

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS

RECEIVED  
DEC 15 1989  
OIL CON. DIV  
DIST 3

|                                                                                                                           |            |                                    |                                                                             |
|---------------------------------------------------------------------------------------------------------------------------|------------|------------------------------------|-----------------------------------------------------------------------------|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |            | Test Date<br>II-29-89              |                                                                             |
| Company<br>MANANA GAS INC.                                                                                                |            | Connection                         |                                                                             |
| Pool                                                                                                                      |            | Formation<br>FRUITLAND             |                                                                             |
| Completion Date                                                                                                           |            | Total Depth                        | Plug Back TD<br>1466                                                        |
| Elevation                                                                                                                 |            | Farm or Lease Name<br>LAUREN KELLY |                                                                             |
| Csg. Size<br>22/8                                                                                                         | Wt.<br>6.5 | d<br>2.44                          | Set At                                                                      |
| Thg. Size<br>NO                                                                                                           | Wt.        | d                                  | Set At                                                                      |
| Perforations:<br>From I320 To I348                                                                                        |            | Well No.<br>#1                     |                                                                             |
| Perforations:<br>From To                                                                                                  |            | Unit Sec. Twp. Rge.<br>27 29N 11W  |                                                                             |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>SINGLE                                                         |            | Packer Set At                      |                                                                             |
| Producing Thru<br>CSG                                                                                                     |            | County<br>S.J.                     |                                                                             |
| Reservoir Temp. °F<br>P                                                                                                   |            | State<br>N.M.                      |                                                                             |
| Mean Annual Temp. °F                                                                                                      |            | Baro. Press. - P <sub>g</sub>      |                                                                             |
| L<br>858                                                                                                                  | H          | G <sub>g</sub>                     | % CO <sub>2</sub> % N <sub>2</sub> % H <sub>2</sub> S Prover Meter Run Taps |

  

| 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        |                  |   |              |                 |                      |             | CALC.           |             | 374             |                  | 8 DAYS   |
| 1.        |                  |   | .750         |                 |                      |             | 69              |             | 55              | 53               | 3HRS     |
| 2.        |                  |   |              |                 |                      |             |                 |             |                 |                  |          |
| 3.        |                  |   |              |                 |                      |             |                 |             |                 |                  |          |
| 4.        |                  |   |              |                 |                      |             |                 |             |                 |                  |          |
| 5.        |                  |   |              |                 |                      |             |                 |             |                 |                  |          |

  

| 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                         | 12.3650               |                  | 67                      | 1.008                 | .9608             | 1.009                       | 810                  |
| 2.                        |                       |                  |                         |                       |                   |                             |                      |
| 3.                        |                       |                  |                         |                       |                   |                             |                      |
| 4.                        |                       |                  |                         |                       |                   |                             |                      |
| 5.                        |                       |                  |                         |                       |                   |                             |                      |

  

| NO. | P <sub>t</sub> | Temp. °R | T <sub>f</sub> | Z | Gas Liquid Hydrocarbon Ratio Mcf/bbl. | A.P.I. Gravity of Liquid Hydrocarbons Deg. | Specific Gravity Separator Gas | Specific Gravity Flowing Fluid | Critical Pressure P.S.I.A. | Critical Temperature R |
|-----|----------------|----------|----------------|---|---------------------------------------|--------------------------------------------|--------------------------------|--------------------------------|----------------------------|------------------------|
| 1   |                |          |                |   |                                       | .650est.                                   | XXXXXXXXXX                     | XXXXXX                         |                            |                        |
| 2.  |                |          |                |   |                                       |                                            |                                |                                |                            |                        |
| 3.  |                |          |                |   |                                       |                                            |                                |                                |                            |                        |
| 4.  |                |          |                |   |                                       |                                            |                                |                                |                            |                        |
| 5.  |                |          |                |   |                                       |                                            |                                |                                |                            |                        |

  

| $P_c = 386$ $P_c^2 = 148996$ |                             |                |                             | (1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0330$ (2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0280$ |  |
|------------------------------|-----------------------------|----------------|-----------------------------|--------------------------------------------------------------------------------------------------------|--|
| NO.                          | P <sub>i</sub> <sup>2</sup> | P <sub>w</sub> | P <sub>w</sub> <sup>2</sup> | P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>                                              |  |
| 1                            | 4489                        | 69             | 4761                        | 14235                                                                                                  |  |
| 2                            |                             |                |                             |                                                                                                        |  |
| 3                            |                             |                |                             |                                                                                                        |  |
| 4                            |                             |                |                             |                                                                                                        |  |
| 5                            |                             |                |                             |                                                                                                        |  |

  

|                                                              |  |              |  |
|--------------------------------------------------------------|--|--------------|--|
| AOF = Q $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 833$ |  |              |  |
| Absolute Open Flow 833                                       |  | Mcf @ 15.025 |  |
| Angle of Slope @                                             |  | Slope, n .85 |  |

  

Remarks: Very light fog of water through out test.

  

|                      |                              |                          |             |
|----------------------|------------------------------|--------------------------|-------------|
| Approved By Division | Conducted By:<br>C.R. WAGNER | Calculated By:<br>C.R.W. | Checked By: |
|----------------------|------------------------------|--------------------------|-------------|

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