

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

Form C-122

*dst  
File*

|                                                                                                                           |               |                               |                           |                                        |                            |                           |                    |
|---------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------------|---------------------------|----------------------------------------|----------------------------|---------------------------|--------------------|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |               |                               |                           |                                        |                            | Test Date<br>01/26/1992   |                    |
| Company<br>Yates Petroleum Corp                                                                                           |               |                               |                           | Connection<br>Transwestern Pipeline Co |                            |                           |                    |
| Pool<br>Atoka                                                                                                             |               |                               |                           | Formation<br>East Burton Flat          |                            |                           |                    |
| Completion Date<br>10/03/1992                                                                                             |               | Total Depth<br>11500          |                           | Plug Back TD<br>11363                  |                            | Elevation<br>3274         |                    |
| Farm or Lease Name<br>Superior KJ Federal Com                                                                             |               |                               |                           |                                        |                            |                           |                    |
| Csg. Size<br>5.500                                                                                                        | Wt.<br>17.000 | d<br>4.892                    | Set At<br>11536           | Perforations<br>From 10764 To 10784    |                            | Well No.<br>1             |                    |
| Tbg. Size<br>2.875                                                                                                        | Wt.<br>6.500  | d<br>2.441                    | Set At<br>10700           | Perforations<br>From 10764 To 10784    |                            | Unit<br>D                 | Sec.<br>7          |
|                                                                                                                           |               |                               |                           |                                        |                            | Twp.<br>20S               | Rge.<br>29E        |
| Type Well<br>Single                                                                                                       |               |                               |                           | Packer Set At<br>10700                 |                            | County<br>Eddy            |                    |
| Producing Thru<br>Tubing                                                                                                  |               | Resv. Temp. °F<br>167 @ 11190 |                           | Mean Temp. °F<br>62                    |                            | Baro. Press. - Pa<br>13.2 |                    |
| State<br>New Mexico                                                                                                       |               |                               |                           |                                        |                            |                           |                    |
| L<br>10700                                                                                                                | H<br>10700    | Gg<br>0.657                   | %CO <sub>2</sub><br>0.269 | %N <sub>2</sub><br>1.095               | %H <sub>2</sub> S<br>0.000 | Prover<br>0.000           | Meter Run<br>2.000 |
|                                                                                                                           |               |                               |                           |                                        |                            | Taps<br>Flange            |                    |

  

| FLOW DATA |                  |   |              |                 |          | TUBING DATA |                 | CASING DATA |                 | Duration |         |
|-----------|------------------|---|--------------|-----------------|----------|-------------|-----------------|-------------|-----------------|----------|---------|
| NO.       | Prover Line Size | X | Orifice Size | Press. p.s.i.g. | Diff. hw | Temp. °F    | Press. p.s.i.g. | Temp. °F    | Press. p.s.i.g. | Temp. °F | of Flow |
| Sl.       | 0.000            | x | 0.000        | 0               | 0.0      | 0           | 470             | 0           |                 |          | 0       |
| 1.        | 2.067            | x | 0.500        | 100             | 4.0      | 42          | 440             | 62          |                 |          | 24      |
| 2.        | 2.067            | x | 0.500        | 100             | 32.0     | 45          | 327             | 62          |                 |          | 24      |
| 3.        | 2.067            | x | 0.500        | 88              | 53.7     | 44          | 213             | 62          |                 |          | 24      |
| 4.        | 2.067            | x | 0.500        | 100             | 81.0     | 43          | 100             | 62          |                 |          | 24      |
| 5.        |                  | x |              |                 |          |             |                 |             |                 |          |         |

  

| RATE OF FLOW CALCULATIONS |                       |                |                         |                      |                               |                                         |                      |
|---------------------------|-----------------------|----------------|-------------------------|----------------------|-------------------------------|-----------------------------------------|----------------------|
| NO.                       | Coefficient (24 Hour) | $\sqrt{hwP_m}$ | Pressure P <sub>m</sub> | Flow Temp. Factor Ft | Gravity Factor F <sub>g</sub> | Super Compress. Factor, F <sub>pv</sub> | Rate of Flow Q, Mcfd |
| 1.                        | 1.189                 | 21.3           | 113.2                   | 1.0178               | 1.234                         | 1.012                                   | 32                   |
| 2.                        | 1.189                 | 60.2           | 113.2                   | 1.0148               | 1.234                         | 1.012                                   | 91                   |
| 3.                        | 1.189                 | 73.7           | 101.2                   | 1.0158               | 1.234                         | 1.011                                   | 111                  |
| 4.                        | 1.189                 | 95.8           | 113.2                   | 1.0168               | 1.234                         | 1.012                                   | 145                  |
| 5.                        |                       |                |                         |                      |                               |                                         |                      |

  

|     |      |         |      |       |                                       |              |              |
|-----|------|---------|------|-------|---------------------------------------|--------------|--------------|
| NO. | Pr   | Temp °R | Tr   | Z     | Gas Liquid Hydrocarbon Ratio          | 0            | Mcf/bbl.     |
| 1.  | 0.17 | 502     | 1.35 | 0.976 | A.P.I. Gravity of Liquid Hydrocarbons | 0.000        | Deg.         |
| 2.  | 0.17 | 505     | 1.36 | 0.976 | Specific Gravity Separator Gas        | 0.657        | XXXXXXXXXX   |
| 3.  | 0.15 | 504     | 1.36 | 0.979 | Specific Gravity Flowing Fluid        | XXXXXXXXXX   | 0.657        |
| 4.  | 0.17 | 503     | 1.35 | 0.976 | Critical Pressure                     | 669 P.S.I.A. | 669 P.S.I.A. |
| 5.  |      |         |      |       | Critical Temperature                  | 371 °R       | 371 °R       |

  

|     |       |       |       |
|-----|-------|-------|-------|
| Pc  | 483.2 | Pc²   | 233.5 |
| NO. | Pt²   | Pw    | Pw²   |
| 1.  | 205.4 | 453.2 | 205.4 |
| 2.  | 115.7 | 340.4 | 115.8 |
| 3.  | 51.2  | 226.5 | 51.3  |
| 4.  | 12.8  | 114.4 | 13.1  |
| 5.  |       |       |       |

  

(1)  $\frac{P_c^2}{P_c^2 - P_w^2} = 1.985$

AOF = Q  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 149$

(2)  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.647$

  

|                    |     |              |                |      |          |       |
|--------------------|-----|--------------|----------------|------|----------|-------|
| Absolute Open Flow | 149 | Mcf @ 15.025 | Angle of Slope | θ 36 | Slope, n | 0.728 |
|--------------------|-----|--------------|----------------|------|----------|-------|

  

Remarks

  

|                        |                          |                                   |            |
|------------------------|--------------------------|-----------------------------------|------------|
| Approved By Commission | Conducted By<br>Ed Perry | Calculated By<br>Andrea Carpenter | Checked By |
|------------------------|--------------------------|-----------------------------------|------------|