

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Emery Formation Queen County Lea

Initial X Annual _____ Special _____ Date of Test 9-21-56

Company Gulf Oil Corporation Lease Orcutt "C" Well No. 8

Unit B Sec. 6 Twp. 21S Rge. 36E Purchaser Pernian Basin Pl. Co.

Casing 5.5" Wt. 17.0# I.D. 4.892" Set at 3740' Perf. 3362' To 3470'

Tubing 2.375" Wt. 4.7# I.D. 1.995" Set at 3553' Perf. _____ To _____

Gas Pay: From 3362' To 3470' L 3362' xG 0.685 -GL 2303 Bar.Press. 13.2

Producing Thru: Casing / Tubing / Type Well Gas-Oil Dual

Date of Completion: 10-19-55 Packer 3482' 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.	1	1.25	499.2	5.2	101			905.2		72.25
2.	1	1.25	463.5	14.0	70			719.2		23.75
3.	1	1.25	468.7	20.7	72			616.1		24.00
4.	1	1.25	467.4	26.1	74			559.8		24.00
5.								518.2		24.00

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wp}}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{py}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	10.24	49.58	473.7	0.9627	0.9959	1.005	473
2.	10.24	81.69	476.7	0.9905	0.9959	1.045	810
3.	10.24	99.87	482.9	0.9887	0.9959	1.045	989
4.	10.24	112.00	480.6	0.9868	0.9959	1.045	1107
5.							

PRESSURE CALCULATIONS

002 = 2.79%
N2 = 1.74%

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 1.012 (1-e^{-s}) 0.147

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
F_c 927.4 P_c 841.6

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	P _c ² -P _w ²	Cal. P _w	P _w / P _c
1.	732.4	536.4	0.9572	0.916	0.1880	536.5	305.1	732.4	.80
2.	689.3	396.0	1.469	2.155	0.3168	396.3	145.3	689.3	.49
3.	573.0	328.3	1.792	3.211	0.4720	328.8	512.8	573.4	.43
4.	532.4	282.4	2.006	4.024	0.5915	283.0	598.6	532.0	.58
5.									

Absolute Potential: 1668 MCFPD; n 1.00

COMPANY Gulf Oil Corp.

ADDRESS Box 2167, Hobbs, N.M.

AGENT and TITLE S. J. Orcutt

WITNESSED _____

COMPANY _____

Retest. Average slope in excess of 1.00. AP calculated using highest rate of flow and
Slope of 1.00

AS A. UTZ
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 .