

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

Form C-122

UNIT : BDCDGU  
 LEASE :  
 WELL : 2133171F  
 S/T/R : 17,21,33  
 COUNTY: HARDING  
 STATE : NEW MEXICO

TYPE TEST: 4 POINT  
 : INITIAL  
 TEST DATE: 10/25/93

COMPANY: AMOCO PRODUCTION COMPANY  
 FIELD: BRAVO DOME POOL: N/A  
 COMPLETED 08-09-93 TD = 2590.  
 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 = 2430. ELEV = 4840.  
 SET AT 2590. PERF: 2174.- 2401.  
 SET AT 2163. PERF: 0.- 0.  
 PACKER SET AT: 2134.

RESERVOIR TEMP., F = 95. @ 2590. FT. BARO. PRESS = 12.20 PSIA  
 MEAN GROUND TEMP., F = 50.

| L     | H     | G     | % CO2  | % N2 | % H2S | PROVER | M-RUN | TAPS   |
|-------|-------|-------|--------|------|-------|--------|-------|--------|
| 2590. | 2590. | 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  |           |           |           |        |           |           |           |           |           |           |
| 1   | 3.99 X    | 2.750     | 179.      | 25.0   | 57.       | 183.      | 57.       | 0.        | 0.        | 24.0      |
| 2   | 3.99 X    | 2.750     | 147.      | 37.0   | 55.       | 150.      | 55.       | 0.        | 0.        | 1.0       |
| 3   | 3.99 X    | 2.750     | 116.      | 52.0   | 51.       | 120.      | 51.       | 0.        | 0.        | 1.0       |
| 4   | 3.99 X    | 2.750     | 85.       | 75.0   | 48.       | 90.       | 48.       | 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   | 41.30                   | 69.14        | 191.2     | 1.0029       | 0.8092       | 1.0567         | 2448.     |
| 2   | 41.30                   | 76.75        | 159.2     | 1.0048       | 0.8092       | 1.0465         | 2697.     |
| 3   | 41.30                   | 81.65        | 128.2     | 1.0088       | 0.8092       | 1.0370         | 2854.     |
| 4   | 41.30                   | 85.38        | 97.2      | 1.0117       | 0.8092       | 1.0277         | 2966.     |

| NO. | P(R) | TEMP. R | T(R) | Z     |                        |       |
|-----|------|---------|------|-------|------------------------|-------|
| 1   | 0.31 | 517.    | 0.80 | 0.896 | GAS LIQ RATIO, MCF/BBL | 0.000 |
| 2   | 0.25 | 515.    | 0.79 | 0.913 | API G OF HYDROCARBONS  | 0.0   |
| 3   | 0.20 | 511.    | 0.79 | 0.930 | SP G SEPARATOR GAS     | 1.527 |
| 4   | 0.16 | 508.    | 0.78 | 0.947 | SP G FLOWING FLUID     | XXXXX |
|     |      |         |      |       | CRITICAL PRES., PSIA   | 626.  |
|     |      |         |      |       | CRITICAL TEMP., R      | 648.  |

| NO. | PT*PT | PW   | PW*PW | PC*PC - PW*PW |                           |        |
|-----|-------|------|-------|---------------|---------------------------|--------|
| 1   | 38.   | 198. | 39.   | 51.           | PC =                      | 300.5  |
| 2   | 26.   | 166. | 27.   | 63.           | PC*PC =                   | 90.    |
| 3   | 17.   | 137. | 19.   | 72.           | PC*PC/(PC*PC-PW*PW) =     | 1.1518 |
| 4   | 10.   | 109. | 12.   | 78.           | (PC*PC/(PC*PC-PW*PW))*N = | 1.0732 |
|     |       |      |       |               | AOE (MCF/DAY) =           | 3184.  |

CALC WH OPEN FLOW = 3184. MCFD @ 15.025; SLOPE ANGLE = 63.4; N = 0.500

REMARKS:

AVERAGE HOURS PRODUCED/DAY: 24.00

APPROVED BY  
 COMMISSION:

CONDUCTED BY:

CALCULATED BY:

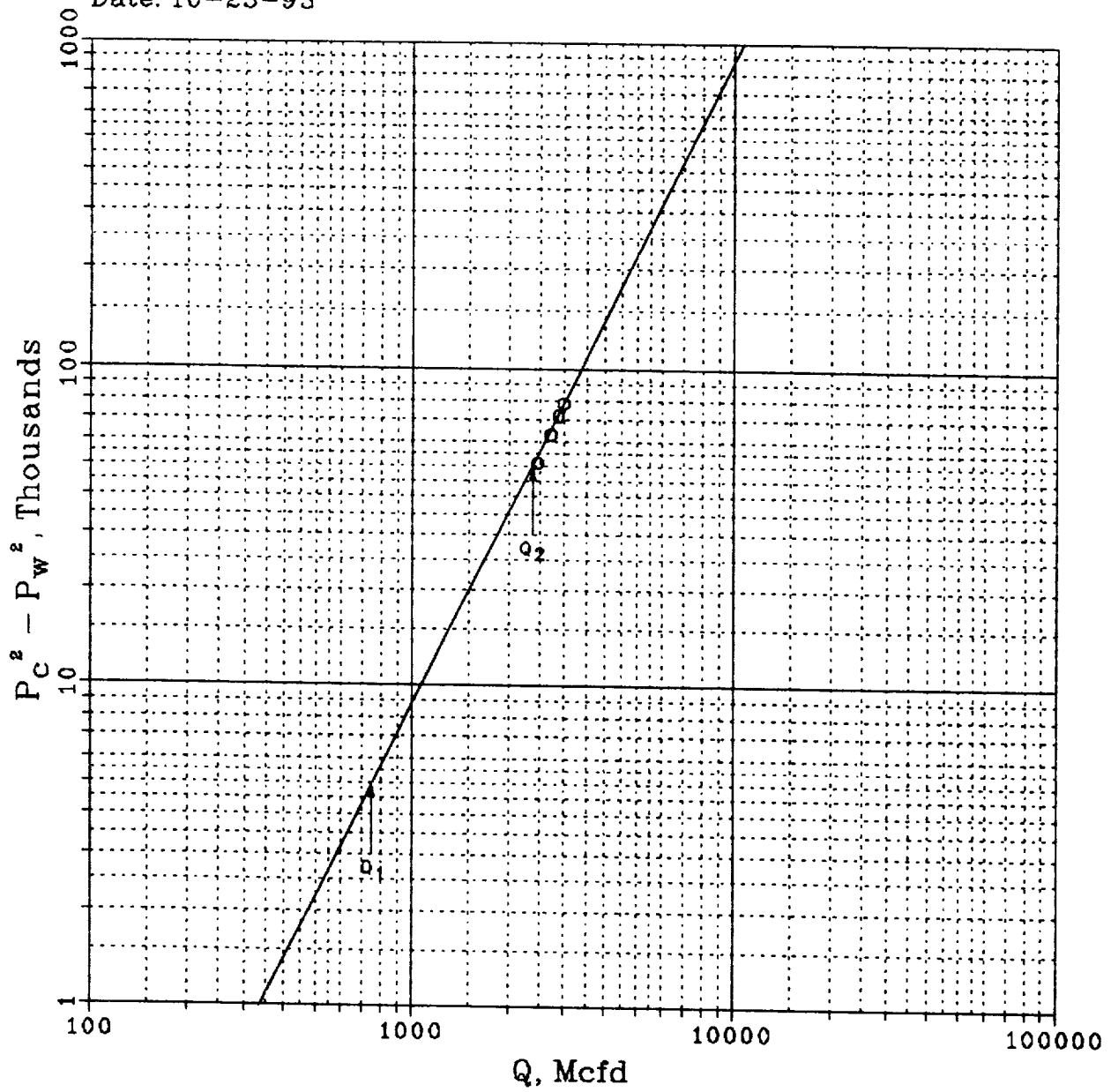
CHECKED BY:

*Billy E. Kuntz*

*[Signature]*

GAS WELL  
BACK PRESSURE TEST

Company: Amoco Production Company  
Well: 2133171F  
Field/Pool: Bravo Dome  
County: Harding  
Date: 10-25-93



$$\begin{aligned} Q_1 &= 749. \text{ Mcfd}; & \text{LOG } Q_1 &= 2.87447 \\ Q_2 &= 2369. \text{ Mcfd}; & \text{LOG } Q_2 &= 3.37449 \\ n &= 0.50002 = 0.500 \end{aligned}$$