

**NEW MEXICO OIL CONSERVATION COMMISSION**  
**WELL DELIVERABILITY TEST REPORT FOR 19 71**

Form C122-A  
 Revised 1-1-66

|                                  |                            |                                     |                             |
|----------------------------------|----------------------------|-------------------------------------|-----------------------------|
| POOL NAME<br><b>SOUTH BLANCO</b> | POOL SLOPE<br>n= <b>85</b> | FORMATION<br><b>PICTURED CLIFFS</b> | COUNTY<br><b>RIO ARRIBA</b> |
|----------------------------------|----------------------------|-------------------------------------|-----------------------------|

|                                                              |                                       |                                               |                                                   |                                               |                                          |
|--------------------------------------------------------------|---------------------------------------|-----------------------------------------------|---------------------------------------------------|-----------------------------------------------|------------------------------------------|
| COMPANY<br><b>CONTINENTAL OIL COMPANY</b>                    |                                       |                                               | WELL NAME AND NUMBER<br><b>AXI APACHE M NO. 1</b> |                                               |                                          |
| UNIT LETTER<br><b>M</b>                                      | SECTION<br><b>23</b>                  | TOWNSHIP<br><b>25N</b>                        | RANGE<br><b>4W</b>                                | PURCHASING PIPELINE<br><b>SO UNION GAS CO</b> |                                          |
| CASING O.D. - INCHES<br><b>4.5000</b>                        | CASING I.D. - INCHES<br><b>4.0900</b> | SET AT DEPTH - FEET<br><b>3460</b>            | TUBING O.D. - INCHES<br><b>2.375</b>              | TUBING I.D. - INCHES<br><b>1.995</b>          | TOP - TUBING PERF. - FEET<br><b>3350</b> |
| GAS PAY ZONE<br>FROM <b>3374</b> TO <b>3406</b>              |                                       | WELL PRODUCING THRU<br>CASING TUBING <b>X</b> |                                                   | GAS GRAVITY<br><b>0.680</b>                   | GRAVITY X LENGTH<br><b>2278</b>          |
| DATE OF FLOW TEST<br>FROM <b>09-13-71</b> TO <b>09-20-71</b> |                                       |                                               | DATE SHUT-IN PRESSURE MEASURED<br><b>9/27/71</b>  |                                               |                                          |

**PRESSURE DATA - ALL PRESSURES IN PSIA**

| (a) Flowing Casing Pressure (DWt)    | (b) Flowing Tubing Pressure (DWt)        | (c) Flowing Meter Pressure (DWt)  | (d) Flow Chart Static Reading     | (e) Meter Error (Item c - Item d)      | (f) Friction Loss (a - c) or (b - c)       | (g) Average Meter Pressure (Integr.)                         |
|--------------------------------------|------------------------------------------|-----------------------------------|-----------------------------------|----------------------------------------|--------------------------------------------|--------------------------------------------------------------|
| 216                                  | 199                                      | 365                               | 367                               | -2                                     | -166                                       | 372                                                          |
| (h) Corrected Meter Pressure (g + e) | (i) Avg. Wellhead Press. $P_t = (h + f)$ | (j) Shut-in Casing Pressure (DWt) | (k) Shut-in Tubing Pressure (DWt) | (l) $P_c$ = higher value of (j) or (k) | (m) Del. Pressure $P_d = \frac{80}{\%P_c}$ | (n) Separator or Dehydrator Pr. (DWt) for critical flow only |
| 370                                  | 204                                      | 374                               | 374                               | 374                                    | 299                                        |                                                              |

**FLOW RATE CORRECTION (METER ERROR)**

| Integrated Volume - MCF/D | Quotient of $\frac{\text{Item c}}{\text{Item d}}$ | $\sqrt{\frac{\text{Item c}}{\text{Item d}}}$ | Corrected Volume    |
|---------------------------|---------------------------------------------------|----------------------------------------------|---------------------|
| 56                        | 0.99455                                           | 0.99727                                      | Q = <b>56</b> MCF/D |

**WORKING PRESSURE CALCULATION**

| $(1 - e^{-R})$ | $\frac{1}{(F_c Q_m)^2 (1000)}$ | $R^2 = \frac{1}{(1 - e^{-R}) (F_c Q_m)^2 (1000)}$ | $P_t^2$ | $P_w^2 = P_t^2 + R^2$ | $P_w = \sqrt{P_w^2}$ |
|----------------|--------------------------------|---------------------------------------------------|---------|-----------------------|----------------------|
| 0.15265        | 0.27722                        | 42.3197                                           | 41616.  | 41658.                | 204                  |

**DELIVERABILITY CALCULATION**

$$D = Q \left[ \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = \frac{56}{\left[ \frac{50475.}{98260.} \right]^n \left( \frac{0.51}{0.567} \right)^n} = 32 \text{ MCF/D}$$

**REMARKS:**

FC= 9.402129

**BEFORE THE**  
**OIL CONSERVATION COMMISSION**  
 Santa Fe, New Mexico

**CONTINENTAL** Exhibit No. **13**

Case No. **4628**

**SUMMARY**

|                |     |       |
|----------------|-----|-------|
| Item h         | 370 | Psia  |
| P <sub>c</sub> | 374 | Psia  |
| Q              | 56  | MCF/D |
| P <sub>w</sub> | 204 | Psia  |
| P <sub>d</sub> | 299 | Psia  |
| D              | 32  | MCF/D |

Company **CONTINENTAL OIL COMPANY**  
 By **W. G. HENDRICKSON**  
 Title **SENIOR STAFF ASSISTANT**  
 Witnessed By \_\_\_\_\_  
 Company \_\_\_\_\_

*1-26-72 Reading*