

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

Form C-122  
Revised 9-1-65

|                                                                                                                        |                 |                                       |                                |                                                   |                                                |
|------------------------------------------------------------------------------------------------------------------------|-----------------|---------------------------------------|--------------------------------|---------------------------------------------------|------------------------------------------------|
| Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |                 |                                       |                                | Test Date 12-26-68                                |                                                |
| Company <u>CONZOLL, UNITED, INC.</u>                                                                                   |                 |                                       | Connection <u>NONE</u>         |                                                   |                                                |
| Pool <u>UNDESIGNATED</u>                                                                                               |                 |                                       | Formation <u>MORBON GAS</u>    |                                                   | Unit <u>320</u>                                |
| Completion Date <u>12-22-68</u>                                                                                        |                 | Total Depth <u>13575'</u>             | Plug Back TD <u>13340'</u>     | Elevation <u>3783' MSL</u>                        | Farm or Lease Name <u>MORSON 29 FEDERAL</u>    |
| Csg. Size <u>1 1/2"</u>                                                                                                | Wt. <u>11.6</u> | d <u>3.875</u>                        | Set At <u>13575'</u>           | Perforations: From <u>13263'</u> To <u>13515'</u> | Well No. <u>No. 2</u>                          |
| Tbg. Size <u>2 3/8"</u>                                                                                                | Wt. <u>4.7</u>  | d <u>1.985</u>                        | Set At <u>13189'</u>           | Perforations: From <u>OPEN</u> To <u>ENDED</u>    | Unit <u>29</u> Sec. <u>18S</u> Twp. <u>33E</u> |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple <u>SINGLE</u>                                                  |                 |                                       |                                | Packer Set At <u>12254'</u>                       | County <u>LEA</u>                              |
| Producing Thru <u>TUBING</u>                                                                                           |                 | Reservoir Temp. °F <u>192 @ 13149</u> | Mean Annual Temp. °F <u>60</u> | Baro. Press. - P <sub>a</sub> <u>13.2</u>         | State <u>NEW MEXICO</u>                        |
| L <u>13300</u>                                                                                                         | H <u>-</u>      | G <sub>g</sub> <u>0.618</u>           | % CO <sub>2</sub> <u>0.56</u>  | % N <sub>2</sub> <u>0.44</u>                      | % H <sub>2</sub> S <u>0.00</u>                 |
| Prover <u>-</u>                                                                                                        |                 | Meter Run <u>X</u>                    | Taps <u>FLANGE</u>             |                                                   |                                                |

  

| 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        |                  |              |              |                 |                      |             | <u>1000</u>     |             | <u>PACKER</u>   | <u>-</u>         | <u>33.0</u> |
| 1.        | <u>3"</u>        | <u>10/64</u> | <u>2"</u>    | <u>500</u>      | <u>25</u>            | <u>40</u>   | <u>3478</u>     | <u>72</u>   | <u>-</u>        | <u>-</u>         | <u>3.0</u>  |
| 2.        | <u>3"</u>        | <u>10/64</u> | <u>2"</u>    | <u>510</u>      | <u>13</u>            | <u>42</u>   | <u>3515</u>     | <u>72</u>   | <u>-</u>        | <u>-</u>         | <u>1.0</u>  |
| 3.        | <u>3"</u>        | <u>9/64</u>  | <u>2"</u>    | <u>490</u>      | <u>5</u>             | <u>46</u>   | <u>4260</u>     | <u>72</u>   | <u>-</u>        | <u>-</u>         | <u>1.0</u>  |
| 4.        | <u>3"</u>        | <u>7/64</u>  | <u>2"</u>    | <u>460</u>      | <u>3</u>             | <u>50</u>   | <u>4391</u>     | <u>72</u>   | <u>-</u>        | <u>-</u>         | <u>1.0</u>  |
| 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>sp</sub> | Rate of Flow Q, Mcfd |
| 1.                        | <u>19.81</u>          | <u>119.71</u>    | <u>573.2</u>            | <u>1.000</u>          | <u>1.040</u>                  | <u>1.067</u>                            | <u>3225.7</u>        |
| 2.                        | <u>19.31</u>          | <u>82.48</u>     | <u>523.2</u>            | <u>1.010</u>          | <u>1.040</u>                  | <u>1.051</u>                            | <u>2191.0</u>        |
| 3.                        | <u>19.81</u>          | <u>54.94</u>     | <u>503.2</u>            | <u>1.014</u>          | <u>1.040</u>                  | <u>1.055</u>                            | <u>1446.1</u>        |
| 4.                        | <u>19.81</u>          | <u>37.66</u>     | <u>473.2</u>            | <u>1.010</u>          | <u>1.040</u>                  | <u>1.049</u>                            | <u>982.2</u>         |
| 5.                        |                       |                  |                         |                       |                               |                                         |                      |

  

| NO. | P <sub>t</sub> | Temp. °R   | T <sub>f</sub> | Z           | Gas Liquid Hydrocarbon Ratio <u>55.07</u> Mcf/bbl. | A.P.I. Gravity of Liquid Hydrocarbons <u>56.2</u> Deg. | Specific Gravity Separator Gas <u>0.946</u> | Specific Gravity Flowing Fluid <u>XXXXXX</u> | Critical Pressure <u>673</u> P.S.I.A. | Critical Temperature <u>368</u> R |
|-----|----------------|------------|----------------|-------------|----------------------------------------------------|--------------------------------------------------------|---------------------------------------------|----------------------------------------------|---------------------------------------|-----------------------------------|
| 1.  | <u>0.65</u>    | <u>500</u> | <u>1.36</u>    | <u>.870</u> |                                                    |                                                        |                                             |                                              |                                       |                                   |
| 2.  | <u>0.76</u>    | <u>502</u> | <u>1.36</u>    | <u>.869</u> |                                                    |                                                        |                                             |                                              |                                       |                                   |
| 3.  | <u>0.75</u>    | <u>505</u> | <u>1.38</u>    | <u>.890</u> |                                                    |                                                        |                                             |                                              |                                       |                                   |
| 4.  | <u>0.76</u>    | <u>510</u> | <u>1.39</u>    | <u>.908</u> |                                                    |                                                        |                                             |                                              |                                       |                                   |
| 5.  |                |            |                |             |                                                    |                                                        |                                             |                                              |                                       |                                   |

  

| NO. | P <sub>t</sub> <sup>2</sup> | P <sub>w</sub> <sup>2</sup> | P <sub>w</sub> <sup>2</sup> | P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> |
|-----|-----------------------------|-----------------------------|-----------------------------|-----------------------------------------------------------|
| 1.  | <u>-</u>                    | <u>5179.2</u>               | <u>25524.1</u>              | <u>14350.1</u>                                            |
| 2.  | <u>-</u>                    | <u>5570.2</u>               | <u>31027.1</u>              | <u>10165.2</u>                                            |
| 3.  | <u>-</u>                    | <u>5922.3</u>               | <u>35172.5</u>              | <u>120.0</u>                                              |
| 4.  | <u>-</u>                    | <u>6105.0</u>               | <u>37273.0</u>              | <u>3910.0</u>                                             |
| 5.  |                             |                             |                             |                                                           |

  

(1)  $\frac{P_c^2}{P_c^2 - P_w^2} = \underline{4.052}$

AOF = Q  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \underline{7113}$

(2)  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \underline{3.245}$

  

|                                              |                                        |                      |
|----------------------------------------------|----------------------------------------|----------------------|
| Absolute Open Flow <u>7100</u> Mcfd @ 15.025 | Angle of Slope $\theta$ <u>40° 56'</u> | Slope, n <u>.841</u> |
|----------------------------------------------|----------------------------------------|----------------------|

  

Remarks: \* DUP 3 (-9616') 13300' USED FOR PRESSURE CALCULATIONS

  

|                         |                                        |                                      |                                   |
|-------------------------|----------------------------------------|--------------------------------------|-----------------------------------|
| Approved By Commission: | Conducted By: <u>COLEMAN PET. ENG.</u> | Calculated By: <u>JOE A. COLEMAN</u> | Checked By: <u>JOE A. COLEMAN</u> |
|-------------------------|----------------------------------------|--------------------------------------|-----------------------------------|