

NEW MEXICO OIL CONSERVATION COMMISSION

HOBBBS OFFICE OCC

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalnet Formation 30 Yates County 18 AM 8:04a

Initial _____ Annual _____ Special X Date of Test 1-21-57 to 1-25-57

Company Ralph Lowe Lease Maggie Rose Well No. 3

Unit K Sec. 18 Twp. 25S Rge. 37E Purchaser El Paso Natural Gas Company

Casing 7 Wt. 20.0 I.D. 6.456 Set at 2835 Perf. Open Hole To _____

Tubing None Wt. _____ I.D. _____ Set at _____ Perf. _____ To _____

Gas Pay: From 2845 To 2900 L 2835 xG .665 -GL 1885 Bar.Press. 13.2

Producing Thru: Casing X Tubing _____ Type Well Single

Date of Completion: 1-24-50 Packer None Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps Flange

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								287		72
1.	4.000	1.000	265	8.4	59			266		24
2.	4.000	1.000	254	18.5	54			255		24
3.	4.000	1.000	251	21.2	58			252		24
4.	4.000	1.000	243	30.3	57			245		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.	6.135	49.22		1.0010	.9498	1.029	295
2.	6.135	71.56		1.0058	.9498	1.029	432
3.	6.135	74.74		1.0019	.9498	1.028	449
4.	6.135	88.00		1.0029	.9498	1.027	528
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry cf/bbl.

Gravity of Liquid Hydrocarbons _____ deg.

F_c .4682 (1-e^{-s}) .122

Specific Gravity Separator Gas .665

Specific Gravity Flowing Fluid _____

P_c 300.2 P_c 90.1

No.	P _w (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.	279.2	77.9				77.9	12.2	279.2	.990
2.	266.2	71.9	Neg.	Neg.	Neg.	71.9	18.2	266.2	.893
3.	265.2	70.3				70.3	19.8	265.2	.883
4.	258.2	66.7				66.7	23.4	258.2	.860
5.									

Absolute Potential: 1750 MCFPD; n .891

COMPANY Ralph Lowe

ADDRESS P. O. Box 832, Midland, Texas

AGENT and TITLE Archie P. Farr, Petroleum Engineer

WITNESSED _____

COMPANY _____

REMARKS

LEWIS A. H.
GAS 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} = 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 .

RALPH LOWE
 M. ROSE #3
 UNIT K, SEC. 18, T-25-S, R-37-E
 1-25-57

$Q_2 = 4320$; $\log = 3.635837$
 $Q_1 = 555$; $\log = 2.7442930$
 Slope $n = .8911907$

12" P_w (heads)

259 (10)

$Q = MCFPD$

