

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalnet Formation Yates County Lee
 Initial Annual Special x Date of Test 15-5-61
 Company Carper Drilling Co., Inc. Lease Continental "A" Well No. 1
 Unit A Sec. 12 Twp. 22S Rge. 35E Purchaser Phillips Petroleum Company
 Casing 5 1/2" Wt. 14# I.D. 5.012" Set at 3848 Perf. 3618-3642; 3660-3700
3740-3752; 3782-3810
 Tubing 2 3/8" Wt. 4.7# I.D. 1.995" Set at 3793 Perf. To
 Gas Pay: From 3618 To 3810 L 3714 xG 0.706 -GL 2622 Bar. Press. 13.2
 Producing Thru: Casing Tubing x Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
 Date of Completion: 4-11-55 Packer none Reservoir Temp. 89° F

OBSERVED DATA

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

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.	
1.	4.0	2.0	26	2	72	304	80	74
2.	4.0	2.0	25	0.25	70	121	80	24
3.	4.0	2.0	24	0	74	114	80	24
4.	4.0	2.0	24	0	74	95	80	24
5.								

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wp} p_f}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	25.58	8.833	39.2	.9887	.9219	1.004	206.77
2.	25.58	3.134	38.2	.9905	.9219	1.004	73.61
3.	25.58	0	37.2	.9868	.9219	1.004	
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry Gas cf/bbl.
 Gravity of Liquid Hydrocarbons deg.
 Specific Gravity Separator Gas 0.706
 Specific Gravity Flowing Fluid 0.706
 P_c P_w (measured) (1-e^{-s})
 P_c 317.2 P_c 100.62

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.	134.2	18.01					82.61		.42308
2.	127.2	16.18					84.44		.40101
3.	108.2	11.71					88.91		.34111
4.									
5.									

Absolute Potential: 240 MCFPD; n 0.771 (assumed)

COMPANY Carper Drilling Company, Inc.
 ADDRESS 200 Carper Building, Artesia, New Mexico
 AGENT and TITLE James Foster Petroleum Engineer
 WITNESSED No witness available
 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 .

Carper Drilling Co., Inc.
 Continental-State "A" #1
 A 12-22S-35E
 Lea County, N. M.
 4-5-61

