

clst  
File

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 |                                  | Received Date<br>1/15/92             |                                    |
| Company<br>Phillips Petro. Co.                                                                                            |                                  | Connection<br>APR 15 1992            |                                    |
| Pool<br>S. Carlisle Bone Springs                                                                                          |                                  | Formation<br>O.C.D.<br>Bones Springs |                                    |
| Completion Date<br>8/83                                                                                                   | Total Depth<br>5609              | Plug Back TD<br>5505                 | Elevation<br>3198 GL               |
| Form or Lease Name<br>Drag C                                                                                              |                                  |                                      |                                    |
| Cas. Size<br>5 1/2"                                                                                                       | Wt.<br>17#                       | Set At<br>5609'                      | Perforations:<br>From To           |
| Well No.<br>2                                                                                                             |                                  |                                      |                                    |
| Tub. Size<br>2 7/8"                                                                                                       | Wt.<br>6.5                       | Set At<br>2.441                      | Perforations:<br>From 5383 To 5394 |
| Unit<br>J                                                                                                                 | Sec.<br>19                       | Twp.<br>23                           | Rang.<br>27                        |
| Type Well - Single - Driven - G.C. or C.O. Multiple<br>Single                                                             |                                  | Packer Set At<br>5348                |                                    |
| Country<br>Eddy                                                                                                           |                                  |                                      |                                    |
| Producing Thru<br>TBG                                                                                                     | Reservoir Temp. °F<br>129 @ 5348 | Mean Annual Temp. °F                 | State<br>NM                        |
| L<br>5384                                                                                                                 | H<br>5384                        | G <sub>1</sub><br>.740               | % CO <sub>2</sub><br>1.74          |
|                                                                                                                           |                                  | % N <sub>2</sub><br>2.58             | % H <sub>2</sub> S                 |
| Proven                                                                                                                    | Meter Run<br>4.026               | Type<br>FLG                          |                                    |

  

| FLOW DATA |                  |       |              |                 |           | TUBING DATA |                 | CASING DATA |                 | Duration of Flow |
|-----------|------------------|-------|--------------|-----------------|-----------|-------------|-----------------|-------------|-----------------|------------------|
| NO.       | Proven Line Size | X     | Orifice Size | Press. p.s.i.g. | Orif. In. | Temp. °F    | Press. p.s.i.g. | Temp. °F    | Press. p.s.i.g. |                  |
| SI        |                  |       |              |                 |           |             | 1763.9          |             | PKR             |                  |
| 1.        | 4 X              | .750  |              | 210             | 34.00     | 78          | 1579            |             | PKR             | 3 HR             |
| 2.        | 4 X              | 1.250 |              | 210             | 7.00      | 102         | 1500            |             | PKR             | 1 HR             |
| 3.        | 4 X              | 1.250 |              | 210             | 8.00      | 90          | 1369            |             | PKR             | 1 HR             |
| 4.        | 4 X              | 1.250 |              | 210             | 30.00     | 68          | 1150            |             | PKR             | 1 HR             |
| 5.        | 4 X              | 1.250 |              | 240             | 40.00     | 82          | 652             |             | PKR             | 20 HRS.          |

  

| RATE OF FLOW CALCULATIONS |                       |              |                         |                      |                               |                                         |                      |
|---------------------------|-----------------------|--------------|-------------------------|----------------------|-------------------------------|-----------------------------------------|----------------------|
| NO.                       | Coefficient (24 Hour) | $\sqrt{R_p}$ | Pressure P <sub>0</sub> | Flow Temp. Factor FL | Gravity Factor F <sub>g</sub> | Super. Compres. Factor, F <sub>sc</sub> | Rate of Flow Q, Mscf |
| 1                         | 2.661                 | 87.11        | 223.2                   | .9831                | 1.162                         | 1.025                                   | 271                  |
| 2                         | 7.469                 | 39.53        | 223.2                   | .9619                | 1.162                         | 1.022                                   | 337                  |
| 3                         | 7.469                 | 42.26        | 223.2                   | .9723                | 1.162                         | 1.025                                   | 366                  |
| 4                         | 7.469                 | 81.83        | 223.2                   | .9924                | 1.162                         | 1.028                                   | 725                  |
| 5                         | 7.469                 | 100.63       | 253.2                   | .9795                | 1.162                         | 1.028                                   | 879                  |

  

| NO. | P <sub>0</sub> | Temp. °R | T <sub>g</sub> | Z    | Gas Liquid Hydrocarbon Ratio | A.P.I. Gravity of Liquid Hydrocarbons | Specific Gravity Separator Gas | Specific Gravity Flowing Fluid | Critical Pressure | Critical Temperature |
|-----|----------------|----------|----------------|------|------------------------------|---------------------------------------|--------------------------------|--------------------------------|-------------------|----------------------|
| 1   | .33            | 538      | 1.35           | .952 | 30.896                       | 56.7 @ 60°                            | .740                           | XXXXXXX                        | * 668             | ** 398               |
| 2   | .33            | 560      | 1.41           | .958 |                              |                                       |                                | XXXXX                          |                   |                      |
| 3   | .33            | 530      | 1.38           | .952 |                              |                                       |                                |                                |                   |                      |
| 4   | .33            | 530      | 1.32           | .946 |                              |                                       |                                |                                |                   |                      |
| 5   | .37            | 542      | 1.36           | .946 |                              |                                       |                                |                                |                   |                      |

  

| NO. | P <sub>0</sub> | P <sub>1</sub> | P <sub>2</sub> | P <sub>3</sub> | P <sub>4</sub> | P <sub>5</sub> | P <sub>6</sub> | P <sub>7</sub> | P <sub>8</sub> | P <sub>9</sub> | P <sub>10</sub> |
|-----|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|
| 1   |                | 1592.3         | 2535.6         | 622.5          |                |                |                |                |                |                |                 |
| 2   |                | 1513.4         | 2290.5         | 867.6          |                |                |                |                |                |                |                 |
| 3   |                | 1382.5         | 1911.3         | 1246.7         |                |                |                |                |                |                |                 |
| 4   |                | 1164.6         | 1356.6         | 1801.5         |                |                |                |                |                |                |                 |
| 5   |                | 669.7          | 448.5          | 2709.6         |                |                |                |                |                |                |                 |

  

| Absolute Open Flow |  |  |  | Angle of Slope |  | Slope, n |  |
|--------------------|--|--|--|----------------|--|----------|--|
| 991                |  |  |  | 52             |  | .781     |  |

  

\* Corrected to 1.74% CO<sub>2</sub> and 2.58% N<sub>2</sub>  
 \*\* PC From known BH?

Well made 21 bbls H<sub>2</sub>O and 26 bbls of 56.7 API GR Condensate.

|                      |              |               |            |
|----------------------|--------------|---------------|------------|
| Approved By Division | Conducted By | Calculated By | Checked By |
|                      | John West    |               |            |