NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blue Hill Paradox Formation Pennsylvanian County San Juan

Initial ____ Annual X Special ____ Date of Test 9/5/60

Company Aztec Oil & Gas Company Lease Texas Navajo "A" Well No. 1

Unit M Sec. 36 Twp. 32N Rge. 18W Purchaser El Paso Natural Gas Company

Casing 7 Wt. 23 I.D. 6.366 Set at 8115 Perf. 7604 To 7628

Tubing 2½ Wt. 6.5 I.D. 2.441 Set at 7632 Perf. Pin Collar To ____

Gas Pay: From 7604 To 7628 L (Avg) 3606 xG 0.700 (E) GL ____ Bar.Press. 12

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

Date of Completion: 2/25/53 Packer ----- Reservoir Temp. 162°F

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						2353	80	2353	80	S.I. 30 days
1.										
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.							
2.							
3.							
4.							
5.							

Qf. 8880 MCFD

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ____ cf/bbl.
Gravity of Liquid Hydrocarbons ____ deg.
F_c ____ $(1-e^{-s})$ ____
P_{f2} - 2634 P_{f2}^2 6.937.956

Specific Gravity Separator Gas ____
Specific Gravity Flowing Fluid ____
P_c ____ P_c^2 ____
P_f 3669 P_{f1} 13.461.561

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

Absolute Potential: 5155 MCFPD; n 0.714
COMPANY Aztec Oil & Gas Company
ADDRESS Drawer # 570, Farmington, New Mexico
AGENT and TITLE ORIGINAL SIGNED BY L. M. STEVENS L. M. Stevens, Dist. Engr.
WITNESSED ____
COMPANY ____

REMARKS

This test conducted in accordance with order R-333-C & O Section B Subsection V Paragraph B.

$$Q_g = 8880 \left(\frac{6.937.956}{13.461.561}\right)^{0.714} = 5155$$

RECEIVED

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.