

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blanco Formation Mesa Verde County Rio Arriba
Initial X Annual _____ Special _____ Date of Test Sept. 7, 1956
Company Southern Union Gas Company Lease San Juan Unit 29-7 Well No. 51
Unit L Sec. 21 Twp. 29N Rge. 7W Purchaser El Paso Natural Gas Company
Casing 5 1/2"Wt. 15.5 I.D. 4.950 Set at 5990 Perf. 5340 To 5904
Tubing 2 3/8"Wt. 4.7 I.D. 2" Set at 5878 Perf. 5848 To 5878
Gas Pay: From 5340 To 5904 L _____ xG 0.680 -GL _____ Bar.Press. 12.0
Producing Thru: Casing _____ Tubing X Type Well Single Gas
Single-Bradenhead-G. G. or G.O. Dual _____
Date of Completion: August 26, 1956 Ckcr _____ Reservoir Temp. _____

OBSERVED DATA

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

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						1039		1045		
1.		3/4	377			377	69	864	69	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.	14.1605		389	0.9915	0.9393	1.042	5.346
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c _____ (1-e^{-s})
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 1057 P_c 1117.1
P_w 876 P_w 767.4

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.						767.4	349.7		0.839
2.									
3.									
4.									
5.									

Absolute Potential: 12,750 MCFPD; n 0.75
COMPANY Gilbert Nolan
ADDRESS Southern Union Gas Company
AGENT and TITLE _____
WITNESSED Tom Grant
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 .

Well No.	
County	
Operator	
Tester	
Date	
Time	
Pressure	
Flow Rate	
Temperature	
Gravity	
Temperature	
Supercompressibility	
Slope	

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