

**NEW MEXICO OIL CONSERVATION COMMISSION**  
**MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL**

Form C-122

UNIT : BDCDGU  
 LEASE :  
 WELL : 2132241F  
 S/T/R : 24, 21, 32  
 COUNTY : HARDING  
 STATE : NEW MEXICO

TYPE TEST: 4 POINT  
 : INITIAL  
 TEST DATE: 9/29/93

COMPANY: AMOCO PRODUCTION COMPANY  
 FIELD: BRAVO DOME POOL: N/A  
 COMPLETED 07-20-93 TD = 2405.  
 CSG SIZE = 5.5000 WT = 14.00  
 TBG SIZE = 2.8750 WT = 1.70  
 TYPE COMPLETION: SINGLE  
 PRODUCING THROUGH: TUBING

CONNECTION: BRAVO DOME PLANT  
 RESERVOIR: TUBB  
 PBD = 2395. ELEV = 4946.  
 SET AT 2404. PERF: 2250.- 2388.  
 SET AT 2246. PERF: 0.- 0.  
 PACKER SET AT: 2209.

RESERVOIR TEMP., F = 95. @ 2405. FT. BARO. PRESS = 12.20 PSIA  
 MEAN GROUND TEMP., F = 50.

| L     | H     | G     | % CO2  | % N2 | % H2S | PROVER | M-RUN | TAPS   |
|-------|-------|-------|--------|------|-------|--------|-------|--------|
| 2405. | 2405. | 1.527 | 100.00 | 0.00 | 0.00  | 0.0    | 4.0   | FLANGE |

| NO. | LINE SIZE | ORI. SIZE | FLOW PSIG | HW IN. | FLOW TEMP | TBG. PSIG | TBG. TEMP | CSG. PSIG | CSG. TEMP | FLOW HRS. |
|-----|-----------|-----------|-----------|--------|-----------|-----------|-----------|-----------|-----------|-----------|
| SI  |           |           |           |        |           | 283.      | 50.       | 0.        |           | 24.0      |
| 1   | 4.00 X    | 2.375     | 181.      | 44.9   | 57.       | 181.      | 57.       | 0.        | 0.        | 1.0       |
| 2   | 4.00 X    | 2.375     | 149.      | 63.4   | 55.       | 150.      | 55.       | 0.        | 0.        | 1.0       |
| 3   | 4.00 X    | 2.375     | 118.      | 87.4   | 52.       | 120.      | 52.       | 0.        | 0.        | 1.0       |
| 4   | 4.00 X    | 2.375     | 88.       | 124.2  | 50.       | 92.       | 50.       | 0.        | 0.        | 1.0       |

| NO. | COEFFICIENT (24 - HOUR) | SQRT. (HWPM) | PRESS. PM | T-FACTR F(T) | G-FACTR F(G) | SC-FACTR F(PV) | FLOW MCFD |
|-----|-------------------------|--------------|-----------|--------------|--------------|----------------|-----------|
| 1   | 29.04                   | 93.26        | 193.7     | 1.0032       | 0.8092       | 1.0575         | 2325.     |
| 2   | 29.04                   | 101.16       | 161.4     | 1.0050       | 0.8092       | 1.0472         | 2502.     |
| 3   | 29.04                   | 106.88       | 130.7     | 1.0074       | 0.8092       | 1.0377         | 2625.     |
| 4   | 29.04                   | 111.72       | 100.5     | 1.0102       | 0.8092       | 1.0286         | 2728.     |

| NO. | P(R) | TEMP. R | T(R) | Z     |                        |             |
|-----|------|---------|------|-------|------------------------|-------------|
| 1   | 0.31 | 517.    | 0.80 | 0.894 | GAS LIQ RATIO, MCF/BBL | 0.000       |
| 2   | 0.26 | 515.    | 0.79 | 0.912 | API G OF HYDROCARBONS  | 0.0         |
| 3   | 0.21 | 512.    | 0.79 | 0.929 | SP G SEPARATOR GAS     | 1.527 XXXXX |
| 4   | 0.16 | 510.    | 0.79 | 0.945 | SP G FLOWING FLUID     | XXXXX 1.527 |
|     |      |         |      |       | CRITICAL PRES., PSIA   | 626. 626.   |
|     |      |         |      |       | CRITICAL TEMP., R      | 648. 648.   |

| NO. | PT*PT | PW   | PW*PW | PC*PC - PW*PW |                           |        |
|-----|-------|------|-------|---------------|---------------------------|--------|
| 1   | 37.   | 195. | 38.   | 49.           | PC =                      | 295.5  |
| 2   | 26.   | 165. | 27.   | 60.           | PC*PC =                   | 87.    |
| 3   | 18.   | 137. | 19.   | 69.           | PC*PC/(PC*PC-PW*PW) =     | 1.1608 |
| 4   | 11.   | 110. | 12.   | 75.           | (PC*PC/(PC*PC-PW*PW))*N = | 1.0774 |
|     |       |      |       |               | AOE (MCF/DAY) =           | 2939.  |

CALC WH OPEN FLOW = 2939. MCFD @ 15.025; SLOPE ANGLE = 63.4; N = 0.500

REMARKS:

AVERAGE HOURS PRODUCED/DAY: 24.00

APPROVED BY  
 COMMISSION:

CONDUCTED BY:

CALCULATED BY:

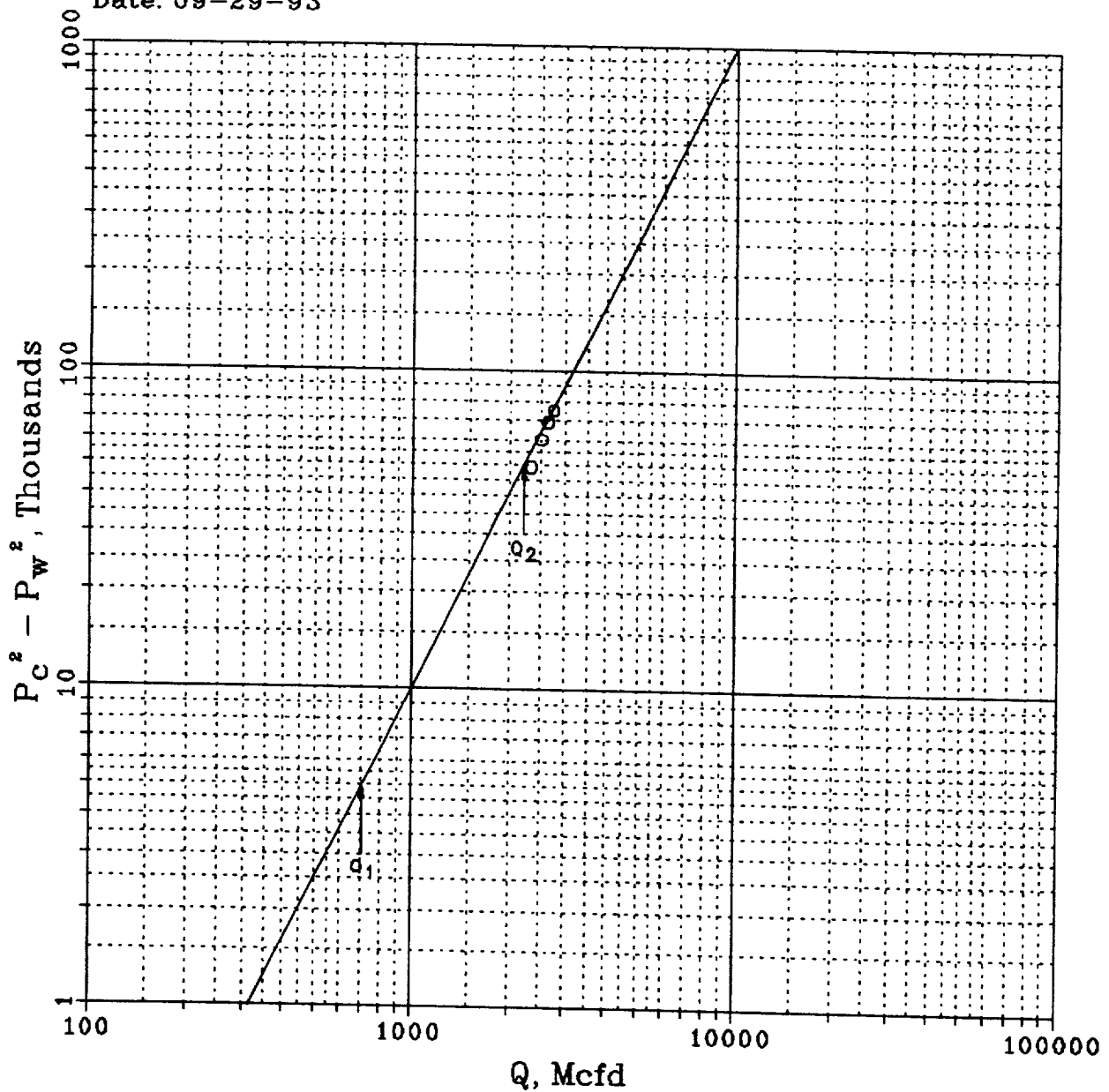
CHECKED BY:

*B. E. K. K. K.*

*B. J. Ford*

GAS WELL  
BACK PRESSURE TEST

Company: Amoco Production Company  
Well: 2132241F  
Field/Pool: Bravo Dome  
County: Harding  
Date: 09-29-93



$$\begin{aligned} Q_1 &= 703. \text{ Mcfd}; & \text{LOG } Q_1 &= 2.84711 \\ Q_2 &= 2224. \text{ Mcfd}; & \text{LOG } Q_2 &= 3.34713 \\ n &= 0.50002 = 0.500 \end{aligned}$$