

0+6-NMOCD-Artesia

1-File

1-Engr PWS

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1-L.R. Hall-Midland

NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

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JUL 30 1984

Form C-122  
Revised 9-1-65

O. C. D.

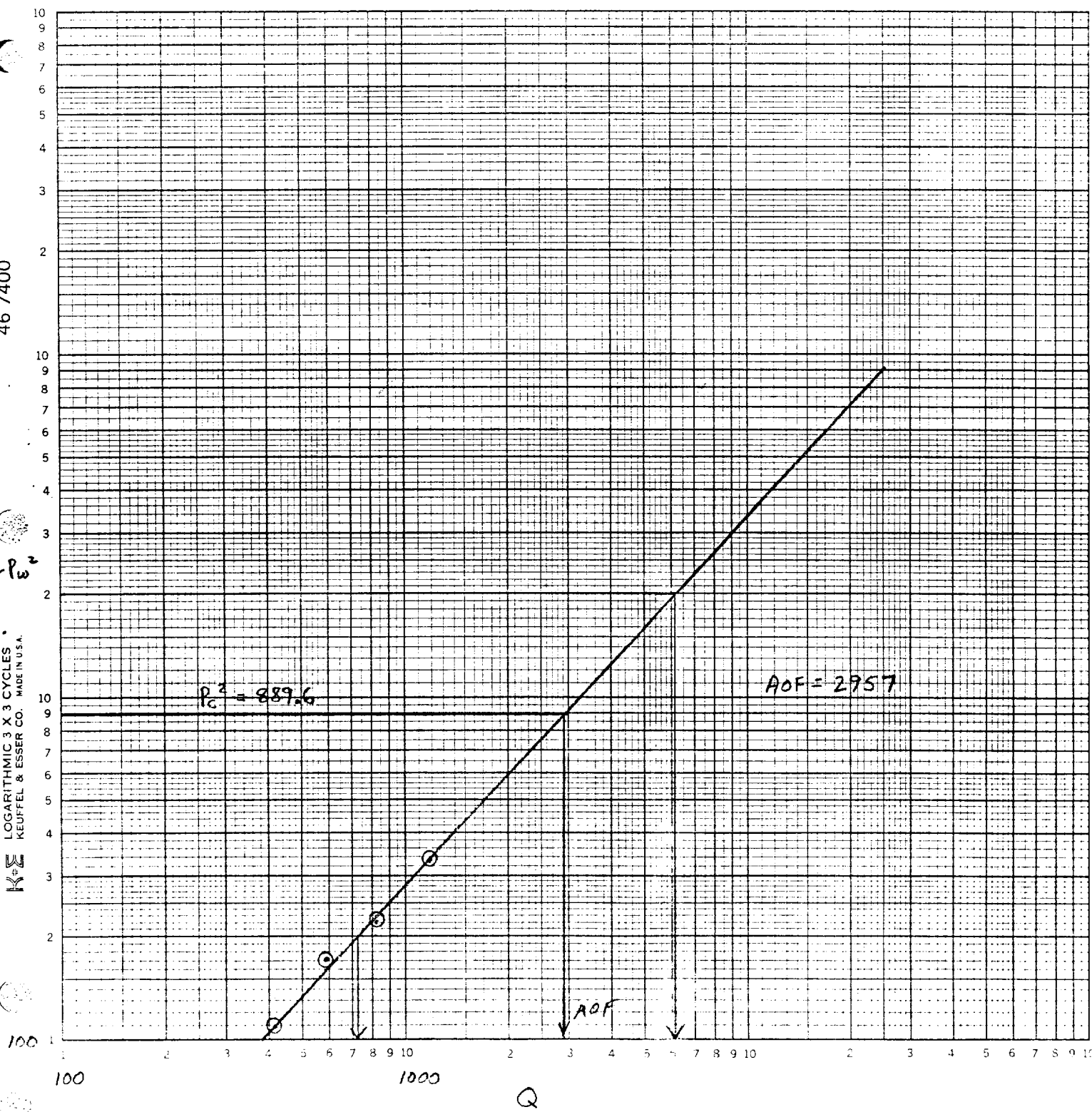
ARTESIA, OFFICE

|                                                                  |                       |                                             |                             |                                                           |                                                                                                      |                                        |                      |                     |                 |                  |                  |
|------------------------------------------------------------------|-----------------------|---------------------------------------------|-----------------------------|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------|----------------------------------------|----------------------|---------------------|-----------------|------------------|------------------|
| Type Test                                                        |                       | <input checked="" type="checkbox"/> Initial |                             | <input type="checkbox"/> Annual                           |                                                                                                      | <input type="checkbox"/> Special       |                      | Test Date           |                 | 7/24/84          |                  |
| Company                                                          |                       |                                             |                             | Connection                                                |                                                                                                      |                                        |                      |                     |                 |                  |                  |
| Getty Oil Company                                                |                       |                                             |                             | None                                                      |                                                                                                      |                                        |                      |                     |                 |                  |                  |
| Pool                                                             |                       |                                             |                             | Formation                                                 |                                                                                                      |                                        |                      | Unit                |                 |                  |                  |
| Pecos Slope                                                      |                       |                                             |                             | ABO                                                       |                                                                                                      |                                        |                      |                     |                 |                  |                  |
| Completion Date                                                  |                       | Total Depth                                 |                             | Plug Back TD                                              |                                                                                                      | Elevation                              |                      | Name or Lease Name  |                 |                  |                  |
| 7-21-84                                                          |                       | 4200'                                       |                             | 4155' 4113                                                |                                                                                                      | 3641' GR                               |                      | Getty PS 17 Fed Com |                 |                  |                  |
| Csg. Size                                                        | Wt.                   | d                                           | Set At                      | Perforations:                                             |                                                                                                      | Well No.                               |                      |                     |                 |                  |                  |
| 4 1/2"                                                           | 10.5#                 | 4.052                                       | 4155'                       | From 3702' To 3980'                                       |                                                                                                      | 1                                      |                      |                     |                 |                  |                  |
| Tbg. Size                                                        | Wt.                   | d                                           | Set At                      | Perforations:                                             |                                                                                                      | Unit                                   |                      | Sec.                | Twp.            | Rge.             |                  |
| 2 3/8"                                                           | 4.7                   | 1.995                                       | 3664'                       | From Open End To                                          |                                                                                                      | A                                      |                      | 17                  | 6S              | 26E              |                  |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple          |                       |                                             |                             |                                                           |                                                                                                      | Packer Set At                          |                      | County              |                 |                  |                  |
| Single                                                           |                       |                                             |                             |                                                           |                                                                                                      | None                                   |                      | Chaves              |                 |                  |                  |
| Producing Thru                                                   |                       | Reservoir Temp. °F                          |                             | Mean Annual Temp. °F                                      |                                                                                                      | Baro. Press. - P <sub>a</sub>          |                      | State               |                 |                  |                  |
| Tbg                                                              |                       | 98° @ 4200'                                 |                             | 60                                                        |                                                                                                      | 13.2                                   |                      | New Mexico          |                 |                  |                  |
| L                                                                | H                     | Gg                                          | % CO <sub>2</sub>           | % N <sub>2</sub>                                          | % H <sub>2</sub> S                                                                                   | Prover                                 | Meter Run            | Taps                |                 |                  |                  |
| 3664                                                             | 3664                  | 0.7411                                      | 10.60                       | 5.78                                                      | ---                                                                                                  | ---                                    |                      |                     |                 |                  |                  |
| FLOW DATA                                                        |                       |                                             |                             |                                                           |                                                                                                      | TUBING DATA                            |                      | CASING DATA         |                 | Duration of Flow |                  |
| NO.                                                              | Prover Line Size      | X                                           | Orifice Size                | Press. p.s.i.g.                                           | Diff. h <sub>w</sub>                                                                                 | Temp. °F                               | Press. p.s.i.g.      | Temp. °F            | Press. p.s.i.g. | Temp. °F         | Duration of Flow |
| 51                                                               |                       |                                             |                             |                                                           |                                                                                                      |                                        | 930                  |                     | 915             |                  |                  |
| 1.                                                               | 3" x 1 1/8            |                                             |                             | 300                                                       | 10                                                                                                   | 50                                     | 880                  | 50                  | 870             | 50               | 0.50             |
| 2.                                                               | 3" x 1 1/8            |                                             |                             | 300                                                       | 20                                                                                                   | 50                                     | 820                  | 50                  | 835             | 50               | 0.25             |
| 3.                                                               | 3" x 1 1/8            |                                             |                             | 300                                                       | 40                                                                                                   | 50                                     | 720                  | 50                  | 805             | 50               | 0.50             |
| 4.                                                               | 3" x 1 1/8            |                                             |                             | 300                                                       | 82                                                                                                   | 50                                     | 630                  | 50                  | 735             | 50               | 0.75             |
| 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 F <sub>g</sub>                                                                        | Super Compress. Factor F <sub>pv</sub> | Rate of Flow Q, Mcfd |                     |                 |                  |                  |
| 1                                                                | 6.116                 | 55.96                                       | 313.2                       | 1.010                                                     | 1.162                                                                                                | 1.031                                  | 414.1                |                     |                 |                  |                  |
| 2                                                                | 6.116                 | 79.15                                       | 313.2                       | 1.010                                                     | 1.162                                                                                                | 1.031                                  | 585.7                |                     |                 |                  |                  |
| 3                                                                | 6.116                 | 111.9                                       | 313.2                       | 1.010                                                     | 1.162                                                                                                | 1.031                                  | 828.1                |                     |                 |                  |                  |
| 4                                                                | 6.116                 | 160.3                                       | 313.2                       | 1.010                                                     | 1.162                                                                                                | 1.031                                  | 1186.0               |                     |                 |                  |                  |
| 5                                                                |                       |                                             |                             |                                                           |                                                                                                      |                                        |                      |                     |                 |                  |                  |
| NO.                                                              | P <sub>t</sub>        | Temp. °R                                    | T <sub>r</sub>              | Z                                                         | Gas Liquid Hydrocarbon Ratio _____ Mcf/ool.                                                          |                                        |                      |                     |                 |                  |                  |
|                                                                  |                       |                                             |                             |                                                           | A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.                                                     |                                        |                      |                     |                 |                  |                  |
| 1                                                                | 0.446                 | 510                                         | 1.38                        | 0.941                                                     | Specific Gravity Separator Gas 0.7411                                                                |                                        |                      |                     |                 |                  |                  |
| 2                                                                | 0.446                 | 510                                         | 1.38                        | 0.941                                                     | Specific Gravity Flowing Fluid                                                                       |                                        |                      |                     |                 |                  |                  |
| 3                                                                | 0.446                 | 510                                         | 1.38                        | 0.941                                                     | Critical Pressure 702 P.S.I.A.                                                                       |                                        |                      |                     |                 |                  |                  |
| 4                                                                | 0.446                 | 510                                         | 1.38                        | 0.941                                                     | Critical Temperature 370 °F                                                                          |                                        |                      |                     |                 |                  |                  |
| 5                                                                |                       |                                             |                             |                                                           |                                                                                                      |                                        |                      |                     |                 |                  |                  |
| $P_c = 943.2$ $P_w^2 = 889.6$                                    |                       |                                             |                             |                                                           |                                                                                                      |                                        |                      |                     |                 |                  |                  |
| NO.                                                              | P <sub>t</sub>        | 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> | $(1) \frac{P_c^2}{P_c^2 - P_w^2} = 2.685$ $(2) \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.493$ |                                        |                      |                     |                 |                  |                  |
| 1                                                                |                       | 883.2                                       | 780.0                       | 109.6                                                     |                                                                                                      |                                        |                      |                     |                 |                  |                  |
| 2                                                                |                       | 848.2                                       | 719.4                       | 170.2                                                     |                                                                                                      |                                        |                      |                     |                 |                  |                  |
| 3                                                                |                       | 818.2                                       | 669.5                       | 220.1                                                     |                                                                                                      |                                        |                      |                     |                 |                  |                  |
| 4                                                                |                       | 747.2                                       | 558.3                       | 331.3                                                     |                                                                                                      |                                        |                      |                     |                 |                  |                  |
| 5                                                                |                       |                                             |                             |                                                           |                                                                                                      |                                        |                      |                     |                 |                  |                  |
| $Q = 2957$ $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2957$ |                       |                                             |                             |                                                           |                                                                                                      |                                        |                      |                     |                 |                  |                  |
| Absolute Open Flow 2957 Mcf @ 15.625                             |                       |                                             |                             |                                                           |                                                                                                      | Angle of Slope θ                       |                      |                     | Slope n 0.925   |                  |                  |
| Remarks:                                                         |                       |                                             |                             |                                                           |                                                                                                      |                                        |                      |                     |                 |                  |                  |
| Approved By Commission:                                          |                       |                                             |                             |                                                           |                                                                                                      |                                        |                      |                     |                 |                  |                  |
| Conducted By:                                                    |                       |                                             |                             | Calculated By:                                            |                                                                                                      |                                        |                      | Checked By:         |                 |                  |                  |
| Paul Mitchell                                                    |                       |                                             |                             | Lee Martin                                                |                                                                                                      |                                        |                      | Don Stinner         |                 |                  |                  |

46 7400

$P_c^2 - P_w^2$

LOGARITHMIC 3 X 3 CYCLES  
KEUFFEL & ESSER CO. MADE IN U.S.A.



$Q_2 = 725$      $\log Q_2 = 2.860$   
 $Q_1 = 6100$      $\log Q_1 = 3.785$

$n = 0.925$