

NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

1957 FEB 14 PM 12:53

Pool Bumont Formation Queen County Lee
Initial I Annual _____ Special _____ Date of Test 2-24, 6-1-56
Company E. B. Clark Lease Seaper G Well No. 2
Unit B Sec. 3 Twp. 20-S Rge. 37-E Purchaser Southern Union Gas Company
Casing 5.5 Wt. 14 I.D. 5.012 Set at 3522 Perf. Open hole To _____
Tubing None Wt. _____ I.D. _____ Set at _____ Perf. _____ To _____
Gas Pay: From 3522 To 3556 L 3522 xG .662 -GL 2353 Bar.Press. 13.2
Producing Thru: Casing I Tubing _____ Type Well Sing le
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 5-5-50 Packer _____ Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps Flange
4th. Rate 1, 2, 3 Rates

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								778		72
1.	4"	1.25"	510	48	60			736		24
2.	4"	2.00"	530	32	63			667		24
3.	4"	2.75"	560	17	70			690		24
4.	2" Prover	.875"	590		74			590		3
5.										

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.	9.643	181.5	523.2	1.0000	.9477	1.085	1799
2.	25.58	131.8	543.2	.9971	.9477	1.080	3440
3.	51.05	98.7	573.2	.9905	.9477	1.067	5419
4.	16.7816		563.2	.9868	.9477	1.060	9360
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 0.9002 (1-e^{-S}) 0.149
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 791.2 P_c² 626.0

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.	749.2	562.5	1.619	2.621	.39	562.9	60.1	749.9	.95
2.	709.2	503.3	1.997	3.992	1.43	501.7	131.3	701.1	.89
3.	683.2	466.9	1.896	3.594	3.97	464.5	222.5	686.0	.80
4.	569.2	324.7	0.433	0.187	10.60	327.8	291.2	572.4	.72
5.									

Absolute Potential: 13,300 MCFPD; n 0.88

COMPANY E. B. Clark
ADDRESS 612 City National Bank Bldg. Wichita Falls, Texas
AGENT and TITLE P. G. Rogers
WITNESSED X P. G. Rogers
COMPANY Southern Union Gas Company X

REMARKS

Prove r used on last rate because of high line pressure

FIG 4. UIZ
4-5 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 .

E. B. Clark
 Cooper C No. 2
 Unit B 3-20-37
 Eumont Pool
 AP 13,300 M.C.F.

LOGARITHMIC 359-110
 KEUFFEL & ESSER CO. NEW YORK
 2 X 4 CYCLES

