

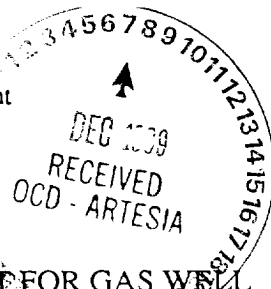
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appropriate district office  
See Rule 401 & Rule 1122

State of New Mexico  
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

Form C-122  
Revised 4-1-91



MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

|                                                                                                                           |                    |                                 |                                  |                                                      |                                                    |                                 |                           |                                                                        |                    |
|---------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------------------|----------------------------------|------------------------------------------------------|----------------------------------------------------|---------------------------------|---------------------------|------------------------------------------------------------------------|--------------------|
| Operator<br><b>Harvey E. Yates Company</b>                                                                                |                    |                                 |                                  |                                                      | Lease or Unit Name<br><b>Travis ATR 24 St. Com</b> |                                 |                           |                                                                        |                    |
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |                    |                                 |                                  |                                                      | Test Date<br><b>11-30-99</b>                       |                                 | Well No.<br><b>1</b>      |                                                                        |                    |
| Completion Date<br><b>11-17-99</b>                                                                                        |                    | Total Depth<br><b>11260</b>     |                                  | Plug Back TD<br><b>10450</b>                         |                                                    | Elevation<br><b>3493' GL</b>    |                           | Unit Ltr. - Sec. - TWP - Rge.<br><b>K 24 18s 28e</b>                   |                    |
| Csg. Size<br><b>5 1/2</b>                                                                                                 | Wt.<br><b>17#</b>  | d<br><b>4.892</b>               | Set At<br><b>11260</b>           | Perforations:<br>From: <b>10224</b> To: <b>10242</b> |                                                    |                                 |                           | County<br><b>Eddy</b>                                                  |                    |
| Tbg. Size<br><b>2 3/8</b>                                                                                                 | Wt.<br><b>4.7#</b> | d<br><b>1.995</b>               | Set At<br><b>10144</b>           | Perforations:<br>From: <b>Open</b> To: <b>Ended</b>  |                                                    |                                 |                           | Pool<br><b>Palmillo</b> <i>Prad</i><br><b>Undesignated</b> <i>Atok</i> |                    |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br><b>Single</b>                                                  |                    |                                 |                                  |                                                      | Packer Set At<br><b>10144</b>                      |                                 | Formation<br><b>Atoka</b> |                                                                        |                    |
| Producing Thru<br><b>Tbg</b>                                                                                              |                    | Reservoir Temp. °F<br><b>60</b> |                                  | Mean Annual Temp. °F<br><b>60</b>                    |                                                    | Baro. Press - P.<br><b>13.2</b> |                           | Connection<br><b>LG&amp;E</b>                                          |                    |
| L<br><b>10144</b>                                                                                                         | H<br><b>10144</b>  | Gg<br><b>0.662</b>              | % CO <sub>2</sub><br><b>0.23</b> | % N <sub>2</sub><br><b>1.28</b>                      | % H <sub>2</sub> S                                 | Prover                          |                           | Meter Run<br><b>3.068</b>                                              | Taps<br><b>FLG</b> |

| FLOW DATA |                  |              |                 |                      |          | TUBING DATA     |          | CASING DATA     |          | Duration of Flow |
|-----------|------------------|--------------|-----------------|----------------------|----------|-----------------|----------|-----------------|----------|------------------|
| NO.       | Prover Line Size | Orifice Size | Press. p.s.i.g. | Diff. h <sub>w</sub> | Temp. °F | Press. p.s.i.g. | Temp. °F | Press. p.s.i.g. | Temp. °F |                  |
| SI        |                  |              |                 |                      |          | 2364            |          | PACKER          |          | 24 hrs           |
| 1.        | 3.068 x 1.375    |              | 239.5           | 2.00                 | 68       | 2204            |          | "               |          | 1.0 hr           |
| 2.        | 3.068 x 1.375    |              | 236.1           | 8.00                 | 75       | 2013            |          | "               |          | 1.0 hr           |
| 3.        | 3.068 x 1.375    |              | 235.8           | 17.10                | 75       | 1802            |          | "               |          | 1.0 hr           |
| 4.        | 3.068 x 1.375    |              | 241.5           | 31.20                | 76       | 1549            |          | "               |          | 1.0 hr           |
| 5.        |                  |              |                 |                      |          |                 |          |                 |          |                  |

RATE OF FLOW CALCULATIONS

| NO. | COEFFICIENT (24 HOUR) | $h_w P_m$ | 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.  | 9.249                 | 22.50     | 253.2                   | .9924                 | 1.229              | 1.025                                     | 260                  |
| 2.  | 9.249                 | 44.65     | 249.2                   | .9859                 | 1.229              | 1.024                                     | 512                  |
| 3.  | 9.249                 | 65.28     | 249.2                   | .9859                 | 1.229              | 1.024                                     | 749                  |
| 4.  | 9.249                 | 89.23     | 255.2                   | .9850                 | 1.229              | 1.024                                     | 1023                 |
| 5.  |                       |           |                         |                       |                    |                                           |                      |

| NO. | P <sub>r</sub> | Temp. °R | T <sub>r</sub> | Z    | Gas Liquid Hydrocarbon Ratio | A.P. I. Gravity of Liquid Hydrocarbons | Specific Gravity Separator Gas | Specific Gravity Flowing Fluid | Critical Pressure | Critical Temperature |
|-----|----------------|----------|----------------|------|------------------------------|----------------------------------------|--------------------------------|--------------------------------|-------------------|----------------------|
| 1.  | .38            | 528      | 1.40           | .952 | 42.4                         | 53.9 @ 60                              | .662                           | XXXXXXX                        | * 669             | * 375                |
| 2.  | .37            | 535      | 1.42           | .954 |                              |                                        |                                | XXXXXX                         | P.S.I.A. 608      | R 408                |
| 3.  | .37            | 535      | 1.42           | .954 |                              |                                        |                                |                                |                   |                      |
| 4.  | .38            | 536      | 1.42           | .954 |                              |                                        |                                |                                |                   |                      |
| 5.  |                |          |                |      |                              |                                        |                                |                                |                   |                      |

P<sub>c</sub> 2377.2 P<sub>c</sub><sup>2</sup> 5651.1

| NO. | P <sub>i</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) $\frac{P_c^2}{P_c^2 - P_w^2} =$ | 2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$ |
|-----|-----------------------------|----------------|-----------------------------|-----------------------------------------------------------|------------------------------------|-----------------------------------------------------|
| 1.  | 2217.6                      | 4917.8         | 733.3                       |                                                           | 1.776                              | 1.708                                               |
| 2.  | 2027.9                      | 4112.6         | 1538.5                      |                                                           |                                    |                                                     |
| 3.  | 1819.3                      | 3310.0         | 2341.1                      |                                                           |                                    |                                                     |
| 4.  | 1571.3                      | 2468.9         | 3182.1                      |                                                           |                                    |                                                     |
| 5.  |                             |                |                             |                                                           |                                    |                                                     |

$$1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.776 \quad 2) \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.708$$

$$AOF = Q \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.748$$

Absolute Open Flow **1,748** Mcfd @ 15.025 Angle of Slope  $\theta$  **47.0** Slope, n **.9325**

Remarks: **Well produced 2.5 BBLs condensate during test**  
\* = corrected to 1.28% N<sub>2</sub>

|                      |                                               |                                     |                                  |
|----------------------|-----------------------------------------------|-------------------------------------|----------------------------------|
| Approved By Division | Conducted By:<br><b>Jarrel Services, Inc.</b> | Calculated By:<br><b>Bob Murray</b> | Checked By:<br><b>Bob Murray</b> |
|----------------------|-----------------------------------------------|-------------------------------------|----------------------------------|