

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Bilinebry Gas Formation Bilinebry County Lea
Initial _____ Annual X Special _____ Date of Test 4 - 18/22 - 1955
Company The Ohio Oil Company Lease Walter Lynch Well No. 4
Unit D Sec. 1 Twp. 22-S Rge. 37-E Purchaser Permian Basin Pipeline Company
Casing 5 1/2" Wt. 15.5 I.D. 4.950" Set at 6430 Perf. 5480' To 5675'
Tubing 2-3/8" Wt. 4.7 I.D. 1.995" Set at 6352' Perf. 6188' To 6190'
Gas Pay: From 5480 To 5675 L 5480 xG 0.740 -GL 4055 Bar.Press. 13.2
Producing Thru: Casing X Tubing _____ Type Well G. G. Dual
Date of Completion: 4-7-54 Packer 5906' Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. --

OBSERVED DATA

Tested Through (PROVER) (ORIFICE) (Meter) Type Taps Pipe

No.	Flow Data				Tubing Data		Casing Data		Duration of Flow Hr.
	(PROVER) (Line) Size	(ORIFICE) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.
SI							1850.7		70 1/2 Hr. SIP
1.	4"	2.0"	464.0	4.5	73	--	--	1586.0	73
2.	4"	2.0"	466.1	9.5	68	--	--	1475.8	68
3.	4"	2.0"	465.5	28.0	67	--	--	1258.7	67
4.	4"	2.0"	460.5	34.8	73	--	--	1001.7	73
5.									

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.	29.92	46.34	477.2	0.9877	0.9325	1.054	1346
2.	29.92	67.48	479.3	0.9924	0.9325	1.056	1973
3.	29.92	97.85	478.7	0.9933	0.9325	1.056	2864
4.	29.92	128.39	473.7	0.9877	0.9325	1.054	3729
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 47.445 cf/bbl.
Gravity of Liquid Hydrocarbons 69.7 deg. API
F_c 1.793 (1-e^{-s}) 0.243

Specific Gravity Separator Gas 0.699
Specific Gravity Flowing Fluid 0.740
P_c 1863.9 P_c² 3474.1

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.	1599.2	2557.4	2.413	5.823	1.415	2558.8	915.3	1599.6	.86
2.	1489.0	2217.1	3.538	12.52	3.042	2220.1	1254.0	1490.0	.80
3.	1271.9	1617.7	5.135	26.37	6.468	1624.1	1850.0	1274.4	.68
4.	1014.9	1030.0	6.686	44.70	10.86	1040.9	2433.2	1020.2	.55
5.									

Absolute Potential: 5,252 MCFPD; n 0.961466

COMPANY The Ohio Oil Company
ADDRESS P. O. Box 2107, Hobbs, New Mexico
AGENT and TITLE John R. Barber - Petroleum Engr.
WITNESSED J. N. Welsch
COMPANY Permian Basin Pipeline Company

REMARKS

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.

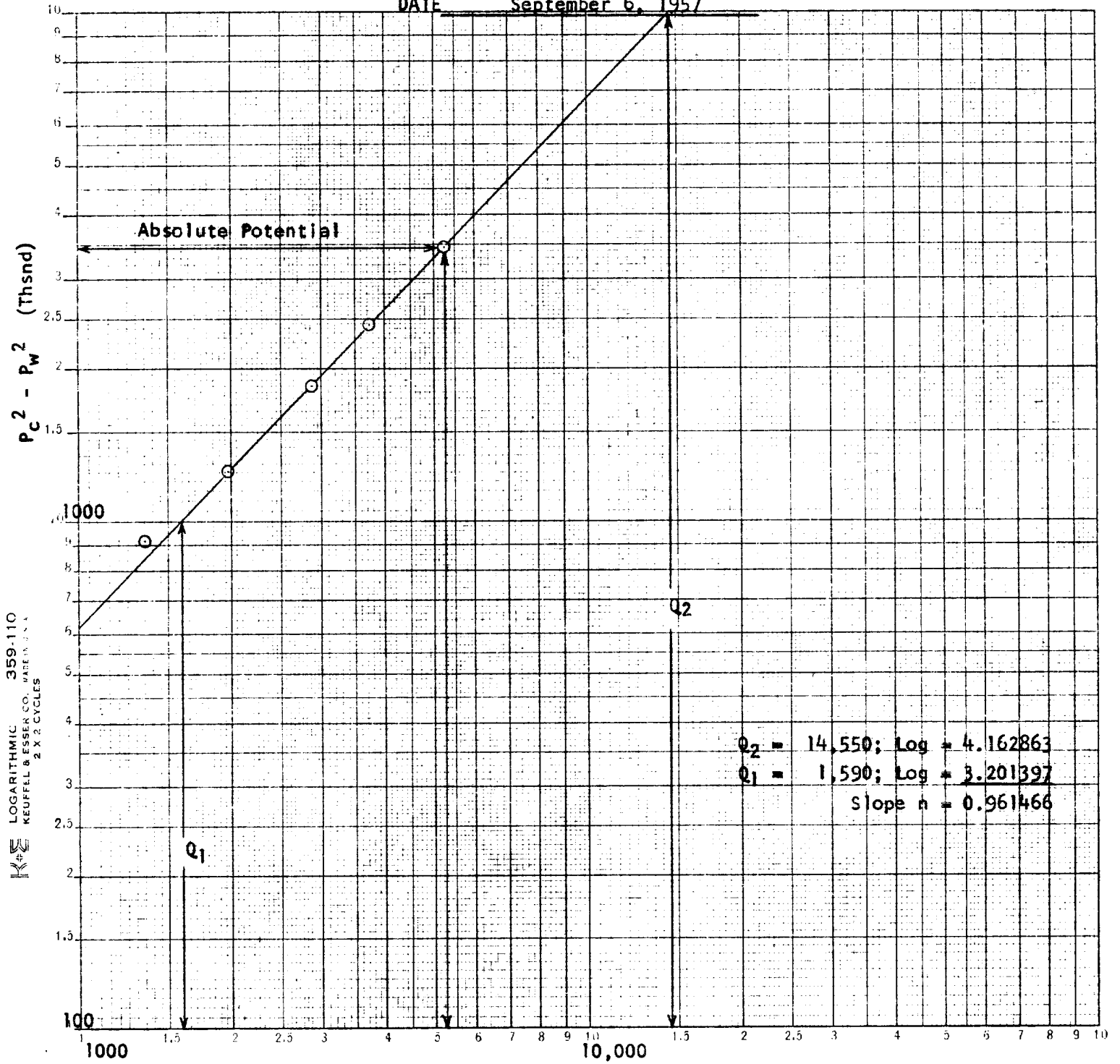
F_t = Flowing temperature correction factor.

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 .

COMPANY The Ohio Oil Company
 WELL Walter Lynch Well No. 4
 POOL Blinebry Gas Pool
 LOCATION D 1-22S-37E
 COUNTY Lea
 DATE September 6, 1957



Q - MCFD - 15.025 psia