

NEW MEXICO OIL CONSERVATION COMMISSION

ELVIS A. UTZ
GAS ENGINEER

Form C-122

HOBBS OFFICE OCC

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Euront Formation 1955 OCT 8 PM 2:21 Green and Yates County Lea
Initial _____ Annual _____ Special 1 Date of Test 1-29-56
Company Continental Oil Co. Lease Meyer 4-3 Well No. 9
Unit M Sec. 3 Twp. 21 Rge. 36 Purchaser El Paso Natural Gas Co.
Casing 5 1/2 Wt. 17 I.D. _____ Set at 3774 Perf. 3050 To 3576
Tubing 3 Wt. 9.3 I.D. _____ Set at 3758 Perf. _____ To _____
Gas Pay: From 3050 To 3576 L 3050 xG .650 -GL 1983 Bar.Press. 19.2
Producing Thru: Casing 1 Tubing _____ Type Well G. G. Dual
Date of Completion: 7-26-53 Packer 3758 Reservoir Temp. 99.0

OBSERVED DATA

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

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										
1.	4	1.500	577	25.4	73			977		72
2.	4	1.500	582	36.0	63			921		24
3.	4	1.500	580	56.3	67			896		24
4.	4	1.500	583	72.3	67			862		24
5.								835		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.	13.99	110.60	590.2	.9905	.9608	1.061	1562
2.	13.99	146.38	595.2	.9904	.9608	1.061	2071
3.	13.99	182.75	593.2	.9933	.9608	1.062	2591
4.	13.99	207.62	596.2	.9933	.9608	1.062	2943
5.							

ILLEGIBLE

PRESSURE CALCULATIONS

Gas Liquid Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 4.220 (1-e^{-s}) .928

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 998.2 P_c 950 Thomson

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.	934.2	872.7	6.59	43.43	5.56	873.3	182	937.2	.945
2.	909.2	826.6	8.71	76.39	9.72	836.1	144	914.5	.924
3.	875.2	766.0	10.93	119.46	15.29	781.3	199	883.9	.893
4.	848.2	719.4	12.42	154.26	19.75	737.2	241	859.3	.868
5.									

Absolute Potential: 8.000 MCFPD; n .773COMPANY Continental Oil Co.ADDRESS Box 427, Hobbs, New MexicoAGENT and TITLE W. D. Howard, Gas Tester

WITNESSED _____

COMPANY _____

REMARKS

* Well-Head Pressure would not draw down 30% producing into line.

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 .