NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Eumont Formation Queen County Lea

Initial X Annual Special Date of Test 9-10-57

Company Rodman Oil Corporation Lease Lee Well No. 4

Unit F Sec. 20 Twp. 21S Rge. 37E Purchaser None

Casing 5 1/2 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 (Assumed) -GL 2392 Bar.Press. 13.2

Producing Thru: Casing X Tubing Type Well G. O. Dual

Date of Completion: 9-11-57 Packer 3675 Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp.

OBSERVED DATA

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

No.	Flow Data (Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI								486		
1.	2"	0.3125	371		76			427		3/4
2.	2"	0.4375	269		78			336		1 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		24

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		384.2	0.9850	0.9463	1.037	801
2.	4.3997		282.2	0.9831	.9463	1.026	1185
3.	5.5233		235.2	0.9831	.9463	1.022	1235
4.	8.3555		156.2	0.9887	.9463	1.014	1238
5.	5.5293		190.2	0.9887	.9463	1.018	1000

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl. Specific Gravity Separator Gas _____

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

F_c 1.758 $(1-e^{-s})$ 0.152 P_c 499.2 P_c^2 249.2

No.	P_w P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$(F_cQ)^2$ $(1-e^{-s})$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	440.2	193.8	1.41	1.99	0.30	194.1	55.1		
2.	349.2	121.9	2.08	4.33	0.66	122.6	126.6		
3.	325.2	105.8	2.17	4.71	0.72	106.5	142.7		
4.	304.2	92.5	2.16	4.75	0.72	93.2	156.0		
5.	284.2	80.8	1.76	3.10	0.47	81.3	167.9		

Absolute Potential: 1220 MCFPD; n t 0.499 t 63.5°

COMPANY E. G. RODMAN et al

ADDRESS P.O. Box 3826

AGENT and TITLE Peyton N. Randolph El Paso Natural Gas

WITNESSED J. H. Campbell

COMPANY E. G. Rodman et al

REMARKS

Wellhead Deliverability @ 250# MCFPD 1040

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.