

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalnet Formation Yates Date 1957 FEB 18 AM 8:04 Loc Lee

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

Company Ralph Lowe Lease Maggie Ross 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 19.7 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) (Globe) (Meter) Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Pressure) (Line) Size	(Globe) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						<u>342</u>				<u>72</u>
1.	<u>4.000</u>	<u>.500</u>	<u>197</u>	<u>3.6</u>	<u>54</u>	<u>317</u>				<u>24</u>
2.	<u>4.000</u>	<u>.500</u>	<u>119</u>	<u>7.8</u>	<u>38</u>	<u>304</u>				<u>24</u>
3.	<u>4.000</u>	<u>.500</u>	<u>125</u>	<u>37.2</u>	<u>46</u>	<u>174</u>				<u>24</u>
4.	<u>4.000</u>	<u>.500</u>	<u>121</u>	<u>47.6</u>	<u>47</u>	<u>124</u>				<u>24</u>
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	<u>1.525</u>	<u>27.53</u>		<u>1.0058</u>	<u>.9535</u>	<u>1.021</u>	<u>41</u>
2.	<u>1.525</u>	<u>32.17</u>		<u>1.0198</u>	<u>.9535</u>	<u>1.013</u>	<u>48</u>
3.	<u>1.525</u>	<u>71.66</u>		<u>1.0137</u>	<u>.9535</u>	<u>1.015</u>	<u>107</u>
4.	<u>1.525</u>	<u>79.87</u>		<u>1.0127</u>	<u>.9535</u>	<u>1.015</u>	<u>119</u>
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry cf/bbl. Specific Gravity Separator Gas .660

Gravity of Liquid Hydrocarbons _____ deg. Specific Gravity Flowing Fluid _____

P_c 9.936 (1-e^{-s}) .125 P_c 355.2 P_c 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.	<u>330.2</u>	<u>109.0</u>	<u>.41</u>	<u>.17</u>	<u>.02</u>	<u>109.0</u>	<u>17.2</u>	<u>330.2</u>	<u>.930</u>
2.	<u>317.2</u>	<u>100.6</u>	<u>.48</u>	<u>.23</u>	<u>.03</u>	<u>100.6</u>	<u>25.6</u>	<u>317.2</u>	<u>.899</u>
3.	<u>187.2</u>	<u>35.0</u>	<u>1.06</u>	<u>1.12</u>	<u>.14</u>	<u>35.1</u>	<u>91.1</u>	<u>187.4</u>	<u>.528</u>
4.	<u>137.2</u>	<u>18.8</u>	<u>1.18</u>	<u>1.39</u>	<u>.17</u>	<u>19.0</u>	<u>107.2</u>	<u>137.7</u>	<u>.388</u>
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

ELVIS A. UTI
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 location 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 #1
UNIT M, SEC. 18, T-25-S, R-37-E
1-25-37

