

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

|                                                                                                                           |            |                                  |                   |                                    |                    |                                                 |  |                               |      |
|---------------------------------------------------------------------------------------------------------------------------|------------|----------------------------------|-------------------|------------------------------------|--------------------|-------------------------------------------------|--|-------------------------------|------|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |            |                                  |                   |                                    |                    | Test Date<br>11-21-86                           |  |                               |      |
| Company<br>BCO, Inc.                                                                                                      |            |                                  |                   | Connection                         |                    |                                                 |  |                               |      |
| Pool                                                                                                                      |            |                                  |                   | Formation<br>Chacra                |                    |                                                 |  | Unit                          |      |
| Completion Date<br>9-16-86                                                                                                |            | Total Depth<br>2033              |                   | Plug Back TD                       |                    | Elevation<br>6883 GL                            |  | Farm or Lease Name<br>Alamito |      |
| Caq. Size<br>4 1/2                                                                                                        | Wt.<br>9.5 | d                                | Set At<br>2033    | Perforations:<br>From 1784 To 1831 |                    | Well No.<br>Unit No. 1                          |  |                               |      |
| Thg. Size<br>2 3/8                                                                                                        | Wt.        | d                                | Set At<br>1818    | Perforations:<br>From To           |                    | Unit    Sec.    Twp.    Rge.<br>32    23W    7W |  |                               |      |
| Type Well - Single - Broadhead - G.G. or G.O. Multiple<br>Single                                                          |            |                                  |                   |                                    |                    | Packer Set At<br>None                           |  | County<br>Sandoval            |      |
| Producing Thru<br>Tubing                                                                                                  |            | Reservoir Temp. °F<br>107 @ 2002 |                   | Mean Annual Temp. °F               |                    | Baro. Press. - P <sub>a</sub>                   |  | State<br>New Mexico           |      |
| L                                                                                                                         | H          | Gg                               | % CO <sub>2</sub> | % N <sub>2</sub>                   | % H <sub>2</sub> S | Prover<br>3/4 pos.                              |  | Meter Run<br>choke nipple     | Taps |

  

| FLOW DATA |                        |   |                 |                    |                         | TUBING DATA |                    | CASING DATA |                    | Duration<br>of<br>Flow |
|-----------|------------------------|---|-----------------|--------------------|-------------------------|-------------|--------------------|-------------|--------------------|------------------------|
| NO.       | Prover<br>Line<br>Size | X | Orifice<br>Size | Press.<br>p.s.i.g. | Diff.<br>h <sub>w</sub> | Temp.<br>°F | Press.<br>p.s.i.g. | Temp.<br>°F | Press.<br>p.s.i.g. |                        |
| SI        | 9 days                 |   |                 |                    |                         |             | 363                |             | 363                |                        |
| 1.        | 2" x 3/4"              |   |                 |                    |                         |             | 18                 |             | 167                | 60                     |
| 2.        |                        |   |                 |                    |                         |             |                    |             |                    |                        |
| 3.        |                        |   |                 |                    |                         |             |                    |             |                    |                        |
| 4.        |                        |   |                 |                    |                         |             |                    |             |                    |                        |
| 5.        |                        |   |                 |                    |                         |             |                    |             |                    |                        |

  

| RATE OF FLOW CALCULATIONS |                          |                  |                            |                                        |                                     |                                               |                         |
|---------------------------|--------------------------|------------------|----------------------------|----------------------------------------|-------------------------------------|-----------------------------------------------|-------------------------|
| NO.                       | Coefficient<br>(24 Hour) | $\sqrt{h_w P_m}$ | Pressure<br>P <sub>m</sub> | Flow Temp.<br>Factor<br>F <sub>t</sub> | Gravity<br>Factor<br>F <sub>g</sub> | Super<br>Compress.<br>Factor, F <sub>pv</sub> | Rate of Flow<br>Q, Mcfd |
| 1                         | 11.0                     |                  | 30                         | 1.000                                  | 1.240                               | 1.000                                         | 409                     |
| 2.                        |                          |                  |                            |                                        |                                     |                                               |                         |
| 3.                        |                          |                  |                            |                                        |                                     |                                               |                         |
| 4.                        |                          |                  |                            |                                        |                                     |                                               |                         |
| 5.                        |                          |                  |                            |                                        |                                     |                                               |                         |

  

|     |                |          |                |   |                                                 |
|-----|----------------|----------|----------------|---|-------------------------------------------------|
| NO. | P <sub>r</sub> | Temp. °R | T <sub>r</sub> | Z | Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.     |
| 1   |                |          |                |   | A.P.I. Gravity of Liquid Hydrocarbon _____ Deg. |
| 2.  |                |          |                |   | Specific Gravity Separator Gas _____            |
| 3.  |                |          |                |   | Specific Gravity Flowing Fluid _____            |
| 4.  |                |          |                |   | Critical Pressure _____ P.S.I.A.                |
| 5   |                |          |                |   | Critical Temperature _____ °R                   |

  

|     |                             |                |                             |                                                           |                                            |                                                             |
|-----|-----------------------------|----------------|-----------------------------|-----------------------------------------------------------|--------------------------------------------|-------------------------------------------------------------|
| NO. | P <sub>r</sub> <sup>2</sup> | P <sub>w</sub> | P <sub>w</sub> <sup>2</sup> | P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> | (1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.2951$ | (2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.2456$ |
| 1   | 140625                      |                | 32041                       | 108584                                                    |                                            |                                                             |
| 2   |                             |                |                             |                                                           |                                            |                                                             |
| 3   |                             |                |                             |                                                           |                                            |                                                             |
| 4   |                             |                |                             |                                                           |                                            |                                                             |
| 5   |                             |                |                             |                                                           |                                            |                                                             |

  

|                                      |  |                                |  |                                  |  |              |  |
|--------------------------------------|--|--------------------------------|--|----------------------------------|--|--------------|--|
| Absolute Open Flow 509 Mcfd @ 15.025 |  |                                |  | Angle of Slope 6                 |  | Slope, n .85 |  |
| Remarks: Making water by heads.      |  |                                |  |                                  |  |              |  |
|                                      |  |                                |  |                                  |  |              |  |
| Approved By Division                 |  | Conducted By:<br>Richard Housh |  | Calculated By:<br>Neil Tefteller |  | Checked By:  |  |