

30-039-27846

**NEW MEXICO OIL CONSERVATION COMMISSION**  
**MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELLS**

|                                                        |   |                             |                               |                              |                                        |                           |                        |                             |  |
|--------------------------------------------------------|---|-----------------------------|-------------------------------|------------------------------|----------------------------------------|---------------------------|------------------------|-----------------------------|--|
| Operator<br><b>Williams Production Company</b>         |   |                             |                               |                              | Lease or Unit Name<br><b>Rosa Unit</b> |                           |                        |                             |  |
| Test Type<br><b>X Initial      Annual      Special</b> |   |                             | Test Date<br><b>11/3/2004</b> |                              | Well Number<br><b>#44C</b>             |                           |                        |                             |  |
| Completion Date<br><b>11/1/2004</b>                    |   | Total Depth<br><b>6574'</b> |                               | Plug Back TD<br><b>6522'</b> |                                        | Elevation<br><b>6319'</b> |                        | Unit Sec<br><b>K 35</b>     |  |
| Casing Size<br><b>4-1/2"</b>                           |   | Weight<br><b>10.5#</b>      |                               | Set At<br><b>6569'</b>       |                                        | Perforations:             |                        | County<br><b>Rio Arriba</b> |  |
| Tubing Size<br><b>2-3/8"</b>                           |   | Weight<br><b>4.7#</b>       |                               | Set At<br><b>6433'</b>       |                                        | Perforations:             |                        | Pool<br><b>Blanco</b>       |  |
| Type Well - Single-Bradenhead-GG or GO Multiple        |   |                             |                               |                              | Packer Set At                          |                           | Formation<br><b>MV</b> |                             |  |
| Producing Thru<br><b>Tubing</b>                        |   | Reservoir Temp. oF          |                               | Mean Annual Temp. oF         |                                        | Barometer Pressure - Pa   |                        | Connection                  |  |
| L                                                      | H | Gq<br><b>0.6</b>            | %CO2                          | %N2                          | %H2S                                   | Prover<br><b>3/4"</b>     | Meter Run              | Taps                        |  |

  

| FLOW DATA |                  |                  |                  |                | TUBING DATA      |                | CASING DATA      |                |                  |
|-----------|------------------|------------------|------------------|----------------|------------------|----------------|------------------|----------------|------------------|
| NO        | Prover Line Size | X Orifice Size   | Pressure p.s.i.q | Temperature oF | Pressure p.s.i.q | Temperature oF | Pressure p.s.i.q | Temperature oF | Duration of Flow |
| SI        |                  | <b>2" X 3/4"</b> |                  |                | <b>581</b>       | <b>53</b>      | <b>870</b>       |                | <b>0</b>         |
| 1         |                  |                  |                  |                | <b>217</b>       | <b>65</b>      | <b>772</b>       |                | <b>0.5 hr</b>    |
| 2         |                  |                  |                  |                | <b>200</b>       | <b>66</b>      | <b>736</b>       |                | <b>1.0 hr</b>    |
| 3         |                  |                  |                  |                | <b>190</b>       | <b>66</b>      | <b>715</b>       |                | <b>1.5 hrs</b>   |
| 4         |                  |                  |                  |                | <b>180</b>       | <b>66</b>      | <b>698</b>       |                | <b>2.0 hrs</b>   |
| 5         |                  |                  |                  |                | <b>170</b>       | <b>66</b>      | <b>678</b>       |                | <b>3.0 hrs</b>   |

  

| RATE OF FLOW CALCULATION |                        |  |  |      |             |                      |                   |                             |                      |
|--------------------------|------------------------|--|--|------|-------------|----------------------|-------------------|-----------------------------|----------------------|
| NO                       | Coefficient (24 Hours) |  |  | hwPm | Pressure Pm | Flow Temp. Factor Fl | Gravity Factor Fg | Super Compress. Factor, Fpv | Rate of Flow Q, Mcfd |
| 1                        | <b>9.604</b>           |  |  |      | <b>182</b>  | <b>0.9943</b>        | <b>1.29</b>       | <b>1.019</b>                | <b>2285</b>          |
| 2                        |                        |  |  |      |             |                      |                   |                             |                      |
| 3                        |                        |  |  |      |             |                      |                   |                             |                      |
| 4                        |                        |  |  |      |             |                      |                   |                             |                      |

  

| NO | Pr | Temp. oR | Tr | Z | Gas Liquid Hydrocarbon Ration              | Mcf/bbl.       |
|----|----|----------|----|---|--------------------------------------------|----------------|
| 1  |    |          |    |   | A.P.I Gravity of Liquid Hydrocabrons _____ | Deq.           |
| 2  |    |          |    |   | Specific Gravity Separator _____           | XXXXXX         |
| 3  |    |          |    |   | Specific Gravity Flowing Fluid xxxxxxxxxx  |                |
| 4  |    |          |    |   | Critical Pressure _____ p.s.i.a.           | _____ p.s.i.a. |
| 5  |    |          |    |   | Critical Temperature _____ R               | _____ R        |

  

| NO | Pt1 | Pw         | Pw2           | Pc2-Pw2       | (1) Pc2 =<br>Pc2-Pw2 | (2) Pc2^n =<br>Pc2-Pw2 |
|----|-----|------------|---------------|---------------|----------------------|------------------------|
| 1  |     | <b>690</b> | <b>476100</b> | <b>301824</b> | <b>2.5774094</b>     | <b>2.0341714</b>       |
| 2  |     |            |               |               |                      |                        |
| 3  |     |            |               |               |                      |                        |
| 4  |     |            |               |               |                      |                        |

  

|                                   |  |              |                      |                         |
|-----------------------------------|--|--------------|----------------------|-------------------------|
| Absolute Open Flow<br><b>4647</b> |  | Mcf @ 15.025 | Angle of Slope _____ | Slope, n<br><b>0.75</b> |
|-----------------------------------|--|--------------|----------------------|-------------------------|

  

|                         |                                     |                                     |             |
|-------------------------|-------------------------------------|-------------------------------------|-------------|
| Remarks:                |                                     |                                     |             |
| Approved By Commission: | Conducted By:<br><b>Mike Gurule</b> | Calculated By:<br><b>Tracy Ross</b> | Checked By: |