

## NEW MEXICO OIL CONSERVATION COMMISSION

CORRECTED COPY

Form C-122

Revised 12-1-55

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalnet Formation Yates & 7 Rivers County Lea

Initial \_\_\_\_\_ Annual \_\_\_\_\_ Special X Date of Test 11-12 to 11-16-56

Company Dalport Oil Corporation Lease W. H. King Well No. 1

Unit M Sec. 6 Twp. 23S Rge. 37E Purchaser El Paso Natural Gas Company

Casing 5 1/2 Wt. 31 I.D. 5.012 Set at 2847 Perf. \_\_\_\_\_ To \_\_\_\_\_

Tubing 2 Wt. 4.70 I.D. 1.995 Set at 3209 Perf. \_\_\_\_\_ To \_\_\_\_\_

Gas Pay: From 3038 To 3450 L 3209 xG .675 -GL 2166 Bar.Press. 13.2

Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well Single  
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 10-30-49 Packer None Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

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

| 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. |                      |
| SI  |                            |                              |                |                         |              | *              |              |                      |
| 1.  | 4                          | 1.500                        | 824            | 16.00                   | 89           |                | 875          | 72                   |
| 2.  | 4                          | 1.500                        | 790            | 29.16                   | 86           |                | 846          | 24                   |
| 3.  | 4                          | 1.500                        | 753            | 40.96                   | 82           |                | 837          | 24                   |
| 4.  | 4                          | 1.500                        | 705            | 60.84                   | 79           |                | 828          | 24                   |
| 5.  |                            |                              |                |                         |              |                | 819          | 24                   |

\*Unable to get tubing pressures - valve stem broken

## FLOW CALCULATIONS

| No. | Coefficient<br>Fig. (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.  | 13.99                         | 115.72           |                  | .9732                                  | .9427                               | 1.081                                  | 1.606                                    |
| 2.  | 13.99                         | 153.02           |                  | .9759                                  | .9427                               | 1.079                                  | 2.125                                    |
| 3.  | 13.99                         | 177.13           |                  | .9795                                  | .9427                               | 1.077                                  | 2.464                                    |
| 4.  | 13.99                         | 209.01           |                  | .9822                                  | .9427                               | 1.072                                  | 2.902                                    |
| 5.  |                               |                  |                  |                                        |                                     |                                        |                                          |

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry Gas cf/bbl.

Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.

F<sub>c</sub> 9.936 (1-e<sup>-s</sup>) 0.138

Specific Gravity Separator Gas \_\_\_\_\_

Specific Gravity Flowing Fluid \_\_\_\_\_

P<sub>c</sub> 888.2 P<sub>c</sub> 788.9

| No. | P <sub>w</sub><br>P <sub>x</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.  | 859.2                                   |                             |                  |                                 |                                                         | 738.2                       | 50.7                                                     |                        | .9673                            |
| 2.  | 850.2                                   |                             |                  |                                 |                                                         | 722.8                       | 66.1                                                     |                        | .9572                            |
| 3.  | 841.2                                   |                             |                  |                                 |                                                         | 707.6                       | 81.3                                                     |                        | .9471                            |
| 4.  | 832.2                                   |                             |                  |                                 |                                                         | 692.6                       | 96.3                                                     |                        | .9370                            |
| 5.  |                                         |                             |                  |                                 |                                                         |                             |                                                          |                        |                                  |

Absolute Potential: 20,250 MCFPD; n .93COMPANY Dalport Oil CorporationADDRESS 930 Fidelity Union Life Bldg. Dallas, TexasAGENT and TITLE Lawrence J. Production ManagerWITNESSED Jack LittlefieldCOMPANY El Paso Natural Gas Company

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  $P_t$ .