

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Dumont Formation Ogallala County Lincoln
Initial X Annual _____ Special _____ Date of Test 9-21-56
Company Gulf Oil Corp. Lease Orcutt "C" Well No. 5
Unit P Sec. 36 Twp. 20S Rge. 36E Purchaser Permian Basin PL Co.
Casing 5 1/2" Wt. 17.0# I.D. 4.892" Set at 3774' Perf. 3345' To 3564'
Tubing 2-3/8" Wt. 4.7# I.D. 1.995" Set at 3820' Perf. _____ To _____
Gas Pay: From 3345 To 3564' L _____ xG _____ -GL _____ Bar.Press. _____
Producing Thru: Casing X Tubing _____ Type Well Gas-Only Dual
Date of Completion: 8-16-56 Packer X Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

OBSERVED DATA

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

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.	4	2.25	460.5	6.1	71			876.0		72
2.	4	2.25	465.2	10.6	60			840.2		24
3.	4	2.25	472.0	22.1	60			812.4		24
4.	4	2.25	472.7	36.5	55			782.2		24
5.								746.7		24

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wDf}}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	40.53	53.76	473.7	0.9896	0.9359	1.047	2113
2.	40.53	71.21	478.4	1.0000	0.9359	1.057	2839
3.	40.53	109.60	485.2	1.0000	0.9359	1.052	4134
4.	40.53	133.20	485.9	1.0048	0.9359	1.054	5351
5.							

CO₂ - 2.97%
N₂ - 1.40%

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 1.012 (1-e^{-s}) 0.146

Specific Gravity Separator Gas 1.0
Specific Gravity Flowing Fluid _____
P_c 889.2 P_c² 790.7

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.	853.4	728.3	3.829	14.66	2.140	730.4	60.3	824.8	.96
2.	825.6	681.6	5.144	26.46	3.863	685.5	105.2	827.9	.93
3.	795.4	632.7	7.491	56.12	8.194	640.9	149.8	800.6	.90
4.	759.9	577.4	9.696	94.01	13.730	591.1	199.6	768.8	.86
5.									

Absolute Potential: 21,000 MCFPD; n 1.00COMPANY Gulf Oil CorporationADDRESS Box 2167, Baton Rouge, La.

AGENT and TITLE _____

WITNESSED _____

COMPANY _____

REMARKS _____

ELVIS A. LEE
GAS ENGINEER

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 .