

**State of New Mexico**  
**Energy, Mineral and Natural Resources**

Form C-122  
Revised October, 1999

Submit in duplicate to  
appropriate district office  
See Rule 401 & Rule 1122

**Oil Conservation Division**  
**1220 South St. Francis Dr.**  
**Santa Fe, NM 87505**

**RECEIVED**

APR 25 2005

**MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELLS**

|                                                                                                                           |                                         |                             |                                  |                                                    |                                                     |                                |                          |                                                    |                        |
|---------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------|----------------------------------|----------------------------------------------------|-----------------------------------------------------|--------------------------------|--------------------------|----------------------------------------------------|------------------------|
| Operator<br><b>SAMSON RESOURCES COMPANY</b>                                                                               |                                         |                             |                                  |                                                    | Lease or Unit Name<br><b>SANDTANK 17 FEDERAL #1</b> |                                |                          |                                                    |                        |
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |                                         |                             |                                  |                                                    | Test date<br><b>3/1/2005</b>                        |                                | Well No.<br><b>1</b>     |                                                    |                        |
| Completion Date:<br><b>2/10/2005</b>                                                                                      |                                         | Total Depth<br><b>12001</b> |                                  | Plug Back TD<br><b>11648</b>                       |                                                     | Elevation:<br><b>3501 GL</b>   |                          | Unit Ltr.-Sec.-TWP-Rge.<br><b>17    18S    30E</b> |                        |
| Csg. Size<br><b>5.500</b>                                                                                                 | Wt.<br><b>20</b>                        | d<br><b>4.778</b>           | Set At<br><b>11697</b>           | Perforations:<br>From <b>11354</b> To <b>11471</b> |                                                     |                                | County<br><b>EDDY</b>    |                                                    |                        |
| Tbg. Size<br><b>2.375</b>                                                                                                 | Wt.<br><b>4.7</b>                       | d<br><b>1.995</b>           | Set At<br><b>11280</b>           | Perforations:<br>From                      To      |                                                     |                                | Pool                     |                                                    |                        |
| Type Well - Single - Bradenhead - G.G or G.O Multiple<br><b>SINGLE</b>                                                    |                                         |                             |                                  |                                                    | Packer Set At<br><b>NONE</b>                        |                                |                          | Formation<br><b>MORROW</b>                         |                        |
| Prod. Thru<br><b>TUBING</b>                                                                                               | Reservoir Temp.F<br><b>210 @ 11,413</b> |                             | Mean Annual Temp. F<br><b>60</b> |                                                    | Baro. Press - Pa<br><b>13.20</b>                    |                                |                          | Connection<br><b>DOWNSTREAM</b>                    |                        |
| L<br><b>11413</b>                                                                                                         | H<br><b>11413</b>                       | Gg<br><b>0.580</b>          | %Co2<br><b>0</b>                 | %N2<br><b>0</b>                                    | %H2s ppm<br><b>0</b>                                | Prover                         | Meter run<br><b>X</b>    | Taps<br><b>F</b>                                   |                        |
| FLOW DATA                                                                                                                 |                                         |                             |                                  |                                                    | TUBING DATA                                         |                                | CASING DATA              |                                                    |                        |
| Prover<br>Line X                                                                                                          | Orifice<br>Size                         | Press.<br>p.s.i.g.          | Diff.<br>hw                      | Temp.<br>F.                                        | Press.<br>p.s.i.g.                                  | Temp.<br>F.                    | Press.<br>p.s.i.g.       | Temp.<br>F.                                        | Duration<br>Of<br>Flow |
| Shut-in Pressure                                                                                                          |                                         |                             |                                  |                                                    | <b>2800</b>                                         | <b>60</b>                      |                          |                                                    | <b>24</b>              |
| 1                                                                                                                         | <b>3.068 X 1.500</b>                    | <b>66</b>                   | <b>55</b>                        | <b>60</b>                                          | <b>1900</b>                                         | <b>60</b>                      |                          |                                                    | <b>24</b>              |
| 2                                                                                                                         |                                         |                             |                                  |                                                    |                                                     |                                |                          |                                                    |                        |
| 3                                                                                                                         |                                         |                             |                                  |                                                    |                                                     |                                |                          |                                                    |                        |
| 4                                                                                                                         |                                         |                             |                                  |                                                    |                                                     |                                |                          |                                                    |                        |
| 5                                                                                                                         |                                         |                             |                                  |                                                    |                                                     |                                |                          |                                                    |                        |
| RATE OF FLOW CALCULATIONS                                                                                                 |                                         |                             |                                  |                                                    |                                                     |                                |                          |                                                    |                        |
| NO.                                                                                                                       | COEFFICIENT<br>(24 HOUR)                | hwPm                        | Pressure<br>Pm                   | Flow Temp<br>Factor Ft.                            | Gravity Factor<br>Fg.                               | Super Compress<br>Factor, Fpv. | Rate of Flow<br>(Q) Mcfd |                                                    |                        |
| 1                                                                                                                         | <b>11.13</b>                            | <b>66.00</b>                | <b>79.20</b>                     | <b>1.0000</b>                                      | <b>1.31306</b>                                      | <b>1.004857</b>                | <b>969</b>               |                                                    |                        |
| 2                                                                                                                         |                                         |                             |                                  |                                                    |                                                     |                                |                          |                                                    |                        |
| 3                                                                                                                         |                                         |                             |                                  |                                                    |                                                     |                                |                          |                                                    |                        |
| 4                                                                                                                         |                                         |                             |                                  |                                                    |                                                     |                                |                          |                                                    |                        |
| 5                                                                                                                         |                                         |                             |                                  |                                                    |                                                     |                                |                          |                                                    |                        |

  

|     |             |            |              |              |
|-----|-------------|------------|--------------|--------------|
| NO. | Pr          | Temp R     | Tr           | Z            |
| 1   | <b>.118</b> | <b>520</b> | <b>1.486</b> | <b>.9882</b> |
| 2   |             |            |              |              |
| 3   |             |            |              |              |
| 4   |             |            |              |              |
| 5   |             |            |              |              |

  

|    |               |     |               |
|----|---------------|-----|---------------|
| Pc | <b>2813.2</b> | Pc2 | <b>7914.1</b> |
|----|---------------|-----|---------------|

  

|     |               |               |               |
|-----|---------------|---------------|---------------|
| NO. | Pw            | Pw2           | Pc2-Pw2       |
| 1   | <b>1921.1</b> | <b>3690.7</b> | <b>4223.4</b> |
| 2   |               |               |               |
| 3   |               |               |               |
| 4   |               |               |               |
| 5   |               |               |               |

  

|                                    |                   |                   |          |
|------------------------------------|-------------------|-------------------|----------|
| GAS LIQUID HYDROCARBON RATIO       |                   | <b>97</b>         | Mcf/bbl. |
| API GRAVITY OF LIQUID HYDROCARBONS |                   | <b>51</b>         | Deg.     |
| S. G. SEPARATOR GAS                | <b>0.580</b>      | <b>XXXXXXXXXX</b> |          |
| S.G. FLOWING FLUID                 | <b>XXXXXXXXXX</b> | <b>0.610</b>      |          |
| CRITICAL PRESSURE                  | <b>672.70</b>     | <b>671.66</b>     | P.S.I.A. |
| CRITICAL TEMPERATURE               | <b>349.98</b>     | <b>359.80</b>     | R        |

  

|         |                 |         |                 |
|---------|-----------------|---------|-----------------|
| [1] Pc2 | <b>1.873860</b> | [2] Pc2 | <b>1.873860</b> |
| Pc2-Pw2 |                 | Pc2-Pw2 |                 |

  

AOF = Q \*  $\frac{Pc2}{Pc2-Pw2}$   $\frac{1}{n}$  **1816**

  

|                    |             |                      |                |              |         |             |
|--------------------|-------------|----------------------|----------------|--------------|---------|-------------|
| Absolute Open Flow | <b>1816</b> | Mcfd @ <b>15.025</b> | Angle of Slope | <b>45.00</b> | Slope n | <b>1.00</b> |
|--------------------|-------------|----------------------|----------------|--------------|---------|-------------|

  

Remarks:

  

|                       |                                                  |                                   |             |
|-----------------------|--------------------------------------------------|-----------------------------------|-------------|
| Approved by Division: | Conducted by:<br><b>SAMSON RESOURCES COMPANY</b> | Calculated by:<br><b>COMPUTER</b> | Checked by: |
|-----------------------|--------------------------------------------------|-----------------------------------|-------------|

7160-3901-9842-0439-5753