

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

|                                                        |  |   |                             |                  |                                |                              |                        |     |                                       |                                        |  |                             |  |                  |  |                   |  |                  |  |
|--------------------------------------------------------|--|---|-----------------------------|------------------|--------------------------------|------------------------------|------------------------|-----|---------------------------------------|----------------------------------------|--|-----------------------------|--|------------------|--|-------------------|--|------------------|--|
| Operator<br><b>Williams Production Company</b>         |  |   |                             |                  |                                |                              |                        |     |                                       | Lease or Well Name<br><b>Rosa Unit</b> |  |                             |  |                  |  |                   |  |                  |  |
| Test Type<br><b>X Initial      Annual      Special</b> |  |   |                             |                  | Test Date<br><b>10/17/2001</b> |                              |                        |     |                                       | Well Number<br><b>#32B</b>             |  |                             |  |                  |  |                   |  |                  |  |
| Completion Date<br><b>10/10/2001</b>                   |  |   | Total Depth<br><b>7989'</b> |                  |                                | Plug Back TD<br><b>7967'</b> |                        |     | Elevation<br><b>6320'</b>             |                                        |  | Unit<br><b>G</b>            |  | Sec<br><b>21</b> |  | Twp<br><b>31N</b> |  | Rng<br><b>6W</b> |  |
| Casing Size<br><b>5 1/2"</b>                           |  |   | Weight<br><b>17#</b>        |                  | d                              |                              | Set At<br><b>7989'</b> |     | Perforations:<br><b>7842' - 7940'</b> |                                        |  | County<br><b>Rio Arriba</b> |  |                  |  |                   |  |                  |  |
| Tubing Size<br><b>2 1/16"</b>                          |  |   | Weight<br><b>3.25#</b>      |                  | d                              |                              | Set At<br><b>7931'</b> |     | Perforations:                         |                                        |  | Pool<br><b>Basin</b>        |  |                  |  |                   |  |                  |  |
| Type Well - Single-Bradenhead-GG or GO Multiple        |  |   |                             |                  |                                |                              |                        |     | Packer Set At                         |                                        |  | Formation<br><b>DK</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>1865</b>      | <b>65</b>      | <b>935</b>       |                | <b>0</b>         |
| 1         |                  |                  |                  |                | <b>240</b>       | <b>63</b>      | <b>935</b>       |                | <b>0.5 hr</b>    |
| 2         |                  |                  |                  |                | <b>210</b>       | <b>64</b>      | <b>935</b>       |                | <b>1.0 hr</b>    |
| 3         |                  |                  |                  |                | <b>195</b>       | <b>65</b>      | <b>940</b>       |                | <b>1.5 hrs</b>   |
| 4         |                  |                  |                  |                | <b>180</b>       | <b>65</b>      | <b>940</b>       |                | <b>2.0 hrs</b>   |
| 5         |                  |                  |                  |                | <b>165</b>       | <b>66</b>      | <b>940</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>177</b>  | <b>0.9943</b>        | <b>1.29</b>       | <b>1.019</b>                | <b>2222</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        |

  

| Pc | <b>947</b> | Pc2        | <b>896809</b> |              |
|----|------------|------------|---------------|--------------|
| NO | Pt1        | Pw         | Pw2           | Pc2-Pw2      |
| 1  |            | <b>952</b> | <b>906304</b> | <b>-9495</b> |
| 2  |            |            |               |              |
| 3  |            |            |               |              |
| 4  |            |            |               |              |

  

|                                                            |  |                                |  |
|------------------------------------------------------------|--|--------------------------------|--|
| (1) $P_{c2} = $ <b>-94.450658</b>                          |  | (2) $P_{c2}^n = $ <b>#NUM!</b> |  |
| $P_{c2} - P_{w2}$                                          |  | $P_{c2} - P_{w2}$              |  |
| AOF = Q $\frac{P_{c2}^n}{P_{c2} - P_{w2}} = $ <b>#NUM!</b> |  |                                |  |

  

|                    |              |              |                      |          |             |
|--------------------|--------------|--------------|----------------------|----------|-------------|
| Absolute Open Flow | <b>#NUM!</b> | Mcf @ 15.025 | Angle of Slope _____ | Slope, n | <b>0.75</b> |
|--------------------|--------------|--------------|----------------------|----------|-------------|

  

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