

N MEXICO OIL CONSERVATION COMM. ON  
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122  
Revised 9-1-65

**RECEIVED**

|                                                                                                                        |  |                         |  |                                 |  |                                    |  |
|------------------------------------------------------------------------------------------------------------------------|--|-------------------------|--|---------------------------------|--|------------------------------------|--|
| Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |  |                         |  | Test Date 6-9-66                |  |                                    |  |
| Company Pan American Pet. Corp.                                                                                        |  |                         |  | Connection Marathon             |  |                                    |  |
| Pool Indian Basin                                                                                                      |  |                         |  | Formation Cisco Canyon          |  | Unit                               |  |
| Completion Date 10-30-65                                                                                               |  | Total Depth 8316        |  | Plug Back TD 8316               |  | Elevation 4312.4 GR                |  |
| Casing Size 4 1/2" & 10.5#                                                                                             |  | Set At 3.892 8316       |  | Perforations: From 7804 To 7904 |  | Well No. 1                         |  |
| Tubing Size 2-3/8" 4.7#                                                                                                |  | Set At 1.995 7625       |  | Perforations: From None To      |  | Unit Sec. Twp. Rge. PC 5 22S 24E   |  |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single                                                         |  |                         |  | Packer Set At 7561              |  | County Eddy                        |  |
| Producing Thru Tubing                                                                                                  |  | Reservoir Temp. °F 140° |  | Mean Annual Temp. °F 70°        |  | Baro. Press. - P <sub>a</sub> 13.2 |  |
| L 7625                                                                                                                 |  | H 7625                  |  | G <sub>g</sub> 0.631            |  | % CO <sub>2</sub> .60              |  |
|                                                                                                                        |  |                         |  | % N <sub>2</sub> 11.61          |  | % H <sub>2</sub> S 0               |  |
|                                                                                                                        |  |                         |  | Prover --                       |  | Meter Run 3"                       |  |
|                                                                                                                        |  |                         |  |                                 |  | Taps Flange                        |  |

  

| 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 |
| 51        |                  |   |              |                 |                      |             | 2348            |             |                 |                  | 25       |
| 1.        | 3                |   | 1.625        | 7.32            | 3.50                 | 92          | 2287            | 71          |                 |                  | 1        |
| 2.        | 3                |   | 1.625        | 7.33            | 5.42                 | 83          | 2237            | 72          |                 |                  | 1        |
| 3.        | 3                |   | 1.625        | 7.37            | 7.58                 | 78          | 2162            | 74          |                 |                  | 1        |
| 4.        | 3                |   | 1.625        | 7.40            | 9.08                 | 76          | 2090            | 75          |                 |                  | 1        |
| 5.        |                  |   |              |                 |                      |             |                 |             |                 |                  |          |

  

| RATE OF FLOW CALCULATIONS |                       |                  |                                     |                                  |                               |                                         |                      |
|---------------------------|-----------------------|------------------|-------------------------------------|----------------------------------|-------------------------------|-----------------------------------------|----------------------|
| NO.                       | Coefficient (24 Hour) | $\sqrt{h_w P_m}$ | L-10 Pressure Factor P <sub>m</sub> | Flow Temp. Factor F <sub>t</sub> | Gravity Factor F <sub>g</sub> | Super Compress. Factor, F <sub>pv</sub> | Rate of Flow Q, Mcfd |
| 1                         | 13.24                 | 25.62            | 4.472                               | 0.9706                           | 1.2589                        | 1.0810                                  | 2004                 |
| 2                         | 13.24                 | 39.73            | 4.472                               | 0.9786                           | 1.2589                        | 1.0890                                  | 3157                 |
| 3                         | 13.24                 | 55.86            | 4.472                               | 0.9831                           | 1.2589                        | 1.0950                                  | 4482                 |
| 4                         | 13.24                 | 72.52            | 4.472                               | 0.9850                           | 1.2589                        | 1.0980                                  | 5416                 |
| 5                         |                       |                  |                                     |                                  |                               |                                         |                      |

  

| NO. | P <sub>r</sub> | Temp. °R | T <sub>r</sub> | Z      | Gas Liquid Hydrocarbon Ratio | A.P.I. Gravity of Liquid Hydrocarbons | Specific Gravity Separator Gas | Specific Gravity Flowing Fluid | Critical Pressure | Critical Temperature |
|-----|----------------|----------|----------------|--------|------------------------------|---------------------------------------|--------------------------------|--------------------------------|-------------------|----------------------|
| 1   | 1.599          | 552      | 1.50           | 0.7846 | 84.126                       | 58                                    | .631                           | XXXXXX                         | 670               | 368                  |
| 2   | 1.604          | 543      | 1.48           | 0.7846 |                              |                                       |                                | XXXXXX                         |                   |                      |
| 3   | 1.621          | 538      | 1.46           | 0.7831 |                              |                                       |                                | XXXXXX                         |                   |                      |
| 4   | 1.635          | 536      | 1.456          | 0.7817 |                              |                                       |                                | XXXXXX                         |                   |                      |
| 5   |                |          |                |        |                              |                                       |                                |                                |                   |                      |

  

| NO. | P <sub>r</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   | 5295                        | 2935           | 8614                        | 219                                                       |
| 2   | 5663                        | 2915           | 8497                        | 336                                                       |
| 3   | 4731                        | 2904           | 8433                        | 400                                                       |
| 4   | 4423                        | 2890           | 8352                        | 481                                                       |
| 5   |                             |                |                             |                                                           |

  

(1)  $\frac{P_c^2}{P_c^2 - P_w^2} =$

AOF = Q  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 99,460$  MCFPD

(2)  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$

  

|                           |                |                    |                |
|---------------------------|----------------|--------------------|----------------|
| Absolute Open Flow 99,460 | Mcf/d @ 15.025 | Angle of Slope 45° | Slope, n 1.000 |
|---------------------------|----------------|--------------------|----------------|

  

Remarks: Calculations were done by computer. F<sub>pv</sub> and Z vary slightly to fit programmed factors.

  

|                         |                           |                |             |
|-------------------------|---------------------------|----------------|-------------|
| Approved By Commission: | Conducted By: E. J. Snook | Calculated By: | Checked By: |
|-------------------------|---------------------------|----------------|-------------|