

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool B ASIN Formation DAKOTA County SAN JUAN
Initial XX Annual _____ Special _____ Date of Test 12/26/61
Company SOUTHERN UNION PRODUCTION CO. Lease PIERCE Well No. 2-A
Unit A Sec. 34 Twp. 29-N Rge. 10-W Purchaser SOUTHERN UNION GAS CO.
Casing 4 3/4 Wt. 10.5 I.D. 4.052 Set at 6454 Perf. 6238 To 6406
Tubing 1 1/2 Wt. 2.90 I.D. 1.610 Set at 6307 Perf. 6301 To 6307
Gas Pay: From 6238 To 6406 L 6301 xG .680 -GL 4285 Bar.Press. 12.0
Producing Thru: Casing _____ Tubing XX Type Well Single Gas
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 12/14/61 Packer _____ Reservoir Temp. _____

OBSERVED DATA

Tested Through (~~Prover~~) (Choke) (~~Master~~) Type Taps _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Choke) Size	(Choke) (Prover) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						2016		2021		7 days
1.		3/4	325		66	325	66	1196		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		337	.9943	.9393	1.036	4032
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

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

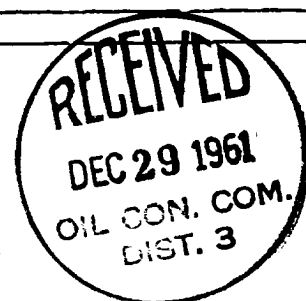
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 2033 P_c² 4133.1

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.									
3.									
4.									
5.									

Absolute Potential: 5590 MCFPD; n .75

COMPANY SOUTHERN UNION PRODUCTION CO. Original Signed By _____
ADDRESS P.O. Box 808 - Farmington, New Mexico L. S. MUENNINK
AGENT and TITLE L. S. Muennink - Production Supt.
WITNESSED V. A. Ripper
COMPANY SOUTHERN UNION PRODUCTION CO.

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 .