

DHC

11/18/96

Southern

Rockies

Business

Unit

October 22, 1996

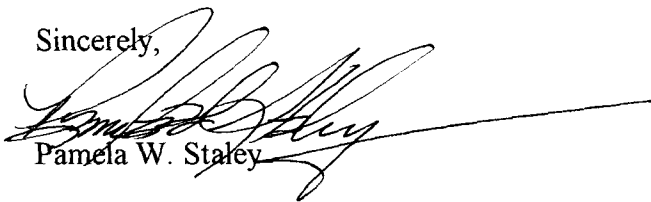
Mr. William J. LeMay, Director
New Mexico Oil Conservation Division
2040 S. Pacheco Street
P. O. Box 6429
Santa Fe, NM 87505

Application for Exception to Rule 303-A- Downhole Commingling
Bolack E #1 Well
Unit I Section 33-T28N-R8W
Blanco Mesaverde and Basin Dakota Pools
San Juan County, New Mexico

Enclosed please find an administrative application form (C-107-A) and attachments for downhole commingling for the captioned well. By copy of this application by certified mail, return receipt requested, Amoco is notifying all offset operators in the formations captioned above as well as all affected interest owners if the ownership of those formations is not common. The Division Director may approve the proposed downhole commingling in the absence of a valid objection from any offset operator or any interest owner in those instances where ownership is not common in the zones to be commingled within 20 days after the receipt of the application if, in his opinion, waste will not result thereby, and correlative rights will not be violated.

Should there be questions concerning this matter, please contact me at (303) 830-5344.

Sincerely,



Pamela W. Staley

Enclosures

cc: Mark Rothenberg
Pat Archuleta
Wellfile
Proration File
Frank Chavez, Supervisor
NMOCD District III
1000 Rio Brazos Road
Aztec, NM 87410

Duane Spencer
Bureau of Land Management
1235 La Plata Hwy.
Farmington, NM 87401

DISTRICT I
P.O. Box 1980, Hobbs NM 88241-1980

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-107-A
New 3-12-96

DISTRICT II
811 South First St., Artesia, NM 88210-2835

2040 S. Pacheco
Santa Fe, New Mexico 87505-6429

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

DISTRICT III
1000 Rio Brazos Rd. Aztec, NM 87410-1693

OIL CONSERVATION DIVISION
APPLICATION FOR DOWNHOLE COMMINGLING

EXISTING WELLBORE

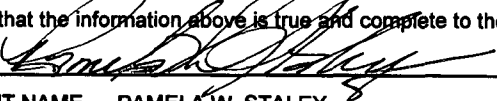
☒ YES ☐ NO

Amoco Production Company		P.O. Box 800 Denver, CO 80201	
Operator	1	Address	San Juan
BOLACK E		I-33-28N-8W	
Lease	Well No.	Unit Ltr. - Sec Twp - Rge	County
Spacing Unit Lease Types: (check 1 or more)			
OGRID NO.	Property Code	API NO.	Federal State (and/or) Fee
000778	000329	3004524103	x

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	BLANCO MESAVERDE 72319		BASIN DAKOTA 71599
2. Top and Bottom of Pay Section (Perforations)	4284' - 5312' PROPOSED		6684' - 6844'
3. Type of production (Oil or Gas)	GAS		GAS
4. Method of Production (Flowing or Artificial Lift)	FLOWING		FLOWING
5. Bottomhole Pressure Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated or Measured Original	a. (Current) 680 PSI b. (Original) 940 PSI	a. b.	a. 850 PSI b. 2450 PSI
6. Oil Gravity (° API) or Gas BTU Content	1259 BTU / 49 DEG API		1233 BTU / 59 DEG API
7. Producing or Shut-In?	NEW		PRODUCING
Production Marginal? (yes or no)	NO		YES
• If Shut-In, give data and oil/gas/water rates of last production Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data	Date: EST Rates: 250 MCFD 1 BCPD 0 BWPD	Date: Rates:	Date: Rates:
• If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: Rates:	Date: Rates:	10/96 30 MCFD 0.5 BCPD 0 BWPD
8. Fixed Percentage Allocation Formula - % for each zone	Oil: 67 % Gas 89 %	Oil: % Gas %	Oil: 33 % Gas 11 %

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.
10. Are all working, overriding, and royalty interests identical in all commingled zones?
If not, have all working, overriding, and royalty interests been notified by certified mail?
Have all offset operators been given written notice of the proposed downhole commingling?
11. Will cross-flow occur? ☐ Yes ☒ No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. ☐ Yes ☐ No (If No, attach explanation)
12. Are all produced fluids from all commingled zones compatible with each other? ☒ Yes ☐ No
13. Will the value of production be decreased by commingling? ☐ Yes ☒ No (If Yes, attach explanation)
14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ☐ No NM-012202
15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S) _____
16. ATTACHMENTS:
- * C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
 - * Production curve for each zone for at least one year. (If not available, attach explanation.)
 - * For zones with no production history, estimated production rates and supporting data.
 - * Data to support allocation method or formula.
 - * Notification list of all offset operators.
 - * Notification list of working, overriding, and royalty interests for uncommon interest cases.
 - * Any additional statements, data, or documents required to support commingling.

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

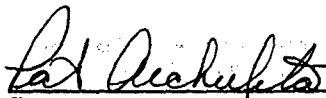
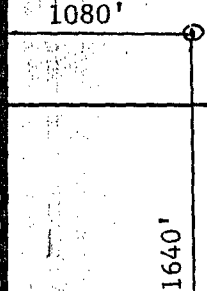
SIGNATURE  TITLE REGULATORY AFFAIRS ENGR DATE 10/22/96

TYPE OR PRINT NAME PAMELA W. STALEY TELEPHONE NO. (303) 830-5344

District IV
2040 South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Fee Lease - 3 Copies

16				17 OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</i>
				 Signature Pat Archuleta Printed Name Clerk Title August 14, 1996 Date
1080'  1640'				18 SURVEYOR CERTIFICATION <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i> October 3, 1979 Date of Survey Signature and Seal of Professional Surveyer: 3950 Certificate Number

IL CONSERVATION DIVISIO

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-102
Revised 10-1-78

All distances must be from the outer boundaries of the Section.

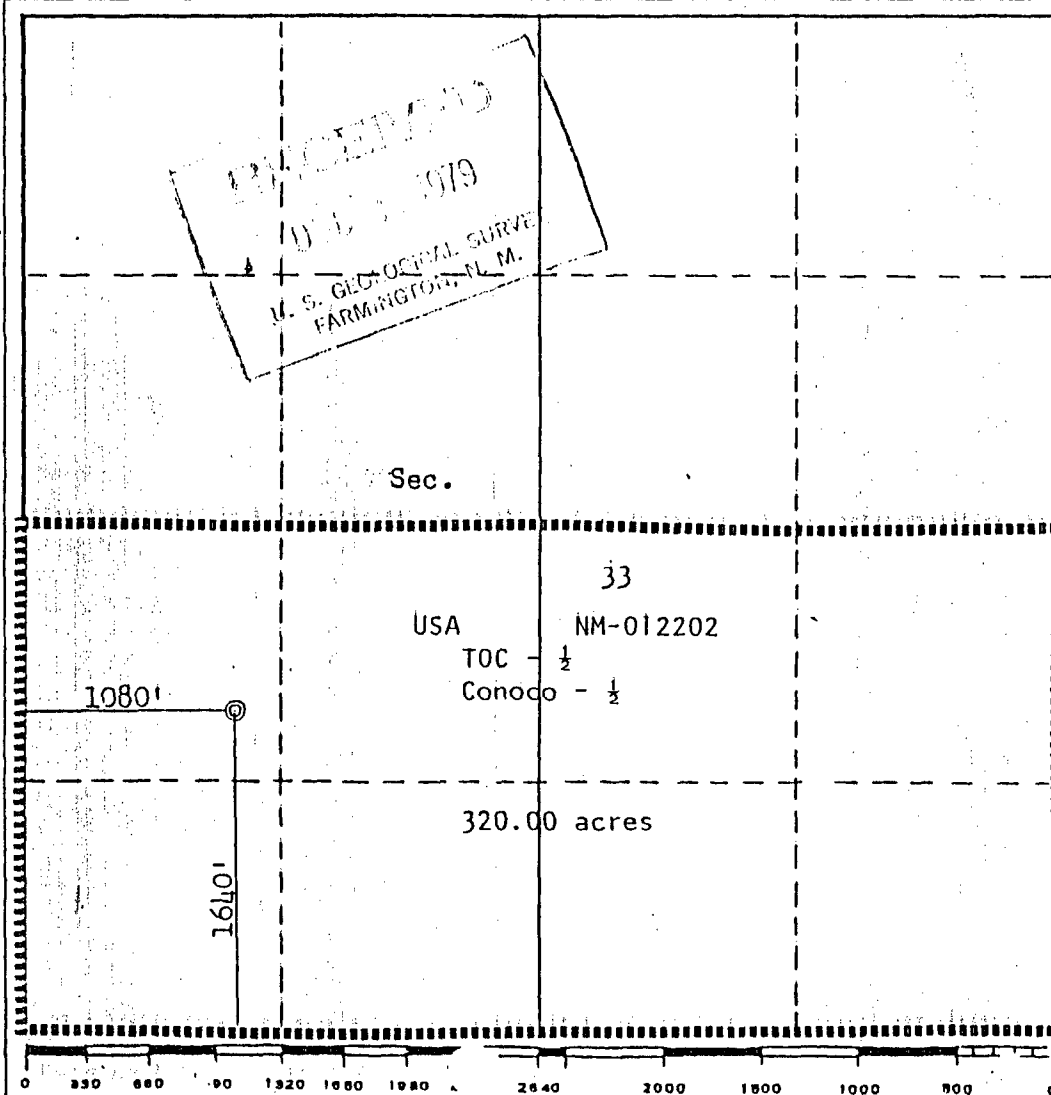
Operator TENNECO OIL COMPANY			Lease BOLACK "E"		Well No. 1
Unit Letter L	Section 33	Township 28N	Range 3W	County San Juan	
Actual Footage Location of Well: 1640 feet from the South line and 1080 feet from the West line					
Ground Level Elev. 6042	Producing Formation Dakota		Pool Basin Dakota		Dedicated Acreage: 320.00 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Name

M. Lee Freeman

Position

Staff Production Analyst

Company

Tenneco Oil Company

Date

December 17, 1979

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

October 17, 1979

Registered Professional Engineer and/or Land Surveyor

3950

Fred B. Nery Jr.

Certificate No.

3950

ESTIMATED PRODUCTION AND PRESSURE DATA

Production data for the Mesaverde was estimated from the use of the attached production curves. Rates are estimated to be as follows:

	<u>Mesaverde</u>	<u>Dakota</u>
Gas	250 MCFD	30 MCFD
Condensate	1.0 BCPD	0.5 BCPD

Pressure data taken from current pressure information on the surrounding wells was used to estimate the pressure in the Mesaverde. A map of those rates and pressures is presented as an attachment hereto.

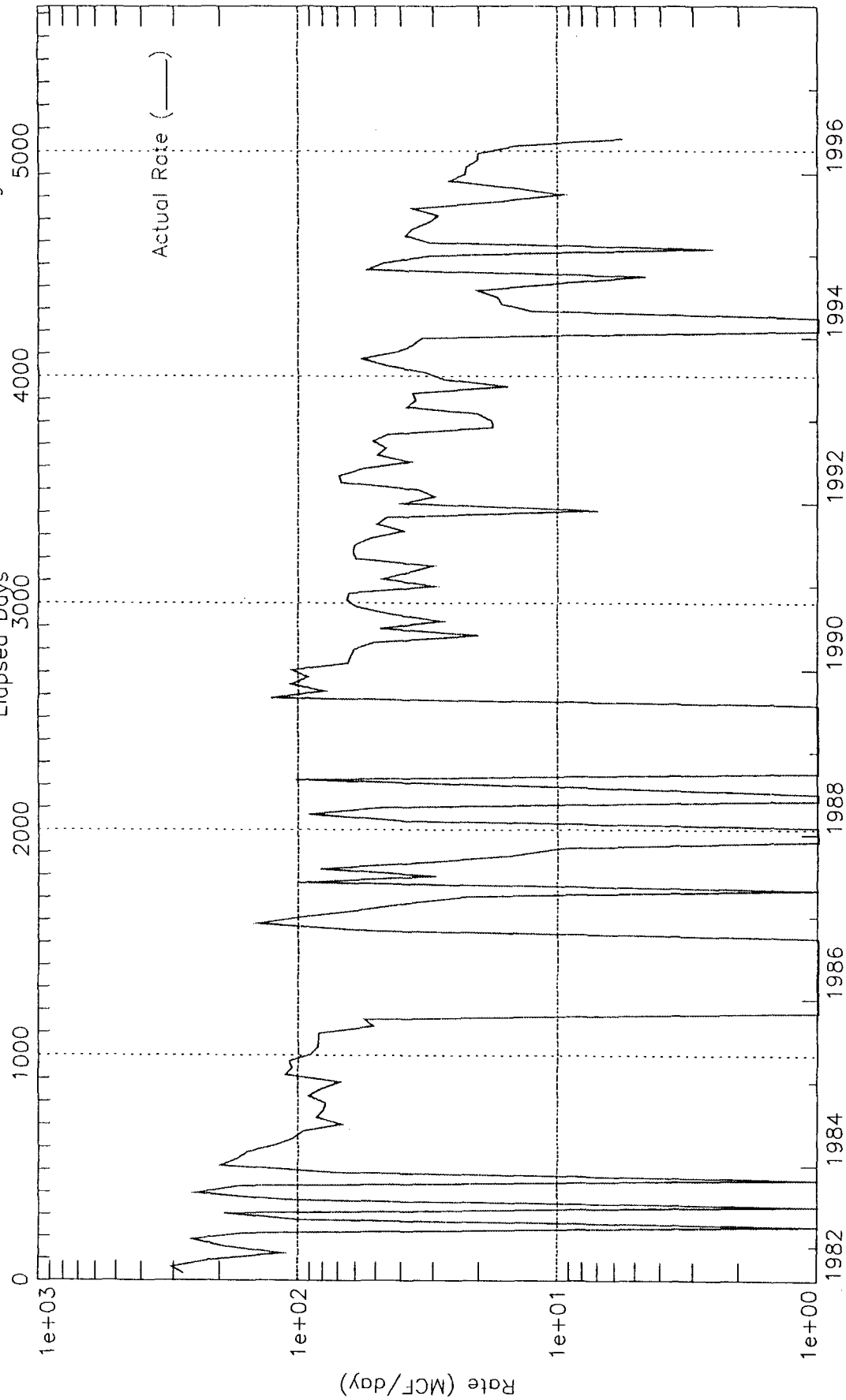
Estimated Reservoir Pressures:

<u>Mesaverde</u>	<u>Dakota</u>
680 PSIG	850 PSIG

User: zmdr16
Owner: ZDMHF

Single Well Gas3D

Description 1
Mon Aug 5 15:32:08 1996



Cum Gas= 265.54 MMCF

Date (Years)

Well ID: 300452410300 602DKOT

Well Name: BOLACK-E 1

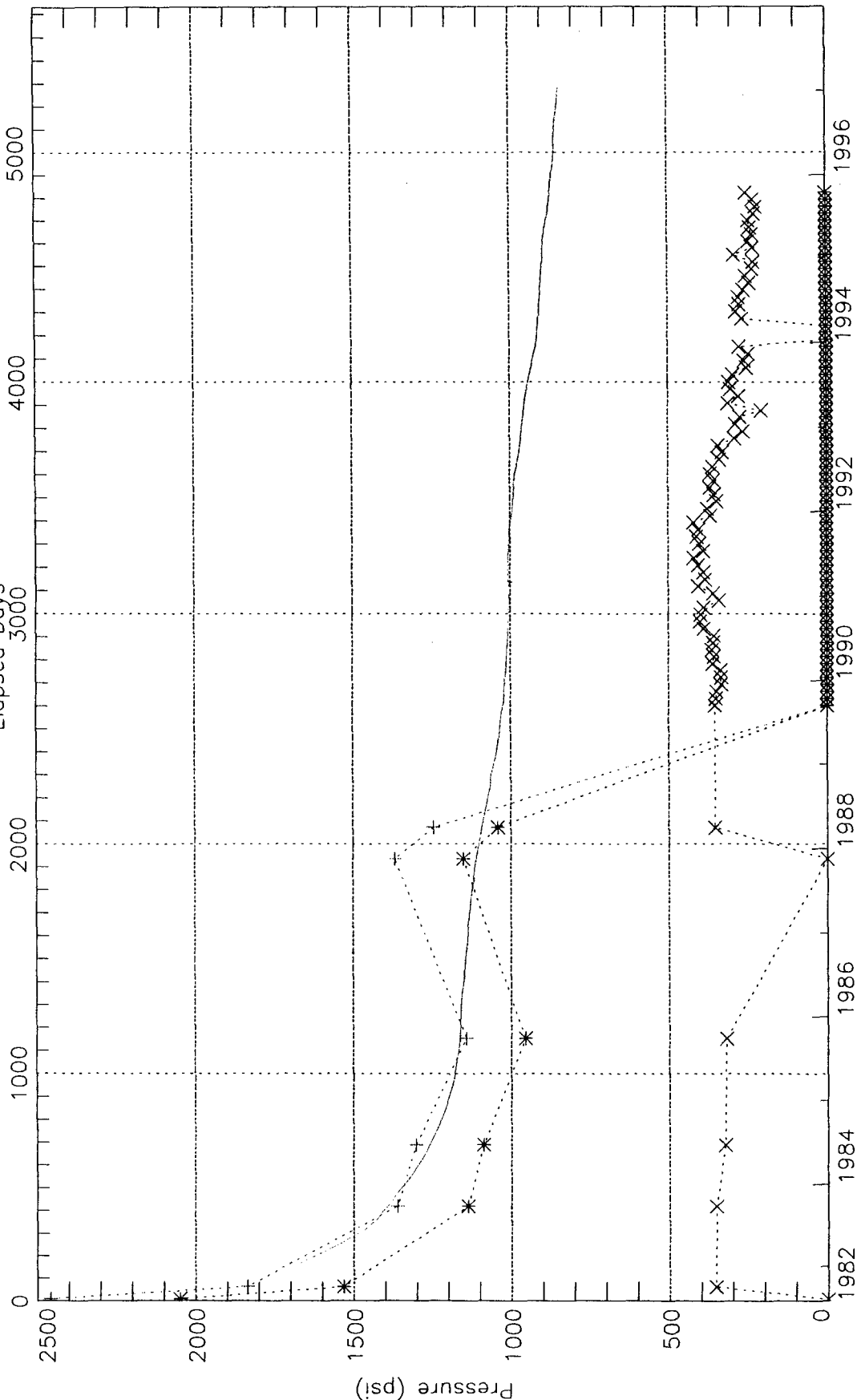
Operator: AMOCO PRODUCTION COMPANY

User: zmdr16
Owner: 2DMHF

Single Well Gas3D

Description 1
Mon Aug 5 15:32:19 1996

Elapsed Days



Date (Years)

Well ID: 300452410300 602DKOT
Well Name: BOLACK-E 1
Operator: AMOCO PRODUCTION COMPANY

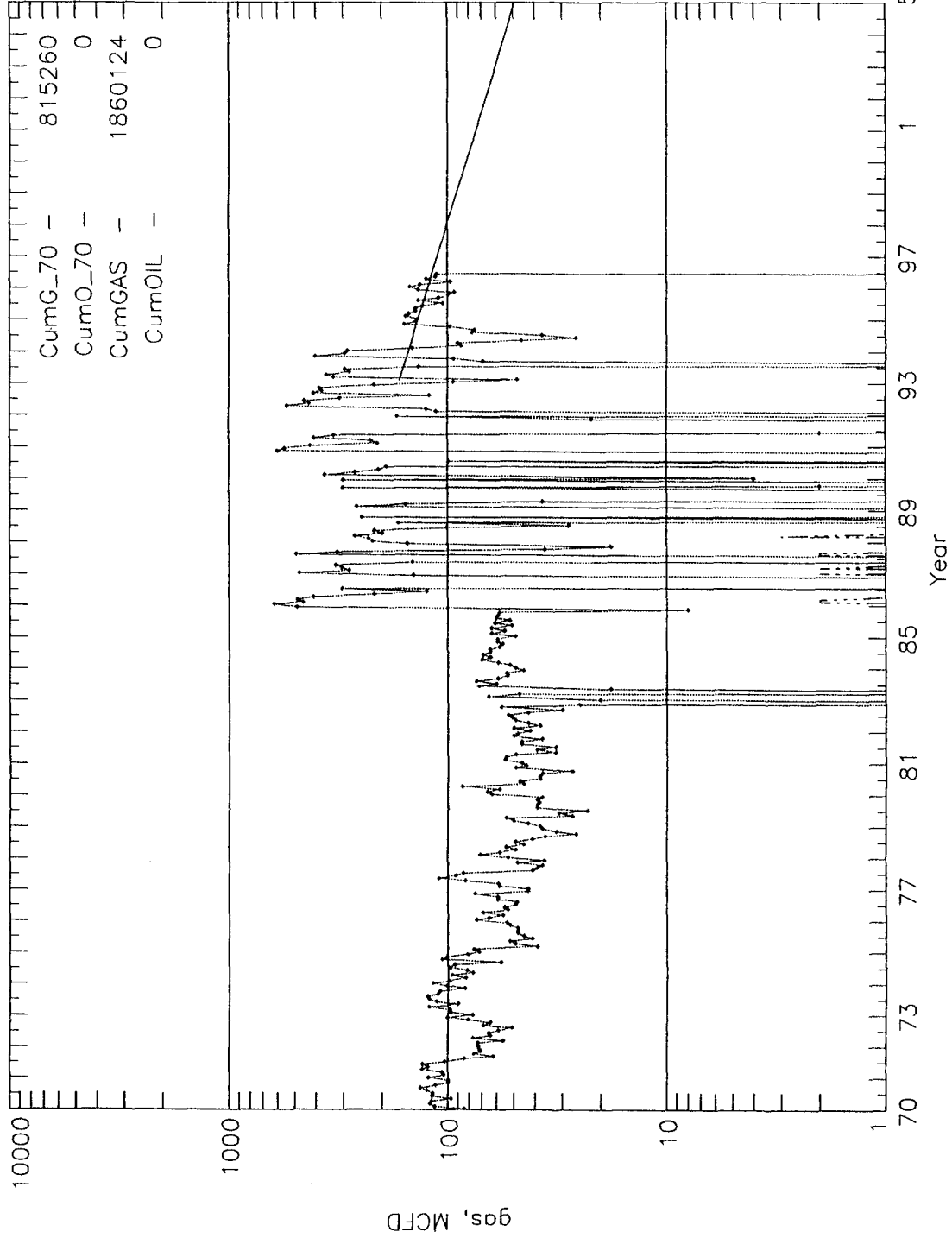
For: zmdr16
Engr: zijk06

Operator-- AMOCO PRODUCTION COMPANY

BOLACK 1
300450701900 604MVRD

APC_WI -- 1.00000000

CumG_70 -- 815260
CumO_70 -- 0
CumGAS -- 1860124
CumOIL -- 0

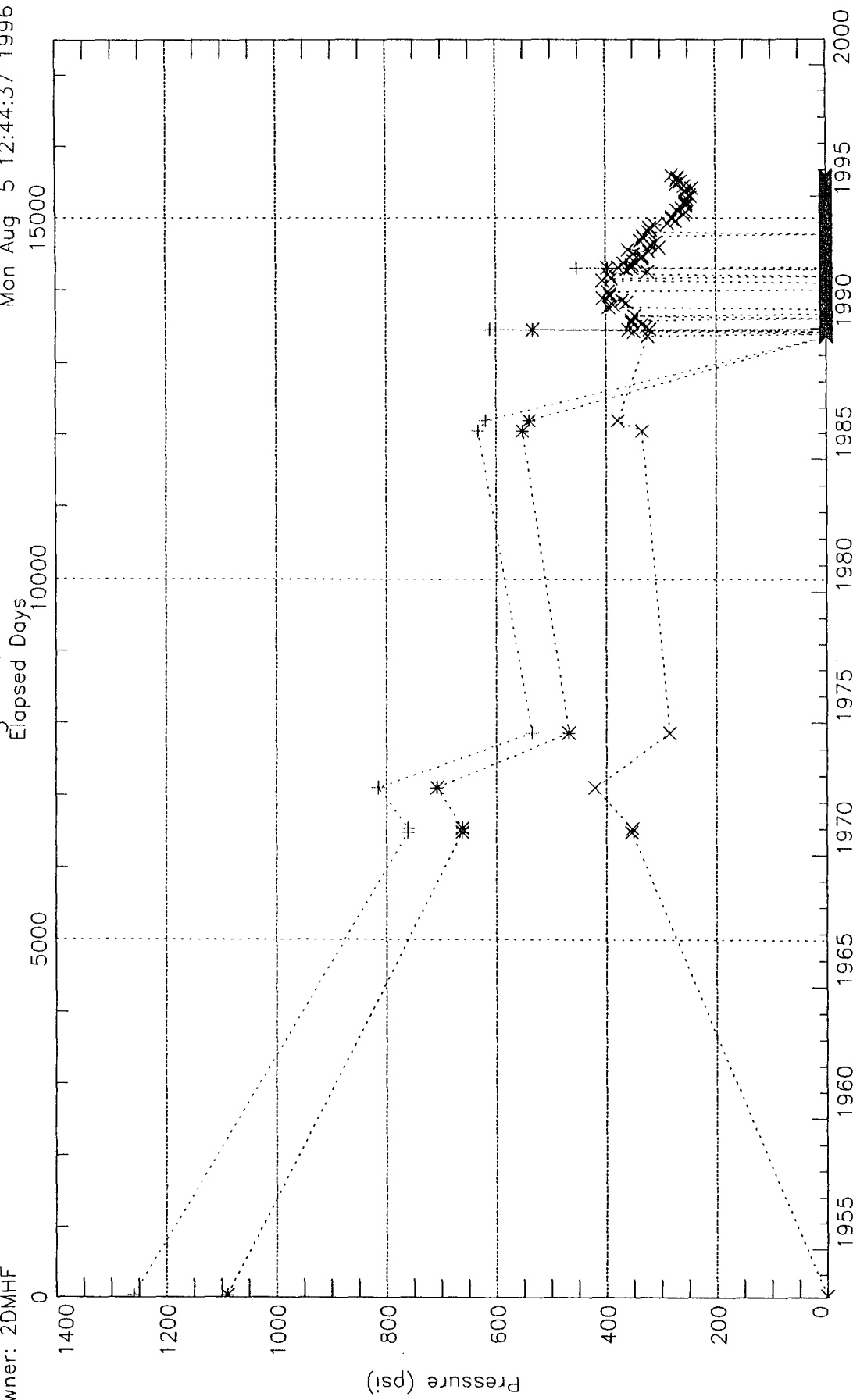


DCLN	0.1020
CurrQ	NA
RemRes	391207
EUR	2251331
Fit_date	NA
Reserves	

User: zmdr16
Owner: 2DMHF

Single Well Gas3D

Description 1
Mon Aug 5 12:44:37 1996



WH_SIP (*)
BHP (+)
WH_FTP (x)

Date (Years)

Well ID: 300450701900 604MVRD

Well Name: BOLACK 1

Operator: AMOCO PRODUCTION COMPANY

1 MV offsets


BOLACK 1-E


DRYDEN 1

AVG CURT Q = 207 mcf
AVG Q
(MAX CURT) = 466 mcf
AVG PRES = 678 psig
(MAX CURT)
AVG PRES, IN :


DRYDEN LS 1A


RIDDLE F 5
MAX Q = 400
CURT Q = 90
PRES, IN = 1050
PRES, CURT = 550
MN, PLO


BOLACK B LS 1A
MAX Q = 800
Q = 200
PRES, IN = 700
PRES, CURT = 400
MN, PLO


BOLACK 1
MAX Q = 500 (compressed)
Q = 120
PRES, INITIAL = 1100
PRES, CURT = 400
CH, MN, PLO

Bolack E 1
X


BOLACK E 1M
MAX Q = 1200
CURT Q = 600
PRES, IN = 570
PRES, CURT = 570
CH, MN, PLO


RIDDLE F LS 5A
MAX Q = 800
CURT Q = 120
PRES, IN = 800
PRES, CURT = 500
MN, PLO


BOLACK 3-B
MAX Q = 650
CURT Q = 110
PRES, IN = 1050
PRES, CURT = 450
MN, PLO


DAWSON-A 1-M


FEDERAL GRAHAM 1


FILAN 4

For: zmdr16

Engr: zcsw10

BOLACK B LS 1A

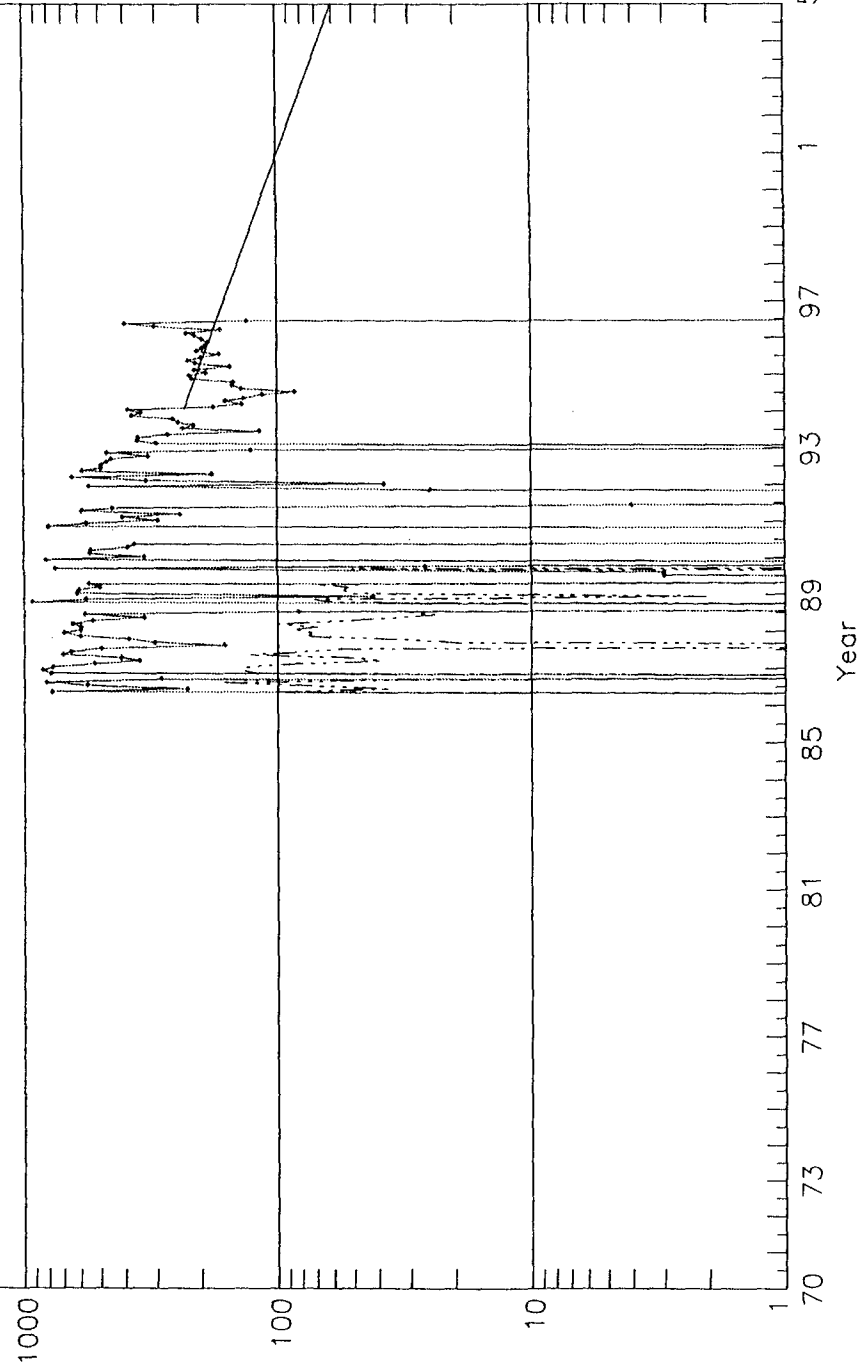
Operator-- AMOCO PRODUCTION COMPANY

300452656000 604MVRD

APC_WI -- 1.00000000

CumG_70 -- 0
CumO_70 -- 0
CumGAS -- 1183148
CumOIL -- 0

gas, MCFD



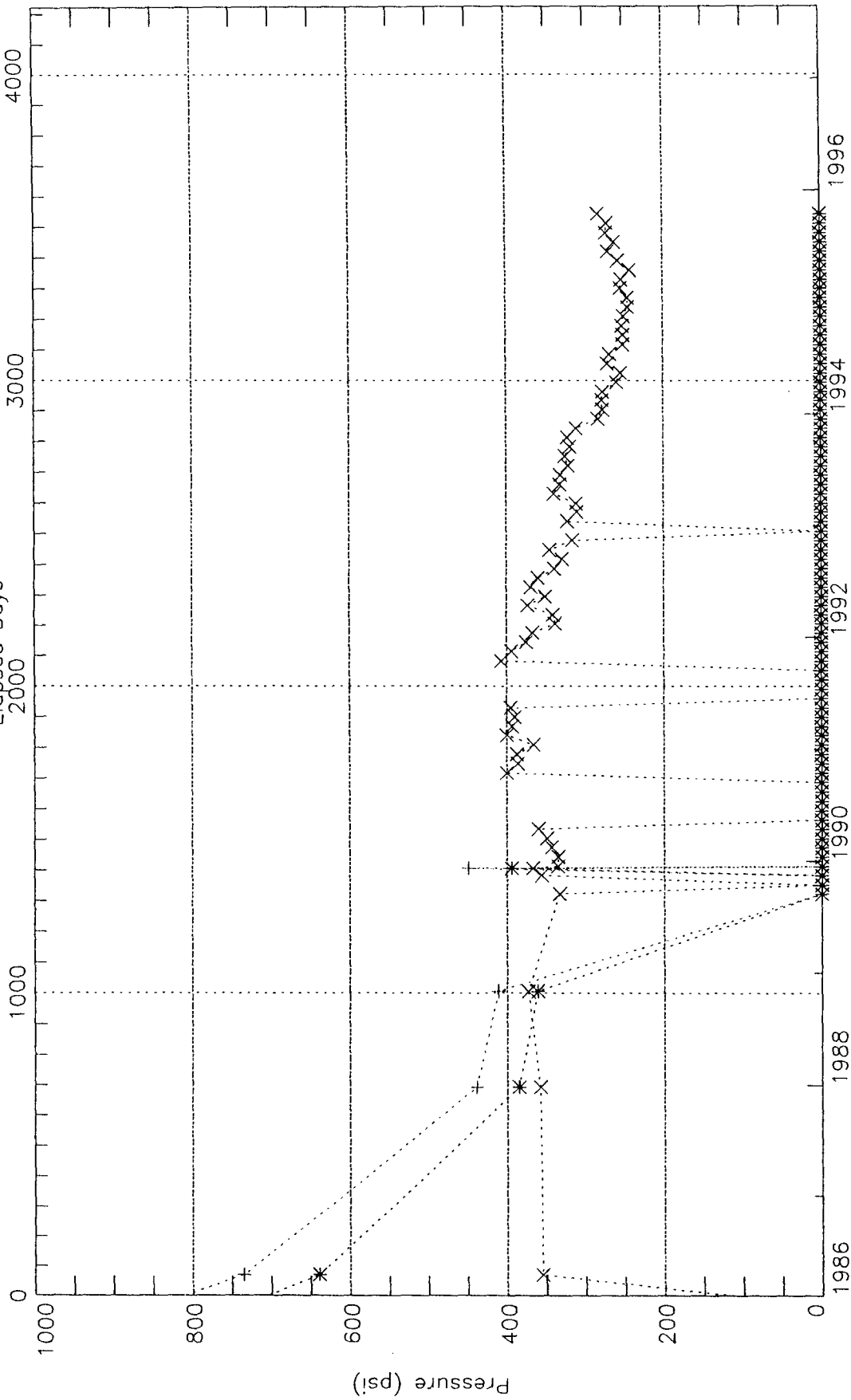
DCLN
CurrQ
RemRes
EUR
Fit_date

Reserves
0.1232
NA
485922
1669070
NA

User: zmdr16
Owner: 2DMHF

Single Well Gas3D

Description 1
Mon Aug 5 12:44:49 1996



WH_SIP (*)
BHP (+)
WH_FTP (x)

Date (Years)

Well ID: 300452656000 604MVRD

Well Name: BOLACK B LS 1A

Operator: AMOCO PRODUCTION COMPANY

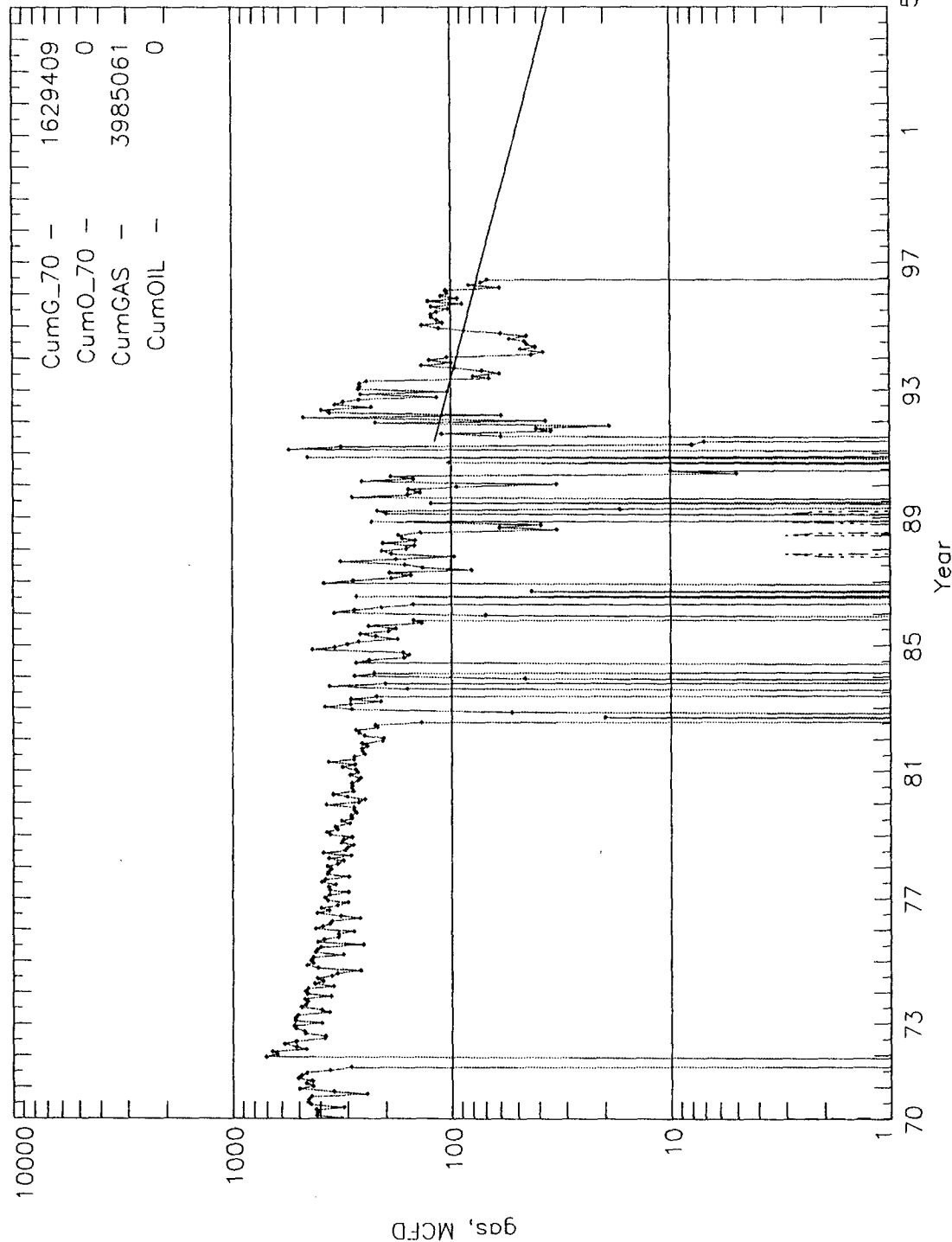
For: zmdr16
Engr: zcsw10

Operator- EL PASO NATURAL GAS

APC_WI - 1.0000000

300450694600 604MVRD

CumG_70 - 1629409
CumO_70 - 0
CumGAS - 3985061
CumOIL - 0

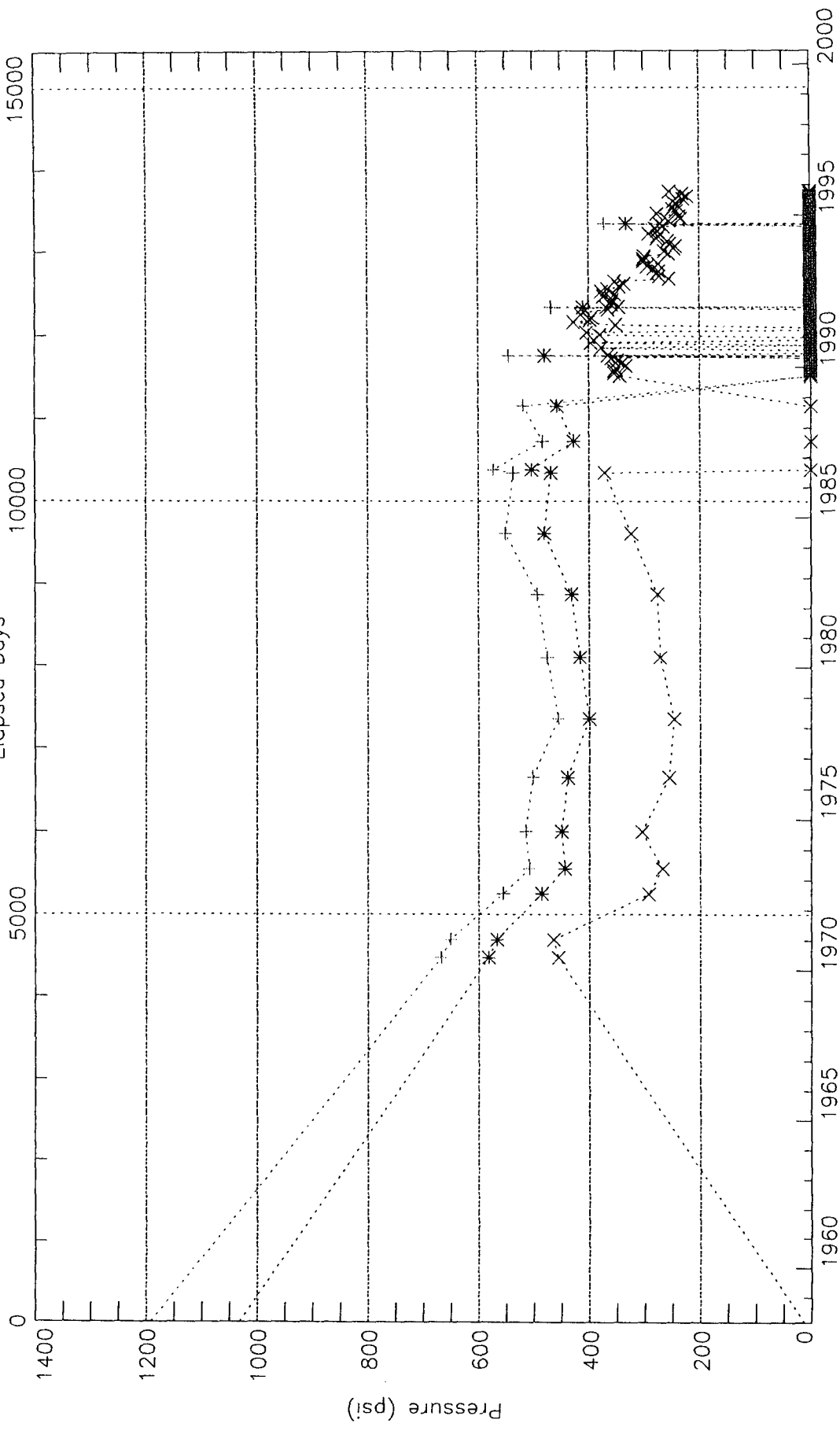


DCLN	Reserves
CurrQ	0.0881
RemRes	NA
EUR	283428
Fit_date	4268489
	NA

User: zmdr16
Owner: 2DMHF

Single Well Gas3D

Description 1
Mon Aug 5 12:45:03 1996



WH_SIP (*)
BHP (+)
WH_FTP (x)

Date (Years)

Well ID: 300450694600 604MVRD
Well Name: BOLACK 3-B
Operator: EL PASO NATURAL GAS

For: zmdr16

Engr: zcsw10

Operator- AMOCO PRODUCTION COMPANY

RIDDLE F 5

300450705200 604MVRD

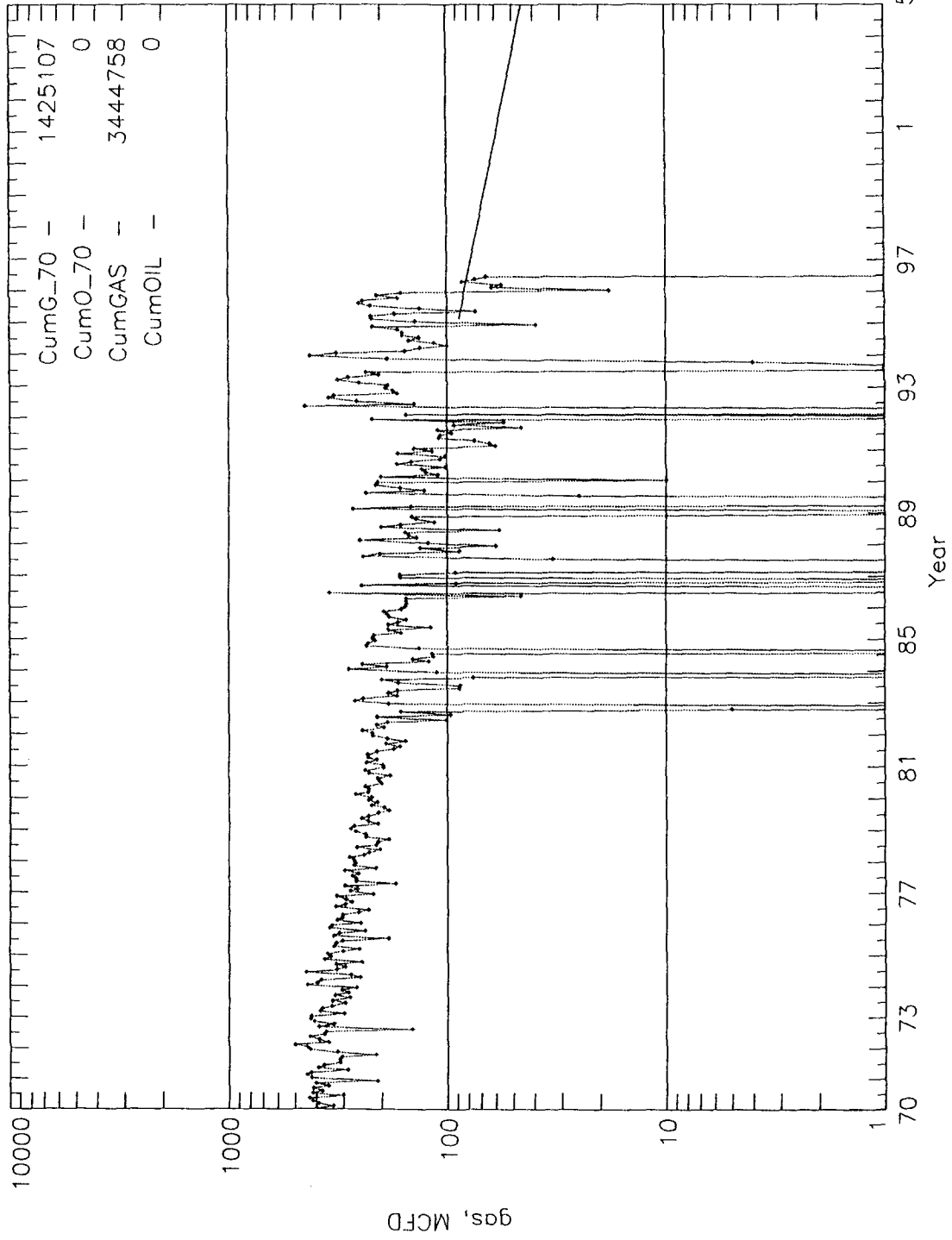
APC_WI - 1.00000000

CumG_70 - 1425107

CumO_70 - 0

CumGAS - 3444758

CumOIL - 0



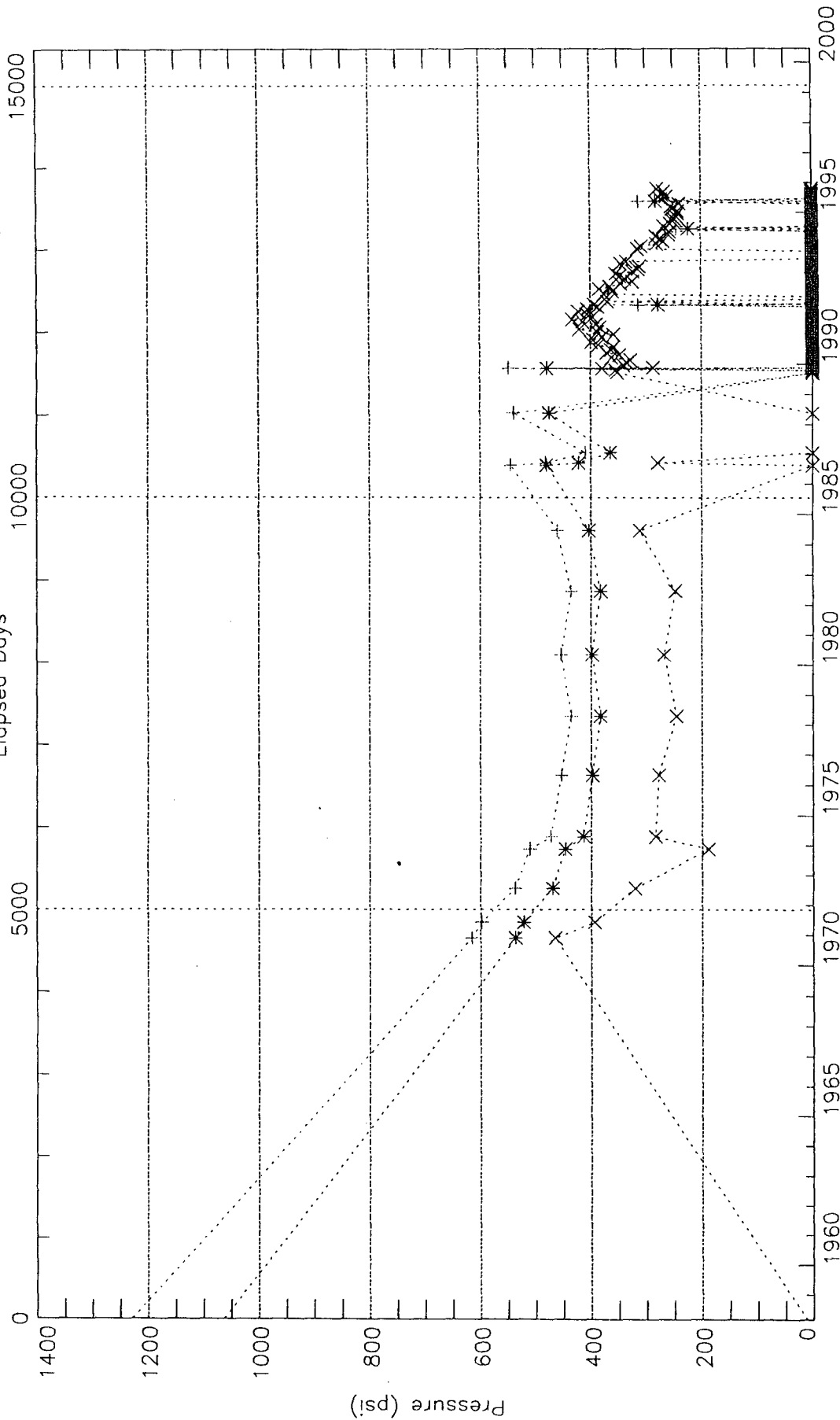
Reserves	0.0677
DCLN	NA
CurrQ	394827
RemRes	3839585
EUR	NA
Fit_date	

Last Op. Forecast by zcsw10 in 06/1996

User: zmdr16
Owner: 2DMHF

Single Well Gas3D

Description 1
Mon Aug 5 12:45:20 1996



WH_SIP (*)
BHP (+)
WH_FTP (x)

Date (Years)

Well ID: 300450705200 604MVRD
Well Name: RIDDLE F 5
Operator: AMOCO PRODUCTION COMPANY

For: zmdr16

Engr: zr06

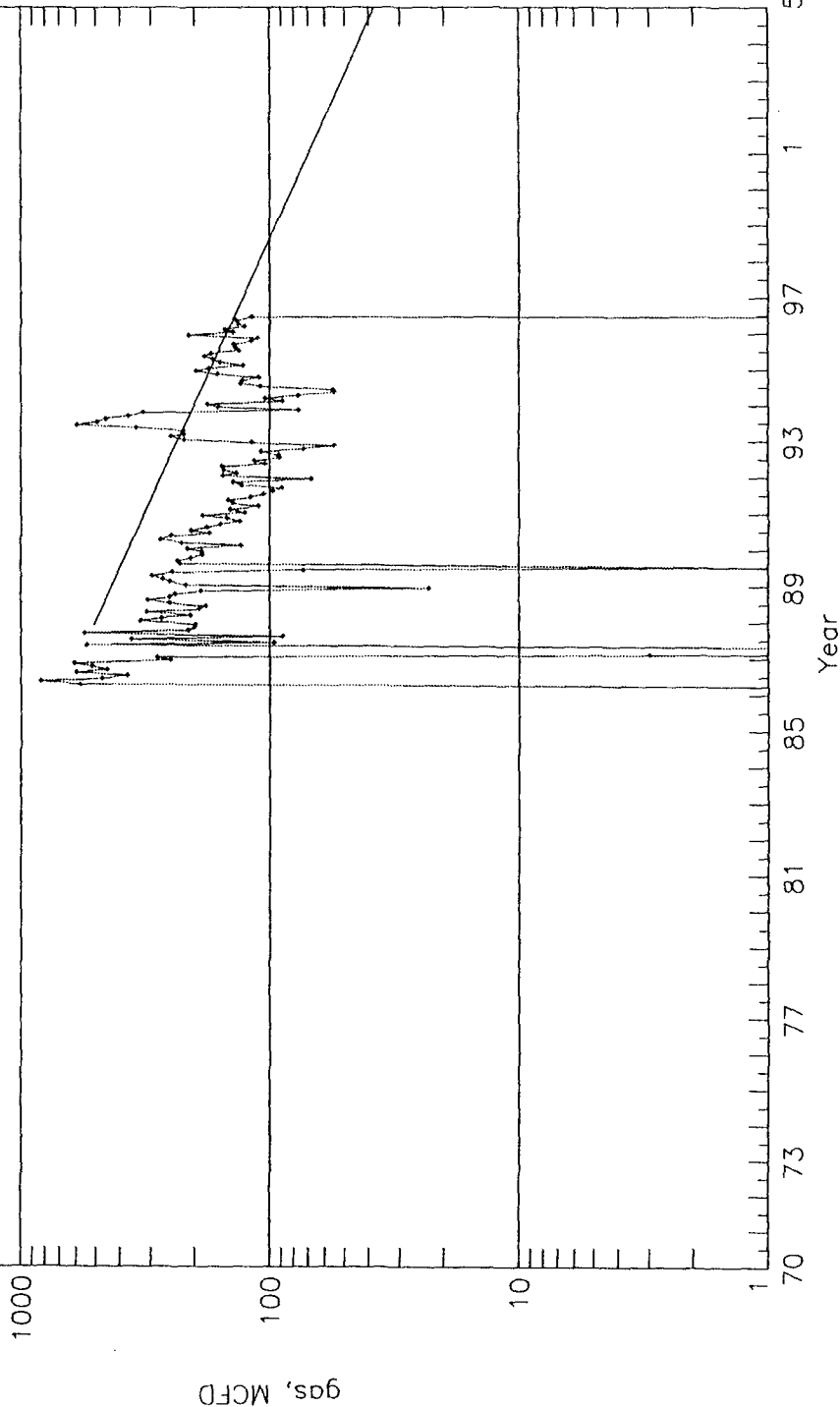
RIDDLE F LS 5A

Operator- AMOCO PRODUCTION COMPANY

300452658000 604MVRD

APC_WI ~ 1.00000000

CumG_70	-	0
CumO_70	-	0
CumGAS	-	768885
CumOIL	-	0



DCLN	0.1515	Reserves
CurrQ	NA	
RemRes	310863	
EUR	1079748	
Fit_date	NA	

Last Op. Forecast by zr06 in 04/1996

User: zmdr16
Owner: 2DMHF

Single Well Gas3D

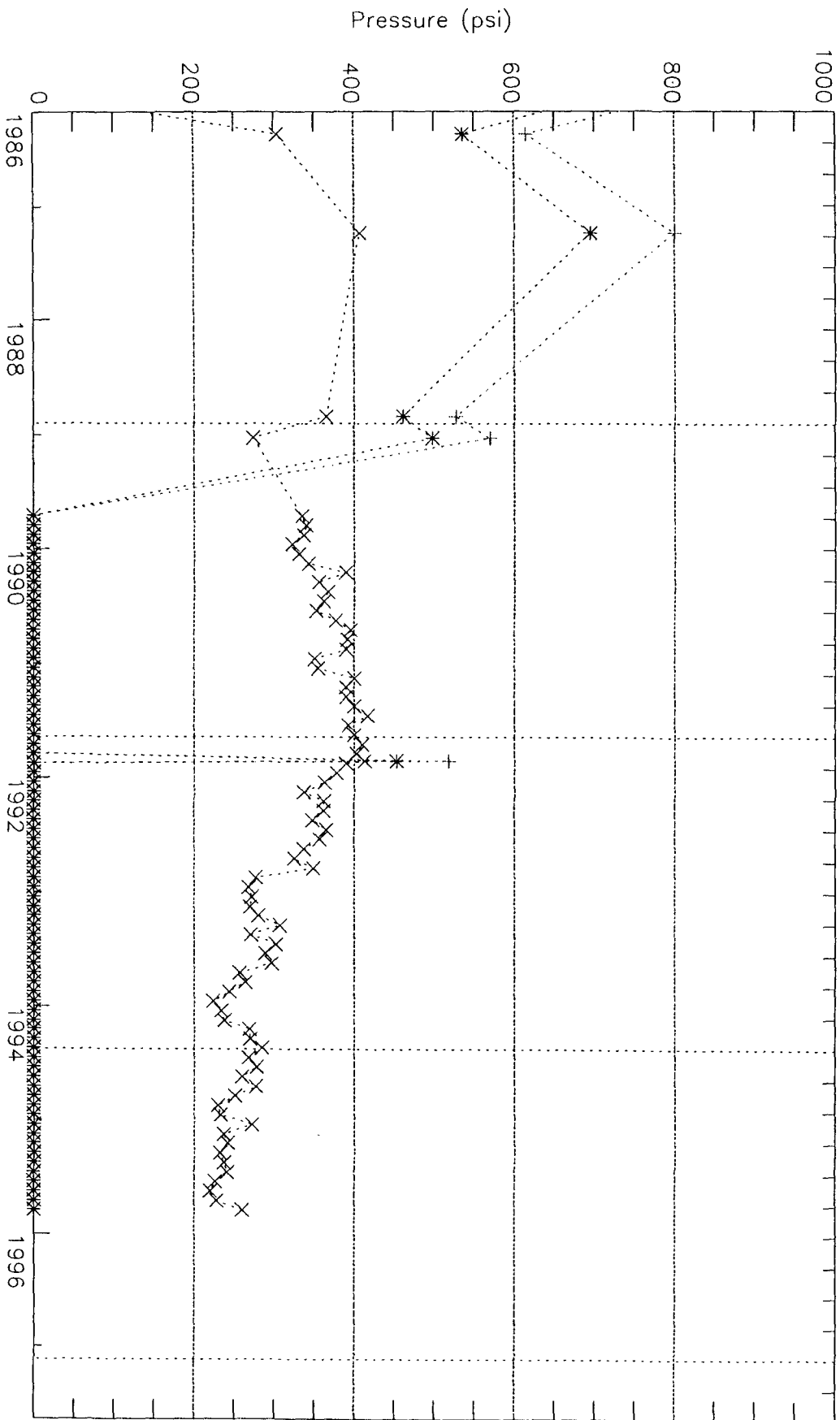
Elapsed Days

2000

3000

4000

Description 1
Mon Aug 5 12:45:32 1996



Well ID: 300452658000 604MVRD

Well Name: RIDDLE F LS 5A

Operator: AMOCO PRODUCTION COMPANY

Date (Years)

WH_SIP (*)

BHP (+)

WH_FTP (x)

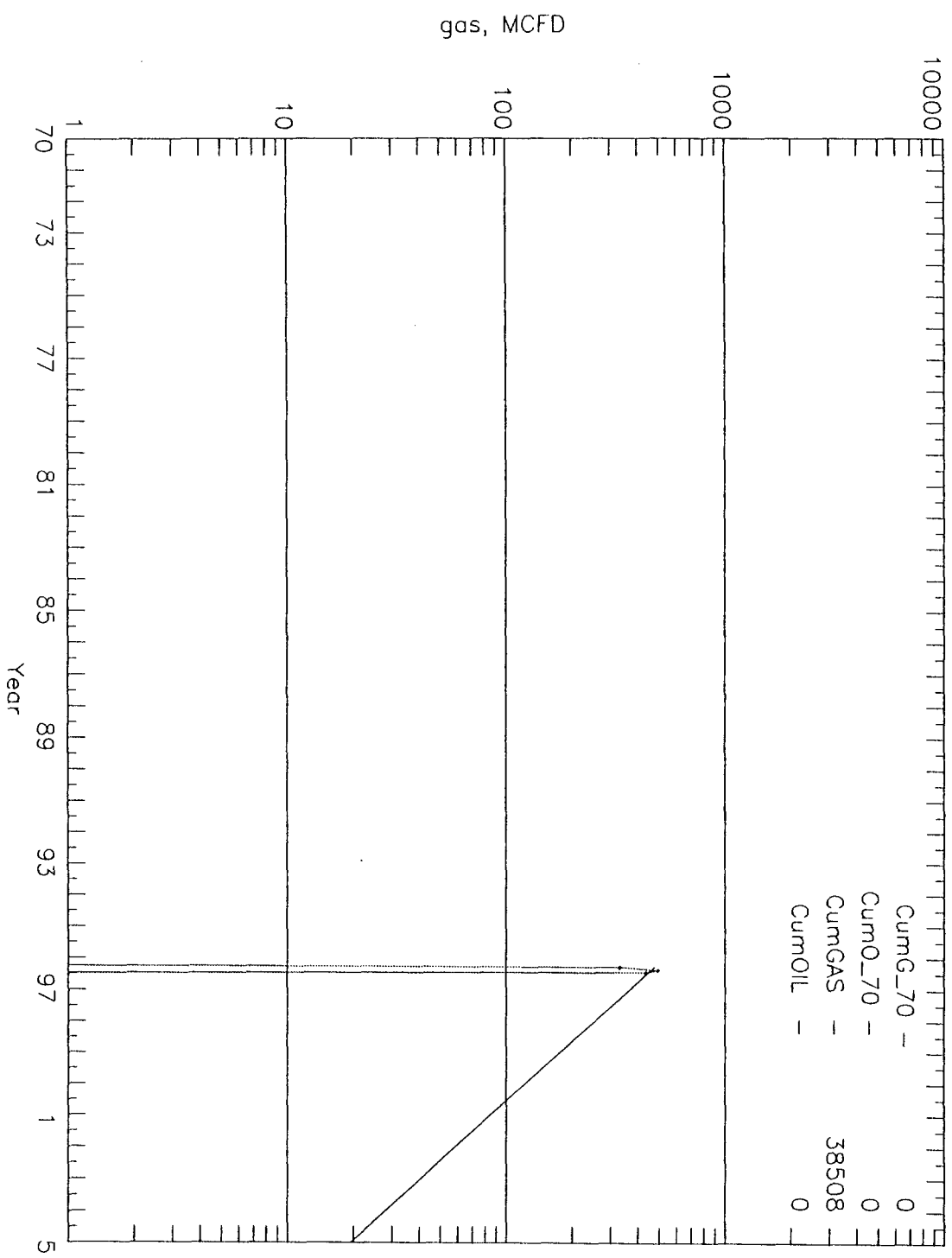
BOLACK E 1M

300452925100 604MVRD

APC_WI - 1.0000000

Operator- AMOCO PRODUCTION COMPANY
Engr: zcsw10

For: zmdr16



CumG_70 - 0
CumO_70 - 0
CumGAS - 38508
CumOIL - 0

Reserves
DCLN 0.3668
CurrQ NA
RemRes 424614
EUR 463122
Fit_date NA

OFFSET OPERATORS

Bolack E #1

Burlington Resources Oil and Gas Co.
P.O. Box 4289
Farmington, NM 87499

R & G Drilling Co.
c/o KM Production Co
P.O. Box 2406
Farmington, NM 87499

Bledsoe Petroleum Corp.
1717 Main
Suite 5850
Dallas, Texas 75201

Great Lakes Chemical Corporation
P.O. Box 2200
W. Lafayette, IN 47906

Lively Exploration Co.
1300 Post Oak #1900
Houston, Texas 77056

Koch Oil Company
P.O. Box 2256
Wichita, KS 67201