

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Bumont Formation Queen County Lea
Initial X Annual _____ Special _____ Date of Test 5-21/22-59
Company Gulf Oil Corporation Lease J. R. Hilt "C" Well No. 1
Unit 0 Sec. 5 Twp. 19S Rge. 37E Purchaser Permian Basin Pipeline Co.
Casing 4.5 Wt. 9.5 I.D. 4.090 Set at 3099 Perf. 3546 To 3004
Tubing 2.375 Wt. 4.7 I.D. 1.995 Set at 3001 Perf. _____ To _____
Gas Pay: From 3546 To 3004 L 3001 xG .685 -GL 2690 Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 9-4-57 Packer None Reservoir Temp. _____

OBSERVED DATA

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

No.	Flow Data			Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Orifice) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	
SI								
1.	4	2.00	43.1	4.1	63	766.1	766.1	70
2.	4	2.00	48.8	10.1	62	723.9	723.9	3
3.	4	2.00	56.3	17.6	60	672.3	672.3	3
4.	4	2.00	62.6	26.9	61	602.6	602.6	3
5.	4	2.00	53.3	23.1	67	499.8	499.8	26

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.	29.92	13.20	28.3	.9932	.9399	1.0000	424
2.	29.92	23.22	63.0	.9901	.9399	1.0000	704
3.	29.92	34.77	69.3	1.0000	.9399	1.0000	979
4.	29.92	43.18	75.8	.9970	.9399	1.0000	1263
5.	29.92	39.19	66.3	.9933	.9399	1.0000	1009

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c measured (1-e^{-s}) _____
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 702.3 P_c² 610.4

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.	766.1					586.8	60.9		.93
2.	723.9					524.0	124.4		.89
3.	672.3					451.9	201.3		.81
4.	602.6					363.1	296.3		.71
5.	499.8					249.8	302.2		.61

Absolute Potential: 1477 MCFPD; n .690

COMPANY Gulf Oil Corporation
ADDRESS Box 2147, Hobbs, N.M.
AGENT and TITLE J. R. Hilt Gas Tester
WITNESSED R. L. West
COMPANY Permian Basin Pipeline 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} = 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 .