Initial Deliverability Test

# NEW MEXICO OIL CONSERVATION COMMISSION

## WELL DELIVERABILITY TEST REPORT FOR 1970

Form C122-A
Revised 1-1-68

| POOL NAME | POOL SLOPE | FORMATION | COUNTY |
|---|---|---|---|
| Blanco | n = .75 | MV | RA |

86012

| COMPANY | | | WELL NAME AND NUMBER | | |
|---|---|---|---|---|---|
| El Paso Natural Gas Company | | | San Juan 28-6 Unit No. 5 | | |
| UNIT LETTER | SECTION | TOWNSHIP | RANGE | PURCHASING PIPELINE | |
| A | 14 | 28 | 6 | EPNG | |
| CASING O.D. - INCHES | CASING I.D. - INCHES | SET AT DEPTH - FEET | TUBING O.D. - INCHES | TUBING I.D. - INCHES | TOP - TUBING PERF. - FEET |
| 4.500 | 4.052 | 5773 | 2.375 | 1.995 | 5671 |
| GAS PAY ZONE | | WELL PRODUCING THRU | | GAS GRAVITY | GRAVITY X LENGTH |
| FROM 5006 TO 5676 | | CASING | TUBING XX | .689 | 3907 |
| DATE OF FLOW TEST | | | DATE SHUT-IN PRESSURE MEASURED | | |
| FROM 10-1-70 TO 10-9-70 | | | 5-25-70 | | |

### 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.) |
|---|---|---|---|---|---|---|
| - | - | - | - | 0 | 0 | 463 |
| **(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** | **(n) Separator or Dehydrator Pr. (DWt) for critical flow only** |
| 463 | 463 | 703 | 559 | 703 | $P_d$= 80 %$P_c$ = 562 | |

### 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 |
|---|---|---|---|
| 469 | 1.0000 | 1.0000 | Q = 469 MCF/D |

### WORKING PRESSURE CALCULATION

| $(1-e^{-s})$ | $(F_c Q_m)^2$ (1000) | $R^2 = (1-e^{-s})(F_c Q_m)^2$(1000) | $P_t^2$ | $P_w^2 = P_t^2 + R^2$ | $P_w = \sqrt{P_w^2}$ |
|---|---|---|---|---|---|
| .247 | 19444 | 4803 | 214369 | 219172 | 468 |

### DELIVERABILITY CALCULATION

$$D = Q\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2}\right]^n = 469 \left[\left(\frac{178365}{265037}\right)^n = \left(\frac{6485}{.6729}\right)^n = \frac{7227}{.7429} = \frac{339}{348}\right] = 348 \text{ MCF/D}$$

REMARKS:

OWWO, 1st del., Sept. 4, 1970.

**SUMMARY**

| | | |
|---|---|---|
| Item h | 463 | Psia |
| $P_c$ | 703 | Psia |
| Q | 469 | MCF/D |
| $P_w$ | 468 | Psia |
| $P_d$ | 562 | Psia |
| D | 348 | MCF/D |

Company EL PASO NATURAL GAS COMPANY
By W. E. McCauley
Title
Witnessed By
Company

RECEIVED
OCT 28 1970
OIL CON. COM.
DIST. 3