

c/sf File

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

Form O-122

RECEIVED

|                                                 |               |                              |                   |                                          |              |                                             |                     |                                       |  |
|-------------------------------------------------|---------------|------------------------------|-------------------|------------------------------------------|--------------|---------------------------------------------|---------------------|---------------------------------------|--|
| Type Test<br>[x] Initial [ ] Annual [ ] Special |               |                              |                   |                                          |              | Test Date<br>12/31/82                       |                     | FEB 18 1983                           |  |
| Company<br>Yates Petroleum Corporation          |               |                              |                   |                                          |              | Connection<br>Transwestern Pipeline Company |                     | O. C. D.                              |  |
| Pool<br>Pecos Slope - Abo Gas                   |               |                              |                   |                                          |              | Formation<br>Abo                            |                     | Unit<br>ARTESIA, OFFICE               |  |
| Completion Date<br>2/13/82                      |               | Total Depth<br>4100.0'       |                   | Plug Back TD<br>3882.0'                  |              | Elevation<br>3721.0'                        |                     | Farm or Lease Name<br>Finley "RV" Com |  |
| Csg Size<br>4.500"                              | Wt.<br>9.500# | d<br>4.909"                  | Set At<br>4098.0' | Perforations:<br>From 3570.0' To 3830.0' |              | Well No.<br>1-Y                             |                     |                                       |  |
| Tbg Size<br>2.375"                              | Wt.<br>4.700# | d<br>1.995"                  | Set At<br>3760.0' | Perforations:<br>From 0.0' To 0.0'       |              | Unit Sec<br>K 34                            |                     | Top Rge<br>68 25E                     |  |
| Type Well<br>Single                             |               |                              |                   |                                          |              | Packer Set At<br>3760.0'                    |                     | County<br>Chaves                      |  |
| Producing Thru<br>Tubing                        |               | Resv. Temp. °F<br>92 @ 3760' |                   | Mean Temp. °F<br>62.0                    |              | Baro. Press. - Pa<br>13.2 psia.             |                     | State<br>New Mexico                   |  |
| L<br>3760.0'                                    | H<br>3760.0'  | Gg<br>.645                   | %CO2<br>.13       | %N2<br>5.38                              | %H2S<br>0.00 | 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 Orifice<br>Size X 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         | 55          | 873            | 0           | 0              | 0           | 0 hrs.                 |
| 1.        | 4.026 X 1.000                 | 130            | 4.6         | 58          | 692            | 62          | 0              | 0           | 24 hrs.                |
| 2.        | 4.026 X 1.000                 | 135            | 6.3         | 58          | 582            | 62          | 0              | 0           | 24 hrs.                |
| 3.        | 4.026 X 1.000                 | 140            | 11.6        | 55          | 447            | 62          | 0              | 0           | 24 hrs.                |
| 4.        | 4.026 X 1.000                 | 145            | 17.0        | 55          | 150            | 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 HOUR) | hw/Pm | 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. | 4.753                    | 25.67 | 143.20         | 1.002                      | 1.245                   | 1.011                           | 154                     |
| 2. | 4.753                    | 30.56 | 148.20         | 1.002                      | 1.245                   | 1.011                           | 183                     |
| 3. | 4.753                    | 42.16 | 153.20         | 1.005                      | 1.245                   | 1.012                           | 254                     |
| 4. | 4.753                    | 51.86 | 158.20         | 1.005                      | 1.245                   | 1.013                           | 312                     |
| 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<br>Dry Mcf/bbl. | A.P.I. Gravity of Liquid Hydrocarbons<br>0.000 Deg. | Specific Gravity Separator Gas<br>.645 | Specific Gravity Flowing Fluid<br>xxxxxx .645 | Critical Pressure<br>662.0 PSIA | Critical Temperature<br>355.6°R |
|----|------|-------------|------|-------|----------------------------------------------|-----------------------------------------------------|----------------------------------------|-----------------------------------------------|---------------------------------|---------------------------------|
| 1. | .22  | 518         | 1.46 | .978  |                                              |                                                     |                                        |                                               |                                 |                                 |
| 2. | .22  | 518         | 1.46 | .978  |                                              |                                                     |                                        |                                               |                                 |                                 |
| 3. | .23  | 515         | 1.45 | .976  |                                              |                                                     |                                        |                                               |                                 |                                 |
| 4. | .24  | 515         | 1.45 | .975  |                                              |                                                     |                                        |                                               |                                 |                                 |
| 5. | 0.00 | 0           | 0.00 | 0.000 |                                              |                                                     |                                        |                                               |                                 |                                 |

Pc 886.2 Pc² 785.4

| NO | Pt²   | Pw    | Pw²   | Pc²-Pw² (1) | Pc² / (Pc²-Pw²) = 1.0349 | (2) [Pc² / (Pc²-Pw²)]^n = 1.0254 |
|----|-------|-------|-------|-------------|--------------------------|----------------------------------|
| 1. | 497.3 | 705.4 | 497.6 | 287.7       |                          |                                  |
| 2. | 354.3 | 595.6 | 354.7 | 430.7       |                          |                                  |
| 3. | 211.8 | 461.1 | 212.6 | 572.7       |                          |                                  |
| 4. | 26.6  | 167.3 | 28.0  | 757.4       |                          |                                  |
| 5. | 0.0   | 0.0   | 0.0   | 0.0         |                          |                                  |

ROF = Q [Pc² / (Pc²-Pw²)]^n = 320 Mcfd

|                    |                   |                   |    |          |      |
|--------------------|-------------------|-------------------|----|----------|------|
| Absolute Open Flow | 320 Mcfd @ 15.025 | Angle of Slope, θ | 36 | Slope, n | .731 |
| Remarks:           |                   |                   |    |          |      |

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