

# NEW MEXICO OIL CONSERVATION COMMISSION

Form C-

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-

Pool Basin Dakota Formation Dakota County San Juan  
 Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 12/27/61  
 Company Artes Oil & Gas Co. Lease McGrath Unit Well No. 8-1  
 Unit 1 Sec. 2 Twp. 29N Rge. 12W Purchaser Southern Union Gas  
 Casing 4 1/2 Wt. 9.5 I.D. 4.090 Set at 6720 Perf. 6486 To 6596  
 Tubing 2 3/8 Wt. 4.7 I.D. 1.995 Set at 6445 Perf. pin collar To \_\_\_\_\_  
 Gas Pay: From 6486 To 6596 L 6445 xG .700(est) -GL 4512 Bar.Press. 12  
 Producing Thru: Casing \_\_\_\_\_ Tubing ✓ Type Well single 985  
 Date of Completion: 12/14/61 Packer none Single-Bradenhead-G. G. or G.O. Dual  
 Reservoir Temp. 151°F

### OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)

Type Taps \_\_\_\_\_

| No. | Flow Data            |                        |             |                      |           | Tubing Data |            | Casing Data |            | Duration of Flow Hr. |
|-----|----------------------|------------------------|-------------|----------------------|-----------|-------------|------------|-------------|------------|----------------------|
|     | (Prover) (Line) Size | (Choke) (Orifice) Size | Press. psig | Diff. h <sub>w</sub> | Temp. °F. | Press. psig | Temp. °F.  | Press. psig | Temp. °F.  |                      |
| SI  | 13 days              |                        |             |                      |           |             |            |             |            |                      |
| 1.  | 2"                   | 3/4"                   |             |                      |           | 2055        |            | 2055        |            |                      |
| 2.  |                      |                        |             |                      |           | 227         | 60°F (est) | 598         | 60°F (est) | 3.15                 |
| 3.  |                      |                        |             |                      |           |             |            |             |            |                      |
| 4.  |                      |                        |             |                      |           |             |            |             |            |                      |
| 5.  |                      |                        |             |                      |           |             |            |             |            |                      |

### FLOW CALCULATIONS

| No. | Coefficient (24-Hour) | $\sqrt{h_w P_f}$ | 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 |
|-----|-----------------------|------------------|---------------|----------------------------------|-------------------------------|----------------------------------|----------------------|
| 1.  | 12.365                |                  | 2.39          | 1.000                            | .9258                         | 1.028                            | 15.025 psia          |
| 2.  |                       |                  |               |                                  |                               |                                  | 2.813                |
| 3.  |                       |                  |               |                                  |                               |                                  |                      |
| 4.  |                       |                  |               |                                  |                               |                                  |                      |
| 5.  |                       |                  |               |                                  |                               |                                  |                      |

### PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
 Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
 P<sub>c</sub> \_\_\_\_\_ (1-e<sup>-s</sup>)

Specific Gravity Separator Gas \_\_\_\_\_  
 Specific Gravity Flowing Fluid \_\_\_\_\_  
 P<sub>c</sub> 2061 P<sub>c</sub> 4212489

| No. | P <sub>w</sub> P <sub>t</sub> (psia) | P <sub>t</sub> <sup>2</sup> | F <sub>c</sub> Q | (F <sub>c</sub> Q) <sup>2</sup> | (F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-s</sup> ) | P <sub>w</sub> <sup>2</sup> | P <sub>c</sub> <sup>2</sup> -P <sub>w</sub> <sup>2</sup> | Calc. P <sub>w</sub> | P <sub>w</sub> P <sub>c</sub> |
|-----|--------------------------------------|-----------------------------|------------------|---------------------------------|------------------------------------------------------|-----------------------------|----------------------------------------------------------|----------------------|-------------------------------|
| 1.  | 610                                  |                             |                  |                                 |                                                      |                             |                                                          |                      |                               |
| 2.  |                                      |                             |                  |                                 |                                                      | 372100                      | 3900389                                                  |                      |                               |
| 3.  |                                      |                             |                  |                                 |                                                      |                             |                                                          |                      |                               |
| 4.  |                                      |                             |                  |                                 |                                                      |                             |                                                          |                      |                               |
| 5.  |                                      |                             |                  |                                 |                                                      |                             |                                                          |                      |                               |

Absolute Potential: 3012 MCFPD; n .75

COMPANY Artes Oil and Gas Co.

ADDRESS Box 570, Farmington, New Mexico

AGENT and TITLE B. H. Means, by

WITNESSED B. H. Means, District Engineer

COMPANY \_\_\_\_\_

REMARKS \_\_\_\_\_

