

# NEW MEXICO OIL CONSERVATION COMMISSION

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12

Pool BASIN DAKOTA Formation DAKOTA Count 2nd  
 Initial ✓ Annual ✓ Special ✓ Date of Test 6/14/62  
 Company ARTEC OIL & GAS CO. Lease EAST Well No. 9  
 Unit Sec. 25 Twp. 31N Rge. 12W Purchaser SOUTHEAST UNION GAS  
 Casing 4 1/2 Wt. 9.5+11.6 I.D. 4.000 Set at 7125 Perf. 6868 To 7065  
 Tubing 2 3/8 Wt. 4.7 I.D. 1.995 Set at 6891 Perf. Pinnacle To 7065  
 Gas Pay: From 6868 To 7065 L 6890 xG 7000 -GL 4824 Bar. Press. 12.0  
 Producing Thru: Casing ✓ Tubing ✓ Type Well SINGLE DAKOTA  
 Date of Completion: 6/7/62 Packer ✓ Single-Bradenhead-G. O. or G.O. Dual  
 Reservoir Temp. ✓

### OBSERVED DATA

Tested Through (Pressure) (Choke) (Meter)

Type Taps ✓

| No. | Flow Data              |                        |             |                      |           | Tubing Data |           | Casing Data |           | Duration of Flow Hr. |
|-----|------------------------|------------------------|-------------|----------------------|-----------|-------------|-----------|-------------|-----------|----------------------|
|     | (Pressure) (Line) Size | (Choke) (Orifice) Size | Press. psig | Diff. h <sub>w</sub> | Temp. °F. | Press. psig | Temp. °F. | Press. psig | Temp. °F. |                      |
| 1.  | 2"                     | 3/4"                   |             |                      |           | 1906        |           | 1909        |           |                      |
| 2.  |                        |                        |             |                      |           | 241         | 6000      | 585         | 6000      | 3 Hrs.               |
| 3.  |                        |                        |             |                      |           |             |           |             |           |                      |
| 4.  |                        |                        |             |                      |           |             |           |             |           |                      |
| 5.  |                        |                        |             |                      |           |             |           |             |           |                      |

### FLOW CALCULATIONS

| No. | Coefficient (24-Hour) | $\sqrt{h_{wp}}$ | Pressure psia | Flow Temp. Factor F <sub>t</sub> | Gravity Factor F <sub>g</sub> | Compress. Factor F <sub>pv</sub> | Rate of Flow Q-MCFPD @ 15.025 psia |
|-----|-----------------------|-----------------|---------------|----------------------------------|-------------------------------|----------------------------------|------------------------------------|
| 1.  | 12.3650               |                 | 253           | 1.000                            | 9258                          | 1.030                            | 2.913                              |
| 2.  |                       |                 |               |                                  |                               |                                  |                                    |
| 3.  |                       |                 |               |                                  |                               |                                  |                                    |
| 4.  |                       |                 |               |                                  |                               |                                  |                                    |
| 5.  |                       |                 |               |                                  |                               |                                  |                                    |

### PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ✓ cf/bbl.  
 Gravity of Liquid Hydrocarbons ✓ deg.  
 °C (1-e<sup>-8</sup>)

Specific Gravity Separator Gas ✓  
 Specific Gravity Flowing Fluid ✓  
 P<sub>c</sub> 1921 P<sub>c</sub> 3,690.241

| No. | P <sub>w</sub> | P <sub>c</sub> | P <sub>c</sub> Q | (P <sub>c</sub> Q) <sup>2</sup> | (P <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-8</sup> ) | P <sub>w</sub> <sup>2</sup> | P <sub>c</sub> <sup>2</sup> -P <sub>w</sub> <sup>2</sup> | Cal. P <sub>w</sub> | P <sub>w</sub> |
|-----|----------------|----------------|------------------|---------------------------------|------------------------------------------------------|-----------------------------|----------------------------------------------------------|---------------------|----------------|
| 1.  | 597            |                |                  |                                 |                                                      |                             |                                                          |                     |                |
| 2.  |                |                |                  |                                 |                                                      | 356.407                     | 3.333.832                                                |                     |                |
| 3.  |                |                |                  |                                 |                                                      |                             |                                                          |                     |                |
| 4.  |                |                |                  |                                 |                                                      |                             |                                                          |                     |                |
| 5.  |                |                |                  |                                 |                                                      |                             |                                                          |                     |                |

Absolute Potential: 3.219 MCFPD; n 1.75  
 COMPANY ARTEC OIL & GAS COMPANY  
 ADDRESS Box 570, Farmington, New Mexico  
 AGENT and TITLE B. H. McEwen, Dist. Engr.  
 WITNESSED ✓  
 COMPANY ✓

REMARKS

