

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Eumont Formation Queen County Lea
Initial X Annual _____ Special _____ Date of Test 9-10-57
Company E. G. Rodman Lease Lee Well No. 4
Unit F Sec. 20 Twp. 21 S Rge. 37 E Purchaser None
Casing 5 1/8 Wt. 15.5 I.D. 4.976 Set at 3700 Perf. 3570 To 3590
Tubing 2 Wt. 4.7 I.D. 1.995 Set at 3796 Perf. None To _____
Gas Pay: From 3570 To 3590 L 3570 xG 0.670 -GL 2392 Bar.Press. 13.2
Producing Thru: Casing X Tubing _____ Type Well G. O. Dual
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 6-24-57 Packer 3675 Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (~~Choke~~) (~~Water~~)

Type Taps _____

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							486			
1.	2	0.3125	371		76		427			3/4
2.	2	0.4375	269		78		336			1/2
3.	2	0.5000	222		78		312			1 1/2
4.	2	0.6250	143		72		291			2
5.	2	0.5000	177		72		271			2 1/2

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.	2.1577		387.2	0.9850	0.9463	1.037	801
2.	4.3997		282.2	0.9831	0.9463	1.026	485 1/2
3.	5.5233		235.2	0.9831	.9463	1.022	1235
4.	8.3555		156.2	0.9887	.9463	1.014	1238
5.	5.5233		190.2	0.9887	.9463	1.018	1000

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 1.758 (1-e^{-s}) 0.152

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 499.2 P_c² 249.2

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.	140.2	193.8	1.41	1.99	0.30	194.1	55.1		.882
2.	349.2	121.9	2.08	4.33	0.66	122.6	126.6		.701
3.	325.2	105.8	2.17	4.71	0.72	106.5	142.7		.652
4.	307.2	92.5	2.18	4.75	0.72	93.2	156.0		.610
5.	284.2	80.8	1.76	3.10	0.47	81.3	167.9		.570

Absolute Potential: 1220 MCFPD; n 0.499COMPANY E.G. RodmanADDRESS B ox 3826 Odessa, TexasAGENT and TITLE Earl Rodman-- EngineerWITNESSED Peyton N. RandolphCOMPANY El Paso Natural Gas

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 .

E.G. ROOMAN ~~XXXXXXXXXX~~

LEE No. 4 (CASING)

LEE COUNTY, NEW MEXICO

SEPTEMBER 10, 1957

