

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Basin Dakota Formation Dakota County Rio Arriba  
Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 2-18-1965  
Company Tenneco Oil Company Lease Jicarilla Well No. B 2  
Unit \_\_\_\_\_ Sec. 16 Twp. 26 Rge. 5 Purchaser \_\_\_\_\_  
Casing 4 1/2 Wt. \_\_\_\_\_ I.D. \_\_\_\_\_ Set at \_\_\_\_\_ Perf. 7205 To 7450  
Tubing 2 3/8 Wt. \_\_\_\_\_ I.D. \_\_\_\_\_ Set at 7424 Perf. \_\_\_\_\_ To \_\_\_\_\_  
Gas Pay: From 7205 To 7450 L \_\_\_\_\_ xG \_\_\_\_\_ -GL \_\_\_\_\_ Bar.Press. 12.0  
Producing Thru: Casing \_\_\_\_\_ Tubing \_\_\_\_\_ Type Well Single gas  
Single-Bradenhead-G. G. or G.O. Dual  
Date of Completion: \_\_\_\_\_ Packer \_\_\_\_\_ Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps \_\_\_\_\_

| No. | Flow Data                  |                              |                |                         |              | Tubing Data               |              | Casing Data               |              | Duration of Flow Hr. |
|-----|----------------------------|------------------------------|----------------|-------------------------|--------------|---------------------------|--------------|---------------------------|--------------|----------------------|
|     | (Prover)<br>(Line)<br>Size | (Choke)<br>(Orifice)<br>Size | Press.<br>psig | Diff.<br>h <sub>w</sub> | Temp.<br>°F. | Press.<br>psig            | Temp.<br>°F. | Press.<br>psig            | Temp.<br>°F. |                      |
| 1.  |                            | <u>3/4</u>                   |                |                         |              | <u>1906</u><br><u>197</u> | <u>70</u>    | <u>2230</u><br><u>605</u> |              | <u>3 hours</u>       |
| 2.  |                            |                              |                |                         |              |                           |              |                           |              |                      |
| 3.  |                            |                              |                |                         |              |                           |              |                           |              |                      |
| 4.  |                            |                              |                |                         |              |                           |              |                           |              |                      |
| 5.  |                            |                              |                |                         |              |                           |              |                           |              |                      |

## FLOW CALCULATIONS

| No. | Coefficient<br>(24-Hour) | $\sqrt{h_{wpf}}$ | Pressure<br>psia | Flow Temp.<br>Factor<br>F <sub>t</sub> | Gravity<br>Factor<br>F <sub>g</sub> | Compress.<br>Factor<br>F <sub>pv</sub> | Rate of Flow<br>Q-MCFPD<br>@ 15.025 psia |
|-----|--------------------------|------------------|------------------|--|-------------------------------------|--|--|
| 1.  | <u>12.3650</u>           |                  | <u>209</u>       | <u>.9905</u>                           | <u>.9608</u>                        | <u>1.020</u>                           | <u>2510</u>                              |
| 2.  |                          |                  |                  |  |                                     |  |  |
| 3.  |                          |                  |                  |  |                                     |  |  |
| 4.  |                          |                  |                  |  |                                     |  |  |
| 5.  |                          |                  |                  |  |                                     |  |  |

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
F<sub>c</sub> \_\_\_\_\_ (1-e<sup>-s</sup>)  
Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 2242 P<sub>c</sub> 5026564

| No. | P <sub>w</sub><br>P <sub>t</sub> (psia) | P <sub>t</sub> <sup>2</sup> | F <sub>c</sub> Q | (F <sub>c</sub> Q) <sup>2</sup> | (F <sub>c</sub> Q) <sup>2</sup><br>(1-e <sup>-s</sup> ) | P <sub>w</sub> <sup>2</sup> | P <sub>c</sub> <sup>2</sup> -P <sub>w</sub> <sup>2</sup> | Cal.<br>P <sub>w</sub> | P <sub>w</sub><br>P <sub>c</sub> |
|-----|---|-----------------------------|------------------|---------------------------------|---|-----------------------------|--|------------------------|----------------------------------|
| 1.  | <u>617</u>                              |                             |                  |                                 |   | <u>380689</u>               | <u>4645875</u>   |                        |                                  |
| 2.  |   |                             |                  |                                 |   |                             |  |                        |                                  |
| 3.  |   |                             |                  |                                 |   |                             |  |                        |                                  |
| 4.  |   |                             |                  |                                 |   |                             |  |                        |                                  |
| 5.  |   |                             |                  |                                 |   |                             |  |                        |                                  |

Absolute Potential: 2663 MCFPD; n .75 (1.0608)

COMPANY

ADDRESS

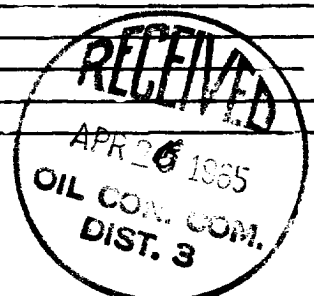
AGENT and TITLE

WITNESSED

COMPANY

J. D. Hicks

REMARKS



## INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

## NOMENCLATURE

$Q$  = Actual rate of flow at end of flow period at W. H. working pressure ( $P_w$ ).  
MCF/da. @ 15.025 psia and 60° F.

$P_c$  = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.  
psia

$P_w$  = Static wellhead working pressure as determined at the end of flow period.  
(Casing if flowing thru tubing, tubing if flowing thru casing.) psia

$P_t$  = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia

$P_f$  = Meter pressure, psia.

$h_w$  = Differential meter pressure, inches water.

$F_g$  = Gravity correction factor.

$F_t$  = Flowing temperature correction factor.

$F_{pv}$  = Supercompressability factor.

$n$  = Slope of back pressure curve.

Note: If  $P_w$  cannot be taken because of manner of completion or condition of well, then  $P_w$  must be calculated by adding the pressure drop due to friction within the flow string to  $P_t$ .