

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Eumont Formation Penrose County Lea
 Initial X Annual _____ Special _____ Date of Test 1-27-61
 Company TEXACO Inc. Lease Mittie Weatherly Well No. 4UT
 Unit E Sec. 17 Twp. 21 Rge. 37 Purchaser El Paso Natural Gas Co.
 Casing 5-1/2 ^{OD} Wt. 15.5 I.D. 4.976 Set at 3938 Perf. 3492 To 3528
 Tubing 2-3/8 Wt. 4.7 I.D. 1.995 Set at 3680 Perf. _____ To _____
 Gas Pay: From 3492 To 3528 L 3492 xG .675 -GL 2357 Bar.Press. 13.2
 Producing Thru: Casing X Tubing _____ Type Well Gas-Oil Dual
 Date of Completion: 1-1-60 Packer Baker Model 1 Single-Bradenhead-G. G. or G.O. Dual
3650 Reservoir Temp. _____

OBSERVED DATA

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

No.	Flow Data			Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	
SI								
1.	4.026	1.250	245	4.0	30		452	72
2.	4.026	"	260	16.8	41		430	3
3.	4.026	"	275	25.0	47		375	3
4.	4.026	"	275	28.1	52		330	3
5.	4.026	"	280	12.0	54		299	3
							294	20

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.	9.643	32.14	258.2	1.0302	.9427	1.032	310.6
2.	9.643	67.74	273.2	1.0188	.9427	1.033	648.1
3.	9.643	84.88	288.2	1.0127	.9427	1.034	807.9
4.	9.643	89.99	288.2	1.0078	.9427	1.032	850.8
5.	9.643	59.31	293.2	1.0058	.9427	1.034	560.7

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry Gas cf/bbl.
 Gravity of Liquid Hydrocarbons _____ deg.
 F_c 1.758 (1-e^{-s}) 0.150

Specific Gravity Separator Gas _____
 Specific Gravity Flowing Fluid _____
 P_c 465.2 P_c 216.4

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.	443.2	196.4	.5460			196.4	20.0		.9527
2.	388.2	150.7	1.139	Friction		150.7	65.7		.8345
3.	343.2	117.8	1.420	Negligible		117.8	98.6		.7377
4.	312.2	97.47	1.496			97.47	118.93		.6711
5.	307.2	94.37	.9857			94.37	120.03		.6604

Absolute Potential: 800 MCFPD; n .593 ^{122.03}

COMPANY TEXACO Inc.

ADDRESS Box 1270, Midland, Texas

AGENT and TITLE F. W. Moore, District Gas Foreman F. W. Moore

WITNESSED _____

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

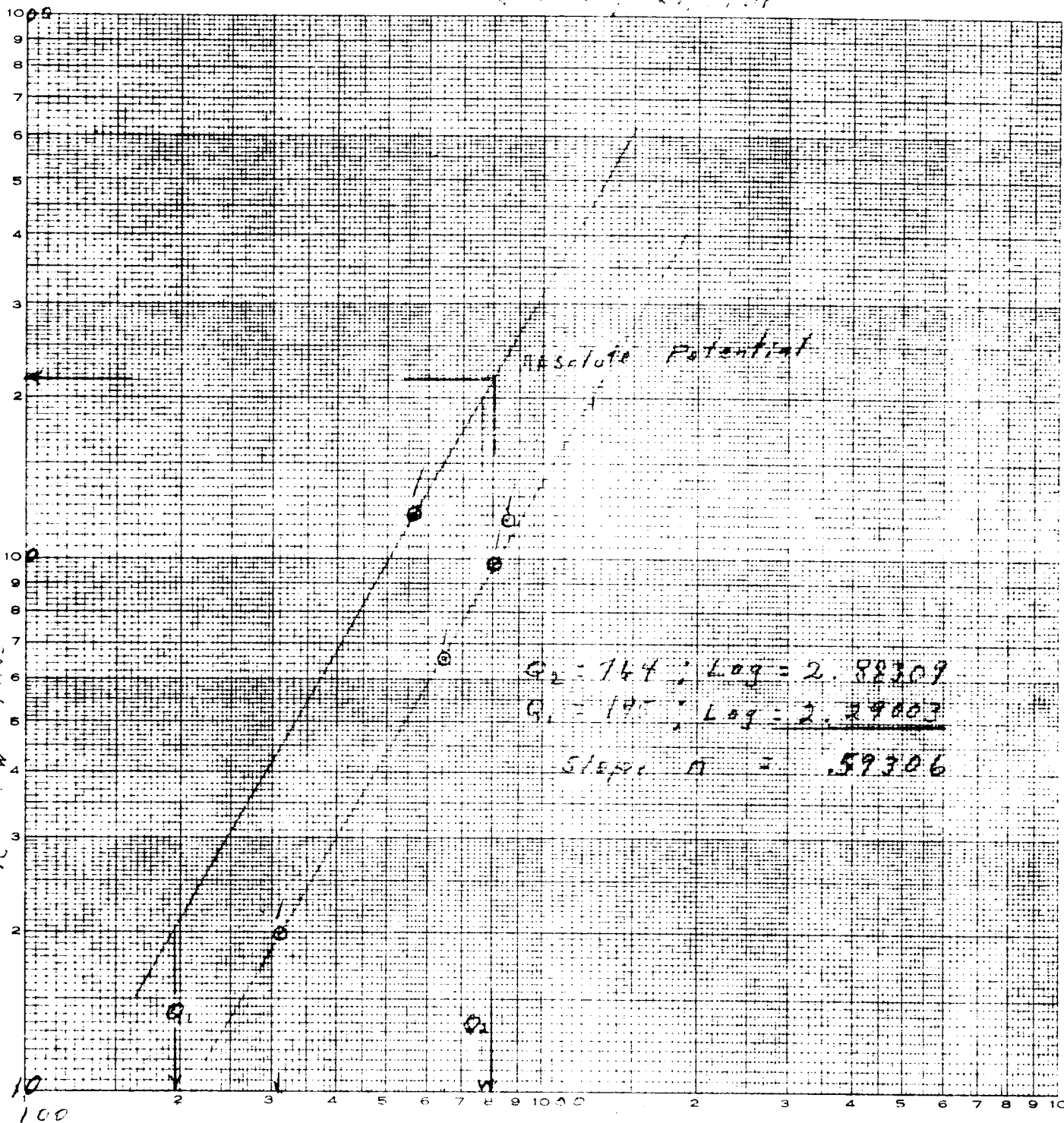
- Q = Actual rate of flow at end of flow period at W. H. working pressure (P_w). MCF/da. @ 15.025 psia and 60° F.
- P_c = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater. psia
- P_w = Static wellhead working pressure as determined at the end of flow period. (Casing if flowing 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 .

Texaco Inc.
 Miller Weatherly Well No. 4 CT
 E 111 2.15 37E
 Log. Pot. 1.5
 E. 111 2.15 37E
 2.15 37E

EUGENE DETZEN CO.

NO. 340-L22 DIETZEN GRAPH PAPER
 LOGARITHMIC 2 CYCLES X 2 CYCLES
 PC - Pw / T



Q - AICFD - 17.5 PSIA

$G_1 = 1250 = 3.096$
 $G_2 = 210 = 2.421$
 .60554

