NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Aztec Formation Pictured Cliffs County San Juan

Initial XX Annual Special Date of Test 4/16/59

Company Aztec Oil & Gas Company Lease Harm Well No. 9

Unit A Sec. 15 Twp. 29N Rge. 10W Purchaser Southern Union Gas Co.

Casing 4.5 Wt. 9.5 I.D. 4.090 Set at 2178 Perf. 2115 To 2154

Tubing 1" Wt. 1.68 I.D. 1.049 Set at 2152 Perf. 2127 To 2137

Gas Pay: From 2115 To 2154 L xG -GL Bar.Press.

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

Date of Completion: 4/16/59 Packer Reservoir Temp.

Total Depth-2178
PBD-2158'
RPB -2136'

OBSERVED DATA

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

No.	Flow Data (Prover) (Line) Size	Flow Data (Choke) 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						610		610		7 Days
1.		.750	150		66	158		150		3 hours
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.	12.360		162	.9943	.9608	1.015	1,943
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio cf/bbl.
Gravity of Liquid Hydrocarbons deg.
P_c $(1-e^{-s})$

Specific Gravity Separator Gas
Specific Gravity Flowing Fluid
P_c 652 P_c^2 425,104

No.	P_w (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$(F_cQ)^2$ $(1-e^{-s})$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	170					28,900	396,204		
2.									
3.									
4.									
5.									

Absolute Potential: 2,053 MCFPD; n .85

COMPANY Aztec Oil & Gas Company
ADDRESS Box 786, Farmington, New Mexico
AGENT and TITLE A.C. Bunyard, Engineer
WITNESSED
COMPANY

REMARKS

RECEIVED
APR 21 1959
OIL CON. COM.
DIST. 3

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.