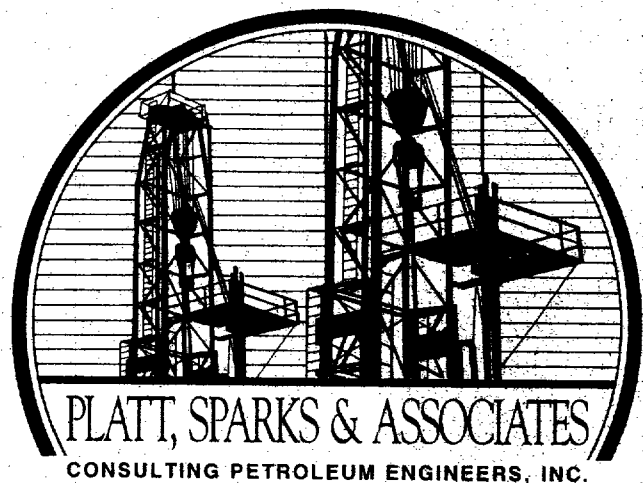


BASS ENTERPRISES PRODUCTION COMPANY

PROTEST OF MEWBOURNE OIL COMPANY UNORTHODOX WELL LOCATION REQUEST PROPOSED SCANLON DRAW "35" STATE NO. 1 NORTH TURKEY TRACK (MORROW) FIELD



925-A Capital of Texas Highway
Austin, Texas 78746

800 N. Marienfeld, Suite 100
Midland, Texas 79701

N.M.O.C.D. Case No. 11713
Bass Enterprises Production Co.
EXHIBIT No. 11
February 20, 1997

FEBRUARY 20, 1997

**UNORTHODOX LOCATION HEARING
TURKEY TRACK NORTH (MORROW) FIELD
FEBRUARY 20, 1997
EXHIBIT LIST**

1. Reservoir Data Sheet
2. Volumetric Calculations
3. Payout Reserves
4. Simulation Input Sheet
5. Simulation Results
6. Individual Well EUR's
7. Impact of Proposed Well
8. Standard Penalty Factors
9. Penalty Allowable Impact
10. Conclusions

Reservoir Data Sheet

Turkey Track North (Morrow) Field

Depth (Approximately)	11,000 ft.
Initial Reservoir Pressure	4,600 psia
Reservoir Temperature	190 °F
Gas Gravity	0.64
Mole % CO ₂	0.8
Mole % N ₂	0.4
Mole % H ₂ S	0.0
Initial Gas Formation Volume Factor	259 scf/cu-ft

Original Gas In Place (Volumetrics)	45 BCF
-------------------------------------	--------

Discovery Date	October 1, 1976
Number of Producers in Study Area	11
Cumulative Production	14.9 BCF

RECOVERABLE GAS RESERVES CALCULATION

Gas Gravity **0.69** (air = 1.0)
Mole % N₂ **0.40** %
Mole % CO₂ **0.80** %
Mole % H₂S **0.01** %
Condensate (Yes=1) **1**
Reservoir Temperature **190** °F
Initial Reservoir Pressure **4,600** psia
Abandonment Reservoir Pressure **1,000** psia

Tc =	375.12
Pc =	664.70
Tc' =	373.45
Pc' =	661.11
Zi =	0.971
Za =	0.920
Bgi =	258.7
Bga =	59.36

Average Net Pay **6** feet
Acres **320** acres
Average Water Saturation **23.0** %
Average Porosity **9.0** %

Calculated Recovery Factor **77.1** % of the OGIP
Calculated Recovery Factor **601.8** MCF/ac-ft

Original Gas in Place **1.47** BCF
Original Recoverable Gas **1.14** BCF

Gas Already Produced **0.44** BCF

Remaining Recoverable Gas **0.70** BCF

RECOVERABLE GAS RESERVES CALCULATION

Gas Gravity	0.69	(air = 1.0)
Mole % N ₂	0.40	%
Mole % CO ₂	0.80	%
Mole % H ₂ S	0.01	%
Condensate (Yes=1)	1	
Reservoir Temperature	190	°F
Initial Reservoir Pressure	4,600	psia
Abandonment Reservoir Pressure	1,000	psia

Tc =	375.12
Pc =	664.70
Tc' =	373.45
Pc' =	661.11
Zi =	0.971
Za =	0.920
Bgi =	258.7
Bga =	59.36

Average Net Pay	19	feet
Acres	320	acres
Average Water Saturation	25.0	%
Average Porosity	9.0	%

Calculated Recovery Factor	77.1	% of the OGIP
Calculated Recovery Factor	586.2	MCF/ac-ft

Original Gas in Place	4.63	BCF
Original Recoverable Gas	3.56	BCF

Gas Already Produced	0.44	BCF
----------------------	-------------	-----

Remaining Recoverable Gas	3.13	BCF
---------------------------	-------------	-----

RECOVERABLE GAS RESERVES CALCULATION

Gas Gravity **0.69** (air = 1.0)
Mole % N₂ **0.40** %
Mole % CO₂ **0.80** %
Mole % H₂S **0.01** %
Condensate (Yes=1) **1**
Reservoir Temperature **190** °F
Initial Reservoir Pressure **4,600** psia
Abandonment Reservoir Pressure **1,000** psia

Tc =	375.12
Pc =	664.70
Tc' =	373.45
Pc' =	661.11
Zi =	0.971
Za =	0.920
Bgi =	258.7
Bga =	59.36

Average Net Pay **11** feet
Acres **320** acres
Average Water Saturation **20.0** %
Average Porosity **9.0** %

Calculated Recovery Factor **77.1** % of the OGIP
Calculated Recovery Factor **625.2** MCF/ac-ft

Original Gas in Place **2.91** BCF
Recoverable Gas **2.24** BCF

Payout Reserve Calculation

Turkey Track North (Morrow) Field Area

Assume operator requires a 3 year payout

Drilling and Completion cost	\$ 695,000
Operating cost	\$ 1,000 per month
Severance and Ad Valorem Taxes	11.0 %
Net Revenue Interest	0.875 (fraction)
Gas Price	\$ 1.90 per MCF

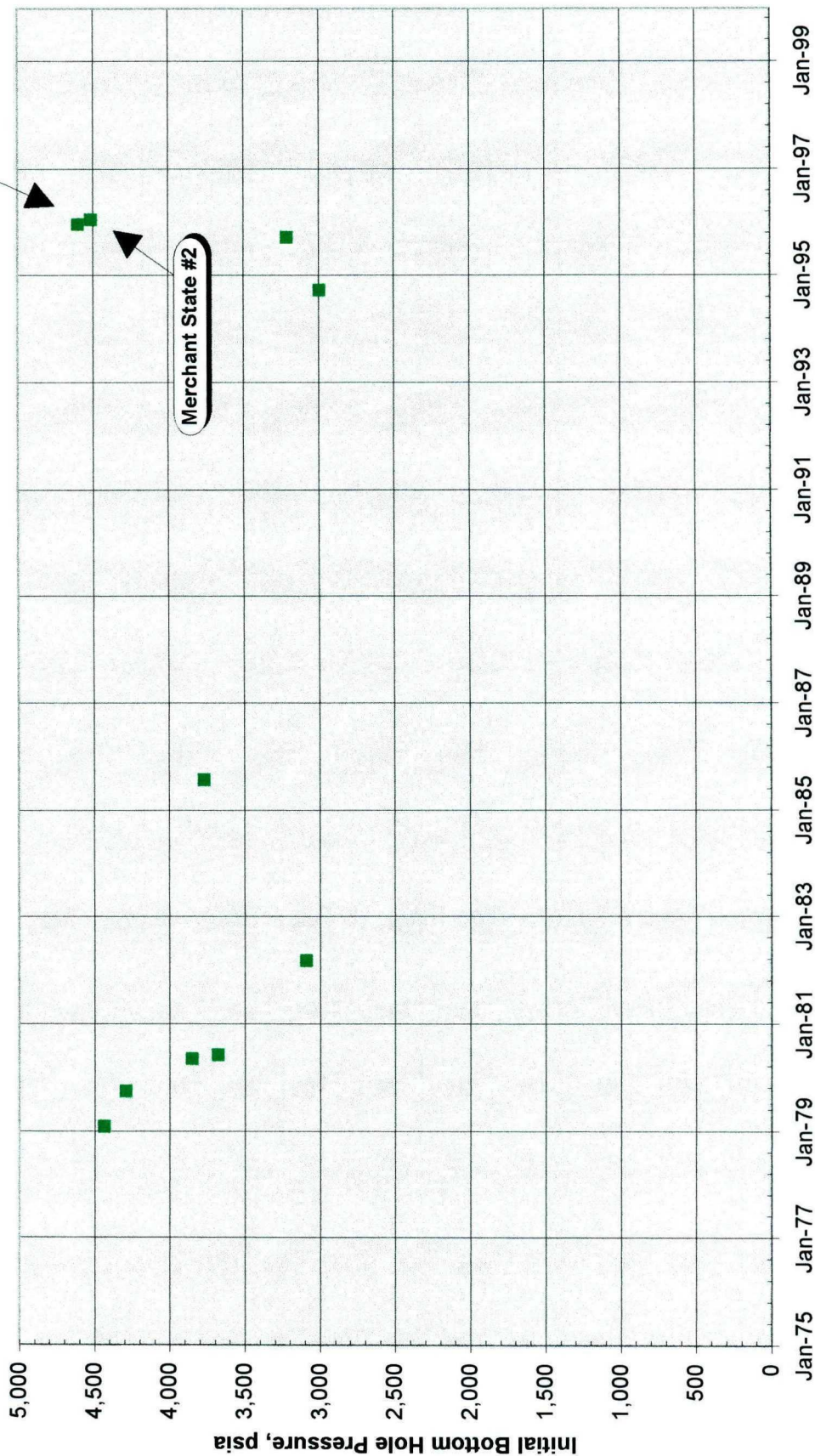
$$[(\text{Gas reserves})(\text{Gas price})(1-\text{Tax rate})(\text{NRI})] = [(\text{Drilling and Completion costs})+(\text{Operating costs})]$$

$$\text{Payout Reserves} = 494,044 \text{ MCF}$$

Turkey Track North (Morrow) Field Area Initial Bottom Hole Pressure vs. Time

Turkey Track '2' State #1

Merchant State #2



COMPUTER RESERVOIR SIMULATION STUDY

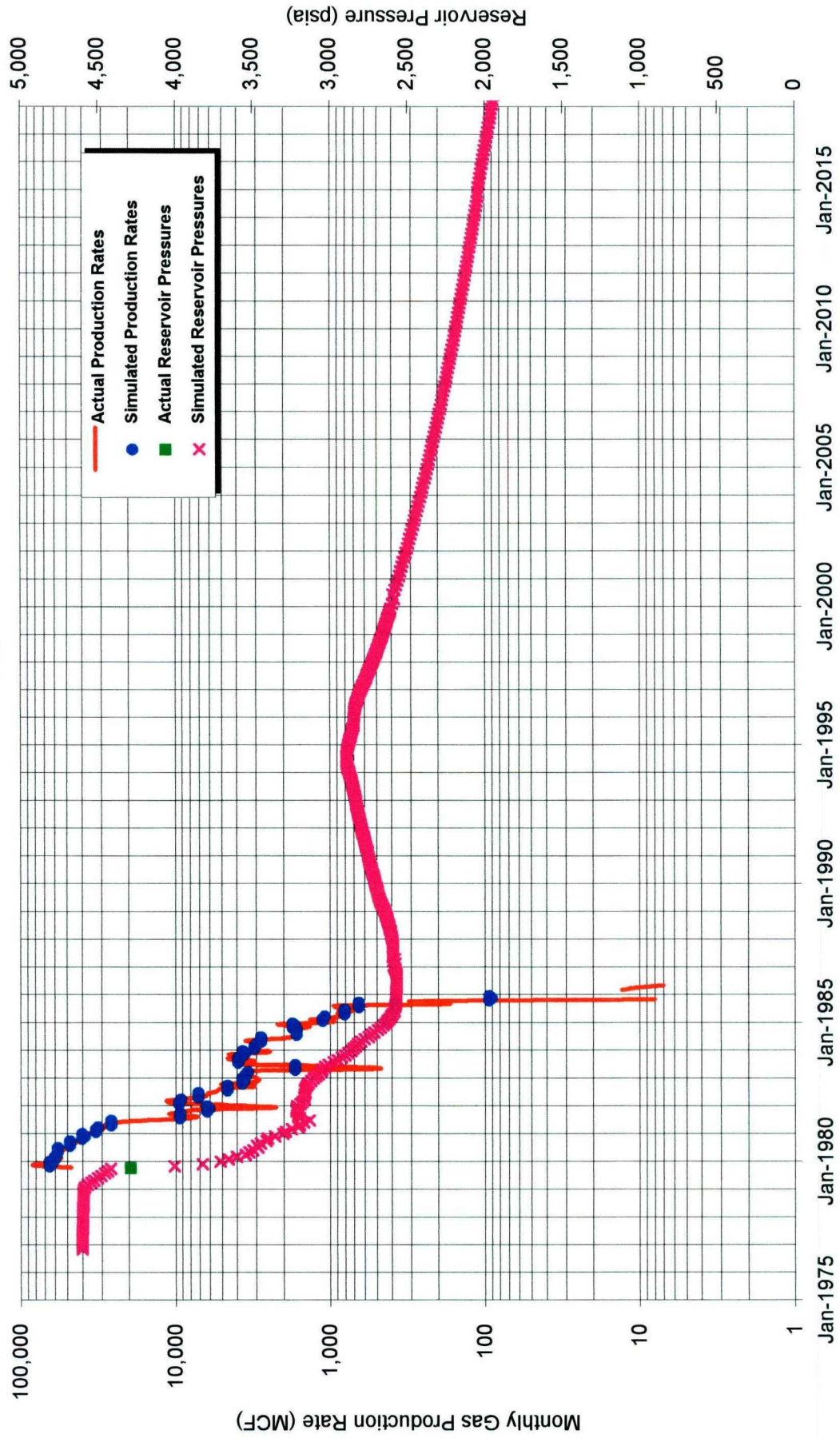
Turkey Track North (Morrow) Field

MODEL INPUT DATA

Grid Orientation		10 x 16 x 1
Number of Gridblocks		160
Gridblock Dimensions		1,320 x 1,320
Number of Producing Wells		11
Net Thickness		Net Pay Map
Porosity		Log Analysis
Water Saturation		Log Analysis
Initial Reservoir Pressure		4,600
Gas Gravity		0.64
Reservoir Temperature		190 °F
Original Gas In Place		45 BCF

Source: Morrow, 1987, p. 10

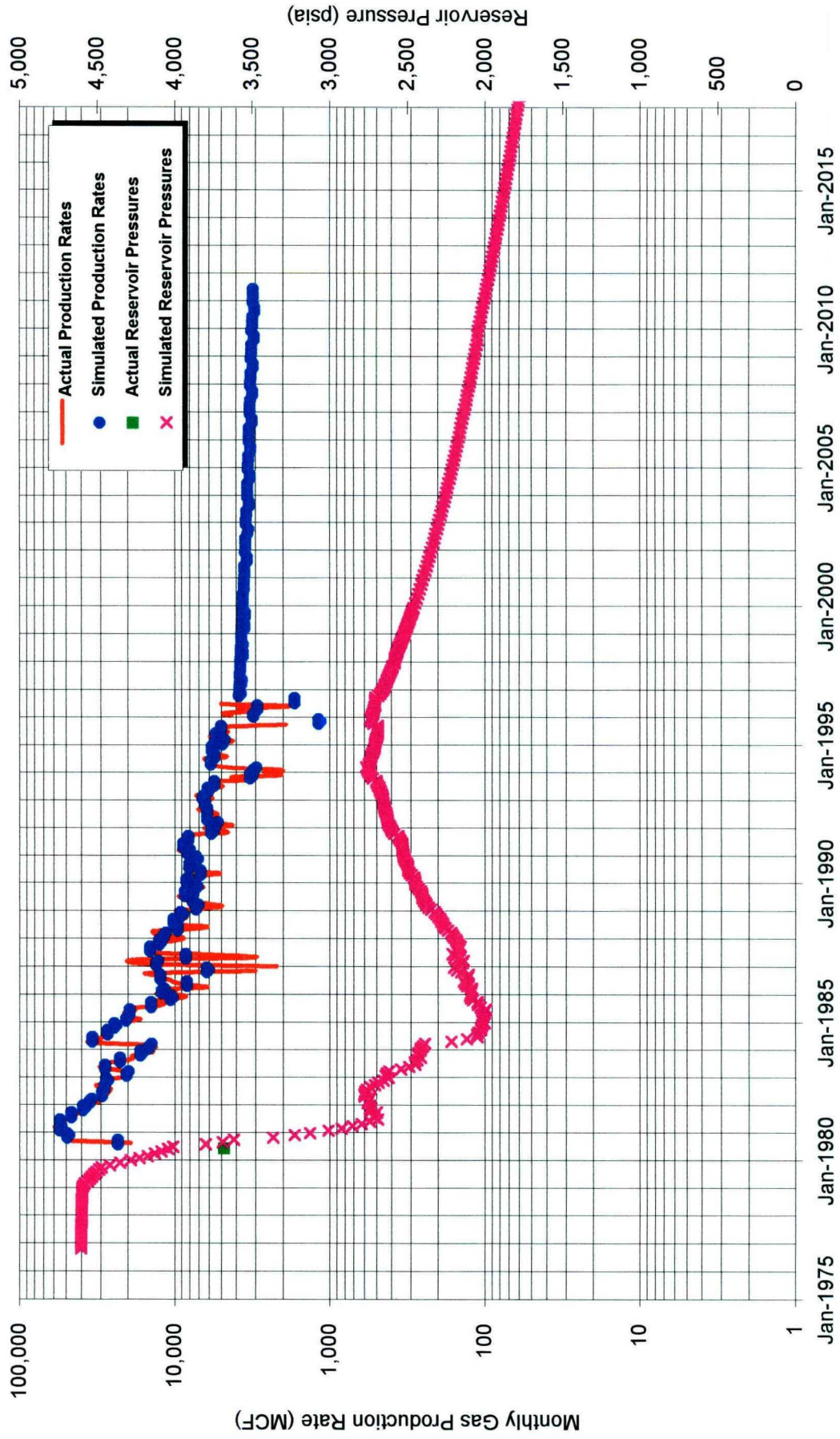
Reservoir Simulation History Match Data Turkey Tract Com No. 1 18S 28E 26I



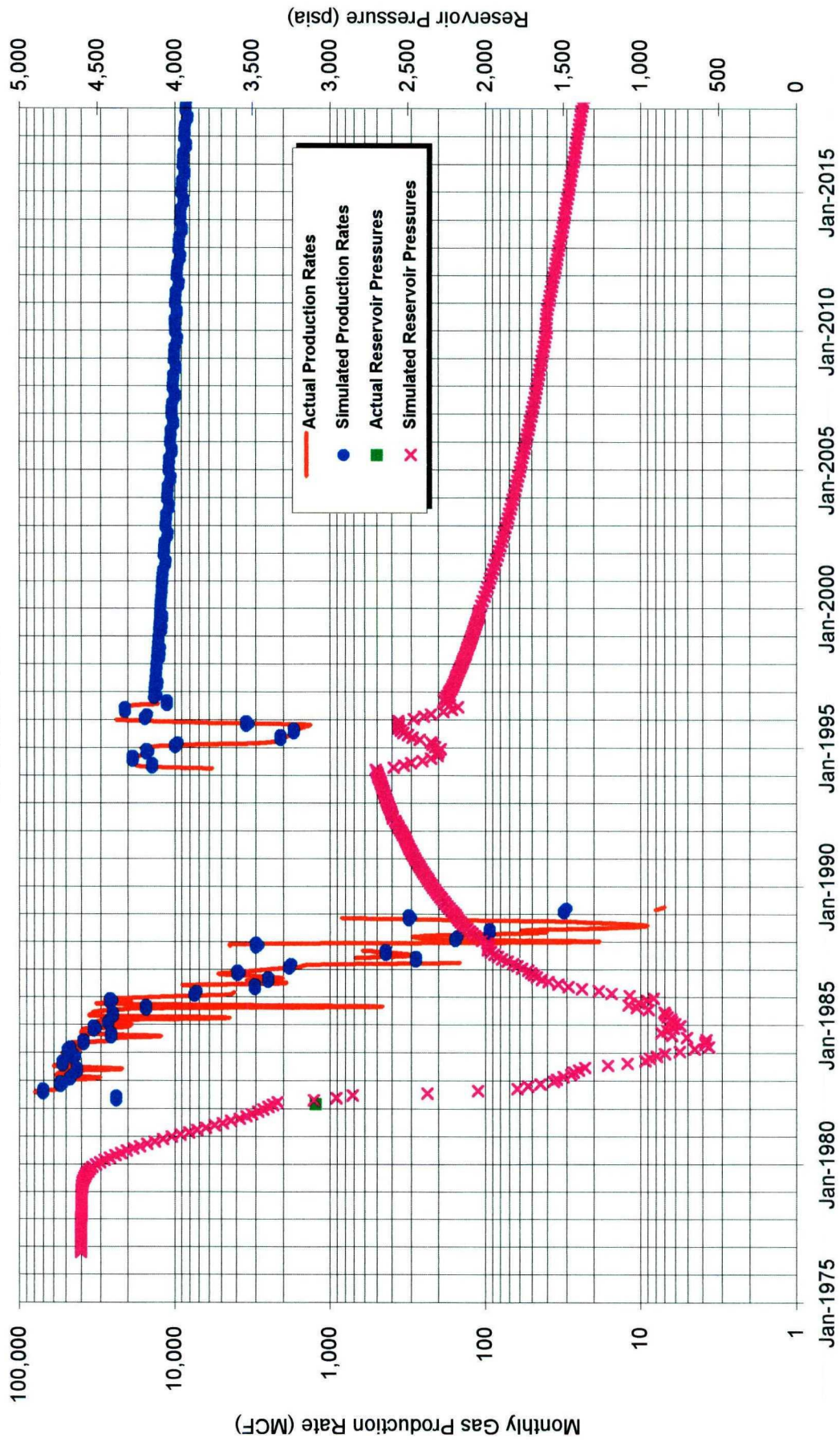
Reservoir Simulation History Match Data

State LG-2985 No. 1

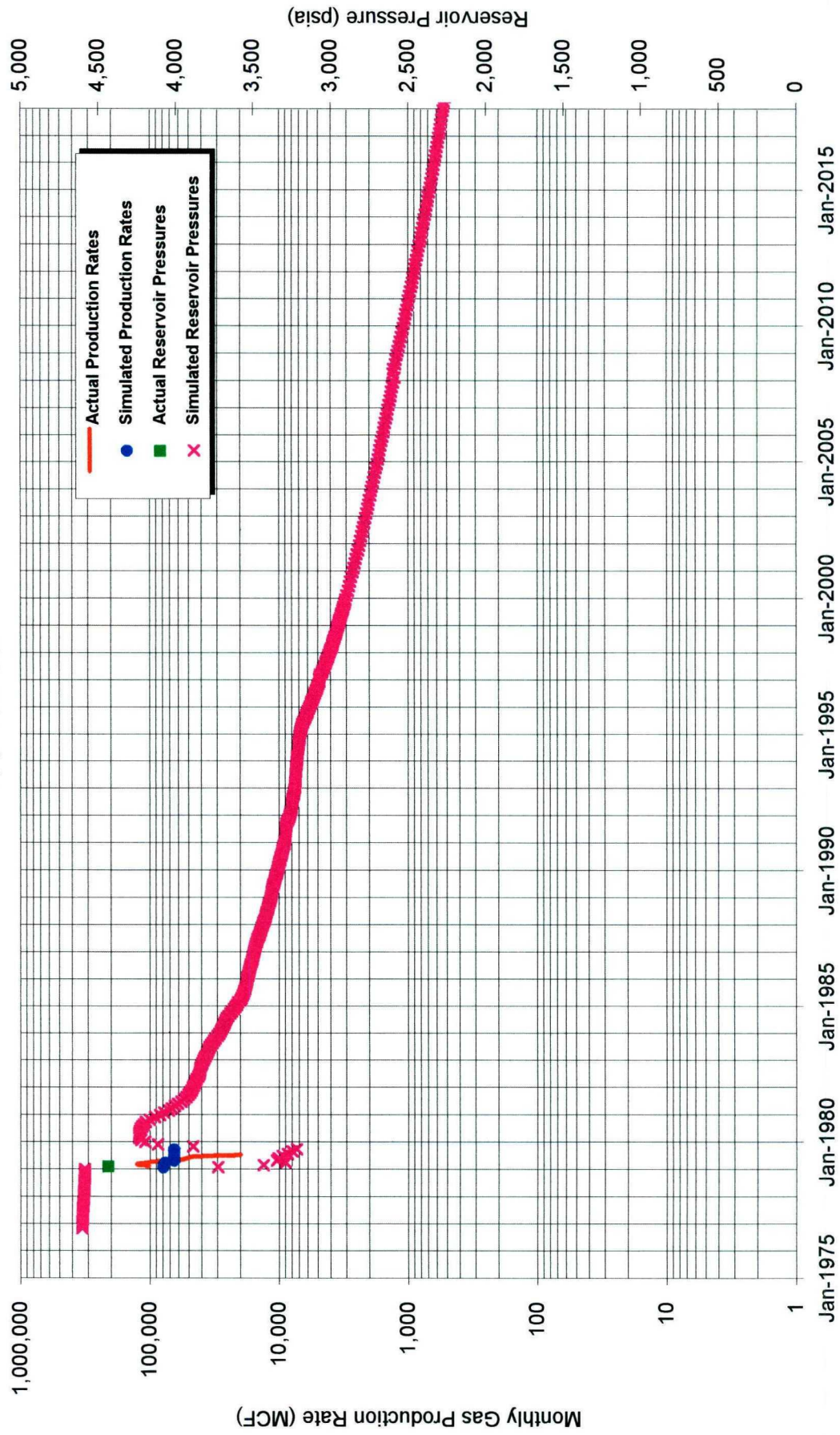
18S 28E 26K



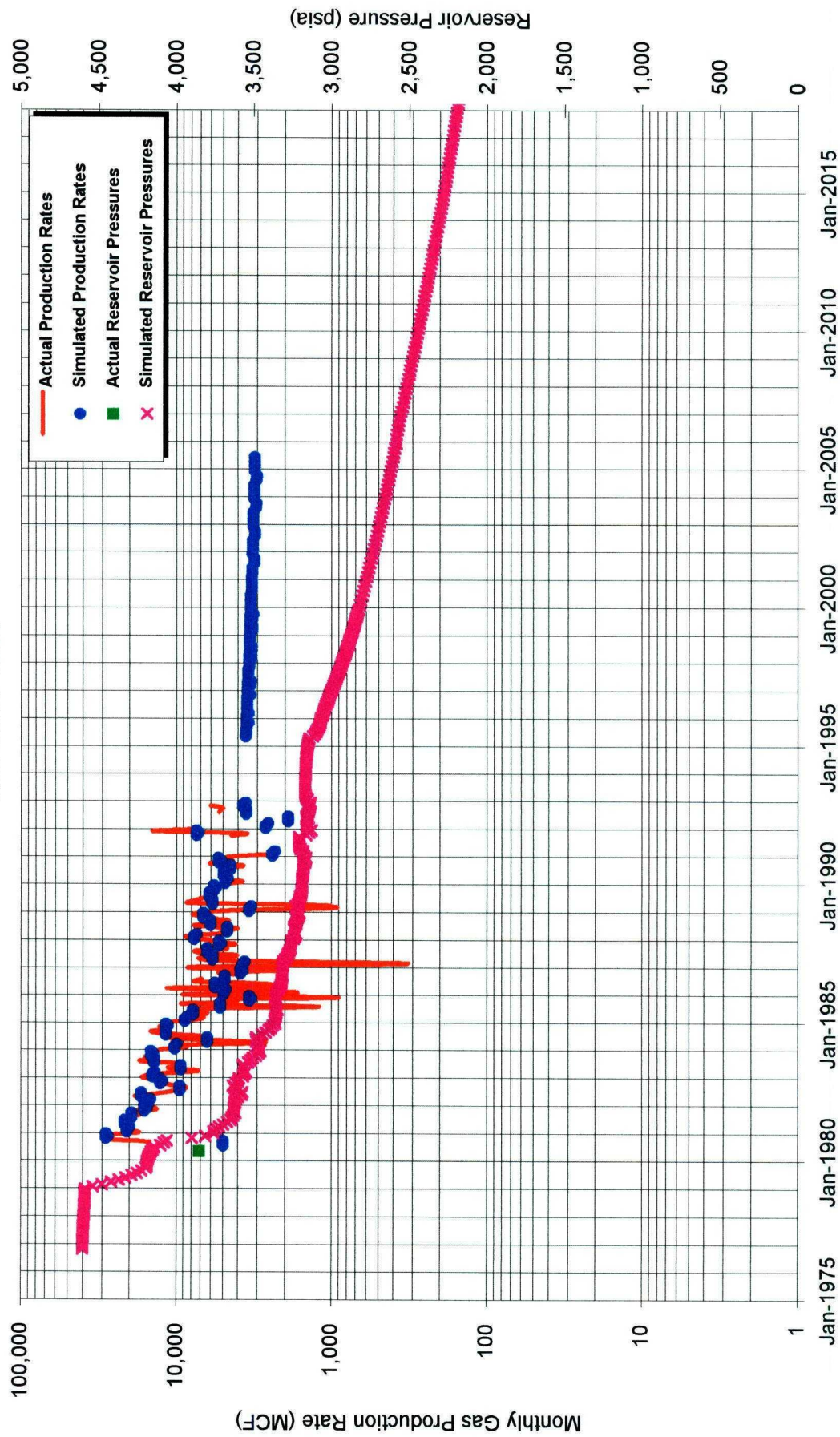
Reservoir Simulation History Match Data State BW Com No. 1 18S 28E 27H



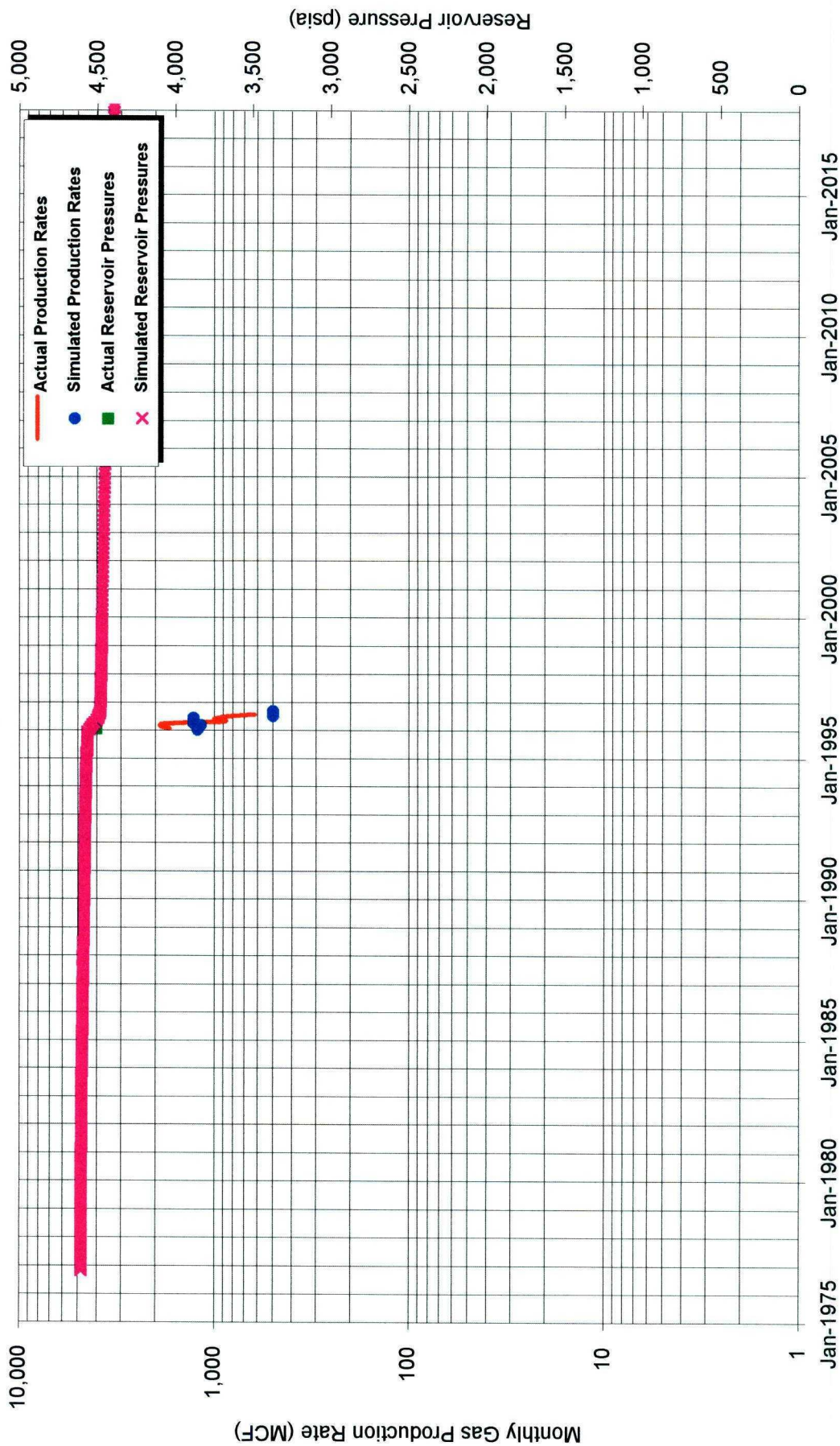
Reservoir Simulation History Match Data
New Mexico State AA No. 1
18S 28E 35F



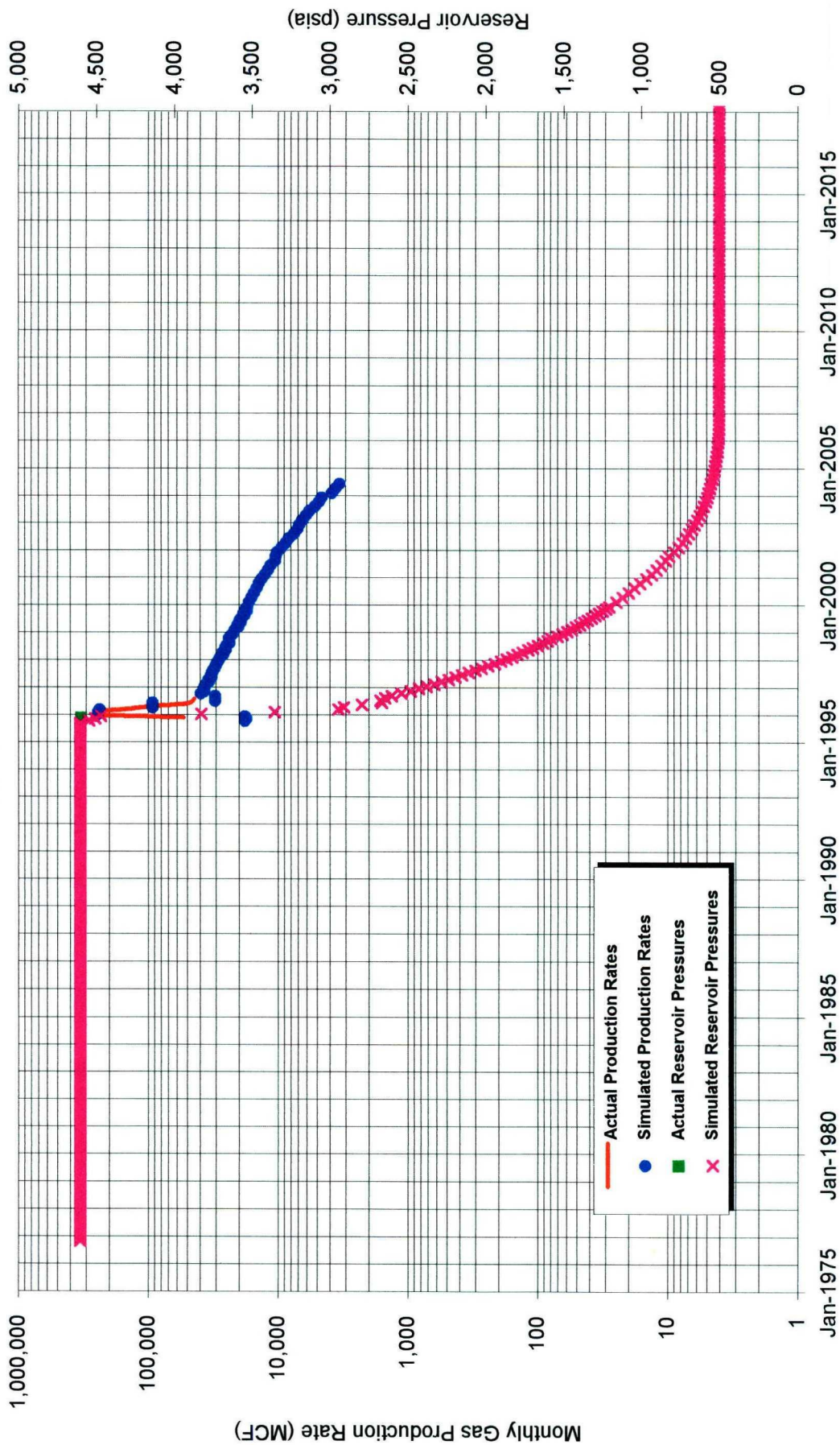
Reservoir Simulation History Match Data
State AC Com No. 1
18S 28E 35H



Reservoir Simulation History Match Data
Merchant State No. 2
19S 28E 01L



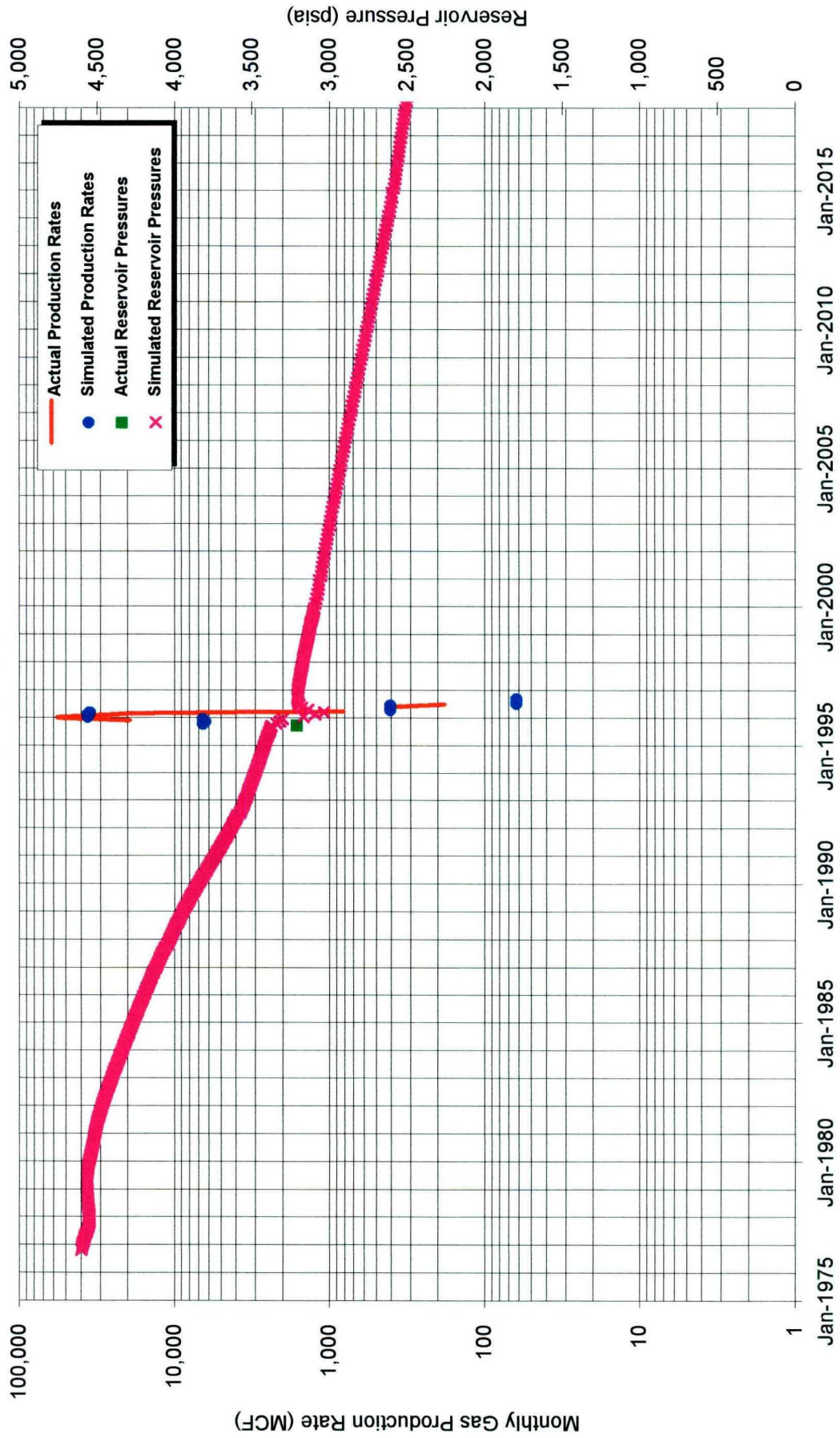
Reservoir Simulation History Match Data Turkey Track 2 State Com No. 1 19S 28E 02H



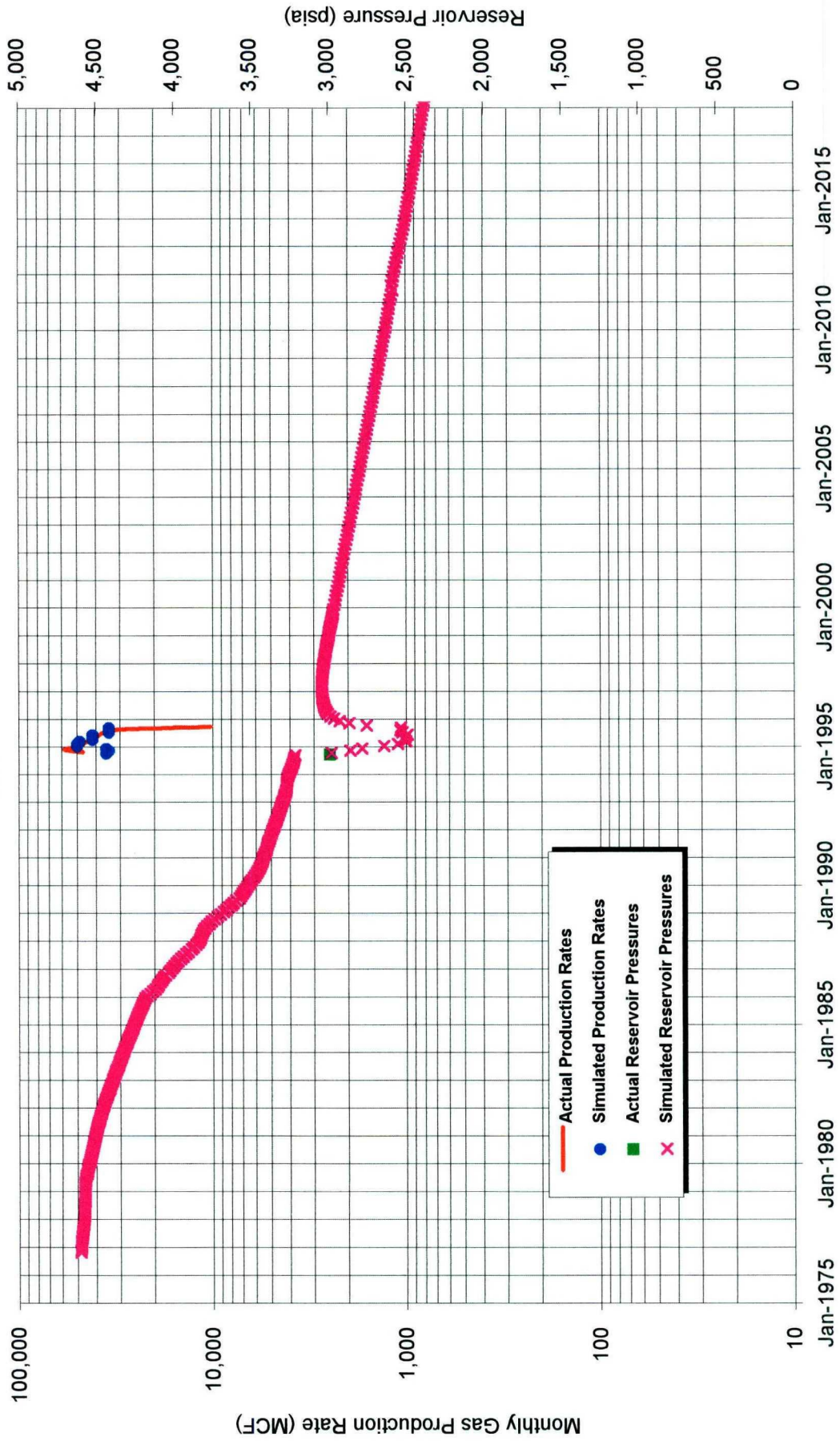
Reservoir Simulation History Match Data

Millman 3 State No. 1

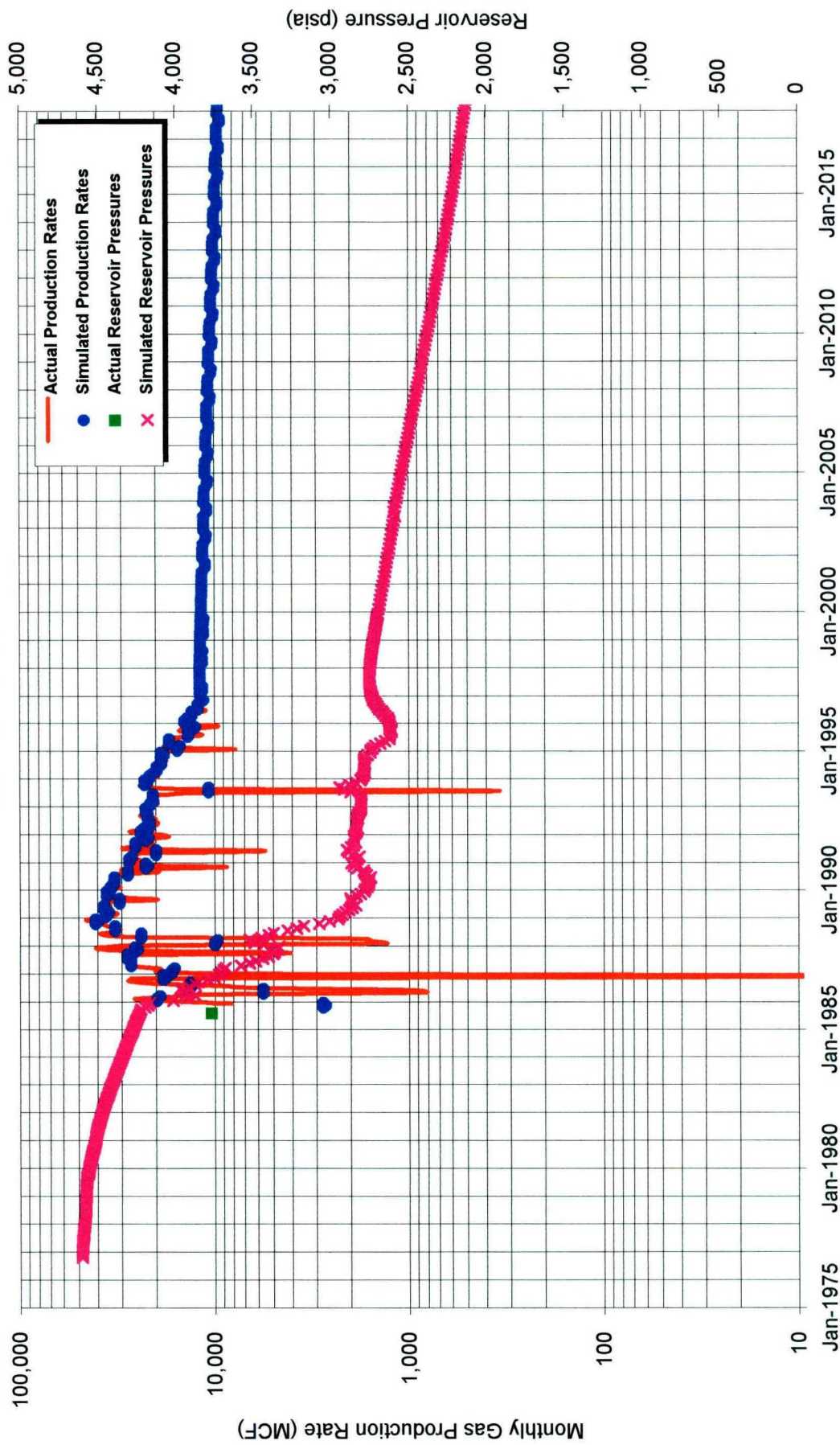
19S 28E 03F



Reservoir Simulation History Match Data State 11 Com No. 1 19S 28E 11I



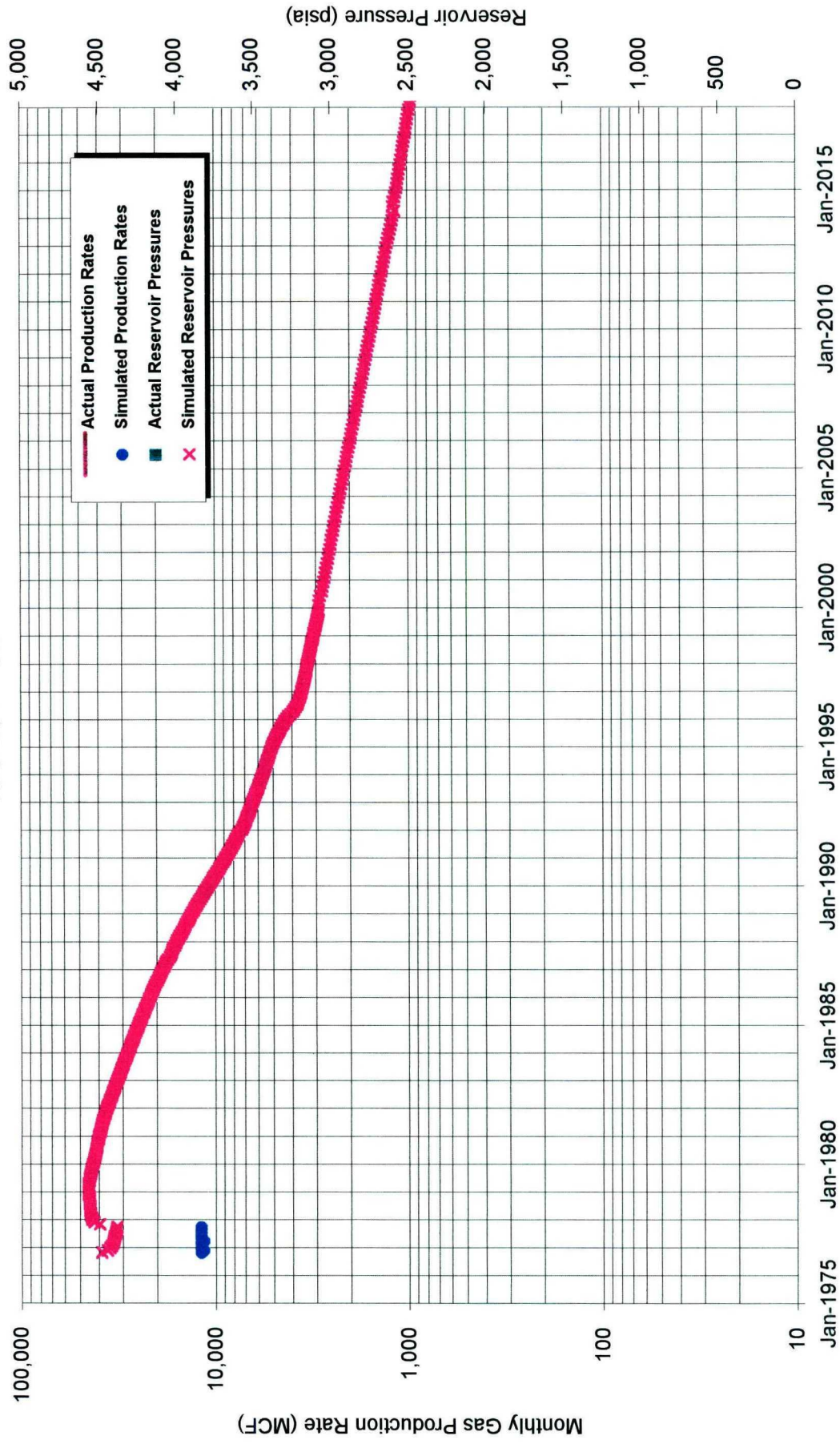
Reservoir Simulation History Match Data East Millman 12 State Com No. 1 19S 28E 12N



Reservoir Simulation History Match Data

State AD #1

19S 28E 10B



Estimated Ultimate Recoveries - Without Proposed Well

Turkey Track North (Morrow) Field Area

Eddy County, New Mexico

Well	API Number	Location			PSA Estimated Ultimate Recovery		
		Twn	Rng	Sec Unit	Rate	Rate	Simulation (MCF)
					vs. Time (MCF)	vs. Cum (MCF)	
State LG 2985 #1	30 015 23160	18s	28e	26 K	3.0	3.2	3.3
Turkey Track Com #1	30 015 22968	18s	28e	26 I	1.2	1.2	1.2
State "BW" #1	30 015 23996	18s	28e	27 H	5.1	5.2	5.4
New Mexico St AA #1	30 015 22698	18s	28e	35 F	0.5	0.5	0.6
State "AC" Com #1	30 015 23178	18s	28e	35 H	1.6	1.6	1.6
Merchant State #2	30 015 28746	19s	28e	1 L	0.0	0.0	0.0
Turkey Track '2' State #1	30 015 28481	19s	28e	2 H	2.0	2.2	2.5
Millman '3' State Com #1	30 015 28528	19s	28e	3 F	0.1	0.1	0.1
State "11" #1	30 015 27916	19s	28e	11 I	0.4	0.4	0.4
East Millman "12" State #1	30 015 25206	19s	28e	12 N	6.0	6.1	6.3
State "AD" #1	30 015 02208	19s	28e	10 B	0.1	0.1	0.1
Proposed Well		18s	28e	35 N	0.0	0.0	0.0

Impact of Proposed Well
On BEPCO Operated Acreage
Turkey Track North (Morrow) Field

Original Gas in Place on the E½ of Section 2 =	8.3 BCF
Expected Recovery of Turkey Track 2 #1 =	2.5 BCF
Gas Remaining After Depletion of Existing Wells =	3.2 BCF
Gas Remaining After Depletion of Existing Wells Plus the Proposed Well @ an Orthodox Location =	2.0 BCF
Gas Remaining After Depletion of Existing Wells Plus the Proposed Well @ an Unorthodox Location	1.6 BCF

Standard Penalty Factors **Turkey Track North (Morrow) Field Area** **Eddy County, New Mexico**

East - West Variance

$$\frac{\text{Orthodox West Distance - Unorthodox West Distance}}{\text{Orthodox West Distance}} = \frac{660' - 660'}{660'} = 0.00$$

North - South Variance

$$\frac{\text{Orthodox South Distance - Unorthodox South Distance}}{\text{Orthodox South Distance}} = \frac{1,650' - 660'}{1,650'} = 0.60$$

Hypotenuse Variance

$$\frac{\text{Orthodox Hypotenuse Distance - Unorthodox Hypotenuse Distance}}{\text{Orthodox Hypotenuse Distance}} = \frac{1,777' - 933'}{1,777'} = 0.48$$

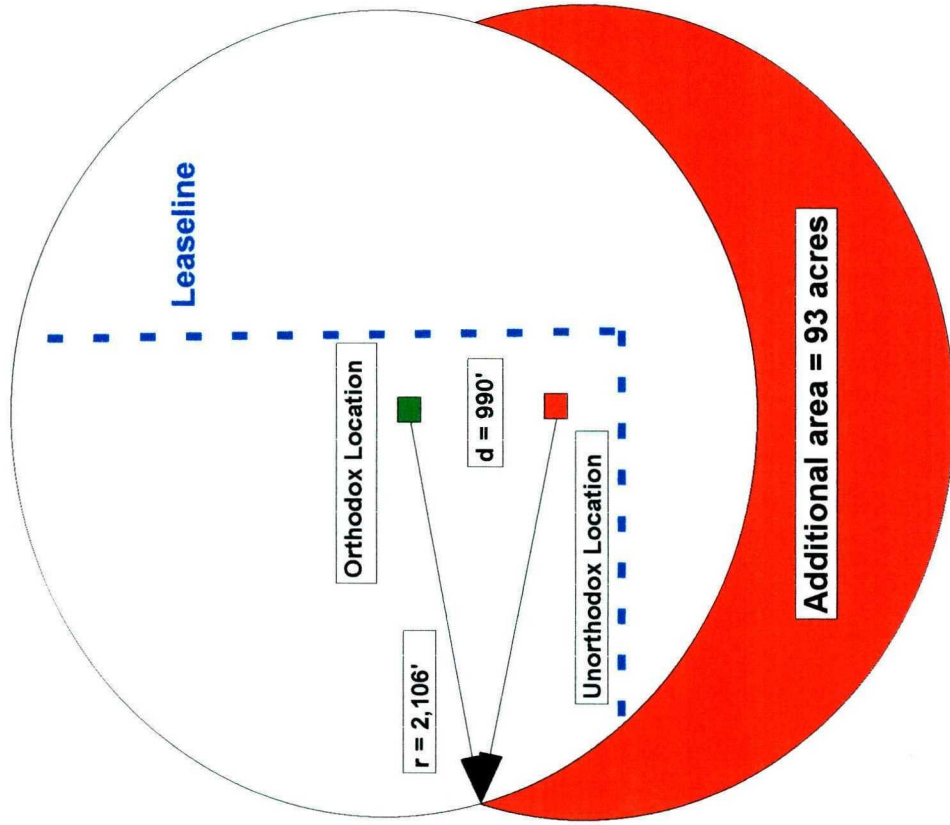
Excess Drainage

$$\frac{\text{Excess Drainage Area}}{\text{Standard Drainage Area}} = \frac{93}{320} = 0.29$$

Unproductive Acreage

$$\frac{\text{Total Acreage - Productive Acreage}}{\text{Total Acreage}} = \frac{320 - 160}{320} = 0.50$$

320 acre drainage areas



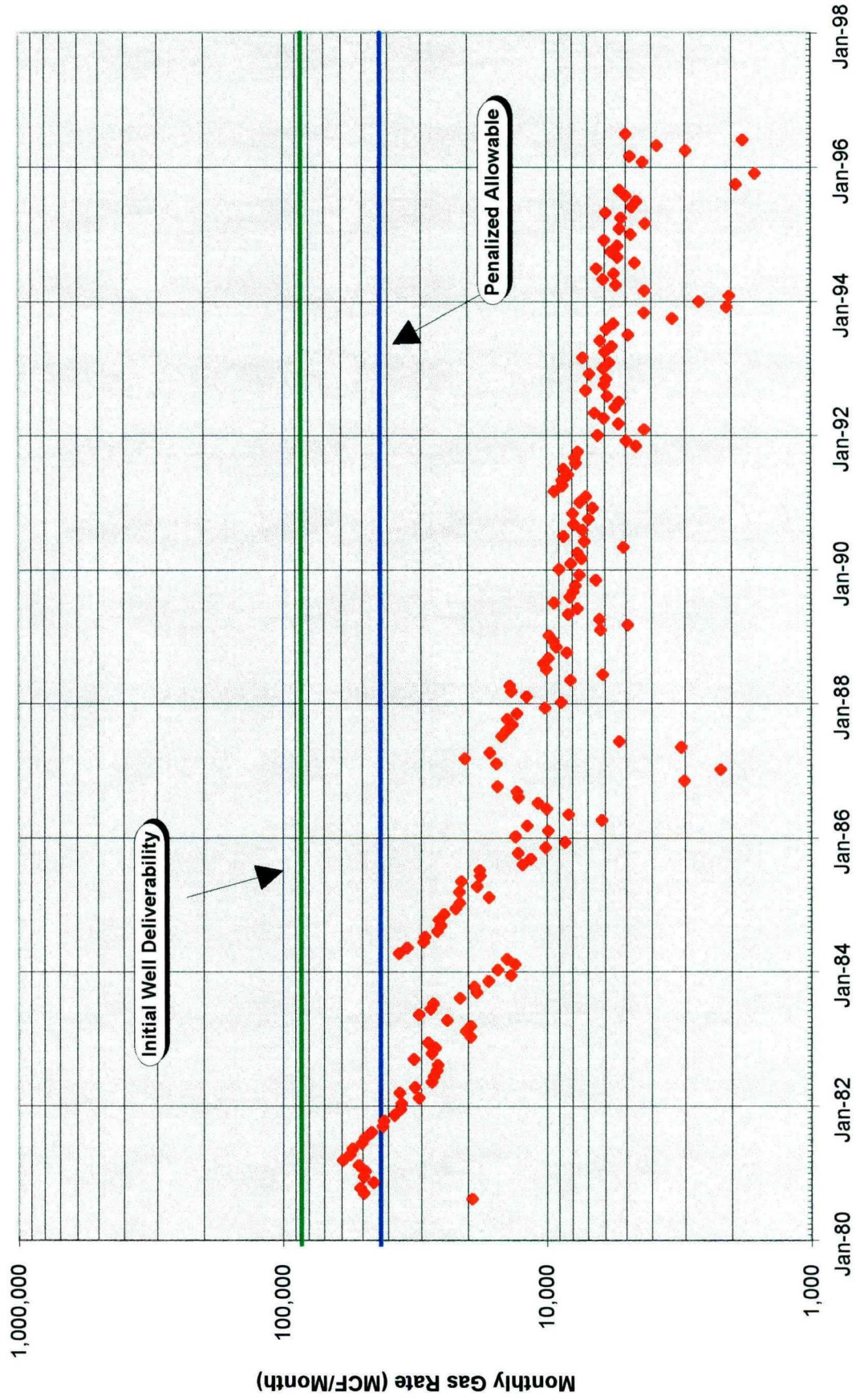
The Orthodox location is:
660' FEL and 1650' FSL

The Unorthodox location is:
660' FEL and 660' FSL

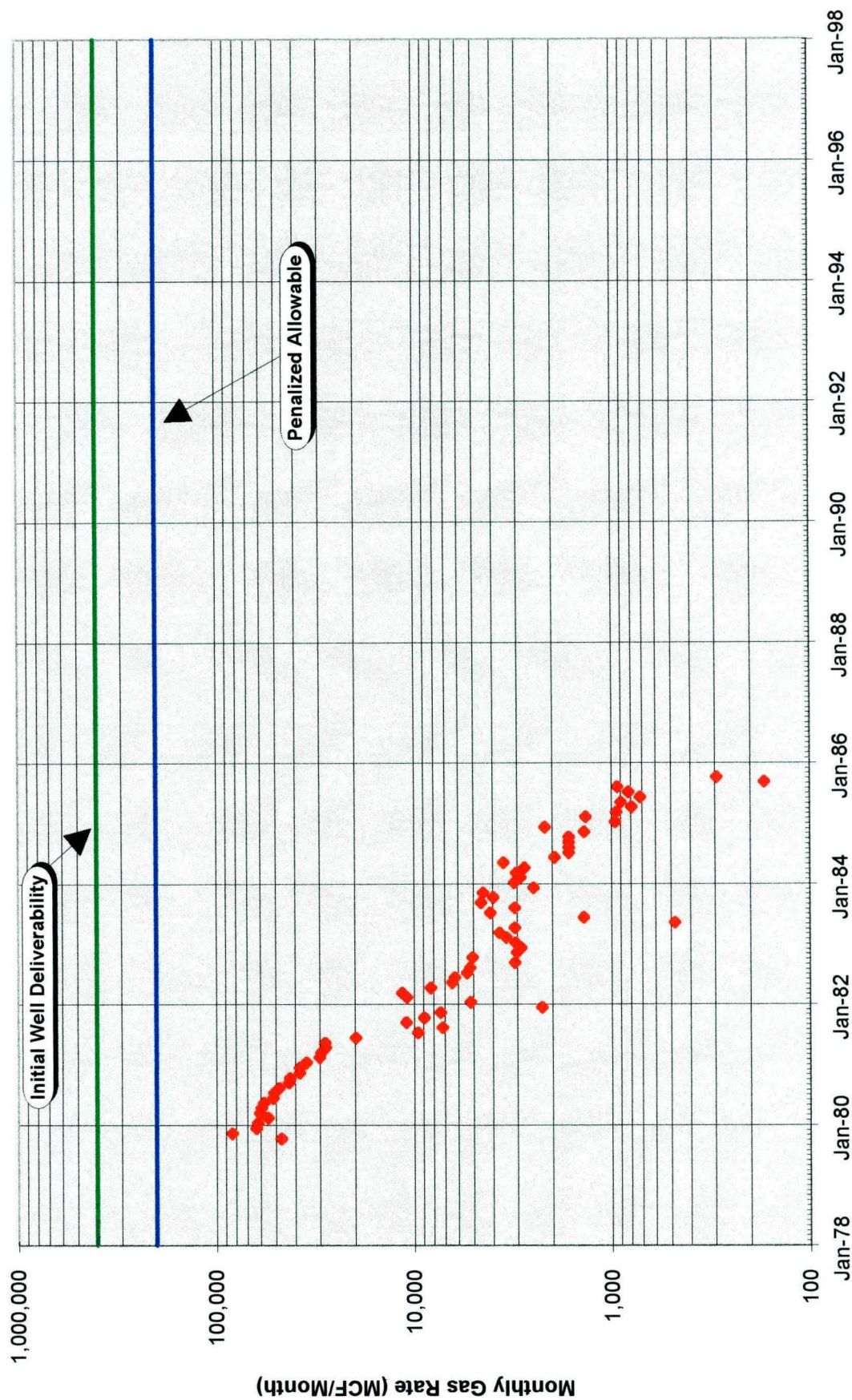
Impact of 50% Penalty Allowable
Turkey Track North (Morrow) Field Area
Eddy County, New Mexico

Well	API Number	Initial Deliverability (MCF/day)	Unpenalized Monthly Allowable (MCF/month)	Peak Monthly Rate (MCF/month)	50% Penalty Monthly Allowable (MCF/month)	Months of Production Above 50% Penalized Allowable
State LG 2985 #1	30 015 23160	2,799	85,195	59,427	42,597	12
Turkey Track Com #1	30 015 22968	13,142	400,010	83,130	200,005	0
State "BW" #1	30 015 23996	3,356	102,148	78,401	51,074	11
New Mexico St AA #1	30 015 22698	4,500	136,969	125,449	68,484	3
State "AC" Com #1	30 015 23178	2,709	82,455	29,835	41,228	0
Palmillo State #1	30 015 23164	11,696	355,997	108,796	177,999	0
Merchant State #2	30 015 28746	1,580	48,091	1,890	24,046	0
Turkey Track '2' State #1	30 015 28481	21,519	654,985	257,047	327,492	0
Millman '3' State Com #1	30 015 28528	7,381	224,659	55,796	112,330	0
State "11" #1	30 015 27916	2,812	85,590	57,843	42,795	5
Average =						3

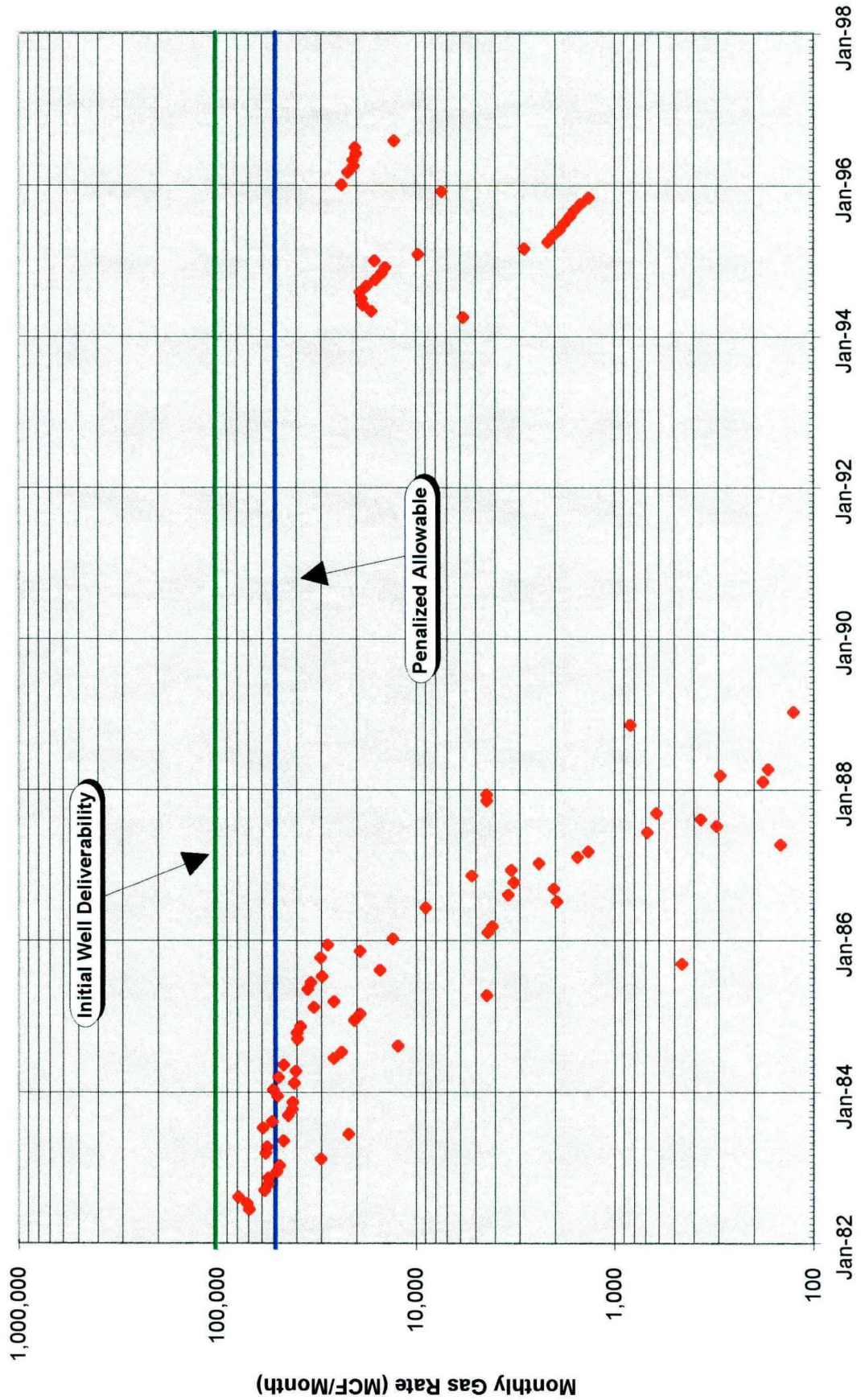
State LG 2985 #1



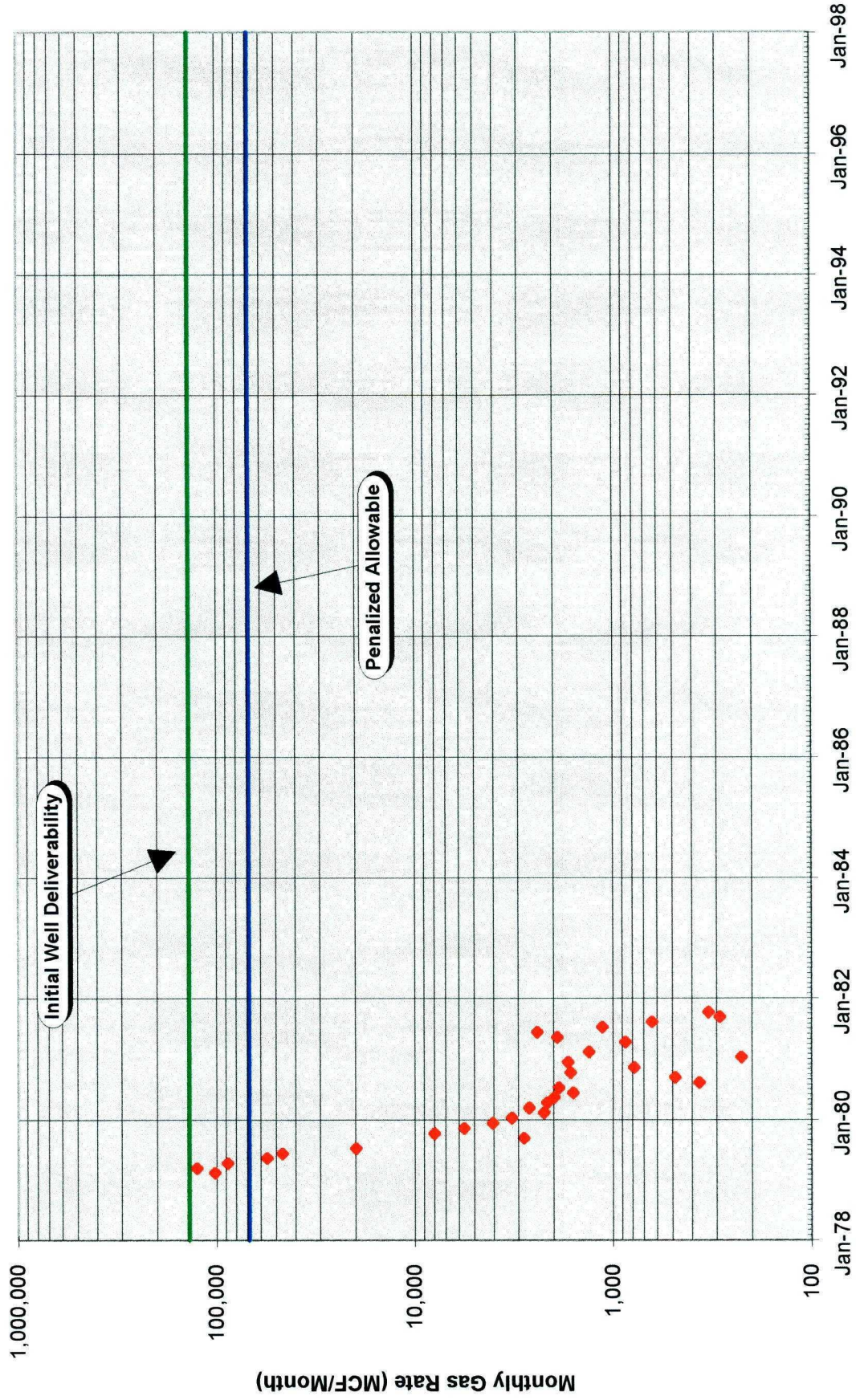
Turkey Track Com #1



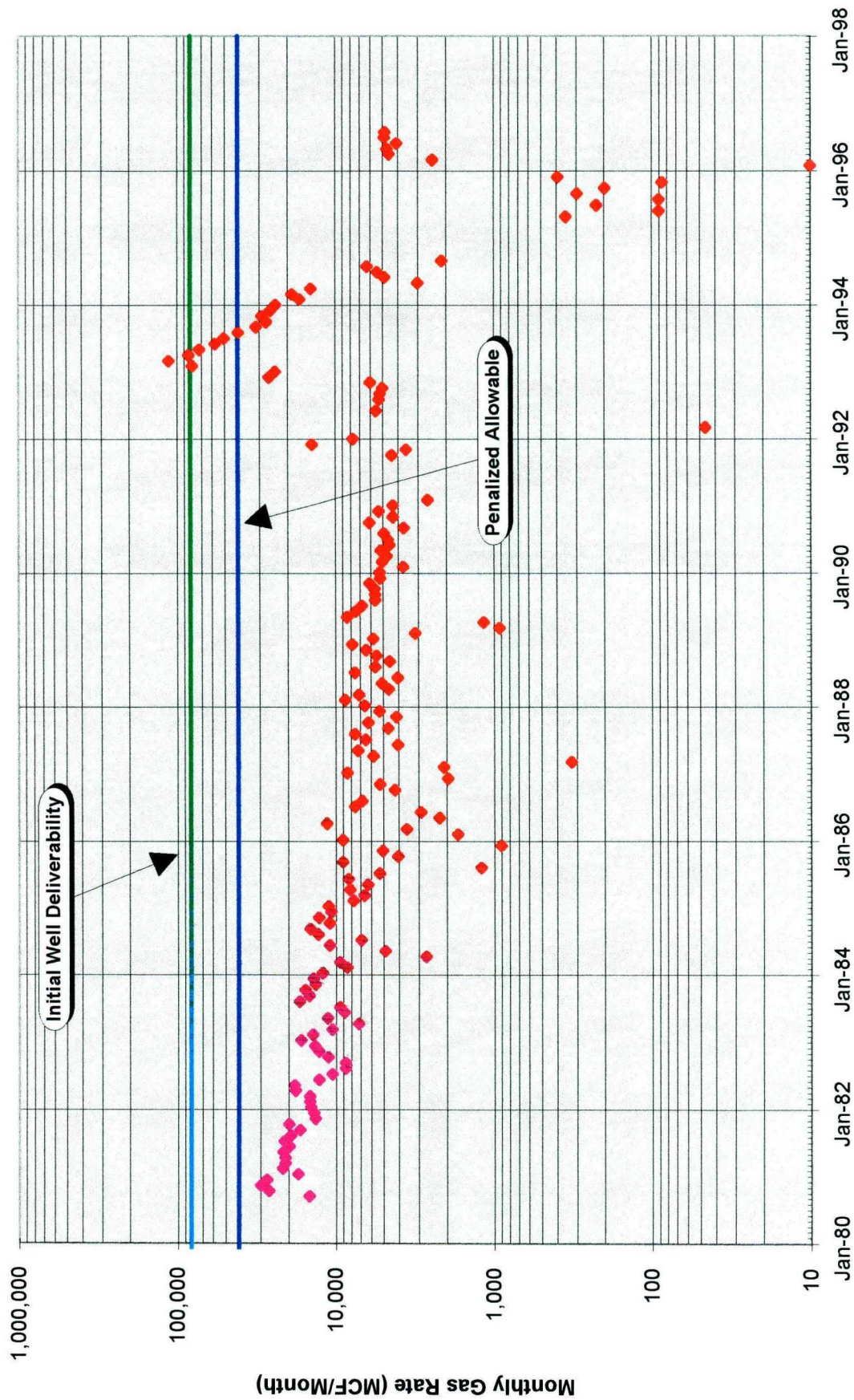
State "BW" #1



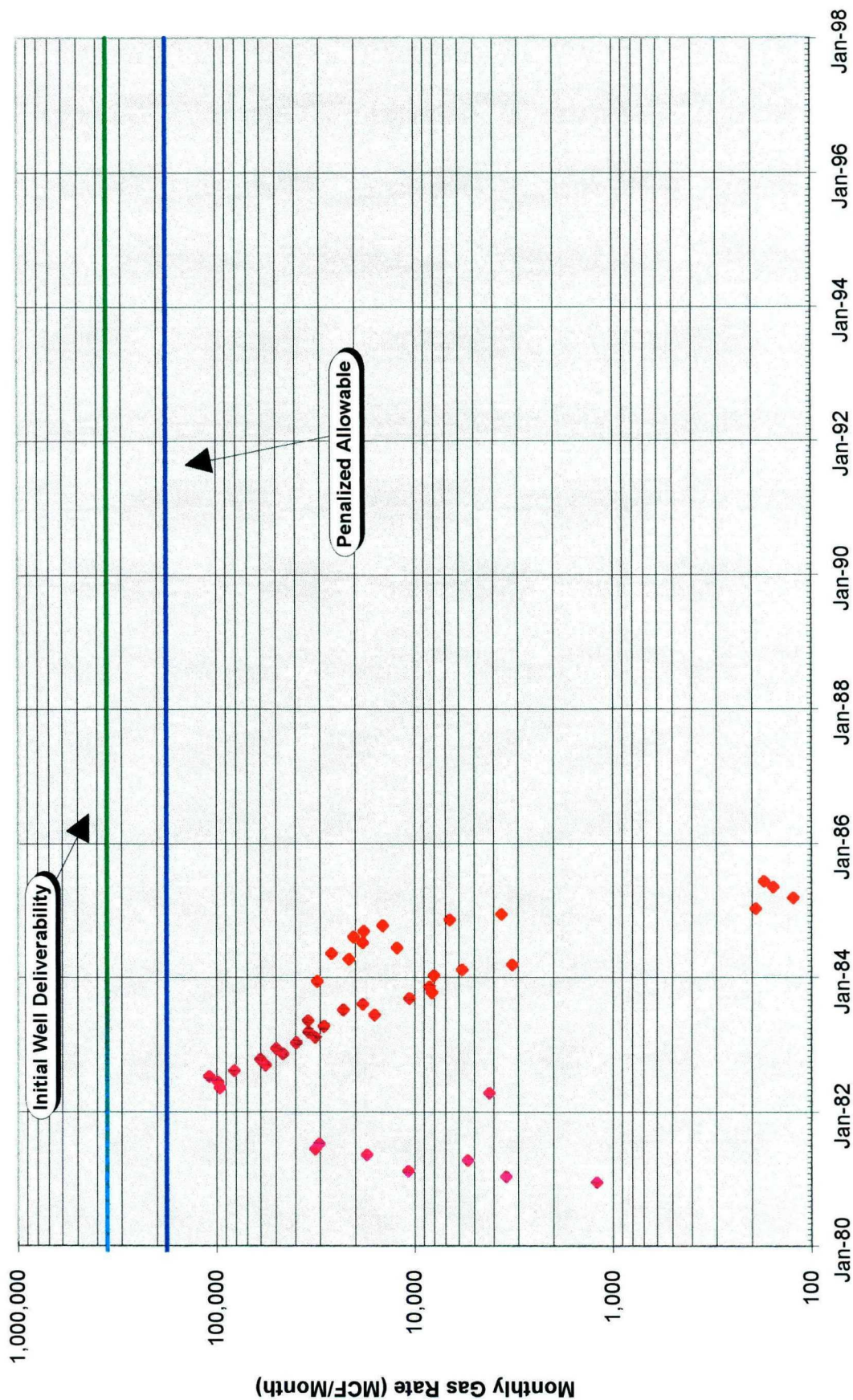
New Mexico St AA #1



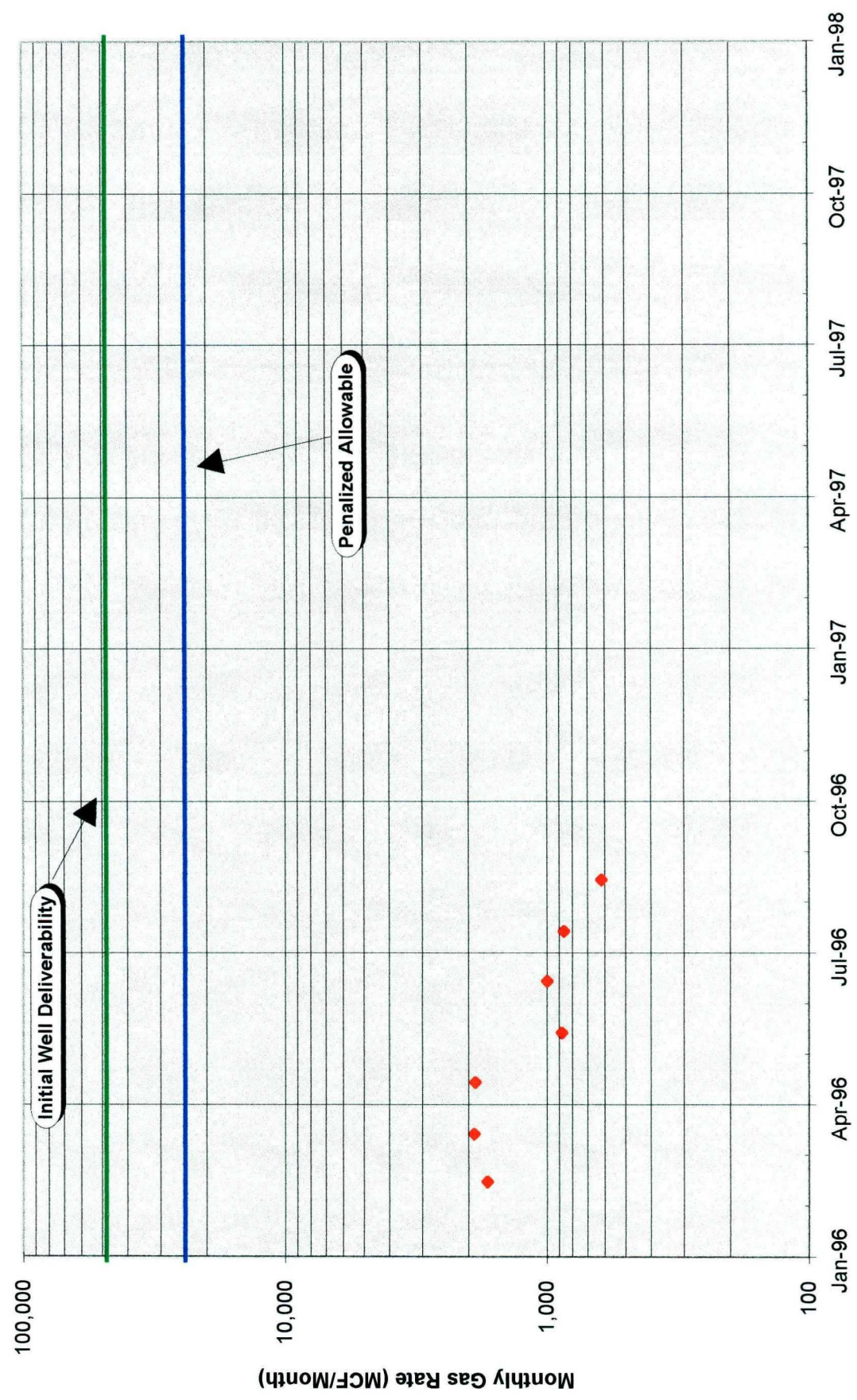
State "AC" Com #1



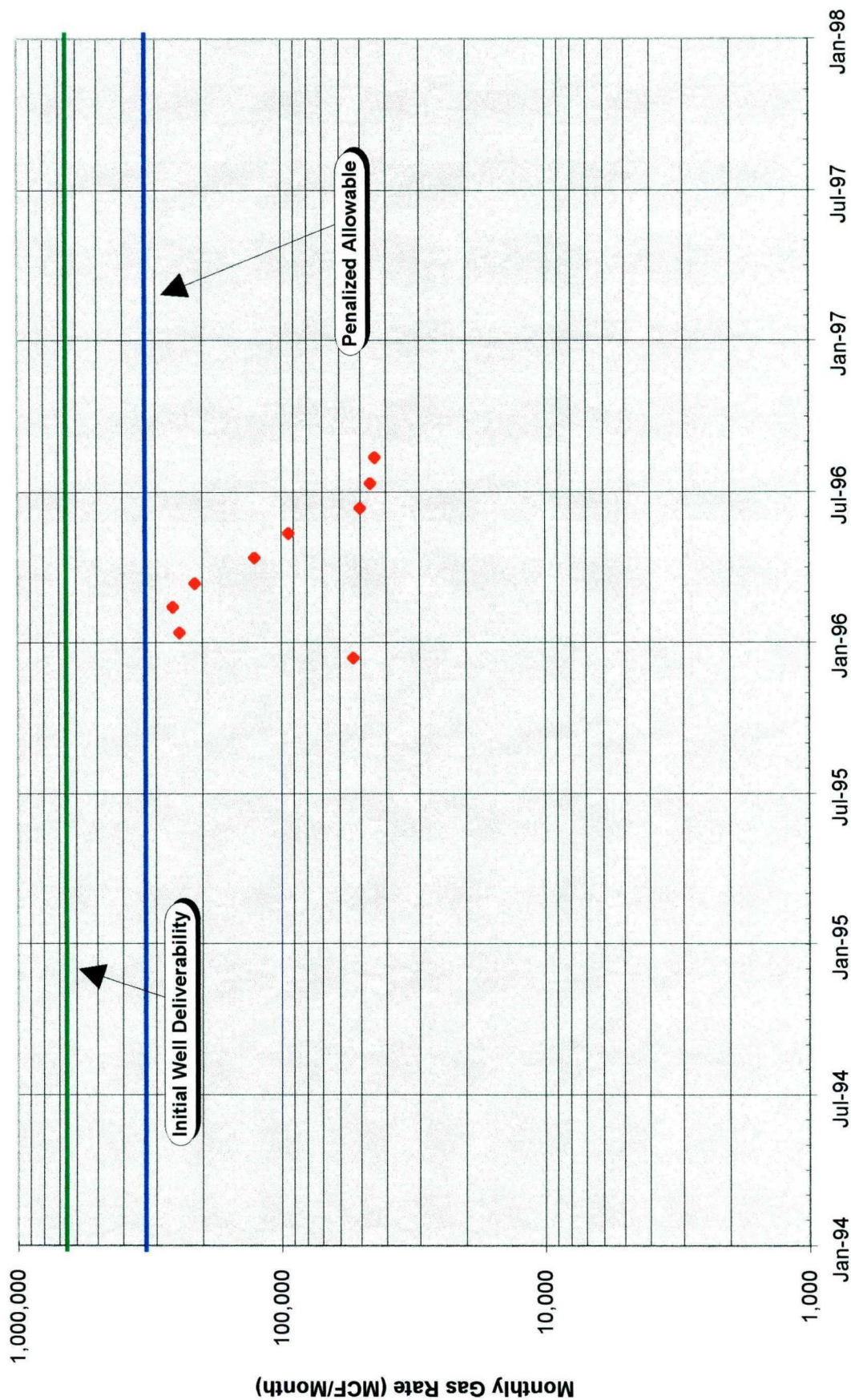
Palmillo State #1



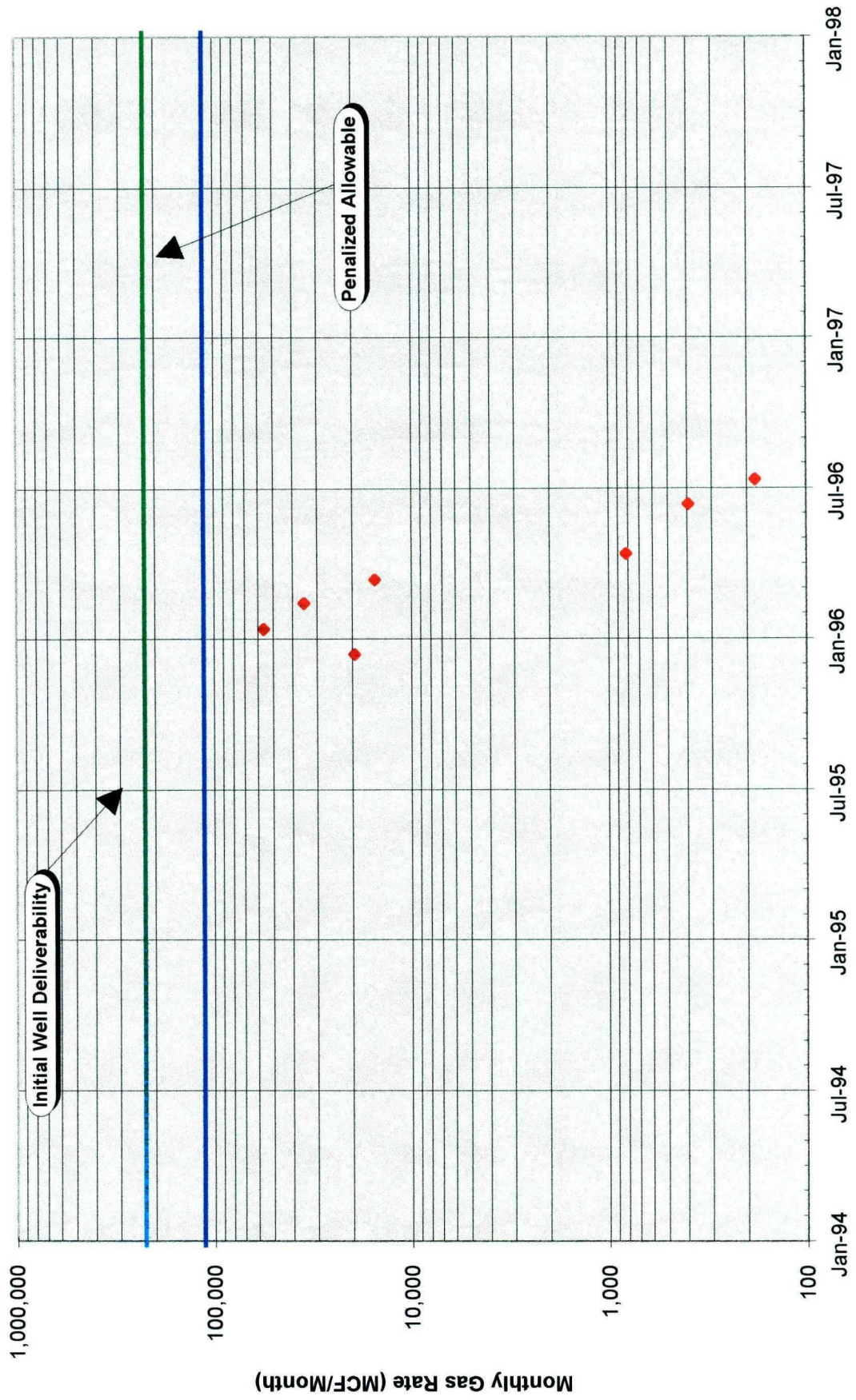
Merchant State #2



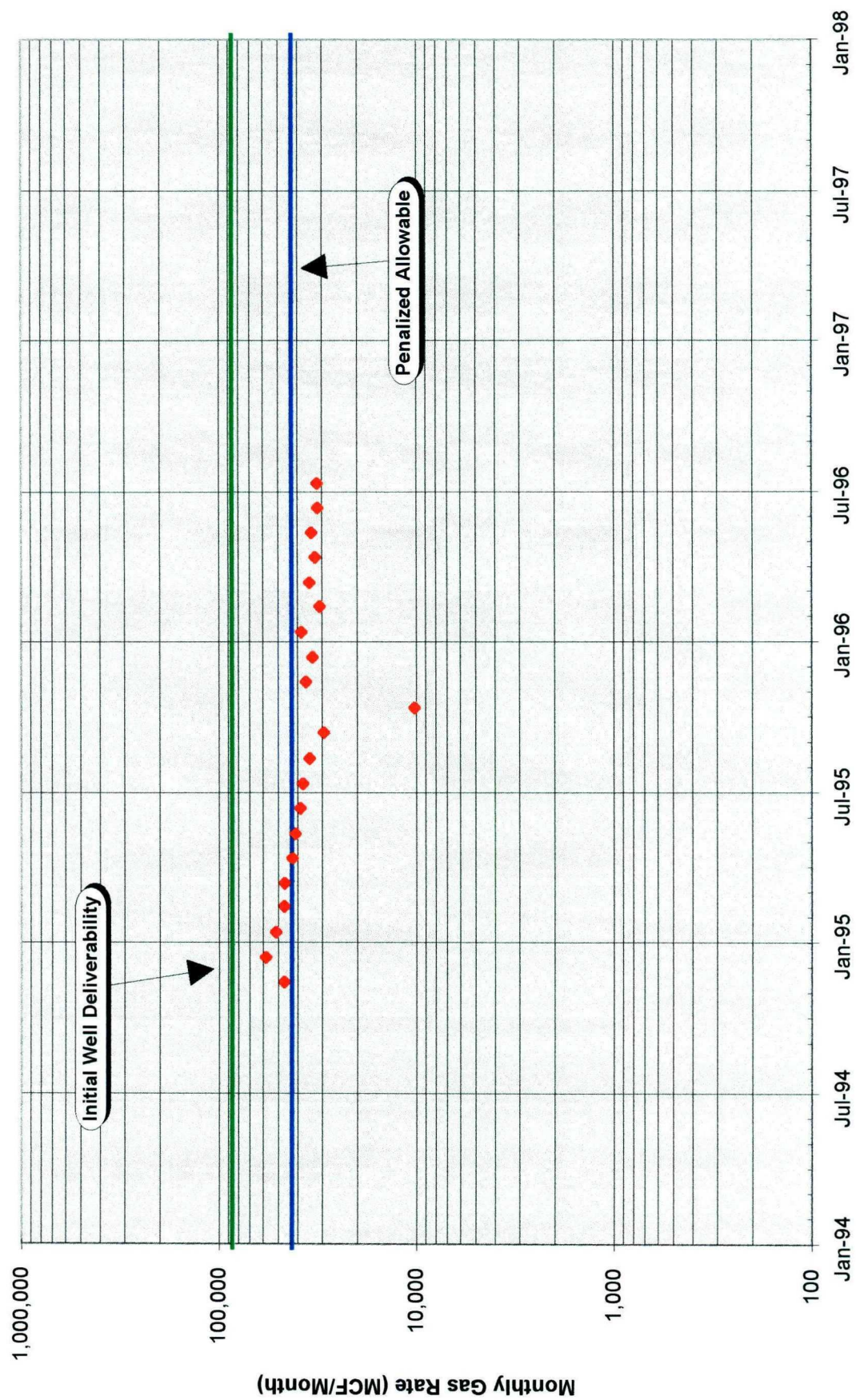
Turkey Track '2' State #1



Millman '3' State Com #1



State "11" #1



Study Conclusions

Turkey Track North (Morrow) Field

1. Orthodox locations do exist on the subject tract for Mewbourne to drill.

1. Orthodox locations do exist on the subject tract for Mewbourne to drill.
2. The proposed well is capable of producing the remaining recoverable reserves under the subject tract from an orthodox location.
3. Moving the proposed well to an unorthodox location will allow the confiscation of a significant quantity of reserves from the BEPCO operated lease.
4. The imposition of a penalty allowable would be ineffective in preventing this confiscation of reserves.
5. The proposed well should be drilled at an orthodox location.

2. The proposed well is capable of producing the remaining recoverable reserves under the subject tract from an orthodox location.