

## NEW MEXICO OIL CONSERVATION COMMISSION

INITIAL WELL DELIVERABILITY TEST REPORT FOR 19 68Form C122-A  
Revised 1-1-66

|                           |                             |                            |                             |
|---------------------------|-----------------------------|----------------------------|-----------------------------|
| POOL NAME<br><b>Basin</b> | POOL SLOPE<br>n= <b>.75</b> | FORMATION<br><b>Dakota</b> | COUNTY<br><b>Rio Arriba</b> |
|---------------------------|-----------------------------|----------------------------|-----------------------------|

|                                                           |                                      |                                               |                                                  |                                        |                                          |
|-----------------------------------------------------------|--------------------------------------|-----------------------------------------------|--------------------------------------------------|----------------------------------------|------------------------------------------|
| COMPANY<br><b>Jerome P. McHugh</b>                        |                                      |                                               | WELL NAME AND NUMBER<br><b>Jicarilla #5</b>      |                                        |                                          |
| UNIT LETTER<br><b>D</b>                                   | SECTION<br><b>29</b>                 | TOWNSHIP<br><b>26N</b>                        | RANGE<br><b>4 W</b>                              | PURCHASING PIPELINE<br><b>EPNG Co.</b> |                                          |
| CASING O.D. - INCHES<br><b>4.500</b>                      | CASING I.D. - INCHES<br><b>4.052</b> | SET AT DEPTH - FEET                           | TUBING O.D. - INCHES<br><b>2.375</b>             | TUBING I.D. - INCHES<br><b>1.995</b>   | TOP - TUBING PERF. - FEET<br><b>7588</b> |
| GAS PAY ZONE<br>FROM <b>7646'</b> TO <b>7800'</b>         |                                      | WELL PRODUCING THRU<br>CASING TUBING <b>X</b> |                                                  | GAS GRAVITY<br><b>.678</b>             | GRAVITY X LENGTH<br><b>5145'</b> ✓       |
| DATE OF FLOW TEST<br>FROM <b>1/2/68</b> TO <b>1/10/68</b> |                                      |                                               | DATE SHUT-IN PRESSURE MEASURED<br><b>11/9/68</b> |                                        |                                          |

## PRESSURE DATA - ALL PRESSURES IN PSIA

|                                                      |                                                          |                                                |                                                            |                                                         |                                                             |                                                              |
|------------------------------------------------------|----------------------------------------------------------|------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------|-------------------------------------------------------------|--------------------------------------------------------------|
| (a) Flowing Casing Pressure (DWt)<br>---             | (b) Flowing Tubing Pressure (DWt)<br><b>546</b>          | (c) Flowing Meter Pressure (DWt)<br><b>520</b> | (d) Flow Chart Static Reading<br><b>7.15</b><br><b>511</b> | (e) Meter Error (Item c - Item d)<br><b>+9</b> ✓        | (f) Friction Loss (a - c) or (b - c)<br><b>+26</b> ✓        | (g) Average Meter Pressure (Integr.)<br><b>544</b>           |
| (h) Corrected Meter Pressure (g + e)<br><b>553</b> ✓ | (i) Avg. Wellhead Press. $P_t = (h + f)$<br><b>579</b> ✓ | (j) Shut-in Casing Pressure (DWt)<br>---       | (k) Shut-in Tubing Pressure (DWt)<br><b>2410</b>           | (l) $P_c$ = higher value of (j) or (k)<br><b>2410</b> ✓ | (m) Del. Pressure $P_d = \frac{50}{\%P_c}$<br><b>1205</b> ✓ | (n) Separator or Dehydrator Pr. (DWt) for critical flow only |

## FLOW RATE CORRECTION (METER ERROR)

|                                         |                                                                      |                                                                 |                                          |
|-----------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------|------------------------------------------|
| Integrated Volume - MCF/D<br><b>979</b> | Quotient of $\frac{\text{Item c}}{\text{Item d}}$<br><b>1.0176</b> ✓ | $\sqrt{\frac{\text{Item c}}{\text{Item d}}}$<br><b>1.0088</b> ✓ | Corrected Volume<br>Q = <b>988</b> MCF/D |
|-----------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------|------------------------------------------|

## WORKING PRESSURE CALCULATION

|                                 |                                         |                                                            |                             |                                           |                                    |
|---------------------------------|-----------------------------------------|------------------------------------------------------------|-----------------------------|-------------------------------------------|------------------------------------|
| $(1 - e^{-s})$<br><b>.312</b> ✓ | $(F_c Q_m)^2 (1000)$<br><b>86,288</b> ✓ | $R^2 = (1 - e^{-s}) (F_c Q_m)^2 (1000)$<br><b>26,922</b> ✓ | $P_t^2$<br><b>335,241</b> ✓ | $P_w^2 = P_t^2 + R^2$<br><b>362,163</b> ✓ | $P_w = \sqrt{P_w^2}$<br><b>602</b> |
|---------------------------------|-----------------------------------------|------------------------------------------------------------|-----------------------------|-------------------------------------------|------------------------------------|

## DELIVERABILITY CALCULATION

$$D = Q \left[ \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = \frac{988}{\left[ \frac{4,356,075}{5,445,937} \right]^n} = \frac{988}{(.7999)^n} = \frac{988}{.8458} = 836 \text{ MCF/D}$$

REMARKS:

## SUMMARY

Item h **553** ✓ Psia  
 $P_c$  **2410** ✓ Psia  
 $Q$  **988** ✓ MCF/D  
 $P_w$  **602** ✓ Psia  
 $P_d$  **1205** ✓ Psia  
 $D$  **836** ✓ MCF/D

Company **Jerome P. McHugh**  
 By **J. A. McHugh**  
 Title **Agent**  
 Witnessed By \_\_\_\_\_  
 Company \_\_\_\_\_

