NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool WILDCAT Formation PICTURED CLIFFS County RIO ARRIBA

Initial ____ Annual ____ Special ____ Date of Test 7-31-56

Company J. F. HICKMAN Lease CLARK Well No. 4

Unit SW Sec. 5 Twp. 24N Rge. 3W Purchaser Not connected

Casing 5-1/2 Wt. 14# I.D. 5" Set at 3274 Perf. 3222 To 3268

Tubing 2-3/8 Wt. ____ I.D. 2" Set at 3232 Perf. ____ To ____

Gas Pay: From 3222 To 3268 L ____ xG .700 -GL ____ Bar.Press. 12.0

Producing Thru: Casing ____ Tubing ____ Type Well ____
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 5-12-56 Packer ____ Reservoir Temp. ____

OBSERVED DATA

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

No.	Flow Data (Prover) (Line) Size	Flow Data (Choke) (Orifice) Size	Flow Data Press. psig	Flow Data Diff. h_w	Flow Data Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI						1020		1020		shut in
1.										
2.		2 x 3/4	441		70	441	70	681		3 Hr. Flow
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.							
2.							
3.	14.1605		453	.9905	.9258	1.053	6194
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ____ cf/bbl. Specific Gravity Separator Gas ____
Gravity of Liquid Hydrocarbons ____ deg. Specific Gravity Flowing Fluid ____
P_c ____ $(1-e^{-s})$ ____ P_c 1032 P_c^2 1,065.0

No.	P_w P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$\frac{(F_cQ)^2}{(1-e^{-s})}$	693 P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.									
2.									
3.						480.2	584.8		1.82
4.									
5.									

Absolute Potential: 38,387 MCFPD; n .85 = 1.664
COMPANY PACIFIC NORTHWEST PIPELINE CORPORATION
ADDRESS 405½ W. Broadway
AGENT and TITLE W.B. RICHARDSON III, WELL TEST ENGINEER
WITNESSED ____
COMPANY ____

REMARKS

Additional Well bore information not available.

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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.

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