DHC 4/16/97

RECEIVED
MAR 27 1997
OIL CONSERVATION DIVISION

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980
DISTRICT II
811 South First St., Artesia, NM 88210-2835
DISTRICT III
1000 Rio Brazos Rd, Aztec, NM 87410-1693

State of New Mexico
Energy, Minerals and Natural Resources Department

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

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

APPROVAL PROCESS:
X Administrative __Hearing

EXISTING WELLBORE
X YES __ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Operator	Address		
Phillips Petroleum Company	5525 Hwy. 64, Farmington, NM 87401		
Lease	**Well No.**	**Unit Ltr. - Sec - Twp - Rge**	**County**
San Juan 30-5 Unit	37	K, Sec. 8-T30N, R5W,	Rio Arriba

OGRID NO. 017654 Property Code 009258 API NO. 30-039-20782 Spacing Unit Lease Types: (check 1 or more) Federal X, State ___, (and/or) Fee ___

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	72319 Blanco Mesaverde		71599 Basin Dakota
2. Top and Bottom of Pay Section (Perforations)	4095' & 5800'		7696' & 7820'
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: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	a. (Current) 1030 psi (est.) b. (Original) 1294 psi (est.)	a. b.	a. 1007 psig (estimated b. 3412 psi
6. Oil Gravity (°API) or Gas BTU Content	1030 BTU/ cu.ft.		1000 BTU/ cu. ft.
7. Producing or Shut-In?			producing
Production Marginal? (yes or no)	Yes		Yes
* If Shut-In, give date 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: Rates:	Date: Rates:	Date: Rates:
* If Producing, give date andoil/gas/ water rates of recent test (within 60 days)	Date: Estimate Rates: 420 mcfd	Date: Rates:	Date: Jan. 1997 Rates: 53 mcfd 0 bwpd
8. Fixed Percentage Allocation Formula -% for each zone	Oil: % Gas: %	Oil: % Gas: %	Oil: % Gas: %

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? Yes X No
If not, have all working, overriding, and royalty interests been notified by certified mail? X Yes ___ No
Have all offset operators been given written notice of the proposed downhole commingling? X Yes ___ No

11. Will cross-flow occur? X 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. X Yes ___ No (If No, attach explanation)

12. Are all produced fluids from all commingled zones compatible with each other? ___ Yes ___ No (see attached)

13. Will the value of production be decreased by commingling? ___ Yes X 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. X Yes ___ No

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). R-10771

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 Sean C Helton TITLE Staff Reservoir Engineer DATE 3-25-97

TYPE OR PRINT NAME Sean C. Helton TELEPHONE NO. (505) 599-3455

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised October 18, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-039-20782	72319	Blanco Mesaverde

[4] Property Code	[5] Property Name	[6] Well Number
009258	San Juan 30-5 Unit	#37

[7] OGRID No.	[8] Operator Name	[9] Elevation
017654	Phillips Petroleum Company	6319

[10] Surface Location

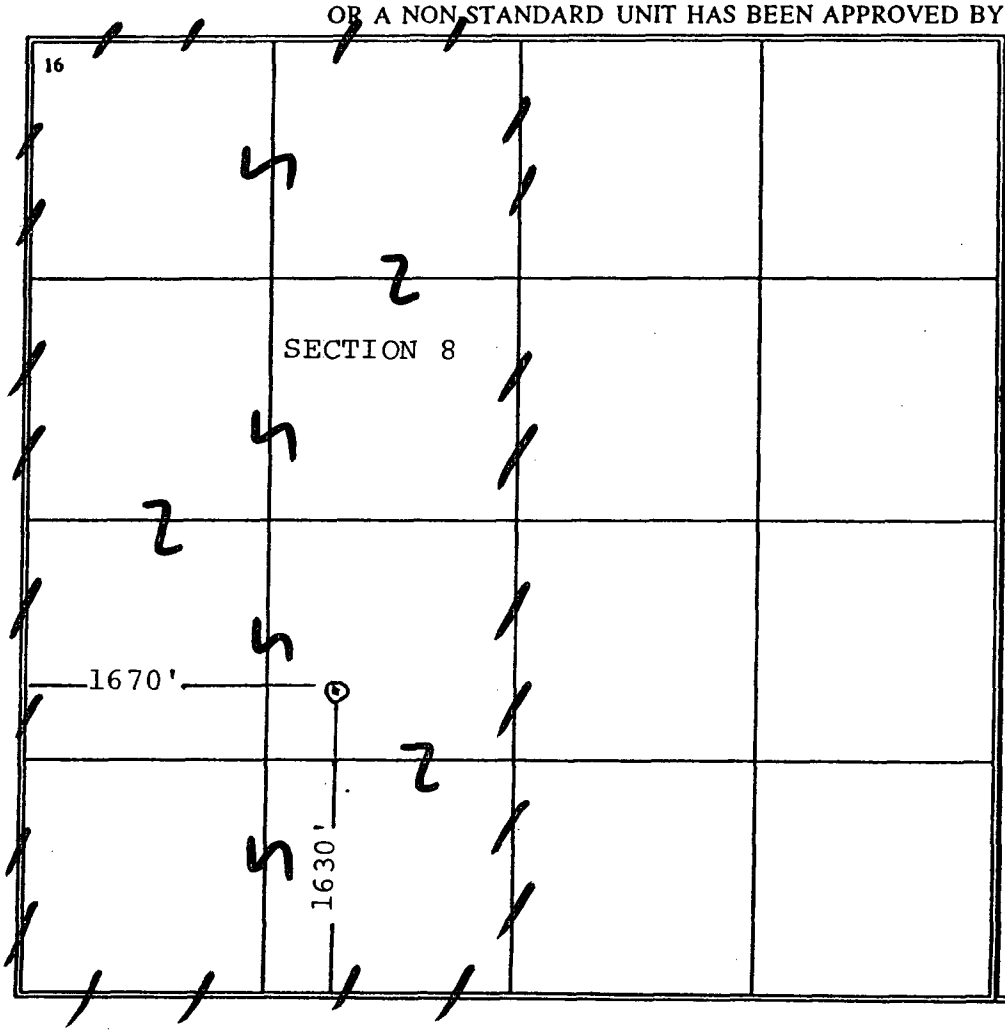
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	8	30N	5W		1630	South	1670	West	Rio Arriba

[11] Bottom Hole Location If Different From Surface

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

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
320	Y	U	

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



[17] OPERATOR CERTIFICATION

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

Signature
Sean C. Helton
Printed Name
Staff Reservoir Engineer
Title
March 25, 1997
Date

[18] SURVEYOR CERTIFICATION

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.

Date of Survey

Signature and Seal of Professional Surveyer:

See Dakota C-102
Dated 8-6-73

Certificate Number

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

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

Operator	Lease	Well No.
El Paso Natural Gas Company	San Juan 30-5 Unit (SF-078997)	37

Unit Letter	Section	Township	Range	County
K	8	30N	5W	Rio Arriba

Actual Footage Location of Well:
1630 feet from the South line and 1670 feet from the West line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
6319	Dakota	Basin Dakota	320.00 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

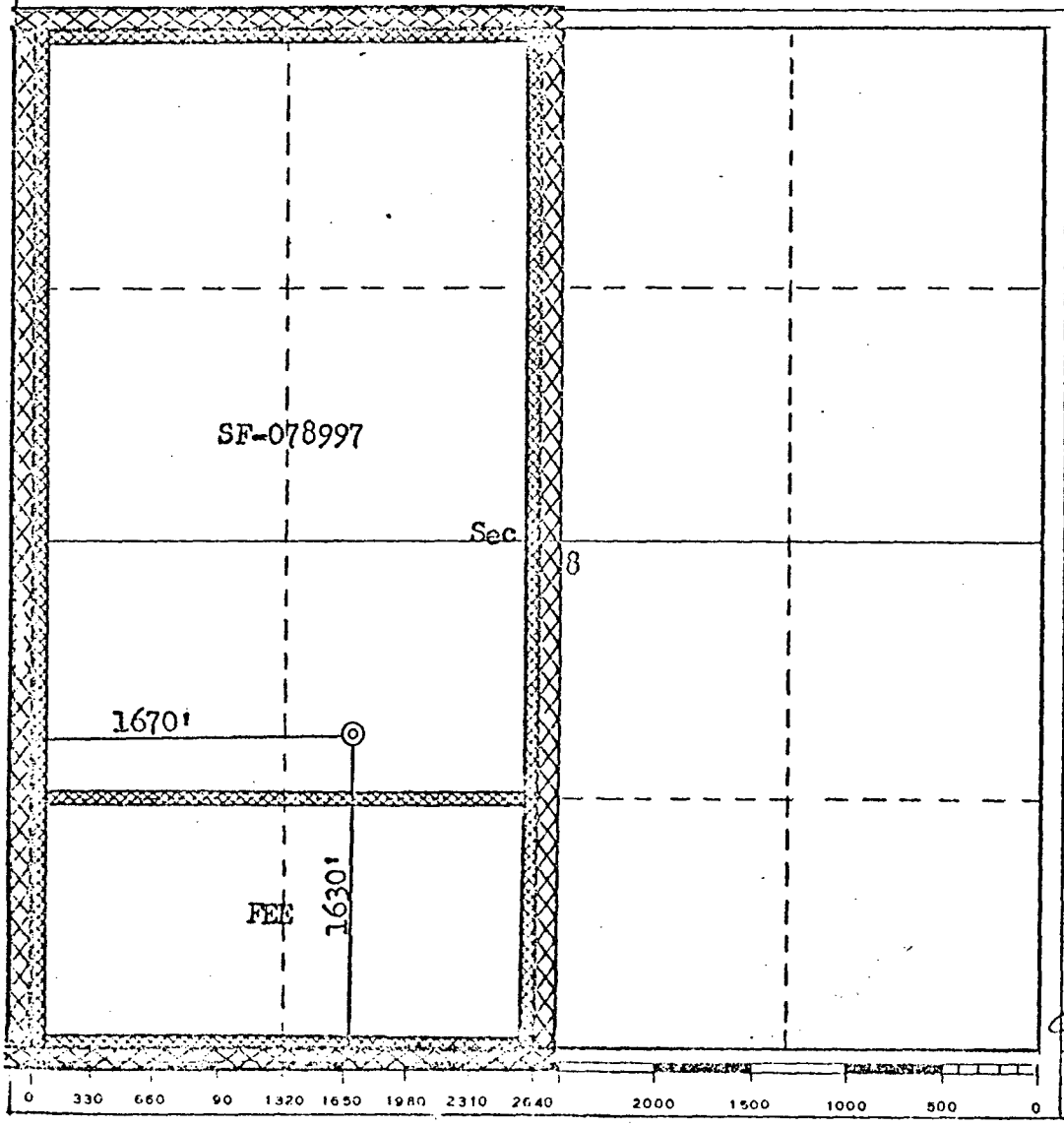
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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?

[X] Yes [ ] No If answer is "yes," type of consolidation Unitization

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: Drilling Clerk

Position: El Paso Natural Gas Company

Company: October 3, 1973

Date

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: August 6, 1973

Registered Professional Engineer and/or Land Surveyor: Fred B. Kerr Jr.

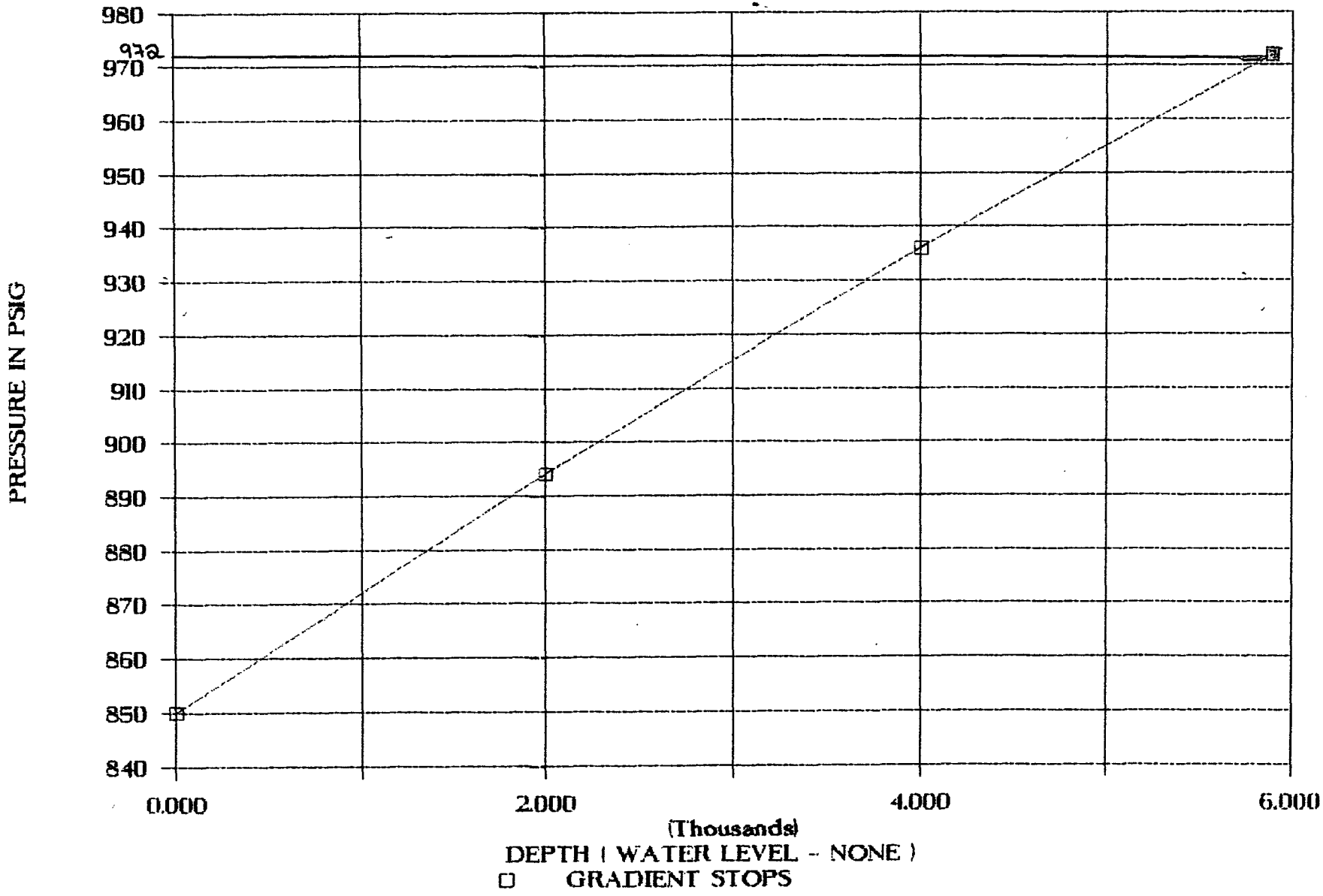
Certificate No. 3950

SAN JUAN 30-5 UNIT #37 DAKOTA

	MONTH	MONTHLY FORECAST (MCF)
	Mar-97	1831
1	Apr-97	1823
2	May-97	1815
3	Jun-97	1808
4	Jul-97	1800
5	Aug-97	1793
6	Sep-97	1785
7	Oct-97	1778
8	Nov-97	1770
9	Dec-97	1763
10	Jan-98	1756
11	Feb-98	1748
12	Mar-98	1741
13	Apr-98	1734
14	May-98	1727
15	Jun-98	1720
16	Jul-98	1713
17	Aug-98	1706
18	Sep-98	1699

PHILLIPS PETROLEUM SAN JUAN 30-5 #37

DATE: 03-05-97 STATIC GRADIENT



MEP81-01 PARPI - WELLZONE PRODUCTION BROWSE Date: 3/06/97
DAILY AVERAGE BY MONTH User: #60X

Wellzone L9881 01 Yr: 1996 Mth: 02 Property: 650262 SAN JUAN 30-5 DAKOTA UNIT
Screen: 1 (1-Prod, 2-Inj, 3-Both) Well No: 000037
Type: D (T-Total, D-Daily Avg) Field: 042233 BASIN
Period: M (M-Mnthly, Y-Yrly, C-Cum) Resvr: 20079 DAKOTA NQ

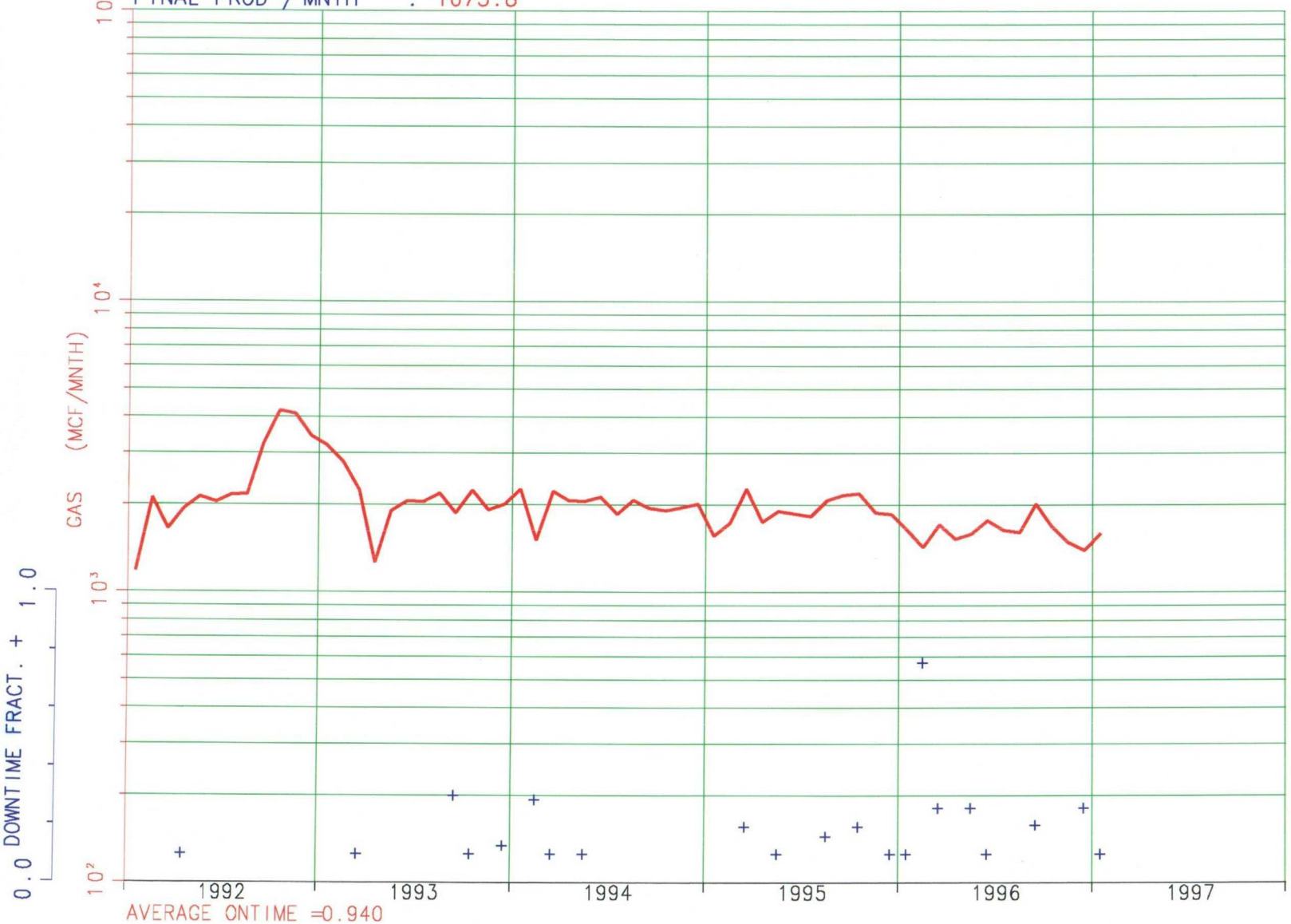
ADJ		PRODUCED			DAYS	WELL			
FLG	DATE	OIL (BBL)	GAS (MCF)	WATER (BBL)	PROD	OP	ST	CL	TY
*	1996-02	0.00	182	0	7.00	7	11	03	2
*	1996-03	0.00	73	0	23.00	23	11	03	2
*	1996-04	0.00	48	0	30.00	30	11	03	2
*	1996-05	0.00	68	0	23.00	23	11	03	2
*	1996-06	0.00	62	0	27.00	27	11	03	2
*	1996-07	0.00	53	0	31.00	31	11	03	2
*	1996-08	0.00	50	0	31.00	31	11	03	2
	1996-09	0.00	79	0	24.00	24	11	03	2
	1996-10	0.00	54	0	31.00	31	11	03	2
	1996-11	0.00	46	0	30.00	30	11	03	2
	1996-12	0.00	60	0	23.00	23	11	03	2
	1997-01	0.00	53	0	29.00	29	11	03	2

PA1=ICE PA2=Exit PF1=Help PF3=End PF5=INITIAL CUM PF11=GRAPH
Transfer-> PF7=Backward PF8=Forward PF10=GRAND MENU PF12=LOG GRAPH

1/92-1/97

INITIAL PROD / MNTH : 1155.2
REMAINING LIFE : 5.08
0.00
CUM PRODUCTION : 123810.
FINAL PROD / MNTH : 1675.8

Current Cums
123810. MCF GAS



AVERAGE ONTIME =0.940

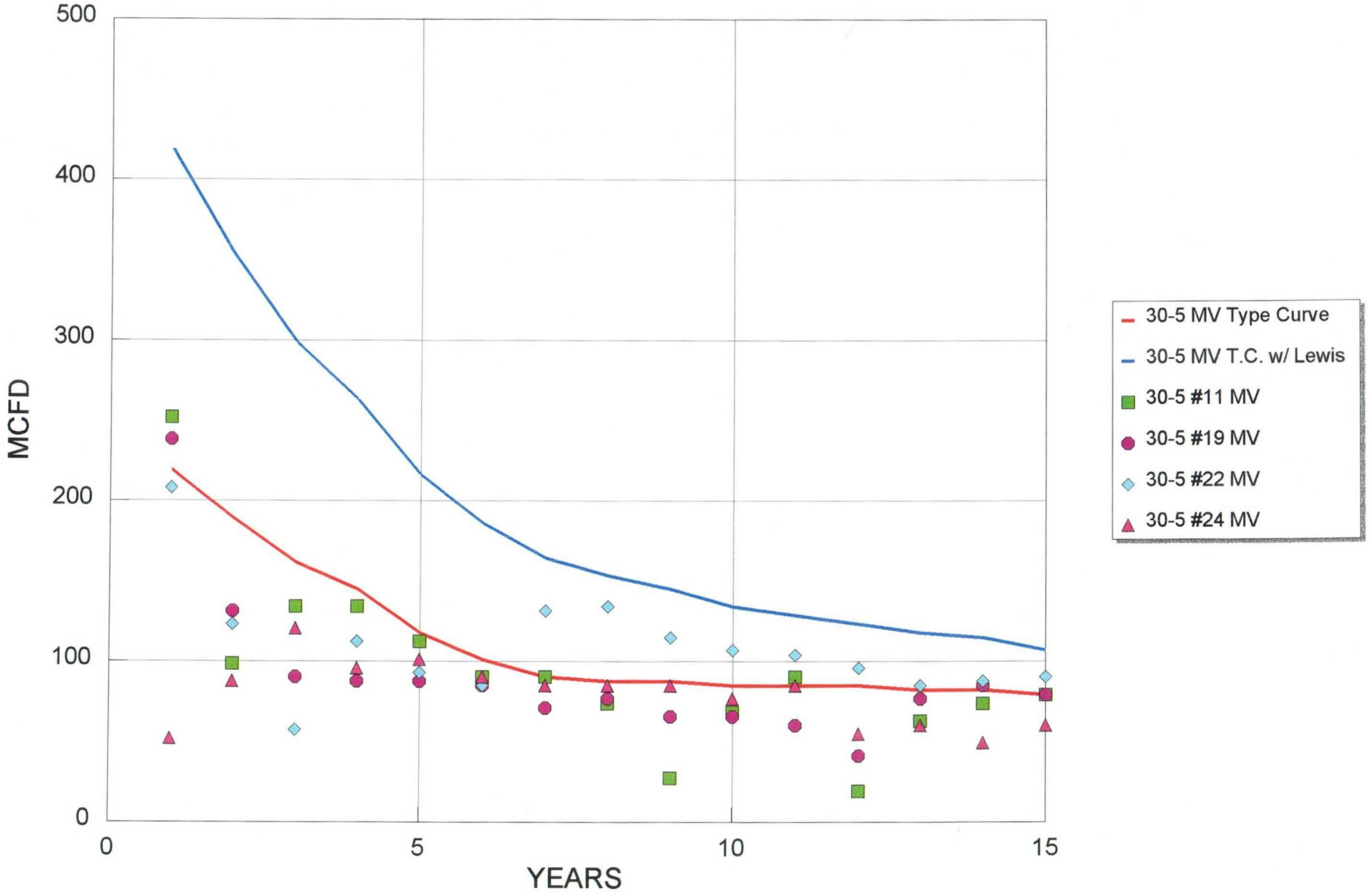
LEASE- 650262 : SAN JUAN 30-5 DAKOTA UNIT
RESVR- 079 : BASIN DAKOTA NQ
WELL - 000037 CUM MCF =931450.

L988101
ZONE-650262079000037 L988101
API-30039207820000 THRU 97/01

#AM3 03/03/97 18:41

SAN JUAN 30-5 UNIT

MESAVERDE



Production Allocation Methodology

- Adding New Zone to Existing Zone - Initially Subtraction Method followed by Fixed Allocation Method
  - Subtraction Method (+/- 1st 12 months)
    - Forecast production rate by month for existing zone utilizing established decline curve for zone
    - Subtract forecasted rate from commingled rate to define new zone rate
    - Utilize subtraction method for +/- 12 months until new zone rate stabilizes, then utilize fixed allocation method with current rates
  - Fixed Allocation Method (after Subtraction Method)
    - Utilize forecasted rate from established decline curve for lower zone
    - Calculate upper zone rate by subtracting lower zone rate from commingled rate
    - Lower zone allocation = $\frac{\text{Lower zone rate}}{\text{Commingled rate}}$
    - Upper zone allocation = (Commingled rate - Lower zone rate) / Commingled rate

Attachment

OCD Form C-107A (3/12/96)

Item No. 12 - additional explanation:

Based on water analysis from the Mesaverde and Dakota zones and discussions with the chemical treating/analysis company the water from these two zones are compatible. Lab analysis of the individual waters from both the Mesaverde and Dakota formations resulted in positive scaling indices for barium sulfate. There was a slight increase in the barium sulfate scaling index of the combined waters relative to the scaling index of the individual waters.

None of the waters, combined or individual, had meaningful scaling tendencies and combined with the fact that typical water production from either of these zones in San Juan 30-5 are 0-1 BWPD and no barium sulfate scale has been detected to date, no negative impacts to the formations are anticipated.