

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

Form C-122  
Revised 9-1-65

NAME CHANGED  
FROM PAN AMERICAN PETROLEUM CORP.

|                                                                               |                                    |                                          |                                       |                                   |         |
|-------------------------------------------------------------------------------|------------------------------------|------------------------------------------|---------------------------------------|-----------------------------------|---------|
| Type Test<br><input type="checkbox"/> Initial <input type="checkbox"/> Annual |                                    | Test No. 7-1570                          |                                       | Well No. 1171                     |         |
| Company<br>Pan American Petroleum Corp.                                       |                                    | Operator<br>Northern Natural Gas Company |                                       | Unit                              |         |
| Location<br>Blaine                                                            |                                    | Blaine                                   |                                       | Unit                              |         |
| Completion Date<br>5-14-70                                                    | Total Depth<br>5969'               | Perforations<br>From 5857' To 5859'      | Flow Rate<br>3504' GL                 | Field or Lease Name<br>State "CK" |         |
| Well No.<br>711                                                               | Wt.<br>20#                         | Set At<br>5850                           | Perforations<br>From 5857' To 5859'   | Well No.<br>3                     |         |
| Log Size<br>2-3/8"                                                            | Wt.<br>4.7#                        | Set At<br>5872                           | Perforations<br>From To               | Unit<br>N                         | Sec. 19 |
| Type Well - Single - Broadhead - G.G. or G.O. Multiple<br>Gas-Oil Dual        |                                    |                                          | Production At<br>5856                 | County<br>Lea                     |         |
| Producing Through<br>Tubing                                                   | Reservoir Temp. °F<br>100° - 2400' | Mean Annual Temp. °F<br>10.1             | Baro. Press. - P <sub>a</sub><br>10.1 | State<br>New Mexico               |         |
| L<br>5872'                                                                    | H<br>5872'                         | G <sub>g</sub><br>0.7060                 | % CO <sub>2</sub><br>-                | Prover<br>4.026                   | Pipe    |

| FLOW DATA |                  |       |              |             |          |          |        |          |             | Duration of Flow |
|-----------|------------------|-------|--------------|-------------|----------|----------|--------|----------|-------------|------------------|
| NO.       | Prover Line Size | X     | Orifice Size | Press. psia | D.H. in. | Temp. °F | Prover | Temp. °F | Press. psia | Temp. °F         |
| 1.        | 4.026            | 2.000 | 145.8        | 18.1        | 72       | 5872     | 4.026  | 5872     | 18.1        | 5872             |
| 2.        | 4.026            | 2.000 | 138.0        | 18.1        | 72       | 5872     | 4.026  | 5872     | 18.1        | 5872             |
| 3.        | 4.026            | 2.000 | 103.0        | 9.1         | 72       | 5872     | 4.026  | 5872     | 9.1         | 5872             |
| 4.        | 4.026            | 2.000 | 89.0         | 5.1         | 72       | 5872     | 4.026  | 5872     | 5.1         | 5872             |
| 5.        |                  |       |              |             |          |          |        |          |             |                  |

| RATE OF FLOW CALCULATIONS |                       |                  |                         |                                  |                               |                                         |                      |
|---------------------------|-----------------------|------------------|-------------------------|----------------------------------|-------------------------------|-----------------------------------------|----------------------|
| NO.                       | Coefficient (24 Hour) | $\sqrt{P_w P_m}$ | Pressure P <sub>a</sub> | Flow Temp. Factor P <sub>u</sub> | Gravity Factor P <sub>g</sub> | Super Compress. Factor, P <sub>sc</sub> | Rate of Flow Q, Mscf |
| 1                         | 20.32                 | 55.35            | 5872                    | 1.0000                           | 1.0000                        | 1.013                                   | 1.347                |
| 2                         | 20.32                 | 43.35            | 5872                    | 1.0000                           | 1.0000                        | 1.013                                   | 1.045                |
| 3                         | 20.32                 | 33.65            | 777                     | 1.0000                           | 1.0000                        | 1.013                                   | 810                  |
| 4                         | 20.32                 | 22.61            | 30.5                    | 1.0000                           | 1.0000                        | 1.013                                   | 543                  |
| 5                         |                       |                  |                         |                                  |                               |                                         |                      |

| NO. | P <sub>a</sub> | Temp. °F | Z    | Gas-Liquid Hydrocarbon Ratio | Met./vol. |
|-----|----------------|----------|------|------------------------------|-----------|
| 1   | 0.88           | 582      | 1.34 | 0.809                        | 0.809     |
| 2   | 1.03           | 535      | 1.36 | 0.855                        | 0.855     |
| 3   | 1.16           | 509      | 1.37 | 0.890                        | 0.890     |
| 4   | 1.25           | 535      | 1.36 | 0.827                        | 0.827     |
| 5   |                |          |      |                              |           |

| NO. | P <sub>a</sub> | P <sub>w</sub> | P <sub>m</sub> | P <sub>a</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> | (1) $\frac{P_a^2}{P_w^2 - P_a^2} = 1.559$ | (2) $\frac{P_a^2}{P_w^2 - P_a^2} = 1.559$ |
|-----|----------------|----------------|----------------|-----------------------------------------------------------|-------------------------------------------|-------------------------------------------|
| 1   | 5872           | 5872           | 5872           | 0                                                         |                                           |                                           |
| 2   | 5872           | 5872           | 5872           | 0                                                         |                                           |                                           |
| 3   | 777            | 5872           | 5872           | 265                                                       |                                           |                                           |
| 4   | 30.5           | 5872           | 5872           | 265                                                       |                                           |                                           |
| 5   |                |                |                |                                                           |                                           |                                           |

|                                              |                                     |                          |
|----------------------------------------------|-------------------------------------|--------------------------|
| Annular Pressure<br>21.00                    | Well Pressure<br>5872               | Angle of Slope<br>1.000  |
| Remarks                                      |                                     |                          |
| Approved by Commission<br><i>[Signature]</i> | Conducted By<br>West & Edwards, INC | Checked By<br>J. E. York |

PAN AMERICAN PETROLEUM CORPORATION  
SIXTH FLOOR  
UNIT 1, SEC. 19, T-21-S, R-37-E  
LA STRETA, MEXICO  
July 15, 1970

10,000

$$P_c^2 - P_v^2 \approx 10^3$$

1090

22-110

•

10  
200

5, 2025

[illegible]