

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

Form C-122

RECEIVED BY

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O. C. D.  
ARTESIA, OFFICE

|                                                 |               |                              |                   |                                             |                     |
|-------------------------------------------------|---------------|------------------------------|-------------------|---------------------------------------------|---------------------|
| Type Test<br>[x] Initial [ ] Annual [ ] Special |               |                              |                   | Test Date<br>6/21/83                        |                     |
| Company<br>Yates Petroleum Corporation          |               |                              |                   | Connection<br>Transwestern Pipeline Company |                     |
| Pool<br>Pecos Slope: <u>abo</u>                 |               |                              |                   | Formation<br>Abo                            |                     |
| Completion Date<br>6/30/82                      |               | Total Depth<br>4150.0'       |                   | Plug Back TD<br>4053.0'                     |                     |
|                                                 |               |                              |                   | Elevation<br>3770.7'                        |                     |
| Csg Size<br>4.500"                              | Wt.<br>3.500# | d<br>4.090"                  | Set At<br>4150.0' | Perforations:<br>From 3701.0' To 3949.0'    |                     |
| Tbg Size<br>2.375"                              | Wt.<br>4.700# | d<br>1.995"                  | Set At<br>3640.0' | Perforations:<br>From 0.0' To 0.0'          |                     |
| Type Well<br>Single                             |               |                              |                   | Packer Set At<br>3641.0'                    |                     |
| Producing Thru<br>Tubing                        |               | Resv. Temp. °F<br>90 @ 3640' |                   | Baro. Press. - Pa<br>13.2 psia.             |                     |
| L<br>3640.0'                                    |               | Gg<br>3640.0'                | %CO2<br>.643      | %N2<br>.03                                  | %H2S<br>6.67        |
|                                                 |               |                              |                   | Prover<br>0.000"                            | Meter Run<br>2.000" |
|                                                 |               |                              |                   | Taps<br>Flange                              |                     |

| FLOW DATA |                |                 |                |             |             | TUBING DATA    |             | CASING DATA    |             | Duration<br>of<br>Flow |
|-----------|----------------|-----------------|----------------|-------------|-------------|----------------|-------------|----------------|-------------|------------------------|
| NO        | Prover<br>Size | Orifice<br>Size | Press.<br>psig | Diff.<br>hw | Temp.<br>°F | Press.<br>psig | Temp.<br>°F | Press.<br>psig | Temp.<br>°F |                        |
| SI        | 0.000          | x 0.000         | 0              | 0.0         | 70          | 995            | 0           | 0              | 0           | 0 hrs.                 |
| 1.        | 2.067          | x .875          | 140            | 15.2        | 70          | 862            | 62          | 0              | 0           | 24 hrs.                |
| 2.        | 2.067          | x .875          | 140            | 21.5        | 70          | 810            | 62          | 0              | 0           | 24 hrs.                |
| 3.        | 2.067          | x .875          | 135            | 35.5        | 70          | 739            | 62          | 0              | 0           | 24 hrs.                |
| 4.        | 2.067          | x .875          | 135            | 44.0        | 70          | 600            | 62          | 0              | 0           | 24 hrs.                |
| 5.        | 0.000          | x 0.000         | 0              | 0.0         | 0           | 0              | 0           | 0              | 0           | 0 hrs.                 |

RATE OF FLOW CALCULATIONS

| NO | Coefficient<br>(24 HOJR) | 1/hwPm | Pressure<br>Pm | Flow Temp<br>Factor<br>Ft. | Gravity<br>Factor<br>Fg | Super<br>Compress.<br>Fact. Fpv | Rate of Flow<br>Q, Mcfd |
|----|--------------------------|--------|----------------|----------------------------|-------------------------|---------------------------------|-------------------------|
| 1. | 3.729                    | 48.26  | 153.20         | .991                       | 1.247                   | 1.011                           | 225                     |
| 2. | 3.729                    | 57.39  | 153.20         | .991                       | 1.247                   | 1.011                           | 267                     |
| 3. | 3.729                    | 72.53  | 148.20         | .991                       | 1.247                   | 1.011                           | 338                     |
| 4. | 3.729                    | 80.75  | 148.20         | .991                       | 1.247                   | 1.011                           | 376                     |
| 5. | 0.000                    | 0.00   | 0.00           | 0.000                      | 0.000                   | 0.000                           | 0                       |

|    |      |             |      |       |                                                    |
|----|------|-------------|------|-------|----------------------------------------------------|
| NO | Pr   | Temp.<br>°R | Tr   | Z     | Gas Liquid Hydrocarbon Ratio Dry Mcf/bbl.          |
| 1. | .23  | 530         | 1.51 | .977  | A.P.I. Gravity of Liquid Hydrocarbons 0.000 Deg.   |
| 2. | .23  | 530         | 1.51 | .977  | Specific Gravity Separator Gas .643 xxxxxxxxxxxxxx |
| 3. | .22  | 530         | 1.51 | .978  | Specific Gravity Flowing Fluid xxxxxx .643         |
| 4. | .22  | 530         | 1.51 | .978  | Critical Pressure 659.5 PSIA 659.5 PSIA            |
| 5. | 0.00 | 0           | 0.00 | 0.000 | Critical Temperature 351.5°R 351.5°R               |

|    |        |       |        |
|----|--------|-------|--------|
| Pc | 1008.2 | Pc2   | 1016.5 |
| NO | Pt2    | Pw    | Pw2    |
| 1. | 766.0  | 875.5 | 766.6  |
| 2. | 677.7  | 823.7 | 678.5  |
| 3. | 565.8  | 753.1 | 567.2  |
| 4. | 376.0  | 614.6 | 377.8  |
| 5. | 0.0    | 0.0   | 0.0    |

$$(1) \frac{Pc^2}{Pc^2 - Pw^2} = 1.5962 \quad (2) \left[ \frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 1.2911$$

$$AOF = Q \left[ \frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 486 \text{ Mcfd}$$

Absolute Open Flow 486 Mcfd @ 15.025 Angle of Slope, 0 29 Slope, n .546

Remarks:

|              |                               |                                   |             |
|--------------|-------------------------------|-----------------------------------|-------------|
| Approved By: | Conducted By:<br>David Weaver | Calculated By:<br>Andie Carpenter | Checked By: |
|--------------|-------------------------------|-----------------------------------|-------------|