

Initial  
Deliverability

# NEW MEXICO OIL CONSERVATION COMMISSION

## WELL DELIVERABILITY TEST REPORT FOR 1971

Form CI22-A  
Revised 1-1-58

|                            |                              |                                   |                           |
|----------------------------|------------------------------|-----------------------------------|---------------------------|
| POOL NAME<br><b>Blanco</b> | POOL SLOPE<br>n = <b>.85</b> | FORMATION<br><b>EC</b> <i>Ept</i> | COUNTY<br><b>San Juan</b> |
|----------------------------|------------------------------|-----------------------------------|---------------------------|

87-272

|                                                            |                                      |                                                |                                                 |                                                           |                                 |
|------------------------------------------------------------|--------------------------------------|------------------------------------------------|-------------------------------------------------|-----------------------------------------------------------|---------------------------------|
| COMPANY<br><b>El Paso Natural Gas Company</b>              |                                      |                                                | WELL NAME AND NUMBER<br><b>Sunray "B" No. 5</b> |                                                           |                                 |
| UNIT LETTER<br><b>M</b>                                    | SECTION<br><b>1</b>                  | TOWNSHIP<br><b>30</b>                          | RANGE<br><b>10</b>                              | PURCHASING PIPELINE<br><b>El Paso Natural Gas Company</b> |                                 |
| CASING I.D. - INCHES<br><b>2.875</b>                       | CASING I.D. - INCHES<br><b>2.441</b> | NET AT DEPTH - FEET<br><b>3223</b>             | TUBING I.D. - INCHES<br><b>No Tubing</b>        | TUBING I.D. - INCHES                                      | TOP - TUBING DEPTH - FEET       |
| GAS PAY ZONE<br>FROM <b>3156</b> TO <b>3172</b>            |                                      | WELL PRODUCING THRU<br>CASING <b>XX</b> TUBING |                                                 | GAS GRAVITY<br><b>.637</b>                                | GRAVITY X LENGTH<br><b>2010</b> |
| DATE OF FLOW TEST<br>FROM <b>9-18-71</b> TO <b>9-26-71</b> |                                      |                                                | DATE SHUT-IN PRESSURE MEASURED<br><b>5-5-71</b> |                                                           |                                 |

### PRESSURE DATA - ALL PRESSURES IN PSIA

|                                                  |                                                      |                                                 |                                               |                                                      |                                                               |                                                              |
|--------------------------------------------------|------------------------------------------------------|-------------------------------------------------|-----------------------------------------------|------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------|
| (a) Flowing Casing Pressure (DWt)<br><b>-</b>    | (b) Flowing Tubing Pressure (DWt)<br><b>-</b>        | (c) Flowing Meter Pressure (DWt)<br><b>-</b>    | (d) Flow Chart Static Reading<br><b>-</b>     | (e) Meter Error (Item c - Item d)<br><b>0</b>        | (f) Friction Loss (a-c) or (b-c)<br><b>0</b>                  | (g) Average Meter Pressure (Integr.)<br><b>196</b>           |
| (h) Corrected Meter Pressure (g+e)<br><b>196</b> | (i) Avg. Wellhead Press. $P_w = (h+f)$<br><b>196</b> | (j) Shut-in Casing Pressure (DWt)<br><b>937</b> | (k) Shut-in Tubing Pressure (DWt)<br><b>-</b> | (l) $P_c$ = higher value of (j) or (k)<br><b>937</b> | (m) Del. Pressure $P_d = \frac{80}{750} \% P_c$<br><b>750</b> | (n) Separator or Dehydrator Pr. (DWt) for critical flow only |

### FLOW RATE CORRECTION (METER ERROR)

|                                          |                                                                    |                                                               |                                             |
|------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------|
| Integrated Volume - MCF/D<br><b>2724</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>$Q =$ <b>2724</b> MCF/D |
|------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------|

### WORKING PRESSURE CALCULATION

|                              |                                       |                                                       |                         |                                       |                                    |
|------------------------------|---------------------------------------|-------------------------------------------------------|-------------------------|---------------------------------------|------------------------------------|
| $(1-e^{-s})$<br><b>0.136</b> | $(F_c Q_m)^2 (1000)$<br><b>228642</b> | $R^2 = (1-e^{-s}) (F_c Q_m)^2 (1000)$<br><b>31095</b> | $P_i^2$<br><b>38416</b> | $P_w^2 = P_i^2 + R^2$<br><b>69511</b> | $P_w = \sqrt{P_w^2}$<br><b>264</b> |
|------------------------------|---------------------------------------|-------------------------------------------------------|-------------------------|---------------------------------------|------------------------------------|

### DELIVERABILITY CALCULATION

|                                                              |             |                                          |                                          |                   |
|--------------------------------------------------------------|-------------|------------------------------------------|------------------------------------------|-------------------|
| $D = Q \left[ \frac{P_c^2 - P_w^2}{P_c^2 - P_w^2} \right]^n$ | <b>2724</b> | $\left[ \frac{315469}{808458} \right]^n$ | $\left[ \frac{0.3902}{0.4494} \right]^n$ | <b>1224</b> MCF/D |
|--------------------------------------------------------------|-------------|------------------------------------------|------------------------------------------|-------------------|

### REMARKS:

New Well 1st Del 9-1-71

### SUMMARY

Item h **196** Psia  
 $P_c$  **937** Psia  
 $Q$  **2724** MCF/D  
 $P_w$  **264** Psia  
 $P_d$  **750** Psia  
 $D$  **1224** MCF/D

Company **EL PASO NATURAL GAS COMPANY**

By **H. E. McNamee**

Title **WELL**

Witnessed By

Company

OCT 7 1971

ONE CON. COM.  
DIST. 3