

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blanco Mesaverde Formation Mesaverde County Rio Arriba
Initial X Annual _____ Special _____ Date of Test June 5, 1958
Company Southern Union Gas Co. Lease San Juan Unit 29-7 Well No. 60
Unit A Sec. 34 Twp. 29N Rge. 7W Purchaser El Paso Natural Gas Co.
Casing 7 5/8" Wt. 26.4 I.D. 6.969 Set at 3398 Perf. 4876 To 5497
5 1/2" Wt. 15.5 I.D. 4.950 Set at 3181-5599
Tubing 2 3/8" Wt. 4.7 I.D. 1.995 Set at 5541 Perf. 5511 To 5541
Gas Pay: From 4876 To 5497 L _____ xG _____ -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: May 29, 1958 Packer _____ 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.			403		74°F	1046		1072		7 days
2.						403	74°	893		3 hours
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.	12.3650		415	0.9868	0.9463	1.043	4,997
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 1084 P_c 1175

P_w 905 P_w 819

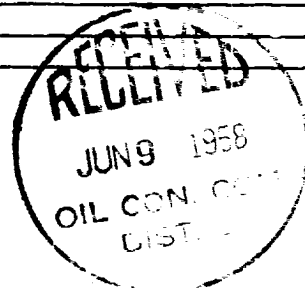
No.	P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w P _c
1.									
2.						819	356		0.833
3.									
4.									
5.									

Absolute Potential: 12,242 MCFPD; n 0.75

COMPANY SOUTHERN UNION GAS COMPANYADDRESS P. O. Box 815, Farmington, New MexicoAGENT and TITLE O. L. HoffmanWITNESSED Richard ProctorCOMPANY El Paso Natural Gas Company

REMARKS

1. 5 1/2" set as a liner, top at 3181, bottom at 5599.



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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