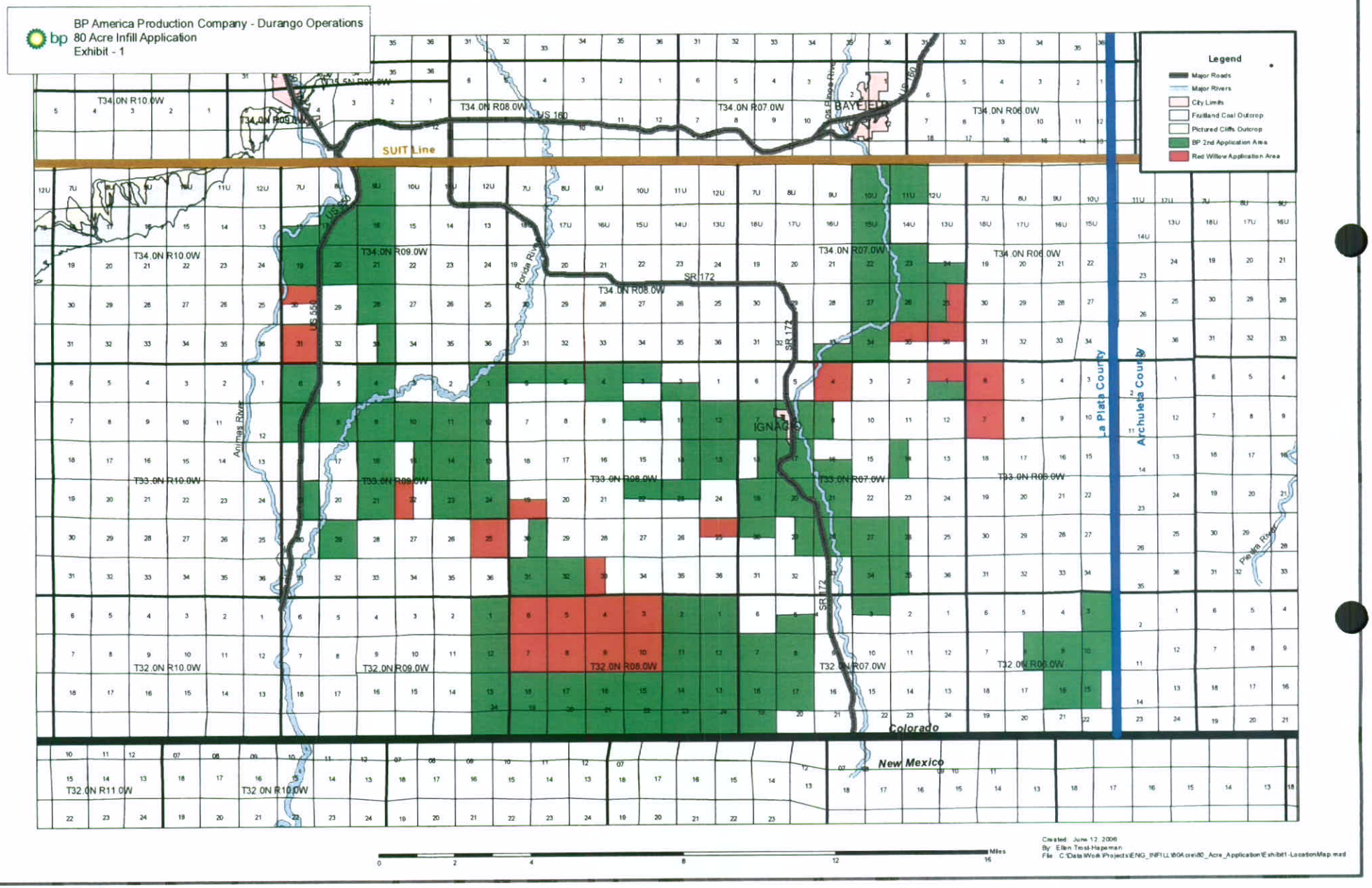
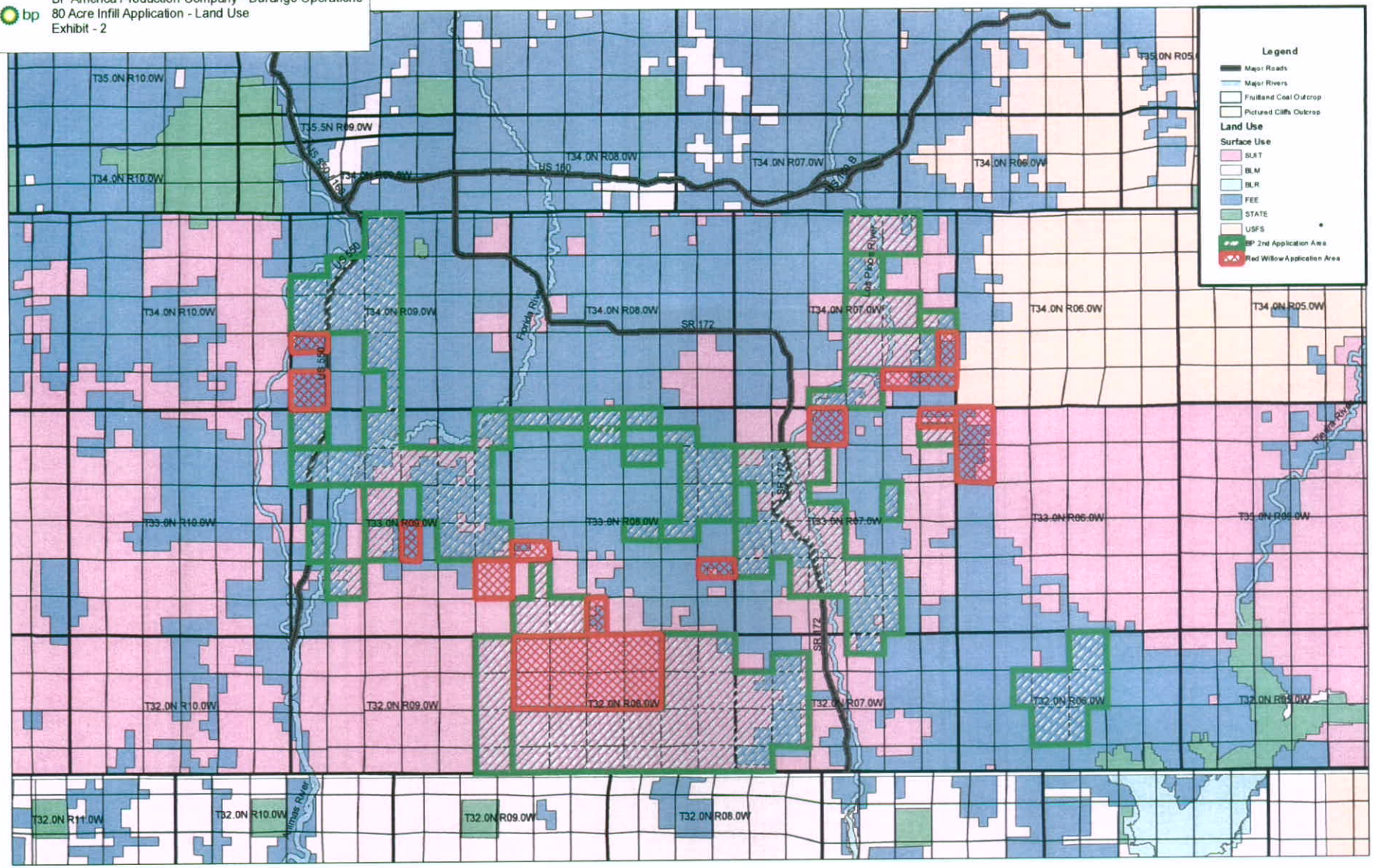
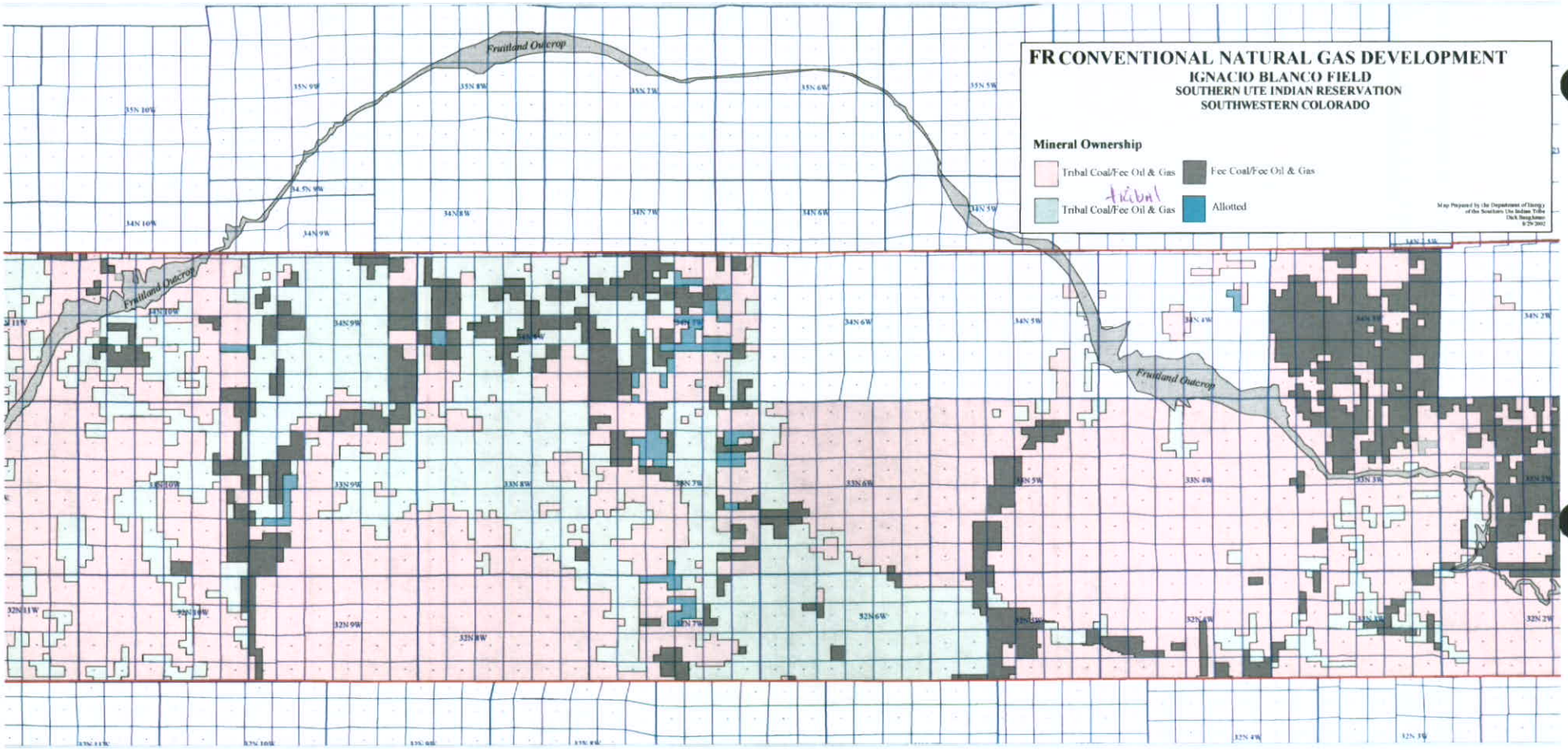
112-190



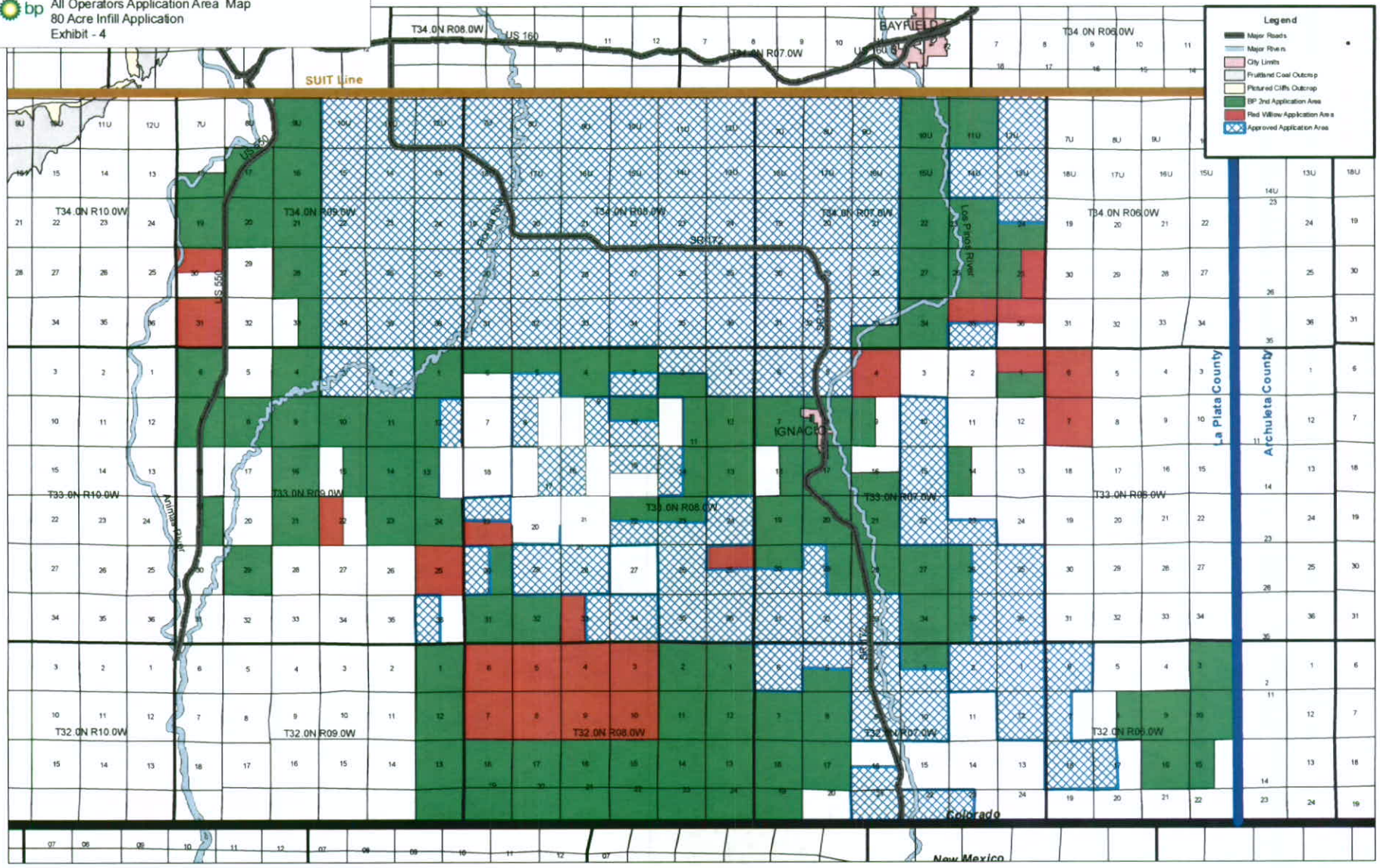
BP America Production Company - Durango Operations
80 Acre Infill Application - Land Use
Exhibit - 2



Created: June 12, 2006
By: Ellen Trost-Hapeman
File: C:\Data\Work\Projects\ENG_INFILL\80Acre\80_Acre_Application\Exhibit2-LandUse.mxd


FR CONVENTIONAL NATURAL GAS DEVELOPMENT
IGNACIO BLANCO FIELD
SOUTHERN UTE INDIAN RESERVATION
SOUTHWESTERN COLORADO
Mineral Ownership
Tribal Coal/Fee Oil & Gas
Fee Coal/Fee Oil & Gas
Tribal Coal/Fee Oil & Gas
Allotted
Fruitland Outcrop
Fruitland Outcrop
Fruitland Outcrop

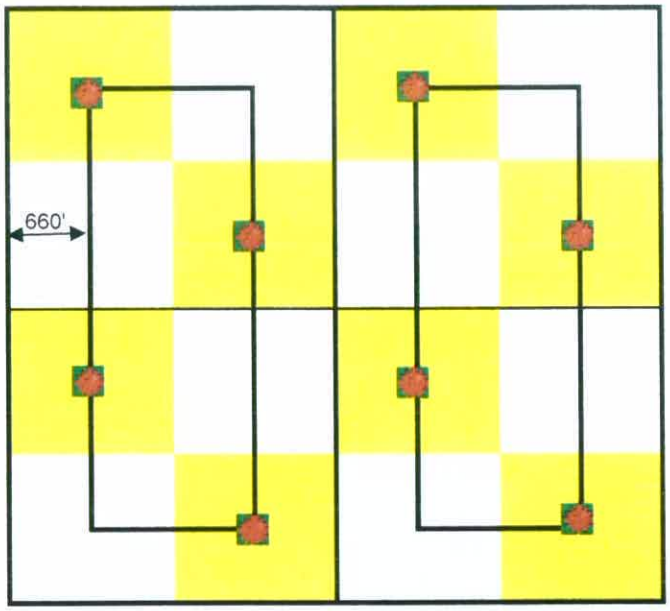
BP America Production Company - Durango Operations
All Operators Application Area Map
80 Acre Infill Application
Exhibit - 4



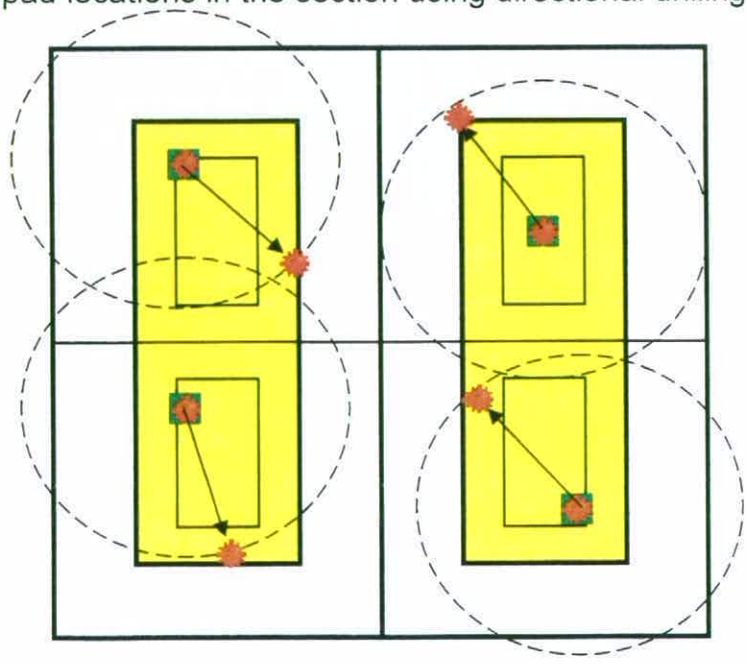
Created June 12, 2006
Revised June 26, 2006
By Ellen Trost-Hageman
File C:\Data Work\Projects\ENG_INFILL\80Acre\80_Acre_Application\Exhibit4-PriorApprovedAreaMap.mxd

80-ACRE INFILL
PLAN FOR DEVELOPMENT FROM EXISTING PADS

Theoretically, 80-acre well locations could use eight separate well pads in each section with 660' setback on alternate quarter-quarter sections



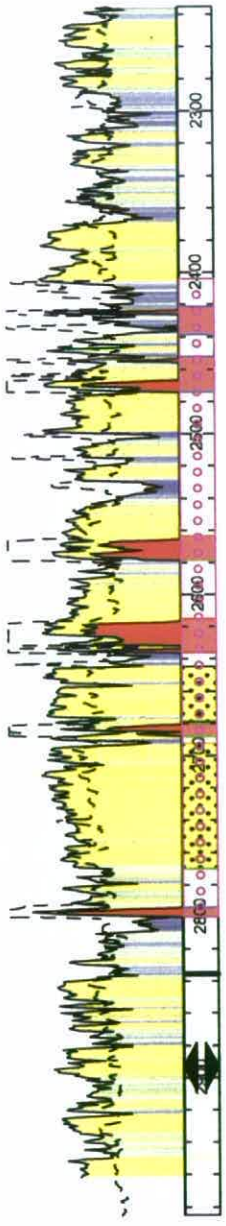
In order to minimize surface disturbance, BP proposes to drill the 80-acre infill wells from four (existing) well pad locations in the section using directional drilling kickout of +/-1320'



Fruitland Type Log

05067069860000
ELEV_KB : 6,546
TD : 3,001
SPUD_DATE : 3/31/1988
FRUITLAND COAL

BP AMERICA PRODUCTION COMPANY
FARMER GU #1
T33N R8W S12
SW NE SE



Kirtland Shale

Fruitland

Pictured Cliffs Sandstone

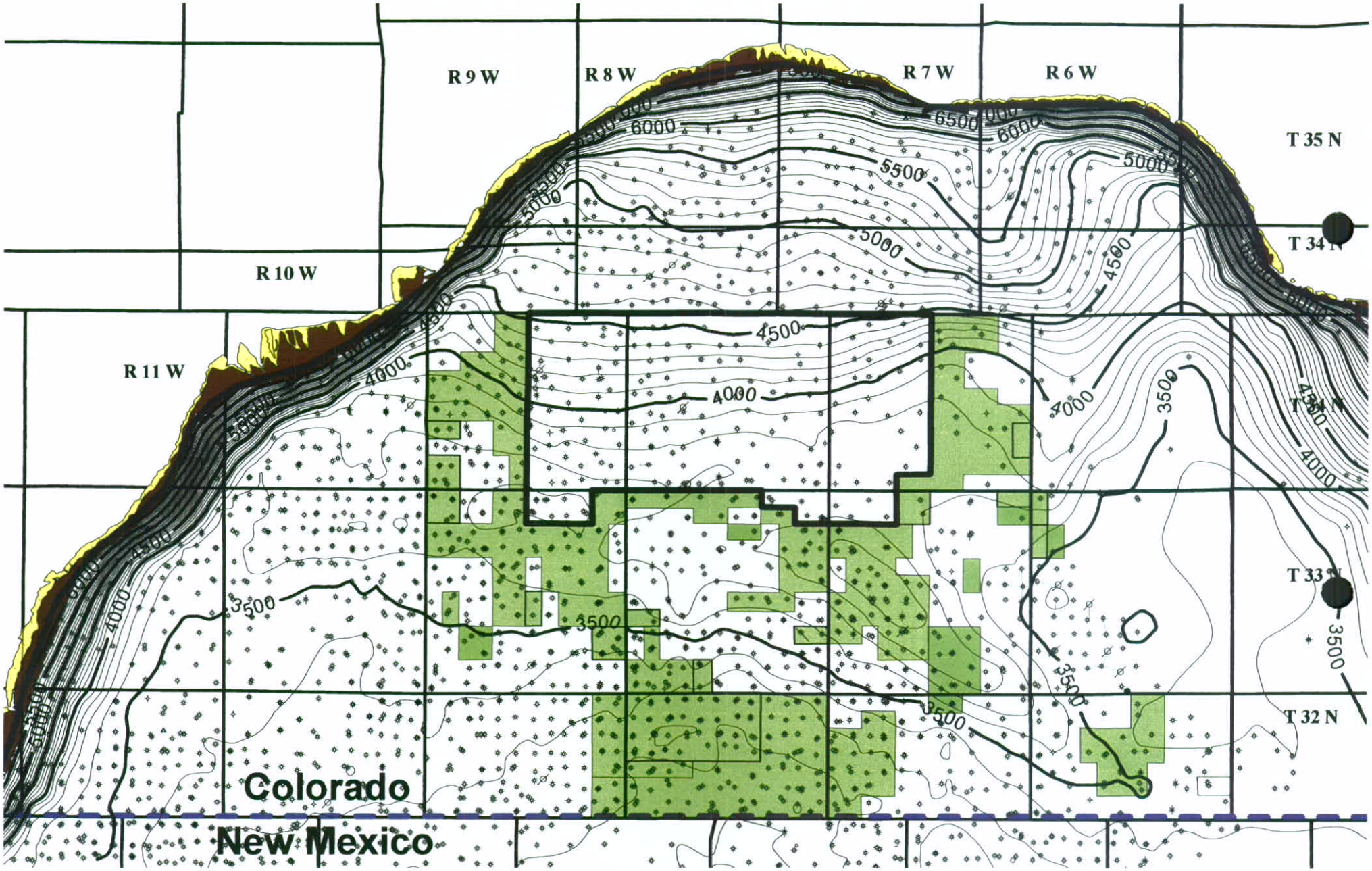
Pictured Cliffs Tongue 1

Pictured Cliffs Main Body

Coal = Bulk Density < 2.0 gms/cc

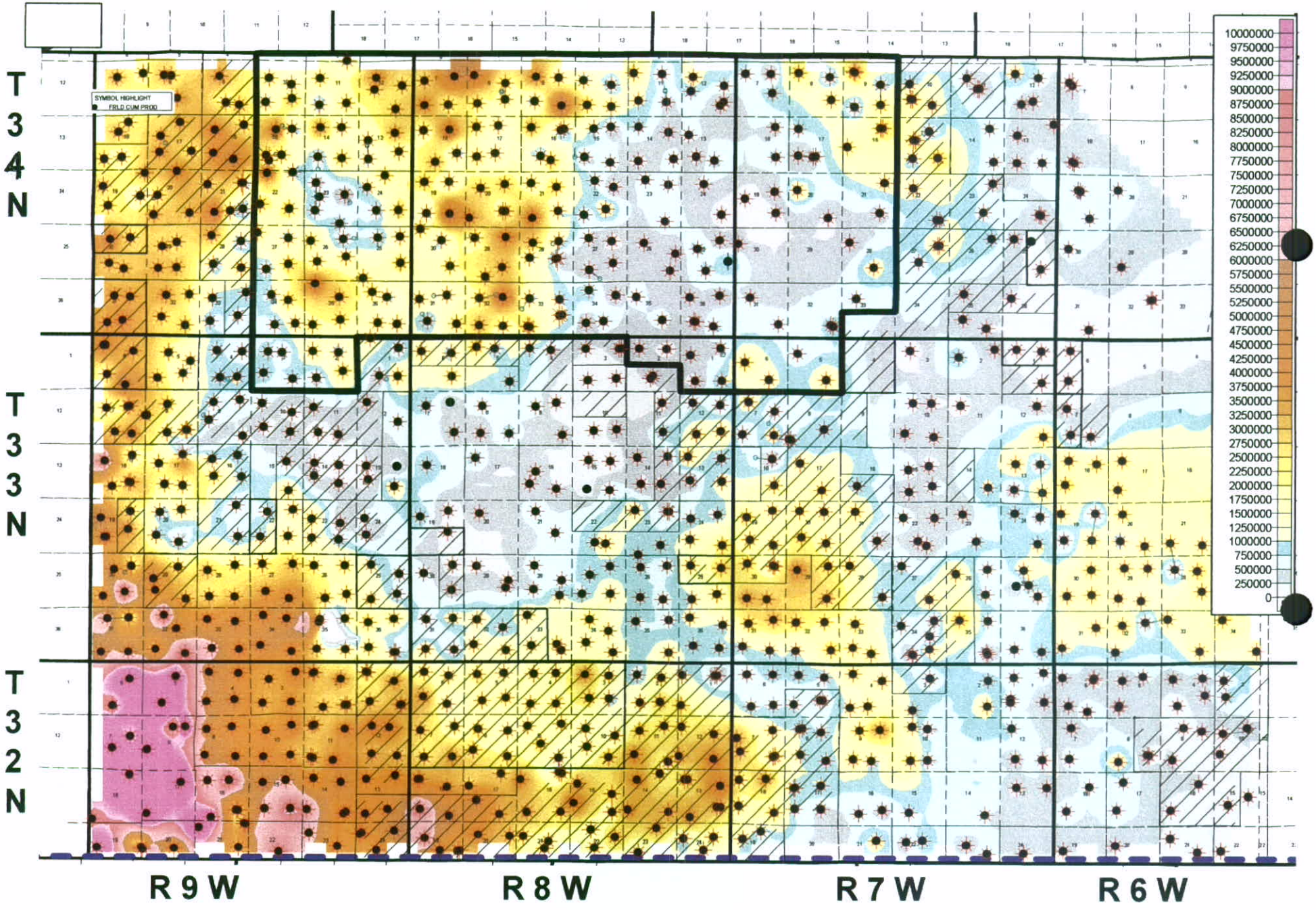
0		200	Gamma Ray - api units
1		2	Bulk Density - gms/cc
30		-10	Density Porosity - percent

Structure – Top of Pictured Cliffs / Base Fruitland

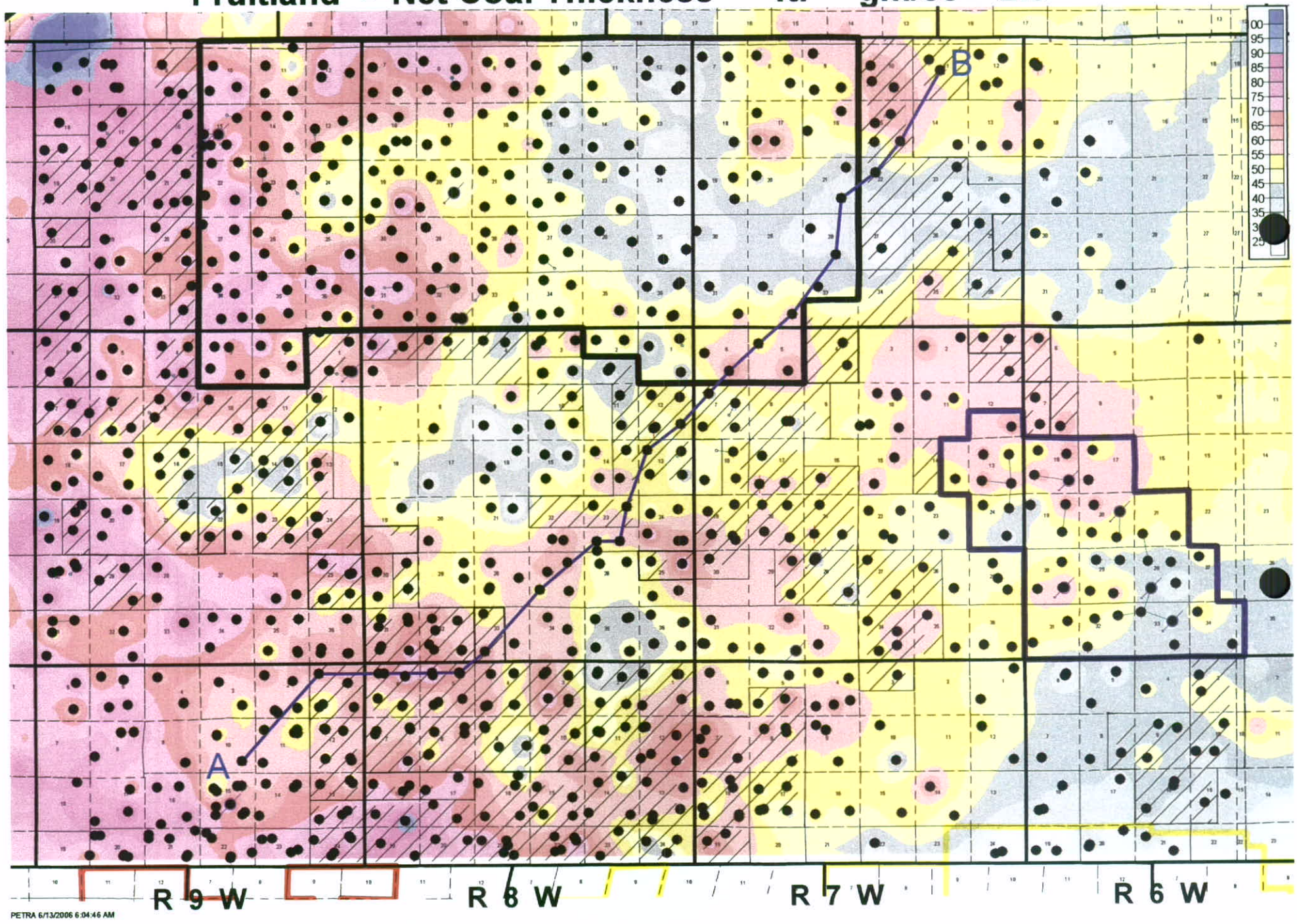


PETRA 6/13/2006 12:25:14 AM

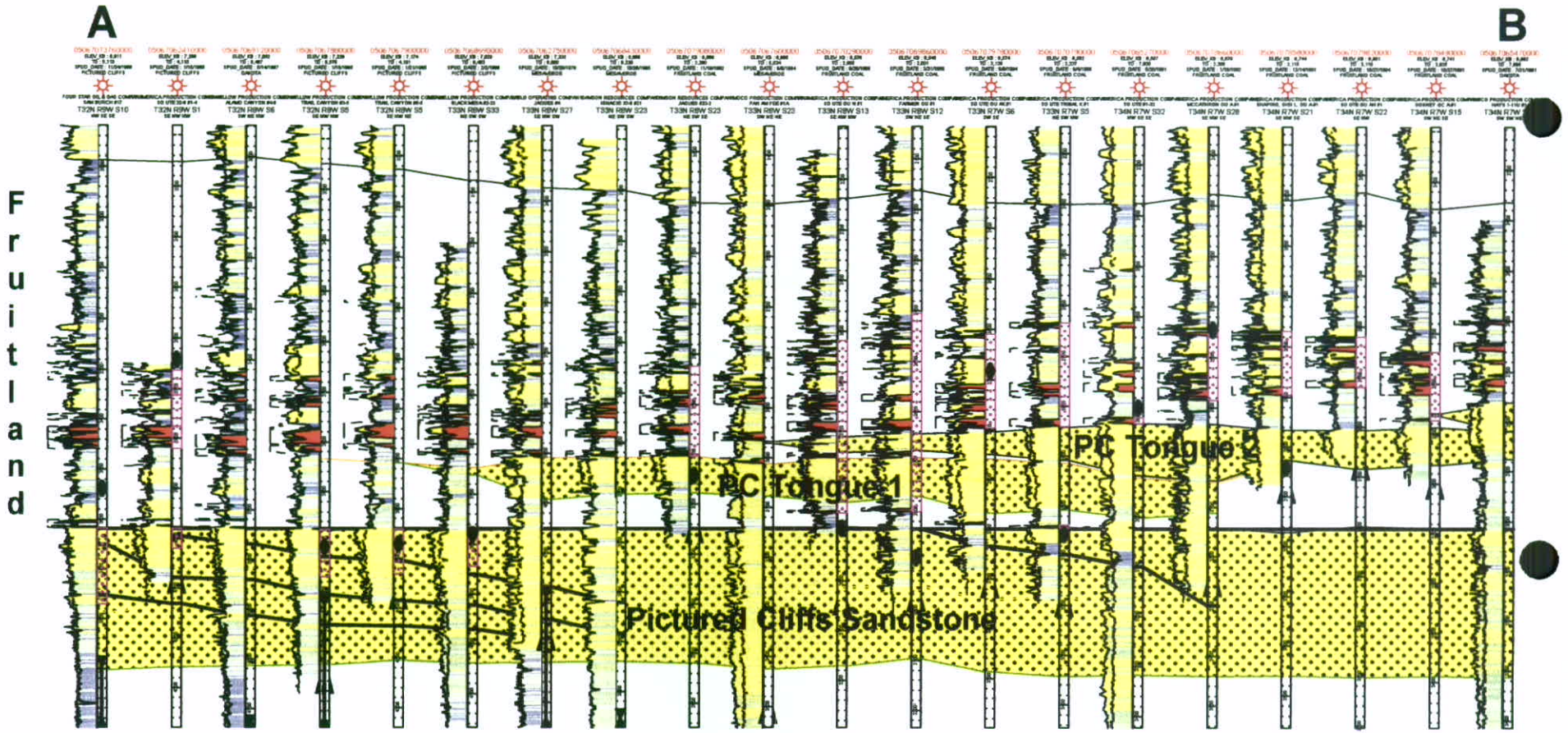
Fruitland - Cummulative Gas Production - mcf



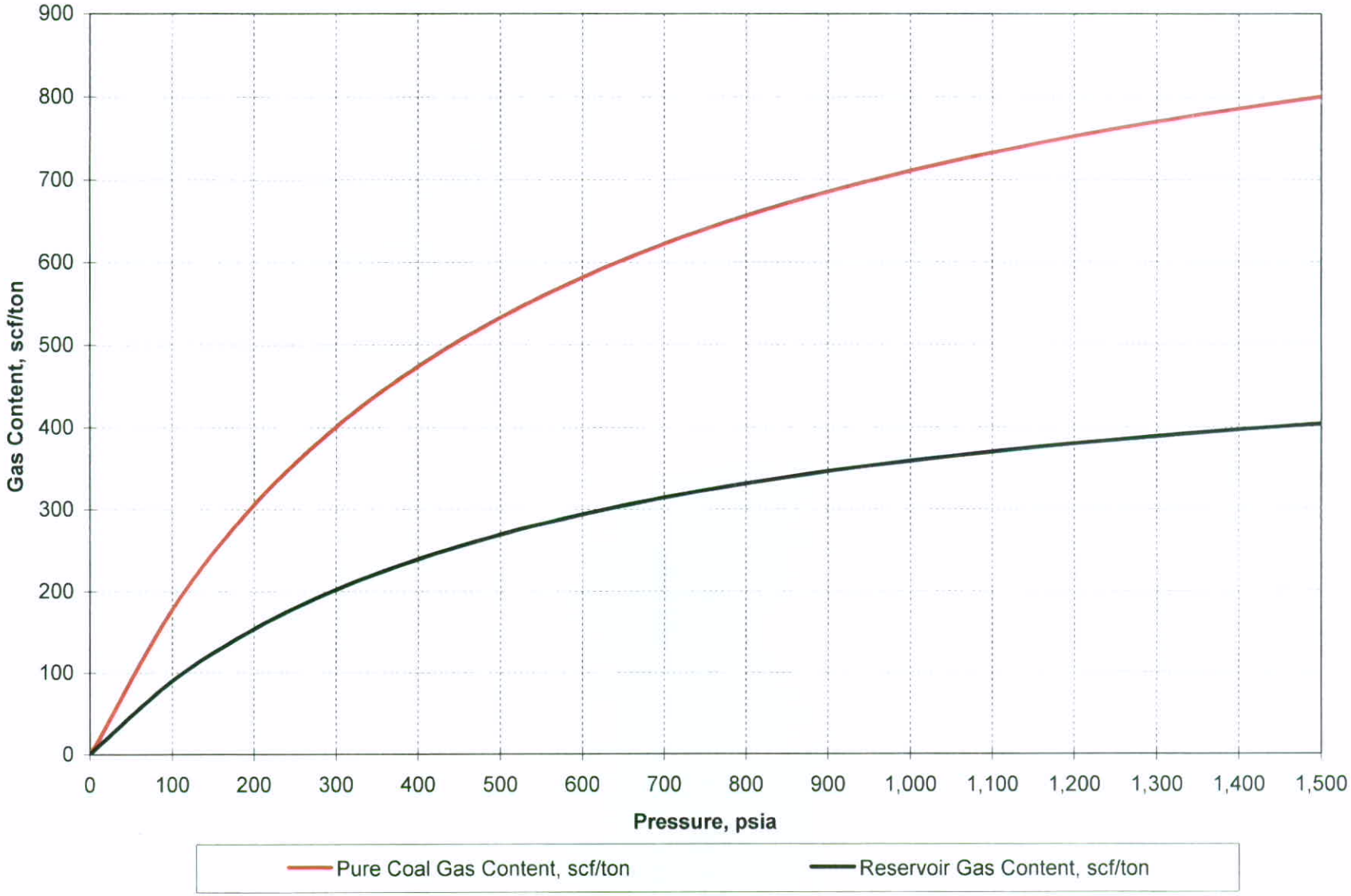
Fruitland - Net Coal Thickness - ft. - gm/cc > 2.0



Stratigraphic Cross Section



Methane Langmuir Isotherms
2nd 80-Acre Infill Application Area Reservoir Properties

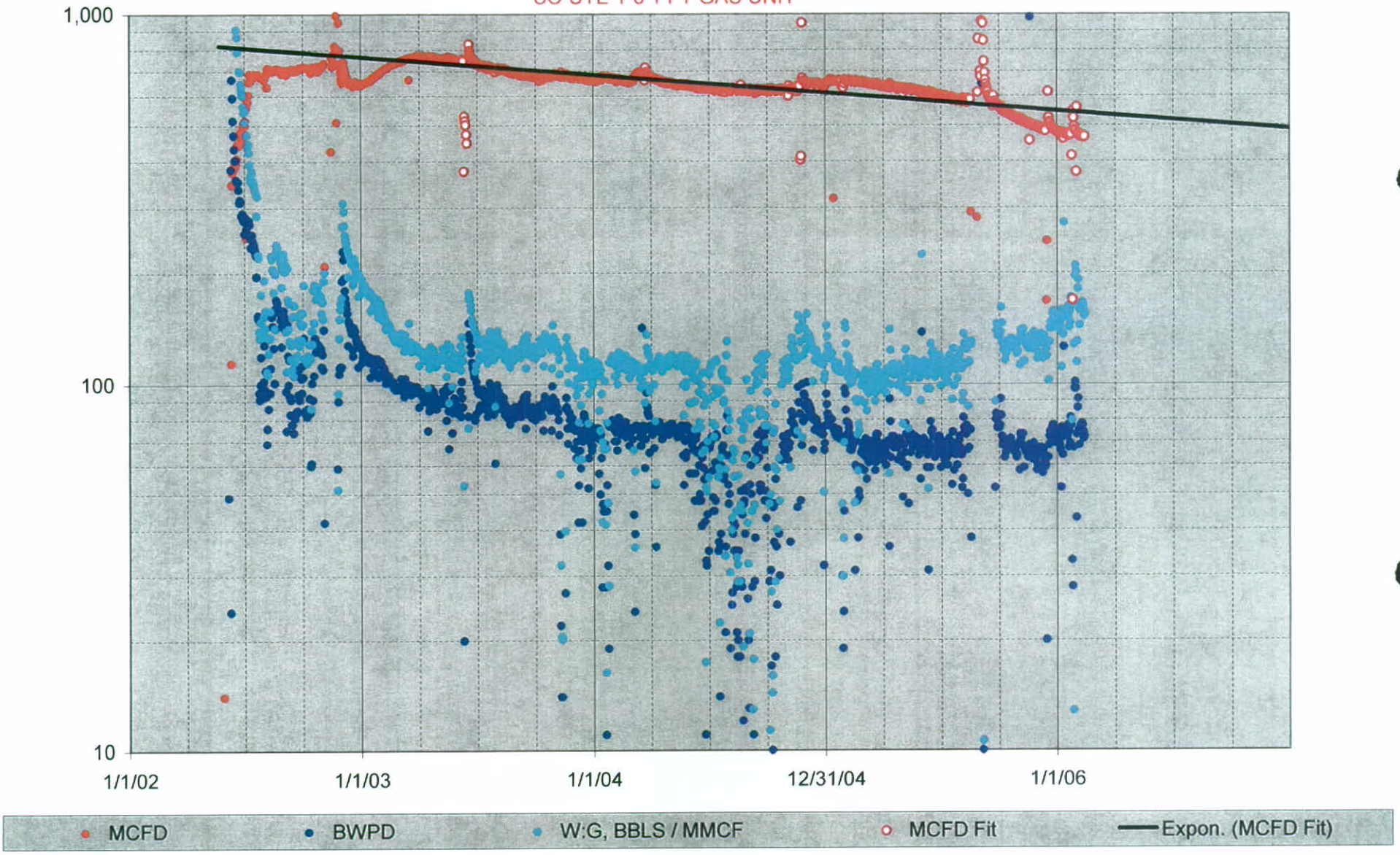


Cum Gas @ 02/13/06, MMCF = **858**

Well Performance

$y = 7.76329E+07e^{-3.06400E-04x}$

SO UTE 1-8 1 FT GAS UNIT

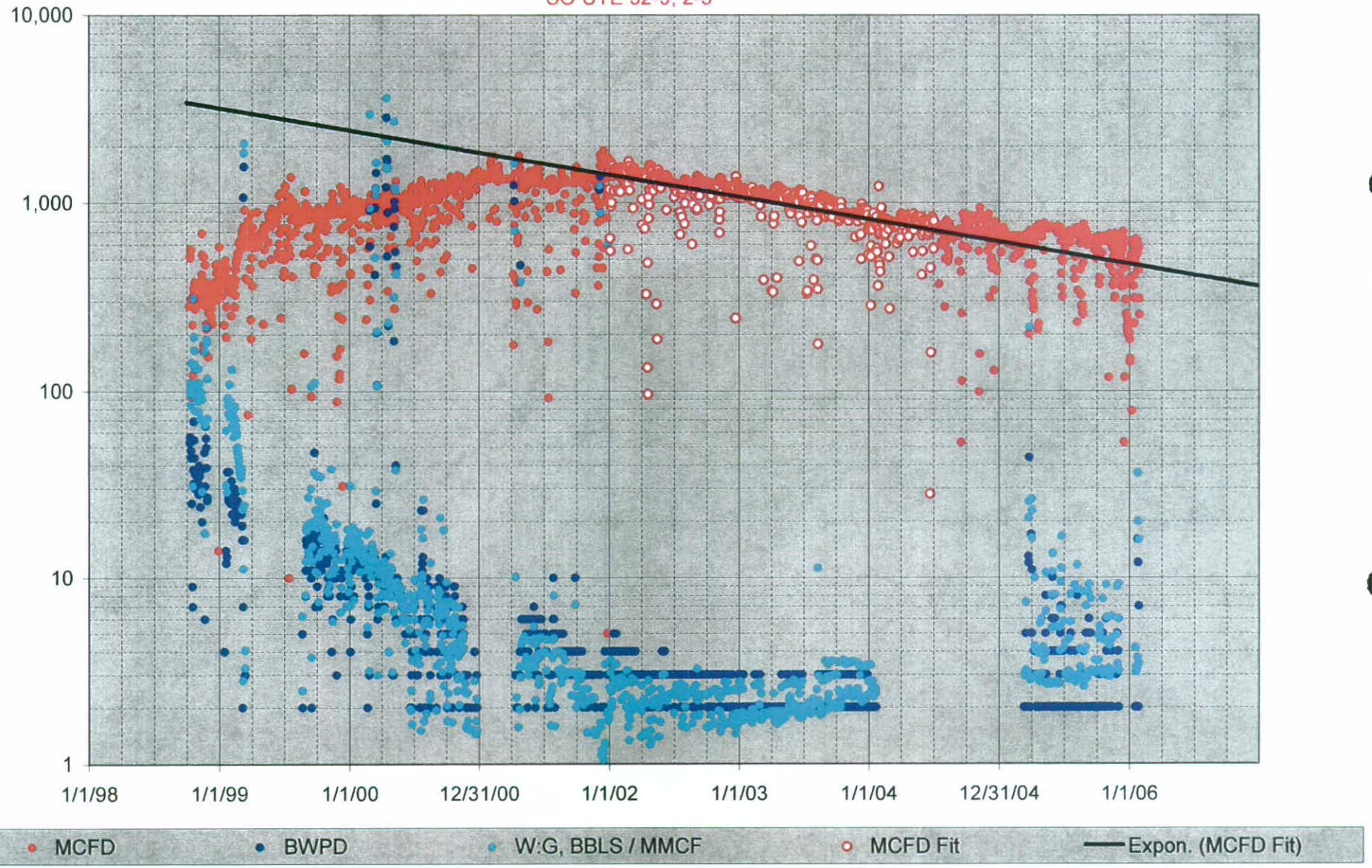


Cum Gas @ 01/30/06, MMCF **2,391**

Well Performance

$y = 1.74470E+15e^{-7.47361E-04x}$

SO UTE 32-9; 2-5

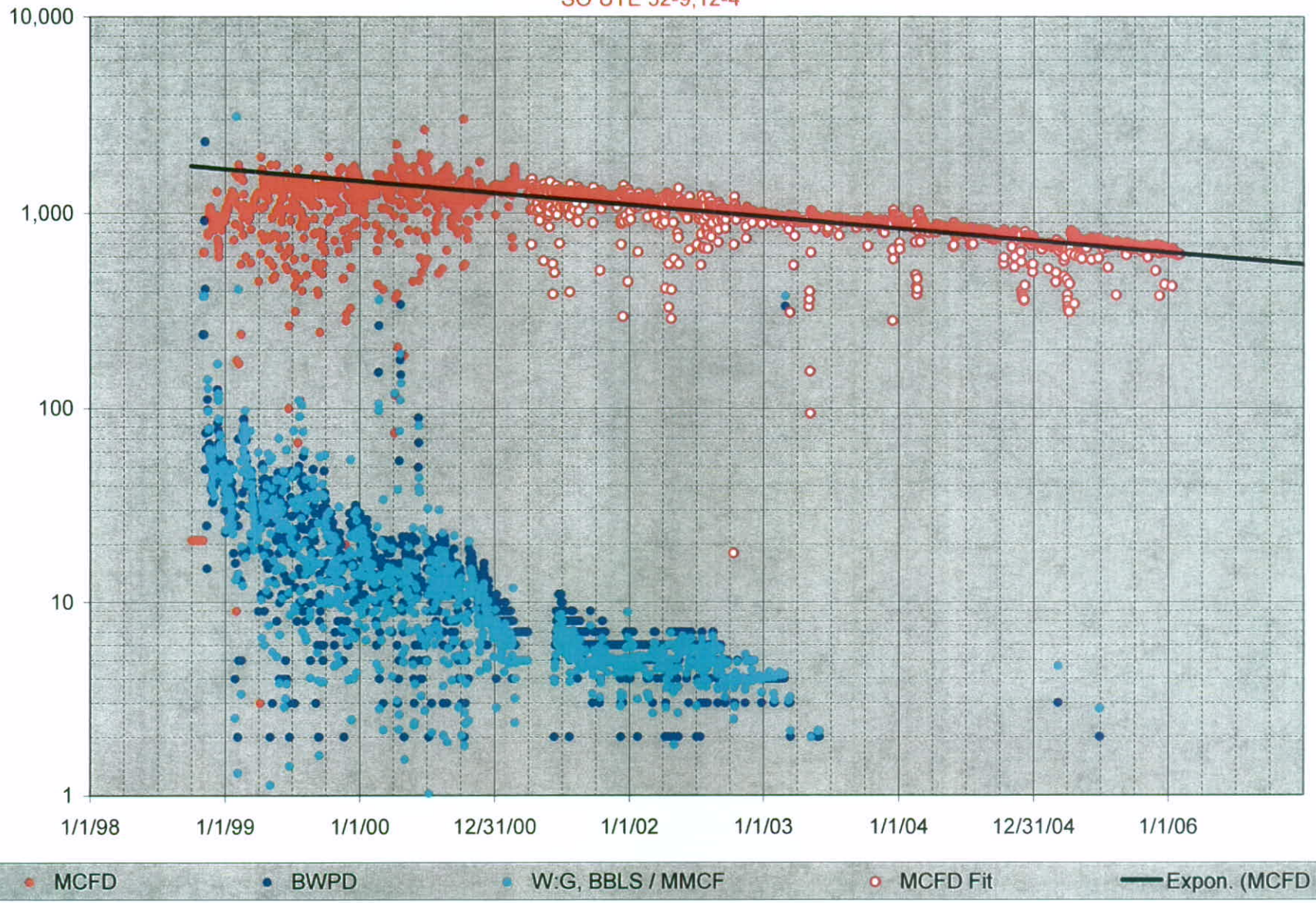


Cum Gas @ 01/29/06, MMCF **2,568**

Well Performance

$y = 1.6652E+09e^{-3.8189E-04x}$

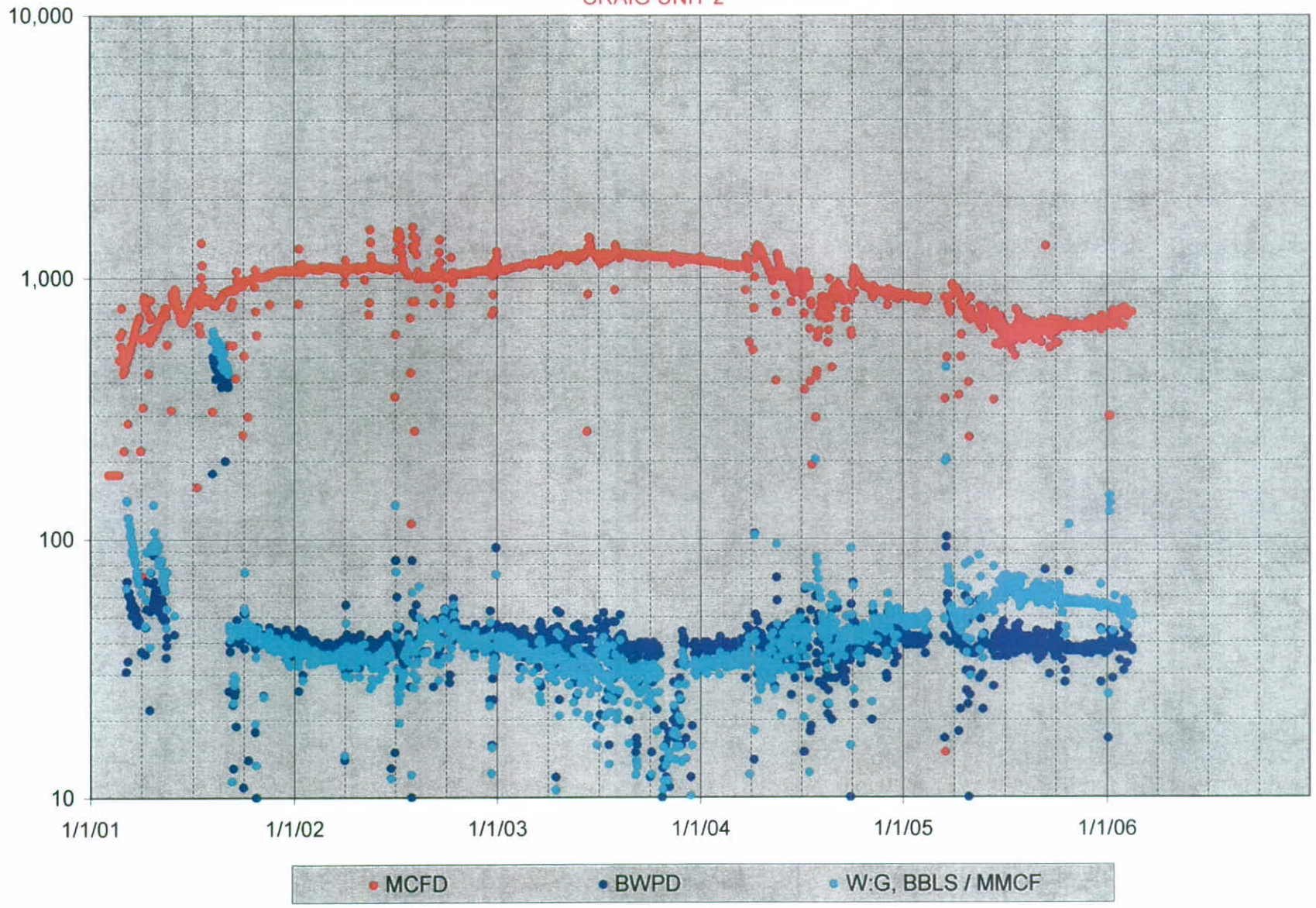
SO UTE 32-9;12-4



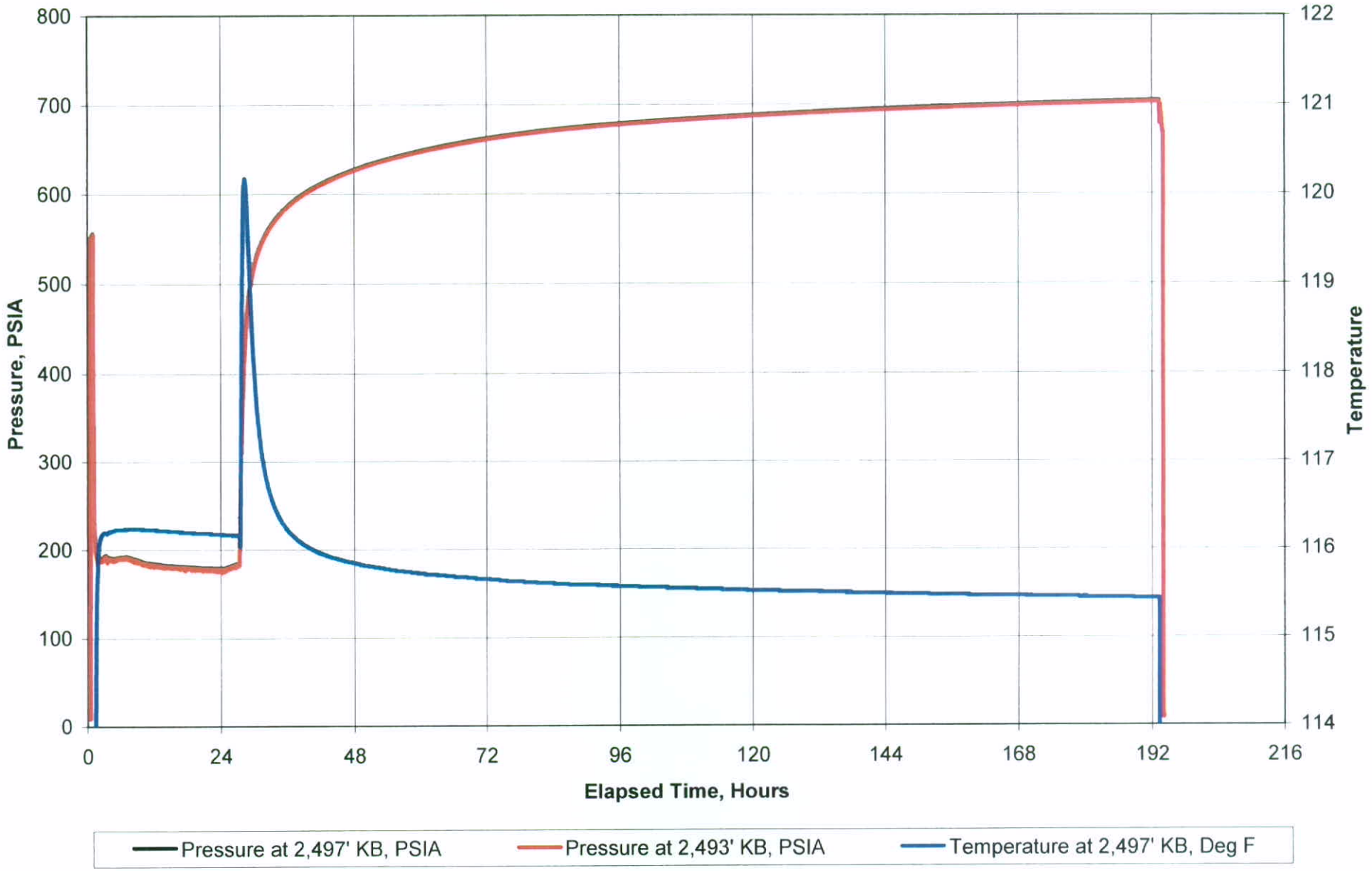
Cum Gas @ 02/01/06, MMCF **1,674**

Well Performance

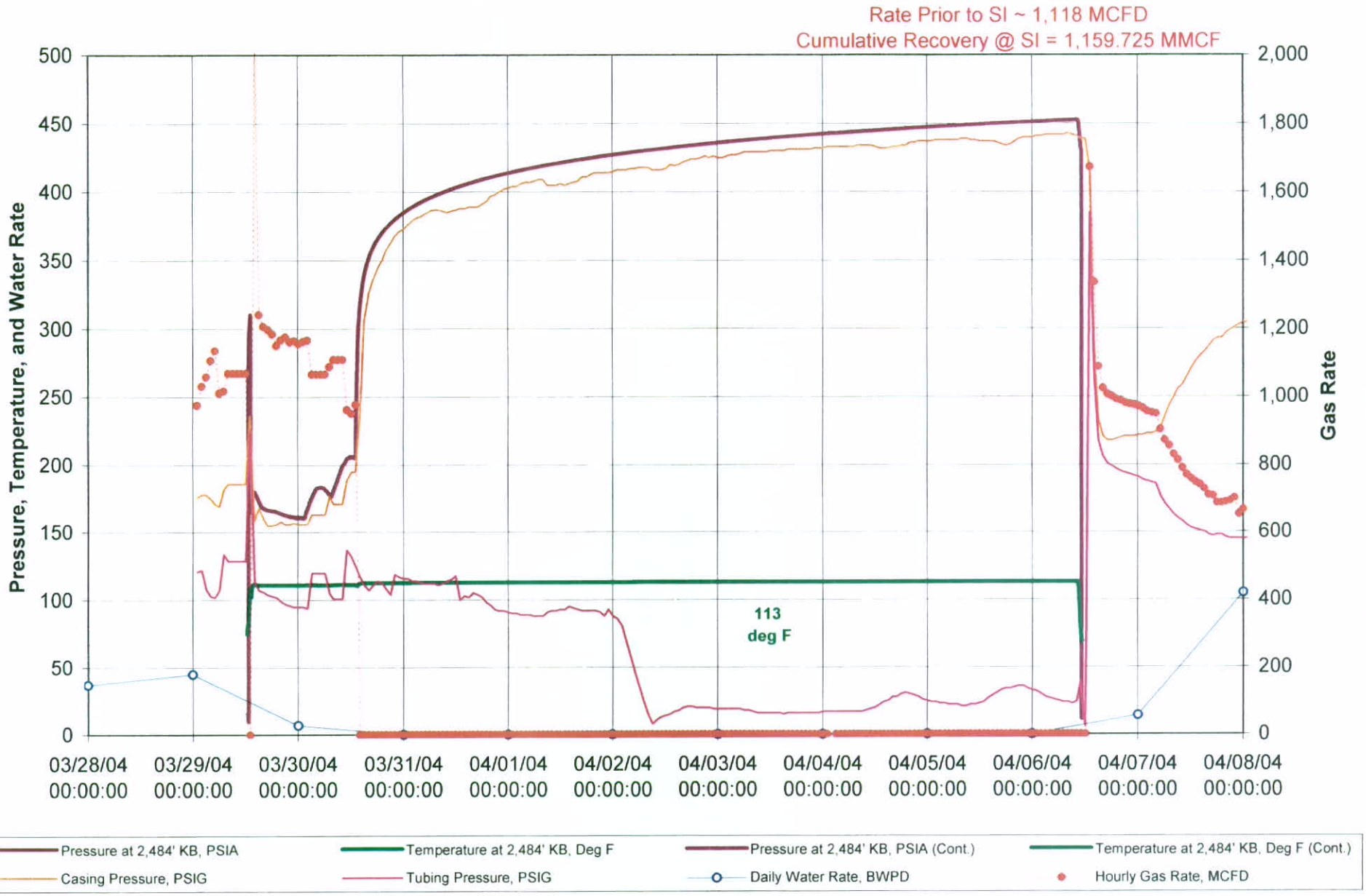
CRAIG UNIT 2



Craig Gas Unit #2 (infill) - Three Month PBU Test



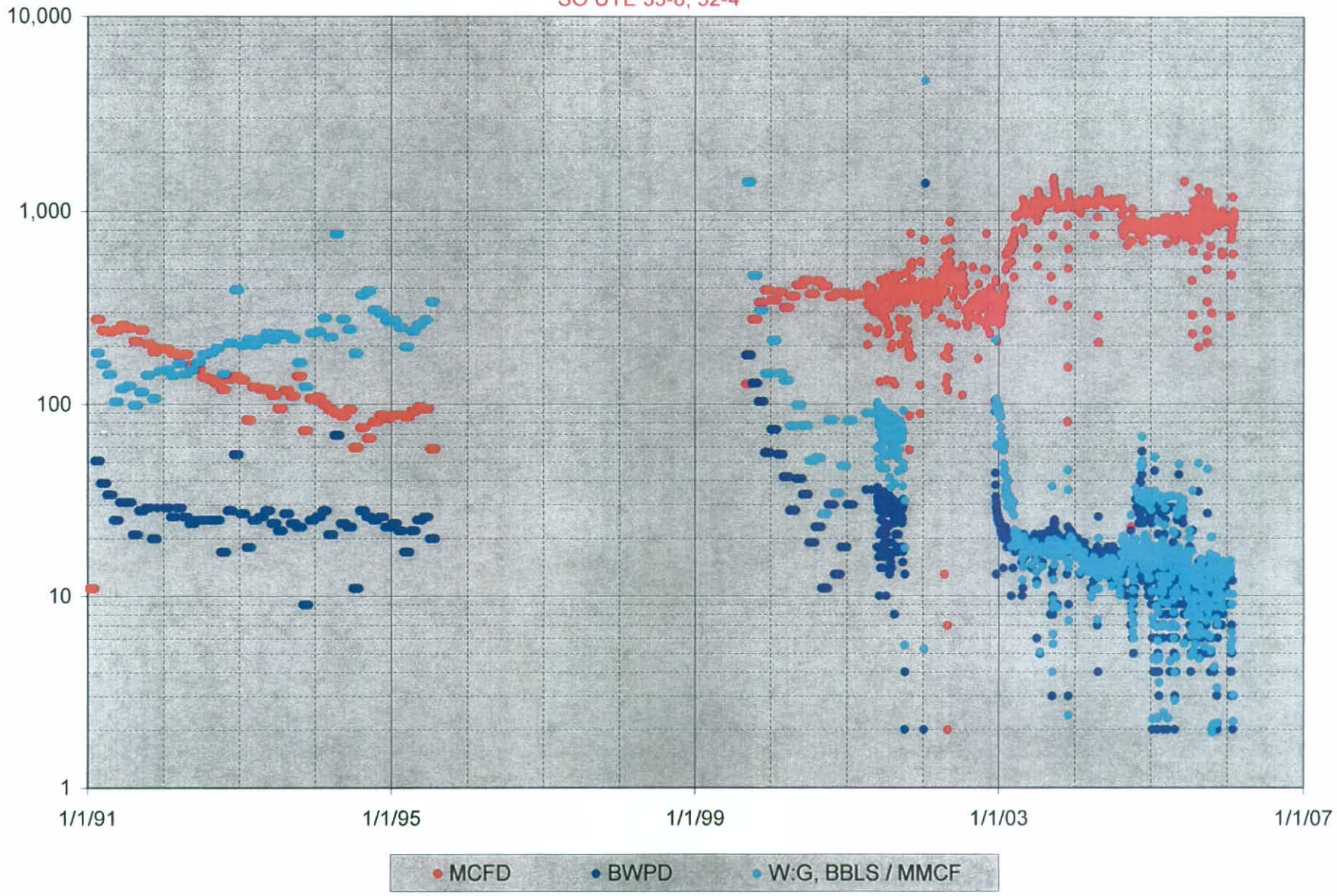
Craig Gas Unit No. 2; Three-Year PBU Test



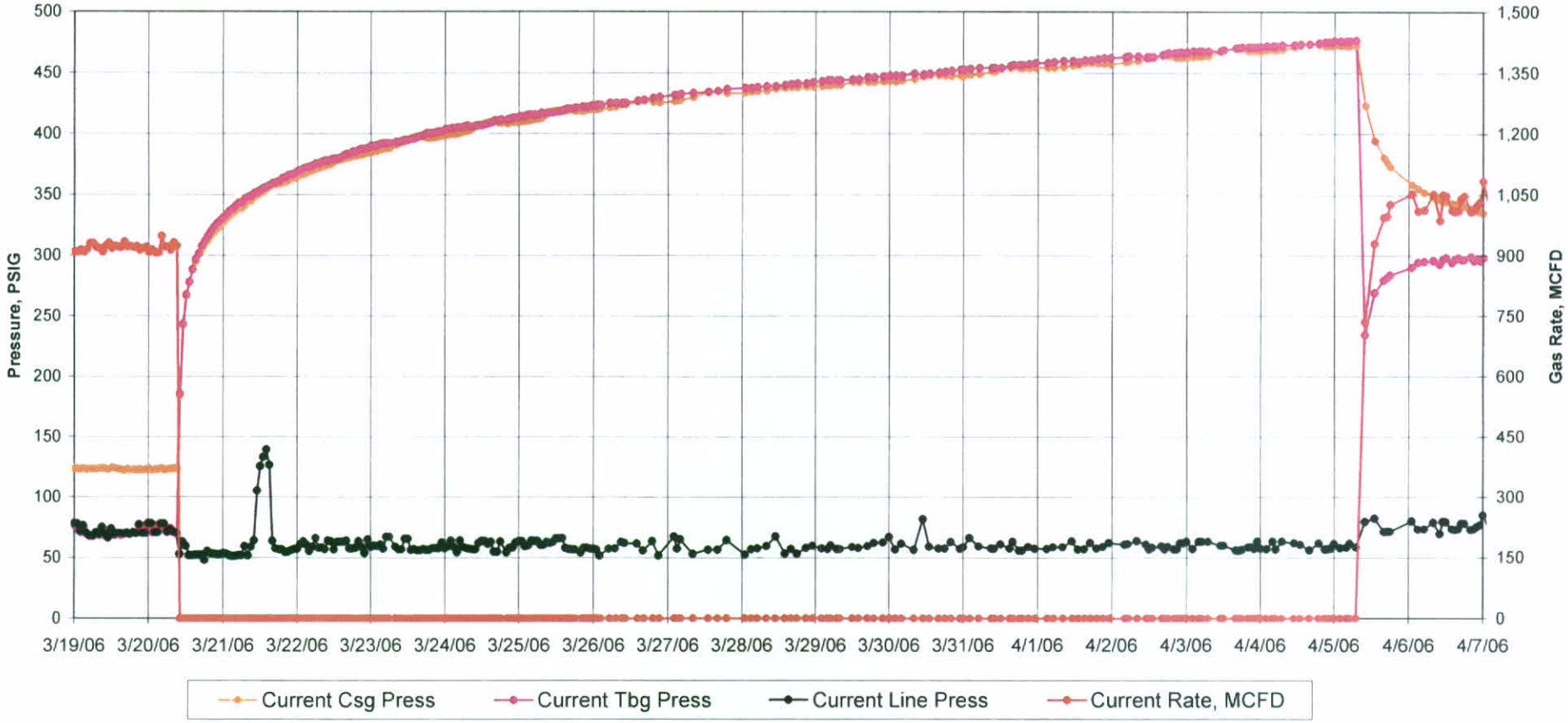
Cum Gas @ 01/31/06, MMCF **1,785**

Well Performance

SO UTE 33-8; 32-4

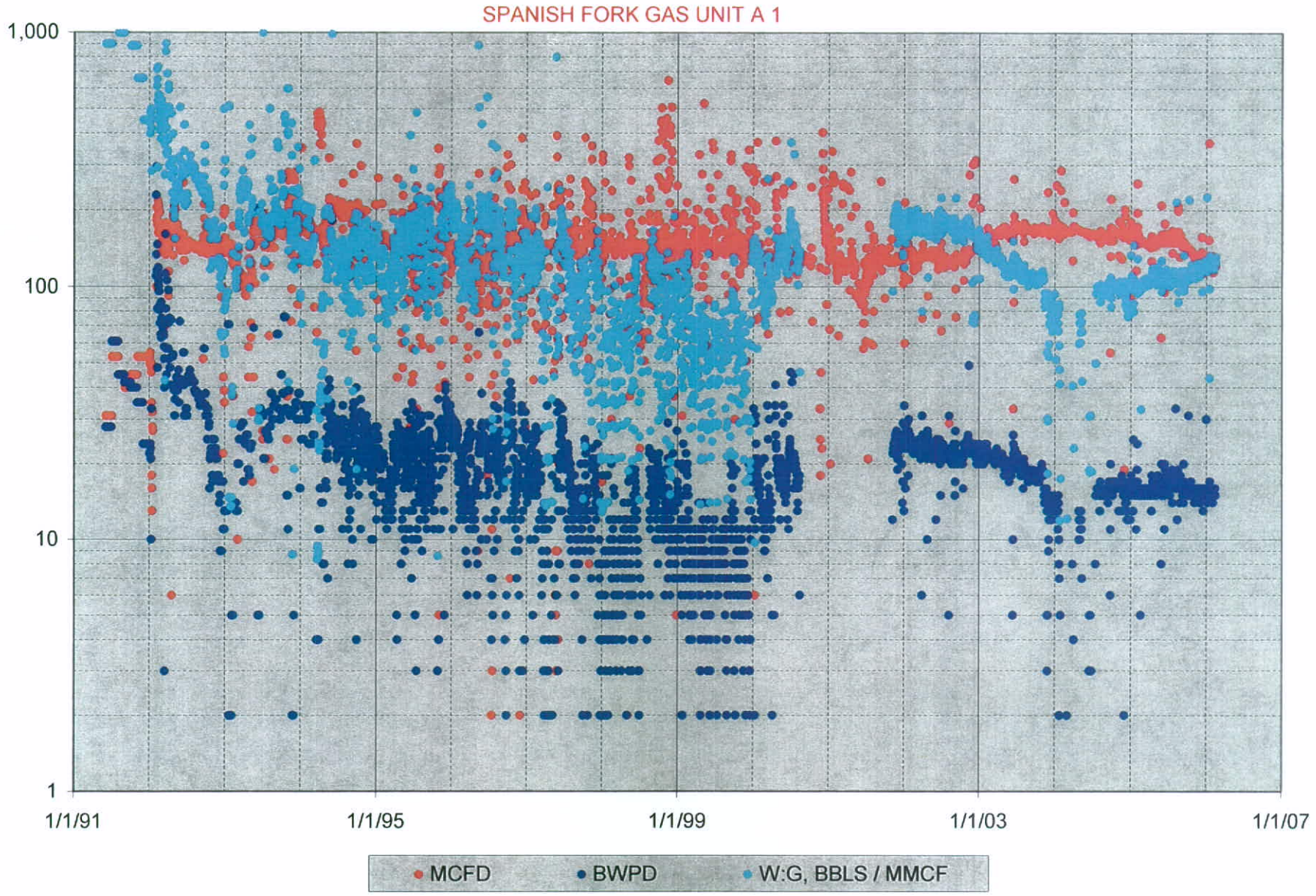


SO UTE 33-8; 32-4

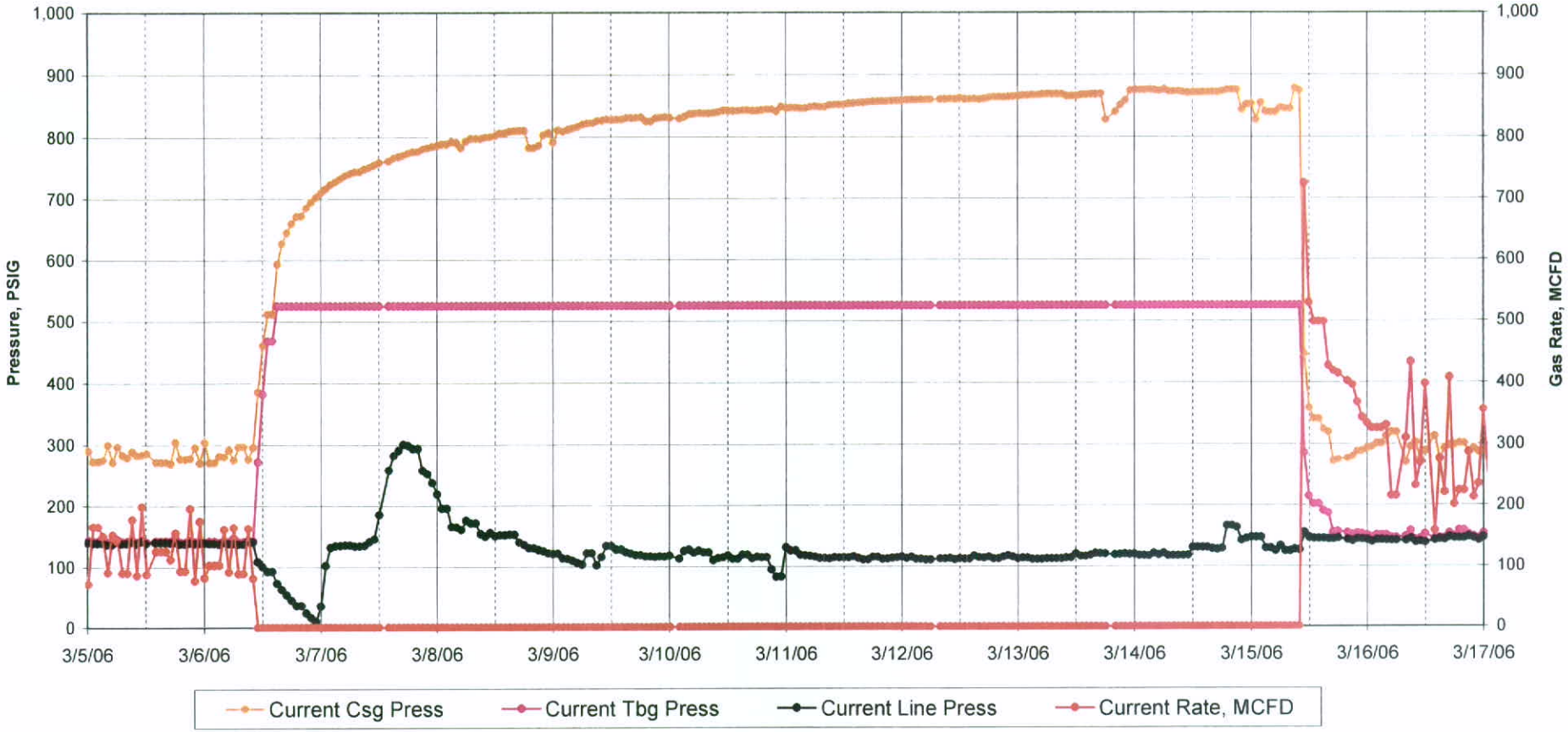


Cum Gas @ 01/29/06, MMCF **742**

Well Performance



SPANISH FORK GAS UNIT A 1

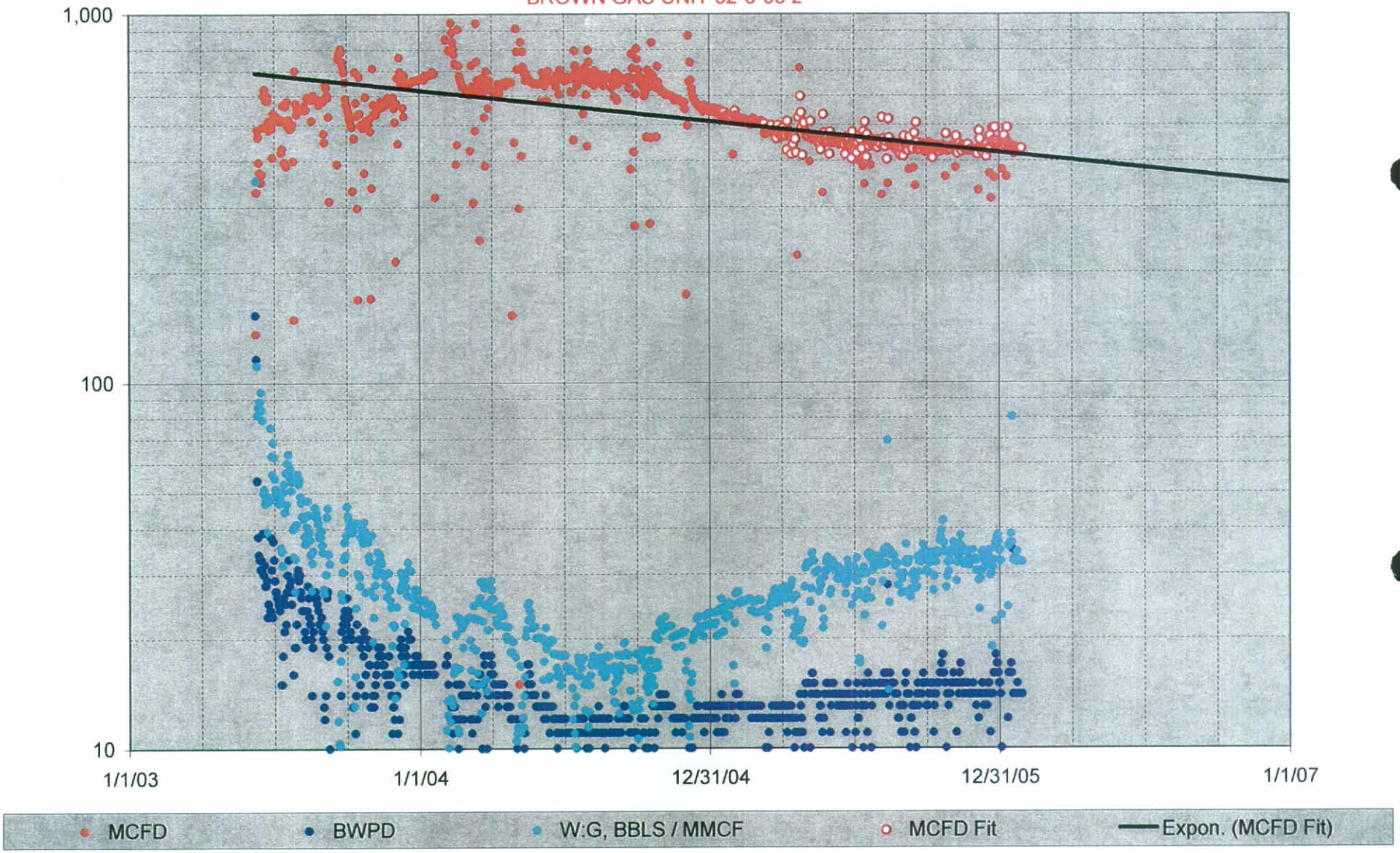


Cum Gas @ 01/29/06, MMCF **514**

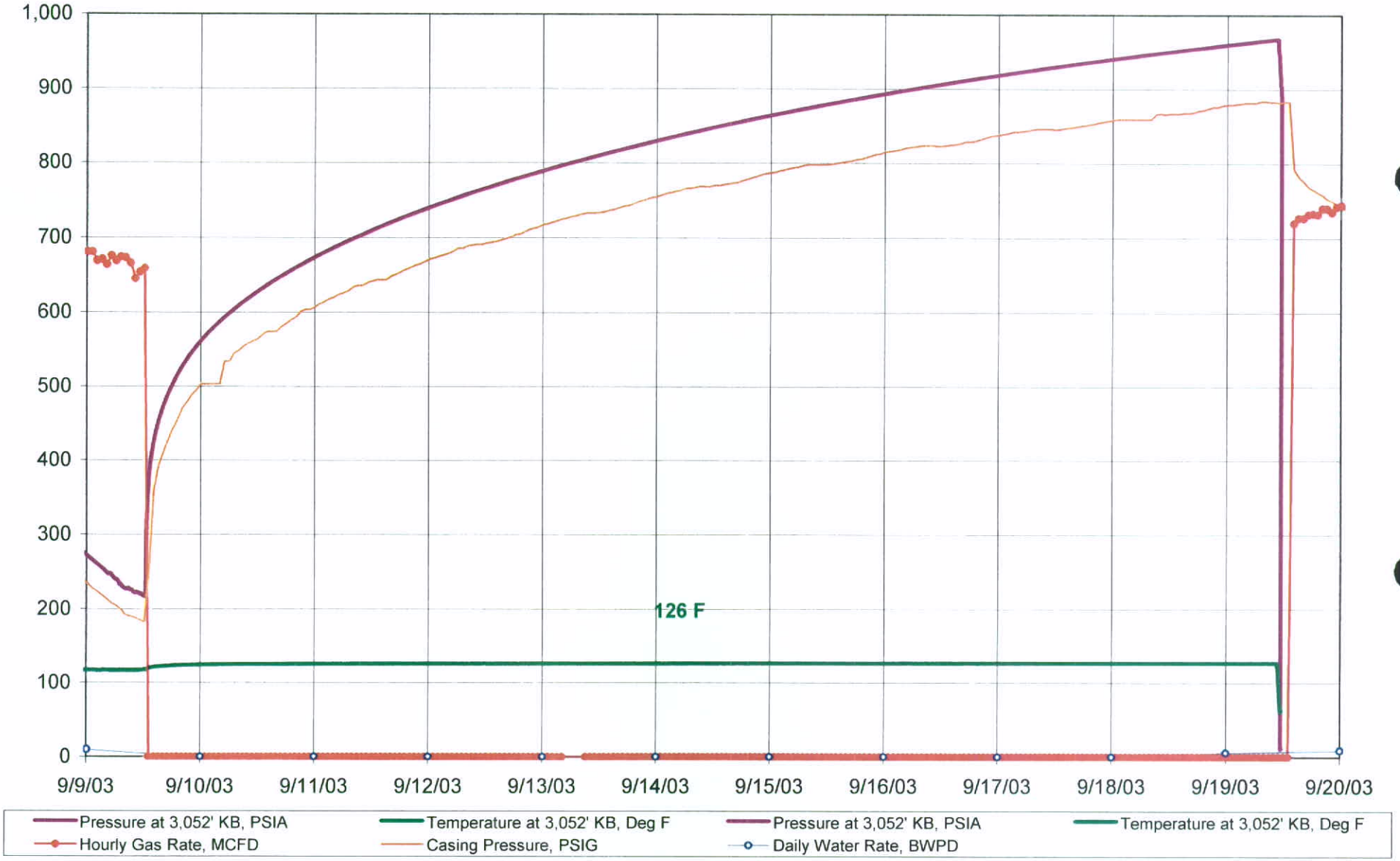
$y = 3.07196E+11e^{-5.27037E-04x}$

Well Performance

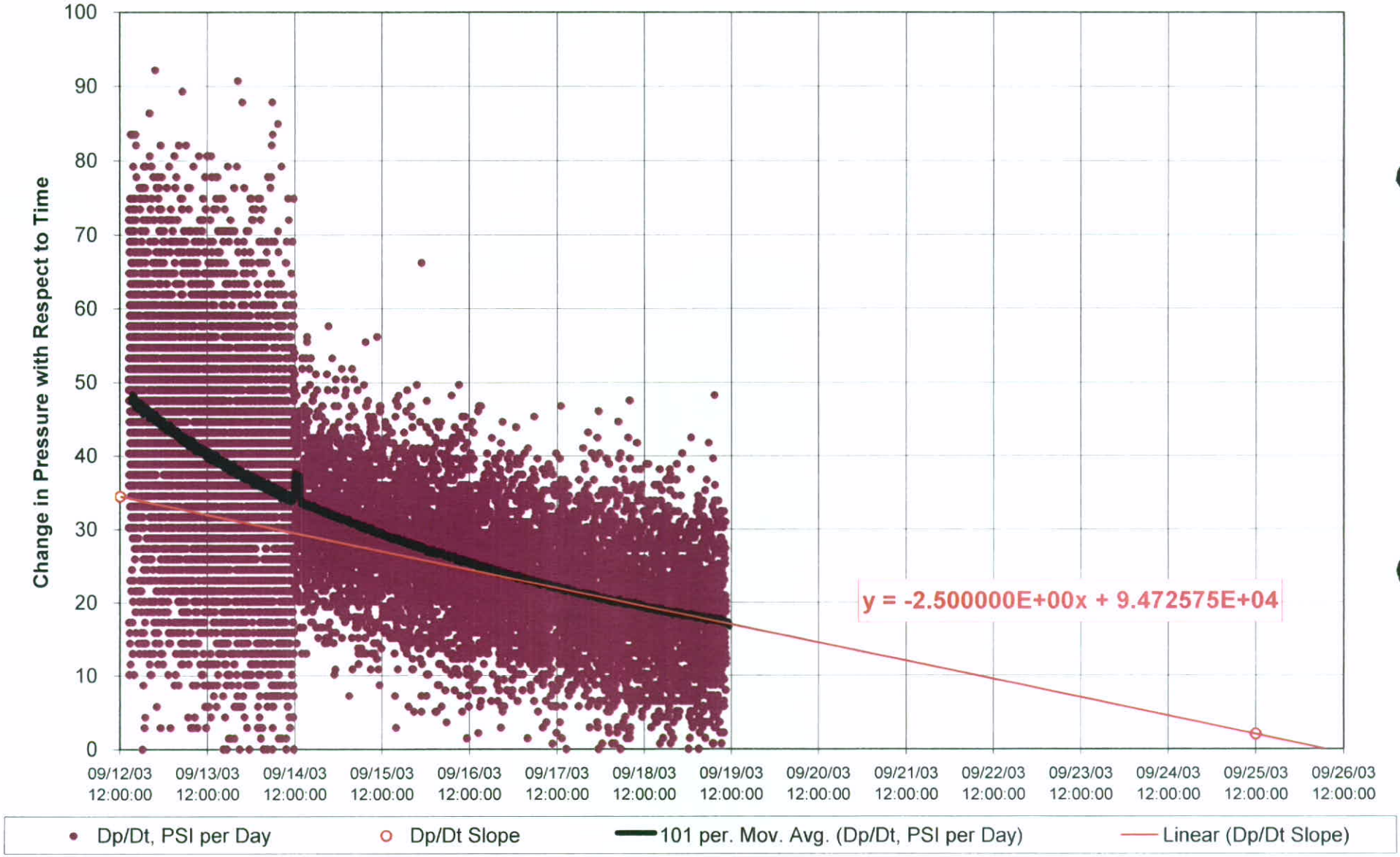
BROWN GAS UNIT 32-6-03 2

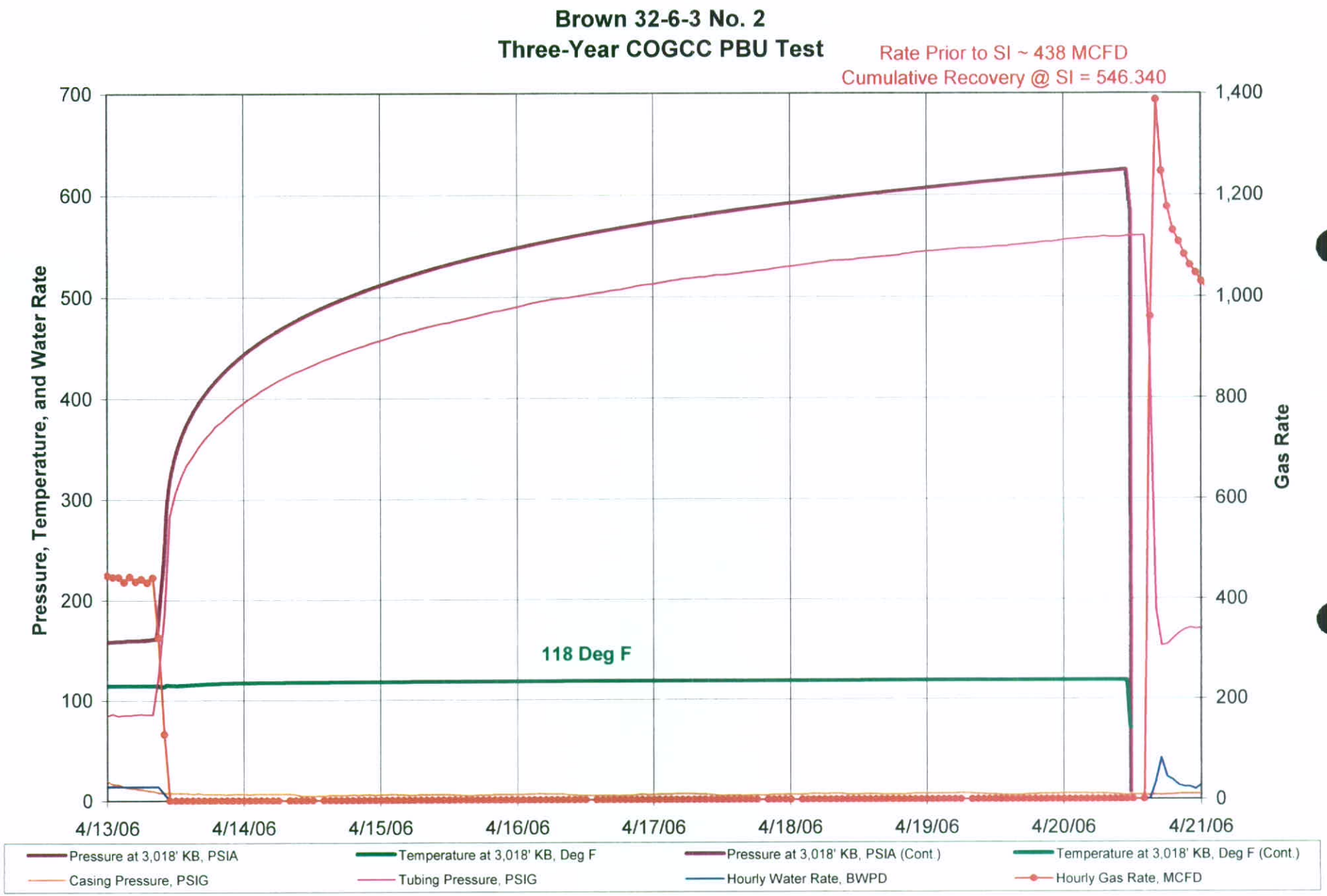


BROWN GU 32-6-3 NO. 2
90-Day COGCC PBU Test



BROWN GU 32-6-3 NO. 2
90-Day COGCC PBU Test

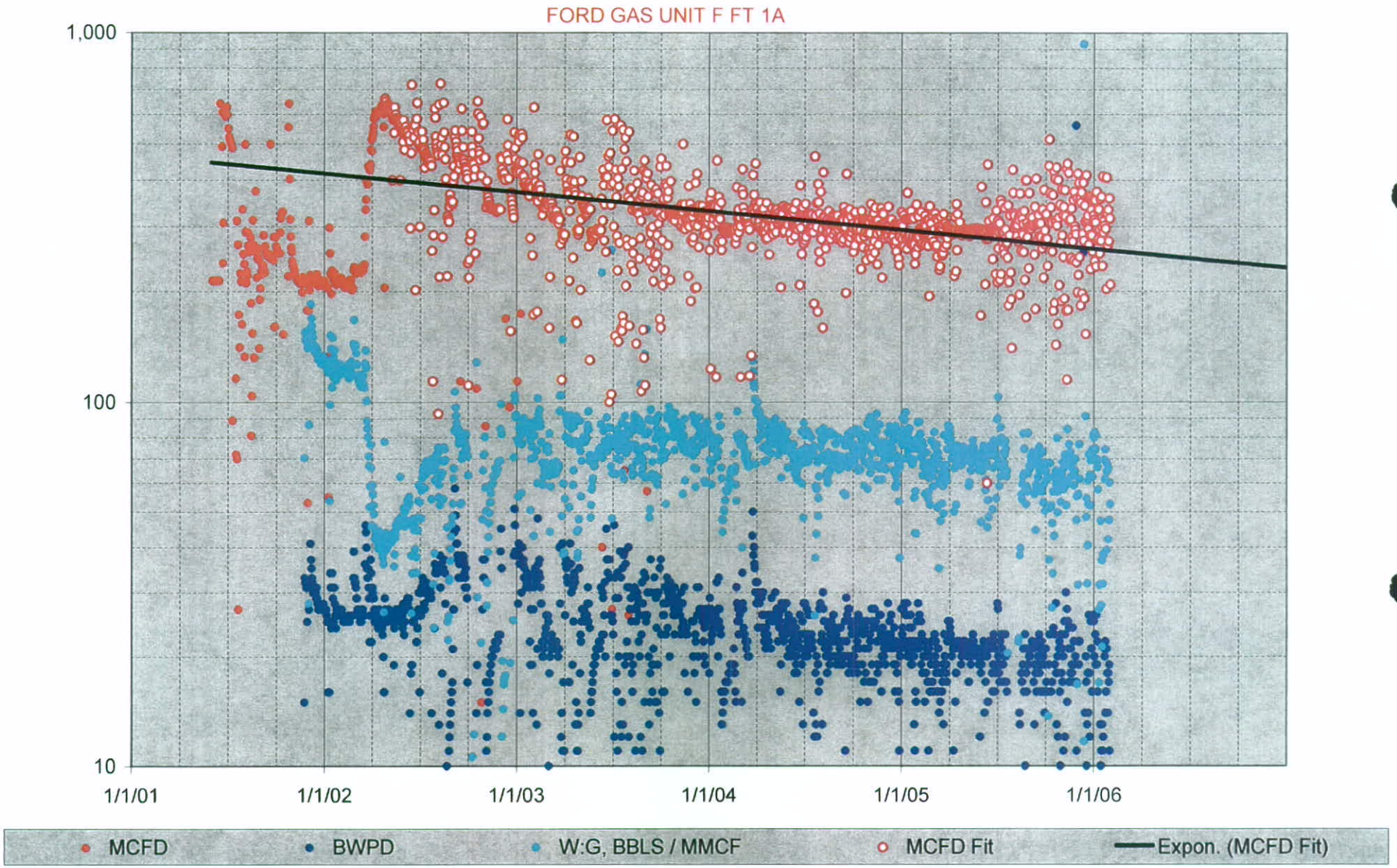



Brown 32-6-3 No. 2
Three-Year COGCC PBU Test
Rate Prior to SI ~ 438 MCFD
Cumulative Recovery @ SI = 546.340
Pressure, Temperature, and Water Rate
Gas Rate
700
600
500
400
300
200
100
0
1,400
1,200
1,000
800
600
400
200
0
118 Deg F
4/13/06
4/14/06
4/15/06
4/16/06
4/17/06
4/18/06
4/19/06
4/20/06
4/21/06
Pressure at 3,018' KB, PSIA
Temperature at 3,018' KB, Deg F
Pressure at 3,018' KB, PSIA (Cont.)
Temperature at 3,018' KB, Deg F (Cont.)
Casing Pressure, PSIG
Tubing Pressure, PSIG
Hourly Water Rate, BWPD
Hourly Gas Rate, MCFD

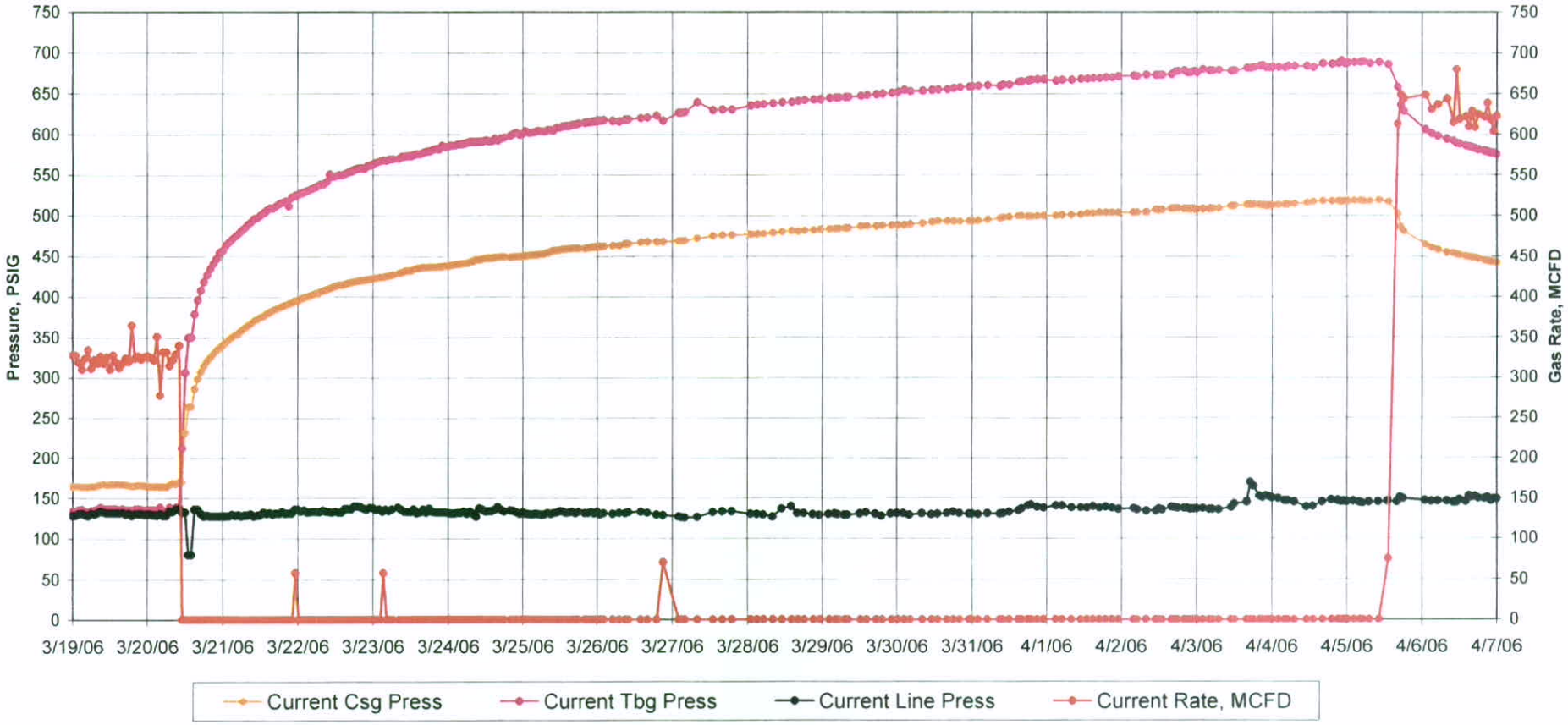
Cum Gas @ 01/31/06, MMCF **531**

Well Performance

$y = 6.35391E+07e^{-3.20324E-04x}$



FORD GAS UNIT F FT 1A



Gradient Data of 6/13/01

Recorder Depth, KB	Pressure, PSIG	Pressure, PSIA	Average Depth, KB	Gradient, PSI/ft
0	1,008	1,020		
1,000	1,033	1,045	500	0.0250
2,000	1,056	1,068	1,500	0.0230
2,300	1,139	1,151	2,150	0.2767
2,400	1,182	1,194	2,350	0.4300
2,500	1,225	1,237	2,450	0.4300
2,706	*1,314*	*1,326*		

Gradient Data of 10/24/01

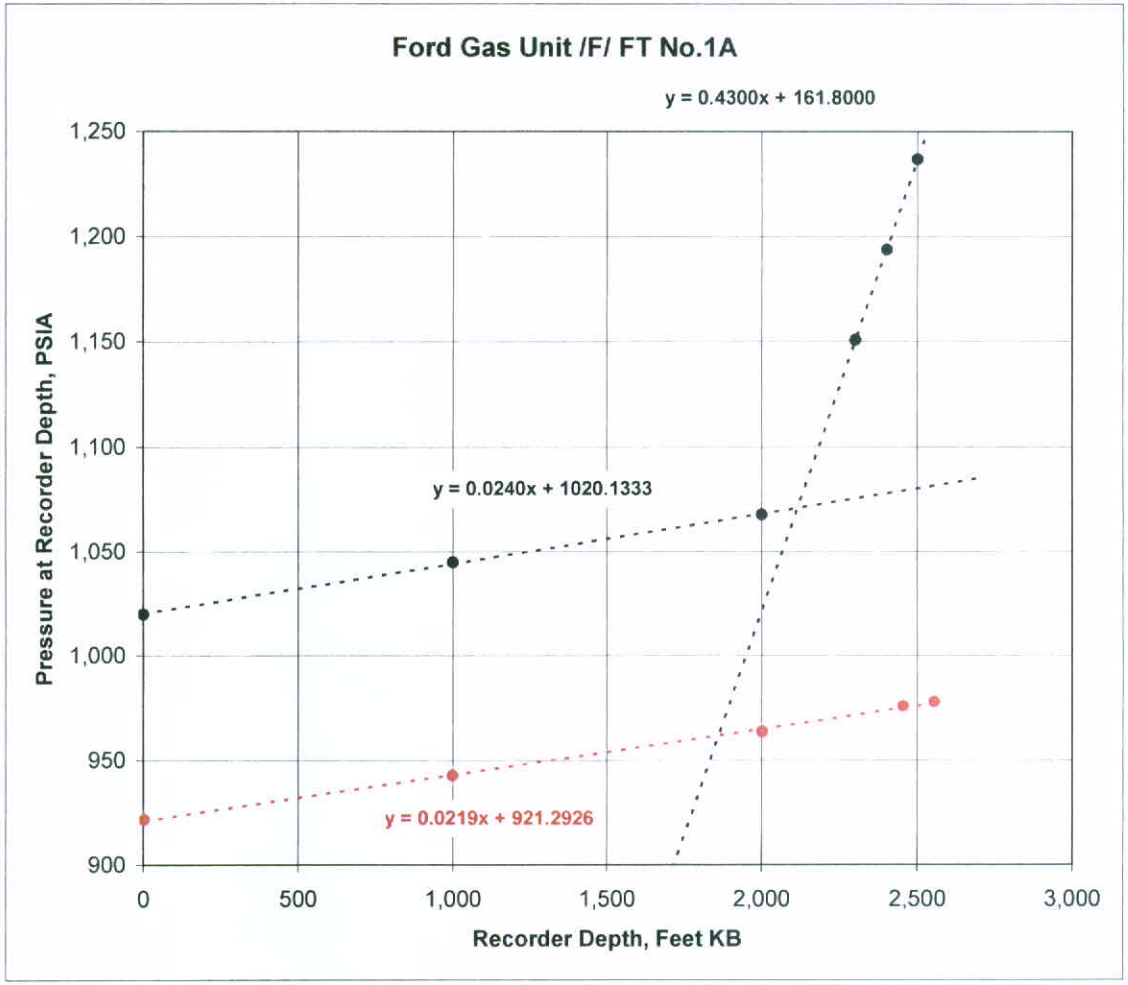
Recorder Depth, KB	Pressure, PSIG	Pressure, PSIA	Average Depth, KB	Gradient, PSI/ft
0	910	922		
1,000	931	943	500	0.0210
2,000	952	964	1,500	0.0210
2,455	964	976	2,228	0.0264
2,555	966	978	2,505	0.0200

Pressure @ 2,500' KB, PSIA

6/13/2001	**1,237**
10/24/2001	**976**

Pressure @ 2,706' KB, PSIA

10/24/2001	**981**

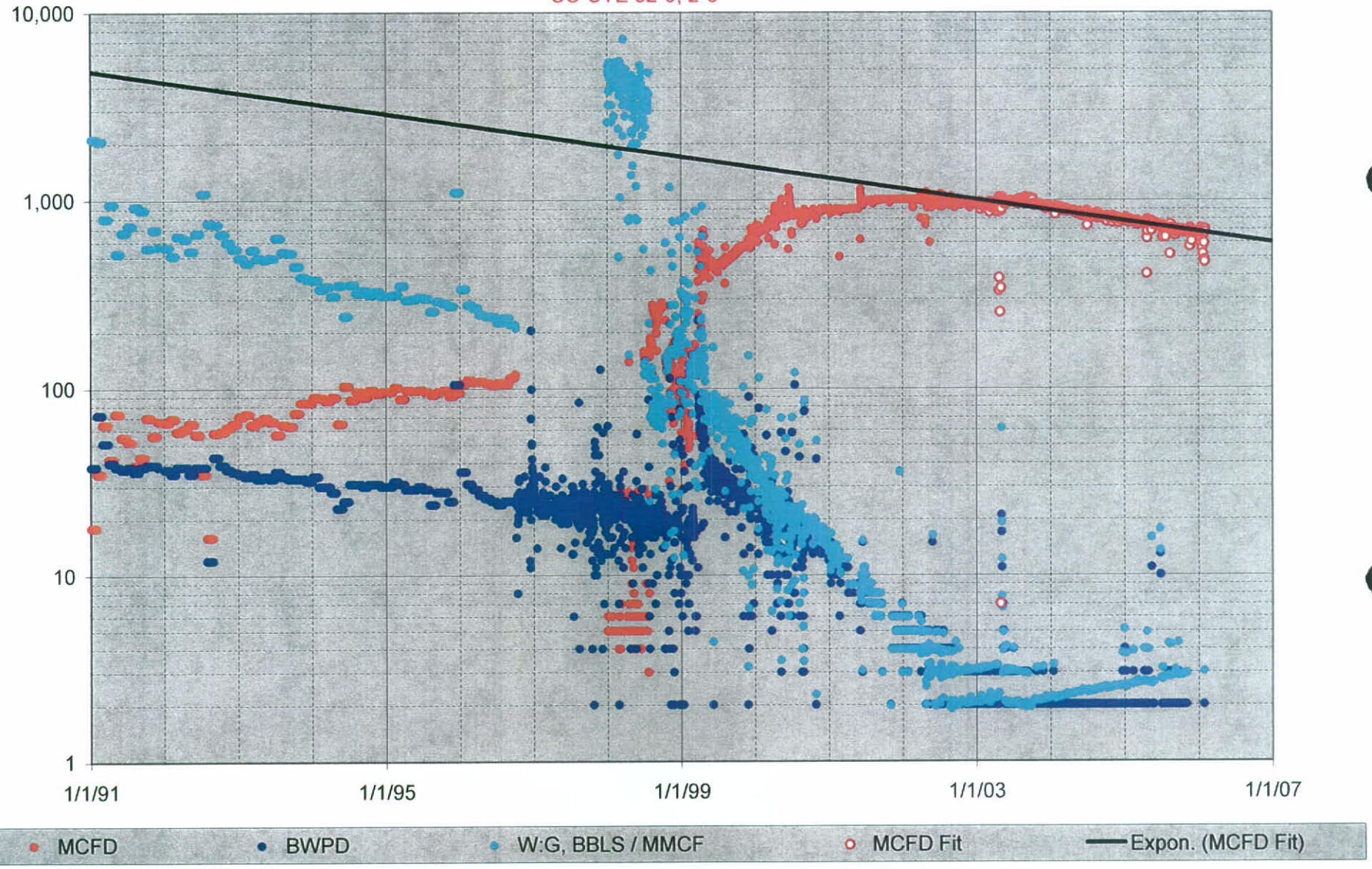


Cum Gas @ 01/30/06, MMCF **2,331**

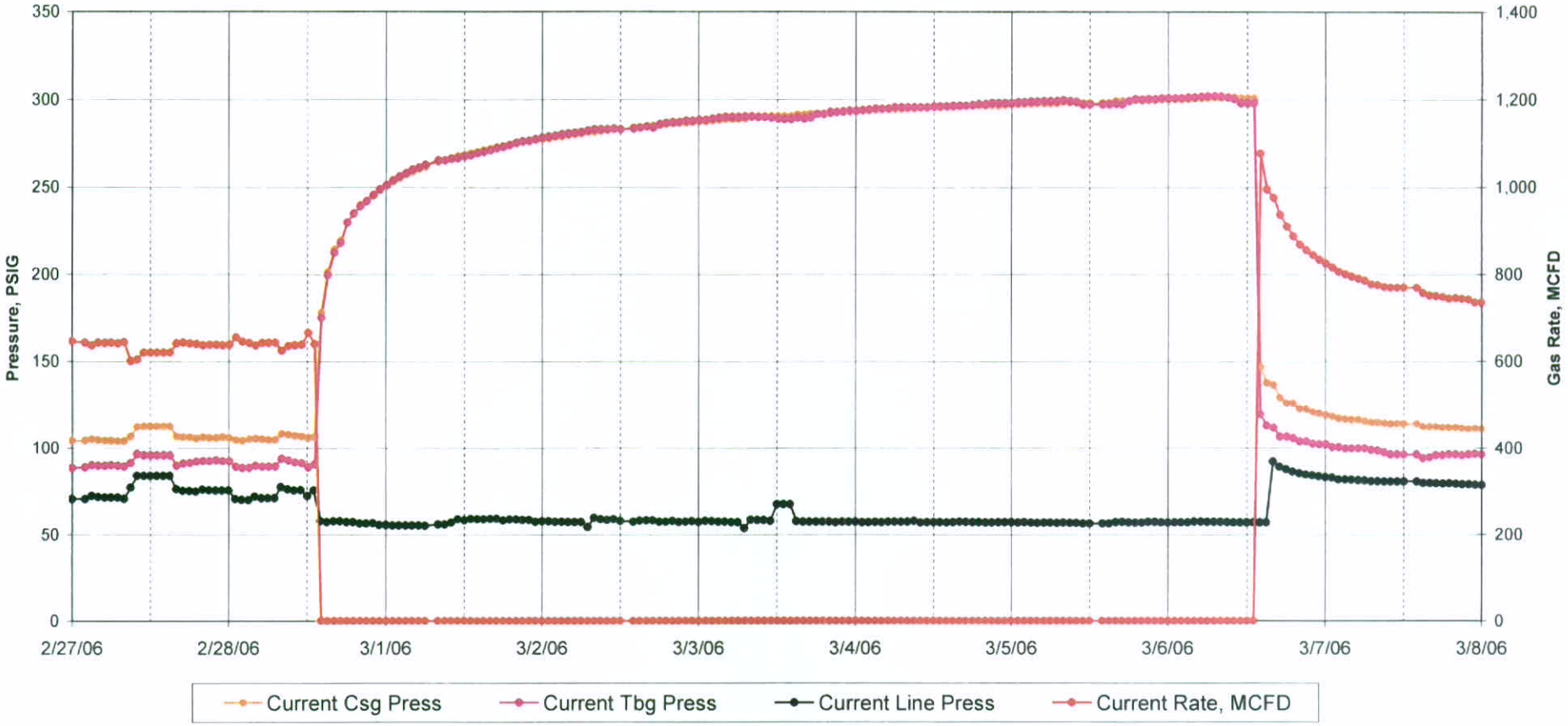
$y = 7.27050E+08e^{-3.58487E-04x}$

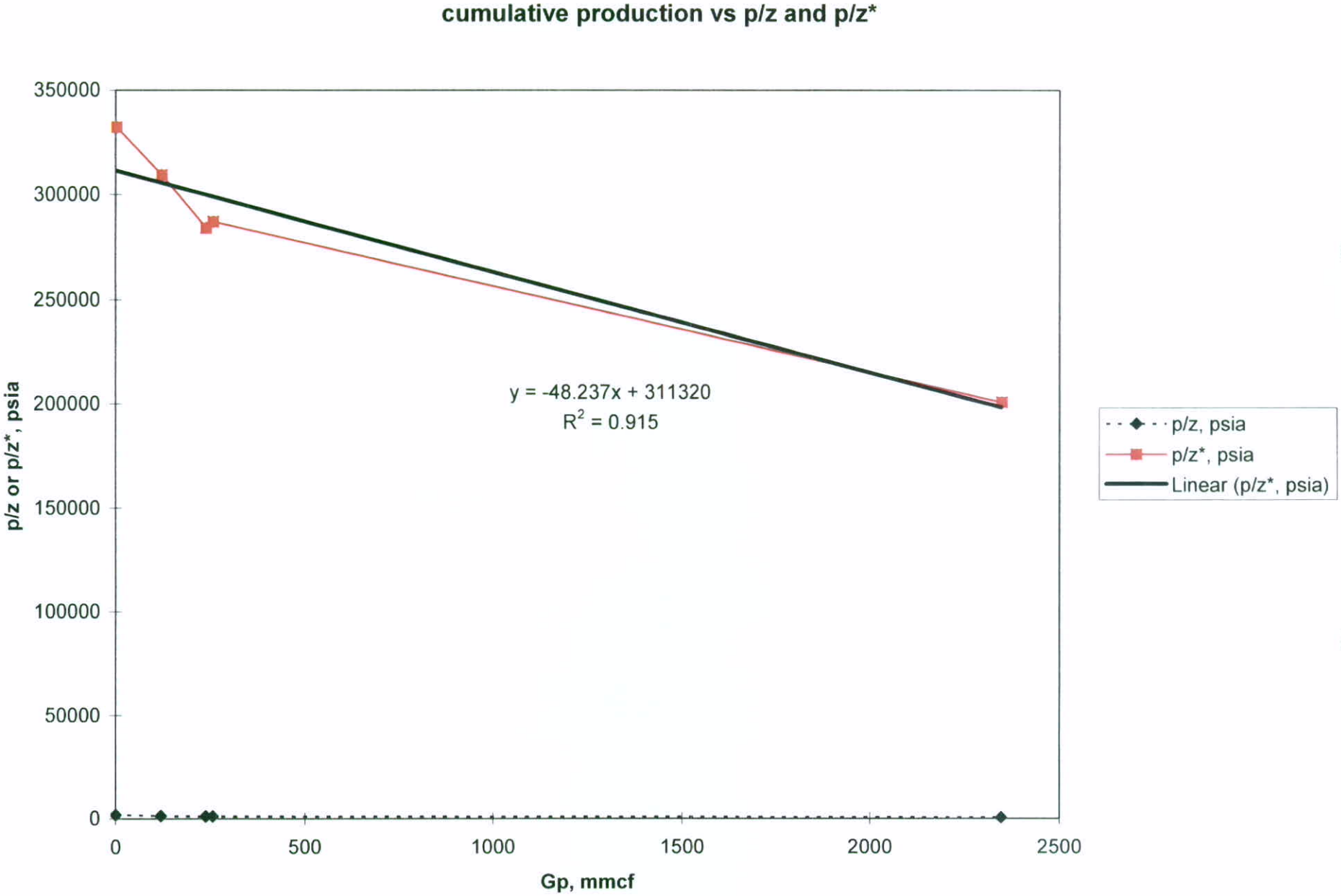
Well Performance

SO UTE 32-9; 2-6



SO UTE 32-9; 2-6


Pressure, PSIG
Gas Rate, MCFD
350
300
250
200
150
100
50
0
1,400
1,200
1,000
800
600
400
200
0
2/27/06
2/28/06
3/1/06
3/2/06
3/3/06
3/4/06
3/5/06
3/6/06
3/7/06
3/8/06
Current Csg Press
Current Tbg Press
Current Line Press
Current Rate, MCFD


cumulative production vs p/z and p/z*
350000
300000
250000
200000
150000
100000
50000
0
p/z or p/z*, psia
y = -48.237x + 311320
R2 = 0.915
0
500
1000
1500
2000
2500
Gp, mmcf
p/z, psia
p/z*, psia
Linear (p/z*, psia)

Percent Recovery of OGIP

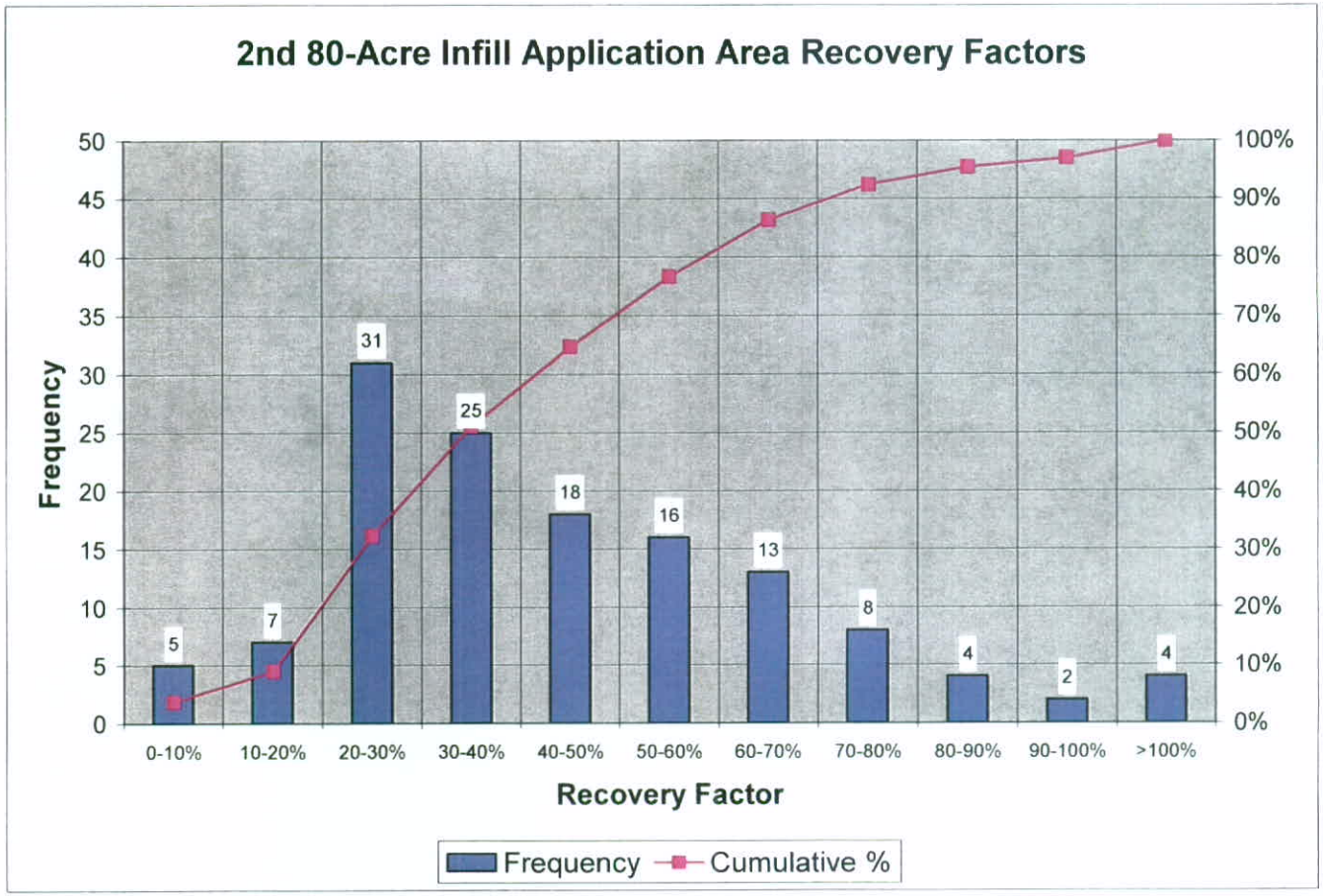
160 Acres & 200 PSIA Abandonment Pressure

BP 2nd 80-Acre Application Area – All Tests and Analyses

Recovery Factor	*Frequency*	*Cumulative %*
0-10%	5	3.76%
10-20%	7	9.02%
20-30%	31	32.33%
30-40%	25	51.13%
40-50%	18	64.66%
50-60%	16	76.69%
60-70%	13	86.47%
70-80%	8	92.48%
80-90%	4	95.49%
90-100%	2	96.99%
>100%	4	100%

133 Recovery Factor Calculations
39.6% = Median RF
76.7% Of wells have RF's < 60%

RRG MB 06	27
MB	17
RRG DCA 06	25
DCA	64
Total	**133**



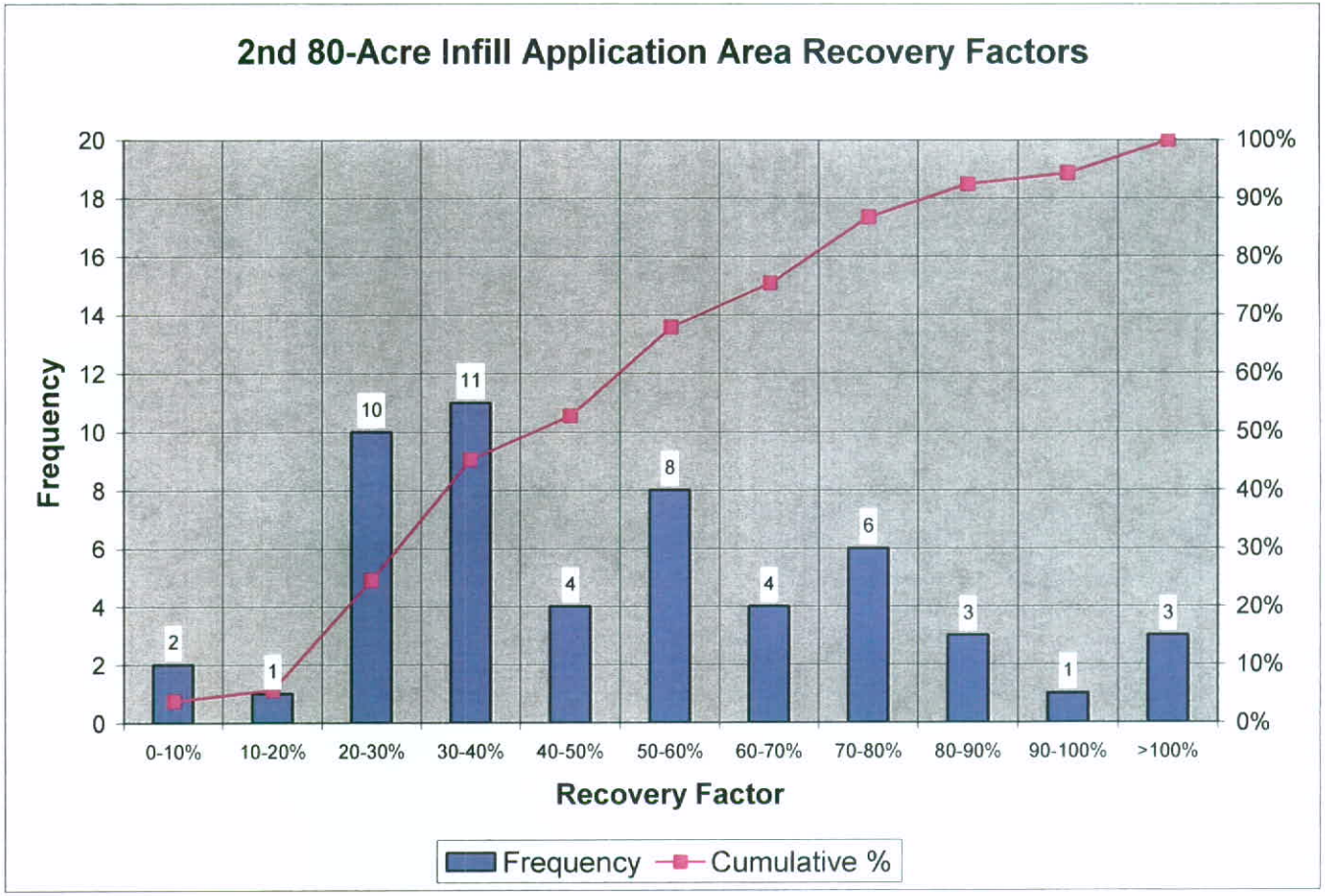
Percent Recovery of OGIP

160 Acres & 200 PSIA Abandonment Pressure

BP 2nd 80-Acre Application Area – 2006 Tests and Analyses

Recovery Factor	*Frequency*	*Cumulative %*
0-10%	2	3.77%
10-20%	1	5.66%
20-30%	10	24.53%
30-40%	11	45.28%
40-50%	4	52.83%
50-60%	8	67.92%
60-70%	4	75.47%
70-80%	6	86.79%
80-90%	3	92.45%
90-100%	1	94.34%
>100%	3	100%

53 2006 New Tests and/or Analyses
45.8% = Median RF
67.9% Of wells have RF's < 60%



80-Acre Infill Area 2; Low Rate Region 160-Acre Infill Wells