MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool ___**Undesignated**___ Formation ___**Dakota**___ County___**San Juan**___

Initial___**X**___ Annual_____ Special_____ Date of Test___**9/22/60**___

Company___**Aztec Oil & Gas Company**___ Lease ___**Thompson**___ Well No.___**6-2**___

Unit ___**O**___ Sec. ___**27**___ Twp. ___**31N**___ Rge. ___**12W**___ Purchaser_____

Casing___**5½**___ Wt. ___**14**___ I.D. ___**5.012**___ Set at ___**7208**___ Perf. ___**7020**___ To ___**7096**___

Tubing___**2 3/8**___ Wt. ___**4.70**___ I.D. ___**1.995**___ Set at ___**6945**___ Perf. ___**Pin collar**___ To _____

Gas Pay: From ___**7020**___ To ___**7096**___ L ___**6945**___ xG ___**0.70(Est)**___-GL ___**4060**___ Bar.Press. ___**12**___

Producing Thru: Casing_____ Tubing ___**X**___ Type Well ___**Single**___
                                                  Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: ___**9/16/60**___ Packer ___**none**___ Reservoir Temp. _____

OBSERVED DATA

Tested Through ___**xxxxxxx**___ (Choke) ___**xxxxxxx**___   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						**1724**		**1724**		**7 days**
1.		**0.750**				**140**	**60(Est)**	**643**		**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.	**12.35**		**161**	**1.0000**	**0.9608**	**1.004**	**1939**
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio_____ cf/bbl.   Specific Gravity Separator Gas_____
Gravity of Liquid Hydrocarbons_____ deg.   Specific Gravity Flowing Fluid_____
F_c_____ $(1-e^{-s})$_____ P_c **1724** P_c^2 **3,085.616**

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.	**437**					**190,969**	**3,094,647**		
2.									
3.									
4.									
5.									

Absolute Potential: ___**2030**___ MCFPD; n___**0.75**___

COMPANY___**Aztec Oil & Gas Company**___
ADDRESS___**Drawer 1578, Farmington, New Mex.**___
AGENT and TITLE ORIGINAL SIGNED BY L. M. STEVENS ___**L. M. Stevens, Dist. Engr.**___
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 = 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.