

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

Form C-127  
 Revised 9-1-65

|                                                                                                                         |  |                                 |  |                          |  |                                      |  |
|-------------------------------------------------------------------------------------------------------------------------|--|---------------------------------|--|--------------------------|--|--------------------------------------|--|
| Type Test: <input type="checkbox"/> Initial <input type="checkbox"/> Annual <input checked="" type="checkbox"/> Special |  |                                 |  |                          |  | Test Date: 8/18/78                   |  |
| Company: Adobe Oil & Gas Corporation                                                                                    |  |                                 |  | Connection: None         |  |                                      |  |
| Pool: Austin                                                                                                            |  |                                 |  | Formation: Miss. Lime    |  | Unit:                                |  |
| Completion Date: 4/29/78                                                                                                |  | Total Depth: 13783'             |  | Plug Back TD: 13687'     |  | Elevation: 3962' KB                  |  |
| Gas Size: 5 1/2"                                                                                                        |  | WI: 17.0<br>20.0                |  | d: 4.892<br>4.778        |  | Set At: 13783'                       |  |
| Trq. Size: 2 3/8"                                                                                                       |  | WI: 4.60                        |  | d: 1.995                 |  | Set At: 13081                        |  |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple: Single                                                         |  |                                 |  | Packer Set At: 13067'    |  | Well No.: 1                          |  |
| Producing Thru: Tubing                                                                                                  |  | Reservoir Temp. °F: 230 @ 13230 |  | Mean Annual Temp. °F: 60 |  | Baro. Press. - P <sub>a</sub> : 13.2 |  |
| L: 13230                                                                                                                |  | H: -                            |  | G <sub>g</sub> : 0.7238  |  | % CO <sub>2</sub> : 5.185            |  |
|                                                                                                                         |  |                                 |  | % N <sub>2</sub> : 2.909 |  | % H <sub>2</sub> S: 0.00             |  |
|                                                                                                                         |  |                                 |  | Prover:                  |  | Meter Run: X                         |  |
|                                                                                                                         |  |                                 |  |                          |  | Taps: F                              |  |

  

| FLOW DATA |                  |       |              |                 |                      |          | TUBING DATA     |          | CASING DATA     |          | Duration of Flow |
|-----------|------------------|-------|--------------|-----------------|----------------------|----------|-----------------|----------|-----------------|----------|------------------|
| NO.       | Prover Line Size | X     | Orifice Size | Press. p.s.i.g. | Diff. h <sub>w</sub> | Temp. °F | Press. p.s.i.g. | Temp. °F | Press. p.s.i.g. | Temp. °F |                  |
| SI        |                  |       |              |                 |                      |          | 3040            |          | PACKER          |          | 72.0             |
| 1.        | 4                | 8/64  | 1.500        | 250             | 6                    | 140      | 3023            |          |                 |          | 1.0              |
| 2.        | 4                | 10/64 | 1.500        | 250             | 11                   | 100      | 3004            |          |                 |          | 1.0              |
| 3.        | 4                | 12/64 | 1.500        | 250             | 26                   | 90       | 2953            |          |                 |          | 1.0              |
| 4.        | 4                | 14/64 | 1.500        | 230             | 53                   | 85       | 2890            |          |                 |          | 1.0              |
| 5.        | 4                | 16/64 | 1.500        | 300             | 79                   | 80       | 2812            |          |                 |          | 1.0              |

  

| RATE OF FLOW CALCULATIONS |                       |                  |                         |                       |                   |                             |                      |
|---------------------------|-----------------------|------------------|-------------------------|-----------------------|-------------------|-----------------------------|----------------------|
| NO.                       | Coefficient (24 Hour) | $\sqrt{h_w P_m}$ | Pressure P <sub>m</sub> | Flow Temp. Factor Ft. | Gravity Factor Fg | Super Compress. Factor, Fpv | Rate of Flow Q, Mcfd |
| 1                         | 10.84                 | 39.73            | 263.2                   | 0.9309                | 1.175             | 1.015                       | 478.14               |
| 2                         | 10.84                 | 53.81            | 263.2                   | 0.9636                | 1.175             | 1.020                       | 673.64               |
| 3                         | 10.84                 | 82.72            | 263.2                   | 0.9723                | 1.175             | 1.022                       | 1046.96              |
| 4                         | 10.84                 | 113.53           | 243.2                   | 0.9768                | 1.175             | 1.021                       | 1442.15              |
| 5                         | 10.84                 | 157.29           | 313.2                   | 0.9813                | 1.175             | 1.028                       | 2020.99              |

  

|     |                |          |                |       |                              |           |
|-----|----------------|----------|----------------|-------|------------------------------|-----------|
| NO. | P <sub>t</sub> | Temp. °R | T <sub>r</sub> | Z     | Gas Liquid Hydrocarbon Ratio | Mcft/bbl. |
| 1   | 0.38           | 600      | 1.60           | 0.970 | 39.319                       |           |
| 2   | 0.38           | 560      | 1.50           | 0.961 |                              |           |
| 3   | 0.38           | 550      | 1.47           | 0.957 |                              |           |
| 4   | 0.38           | 545      | 1.46           | 0.960 |                              |           |
| 5   | 0.38           | 540      | 1.44           | 0.947 |                              |           |

  

|                                          |  |  |  |                                        |  |            |  |
|------------------------------------------|--|--|--|----------------------------------------|--|------------|--|
| A.P.I. Gravity of Liquid Hydrocarbons: - |  |  |  | Specific Gravity Separator Gas: 0.7238 |  | XXXXXXXXXX |  |
| Specific Gravity Flowing Fluid: XXXXX    |  |  |  | Critical Pressure: 688                 |  | P.S.I.A.   |  |
| Critical Temperature: 374                |  |  |  | R                                      |  | P.S.I.A.   |  |

  

|     |                  |                |                                                           |                                            |                                                           |
|-----|------------------|----------------|-----------------------------------------------------------|--------------------------------------------|-----------------------------------------------------------|
| NO. | P <sub>w</sub> * | P <sub>t</sub> | P <sub>t</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> | (1) $\frac{P_t^2}{P_t^2 - P_w^2} = 10.568$ | (2) $\left[ \frac{P_t^2}{P_t^2 - P_w^2} \right]^n = 6.52$ |
| 1   | 4502.2           | 20269.8        | 316.4                                                     |                                            |                                                           |
| 2   | 4482.2           | 20090.1        | 496.1                                                     |                                            |                                                           |
| 3   | 4440.2           | 19715.4        | 870.8                                                     |                                            |                                                           |
| 4   | 4396.2           | 19326.6        | 259.6                                                     |                                            |                                                           |
| 5   | 4317.2           | 18638.2        | 943.0                                                     |                                            |                                                           |

  

|                          |  |               |  |                         |  |                 |  |
|--------------------------|--|---------------|--|-------------------------|--|-----------------|--|
| App. Rate of Flow: 13177 |  | Mcfd @ 15.025 |  | Angle of Slope: 51° 26' |  | Slope, n: 0.797 |  |
|--------------------------|--|---------------|--|-------------------------|--|-----------------|--|

Remarks: \* Bottom Hole Pressure @ (-9268) 13230' Used for Pressure Calculations

*Joe Williams*