon Oil Company - Jicarilla Apache Well No. 13E  
1850' FNL, 930' FWL, Sec. 33, T26N, R5W, Unit E  
Rio Arriba County, New Mexico

Dear Sir:

Marathon Oil Company is requesting permission from the Oil Conservation Division to downhole commingle production in the above referenced well. The Jicarilla Apache Well No. 13E is presently dually completed in the Blanco Mesaverde and the Basin Dakota. Combined production from this well will average approximately 200 MCFGPD, 1 BCPD, and 0.5 BWPD.

If you have no objection to this request, please sign the waiver at the bottom of this letter and return it to my attention. If you have any questions, please contact this office. Thank you.

Sincerely,

MARATHON OIL COMPANY

*Nancy Engler*  
Nancy Engler  
Production Engineer

NCE/akp  
003-89

-----  
This is to acknowledge that the undersigned waives objection to the downhole commingling, as proposed by Marathon Oil Company in this letter.

\_\_\_\_\_  
Company

\_\_\_\_\_  
Date

\_\_\_\_\_  
Company Representative

\_\_\_\_\_  
Title

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

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

Form C-116  
Revised 1/1/89

OIL CONSERVATION DIVISION

GAS - OIL RATIO TEST

Operator Marathon Oil Company		Pool Blanco Mesaverde/Basin Dakota		County Rio Arriba								
Address P.O. Box 55, Midland, Texas 79702		TYPE OF TEST - (X)		Completion <input type="checkbox"/> Special <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	
								WATER BRLS	GRAV. OIL BRLS	GAS MCF		
Heartland Apache Blanco Mesaverde	13E	33	26N	5W	5-31-89	P 0.625	296	24	0.0	3.4	73	21,471
Basin Dakota	13E	33	26N	5W	5-31-89	P 0.875	304	24	0.6	2.5	138	55,200

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 116 & appropriate pool rules.)

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

Signature Kent M. Weisling  
Printed name and title Kent M. Weisling, Production Engineer  
Date 6/5/89 (915) 682-1626  
Telephone No.

Allocation formula for production from  
Blanco Mesaverde and Basin Dakota

Exponential decline factors: Mesaverde (MV) = 0.0128/month  
Dakota (DK) = 0.0167/month

Where  $DK_1, MV_1$  = current production

$DK_2^e, MV_2^e$  = estimated production for following month

$DK_2, MV_2$  = allocated production for following month

$$\ln(MV_1) - 0.0128 = \ln(MV_2^e)$$

$$\ln(DK_1) - 0.0167 = \ln(DK_2^e)$$

Where for any given month:

$$DK + MV = \text{Total Production}$$

Allocate using  $(MV_2/DK_2 + 1) DK_2 = \text{Known Total Production}$

Example:  $MV_1 = 1600$

$$\ln MV_1 = 7.3778$$

$$DK_1 = 2500$$

$$\ln DK_1 = 8.1605$$

$$7.3778 - 0.0128 = 7.3650 = \ln MV_2; MV_2 = 1580$$

$$8.1605 - 0.0167 = 8.1438 = \ln DK_2; DK_2 = 3442$$

$$MV_2/DK_2 = 0.459$$

If Total Volume to be allocated ( $T_3$ ) is 6000 MCF

$$\text{then } (0.459 + 1) DK_3 = 6000$$

$$DK_3 = 4112 \text{ MCF}$$

$$MV_3 = 6000 - 4112 = 1888 \text{ MCF}$$

For a more simplistic, less accurate allocation use: MV  
DK

NE:akp

File No. 004-89

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

BMIT IN TRIPLICATE  
FORM 100-100000-100-100  
FEB 1980

LEASE DESIGNATION AND SERIAL NO.

Tract 251, Cont. 000154  
OF INDIAN ALLOTTEE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS

Use this form for proposals to drill or to deepen a well in a different reservoir  
Use APPLICATION FOR PERMIT for such proposals.

Jicarilla Apache

UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Jicarilla Apache

9. WELL NO.

10E

10. FIELD AND POOL OR WILDCAT

Blanco Mesaverde/Basin Dakota

11. SEC. T. R. M. OR BLE. AND  
SURVEY OR AREA

Sec. 33, T26N, R5W

14. PERMIT NO

30-039-22446

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

6598' GL, 6610 KB

12. COUNTY OR PARISH 13. STATE

Rio Arriba N. Mexico

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

FRACTURE TREAT

MULTIPLE COMPLETION

SHOOT OR ACIDIZE

ABANDON\*

REPAIR WELL

CHANGE PLANS

(Other) Please see below

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREATMENT

ALTERING CASING

SHOOTING OR ACIDIZING

ABANDONMENT\*

(Other)

(NOTE: Report results of multiple completion on Well  
Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Marathon is applying for permission from the Oil Conservation Division to downhole commingle production from the Blanco Mesaverde and Basin Dakota formations. Upon receiving approval from the NMOCD, the sliding sleeve will be opened and production from the two zones will be commingled. Estimated start date of this work is July 1, 1989.

18. I hereby certify that the foregoing is true and correct

SIGNED

*m. c. j. j.*

TITLE

Production Superintendent

DATE

6-12-89

(This space for Federal or State office use)

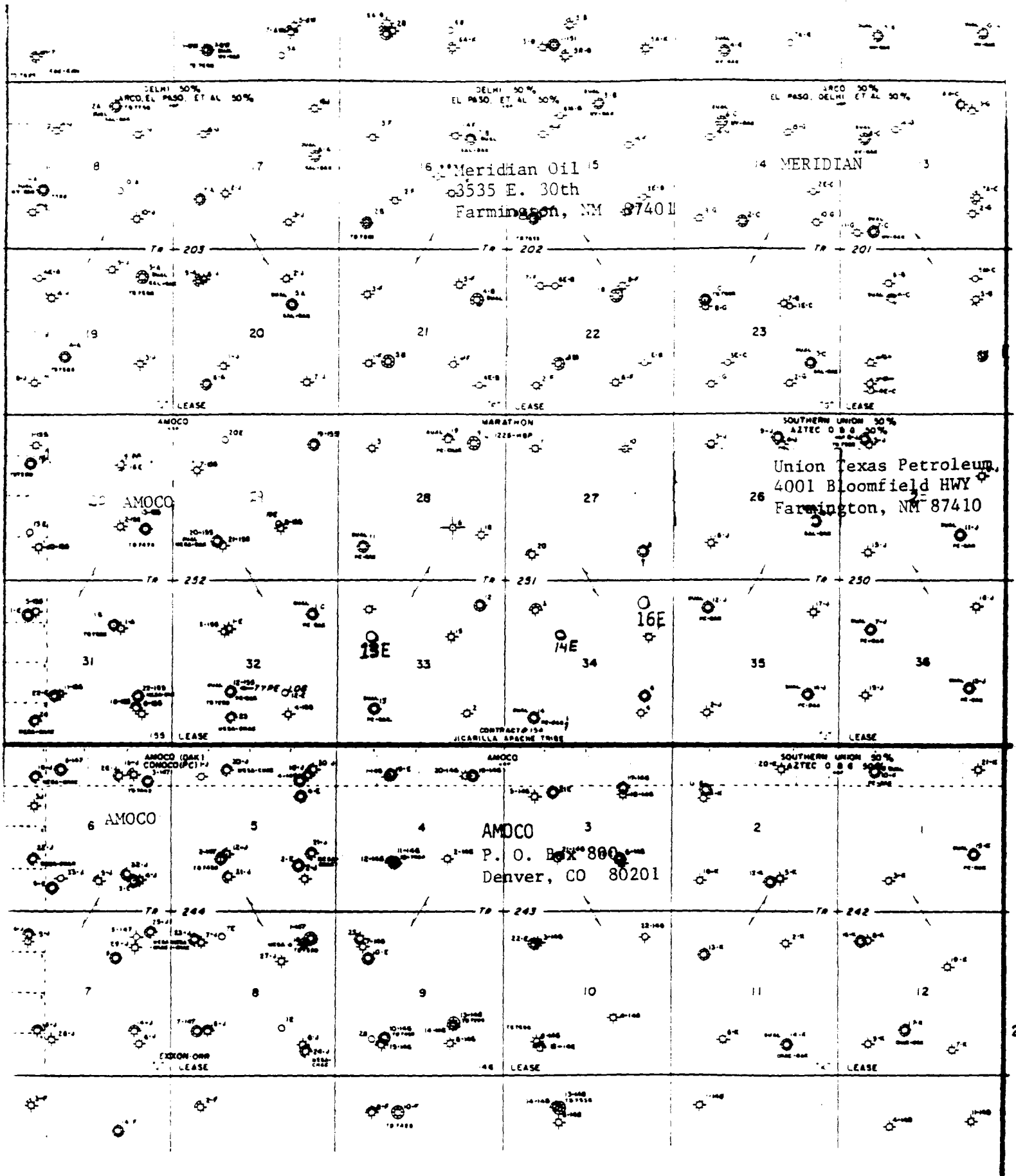
APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side



R 5 W

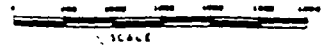


MARATHON OIL COMPANY

- LEGEND -

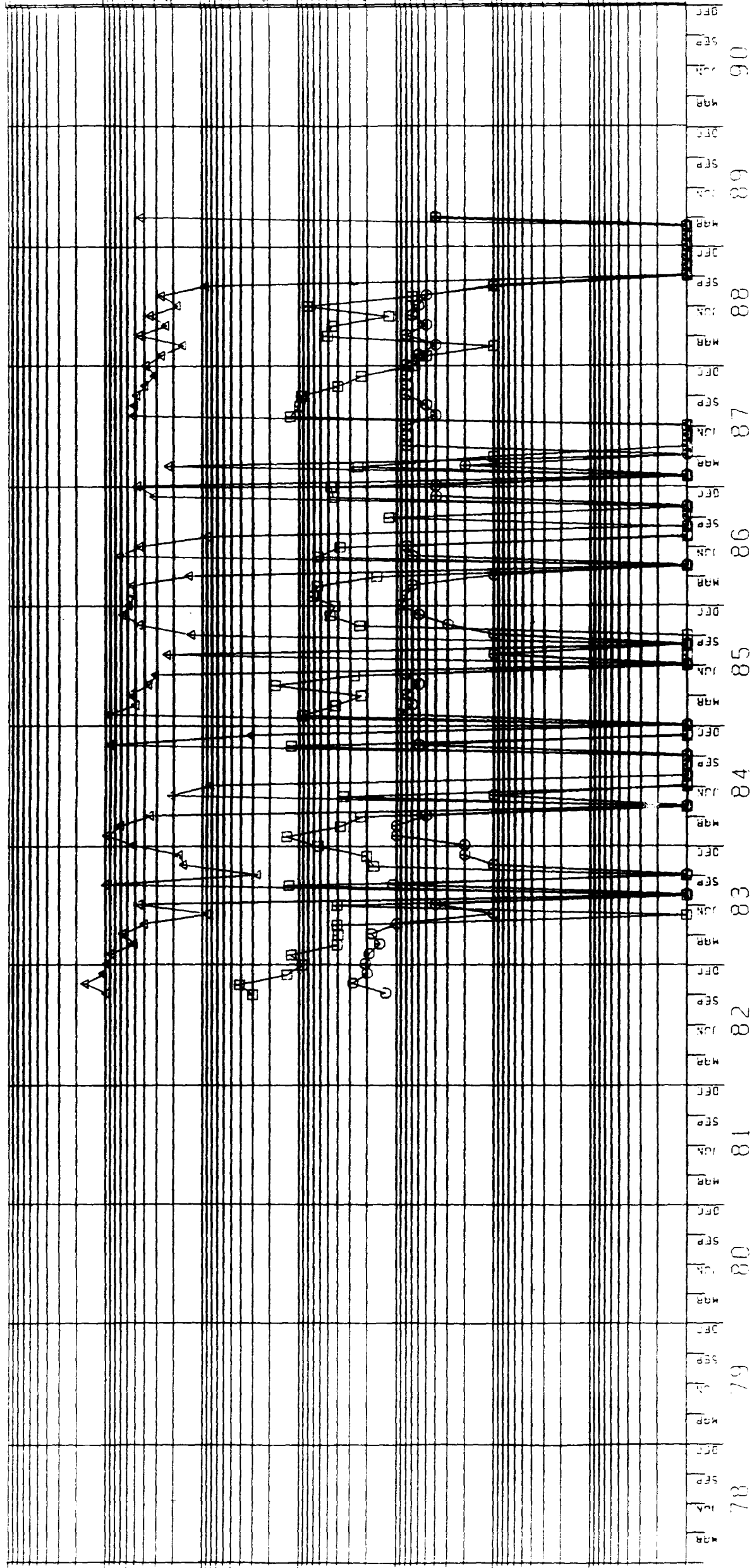
- ⊙ PICTURED CLIFFS GAS WELL
- ⊙ MESAVERT GAS WELL
- ⊙ DAKOTA OIL WELL
- ⊙ DAKOTA GAS WELL
- ⊙ PICTURE CLIFFS & CHACRA GAS WELL
- ⊙ PICTURE CLIFFS DEEPENED TO DAKOTA
- ⊙ CHACRA GAS WELL

JICARILLA AREA  
RIO ARRIBA COUNTY, NEW MEXICO



FIELD JICARILLA  
 RESERVOIR BASIN DAKOTA  
 LEASE JICARILLA APACHE  
 WELL JICARILLA 80 13E

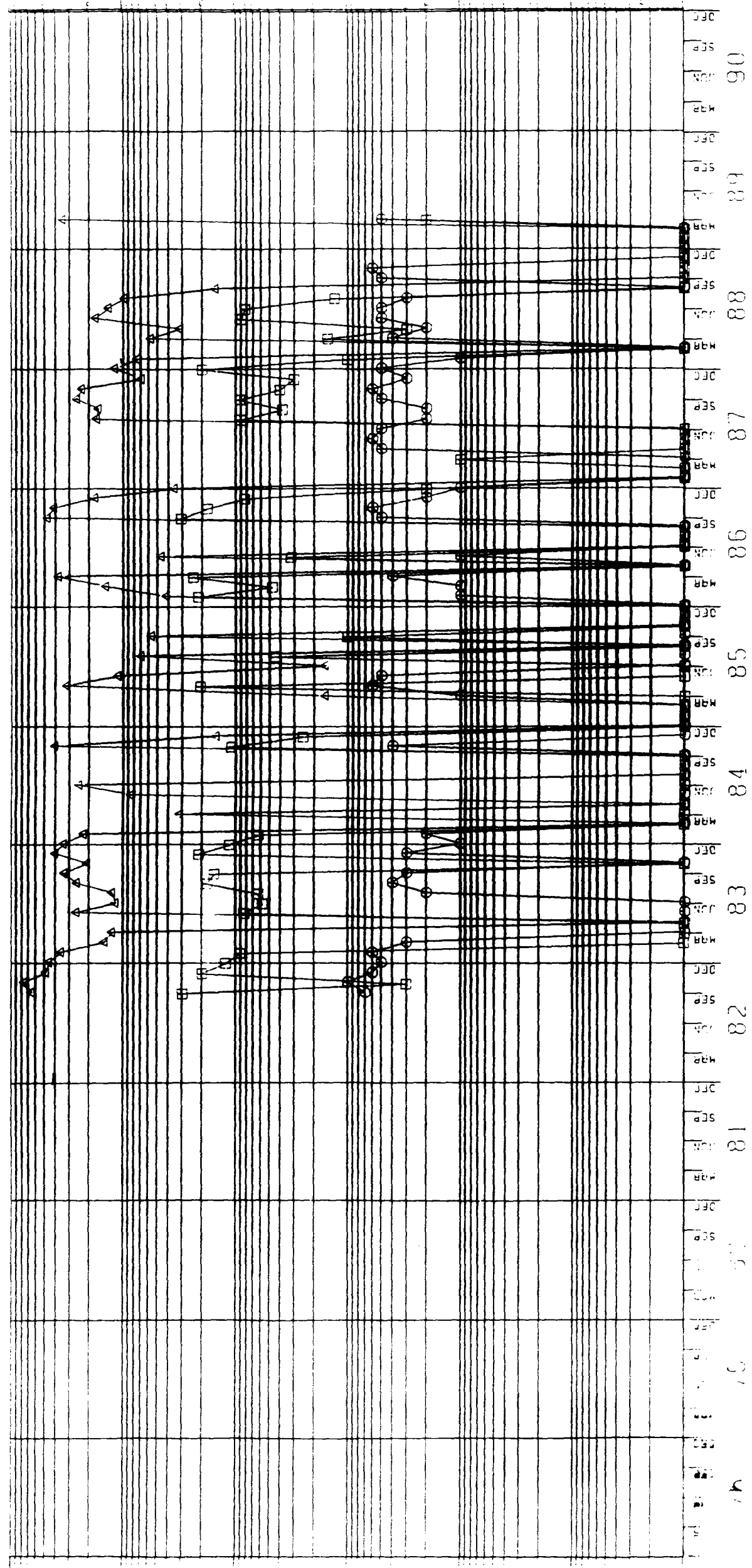
BLANCO PICTURE CLIFFS CONT -90154



OIL - COND MONTHLY VOL \_\_\_\_\_  
 GAS MONTHLY VOLUME \_\_\_\_\_  
 WATER MONTHLY VOLUME \_\_\_\_\_

JICARILLA  
 BLANCO MESAVARDE  
 JICARILLA APACHE  
 JICARILLA PL 13E

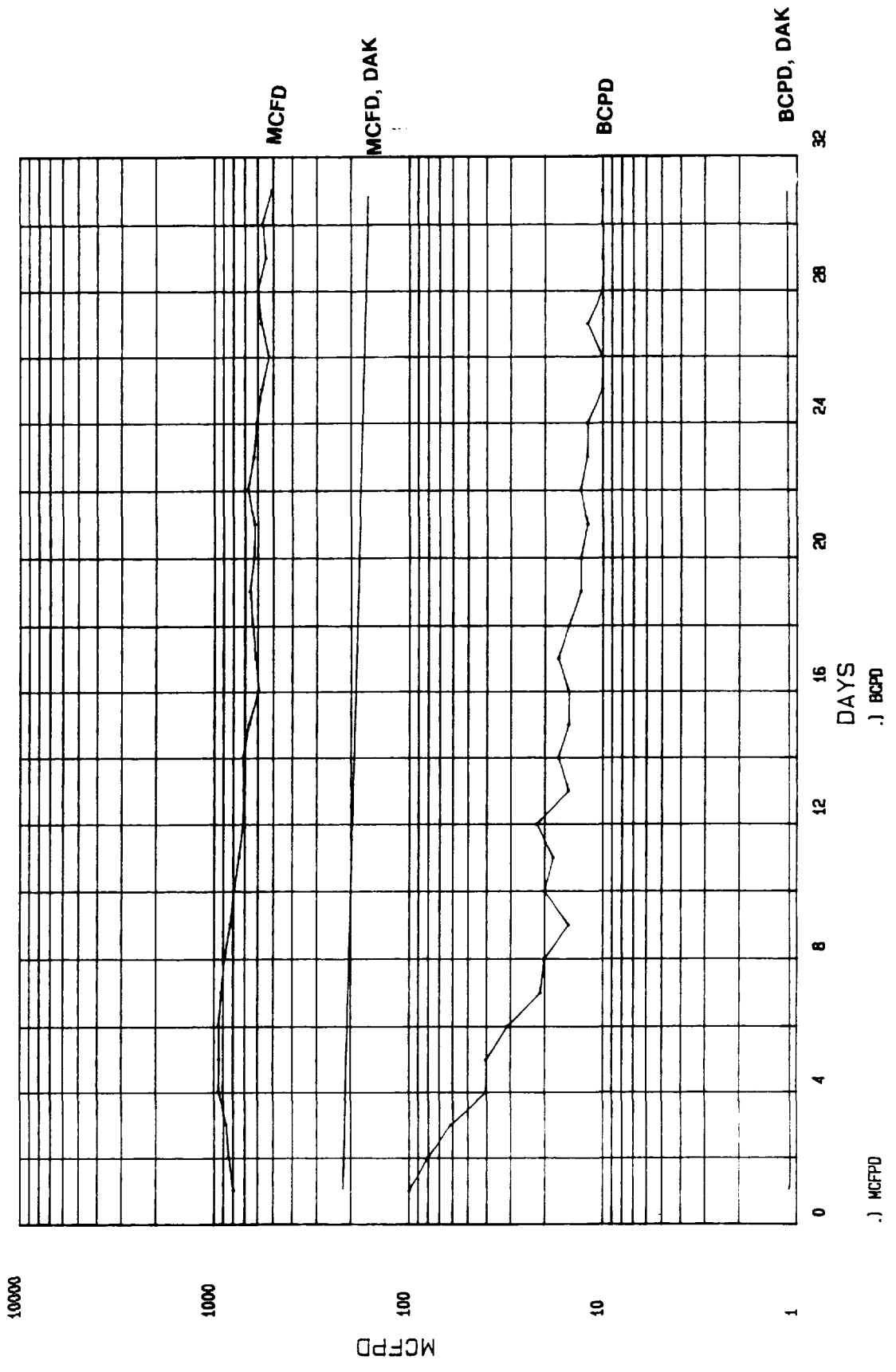
BLANCO PICTURE CLIFFS CONT-90154



OIL CONDENSATE VOLUME \_\_\_\_\_  
 GAS VOLUME \_\_\_\_\_  
 WATER VOLUME \_\_\_\_\_

**EXHIBIT 5**

Jicarilla Apache No. 14E



BEFORE EXAMINER CATANACH  
OIL CONSERVATION DIVISION  
*Marathon* EXHIBIT NO. 5  
CASE NO. 9733



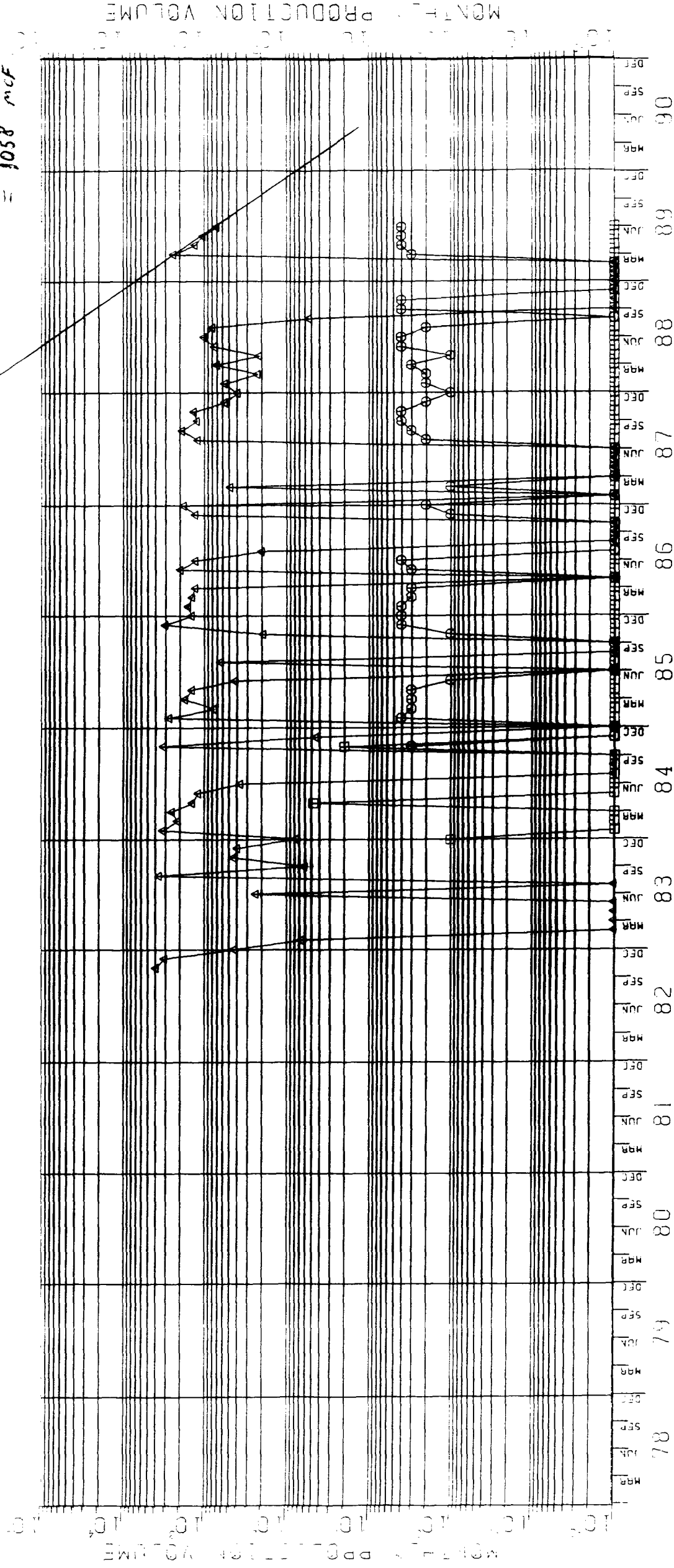




$$D_i = \frac{14 \text{ (mo/yr)}}{1 \text{ yr}} = 4.54/42$$

$$REI \text{ RESERVES} = \frac{700 - 300}{4.54} = 1058 \text{ MCF}$$

WABILLA APACHE #166 (MV)



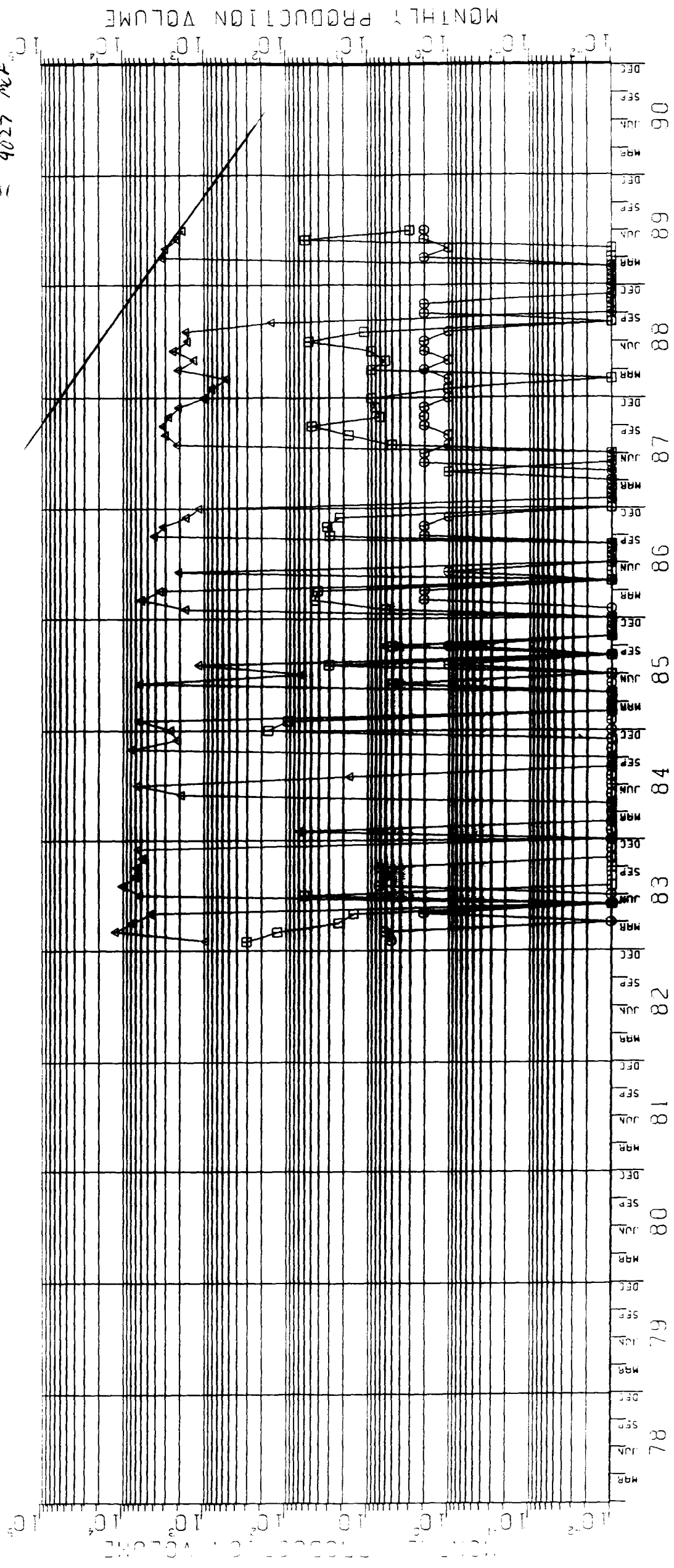
OIL MONTHLY VOL ——— □ ———  
 GAS MONTHLY VOLUME ——— △ ———  
 WATER MONTHLY VOLUME ——— ○ ———

$$D_1 = \frac{\ln(60000/650)}{2 \text{ YR}} = 2.26/\text{YR}$$

$$\text{REM RESERVES} = \frac{2000 - 300}{2.26} \times 12$$

$$= 9027 \text{ MCF}$$

JICARILLA APACHE #9E (MV)



OIL COND MONTHLY VOL — □ —  
 GAS MONTHLY VOLUME — ▲ —  
 WATER MONTHLY VOLUME — ○ —

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE APPLICATION  
MARATHON OIL COMPANY FOR  
DOWNHOLE COMMINGLING,  
RIO ARriba COUNTY, NEW MEXICO

CASE NO. 9733

CERTIFICATE OF MAILING

AND

COMPLIANCE WITH ORDER R-8054

In accordance with Division Rule 1207 (Order R-8054) I hereby certify that on August 1, 1989, I caused to be mailed by certified mail, return-receipt requested, notice of this hearing and a copy of the application for the above referenced case along with the cover letter, at least twenty days prior to the hearing set for August 23 1989 to the parties shown in the application evidenced by the attached copy of the return receipt cards.

Original signed by  
W. THOMAS KELLAHIN

W. Thomas Kellahin

SUBSCRIBED AND SWORN TO before me this 17th day of  
August, 1989.

Romualdo Stoner  
Notary Public

My Commission Expires:

March 3, 1993

BEFORE EXAMINER CATANACH
OIL CONSERVATION DIVISION
<u>Marathon</u> EXHIBIT NO. <u>6</u>
CASE NO. <u>9733</u>

P 155 279 100

## RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to	
Amoco Prod CO	
2325 E. 30th St	
Farm, NM	
P.O. State and ZIP Code	
Postage	1.45
Certified Fee	.85
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	.90
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	2.20
Postmark or Date 8/1/89	
WTK/Marathon/DC	

PS Form 3800, June 1985

P 155 279 101

## RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to	
Union Tex Petro	
3750 US Hwy 64, NBU 3004	
Farm, NM 87401	
P.O. State and ZIP Code	
Postage	1.45
Certified Fee	.85
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	.90
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	2.20
Postmark or Date 8/1/89	
WTK/Marathon/DC	

PS Form 3800, June 1985

P 155 279 102

## RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to	
Conoco Inc.	
P.O. Box 1959	
Midland, TX 79702	
P.O. State and ZIP Code	
Postage	1.45
Certified Fee	.85
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	.90
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	2.20
Postmark or Date 8/1/89	
WTK/Marathon/DC	

PS Form 3800, June 1985

<p>● <b>SENDER:</b> Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.</p> <p>Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check boxes for additional services requested.</p> <p>1. <input type="checkbox"/> Show to whom delivered, date, and addressee's address. (Extra charge)</p> <p>2. <input type="checkbox"/> Restricted Delivery (Extra charge)</p>		<p>3. Article Addressed to:</p> <p>Southern Union Exp. 324 HWY 64, NBU 3001 Farmington, NM 87401</p>	
<p>5. Signature - Agent</p> <p>8/1/89</p>		<p>4. Article Number</p> <p>P 155 279 103</p>	
<p>6. Signature - Address</p>		<p>Type of Service:</p> <p><input type="checkbox"/> Registered <input type="checkbox"/> Insured</p> <p><input type="checkbox"/> Certified <input type="checkbox"/> COD</p> <p><input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise</p>	
<p>7. Date of Delivery</p>		<p>8. Addressee's Address (ONLY if requested and fee paid)</p>	
<p>PS Form 3811, Mar. 1988 • U.S.G.P.O. 1988-212-865</p>		<p>DOMESTIC RETURN RECEIPT</p>	