

NEW XICO OIL CONSERVATION COMMISSIC  
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122  
Revised 9-1-65

C O R R E C T E D

|                                                                                                                           |                      |                                           |                                 |                                                     |                                  |                                                                          |                        |
|---------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------------------------------|---------------------------------|-----------------------------------------------------|----------------------------------|--------------------------------------------------------------------------|------------------------|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |                      |                                           |                                 |                                                     |                                  | Test Date<br><b>6-15-76</b>                                              |                        |
| Company<br><b>Union Oil Co. of California</b>                                                                             |                      |                                           |                                 | Connection                                          |                                  |                                                                          |                        |
| Pool<br><b>Wildcat</b>                                                                                                    |                      |                                           |                                 | Formation<br><b>Lower Canyon</b>                    |                                  | Unit                                                                     |                        |
| Completion Date<br><b>6- 2-76</b>                                                                                         |                      | Total Depth<br><b>9,380'</b>              |                                 | Plug Back TD<br><b>9,075'</b>                       |                                  | Elevation<br><b>4386' GR.</b>                                            |                        |
| Farm or Lease Name<br><b>Roberts</b>                                                                                      |                      |                                           |                                 |                                                     |                                  |                                                                          |                        |
| Csg. Size<br><b>4-1/2" OD</b>                                                                                             | Wt.<br><b>11.60#</b> | d<br><b>4.000"</b>                        | Set At<br><b>9,276'</b>         | Perforations:<br>From <b>8,905'</b> To <b>8916'</b> |                                  | Well No.<br><b>1</b>                                                     |                        |
| Tbg. Size<br><b>2-3/8" OD</b>                                                                                             | Wt.<br><b>4.70#</b>  | d<br><b>1.995"</b>                        | Set At<br><b>8,850'</b>         | Perforations:<br>From                      To       |                                  | Unit      Sec.      Twp.      Rge.<br><b>D      9      7-S      33-E</b> |                        |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br><b>Single</b>                                                  |                      |                                           |                                 | Packer Set At<br><b>8,850'</b>                      |                                  | County<br><b>Roosevelt</b>                                               |                        |
| Producing Thru<br><b>Tubing</b>                                                                                           |                      | Reservoir Temp. °F<br><b>145 @ 8,900'</b> |                                 | Mean Annual Temp. °F<br><b>60</b>                   |                                  | Baro. Press. - P <sub>a</sub><br><b>13.2 psia</b>                        |                        |
| State<br><b>New Mexico</b>                                                                                                |                      |                                           |                                 |                                                     |                                  |                                                                          |                        |
| L<br><b>8,850'</b>                                                                                                        | H<br><b>8,850'</b>   | G <sub>g</sub><br><b>0.761</b>            | % CO <sub>2</sub><br><b>4.2</b> | % N <sub>2</sub><br><b>6.2</b>                      | % H <sub>2</sub> S<br><b>0.0</b> | Prover<br><b>Orifice</b>                                                 | Meter Run<br><b>2"</b> |
|                                                                                                                           |                      |                                           |                                 |                                                     |                                  | Taps<br><b>Pipe</b>                                                      |                        |

| 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           |
| SI        |                  |          |              |                 |                      |             | <b>1916.4</b>   | <b>60</b>   |                 |                  | <b>11-1/4 Hrs.</b> |
| 1.        | <b>2"</b>        | <b>x</b> | <b>1.250</b> | <b>0.0</b>      | <b>285.5</b>         | <b>54</b>   | <b>500</b>      | <b>54</b>   | <b>Pkr.</b>     |                  | <b>3 Hrs.</b>      |
| 2.        |                  |          |              |                 |                      |             |                 |             |                 |                  |                    |
| 3.        |                  |          |              |                 |                      |             |                 |             |                 |                  |                    |
| 4.        |                  |          |              |                 |                      |             |                 |             |                 |                  |                    |
| 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                         | <b>10.31</b>          | <b>61.39</b>     | <b>13.2</b>             | <b>1.0058</b>         | <b>1.1463</b>                 | <b>1.0015</b>                           | <b>731</b>           |
| 2.                        |                       |                  |                         |                       |                               |                                         |                      |
| 3.                        |                       |                  |                         |                       |                               |                                         |                      |
| 4.                        |                       |                  |                         |                       |                               |                                         |                      |
| 5.                        |                       |                  |                         |                       |                               |                                         |                      |

|     |                |            |                |              |                                                                                        |
|-----|----------------|------------|----------------|--------------|----------------------------------------------------------------------------------------|
| NO. | P <sub>t</sub> | Temp. °R   | T <sub>t</sub> | Z            | Gas Liquid Hydrocarbon Ratio <b>150.0</b> Mcf/bbl.                                     |
| 1   | <b>.02</b>     | <b>514</b> | <b>1.34</b>    | <b>0.997</b> | A.P.I. Gravity of Liquid Hydrocarbons <b>54.0</b> Deg.                                 |
| 2.  |                |            |                |              | Specific Gravity Separator Gas <b>.761</b> <span style="float:right">XXXXXXXXXX</span> |
| 3.  |                |            |                |              | Specific Gravity Flowing Fluid <span style="float:right">XXXXX</span> <b>0.779</b>     |
| 4.  |                |            |                |              | Critical Pressure <b>672</b> P.S.I.A. <b>671</b> P.S.I.A.                              |
| 5.  |                |            |                |              | Critical Temperature <b>385</b> °R <b>390</b> °R                                       |

|                                                                      |                             |                |                             |                                                           |                                            |                                                             |
|----------------------------------------------------------------------|-----------------------------|----------------|-----------------------------|-----------------------------------------------------------|--------------------------------------------|-------------------------------------------------------------|
| P <sub>c</sub> <b>1929.6</b> P <sub>c</sub> <sup>2</sup> <b>3723</b> |                             |                |                             |                                                           | (1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0809$ | (2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0809$ |
| 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                                                                    | <b>263</b>                  | <b>528</b>     | <b>279</b>                  | <b>3445</b>                                               |                                            |                                                             |
| 2                                                                    |                             |                |                             |                                                           |                                            |                                                             |
| 3                                                                    |                             |                |                             |                                                           |                                            |                                                             |
| 4                                                                    |                             |                |                             |                                                           |                                            |                                                             |
| 5                                                                    |                             |                |                             |                                                           |                                            |                                                             |

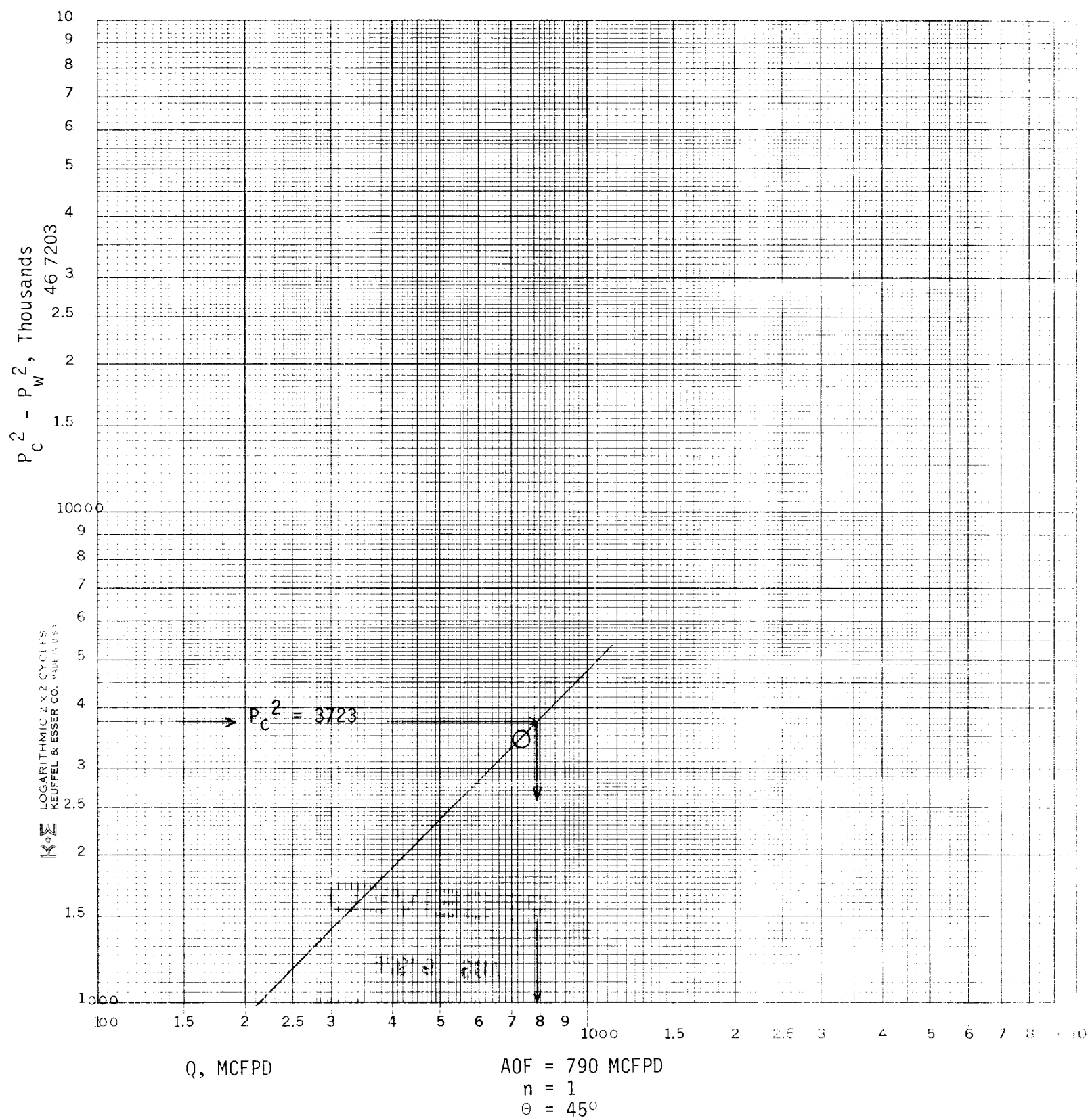
  

|                                                                                                                                   |                                    |                                        |                                     |                     |
|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------------|----------------------------------------|-------------------------------------|---------------------|
| Absolute Open Flow <b>790</b> Mcfd @ 15.025                                                                                       |                                    |                                        | Angle of Slope $\theta$ <b>45.0</b> | Slope, n <b>1.0</b> |
| Remarks: <b>P<sub>c</sub> and P<sub>w</sub> calculated using Garrett Computing Systems' Absolute Open Flow Potential Program.</b> |                                    |                                        |                                     |                     |
| Approved By Commission:                                                                                                           | Conducted By:<br><b>D. Gomendi</b> | Calculated By:<br><b>J. G. Hawkins</b> | Checked By:<br><b>H. R. Willis</b>  |                     |

ROBERTS NO. 1

ROOSEVELT COUNTY, NEW MEXICO

D, 9, 7-S, 33E



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AL CONSERVATION COMM.  
HOFES, N. M.