

MAIN OFFICE OCC
MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS
1957 SEP 25 AM 8:07

Pool Tubb Gas Formation 07 Tubb County Lea
Initial _____ Annual X Special _____ Date of Test 8 - 8/16 - 1957
Company The Ohio Oil Company Lease L. G. Warlick "C" Well No. 1
Unit J Sec. 15 Twp. 21-S Rge. 37-E Purchaser Permian Basin Pipeline Company
Casing 5½" Wt. 17.0# I.D. 4.892 Set at 6597' Perf. 6190 To 6230
Tubing 2-3/8" Wt. 4.7# I.D. 1.995 Set at 6626 Perf. 6620 To 6625
Gas Pay: From 6190 To 6230 L 6190 xG _____ -GL See Below Bar.Press. 13.2
Producing Thru: Casing X Tubing _____ Type Well Gas-Oil Dual
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 11/20/53 Packer 6475' Reservoir Temp. --

OBSERVED DATA

Tested Through (~~Power~~) (~~Orifice~~) (Meter) Type Taps Pipe

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Power) (Line) Size	(Orifice) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						Packer	--	1386.9	--	72 hr. SIP
1.	4"	2.00	488.7	5.1	65	"	--	1150.9		23½ hrs
2.	4"	2.00	495.4	11.0	66	"	--	1065.3		24 hrs
3.	4"	2.00	492.1	16.8	67	"	--	928.2		24 hrs
4.	4"	2.00	496.8	30.9	71	"	--	617.2		24 hrs
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	50.59	501.9	0.9952	0.9292	1.054	1475
2.	29.92	74.80	508.6	0.9943	0.9292	1.056	2184
3.	29.92	92.14	505.3	0.9933	0.9292	1.056	2687
4.	29.92	125.53	510.0	0.9896	0.9292	1.053	3637
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio See Below cf/bbl. Specific Gravity Separator Gas 0.695
Gravity of Liquid Hydrocarbons 65.0 deg. API Specific Gravity Flowing Fluid See Below
F_c 1.812 (1-e^{-s}) See Below P_c 1400.1 P_c 1960.3

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.	1164.1	1355.1	2.673	7.14	1.83	1356.9	603.4	1164.9	0.83
2.	1078.5	1163.2	3.957	15.66	4.18	1167.4	792.9	1080.5	0.77
3.	941.4	886.2	4.869	23.71	6.38	892.6	1067.7	944.8	0.67
4.	630.4	397.4	6.590	43.43	11.68	409.1	1551.2	639.6	0.46
5.									

Absolute Potential: 4338 MCFPD; n 0.753328

COMPANY The Ohio Oil Company
ADDRESS Box 2107, Hobbs, New Mexico
AGENT and TITLE H. D. Chiles - Petroleum Engr. *H. D. Chiles*
WITNESSED Mr. R. L. West
COMPANY Permian Basin Pipeline Company

Rate	Fluid (Bbls)	GLR (Ft ³ /Bbl)	Gmix	GL	(1-e ^{-s})
1	0.00	None	0.695	4302	0.256
2	29.38	74,336	0.728	4506	0.267
3	45.54	59,003	0.737	4562	0.269
4	61.03	59,594	0.736	4556	0.269

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.

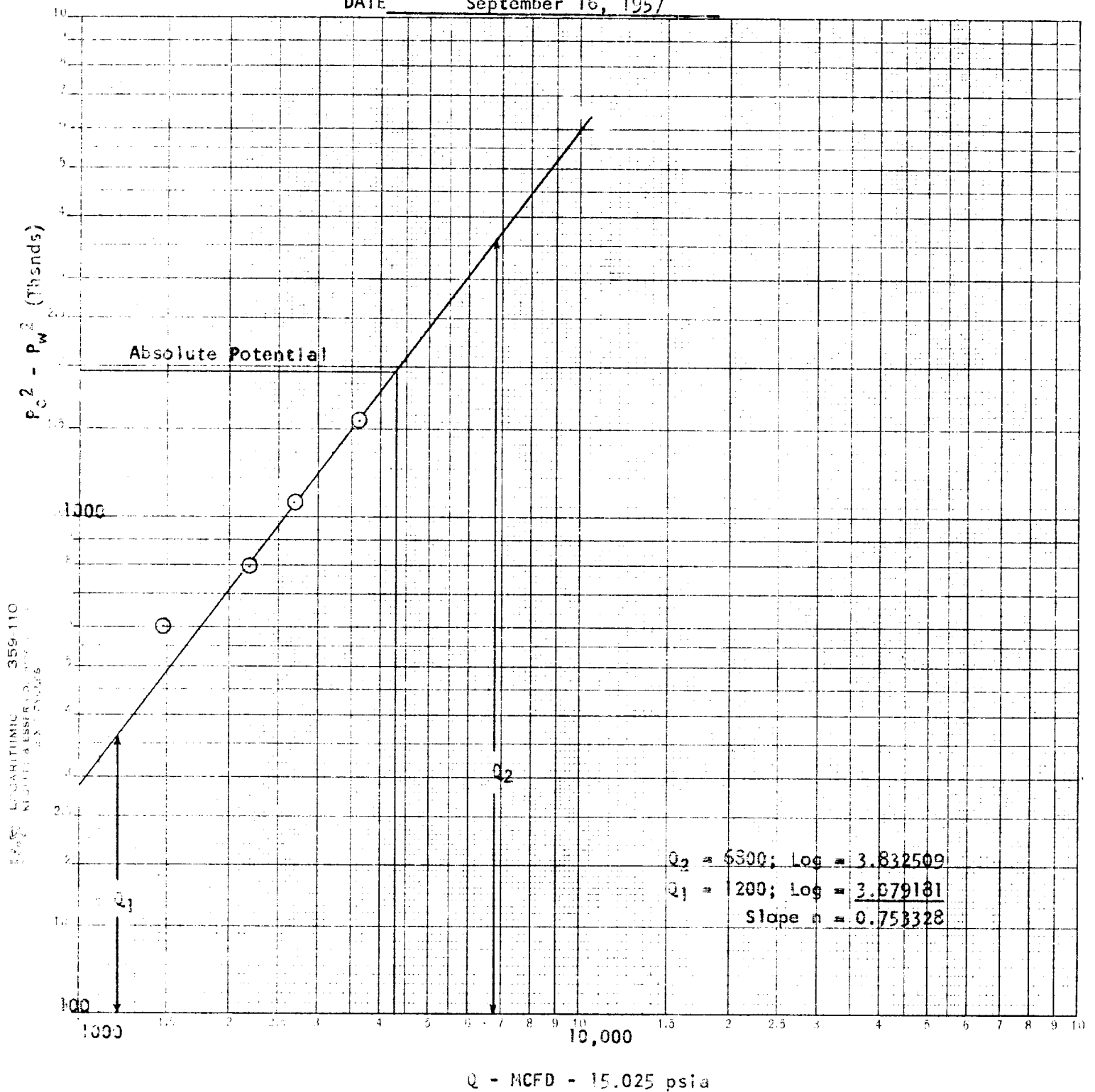
The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

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	L. G. Warlick "C", No. 1
POOL	Tubb Gas
LOCATION	J Sec. 15-21S-37E
COUNTY	Lea
DATE	September 16, 1957



ILLEGIBLE