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, New Mexico 87401		
Lease	**Well No.**	**Unit Ltr. - Sec - Twp - Rge**	**County**
San Juan 29-6 Unit	#78	L, 22 29N 6W	Rio Arriba

OGRID NO. 017654 Property Code 009257 API NO. 30-039-07578 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)	5095' - 5,620		7559' - 7725'
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) 750 psi (est.)	a.	a. 1273 psi (measured in 29-6 #77)
	b. (Original) 1280 psi (est.)	b.	b. 3130 psi (est.)
6. Oil Gravity (°API) or Gas BTU Content	1150 Btu/scf		1020 Btu/scf
7. Producing or Shut-In?			Shut-in
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: 10/97 Rates: 61 mcfd, 1 bwpd
* If Producing, give date andoil/gas/ water rates of recent test (within 60 days)	Date: Rates: 450 mcfd (est.)	Date: Rates:	Date: Rates:
8. Fixed Percentage Allocation Formula -% for each zone	Oil: % Gas: %	Oil: % Gas: %	Oil: % Gas: %

RECEIVED
NOV 19 1999
OIL CON. DIV.
DIST. 3

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? ___ Yes ___ No
Have all offset operators been given written notice of the proposed downhole commingling? X Yes ___ No

11. Will cross-flow occur? ___ Yes X 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? X Yes ___ No

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. ___Yes ___ No

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). R-11187

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 Mark Stodola TITLE Reservoir Engr. DATE 11/18/99

TYPE OR PRINT NAME Mark Stodola TELEPHONE NO. (505) 599-3455

PHILLIPS PETROLEUM COMPANY
FARMINGTON, NEW MEXICO 87401
5525 HWY. 64 NBU 3004

November 17, 1999

New Mexico Oil & Gas Conservation Div.
2040 South Pacheco
Santa Fe, New Mexico 87505-6429

Downhole Commingling Allocation Method
On the San Juan 29-6 Unit #78

Dear Sirs:

Phillips Petroleum is proposing to utilize the subtraction method on the subject well for approximately twelve months after actual commingling occurs. After the 12th month period we will convert to the ratio method as indicated in our commingling application. We believe this will be a more accurate method of allocating production considering the Dakota interval has been producing for years and that the production will not be stabilized on the Mesaverde for several months. Please note that a bottomhole pressure (BHP) was not obtained on this well because a slickline could not get down the tubing due to fill. In lieu of a measured BHP on this well, we have provided three offset BHPs in the Dakota.

Dakota Production Forecast

December 1999	2,165	January 2000	2,156
February 2000	1,940	March 2000	2,139
April 2000	2,061	May 2000	2,121
June 2000	2,044	July 2000	2,104
August 2000	2,095	September 2000	2,019
October 2000	2,078	November 2000	2,002

For example, if the total volume for December 1999 were 16,115 mcf, then the Dakota would be allocated 2,165 mcf and the Mesaverde 13,950 mcf. And subsequently, the Dakota would be allocated (2,165/16,115) or 13.43 and the Mesaverde would be allocated (13,950/16,115) or 86.57%.

Sincerely,

PHILLIPS PETROLEUM COMPANY

Mark Stodola

Mark Stodola
Reservoir Engineer

MS/pc

cc: OCD - Aztec
BLM - Farmington
NM Commissioner of Public Lands - Santa Fe

PHILLIPS PETROLEUM COMPANY
5525 HWY 64 NBU 3004
FARMINGTON, NEW MEXICO 87401

DATE: NOVEMBER 2, 1999

WELL NAME: SAN JUAN 29-6 # 77
FORMATION: DAKOTA

TYPE TEST: STATIC GRADIENT

COUNTY: RIO ARRIBA
STATE: NEW MEXICO

TOTAL DEPTH: PBTD @ 7793'
PERFS: 7620' TO 7777'
TUBING: 2 3/8 TO 7755'
CASING SIZE:
PACKER:
OTHER: PIN COLLAR @ 7724'
PRESSURED UP @ 12:00

CASING PRESSURE:
TUBING PRESSURE: 1080
OIL LEVEL:
WATER LEVEL:
TEMPERATURE:
ELEMENT NO. 86484
ELEMENT RANGE 0 TO 3000

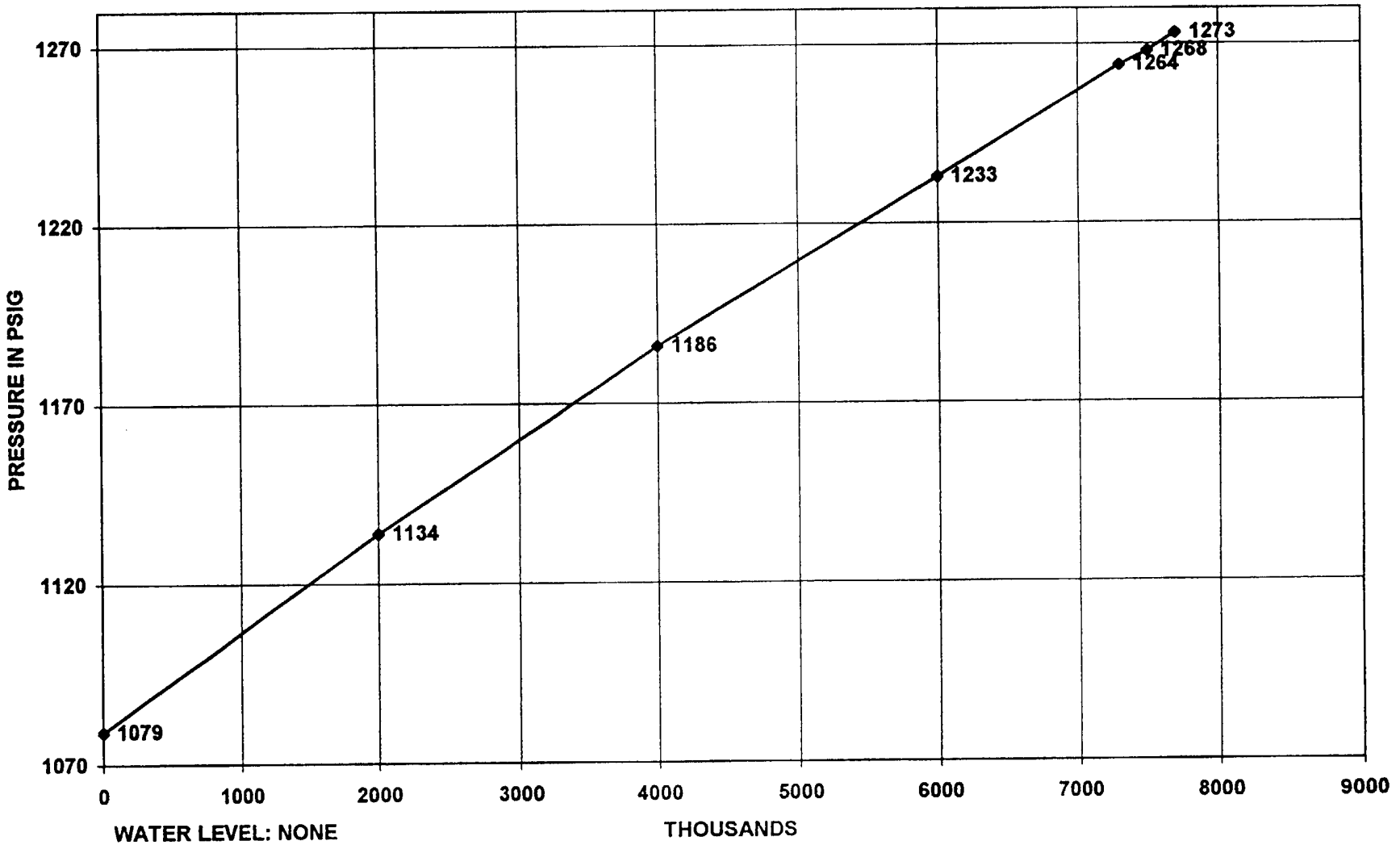
WELL STATUS: SHUT IN

DEPTH IN FEET	PRESSURE PSIG	GRADIENT PSI/FOOT
0	1079	
2000	1134	0.028
4000	1186	0.026
6000	1233	0.024
7299	1264	0.023
7499	1268	0.020
7699	1273	0.025

SLM @ 7704'

H & H WIRELINE SERVICE INC.
P. O. BOX 899
FLORA VISTA, NEW MEXICO 87415
OPERATOR: CHARLES HUGHES
UNIT NO. T-11

PHILLIPS PETROLEUM SAN JUAN 29-6 # 77
DATE: NOVEMBER 2, 1999



WATER LEVEL: NONE

PHILLIPS PETROLEUM COMPANY
5525 HWY 64 NBU 3004
FARMINGTON, NEW MEXICO 87401

DATE: NOVEMBER 2, 1999

WELL NAME: SAN JUAN 29-6 # 86
FORMATION: DAKOTA

TYPE TEST: STATIC GRADIENT

COUNTY: RIO ARRIBA
STATE: NEW MEXICO

TOTAL DEPTH: PBTD @ 7764'
PERFS: 7555' TO 7658'
TUBING: 2 3/8 TO 7626'
CASING SIZE:
PACKER:
OTHER: NO SEAT NIPPLE
PRESSURED UP @ 10:00

CASING PRESSURE: 830
TUBING PRESSURE: 100
OIL LEVEL:
WATER LEVEL: 5681'
TEMPERATURE:
ELEMENT NO. 86484
ELEMENT RANGE 0 TO 3000

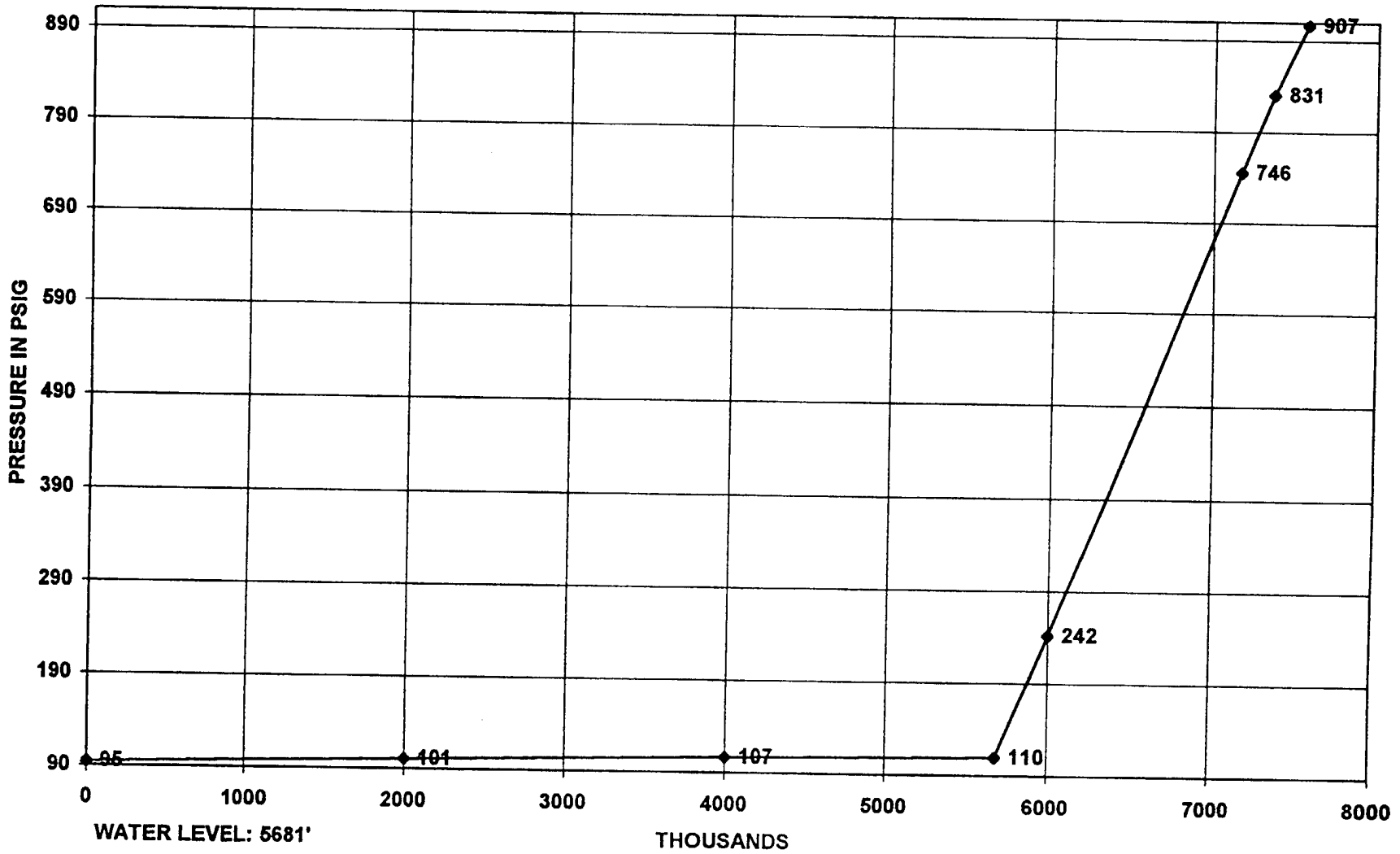
WELL STATUS: SHUT IN

DEPTH IN FEET	PRESSURE PSIG	GRADIENT PSI/FOOT
0	95	
2000	101	0.003
4000	107	0.003
6000	242	0.068
7175	746	0.418
7375	831	0.425
7575	907	0.380

SLM @ 7582'

H & H WIRELINE SERVICE INC.
P. O. BOX 899
FLORA VISTA, NEW MEXICO 87415
OPERATOR: CHARLES HUGHES
UNIT NO. T-11

PHILLIPS PETROLEUM SAN JUAN 29-6 # 86
DATE: NOVEMBER 2, 1999



PHILLIPS PETROLEUM COMPANY
5525 HWY 64 NBU 3004
FARMINGTON, NEW MEXICO 87401

DATE: NOVEMBER 15, 1999

WELL NAME: SAN JUAN 29-6 # 88
FORMATION: DAKOTA

TYPE TEST: STATIC GRADIENT

COUNTY: RIO ARRIBA
STATE: NEW MEXICO

TOTAL DEPTH: 7685'
PERFS: 7550' TO 7646'
TUBING: 2 3/8 TO 7675'
CASING SIZE:
PACKER:
OTHER:
PRESSURED UP @ 08:45

CASING PRESSURE: 1140
TUBING PRESSURE: 550
OIL LEVEL:
WATER LEVEL: 6476'
TEMPERATURE:
ELEMENT NO. 86484
ELEMENT RANGE 0 TO 3000

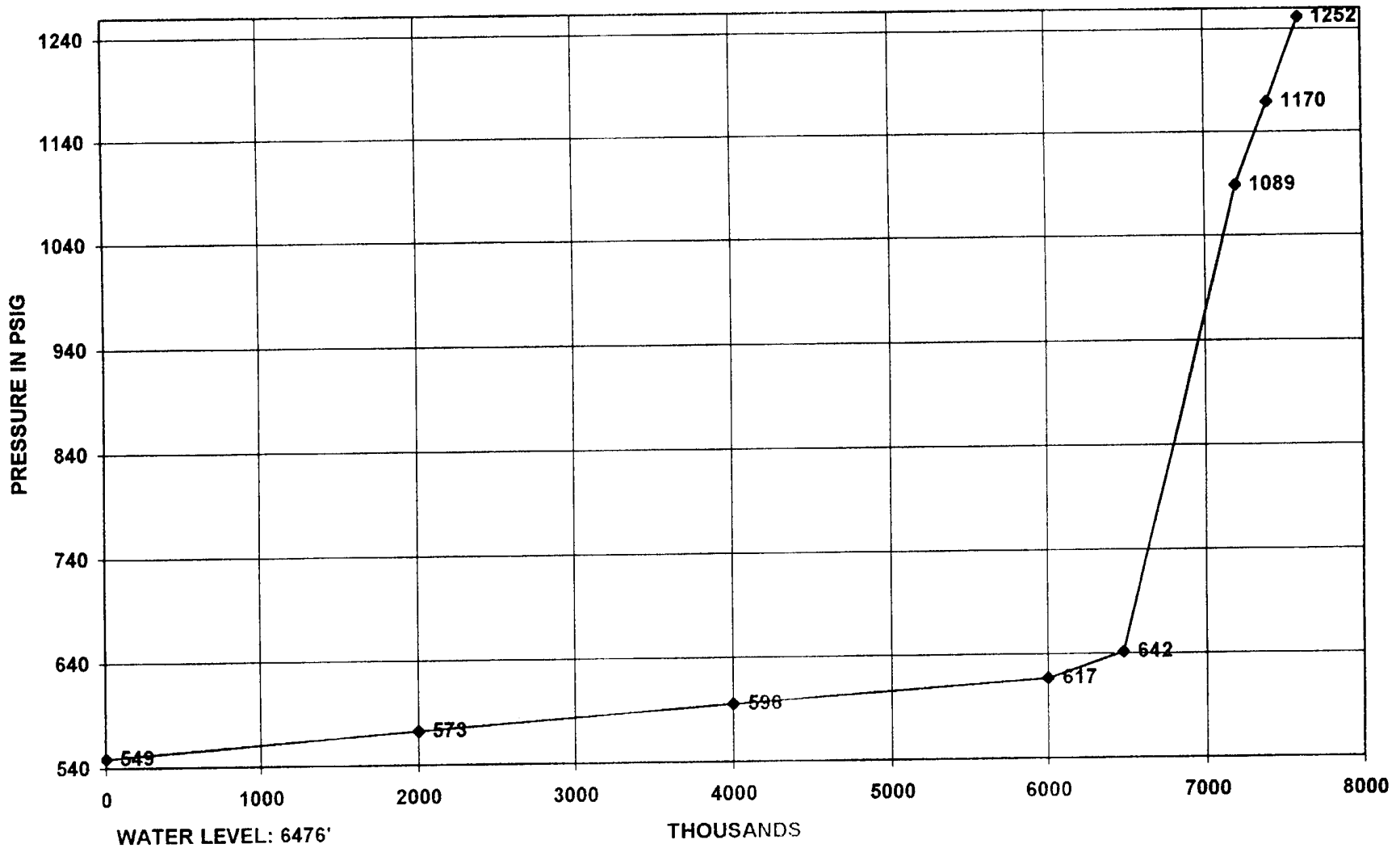
WELL STATUS: SHUT IN

DEPTH IN FEET	PRESSURE PSIG	GRADIENT PSI/FOOT
0	549	
2000	573	0.012
4000	596	0.011
6000	617	0.010
7198	1089	0.394
7398	1170	0.410
7598	1252	0.415

SLM @ 7642'

H & H WIRELINE SERVICE INC.
P. O. BOX 899
FLORA VISTA, NEW MEXICO 87415
OPERATOR: CHARLES HUGHES
UNIT NO. T-11

PHILLIPS PETROLEUM SAN JUAN 29-6 # 88
DATE: NOVEMBER 15, 1999



WATER LEVEL: 6476'

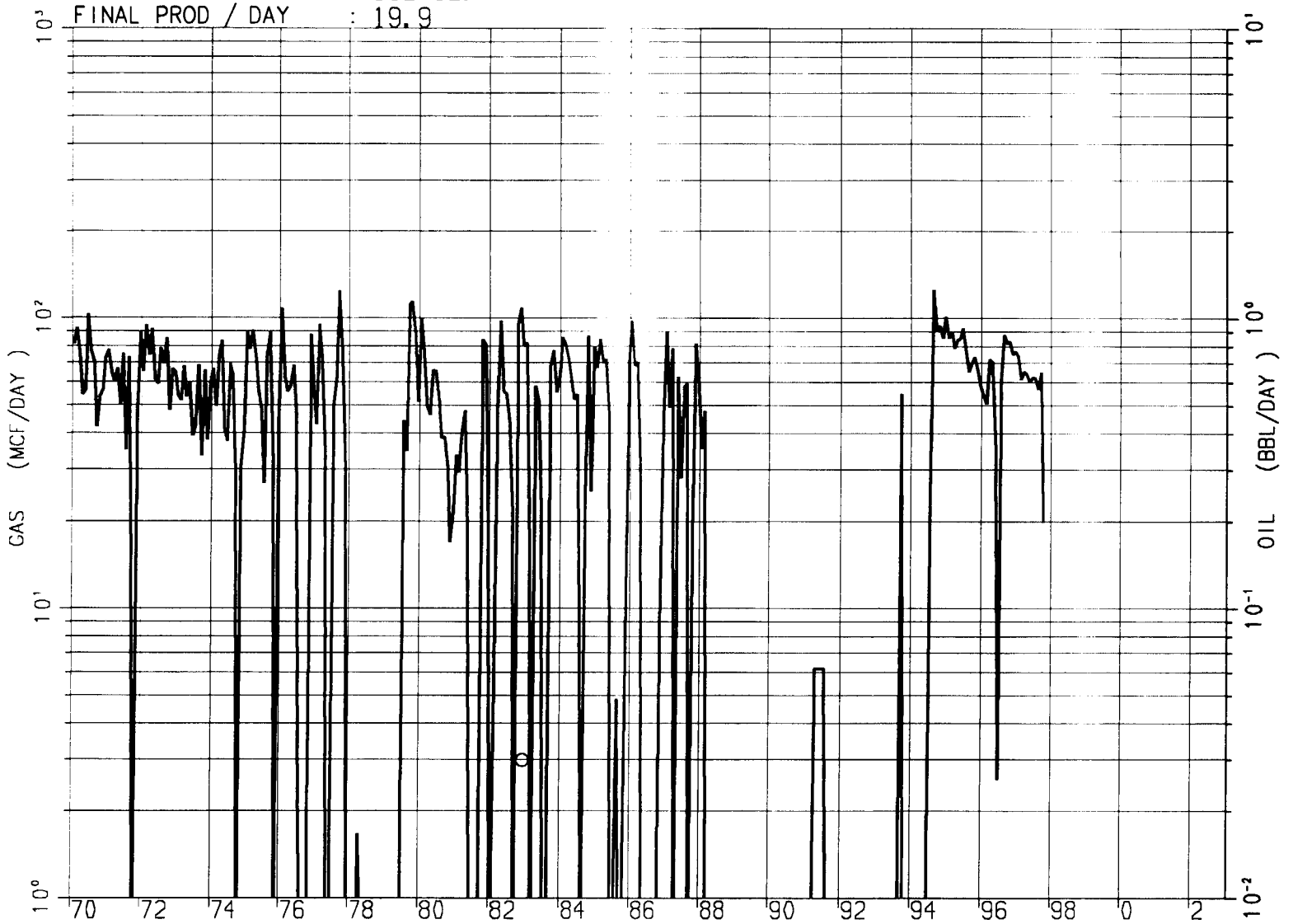
1/70-10/97

ASSOC.

Current Cums

INITIAL PROD / DAY	: 81.7
REMAINING LIFE	: 27.83
	0.00
CUM PRODUCTION	: 392452.
FINAL PROD / DAY	: 19.9

591134. MCF GAS
1. BBL OIL
2295. BBL H2O



SAN JUAN 29 6 UNIT

RESVR- 004 : BASIN (DAKOTA)

WELL - 78 CUM MCF =591556. 22L 29N 6W

DWIGHTS INA

251,039,29N06W22L00DK API-300390757800

PHILLIPS PETROLEUM CO THRU 10/97

MWST 1999/11/11 09:22

MEP81-01 PARPI - WELLZONE PRODUCTION BROWSE Date: 11/11/99
YEARLY TOTALS User: MWSTODO

Wellzone F0570 01 Yr: 1991 Mth: 01 Property: 650299 SAN JUAN 29-6 DAKOTA
Screen: 1 (1-Prod, 2-Inj, 3-Both) Well No: 000078
Type: T (T-Total, D-Daily Avg) Field: 042233 BASIN
Period: Y (M-Mnthly, Y-Yrly, C-Cum) Resvr: 20076 DAKOTA

ADJ		PRODUCED			DAYS	- WELL -		
FLG	DATE	OIL (BBL)	GAS (MCF)	WATER (BBL)	PROD	OP	ST	CL TY
	1991	0.00	756	0	122.00	122		
	1992	0.00	0	0	0.00	0		
	1993	0.00	0	0	0.00	0		
	1994	0.00	16,074	570	154.00	154		
	1995	0.00	28,195	700	360.00	360		
	1996	0.00	23,048	535	329.00	329		
	1997	0.00	17,969	415	294.00	281		
	1998	0.00	0	0	365.00	0		
	1999	0.00	0	0	273.00	0		

NO MORE DATA AVAILABLE
PA1=ICE PA2=Exit PF1=Help PF3=End PF5=INITIAL CUM PF11=GRAPH
Transfer-> PF7=Backward PF8=Forward PF4=PREV SCREEN PF12=LOG GRAPH

MEP81-01 PARPI - WELLZONE PRODUCTION BROWSE Date: 11/11/99
DAILY AVERAGE BY YEAR User: MWSTODO

Wellzone F0570 01 Yr: 1991 Mth: 01 Property: 650299 SAN JUAN 29-6 DAKOTA
Screen: 1 (1-Prod, 2-Inj, 3-Both) Well No: 000078
Type: D (T-Total, D-Daily Avg) Field: 042233 BASIN
Period: Y (M-Mnthly, Y-Yrly, C-Cum) Resvr: 20076 DAKOTA

ADJ FLG	DATE	PRODUCED OIL (BBL)	PRODUCED GAS (MCF)	PRODUCED WATER (BBL)	DAYS PROD	WELL OP	WELL ST	WELL CL	WELL TY
	1991	0.00	6	0	122.00	122			
	1992	0.00	0	0	0.00	0			
	1993	0.00	0	0	0.00	0			
	1994	0.00	104	3	154.00	154			
	1995	0.00	78	1	360.00	360			
	1996	0.00	70	1	329.00	329			
	1997	0.00	61	1	294.00	281			
	1998	0.00	0	0	365.00	0			
IC	1999	0.00	0	0	273.00	0			

PA1=ICE PA2=Exit PF1=Help PF3=End PF5=INITIAL CUM PF11=GRAPH
Transfer-> PF7=Backward PF8=Forward PF4=PREV SCREEN PF12=LOG GRAPH

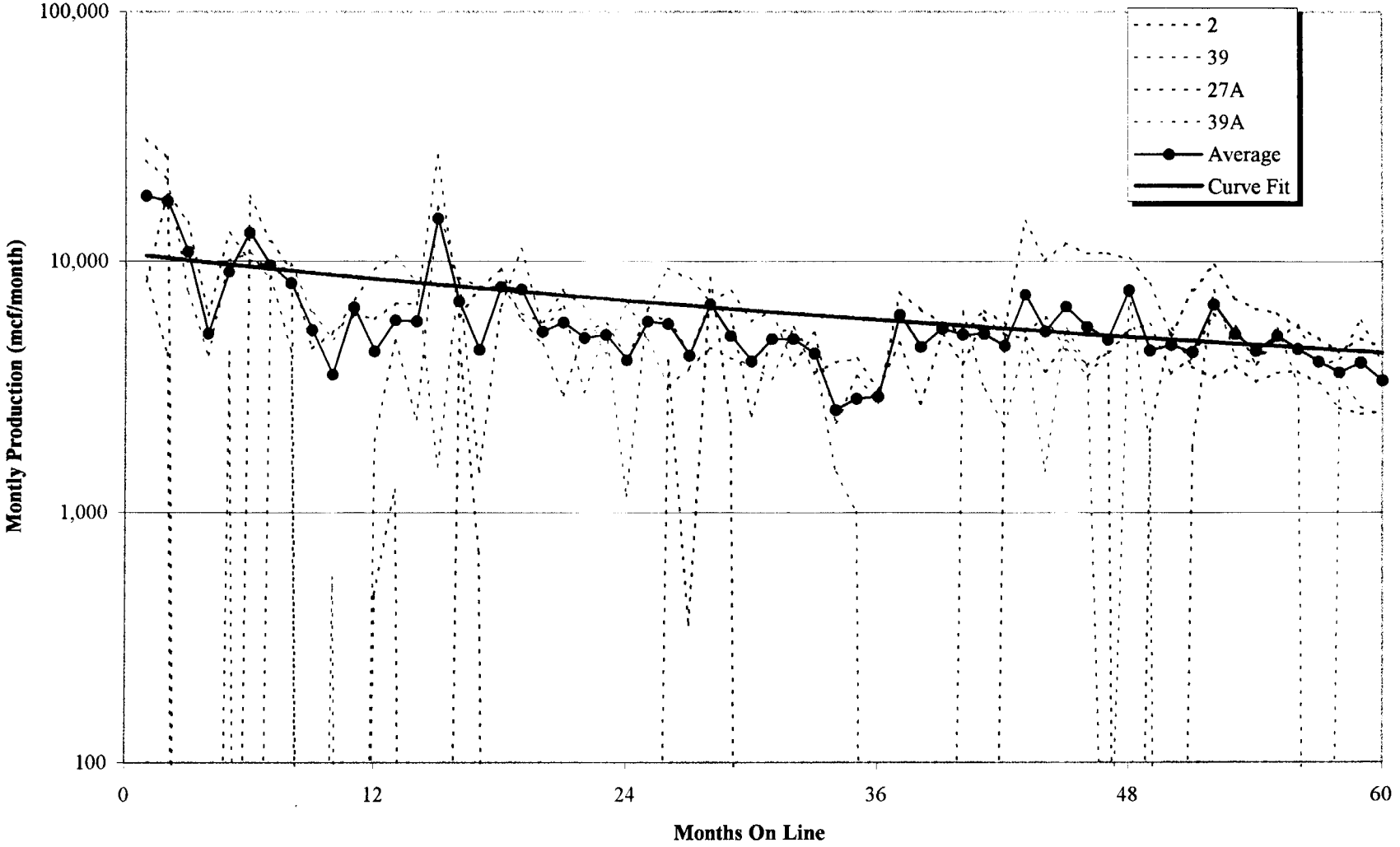
29-6 Unit #78 Dakota Forecast

Initial Production Rate	=	*70 MCFD*
Hyperbolic Exponent	=	*0.33*
Decline Rate	=	*5 %*

	Month	***Monthly MCF***
1999	Dec	***2,165***
2000	Jan	***2,156***
	Feb	***1,940***
	Mar	***2,139***
	Apr	***2,061***
	May	***2,121***
	Jun	***2,044***
	Jul	***2,104***
	Aug	***2,095***
	Sep	***2,019***
	Oct	***2,078***
	Nov	***2,002***
	Dec	***2,061***
2001	Jan	***2,052***
	Feb	***1,846***
	Mar	***2,036***
	Apr	***1,962***
	May	***2,019***

Use subtraction method for +/- 12 months based on this Dakota forecast.

San Juan 29-6 Unit Mesaverde Production
Near the 29-6 #78



mws 29-6#78MV 11/11/1999

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