2-OCC
1-EPNG Bill Parrish
1-WP Carr
1-D
1-F

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool __Basin Dakota__ Formation __Dakota__ County __San Juan__

Initial __X__ Annual_____ Special_____ Date of Test __6/12/61__

Company __Southwest Production Company__ Lease __Ona Magee__ Well No. __1__

Unit __P__ Sec. __4__ Twp. __30N__ Rge. __11W__ Purchaser __El Paso Nat. Gas Company__

Casing 4½" Wt. __10.50__ I.D. __4.040__ Set at __6780__ Perf. __6513__ To __6620__

Tubing 1½" Wt. __2.9__ I.D. __1.610__ Set at __6609__ Perf. _____ To __6609__

Gas Pay: From __6513__ To __6620__ L __6609__ xG __.67__ -GL __4428__ Bar.Press. __12.0__

Producing Thru: Casing_____ Tubing __X__ Type Well __Single-Gas__
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: __5/30/61__ Packer_____ Reservoir Temp._____

## OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)         Type Taps_____

| No. | Flow Data | | | | | Tubing Data | | Casing Data | | Duration of Flow Hr. |
|---|---|---|---|---|---|---|---|---|---|---|
| | (Prover) (Line) Size | (Choke) (Orifice) Size | Press. psig | Diff. $h_w$ | Temp. °F. | Press. psig | Temp. °F. | Press. psig | Temp. °F. | |
| SI | | | | | | 2188 | | 2190 | | 7-day |
| 1. | | 3/4" | 196 | | 69 | 196 | 69 | 912 | | 3-hrs. |
| 2. | | | | | | | | | | |
| 3. | | | | | | | | | | |
| 4. | | | | | | | | | | |
| 5. | | | | | | | | | | |

## FLOW CALCULATIONS

| No. | Coefficient (24-Hour) | $\sqrt{h_w p_f}$ | Pressure psia | Flow Temp. Factor $F_t$ | Gravity Factor $F_g$ | Compress. Factor $F_{pv}$ | Rate of Flow Q-MCFPD @ 15.025 psia |
|---|---|---|---|---|---|---|---|
| 1. | 12.3650 | | 208 | .9915 | .9463 | 1.021 | 2,464 |
| 2. | | | | | | | |
| 3. | | | | | | | |
| 4. | | | | | | | |
| 5. | | | | | | | |

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio_____ cf/bbl.
Gravity of Liquid Hydrocarbons_____ deg.
$F_c$_____ $(1-e^{-s})$_____

Specific Gravity Separator Gas_____
Specific Gravity Flowing Fluid_____
$P_c$ __2202__   $P_c^2$ __4844.4__
$P_w$ __924__   $P_w^2$ __853.8__

| No. | $P_w$ $P_t$ (psia) | $P_t^2$ | $F_c Q$ | $(F_c Q)^2$ | $(F_c Q)^2$ $(1-e^{-s})$ | $P_w^2$ | $P_c^2 - P_w^2$ | Cal. $P_w$ | $\frac{P_w}{P_c}$ |
|---|---|---|---|---|---|---|---|---|---|
| 1. | | | | | | 853.8 | 3990.6 | | .419 |
| 2. | | | | | | | | | |
| 3. | | | | | | | | | |
| 4. | | | | | | | | | |
| 5. | | | | | | | | | |

Absolute Potential: __2,858__ MCFPD; n __.75__
COMPANY __Southwest Production Company__
ADDRESS __162 Petroleum Center Bldg., Farmington, New Mexico__
AGENT and TITLE __George L. Hoffman, Jr., Production Foreman__
WITNESSED_____
COMPANY_____

REMARKS
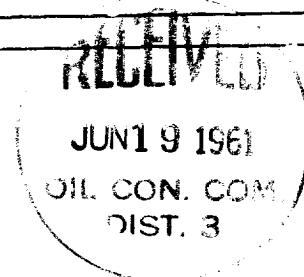
## INSTRUCTIONS

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

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

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

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

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

$P_f \cong$ Meter pressure, psia.

$h_w \cong$ Differential meter pressure, inches water.

$F_g \cong$ Gravity correction factor.

$F_t \cong$ Flowing temperature correction factor.

$F_{pv} \cong$ Supercompressability factor.

$n$ $\cong$ 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 $P_t$.