

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool So. Blanco P.C. Formation Pictured Cliff County Rio Arriba
Initial I Annual _____ Special _____ Date of Test July 17, 1958
Company Southern Union Gas Co. Lease Jicarilla Well No. 3-B
Unit K Sec. 35 Twp. 26 Rge. 4 Purchaser Southern Union Gas Co.
Casing 5-1/2" Wt. 15.5# I.D. 4.950 Set at 3902 KB Perf. 3770 To 3842
Tubing 2-3/8" Wt. 4.7# I.D. 1.995 Set at 3780 KB Perf. 3765 To 3780
Gas Pay: From 3770 To 3842 L 3765 xG 0.67 -GL 2522.5 Bar.Press. 12.0
Producing Thru: Casing _____ Tubing I Type Well Single-Gas
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: July 1, 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) (Prover) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.		<u>3/4"</u>	<u>50</u>		<u>65°</u>	<u>104.9</u> <u>50</u>	<u>65°</u>	<u>104.9</u> <u>106</u>		<u>7 Days</u> <u>3 hours</u>
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.	<u>12.3650</u>		<u>62</u>	<u>.9952</u>	<u>.9463</u>	<u>1.000</u>	<u>722 mcf</u>
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 104.9 P_c² 1100.4
P_w 118 P_w² 13.9

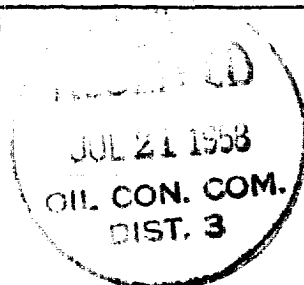
No.	P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w / P _c
1.									
2.						<u>13.9</u>	<u>1086.5</u>		<u>.113</u>
3.									
4.									
5.									

Absolute Potential: 732 MCFPD; n 0.85COMPANY Southern Union Gas CompanyADDRESS P. O. Box 815, Farmington, New MexicoAGENT and TITLE G. L. Hoffman

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} = 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 .