

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Tubb Formation Tubb County Lea
Initial x Annual _____ Special _____ Date of Test Aug. 8-16, 1957
Company Gulf Oil Corp. Lease Manice King Well No. 13
Unit A Sec. 28 Twp. 21S Rge. 37E Purchaser Permian Basin Pipe Line Co.
Casing 7 Wt. 23 I.D. 6.366 Set at 6250 Perf. 6060 To 6105
Tubing 2 Wt. 4.7 I.D. 1.995 Set at 6520 Perf. _____ To _____
Gas Pay: From 6060 To 6105 L 6060 xG* _____ -GL* _____ Bar. Press. 13.2
Producing Thru: Casing X Tubing _____ Type Well G. O. Dual
Date of Completion: 10-29-56 Packer 6460 Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

OBSERVED DATA

Tested Through x (Gulf Oil) (Gulf Oil) (Meter) Type Taps Flange

No.	Flow Data			Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	
SI								
1.	4	2.50	502.1	14.2	54		1424.3	72
2.	4	2.50	504.9	25.7	54		1211.5	24
3.	4	2.50	514.5	38.0	58		1108.4	24
4.	4	2.50	514.0	44.7	61		996.0	24
5.							924.4	24

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.	54.44	85.54	515.3	1.0058	.9359	1.061	4651
2.	54.44	115.4	518.1	1.0058	.9359	1.061	6275
3.	54.44	141.6	527.7	1.0019	.9159	1.061	7669
4.	54.44	153.5	527.2	.9990	.9359	1.059	8274
5.							

CO₂ - 0%
N₂ - 2.36%

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio * _____ cf/bbl.
Gravity of Liquid Hydrocarbons 70 deg.
F_c .740 (1-e^{-S}) * _____
Specific Gravity Separator Gas .685
Specific Gravity Flowing Fluid _____
P_c 1437.5 P_c² 2066.4

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.	1224.7	1499.9	3.442	11.85	3.057	1503.0	563.4	1225.0	.85
2.	1121.6	1258.0	4.644	21.57	5.436	1263.4	803.0	1123.0	.88
3.	1009.2	1018.5	5.675	32.21	8.214	1026.7	1039.7	1013.3	.70
4.	937.6	879.1	6.123	37.49	9.522	888.6	1177.8	944.7	.66
5.									

Absolute Potential: 13,467 MCFPD; n 0.82
COMPANY Gulf Oil Corporation
ADDRESS Box 2167, Hobbs, New Mexico
AGENT and TITLE H. L. Smith
WITNESSED _____
COMPANY _____

* GMLX GL OOR 1-
1. .716 4339 77,105 .258
2. .697 4224 200,351 .252
3. .706 4278 115,986 .255
4. .703 4260 134,580 .254

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 .

Gulf Oil Corp.
 Eunice King No. 13
 A 28-21S-37E Lea Co.
 Tubb Pool
 Aug. 8-16, 1957
 A. P. 13,467 MCF

LOG LOGARITHMIC 359-110

