San Juan Operations Center

October 16, 1996

Frank Chavez
New Mexico Oil Conservation Division
1000 Rio Brazos Drive
Aztec, New Mexico 87410

Dear Mr. Chavez,

**Subject: Downhole Commingled Zone Allocation Proposal - Barrett A #1E
Unit G, Section 20, Township 31 North, Range 9 West, NMPM
San Juan County, New Mexico
Blanco-Mesaverde and Basin-Dakota**

In accordance with Administrative Order **DHC-1247** approved by William Lemay on **June 7, 1996,** we are to work with your offices in establishing a suitable allocation method to be used to allocate production on a monthly basis among the commingled zones. This letter is a proposal to allocate production from the **Barrett A #1E** based on the "subtraction method", whereby a rate of decline has been established for the **Dakota** which will be the basis for future allocation to the **Dakota,** and the balance of production will be allocated to the combined **Mesaverde.**

Attachment No. 1 is the historical production used to establish the decline of the **Dakota,** and is illustrated as a decline curve in Attachment No. 2. Based on these calculations, production from the **Dakota** will decline as illustrated on Attachment No. 3. Attachment No. 4 is an example of the subtraction method and the numbers used are for illustrating how threshold production is calculated for the **Dakota,** and used as the denominator in the "subtraction" equation (Actual Combined Flow - **Dakota** Threshold Volume = **Mesaverde** Allocated Volume).

We would like to begin using this method beginning with September 1996 production month, and continue this method of allocation until such time that the allocation percentages stabilize, at which time we would request to establish a fixed rate allocation method.

Please advise me if this method meets with your approval.

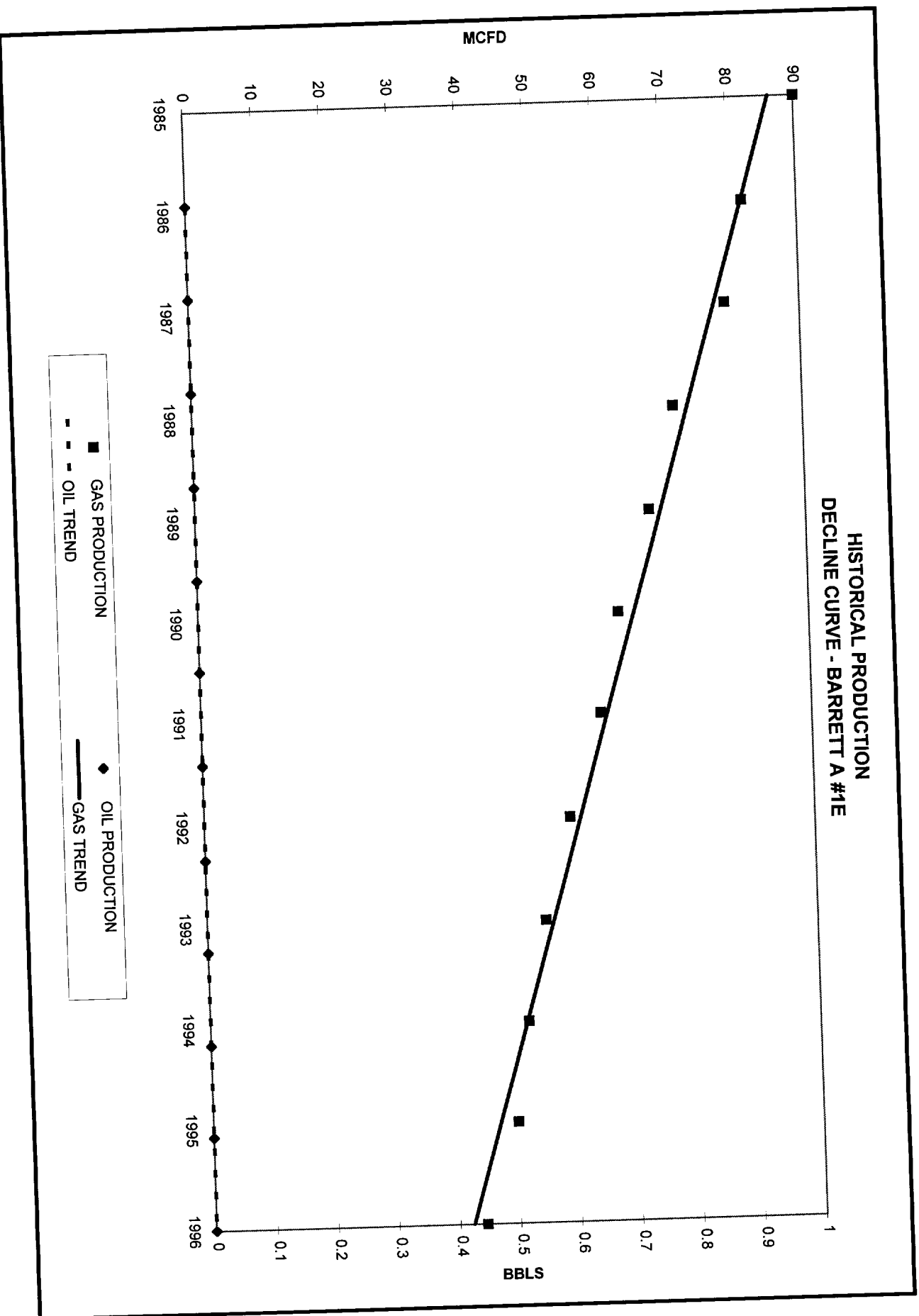Very Truly Yours,

Jim P. Shaheen
Sr. Business Analyst - Farmington

Attachments

cc w/attach: Pam Staley - Amoco Denver
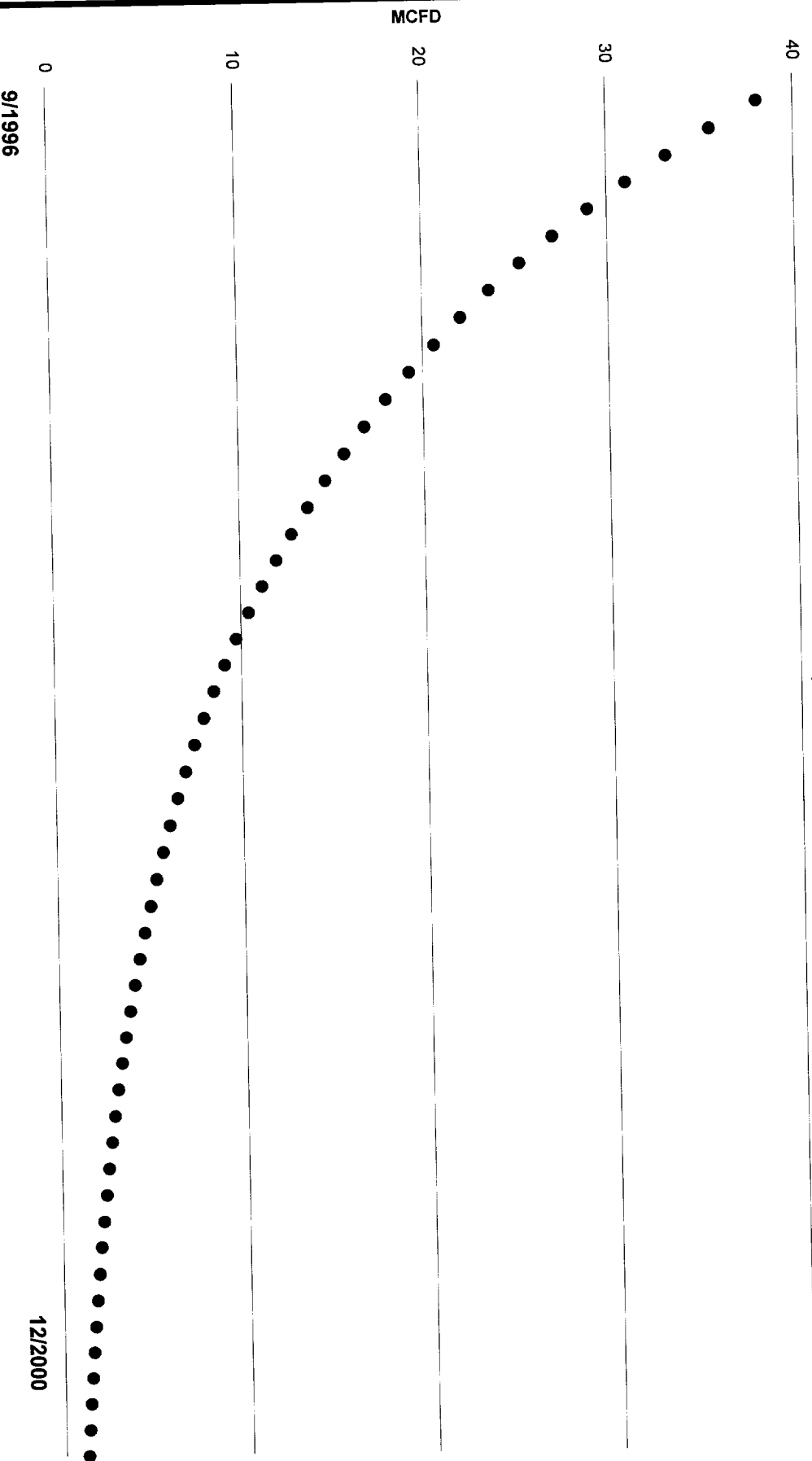Mike Kutas - Amoco Denver
Well File - Denver

BARRETT A #1E DAKOTA DECLINE

		PRODUCTION DECLINE BASIS		DECLINE CALCULATIONS	
DATE	PERIOD	MCFD		GAS	OIL
1985	1	90.0	M	-4.38461538	0
1986	2	82.0	Qi	86.28205128	0
1987	3	79.0	Qf	38.05128205	0
1988	4	71.0	Decline	0.0682223902	#DIV/0!
1989	5	67.0	Yint	90.66666667	0
1990	6	62.0			
1991	7	59.0			
1992	8	54.0			
1993	9	50.0			
1994	10	47.0			
1995	11	45.0			
1996	12	40.0			

HISTORICAL PRODUCTION
DECLINE CURVE - BARRETT A #1E

GAS PRODUCTION
OIL TREND
OIL PRODUCTION
GAS TREND

MCFD

BBLS

ATTACHMENT NO. 2

FUTURE PRODUCTION DECLINE CURVE
BARRETT A #1E
(9/1996-12/2000)

MCFD

40
30
20
10
0

9/1996

12/2000

BARRETT A #1E DAKOTA/MESAVERDE MONTHLY PRODUCTION ALLOCATION

Production Months	Production Period	GAS 'Est. Prod. MCFD	Flow Hrs.	Flow Days	DK Threshold Volume	Actual Combined Monthly Flow - Meter 95119	DK Allocation HZ 01	%DK HZ 01	MV Allocation HZ 02	%MV HZ 02
09/1996	1	38.1	480	20.00	761.03	18422	761.03	4.13%	17660.97	95.87%
10/1996	2	35.5	720	30.00	1066.26	17000	1066.26	6.27%	15933.74	93.73%
11/1996	3	33.2	720	30.00	995.94	15578	995.94	6.39%	14582.06	93.61%
12/1996	4	31.0	720	30.00	930.26	14156	930.26	6.57%	13225.74	93.43%
01/1997	5	29.0	720	30.00	868.91	12734	868.91	6.82%	11865.09	93.18%
02/1997	6	27.1	720	30.00	811.60	11312	811.60	7.17%	10500.40	92.83%
03/1997	7	25.3	720	30.00	758.08	9890	758.08	7.67%	9131.92	92.33%
04/1997	8	23.6	720	30.00	708.09	8468	708.09	8.36%	7759.91	91.64%
05/1997	9	22.0	720	30.00	661.39	7046	661.39	9.39%	6384.61	90.61%
06/1997	10	20.6	720	30.00	617.77	5624	617.77	10.98%	5006.23	89.02%
07/1997	11	19.2	720	30.00	577.03	4202	577.03	13.73%	3624.97	86.27%
08/1997	12	18.0	720	30.00	538.98	2780	538.98	19.39%	2241.02	80.61%
09/1997	13	16.8	720	30.00	503.43	1358	503.43	37.07%	854.57	62.93%
10/1997	14	15.7	720	30.00	470.23	400	400.00	100.00%	0.00	0.00%
12/2000	52	1.2		0.00	0.00		0.00	#DIV/0!	0.00	#DIV/0!