

RECEIVED

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENTOIL CONSERVATION DIVISION  
P. O. BOX 20011  
SANTA FE, NEW MEXICO 87501Form C-122  
Revised 10-1-78

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>1-2-90          |                             |                                                           |                                                                  |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------------------|-----------------------------|-----------------------------------------------------------|------------------------------------------------------------------|-----------------------------------------|-------------------------|----------|------------------|----------|------------------|--|------------------|-----|------------------|---|--------------|-----------------|----------|----------|-----------------|----------|-----------------|----------|------------------|----|--|--|--|--|--|--|------|----|------|-----|----|----|---------------|--|--|-----|---|----|------|----|------|-----|---|----|---------------|--|--|-----|----|----|------|----|------|-----|---|----|---------------|--|--|-----|----|----|------|----|------|-----|---|----|---------------|--|--|-----|----|----|------|----|------|-----|----|----|--|--|--|--|--|--|--|--|--|--|--|
| Company<br>SANTA FE ENERGY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                       | Connection<br>AIR NEW WELL   |                             |                                                           |                                                                  |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| Pool<br>SOUTH SAND DUNES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                       | Formation<br>ATOKA           |                             |                                                           |                                                                  |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| Completion Date<br>12-15-89                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                       | Total Depth<br>14848         | Plug Back TD<br>14620       |                                                           |                                                                  |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| Csg. Size<br>4.500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                       | Well No.<br>13.5             | Set At<br>3.920             |                                                           |                                                                  |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| Thg. Size<br>2.375                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                       | Well No.<br>4.7              | Set At<br>1.995             |                                                           |                                                                  |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| Type Well - Single - Brdenhead - G.G. or G.O. Multiple<br>SINGLE GAS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                       | Packer Set At<br>13112       | County<br>EDDY              |                                                           |                                                                  |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| Producing Thru<br>TUBING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                       | Reservoir Temp. °F<br>196    | Mean Annual Temp. °F<br>60  |                                                           |                                                                  |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| L<br>13361                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                       | H<br>13361                   | Gg<br>592                   |                                                           |                                                                  |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| % CO <sub>2</sub><br>470                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                       | % N <sub>2</sub><br>.750     | % H <sub>2</sub> S<br>0     |                                                           |                                                                  |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| Prover<br>0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                       | Meter Run<br>4.026           | Taps<br>FLANGE              |                                                           |                                                                  |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| <table border="1"> <thead> <tr> <th colspan="5">FLOW DATA</th> <th colspan="2">TUBING DATA</th> <th colspan="2">BHP DATA</th> <th>Duration of Flow</th> </tr> <tr> <th>NO.</th> <th>Prover Line Size</th> <th>X</th> <th>Orifice Size</th> <th>Press. p.s.i.g.</th> <th>Diff. hw</th> <th>Temp. °F</th> <th>Press. p.s.i.g.</th> <th>Temp. °F</th> <th>Press. p.s.i.g.</th> <th>Temp. °F</th> <th>Duration of Flow</th> </tr> </thead> <tbody> <tr> <td>SI</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>6930</td> <td>60</td> <td>8603</td> <td>196</td> <td>72</td> </tr> <tr> <td>1.</td> <td>4.026 x 2.750</td> <td></td> <td></td> <td>600</td> <td>6</td> <td>40</td> <td>6840</td> <td>60</td> <td>8564</td> <td>196</td> <td>1</td> </tr> <tr> <td>2.</td> <td>4.026 x 2.750</td> <td></td> <td></td> <td>610</td> <td>10</td> <td>38</td> <td>6740</td> <td>60</td> <td>8531</td> <td>196</td> <td>1</td> </tr> <tr> <td>3.</td> <td>4.026 x 2.750</td> <td></td> <td></td> <td>615</td> <td>23</td> <td>36</td> <td>6630</td> <td>60</td> <td>8499</td> <td>196</td> <td>1</td> </tr> <tr> <td>4.</td> <td>4.026 x 2.750</td> <td></td> <td></td> <td>630</td> <td>48</td> <td>30</td> <td>6400</td> <td>60</td> <td>8447</td> <td>196</td> <td>.8</td> </tr> <tr> <td>5.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> |                       |                              |                             | FLOW DATA                                                 |                                                                  |                                         |                         |          | TUBING DATA      |          | BHP DATA         |  | Duration of Flow | NO. | Prover Line Size | X | Orifice Size | Press. p.s.i.g. | Diff. hw | Temp. °F | Press. p.s.i.g. | Temp. °F | Press. p.s.i.g. | Temp. °F | Duration of Flow | SI |  |  |  |  |  |  | 6930 | 60 | 8603 | 196 | 72 | 1. | 4.026 x 2.750 |  |  | 600 | 6 | 40 | 6840 | 60 | 8564 | 196 | 1 | 2. | 4.026 x 2.750 |  |  | 610 | 10 | 38 | 6740 | 60 | 8531 | 196 | 1 | 3. | 4.026 x 2.750 |  |  | 615 | 23 | 36 | 6630 | 60 | 8499 | 196 | 1 | 4. | 4.026 x 2.750 |  |  | 630 | 48 | 30 | 6400 | 60 | 8447 | 196 | .8 | 5. |  |  |  |  |  |  |  |  |  |  |  |
| FLOW DATA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                       |                              |                             |                                                           | TUBING DATA                                                      |                                         | BHP DATA                |          | Duration of Flow |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| NO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Prover Line Size      | X                            | Orifice Size                | Press. p.s.i.g.                                           | Diff. hw                                                         | Temp. °F                                | Press. p.s.i.g.         | Temp. °F | Press. p.s.i.g.  | Temp. °F | Duration of Flow |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| SI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                       |                              |                             |                                                           |                                                                  |                                         | 6930                    | 60       | 8603             | 196      | 72               |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| 1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 4.026 x 2.750         |                              |                             | 600                                                       | 6                                                                | 40                                      | 6840                    | 60       | 8564             | 196      | 1                |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 4.026 x 2.750         |                              |                             | 610                                                       | 10                                                               | 38                                      | 6740                    | 60       | 8531             | 196      | 1                |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| 3.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 4.026 x 2.750         |                              |                             | 615                                                       | 23                                                               | 36                                      | 6630                    | 60       | 8499             | 196      | 1                |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| 4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 4.026 x 2.750         |                              |                             | 630                                                       | 48                                                               | 30                                      | 6400                    | 60       | 8447             | 196      | .8               |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| 5.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                       |                              |                             |                                                           |                                                                  |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| RATE OF FLOW CALCULATIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                       |                              |                             |                                                           |                                                                  |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| NO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Coefficient (24 Hour) | $\sqrt{h_w P_m}$             | Pressure P <sub>m</sub>     | Flow Temp. Factor Ft.                                     | Gravity Factor Fg                                                | Super Compress. Factor, F <sub>pv</sub> | Rate of Flow Q, Mcfd    |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 41.10                 | 60.66                        | 613.2                       | 1.0198                                                    | 1.2997                                                           | 1.0606                                  | 3504                    |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 41.10                 | 78.94                        | 623.2                       | 1.0218                                                    | 1.2997                                                           | 1.0626                                  | 4579                    |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 41.10                 | 120.20                       | 628.2                       | 1.0260                                                    | 1.2997                                                           | 1.0691                                  | 7017                    |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 41.10                 | 175.71                       | 643.2                       | 1.0302                                                    | 1.2997                                                           | 1.0691                                  | 10336                   |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                       |                              |                             |                                                           |                                                                  |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| NO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | P <sub>1</sub>        | Temp. °R                     | T <sub>1</sub>              | Z                                                         | Gas Liquid Hydrocarbon Ratio _____ Mcl/bbl.                      |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | .91                   | 500                          | 1.42                        | .889                                                      | A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.                 |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | .93                   | 498                          | 1.41                        | .886                                                      | Specific Gravity Separator Gas _____ 592                         |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | .93                   | 494                          | 1.40                        | .875                                                      | Specific Gravity Flowing Fluid _____ X X X X X                   |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | .95                   | 490                          | 1.39                        | .875                                                      | Critical Pressure _____ 674 P.S.I.A.                             |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                       |                              |                             |                                                           | Critical Temperature _____ 353 °R                                |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| $P_c = 7013.4$ $P_w^2 = 49188$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                       |                              |                             |                                                           | $(1) \frac{P_c^2}{P_c^2 - P_w^2} = 24.6556$                      |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| $(2) \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 24.6556$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                       |                              |                             |                                                           | $AOR = Q \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 254840.$ |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| NO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | P <sub>1</sub>        | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 73568                 | 6977                         | 48683                       | 505                                                       |                                                                  |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 73003                 | 6947                         | 48260                       | 928                                                       |                                                                  |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 72458                 | 6917                         | 47851                       | 1336                                                      |                                                                  |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 71575                 | 6870                         | 47192                       | 1995                                                      |                                                                  |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                       |                              |                             |                                                           |                                                                  |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| Absolute Open Flow _____ 254840                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                       |                              |                             |                                                           | Mcf @ 15.025                                                     |                                         | Angle of Slope _____ 45 |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| Remarks: _____ CHOKE SIZES 1st rate 8/64 2nd rate 9/64 3rd rate 11/64 4th rate 13/64                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                       |                              |                             |                                                           |                                                                  |                                         |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |
| Approved By Division                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                       | Conducted By: RICKY HATCHETT |                             | Calculated By: MATT LEE                                   |                                                                  | Checked By:                             |                         |          |                  |          |                  |  |                  |     |                  |   |              |                 |          |          |                 |          |                 |          |                  |    |  |  |  |  |  |  |      |    |      |     |    |    |               |  |  |     |   |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |   |    |               |  |  |     |    |    |      |    |      |     |    |    |  |  |  |  |  |  |  |  |  |  |  |