

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blinebry Gas Formation Blinebry County Lea
Initial Annual X Special Date of Test 3-16/25-1955
Company The Ohio Oil Company Lease Lou Worthan Well No. 12
Unit H Sec. 11 Twp. 22-S Rge. 37-E Purchaser Permian Basin Pipeline Company
Casing 5 1/2" Wt. 17.0# I.D. 4.892" Set at 6510' Perf. 5388 To 5422
Tubing 2-3/8" Wt. 4.7# I.D. 1.995 Set at 6470 Perf. 6461 To 6464
Gas Pay: From 5388' To 5494' L 5388' x Gmix 0.711 -GL 3831 Bar. Press. 13.2
Producing Thru: Casing X Tubing Type Well G. O. Dual
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 2/22/52 Packer 6407' Reservoir Temp. --

OBSERVED DATA

Tested Through <u>(Flowm)</u> <u>(Flow)</u> <u>(Meter)</u>						Type Taps		Pipe		Duration of Flow Hr.
No.	<u>(Flowm)</u> (Line) Size	<u>(Flow)</u> (Orifice) Size	Flow Data			Tubing Data		Casing Data		
			Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI								1863.0		73½ hrs SIP
1.	4"	2.50"	459.0	5.0	70	--	--	1677.5	70	23½ hrs
2.	4"	2.50"	464.8	9.2	63	--	--	1597.2	63	2½ hrs
3.	4"	2.50"	461.4	17.3	66	--	--	1496.4	66	2½ hrs
4.	4"	2.50"	473.0	29.5	58	--	--	1326.5	58	23½ hrs
5.										

50% CALCULATIONS

										Rate of Flow
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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 psi
1.	54.44	48.59	472.2	0.9985	0.9393	1.050	2584
2.	54.44	66.31	478.0	0.9971	0.9393	1.056	3570
3.	54.44	90.61	474.6	0.9943	0.9393	1.054	4856
4.	54.44	119.76	486.2	1.0019	0.9393	1.060	6504
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 76.859 cf/bbl.
Gravity of Liquid Hydrocarbons 71 deg. API
F_c 1.812 (1-e^{-s}) 0.232

Specific Gravity Separator Gas
Specific Gravity Flowing Fluid
P_c 1876.2 P_c 3520.1

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.	1690.7	2858.5	4.682	21.92	5.085	2863.6	656.5	1692.2	0.90
2.	1610.4	2593.4	6.469	41.85	9.709	2603.1	917.0	1613.4	0.86
3.	1509.6	2278.9	8.799	77.42	17.961	2296.9	1223.2	1515.6	0.81
4.	1339.7	1794.8	11.785	138.89	32.222	1827.0	1693.1	1351.7	0.71
5.									

Absolute Potential: 13,178 MCFPD; n 0.964793
COMPANY The Ohio Oil Company
ADDRESS Box 2107, Hobbs, New Mexico
AGENT and TITLE John R. Barber - Petroleum Engr.
WITNESSED Mr. H. E. Barrett
COMPANY Permian Basin Pipeline Company

REMARKS

ELVIS A
248 E

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 600 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.

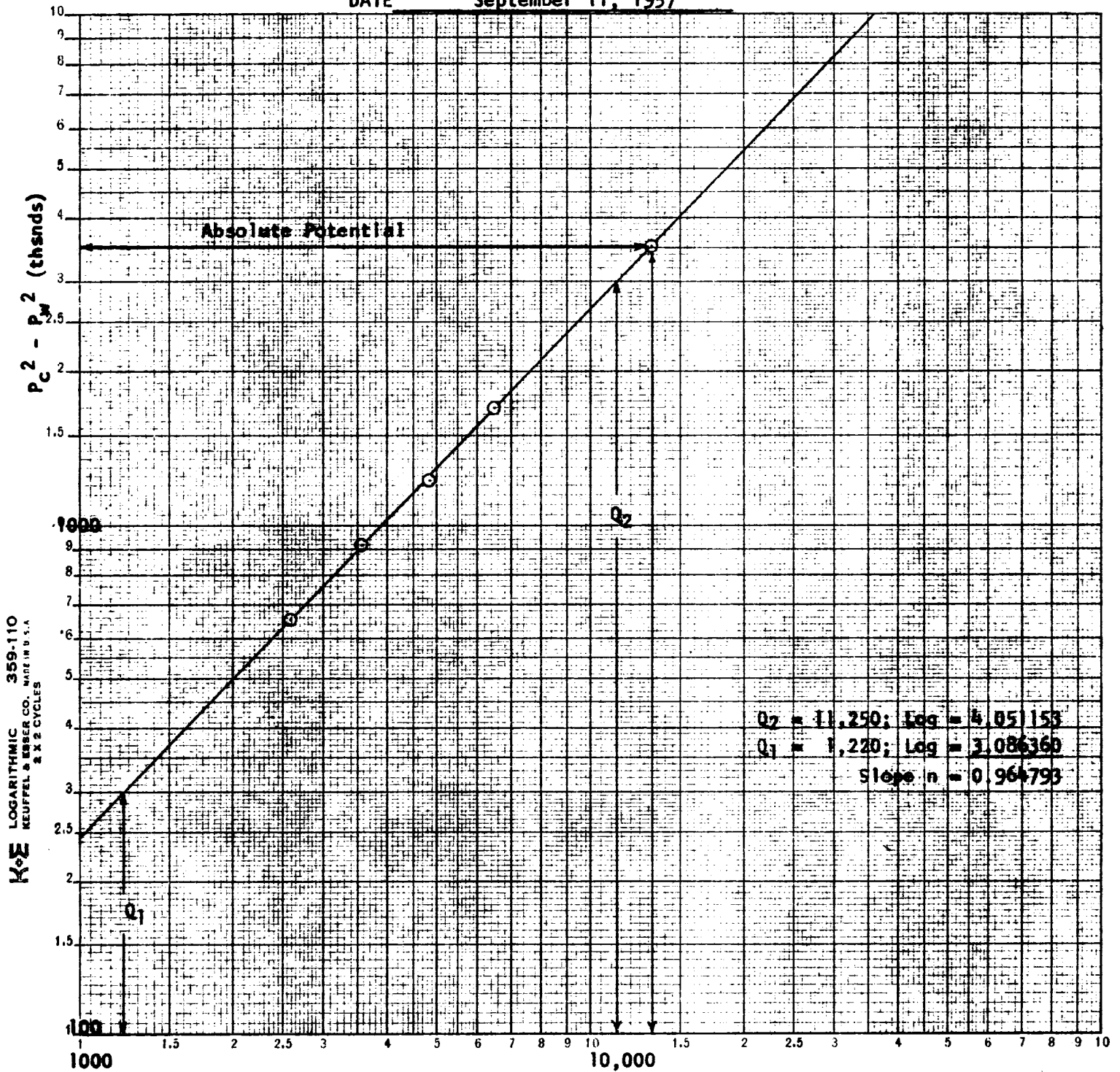
F_t = Flowing temperature correction factor.

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 .

COMPANY The Ohio Oil Company
 WELL Lou Worthan, Well No. 12
 POOL Blinebry Gas
 LOCATION H 11-22S-37E
 COUNTY Lea
 DATE September 11, 1957



Q - MCFD - 15.025 psia