

NEW MEXICO OIL CONSERVATION COMMISSION 69  
WELL DELIVERABILITY TEST REPORT FOR 19Form C122-A  
Revised 1-1-68

|                           |                                  |                            |                     |
|---------------------------|----------------------------------|----------------------------|---------------------|
| POOL NAME<br><b>BASIN</b> | POOL SLOPE<br><b>1.75</b><br>n = | FORMATION<br><b>DAKOTA</b> | COUNTY<br><b>RA</b> |
|---------------------------|----------------------------------|----------------------------|---------------------|

87-039

|                                                              |                                       |                                               |                                                   |                                                       |                                          |
|--------------------------------------------------------------|---------------------------------------|-----------------------------------------------|---------------------------------------------------|-------------------------------------------------------|------------------------------------------|
| COMPANY<br><b>EL PASO NATURAL GAS CO.</b>                    |                                       |                                               | WELL NAME AND NUMBER<br><b>SJ 27-5 UNIT #115</b>  |                                                       |                                          |
| UNIT LETTER<br><b>A</b>                                      | SECTION<br><b>23</b>                  | TOWNSHIP<br><b>27</b>                         | RANGE<br><b>5</b>                                 | PURCHASING PIPELINE<br><b>EL PASO NATURAL GAS CO.</b> |                                          |
| CASING O.D. - INCHES<br><b>4.2500</b>                        | CASING I.D. - INCHES<br><b>3.1088</b> | SET AT DEPTH - FEET<br><b>7801</b>            | TUBING O.D. - INCHES<br><b>1.900</b>              | TUBING I.D. - INCHES<br><b>1.610</b>                  | TOP - TUBING DEPT. - FEET<br><b>7714</b> |
| GAS PAY ZONE<br>FROM <b>7636</b> TO <b>3768</b>              |                                       | WELL PRODUCING THRU<br>CASING <b>X</b> TUBING |                                                   | GAS GRAVITY<br><b>0.678</b>                           | GRAVITY X LENGTH<br><b>5230</b>          |
| DATE OF FLOW TEST<br>FROM <b>08/26/69</b> TO <b>09/03/69</b> |                                       |                                               | DATE SHUT-IN PRESSURE MEASURED<br><b>07/01/69</b> |                                                       |                                          |

## PRESSURE DATA - ALL PRESSURES IN PSIA

|                                                  |                                                      |                                                  |                                                  |                                                       |                                                              |                                                              |
|--------------------------------------------------|------------------------------------------------------|--------------------------------------------------|--------------------------------------------------|-------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|
| (a) Flowing Casing Pressure (DWt)<br><b>0</b>    | (b) Flowing Tubing Pressure (DWt)<br><b>0</b>        | (c) Flowing Meter Pressure (DWt)<br><b>0</b>     | (d) Flow Chart Static Reading<br><b>0</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>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>2584</b> | (k) Shut-in Tubing Pressure (DWt)<br><b>2639</b> | (l) $P_c$ = higher value of (j) or (k)<br><b>2639</b> | (m) Del. Pressure $P_d = \frac{50}{1320} P_c$<br><b>1320</b> | (n) Separator or Dehydrator Pr. (DWt) for critical flow only |

## FLOW RATE CORRECTION (METER ERROR)

|                                          |                                                                    |                                                               |                                              |
|------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------|----------------------------------------------|
| Integrated Volume - MCF/D<br><b>1139</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>1139</b><br>Q = MCF/D |
|------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------|----------------------------------------------|

## WORKING PRESSURE CALCULATION

|                              |                                                         |                                                                         |                          |                                                         |                                    |
|------------------------------|---------------------------------------------------------|-------------------------------------------------------------------------|--------------------------|---------------------------------------------------------|------------------------------------|
| $(1-e^{-5})$<br><b>1.316</b> | $(F_c Q_m)^2 (1000)$<br><b>351.525</b><br><b>351488</b> | $R^2 = (1-e^{-5}) (F_c Q_m)^2 (1000)$<br><b>121082</b><br><b>111070</b> | $P_t^2$<br><b>203401</b> | $P_w^2 = P_t^2 + R^2$<br><b>314483</b><br><b>314471</b> | $P_w = \sqrt{P_w^2}$<br><b>561</b> |
|------------------------------|---------------------------------------------------------|-------------------------------------------------------------------------|--------------------------|---------------------------------------------------------|------------------------------------|

## DELIVERABILITY CALCULATION

|                                                                |             |                                            |              |               |                  |
|----------------------------------------------------------------|-------------|--------------------------------------------|--------------|---------------|------------------|
| $D = Q \left[ \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n =$ | <b>1139</b> | $\left( \frac{5221921}{6649850} \right)^n$ | $(0.7852)^n$ | <b>0.8241</b> | <b>950</b> MCF/D |
|----------------------------------------------------------------|-------------|--------------------------------------------|--------------|---------------|------------------|

REMARKS: New Well 1st del. Aug. 14, 1969

SUMMARY

|        |             |       |
|--------|-------------|-------|
| Item h | <b>451</b>  | Psia  |
| $P_c$  | <b>2639</b> | Psia  |
| $P_i$  | <b>2139</b> | Psia  |
| $P_w$  | <b>561</b>  | MCF/D |
| $P_d$  | <b>1320</b> | Psia  |
| D      | <b>950</b>  | Psia  |
|        |             | MCF/D |

EL PASO NATURAL GAS CO.  
Company \_\_\_\_\_  
By H. E. McConally  
Title \_\_\_\_\_  
Witnessed By \_\_\_\_\_  
Company \_\_\_\_\_

