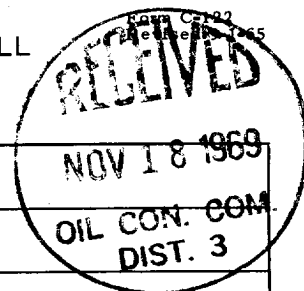


NEW MEXICO OIL CONSERVATION COMMISSION  
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL



|                                                                                                                           |                   |                                         |                       |                                                  |                                                    |                                                          |
|---------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------------------------------|-----------------------|--------------------------------------------------|----------------------------------------------------|----------------------------------------------------------|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |                   |                                         |                       |                                                  | Test Date<br><b>5-30-69</b>                        |                                                          |
| Company<br><b>PAN AMERICAN PETROLEUM CORP.</b>                                                                            |                   |                                         |                       | Connection<br><b>None</b>                        |                                                    |                                                          |
| Pool<br><b>Undesignated</b>                                                                                               |                   |                                         |                       | Formation<br><b>Gallup</b>                       |                                                    | Unit                                                     |
| Completion Date<br><b>5-23-69</b>                                                                                         |                   | Total Depth<br><b>8320</b>              |                       | Plug Back TD<br><b>8283</b>                      | Elevation / <del>RDB</del><br><b>GL-7139/ 7150</b> | Farm or Lease Name<br><b>Jicarilla Apache 102</b>        |
| Csg. Size<br><b>4.500</b>                                                                                                 | Wt.<br><b>9.5</b> | d<br><b>4.090</b>                       | Set At<br><b>8320</b> | Perforations:<br>From <b>8018</b> To <b>8175</b> |                                                    | Well No.<br><b>12</b>                                    |
| Tbg. Size<br><b>1.315</b>                                                                                                 | Wt.<br><b>1.7</b> | d<br><b>1.049</b>                       | Set At<br><b>7545</b> | Perforations:<br>From <b>7565</b> To <b>7574</b> |                                                    | Unit    Sec.    Twp.    Rge.<br><b>G    9    26    4</b> |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br><b>G.G.</b>                                                    |                   |                                         |                       | Packer Set At<br><b>7898</b>                     |                                                    | County<br><b>Rio Arriba</b>                              |
| Producing Thru<br><b>Tubing</b>                                                                                           |                   | Reservoir Temp. °F<br><b>90° @ T.D.</b> |                       | Mean Annual Temp. °F<br><b>Est. 60°</b>          |                                                    | State<br><b>New Mexico</b>                               |
| L                                                                                                                         | H                 | Gg<br><b>.700 est.</b>                  | % 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.       | SENDER Line Size | X | RECEIVER Size Choke | Press. p.s.i.g. | Diff. h <sub>w</sub> | Temp. °F | Press. p.s.i.g. | Temp. °F    |                  |
| SI        | <b>7 Days</b>    |   |                     |                 |                      |          | <b>1293</b>     | <b>1293</b> |                  |
| 1.        | <b>2"</b>        |   | <b>.750</b>         | <b>8</b>        |                      |          | <b>8</b>        | <b>497</b>  | <b>3 Hrs.</b>    |
| 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                         | <b>12.3650</b>        |                  | <b>20</b>               | <b>1.000</b>          | <b>.9258</b>      | <b>1.000</b>                | <b>229</b>           |
| 2.                        |                       |                  |                         |                       |                   |                             |                      |
| 3.                        |                       |                  |                         |                       |                   |                             |                      |
| 4.                        |                       |                  |                         |                       |                   |                             |                      |
| 5.                        |                       |                  |                         |                       |                   |                             |                      |

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

| P <sub>c</sub> <b>1305</b> | P <sub>c</sub> <sup>2</sup> <b>1,703,025</b> |                |                             |                                                           |
|----------------------------|----------------------------------------------|----------------|-----------------------------|-----------------------------------------------------------|
| NO.                        | P <sub>t</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                          |                                              | <b>509</b>     | <b>259,081</b>              | <b>1,443,944</b>                                          |
| 2                          |                                              |                |                             |                                                           |
| 3                          |                                              |                |                             |                                                           |
| 4                          |                                              |                |                             |                                                           |
| 5                          |                                              |                |                             |                                                           |

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = \frac{1.1794}{1.1794 - 0.259} = 1.1794$$

$$(2) \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{1.1317}{1.1317 - 0.259} = 1.1317$$

$$AOF = Q \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 259$$

**259**

|                                             |                               |                     |
|---------------------------------------------|-------------------------------|---------------------|
| Absolute Open Flow <b>259</b> Mcfd @ 15.025 | Angle of Slope $\theta$ _____ | Slope, n <b>.75</b> |
|---------------------------------------------|-------------------------------|---------------------|

Remarks: \_\_\_\_\_

|                         |                                     |                                       |                                        |
|-------------------------|-------------------------------------|---------------------------------------|----------------------------------------|
| Approved By Commission: | Conducted By:<br><b>B. D. Dukes</b> | Calculated By:<br><b>J. J. Layton</b> | Checked By:<br><b>G. W. Eaton, Jr.</b> |
|-------------------------|-------------------------------------|---------------------------------------|----------------------------------------|