

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blanco Formation Mesa Verde County San Juan  
 Initial Annual Special Workover Date of Test 5/24/63  
 Company AT&T Oil and Gas Lease HALE Well No. 3  
 Unit K<sub>1</sub> Sec. 34 Twp. 31N Rge. 8W Purchaser \_\_\_\_\_  
 Casing 3 1/2" Wt. 6<sup>9</sup> I.D. 3.12 Set at 5582 Perf. 4966 To 5470  
 Tubing 1 1/2" Wt. 2<sup>76</sup> I.D. 1.50 Set at 4973 Perf. 4973 To OPEN END  
 Gas Pay: From 4966 To 5470 L 4973 M 2000 - G 3841 Bar. Press. 12  
 Producing Thru: Casing \_\_\_\_\_ Tubing ☒ Type Well SINGLE GAS  
 Single-Bradenhead G. G. or G.O. Dual \_\_\_\_\_  
 Date of Completion: 5/24/63 Packer \_\_\_\_\_ Reservoir Temp. \_\_\_\_\_

OBSERVED DATA

Tested Through (Choke) (Choke) (Choke) Type Taps \_\_\_\_\_

| No. | Flow Data   |                        |             |                      |           | Tubing Data |           | Casing Data |           | Duration of Flow Hr. |
|-----|-------------|------------------------|-------------|----------------------|-----------|-------------|-----------|-------------|-----------|----------------------|
|     | (Line) Size | (Choke) (Orifice) Size | Press. psig | Diff. h <sub>w</sub> | Temp. °F. | Press. psig | Temp. °F. | Press. psig | Temp. °F. |                      |
| 1.  | 2"          | 3/8"                   |             |                      |           | 942         |           | 942         |           | 3                    |
| 2.  |             |                        |             |                      |           | 193         | 602       | 576         | 602       |                      |
| 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 @ 15.025 psia |
|-----|-----------------------|------------------|---------------|----------------------------------|-------------------------------|----------------------------------|------------------------------------|
| 1.  | 12.365                |                  | 205           | 1.0000                           | .9258                         | 1.025                            | 2,405                              |
| 2.  |                       |                  |               |                                  |                               |                                  |                                    |
| 3.  |                       |                  |               |                                  |                               |                                  |                                    |
| 4.  |                       |                  |               |                                  |                               |                                  |                                    |
| 5.  |                       |                  |               |                                  |                               |                                  |                                    |

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
 Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
 P<sub>c</sub> \_\_\_\_\_ (1-e<sup>-8</sup>)  
 Specific Gravity Separator Gas \_\_\_\_\_  
 Specific Gravity Flowing Fluid \_\_\_\_\_  
 P<sub>c</sub> 954 P<sub>0</sub> 910, 116

| No. | P <sub>w</sub> P <sub>t</sub> (psia) | P <sub>t</sub> <sup>2</sup> | 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> /P <sub>c</sub> |
|-----|--------------------------------------|-----------------------------|------------------|---------------------------------|------------------------------------------------------|-----------------------------|----------------------------------------------------------|---------------------|--------------------------------|
| 1.  | 581                                  |                             |                  |                                 |                                                      | 337,361                     | 364,372                                                  |                     |                                |
| 2.  |                                      |                             |                  |                                 |                                                      |                             |                                                          |                     |                                |
| 3.  |                                      |                             |                  |                                 |                                                      |                             |                                                          |                     |                                |
| 4.  |                                      |                             |                  |                                 |                                                      |                             |                                                          |                     |                                |
| 5.  |                                      |                             |                  |                                 |                                                      |                             |                                                          |                     |                                |

Absolute Potential: 3,429 MCFPD; n .75  
 COMPANY AT&T Oil and Gas  
 ADDRESS Drawer 570 Farmington, New Mexico  
 AGENT and TITLE B. G. Mason DISTRICT ENGINEER  
 WITNESSED \_\_\_\_\_  
 COMPANY \_\_\_\_\_

REMARKS

