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State of New Mexico  
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

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OCT 21 1993  
OIL CON. DIV.  
DIST. 2

Form C-122  
Revised 4-1-91

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

|                                                                                                                           |  |                         |  |                                 |  |                                              |  |
|---------------------------------------------------------------------------------------------------------------------------|--|-------------------------|--|---------------------------------|--|----------------------------------------------|--|
| Operator<br>Robert L. Bayless                                                                                             |  |                         |  | Lease or Unit Name<br>Simms Com |  |                                              |  |
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |  |                         |  | Test Date<br>10/16/93           |  | Well No.<br>6                                |  |
| Completion Date<br>10/07/93                                                                                               |  | Total Depth<br>4100 ft. |  | Plug Back TD<br>4039 ft.        |  | Elevation<br>7068 ft. GL                     |  |
| Csg. Size<br>4-1/2"                                                                                                       |  | Wt. d<br>10.5#          |  | Set At<br>4085 ft.              |  | Perforations:<br>From: 3689 ft. To: 3708 ft. |  |
| Tbg. Size<br>2-3/8"                                                                                                       |  | Wt. d<br>4.7#           |  | Set At<br>3682 ft.              |  | Perforations:<br>From: To:                   |  |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>single                                                         |  |                         |  | Packer Set At<br>none           |  | Formation<br>Fruitland Coal                  |  |
| Producing Thru<br>tubing                                                                                                  |  | Reservoir Temp. °F      |  | Mean Annual Temp. °F            |  | Baro. Press - P <sub>a</sub><br>12.0 (est.)  |  |
| L                                                                                                                         |  | H                       |  | Gg<br>.65 (est.)                |  | % CO <sub>2</sub>                            |  |
|                                                                                                                           |  |                         |  |                                 |  | % N <sub>2</sub>                             |  |
|                                                                                                                           |  |                         |  |                                 |  | % H <sub>2</sub> S                           |  |
|                                                                                                                           |  |                         |  |                                 |  | Prover                                       |  |
|                                                                                                                           |  |                         |  |                                 |  | Meter Run                                    |  |
|                                                                                                                           |  |                         |  |                                 |  | 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        | 7 days                 |   |                 |                    |                         |             | 1020               |             | 1030               |                        |
| 1.        | 2 inch x .750          |   |                 |                    |                         |             | 62                 | 60° F       | 240                |                        |
| 2.        |                        |   |                 |                    |                         |             |                    |             |                    |                        |
| 3.        |                        |   |                 |                    |                         |             |                    |             |                    |                        |
| 4.        |                        |   |                 |                    |                         |             |                    |             |                    |                        |
| 5.        |                        |   |                 |                    |                         |             |                    |             |                    |                        |

| RATE OF FLOW CALCULATIONS |                          |           |                            |                          |                                  |                                            |                         |
|---------------------------|--------------------------|-----------|----------------------------|--------------------------|----------------------------------|--------------------------------------------|-------------------------|
| NO.                       | COEFFICIENT<br>(24 HOUR) | $h_w P_m$ | Pressure<br>P <sub>m</sub> | Flow Temp.<br>Factor Ft. | Gravity Factor<br>F <sub>g</sub> | Super Compress.<br>Factor, F <sub>pv</sub> | Rate of Flow<br>Q, Mcfd |
| 1.                        | 12.365                   |           | 74                         | 1.000                    | 1.240                            | 1.014                                      | 1150                    |
| 2.                        |                          |           |                            |                          |                                  |                                            |                         |
| 3.                        |                          |           |                            |                          |                                  |                                            |                         |
| 4.                        |                          |           |                            |                          |                                  |                                            |                         |
| 5.                        |                          |           |                            |                          |                                  |                                            |                         |

| NO. | P <sub>r</sub> | Temp. °R | T <sub>r</sub> | Z     | Gas Liquid Hydrocarbon Ratio          | Mcf/bbl.   |
|-----|----------------|----------|----------------|-------|---------------------------------------|------------|
| 1.  | 0.11           |          | 1.39           | 0.973 | A.P. I Gravity of Liquid Hydrocarbons | Deg.       |
| 2.  |                |          |                |       | Specific Gravity Separator Gas        | XXXXXXXXXX |
| 3.  |                |          |                |       | Specific Gravity Flowing Fluid        | XXXXXX     |
| 4.  |                |          |                |       | Critical Pressure                     | P.S.I.A.   |
| 5.  |                |          |                |       | Critical Temperature                  | R          |

| P <sub>c</sub> 1042 |                             | P <sub>c</sub> <sup>2</sup> 1,085,764 |                             |
|---------------------|-----------------------------|---------------------------------------|-----------------------------|
| NO.                 | P <sub>c</sub> <sup>2</sup> | P <sub>w</sub>                        | P <sub>w</sub> <sup>2</sup> |
| 1.                  |                             | 252                                   | 63,504                      |
| 2.                  |                             |                                       |                             |
| 3.                  |                             |                                       |                             |
| 4.                  |                             |                                       |                             |
| 5.                  |                             |                                       |                             |

$$1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.0621 \quad (2) \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0526$$

$$AOF = Q \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1210$$

|                    |      |              |                  |          |      |
|--------------------|------|--------------|------------------|----------|------|
| Absolute Open Flow | 1210 | Mcf @ 15.025 | Angle of Slope @ | Slope, n | 0.85 |
|--------------------|------|--------------|------------------|----------|------|

Remarks: Well made a heavy mist of water throughout test.

|                      |                             |                                |             |
|----------------------|-----------------------------|--------------------------------|-------------|
| Approved By Division | Conducted By:<br>Cecil Bell | Calculated By:<br>Kevin McCord | Checked By: |
|----------------------|-----------------------------|--------------------------------|-------------|

Mailed: October 19, 1993