

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalant Formation Yates-7-Rivers County Lee
Initial _____ Annual _____ Special X Date of Test 4-25-1958
Company El Paso Natural Gas Company Lease Wells Well No. 2
Unit 0 Sec. 4 Twp. 25 Rge. 37 Purchaser El Paso Natural Gas Company
Casing 5 1/2" Wt. 15.5 I.D. 4.976 Set at 3147 Perf. 2958 To 3094
Tubing 2" Wt. 4.7 I.D. 1.995 Set at 3096 Perf. _____ To _____
Gas Pay: From 2958 To 3094 L 3096 xG .665 -GL 2059 Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 5-22-1956 Packer None Reservoir Temp. _____

OBSERVED DATA

Tested Through (Barometer) (Orifice) (Meter) Type Taps Flg

No.	Flow Data			Tubing Data		Casing Data		Duration of Flow Hr.
	(Barometer) (Line) Size	(Orifice) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	
SI								
1.	1"	1.250	576	4.00	77	627	627	72
2.	1"	1.250	562	12.25	77	610	616	24
3.	1"	1.250	567	16.00	70	604	614	24
4.	1"	1.250	567	22.09	71	591	608	24
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.	9.643	48.54	589.2	.9840	.9498	1.056	463
2.	9.643	83.93	575.2	.9840	.9498	1.056	798
3.	9.643	96.33	580.2	.9905	.9498	1.057	924
4.	9.643	113.19	580.2	.9896	.9498	1.057	1084
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry Gas cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c P_w Measured (1-e^{-S})

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 640.2 P_c² 409.9

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.									
2.	632.2	399.7				403.5	6.4		99.2
3.	623.2	388.4				395.9	14.0		98.2
4.	617.2	380.9	Measured			393.4	16.5		97.9
5.	604.2	365.1				385.9	24.0		96.9

Absolute Potential: 6,900 MCFPD; n .637

COMPANY El Paso Natural Gas Company
ADDRESS P. O. Box 1344, Jal, New Mexico
AGENT and TITLE R. T. Wright, Petroleum Engineer
WITNESSED J. O. Whitting, J. B. Murray
COMPANY El Paso Natural Gas 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} = 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 .