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State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
2040 South Pacheco  
Santa Fe, NM 87505

Form C-122  
Revised October, 1999

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

|                                                                                                                           |                                  |                                          |                                  |                                                           |                                                                                                      |                                          |                                                 |
|---------------------------------------------------------------------------------------------------------------------------|----------------------------------|------------------------------------------|----------------------------------|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------------------------------------------|
| Operator<br><b>GRUY PET. MANAGEMENT CO.</b>                                                                               |                                  |                                          |                                  | Lease or Unit Name<br><b>EDDY 21 FED COM</b>              |                                                                                                      |                                          |                                                 |
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |                                  |                                          |                                  |                                                           |                                                                                                      | Test Date<br><b>10/24/02</b>             | Well No.<br><b>2</b>                            |
| Completion Date                                                                                                           |                                  | Total Depth<br><b>11627</b>              |                                  | Plug Back TD<br><b>11575</b>                              |                                                                                                      | Elevation                                | Unit Ltr - Sec - TWP - Rge<br><b>21 24S 26E</b> |
| Csg. Size<br><b>5 1/2</b>                                                                                                 | Wt.<br><b>17</b>                 | d<br><b>4.892</b>                        | Set At<br><b>11627</b>           | Perforations:<br>From: <b>11134</b> To: <b>11160</b>      |                                                                                                      | County<br><b>EDDY</b>                    |                                                 |
| Tbg. Size<br><b>2 7/8</b>                                                                                                 | Wt.<br><b>6.5</b>                | d<br><b>2.441</b>                        | Set At<br><b>11090</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>11090</b>                             |                                                                                                      | Formation<br><b>MORROW</b>               |                                                 |
| Producing Thru<br>Tubing                                                                                                  | Reservoir Temp. °F<br><b>186</b> | Mean Annual Temp. °F<br><b>60</b>        |                                  | Baro. Press. - P <sub>a</sub><br><b>13.2</b>              |                                                                                                      | Connection<br><b>SALES</b>               |                                                 |
| L<br><b>11090</b>                                                                                                         | H<br><b>11090</b>                | Gg<br><b>0.574</b>                       | %CO <sub>2</sub><br><b>1.177</b> | %N <sub>2</sub><br><b>0.272</b>                           | %H <sub>2</sub> S<br><b>N/A</b>                                                                      | Prover<br><b>N/A</b>                     | Meter Run<br><b>4.027</b>                       |
| Taps<br><b>FLG</b>                                                                                                        |                                  |                                          |                                  |                                                           |                                                                                                      |                                          |                                                 |
| FLOW DATA                                                                                                                 |                                  |                                          |                                  | TUBING DATA                                               |                                                                                                      | CASING DATA                              |                                                 |
| No.                                                                                                                       | Prover<br>Line<br>Size           | Orifice<br>x<br>Size                     | Press<br>p.s.i.g.                | Diff.<br>h <sub>w</sub>                                   | Temp.<br>°F                                                                                          | Press<br>p.s.i.g.                        | Temp.<br>°F                                     |
| SI                                                                                                                        |                                  |                                          |                                  |                                                           |                                                                                                      |                                          |                                                 |
| 1                                                                                                                         |                                  | 4.027 X 2.250                            | 272                              | 8.9                                                       | 69                                                                                                   | 2053                                     | N/A                                             |
| 2                                                                                                                         |                                  | 4.027 X 2.250                            | 275                              | 16.9                                                      | 70                                                                                                   | 2000                                     |                                                 |
| 3                                                                                                                         |                                  | 4.027 X 2.250                            | 277                              | 40.1                                                      | 54                                                                                                   | 1931                                     |                                                 |
| 4                                                                                                                         |                                  | 4.027 X 2.250                            | 285                              | 98.3                                                      | 47                                                                                                   | 1710                                     |                                                 |
| 5                                                                                                                         |                                  |                                          |                                  |                                                           |                                                                                                      |                                          |                                                 |
| RATE OF FLOW CALCULATIONS                                                                                                 |                                  |                                          |                                  |                                                           |                                                                                                      |                                          |                                                 |
| No.                                                                                                                       | COEFFICIENT<br>(24 Hour)         | ✓<br>h <sub>w</sub> P <sub>m</sub>       | Pressure<br>P <sub>m</sub>       | Flow Temp.<br>Factor Ft.                                  | Gravity Factor<br>F <sub>g</sub>                                                                     | Super Compress<br>Factor F <sub>pv</sub> | Rate of Flow<br>Q. Mcfd                         |
| 1                                                                                                                         |                                  |                                          |                                  |                                                           |                                                                                                      |                                          | 1717                                            |
| 2                                                                                                                         |                                  |                                          |                                  |                                                           |                                                                                                      |                                          | 2479                                            |
| 3                                                                                                                         | TOTAL                            | FLOW                                     | METER                            |                                                           |                                                                                                      |                                          | 3771                                            |
| 4                                                                                                                         |                                  |                                          |                                  |                                                           |                                                                                                      |                                          | 6130                                            |
| 5                                                                                                                         |                                  |                                          |                                  |                                                           |                                                                                                      |                                          |                                                 |
| No.                                                                                                                       | P <sub>r</sub>                   | Temp. °R                                 | T <sub>r</sub>                   | Z                                                         | Gas Liquid Hydrocarbon Ratio<br><b>N/A</b> Mcf bbl.                                                  |                                          |                                                 |
| 1                                                                                                                         |                                  |                                          |                                  |                                                           | A.P. I. Gravity of Liquid Hydrocarbons<br><b>N/A</b> Deg.                                            |                                          |                                                 |
| 2                                                                                                                         |                                  |                                          |                                  |                                                           | Specific Gravity Separator Gas<br><b>0.574</b> XXXXXXXX                                              |                                          |                                                 |
| 3                                                                                                                         | TOTAL                            | FLOW                                     | METER                            |                                                           | Specific Gravity Flowing Fluid<br><b>N/A</b> XXXXXX                                                  |                                          |                                                 |
| 4                                                                                                                         |                                  |                                          |                                  |                                                           | Critical Pressure<br><b>675</b> P.S.I.A. P.S.I.A.                                                    |                                          |                                                 |
| 5                                                                                                                         |                                  |                                          |                                  |                                                           | Critical Temperature<br><b>342</b> R. R.                                                             |                                          |                                                 |
| P <sub>c</sub> <b>2066.2</b> P <sub>c2</sub> <b>4269.2</b>                                                                |                                  |                                          |                                  |                                                           |                                                                                                      |                                          |                                                 |
| No.                                                                                                                       | P <sub>t</sub> <sup>2</sup>      | 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) $P_c^2 = \frac{5.356}{P_c^2 - P_w^2}$ (2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.442$ |                                          |                                                 |
| 1                                                                                                                         |                                  | 2047.8                                   | 4193.6                           | 75.6                                                      | AOF = Q $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 14970$                                       |                                          |                                                 |
| 2                                                                                                                         |                                  | 2033.5                                   | 4135.1                           | 134.1                                                     |                                                                                                      |                                          |                                                 |
| 3                                                                                                                         |                                  | 1992.4                                   | 3969.8                           | 299.4                                                     |                                                                                                      |                                          |                                                 |
| 4                                                                                                                         |                                  | 1863.4                                   | 3472.2                           | 797                                                       |                                                                                                      |                                          |                                                 |
| 5                                                                                                                         |                                  |                                          |                                  |                                                           |                                                                                                      |                                          |                                                 |
| Absolute Open Flow                                                                                                        |                                  | <b>14970</b>                             |                                  | Mcf @ 15.025                                              | Angle of Slope (°):                                                                                  | <b>61.98</b>                             | Slope n: <b>0.532</b>                           |
| Remarks: <b>* NO LIQUID MADE DURING TEST.</b>                                                                             |                                  |                                          |                                  |                                                           |                                                                                                      |                                          |                                                 |
| Approved By Division:                                                                                                     |                                  | Conducted By:<br><b>PRO WELL TESTING</b> |                                  | Calculated By:<br><b>MERV BUECKER</b>                     |                                                                                                      | Checked By:<br><b>MB</b>                 |                                                 |