

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Jalmat Formation Yates County Lea
Initial Annual Special X Date of Test 8-22/8-30-63
Company Reserve Oil and Gas Company * Lease Martin "B" Well No. 1
Unit F Sec. 31 Twp. 24 Rge. 37 Purchaser El Paso Natural Gas Company
Casing 5 1/2 Wt. 14 I.D. Set at 2852 Perf. To
Tubing None Wt. I.D. Set at Perf. To
Gas Pay: From 2880 To 3150 L 2852 xG .665 -GL 1896 Bar.Press. 13.2
Producing Thru: Casing X Tubing Type Well Single
Date of Completion: October 6, 1947 Packer None Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp.

OBSERVED DATA

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

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Pressure) (Line) Size	(Cluster) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.	4 x .750		246	3.61	94			283		72
2.	4 x .750		226	7.84	92			249		24
3.	4 x .750		208	12.25	80			227		24
4.	4 x .750		182	21.16	82			210		24
5.								183		24

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.	3.435	30.59		.9688	.9498	1.021	98.72
2.	3.435	43.30		.9706	.9498	1.020	139.7
3.	3.435	52.06		.9813	.9498	1.020	169.9
4.	3.435	64.27		.9795	.9498	1.017	208.9
5.							

PRESSURE CALCULATIONS

as Liquid Hydrocarbon Ratio Dry cf/bbl.
Gravity of Liquid Hydrocarbons None deg.
c. .9002 (1-e^{-s}) .122

Specific Gravity Separator Gas .665
Specific Gravity Flowing Fluid None
P_c 296.2 P_c 87.7

No.	P _{tt} (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.	262.2	68.7	- - - -	Negligible	- - - -	68.7	19.0		
2.	240.2	57.7				57.7	30.0		
3.	223.2	49.8				49.8	37.9		
4.	196.2	38.5				38.5	49.2		
5.									

Absolute Potential: 330 MCFPD; n .784COMPANY Reserve Oil and Gas Company
ADDRESS 505 Midland Savings Building, Midland, TexasAGENT and TITLE Paul Gregory, Prod. Supt.WITNESSED Jack T. Littlefield

COMPANY

REMARKS

* Well previously operated by Producing Properties, Inc.

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 .

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