## 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 __12-2-63__

Company __PAN AMERICAN PETROLEUM CORP.__ Lease __Gallegos Canyon 142 Unit__ Well No. __1__

Unit __0__ Sec. __25__ Twp. __29N__ Rge. __12W__ Purchaser _____

Casing __4.5__ Wt. __10.5__ I.D. _____ Set at __6181__ Perf. __6038/44__ To __6068/73__ 5968-72/5978/82 6054/58

Tubing __2-3/8__ Wt. __4.7__ I.D. _____ Set at __5990__ Perf. __Open__ To __Ended__

Gas Pay: From __5968__ To __6073__ L __6020__ xG __.70 est.__ GL __4214__ Bar.Press. __-__

Producing Thru: Casing _____ Tubing __X__ Type Well __Single__

Date of Completion: __11-24-63__ Packer __None__ Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

### OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)    Type Taps __Flange__

| No. | (Prover) (Line) Size | (Choke) (Orifice) Size | Press. psig | Diff. $h_w$ | Temp. °F. | Tubing Data Press. psig | Tubing Data Temp. °F. | Casing Data Press. psig | Casing Data Temp. °F. | Duration of Flow Hr. |
|---|---|---|---|---|---|---|---|---|---|---|
| SI | 6 days | | | | | 2045 | | 2050 | | |
| 1. | 2" | 0.730 | 454 | | | 394 | 60° est.1036 | 60° est. | 3 hr. |
| 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. | 12.3630 | | 496 | 1.009 | .9235 | 1.004 | 6841 |
| 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 _____
$P_c$ __2062__ $P_c^2$ __4,251,644__

| 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. | | | | | | 1,102,300 | 3,149,344 | | |
| 2. | | | | | | | | | |
| 3. | | | | | | | | | |
| 4. | | | | | | | | | |
| 5. | | | | | | | | | |

Absolute Potential: __7566__ MCFPD: n __.75__

COMPANY __PAN AMERICAN PETROLEUM CORPORATION__
ADDRESS __P. O. Box 480, Farmington, New Mexico__
AGENT and TITLE __V. L. _____, District Engineer__
WITNESSED __by__ _(signature)_
COMPANY __F. W. Fell__

REMARKS

RECEIVED DEC 3 1963 OIL CON. COM.

## 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 $P_t$.