

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Blanco Formation Mesa Verde County Rio Arriba
Initial XXX Annual _____ Special _____ Date of Test 8-26-59
Company PACIFIC NORTHWEST PIPELINE Lease 27-5 Well No. 15-16
Unit M Sec 16XXX Twp. 27N Rge. 5W Purchaser Not Connected
Casing 5 1/2" Wt. 24# I.D. 6.8 Set at 3305' Perf. 3282' To 3302'
Tubing 1 1/4" Wt. 2.4# I.D. _____ Set at 719' Perf. _____ To _____
Gas Pay: From _____ To _____ L 4842 xG .650 -GL 3147 Bar. Press. 12
Producing Thru: Casing _____ Tubing MV XXX Type Well G.G. Dual
Date of Completion: 8-6-59 Packer 4812' Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)

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										
1.		3/4"	1064		61	1064	61			3 hrs
2.										
3.										
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	12.3650		118	.9990	.9608	1.010	1415
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
P_c 24.62 = 14" (1-e^{-s}) 0.033
9.402 = 2"

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 841 P_c 707,281

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	P _w / P _c
1.			34.837	1213.617	40,049		617,024		1.15
2.			13.304	176,996	36,284				
3.									
4.	118	13,924			76,333			308	
5.									

Absolute Potential: 1571 MCFPD; n .75/ 1.1105

COMPANY PACIFIC NORTHWEST PIPELINE CORP.

ADDRESS 4184 W. Broadway

AGENT and TITLE C. R. Wagner - Well Testing Engineer

WITNESSED Jess B. Goodwin

COMPANY El Paso Natural Gas 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 .

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