

NEW MEXICO OIL CONSERVATION COMMISSION  
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL  
**RECEIVED**

Form C-722  
Revised 9-1-65

NM-135

**AUG 29 1977**

Type Test ☒ Initial ☐ Annual ☐ Special Test Date **7-19-77** spud date:

Company **O.C.C. Inexco Oil Company** Connection **El Paso Natural Gas Company** 5-17-77

Pool **Undesignated** Formation **Morrow** Unit

Completion Date **7-18-77** Total Depth **9630** Plug Back TD **9523** Elevation **4224 GR** Farm or Lease Name **Arroyo Federal**

Csg. Size **5-1/2"** Wt. **17** Set At **9630** Perforations: From **9202** To **9232** Well No. **1**

Tbg. Size **2-7/8"** Wt. **6.5** Set At **8990** Perforations: From **open** To **end** Unit **K** Sec. **26** Twp. **21** Rge. **22**

Type Well - Single - Bradenhead - G.G. or G.O. Multiple **single** Packer Set At **9005** County **Eddy**

Producing Thru **tbg.** Reservoir Temp. °F **168 @ 9217** Mean Annual Temp. °F **80°F** Baro. Press. - P<sub>a</sub> **13.2** State **New Mexico**

L **9005** H **9005** Gg **.603** % CO<sub>2</sub> % N<sub>2</sub> % H<sub>2</sub>S Prover **3"** Meter Run **flg.**

| FLOW DATA |                  |   |              |                 |          | TUBING DATA |                 | CASING DATA |                 | Duration of Flow |          |
|-----------|------------------|---|--------------|-----------------|----------|-------------|-----------------|-------------|-----------------|------------------|----------|
| NO.       | Prover Line Size | X | Orifice Size | Press. p.s.i.g. | Diff. hw | Temp. °F    | Press. p.s.i.g. | Temp. °F    | Press. p.s.i.g. |                  | Temp. °F |
| SI        |                  |   |              |                 |          |             | 2800            |             | 1500            |                  | 20 hrs.  |
| 1.        | 3" x 2.000       |   |              | 480             | 14.00    | 93          | 2350            |             | 1500            |                  | 45 min.  |
| 2.        | 3" x 2.000       |   |              | 480             | 36.00    | 93          | 1850            |             | 1500            |                  | 45 min.  |
| 3.        | 3" x 2.000       |   |              | 500             | 50.00    | 90          | 1600            |             | 1500            |                  | 45 min.  |
| 4.        | 3" x 2.000       |   |              | 580             | 67.00    | 94          | 1250            |             | 1500            |                  | 45 min.  |
| 5.        |                  |   |              |                 |          |             |                 |             |                 |                  |          |

| RATE OF FLOW CALCULATIONS |                       |                  |                         |                       |                   |                             |                      |
|---------------------------|-----------------------|------------------|-------------------------|-----------------------|-------------------|-----------------------------|----------------------|
| NO.                       | Coefficient (24 Hour) | $\sqrt{h_w P_m}$ | Pressure P <sub>m</sub> | Flow Temp. Factor Ft. | Gravity Factor Fg | Super Compress. Factor, Fpv | Rate of Flow Q, Mcfd |
| 1                         | 21.32                 | 83.10            | 493.2                   | .9697                 | 1.288             | 1.139                       | 2,520                |
| 2                         | 21.32                 | 133.25           | 493.2                   | .9697                 | 1.288             | 1.129                       | 4,006                |
| 3                         | 21.32                 | 160.19           | 513.2                   | .9723                 | 1.288             | 1.118                       | 4,782                |
| 4                         | 21.32                 | 199.36           | 593.2                   | .9688                 | 1.288             | 1.074                       | 5,696                |
| 5.                        |                       |                  |                         |                       |                   |                             |                      |

Gas Liquid Hydrocarbon Ratio **101.407** Mcf/bbl.

A.P.I. Gravity of Liquid Hydrocarbons **55.0 @ 60°** Deg.

Specific Gravity Separator Gas **.603** **XXXXXXX**

Specific Gravity Flowing Fluid **XXXXX** **G mix .632**

Critical Pressure **671** P.S.I.A. **670** P.S.I.A.

Critical Temperature **358** R **368** R

| NO. | P <sub>t</sub> | Temp. °R | T <sub>f</sub> | Z    |
|-----|----------------|----------|----------------|------|
| 1   | 3.52           | 553      | 1.54           | .771 |
| 2   | 2.78           | 553      | 1.54           | .784 |
| 3   | 2.40           | 550      | 1.54           | .800 |
| 4   | 1.88           | 554      | 1.55           | .867 |
| 5.  |                |          |                |      |

P<sub>c</sub> **2813.2** P<sub>c</sub><sup>2</sup> **7914.1**

| NO. | P <sub>t</sub> <sup>2</sup> | P <sub>w</sub> | P <sub>w</sub> <sup>2</sup> | P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> |
|-----|-----------------------------|----------------|-----------------------------|-----------------------------------------------------------|
| 1   |                             |                | 5644.5                      | 2269.6                                                    |
| 2   |                             |                | 3623.5                      | 4290.6                                                    |
| 3   |                             |                | 2822.2                      | 5091.9                                                    |
| 4   |                             |                | 1916.0                      | 5998.1                                                    |
| 5   |                             |                |                             |                                                           |

(1)  $\frac{P_c^2}{P_c^2 - P_w^2} = 1.319$  (2)  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.319$

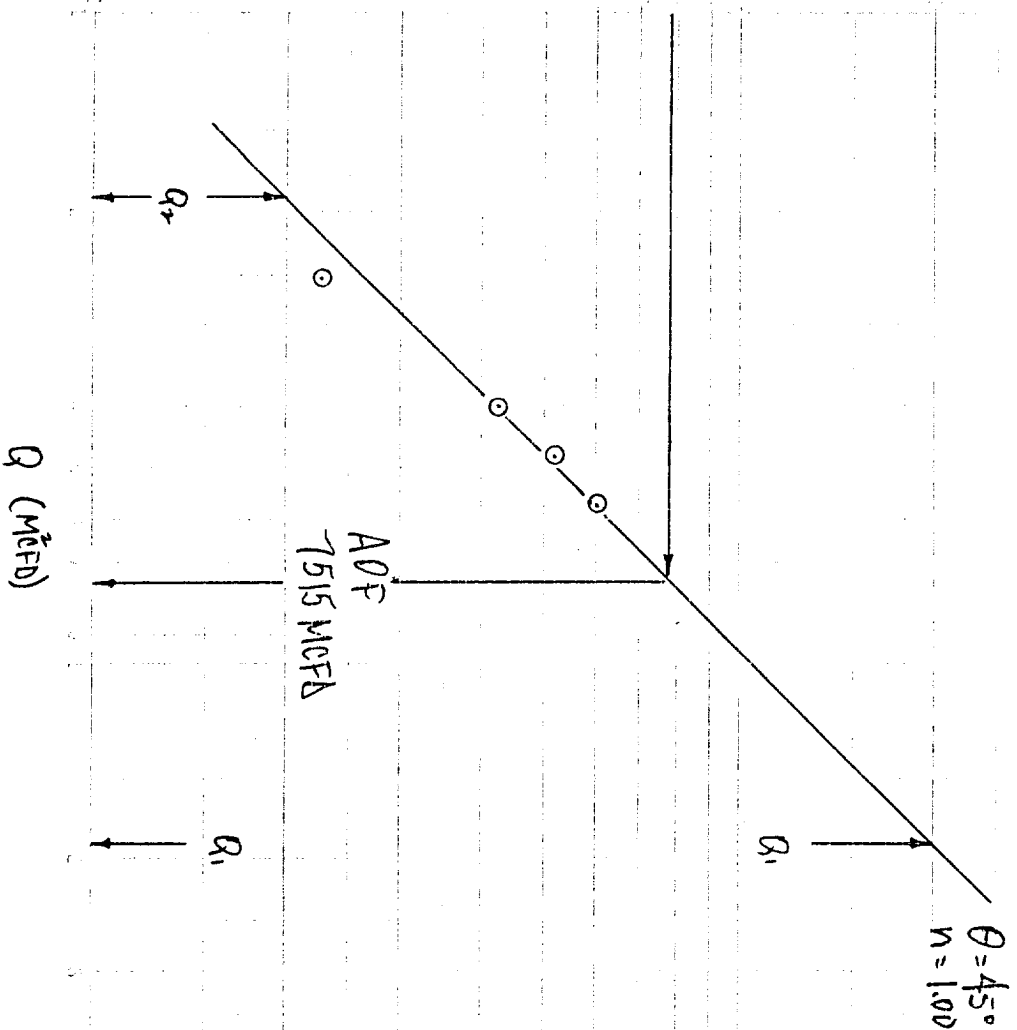
AOF = Q  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 7.515$

Absolute Open Flow **7,515** Mcfd @ 15.025 Angle of Slope **45** Slope, n **1.000**

Remarks: **Made 5.24 bbls. 55.0 @ 60" condensate during test.**

Approved By Commission: Conducted By: **Pat Adams & EPNG** Calculated By: **Marion Tebbs** Checked By: **Terry W. Ellstrom**

I MEXCO OIL COMPANY  
 ARROYO FEDERAL NO. 1  
 SEC 26-21S-26E  
 FADDY CO, NEW MEXICO  
 TEST DATE: 7-19-77



$Q_1 = 19000$ ,  $\log = 4.278753$   
 $Q_2 = 1900$ ,  $\log = 3.278753$   
 Slope = 1.00