

# NEW MEXICO OIL CONSERVATION COMMISSION

## WELL DELIVERABILITY TEST REPORT FOR 19 79

Form C122-A  
Revised 1-1-68

|                           |                              |                        |                     |
|---------------------------|------------------------------|------------------------|---------------------|
| POOL NAME<br><b>Basin</b> | POOL SLOPE<br><b>n = .75</b> | FORMATION<br><b>DK</b> | COUNTY<br><b>SJ</b> |
|---------------------------|------------------------------|------------------------|---------------------|

87-096

|                                                            |                                      |                                                |                                                      |                                      |                                          |
|------------------------------------------------------------|--------------------------------------|------------------------------------------------|------------------------------------------------------|--------------------------------------|------------------------------------------|
| COMPANY<br><b>El Paso Natural Gas</b>                      |                                      |                                                | WELL NAME AND NUMBER<br><b>Huerfano Unit No. 188</b> |                                      |                                          |
| UNIT LETTER<br><b>M</b>                                    | SECTION<br><b>6</b>                  | TOWNSHIP<br><b>25</b>                          | RANGE<br><b>9</b>                                    | PURCHASING PIPELINE<br><b>EPNG</b>   |                                          |
| CASING O.D. - INCHES<br><b>4.500</b>                       | CASING I.D. - INCHES<br><b>4.052</b> | SET AT DEPTH - FEET<br><b>7025</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>6906</b> |
| GAS PAY ZONE<br>FROM <b>6868</b> TO <b>6912</b>            |                                      | WELL PRODUCING THRU<br>CASING TUBING <b>XX</b> |                                                      | GAS GRAVITY<br><b>.731</b>           | GRAVITY X LENGTH<br><b>5048</b>          |
| DATE OF FLOW TEST<br>FROM <b>12-30-69</b> TO <b>1-7-70</b> |                                      |                                                | DATE SHUT-IN PRESSURE MEASURED<br><b>10-15-69</b>    |                                      |                                          |

### PRESSURE DATA - ALL PRESSURES IN PSIA

|                                                  |                                                      |                                                  |                                                  |                                                       |                                                    |                                                              |
|--------------------------------------------------|------------------------------------------------------|--------------------------------------------------|--------------------------------------------------|-------------------------------------------------------|----------------------------------------------------|--------------------------------------------------------------|
| (a) Flowing Casing Pressure (DWt)<br><b>451</b>  | (b) Flowing Tubing Pressure (DWt)<br><b>451</b>      | (c) Flowing Meter Pressure (DWt)<br><b>1950</b>  | (d) Flow Chart Static Reading<br><b>1912</b>     | (e) Meter Error (Item c - Item d)<br><b>1950</b>      | (f) Friction Loss (a-c) or (b-c)<br><b>0</b>       | (g) Average Meter Pressure (Integr.)<br><b>451</b>           |
| (h) Corrected Meter Pressure (g+e)<br><b>451</b> | (i) Avg. Wellhead Press. $P_i = (h+f)$<br><b>451</b> | (j) Shut-in Casing Pressure (DWt)<br><b>1950</b> | (k) Shut-in Tubing Pressure (DWt)<br><b>1912</b> | (l) $P_c$ = higher value of (j) or (k)<br><b>1950</b> | (m) Del. Pressure $P_d = 50$ % $P_c$<br><b>975</b> | (n) Separator or Dehydrator Pr. (DWt) for critical flow only |

### FLOW RATE CORRECTION (METER ERROR)

|                                         |                                                                    |                                                               |                                          |
|-----------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------|
| Integrated Volume - MCF/D<br><b>932</b> | Quotient of $\frac{\text{Item c}}{\text{Item d}}$<br><b>1.0000</b> | $\sqrt{\frac{\text{Item c}}{\text{Item d}}}$<br><b>1.0000</b> | Corrected Volume<br><b>Q = 932</b> MCF/D |
|-----------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------|

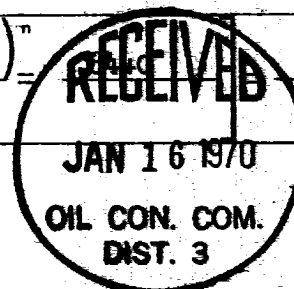
### WORKING PRESSURE CALCULATION

|                             |                                      |                                                       |                          |                                        |                                    |
|-----------------------------|--------------------------------------|-------------------------------------------------------|--------------------------|----------------------------------------|------------------------------------|
| $(1-e^{-s})$<br><b>.307</b> | $(F_c Q_m)^2 (1000)$<br><b>76784</b> | $R^2 = (1-e^{-s}) (F_c Q_m)^2 (1000)$<br><b>23573</b> | $P_i^2$<br><b>203401</b> | $P_w^2 = P_i^2 + R^2$<br><b>226974</b> | $P_w = \sqrt{P_w^2}$<br><b>476</b> |
|-----------------------------|--------------------------------------|-------------------------------------------------------|--------------------------|----------------------------------------|------------------------------------|

### DELIVERABILITY CALCULATION

|                                                                              |                                                              |                  |
|------------------------------------------------------------------------------|--------------------------------------------------------------|------------------|
| $D = Q \left[ \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n =$<br><b>932</b> | $\left( \frac{2851875}{3575526} \right)^n =$<br><b>.7976</b> | <b>787</b> MCF/D |
|------------------------------------------------------------------------------|--------------------------------------------------------------|------------------|

REMARKS: **New well, 1st del. 11-13-69.**



### SUMMARY

Item h **451** Psia  
 $P_c$  **1950** Psia  
 $Q$  **932** MCF/D  
 $P_w$  **476** Psia  
 $P_d$  **975** Psia  
 $D$  **787** MCF/D

Company **El Paso Natural Gas Co.**  
 By **P. E. McAnally**  
 Title \_\_\_\_\_  
 Witnessed By \_\_\_\_\_  
 Company \_\_\_\_\_