



RELEASE 11.1.93  
DHC

Midland Division  
Exploration Production

Conoco Inc.  
10 Desta Drive, Suite 100W  
Midland, TX 79705-4500  
(915) 686-5400

October 8, 1993

State of New Mexico  
Energy & Minerals Department  
Oil Conservation Division  
P.O. Box 2088  
Santa Fe, NM 87504-2088

Application to Downhole Commingle the Mesaverde  
and Pictured Cliffs Gas Producing Zones in the  
AXI Apache N No. 10, 1700' FSL & 1100' FWL, Unit L  
Sec. 2, T-25N, R-4W, Rio Arriba County, New Mexico

Gentlemen:

It is proposed to downhole commingle the Mesaverde and Pictured Cliffs gas zones in this well to maintain economic operation and to maximize the efficient and effective recovery of gas at this location. Economic evaluation of the continued operation of this well as a dual completion has shown that it can only be economically maintained if it can be downhole commingled and operated as a single completion.

The Mesaverde and Pictured Cliffs producing rates have declined to marginal levels of 84 MCFGPD and 50 MCFGPD respectively. Elimination of excess operational equipment and operating expense associated with dual operation would contribute to the maximization of the producing lives and recoveries from each pool. Downhole commingling would permit the elimination of one tubing string, one separator and one tank now required for the operation of this dual completion and would eliminate maintenance costs of maintaining isolation of the two completions.

The following attachments are submitted in support of this application:

1. EXHIBIT A is a plat (a) showing all Pictured Cliffs wells on the lease, (b) identifying the subject well, and (c) outlining the current Pictured Cliffs proration unit.
2. EXHIBIT B is a plat (a) showing all Mesaverde wells on the lease, (b) identifying the subject well, and (c) outlining the current Mesaverde proration unit.
3. EXHIBIT C is a GOR test form (C-116) with the most recent tests for each completion.
4. EXHIBIT D and E are current decline curves for Pictured Cliffs and Mesaverde.
5. EXHIBIT F is a plot of shut-in tubing pressures for both zones.
6. WI, RI, and ORRI ownerships are identical for both formations.
7. EXHIBITS G & H are Pictured Cliffs and Mesaverde gas analyses.

8. Allocation percentages based on the C-116 tests included in this application are suggested as follows:

	Oil	Gas	Water
Blanco Pictured Cliffs, South	0%	37%	0%
Blanco Mesaverde	100%	63%	100%

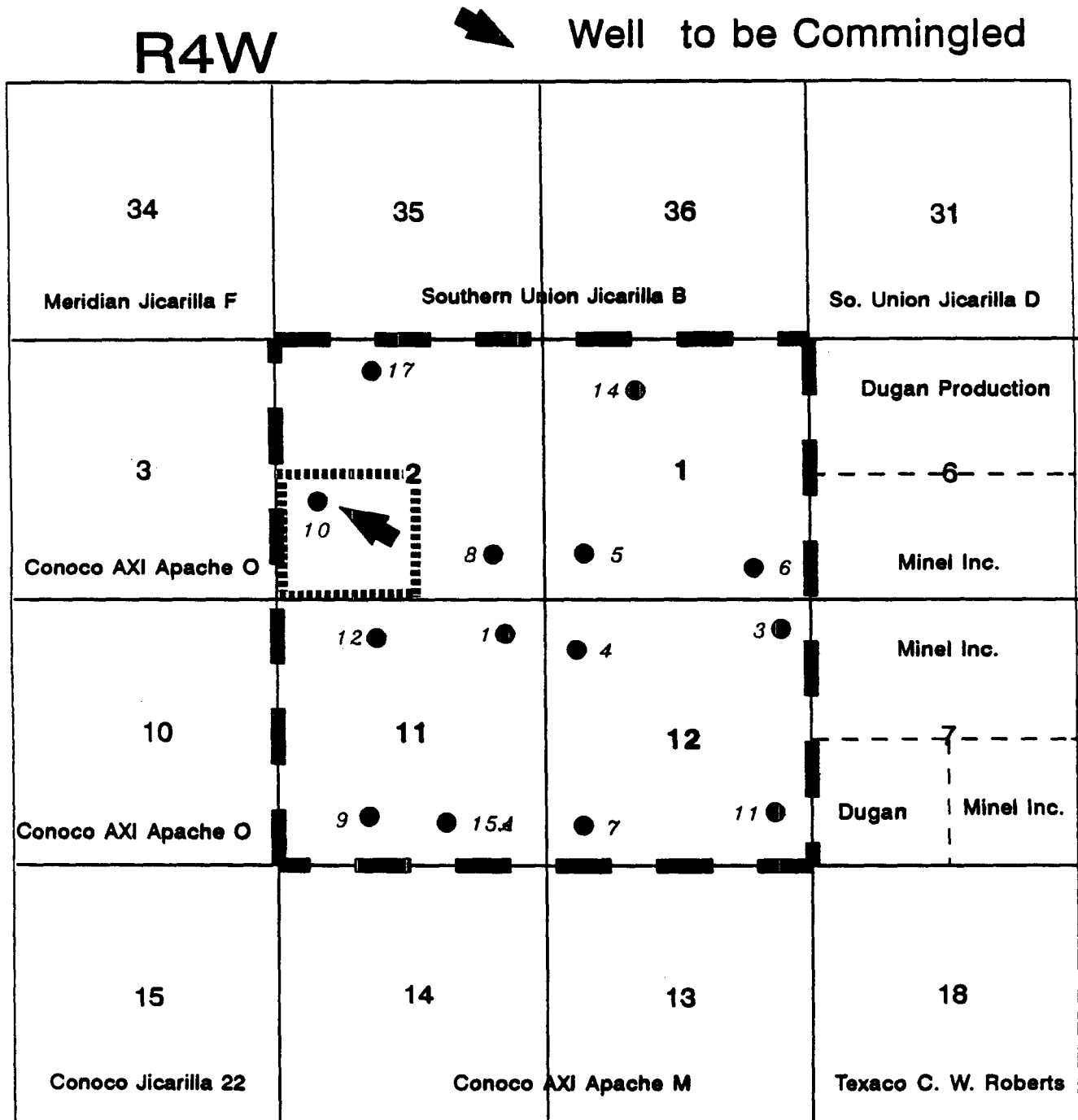
9. Copies of this application were sent by certified mail to each offset operator and to the Jicarilla Agency, who hold the minerals interest on this lease, as identified on EXHIBIT I.

Very truly yours,

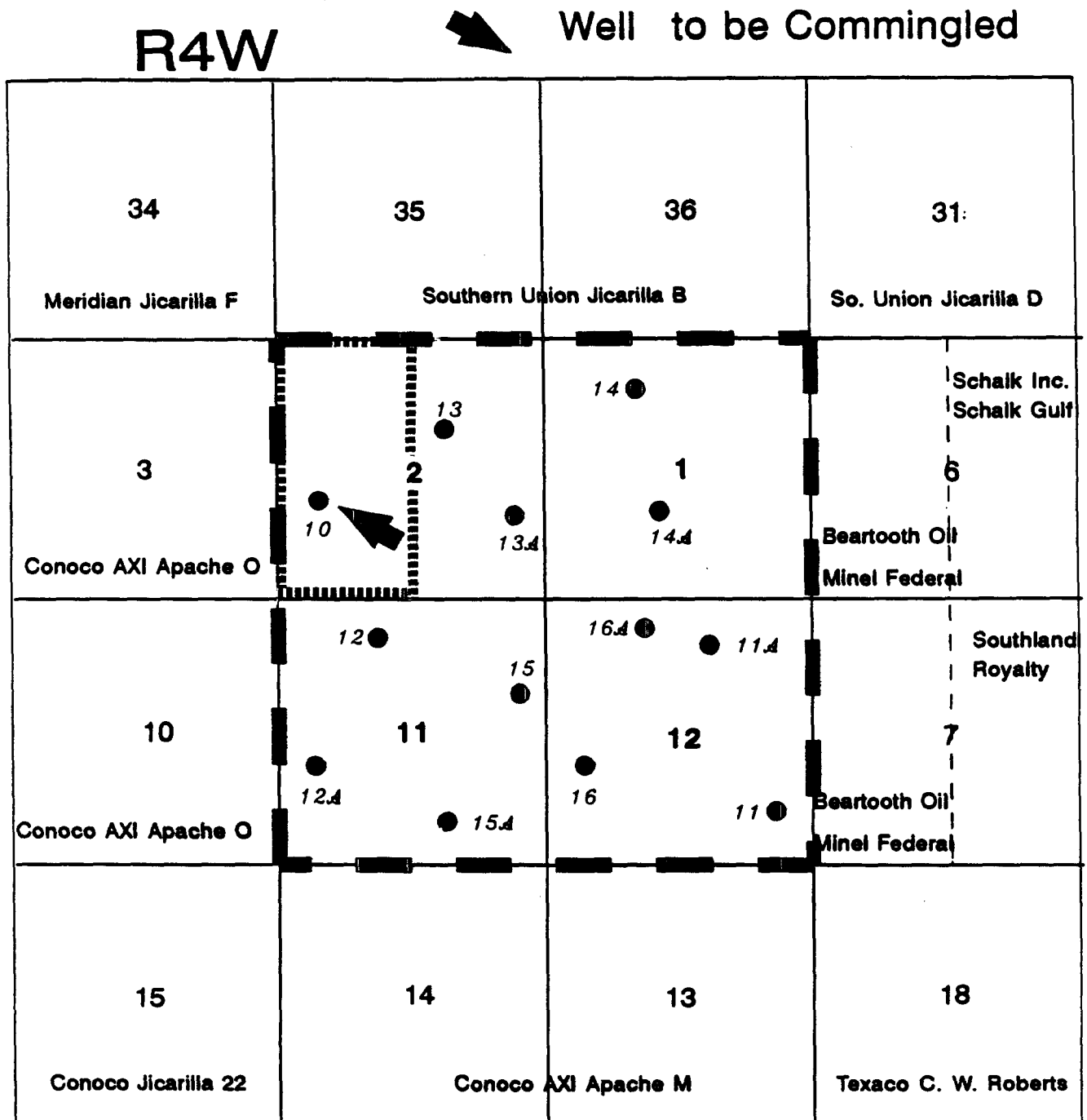


Jerry W. Hoover  
Sr. Conservation Coordinator

# AXI Apache N Lease Pictured Cliffs Wells



# AXI Apache N Lease Mesaverde Wells



**T25N**

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 Conoco Inc.	Pool Blanco Mesaverde Blanco Pictured Cliffs South		County Rio Arriba										
Address 10 Desta Drive, Suite 100W, Midland, TX 79705		TYPE OF TEST - ( )	Scheduled <input type="checkbox"/>	Completion <input type="checkbox"/>	Special <input checked="" type="checkbox"/>								
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TBQ. 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	
AXI Apache N (Mesaverde)	10	L	2	25N	4W	5/5/93	--	--	1 1/2	--	1	84	84000
	10	L	2	25N	4W	5/5/93	--	--	0	--	0	50	--

**EXHIBIT C**

**ACTIONS:**

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which the well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in that well can be assigned increased allowables when authorized by the Division.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

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

Signature Jerry W. Hoover  
Jerry W. Hoover  
Sr. Conservation Coordinator

Printed name and title  
Oct. 7, 1993 (915) 686-6548  
Date  
Telephone No.

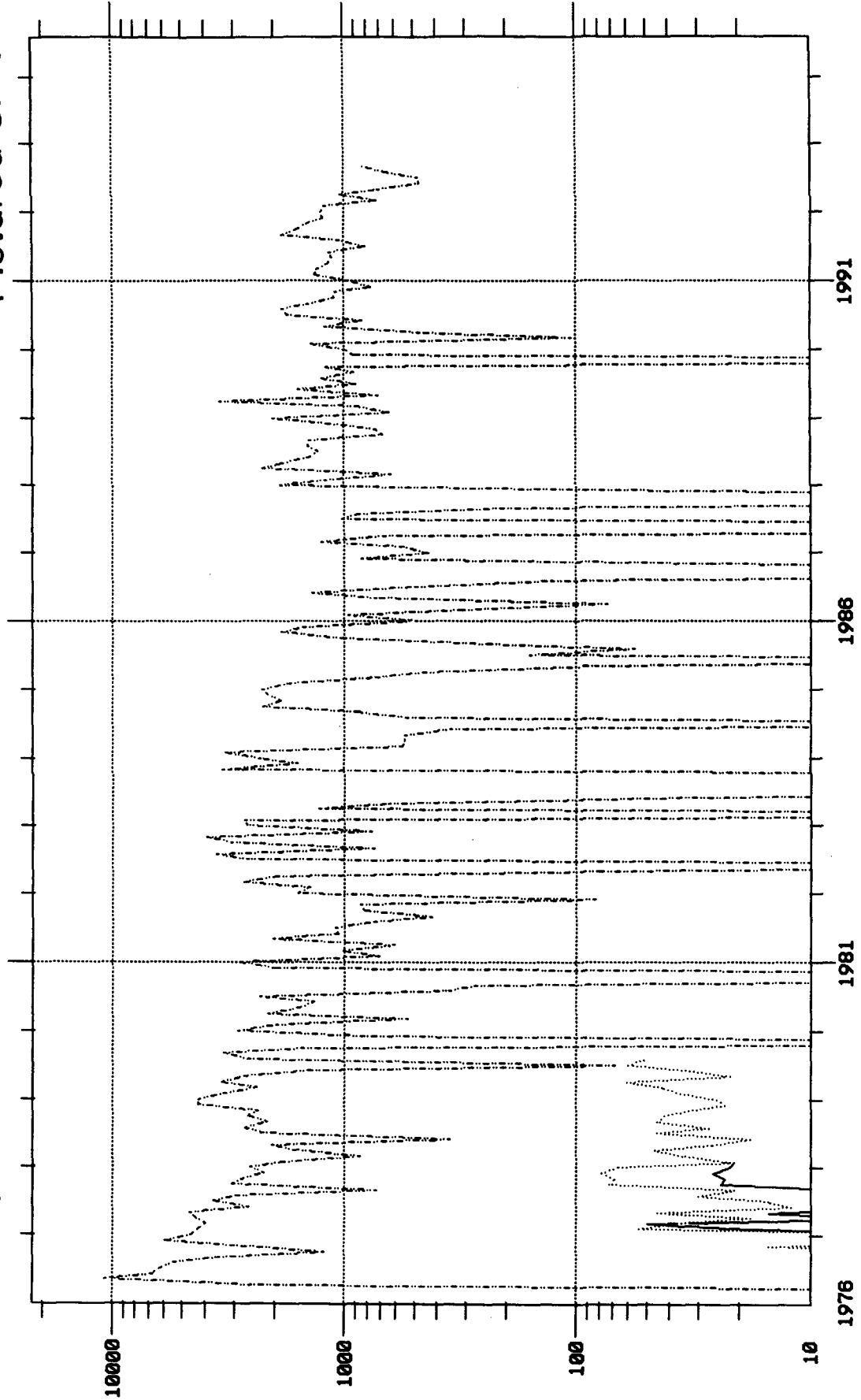
Calculated  
Oil  
Gas  
Water

TEMP  
Production Rate vs Time  
Bbl/Mo or Mcf/Mo vs Months  
AXI APACHE N101 CONOCO INCORPORATED: Occ #2  
For the Period 04/1976 to 09/1992

Production  
Oil  
Gas  
Water

AXI Apache N No. 10

Pictured Cliffs



Reported Oil Production = 908 Bbls  
Reported Gas Production = 301846 Mcf  
Reported Water Production = 1230 Bbls

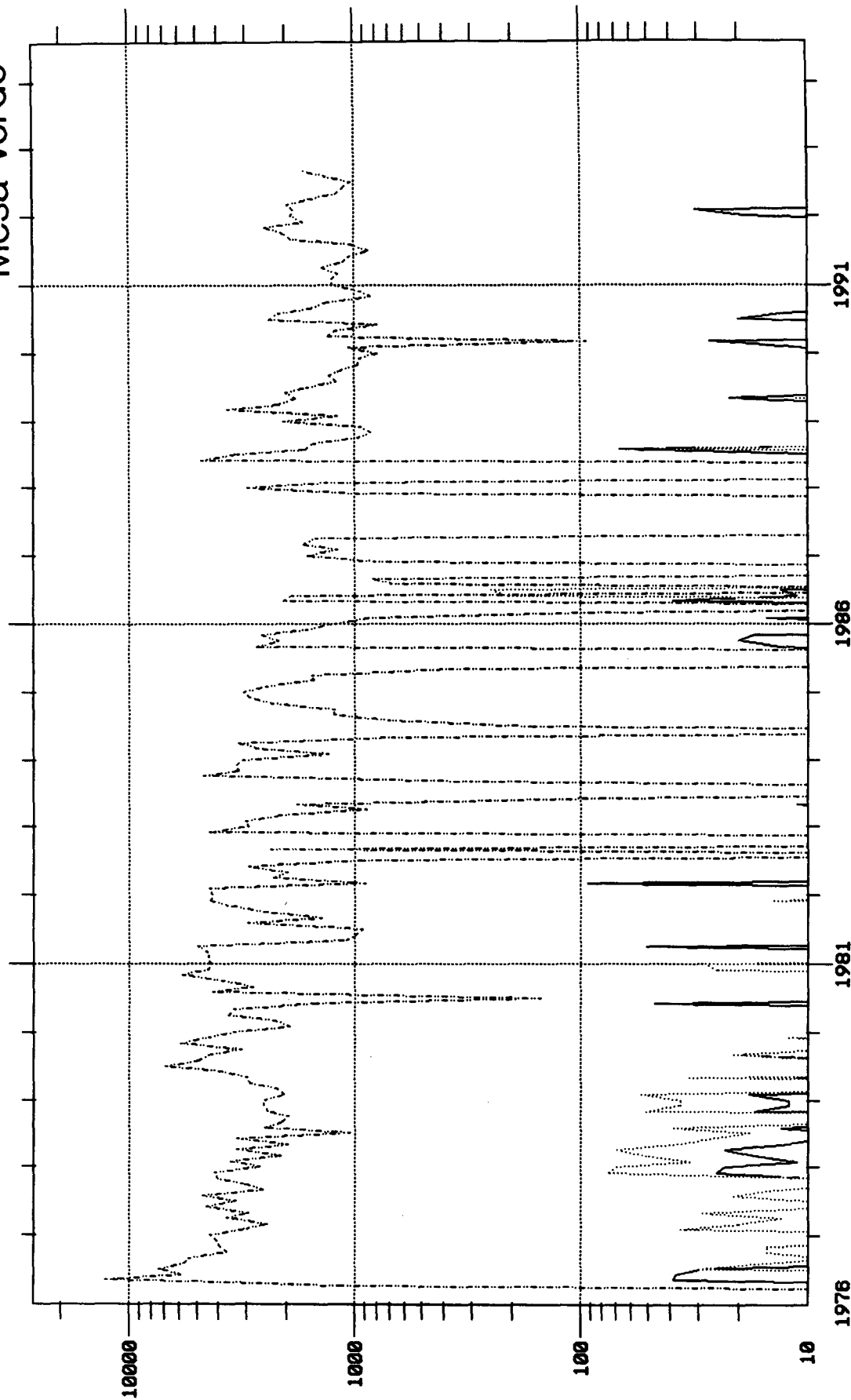
Calculated  
Oil  
Gas  
Water

TEMP  
Production Rate vs Time  
Bbl/Mo or Mcf/Mo vs Months  
AXI APACHE N10: CONOCO INCORPORATED  
For the Period 04/1976 to 09/1992

Production  
Oil  
Gas  
Water

AXI Apache N No. 10

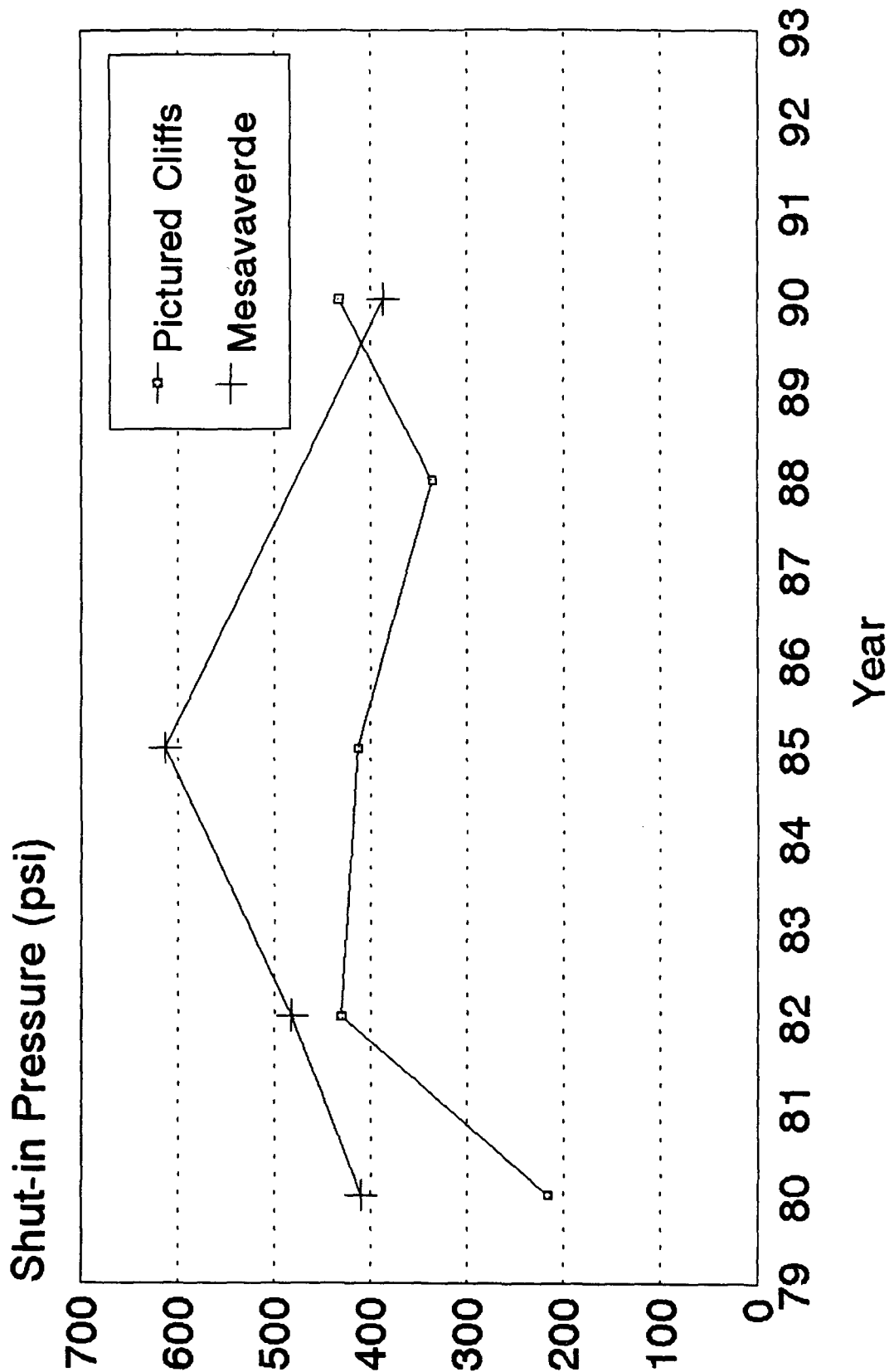
Mesa Verde



Reported Oil Production = 1333 Bbls  
Reported Gas Production = 426559 Mcf  
Reported Water Production = 1575 Bbls

# AXI Apache N #10

## Shut-in Pressures





## PICTURED CLIFFS

### GAS COMPANY OF NEW MEXICO REPORT OF BTU TEST RESULTS

TO: CONOCO, INC.

REF: AXI APACHE N 4  
2807  
NORTHWEST NEW MEXICO

DATE OF THIS TEST: 11/26/92  
DATE OF LAST TEST: 4/22/92  
TEST FREQUENCY: NOT SPECIFIED

RESULTS: SPECIFIC GRAVITY: 0.6883  
BTU/CF @ 14.73/60F/DRY: 1204.6

	MOL %	G. P. M.
CARBON DIOXIDE	0.190	0.0000
NITROGEN	0.820	0.0000
METHANE	85.960	0.0000
ETHANE	6.620	1.7650
PROPANE	3.240	0.8920
ISOBUTANE	0.600	0.1950
N-BUTANE	0.710	0.2230
ISOPENTANE	0.270	0.0980
N-PENTANE	0.200	0.0730
HEXANE +	1.400	0.5700
	-----	-----
TOTAL	100.010	3.8160

# MESAVERDE

## GAS COMPANY OF NEW MEXICO REPORT OF BTU TEST RESULTS

TO: CONOCO, INC.

REF: AXI APACHE N 12  
3256  
NORTHWEST NEW MEXICO

DATE OF THIS TEST: 11/26/92  
DATE OF LAST TEST: 5/25/92  
TEST FREQUENCY: NOT SPECIFIED

RESULTS: SPECIFIC GRAVITY: 0.7518  
BTU/CF @ 14.73/60F/DRY: 1296.6

	MOL %	G. P. M.
CARBON DIOXIDE	0.510	0.0000
NITROGEN	0.780	0.0000
METHANE	78.760	0.0000
ETHANE	10.890	2.9060
PROPANE	4.560	1.2530
ISOBUTANE	0.780	0.2540
N-BUTANE	1.090	0.3410
ISOPENTANE	0.390	0.1240
N-PENTANE	0.270	0.0980
HEXANE +	1.970	0.8050
	-----	-----
TOTAL	100.000	5.7810

EXHIBIT H

**AXI APACHE "N" LEASE**  
**OFFSET OPERATORS & MINERALS OWNER**

Beartooth Oil & Gas  
P.O. Box 2585  
Billings, MT 59103

Southern Union Exploration Co.  
324 Highway U.S. 64  
Farmington, NM 87401

Dugan Production  
P.O. Box 420  
Farmington, NM 87499

Southland Royalty Company  
c/o Meridian Oil Inc.  
P.O. Box 4289  
Farmington, NM 87499-4289

Meridian Oil Inc.  
P.O. Box 4289  
Farmington, NM 87499-4289

Texaco Inc.  
Western E&P Region  
P.O. Box 2100

Minel Incorporated  
309 Washington S.E.  
Albuquerque, NM 87108

Jicarilla Agency  
P.O. Box 167  
Dulce, NM 87528



STATE OF NEW MEXICO  
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION  
AZTEC DISTRICT OFFICE

OIL CONSERVATION DIVISION  
RECEIVED

'93 OCT 21 AM 9 08

1000 RIO BRAZOS ROAD  
AZTEC, NEW MEXICO 87410  
(505) 334-6178

Date: 10-19-93

*Attn: Ben Stone*

Oil Conservation Division  
P.O. Box 2088  
Santa Fe, NM 87504-2088

RE: Proposed MC \_\_\_\_\_  
Proposed NSL \_\_\_\_\_  
Proposed WFX \_\_\_\_\_  
Proposed NSP \_\_\_\_\_

Proposed DHC   *K*    
Proposed SWD \_\_\_\_\_  
Proposed PMX \_\_\_\_\_  
Proposed DD \_\_\_\_\_

Gentlemen:

I have examined the application received on 10-12-93  
for the CONOCO AXI APACHE N°10  
OPERATOR LEASE & WELL NO.

L-2-25N-04W and my recommendations are as follows:  
UL-S-T-R

APPROVE  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yours truly,

*Ernie Brach*