

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

Form C-122  
Revised 9-1-65

|                                                                                                                           |              |                         |                   |                                    |                    |                               |            |                                    |             |
|---------------------------------------------------------------------------------------------------------------------------|--------------|-------------------------|-------------------|------------------------------------|--------------------|-------------------------------|------------|------------------------------------|-------------|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |              |                         |                   |                                    |                    | Test Date<br>8-2-77           |            |                                    |             |
| Company<br>Kirby Exploration Company                                                                                      |              |                         |                   | Connection                         |                    |                               |            |                                    |             |
| Pool<br>Nipp                                                                                                              |              |                         |                   | Formation<br>Pictured Cliffs       |                    |                               |            | Unit                               |             |
| Completion Date<br>7-13-77                                                                                                |              | Total Depth<br>1305     |                   | Plug Back TD<br>1262               |                    | Elevation<br>6048             |            | Farm or Lease Name<br>Frew Federal |             |
| Csg. Size<br>4½                                                                                                           | Wt.<br>10.79 | d                       | Set At<br>1304    | Perforations:<br>From 1080 To 1098 |                    | Well No.<br>4                 |            |                                    |             |
| Tbg. Size<br>2 3/8                                                                                                        | Wt.<br>4.7   | d                       | Set At<br>991     | Perforations:<br>From To           |                    | Unit<br>C                     | Sec.<br>29 | Twp.<br>26N                        | Rge.<br>12W |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>Single                                                         |              |                         |                   | Packer Set At<br>none              |                    | County<br>San Juan            |            |                                    |             |
| Producing Thru<br>Tubing                                                                                                  |              | Reservoir Temp. °F<br>@ |                   | Mean Annual Temp. °F               |                    | Baro. Press. - P <sub>a</sub> |            | State<br>New Mexico                |             |
| L                                                                                                                         | H            | Gg<br>.62               | % CO <sub>2</sub> | % N <sub>2</sub>                   | % H <sub>2</sub> S | Prover                        | Meter Run  | Taps                               |             |

  

| 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. |                  |
| SI        |                  |   |              |                 |                      |             | 210             |             | 211             |                  |
| 1.        | 2x6x.75          |   |              | 5               |                      | 65          | 5               | 65          | 9               |                  |
| 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 Fg | Super Compress. Factor, Fpv | Rate of Flow Q, Mcfd |
| 1                         | 11                    |                  | 17                      | .9952                 | 1.270             | 1.0020                      | 237                  |
| 2.                        |                       |                  |                         |                       |                   |                             |                      |
| 3.                        |                       |                  |                         |                       |                   |                             |                      |
| 4.                        |                       |                  |                         |                       |                   |                             |                      |
| 5.                        |                       |                  |                         |                       |                   |                             |                      |

  

|     |                |          |                |      |                                                  |  |
|-----|----------------|----------|----------------|------|--------------------------------------------------|--|
| NO. | P <sub>t</sub> | Temp. °R | T <sub>r</sub> | Z    | Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.      |  |
| 1   | .025           | 525      | 1.44           | .996 | A.P.I. Gravity of Liquid Hydrocarbons _____ Deg. |  |
| 2.  |                |          |                |      | Specific Gravity Separator Gas _____ XXXXXXXXXX  |  |
| 3.  |                |          |                |      | Specific Gravity Flowing Fluid _____ XXXXX       |  |
| 4.  |                |          |                |      | Critical Pressure _____ P.S.I.A. _____ P.S.I.A.  |  |
| 5.  |                |          |                |      | Critical Temperature _____ R _____ R             |  |

  

|                    |                                   |                |                             |
|--------------------|-----------------------------------|----------------|-----------------------------|
| P <sub>c</sub> 223 | P <sub>c</sub> <sup>2</sup> 54289 |                |                             |
| NO.                | P <sub>t</sub> <sup>2</sup>       | P <sub>w</sub> | P <sub>w</sub> <sup>2</sup> |
| 1                  |                                   | 21             | 441                         |
| 2                  |                                   |                |                             |
| 3                  |                                   |                |                             |
| 4                  |                                   |                |                             |
| 5                  |                                   |                |                             |

$$(1) \frac{P_c^2}{P_t^2 - P_w^2} = 1.0082$$

$$AOF = Q \left[ \frac{P_c^2}{P_t^2 - P_w^2} \right]^n = 238$$

$$(2) \left[ \frac{P_c^2}{P_t^2 - P_w^2} \right]^n = 1.0069$$

AUG 11 1977  
OIL CON. COM.  
DIST. 3

|                         |               |                              |                         |     |
|-------------------------|---------------|------------------------------|-------------------------|-----|
| Absolute Open Flow      | 238           | Mcf/d @ 15.025               | Angle of Slope $\theta$ | .85 |
| Remarks:                |               |                              |                         |     |
|                         |               |                              |                         |     |
| Approved By Commission: | Conducted By: | Calculated By:<br>K. Jenkins | Checked By:             |     |