

NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE 000

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalmat Formation Yates County Lea
Initial _____ Annual _____ Special X Date of Test 1-21-57 to 1-25-57
Company Ralph Lowe Lease Maggie Rose Well No. 1
Unit M Sec. 18 Twp. 25S Rge. 37E Purchaser El Paso Natural Gas Company
Casing 5 1/2 Wt. 17.0 I.D. 4.892 Set at 2750 Perf. Open Hole To _____
Tubing 2 EUE Wt. 4.7 I.D. 1.995 Set at 2950 Perf. _____ To _____
Gas Pay: From 2900 To 3070 L 2950 xG .660 -GL 1947 Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 3-22-48 Packer None Reservoir Temp. _____

OBSERVED DATA

Tested Through (~~Pressure~~) (~~Orifice~~) (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.	4.000	.500	197	3.6	54	317		24
2.	4.000	.500	119	7.8	38	304		24
3.	4.000	.500	125	37.2	46	174		24
4.	4.000	.500	121	47.6	47	124		24
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.	1.525	27.53		1.0058	.9535	1.021	41
2.	1.525	32.17		1.0198	.9535	1.013	48
3.	1.525	71.66		1.0137	.9535	1.015	107
4.	1.525	79.87		1.0127	.9535	1.015	119
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 9.936 (1-e^{-s}) .125

Specific Gravity Separator Gas .660
Specific Gravity Flowing Fluid _____
P_c 355.2 P_c² 126.2

No.	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.	330.2	109.0	.41	.17	.08	109.0	17.2	330.2	.930
2.	317.2	100.6	.48	.23	.03	100.6	25.6	317.2	.893
3.	187.2	35.0	1.06	1.12	.14	35.1	91.1	187.4	.528
4.	137.2	18.8	1.18	1.39	.17	19.0	107.2	137.7	.388
5.									

Absolute Potential: 132 MCFPD; n .637
COMPANY Ralph Lowe
ADDRESS P. O. Box 832, Midland, Texas
AGENT and TITLE Archie P. Farr, Petroleum Engineer
WITNESSED _____
COMPANY _____

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 .

1944