

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

HOBBS OFFICE 000
MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Eumont Formation Permian PM 2:22 County Lea
Initial _____ Annual _____ Special X Date of Test 8-6 to 8-10-56
Company El Paso Natural Gas Company Lease Shall State Well No. 9
Unit J Sec. 6 Twp. 21 S Rge. 36 E Purchaser El Paso Natural Gas Company
Casing 5 1/2 Wt. 15.5 I.D. 4.976 Set at 3368 Perf. _____ To _____
Tubing 2 Wt. 4.7 I.D. 1.993 Set at 3505 Perf. _____ To _____
Gas Pay: From 3387 To 3490 L 3505 xG .675 -GL 2366 Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 11-6-56 Packer None Reservoir Temp. _____

OBSERVED DATA

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

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.	4"	1.500	966	9.5"	75	876				72
2.	4"	1.500	967	7.0"	78	774				24
3.	4"	1.500	964	5.2"	80	811				24
4.	4"	1.500	964	3.7"	66	836				24
5.	4"	1.500	994			850				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.	13.99	222.59		.9839	.9427	1.037	1,141
2.	13.99	168.58		.9831	.9427	1.037	2,110
3.	13.99	124.91		.9813	.9427	1.036	1,706
4.	13.99	98.38		.9943	.9427	1.066	1,375
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.

Gravity of Liquid Hydrocarbons _____ deg.

F_c 9.996 (1-e^{-s}) .150

Specific Gravity Separator Gas _____

Specific Gravity Flowing Fluid _____

P_c 889.2 P_c² 790.7

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.	887.2	619.7	31.21	974.1	146.1	765.8	24.9	861	.983
2.	884.2	679.3	22.95	526.7	79.0	758.3	32.4	867	.989
3.	849.2	721.1	16.95	287.3	43.1	764.1	26.6	861	.983
4.	863.2	745.1	13.66	186.6	27.9	773.0	17.7	866	.989
5.									

Absolute Potential: 41,000 MCFPD; n .894COMPANY El Paso Natural Gas CompanyADDRESS P. O. Box 1384, Jol., New MexicoAGENT and TITLE R. T. Wright - Petroleum EngineerWITNESSED Edward HakeCOMPANY El Paso Natural Gas Company

REMARKS

Second test
Not enough draw down
Average slope drawn through points.

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 .