

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Wildest Formation Masovado County San Juan County
Initial X Annual _____ Special _____ Date of Test August 8, 1958
Company Southern Union Gas Company Lease Own Well No. 2
Unit 6 Sec. 19 Twp. 31 Rge. 12 Purchaser Southern Union Gas Company
Casing 7" Wt. 23-20 I.D. 6.366 Set at 4996 KB Perf. 4670 To 4875
Tubing 2-3/8 Wt. 4.7 I.D. 1.995 Set at 4893 KB Perf. 4879 To 4893
Gas Pay: From 4670 To 4875 L 4879 xG 0.67 -GL 3268.9 Bar.Press. 12.0
Producing Thru: Casing _____ Tubing X Type Well Single Gas
Date of Completion: 8-1-58 Packer _____ Single-Bradenhead-G. G. or G.O. Dual
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) (Line) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.		<u>3/4"</u>	<u>87</u>		<u>68°</u>	<u>1015</u>	<u>68°</u>	<u>1015</u>		<u>7 days</u>
2.						<u>87</u>		<u>102</u>		<u>3 hours</u>
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.	<u>12.3650</u>		<u>99</u>	<u>.9924</u>	<u>.9163</u>	<u>1.010</u>	<u>1.161</u>
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

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

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____

P_c 1027 P_c 1054.7

R_w 114 P_w 12.9

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.						<u>12.9</u>	<u>1041.8</u>		<u>.111</u>
3.									
4.									
5.									

Absolute Potential: 1.161 MCFPD; n 0.75

COMPANY Southern Union Gas Company
ADDRESS P. O. Box 615, Farmington, New Mexico
AGENT and TITLE G. L. Hoffman
WITNESSED _____
COMPANY _____

REMARKS

FBED 4996' 5" T.D. 6885 Set in 7" @ 5287



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} = Supercompressibility 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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