

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blinbry Gas Formation Blinbry County Lea
Initial X Annual _____ Special _____ Date of Test July 18, 1956
Company Continental Oil Company Lease Lockhart B-11 Well No. 3-E
Unit E Sec. 11 Twp. 21-S Rge. 37-E Purchaser El Paso Natural Gas Company
Casing 5.5 Wt. 14 I.D. 5.012 Set at 7658' Perf. 5595' To 5850'
Tubing 2.875 Wt. 6.5 I.D. 2.441 Set at 7620' Perf. --- To ---
Gas Pay: From 5595' To 5850' L 5595' xG mix .695 -GL 3889' Bar.Press. 13.2
Producing Thru: Casing X Tubing _____ Type Well G. O. Dual
Date of Completion: 7-18-56 Packer 7460' Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. 115° F

OBSERVED DATA

Tested Through Prover (K&K) (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	---	---	---	---	---	---	---	1857	---	---
1.	4"	1.5 in	620	23.0	30	---	---	1590	---	1
2.	4"	2.0 in	630	22.0	40	---	---	1220	---	2 1/2
3.	4"	2.0 in	640	32.0	46	---	---	915	---	2
4.	4"	2.0 in	650	41.0	68	---	---	736	---	2 1/2
5.										

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	120.68	633.2	1.0302	.9292	1.244	2010.5
2.	25.58	118.95	643.2	1.0198	.9292	1.208	3483.0
3.	25.58	144.57	653.2	1.0137	.9292	1.145	3988.4
4.	25.58	164.90	663.2	0.9924	.9292	1.087	4228.1
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry Gas cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 2.2497 (1-e^{-s}) 0.235
Specific Gravity Separator Gas 0.695
Specific Gravity Flowing Fluid ---
P_c 1870.2 P_c 3497.6

No.	$\frac{P_c}{P_t}$	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.	1603.2	2570.3	523	20.46	4.808	2575.1	922.5	1604.7	85.7
2.	1233.2	1520.8	836	61.40	14.429	1525.5	1972.1	1235.1	65.9
3.	928.2	861.68	973	80.51	18.920	880.6	2617.0	938.4	49.6
4.	749.2	561.39	512	90.48	21.263	582.6	2915.0	763.3	27.6
5.									

Absolute Potential: 4750 MCFPD; n .64
COMPANY Continental Oil Company
ADDRESS Box 68, Eunice, New Mexico
AGENT, and TITLE W. E. Allen - District Superintendent
WITNESSED none
COMPANY none

REMARKS

NEA-DM
Eunice, New Mexico
July 24, 1956

CC: N 02C-3 RLA-1 HLJ-1 E 4-1 File-2

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.

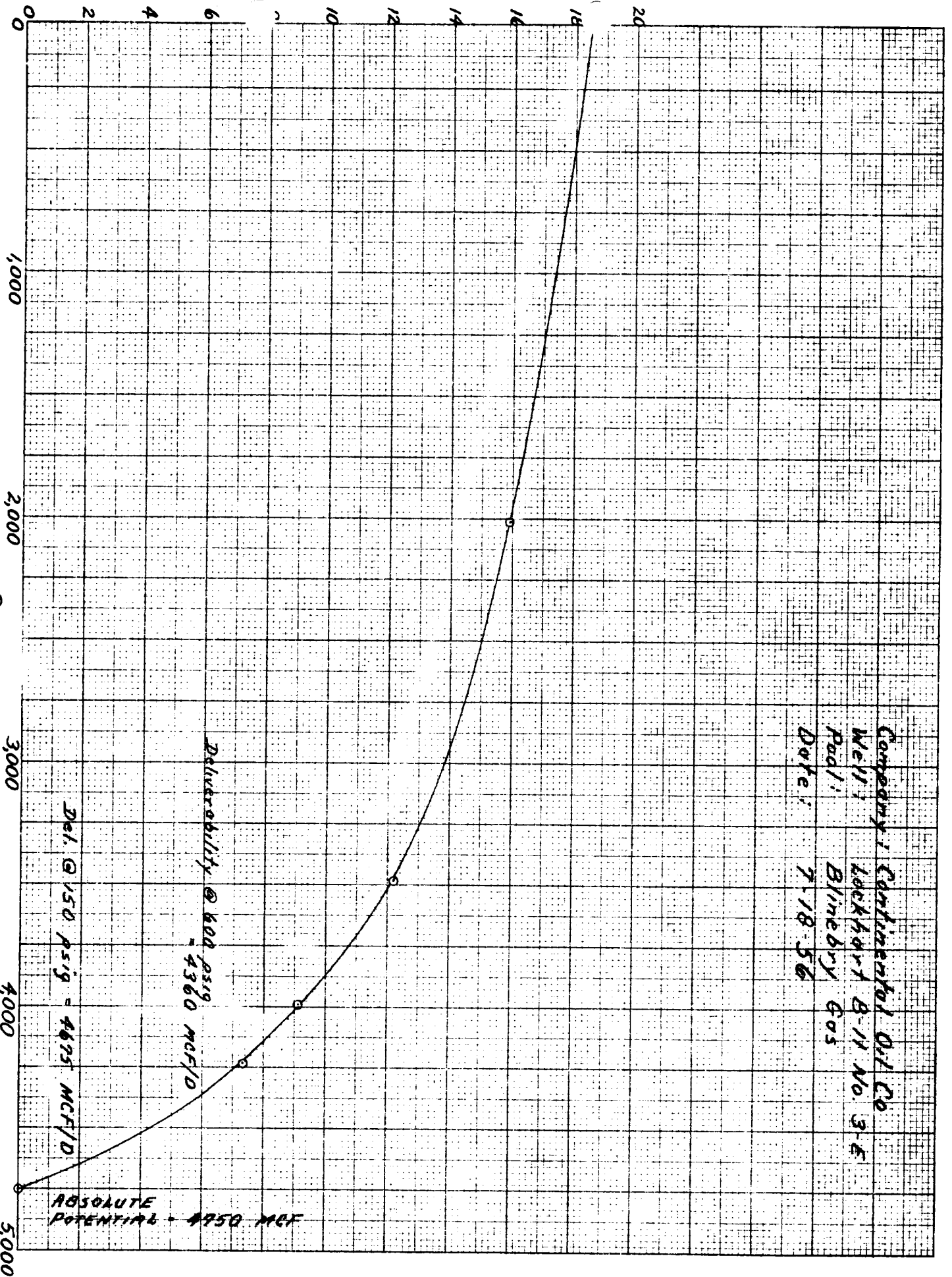
F_t = Flowing temperature correction factor.

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 .

WELLHEAD PRESSURE $\times 100$ - p.s.i.g.



Company: Continental Oil Co
Well: Lockhart B-11 No. 3-E
Pool: Blinberry Gos
Date: 7-18-56

ABSOLUTE POTENTIAL = 4950 MCF

Del. @ 150 p.s.i.g. = 4675 MCF/D

Deliverability @ 600 p.s.i.g. = 4360 MCF/D

Q - MCF/D





Company: *Continental Oil Company*
Well: *Lockhart B-11 No. 3-E*
Pool: *Blinberry Gas*
Location: *Unit 'E', Sec. 11-21S-37E*
County: *Lee*
Date: *7-18-56*

$R_s^2 = 3497.6$

$P_c^2 - P_w^2$ (Thsnd.)

