

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Tubb Gas Formation Tubb County 50 Lea
 Initial X Annual _____ Special _____ Date of Test April 9-10, 1962
 Company TEXACO Inc. Lease J. C. Estlack Well No. 1-LT
 Unit 1 Sec. 3 Twp. 21 Rge. 37 Purchaser Skelly Oil Company
 Casing 5-1/2 Wt. _____ I.D. _____ Set at 6620 Perf. 6242 To 6331
 Tubing 2-1/6 Wt. 3.40 I.D. 1.700 Set at 5973 Perf. None To _____
 Gas Pay: From 6242 To 6331 L 5973 xG .712 -GL 4253 Bar.Press. 13.2
 Producing Thru: Casing _____ Tubing X Type Well Dual G.O.
 Single-Bradenhead-G. G. or G.O. Dual
 Date of Completion: January 14, 1961 Packer _____ Reservoir Temp. _____

OBSERVED DATA

Tested Through (Pressure) (Clock) (Meter) Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Pressure (Line) Size)	(Pressure (Orifice) Size)	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						1931				72
1.	3.000	1.000	51	10	86	1400	72			3-1/2
2.	3.000	1.000	51	15	94	1055	72			3
3.	3.000	1.000	51	29	71	872	73			3
4.	3.000	1.000	51	32	52	727	74			3
5.	3.000	1.000	52	33	90	728	75			16

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.	6.182	25.34	64.2	.9759	.9449		144.4
2.	6.182	31.03	64.2	.9688	.9449		175.6
3.	6.182	43.15	64.2	.9896	.9449		249.4
4.	6.182	45.32	64.2	1.0078	.9449		266.7
5.	6.182	46.39	65.2	.9723	.9449		263.4

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 70.500 cf/bbl.
 Gravity of Liquid Hydrocarbons 46.5 deg.
 F_c 13.97 (1-e^{-s}) .254

Specific Gravity Separator Gas 672
 Specific Gravity Flowing Fluid .712
 P_c 1944.2 P_c^2 3780

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.	1413.2	1997	2.017	4.068	1.033	1998	1782	1413	.7268
2.	1068.2	1141	2.453	6.017	1.528	1142	2638	1068	.5493
3.	885.2	783.6	3.484	12.14	3.083	786.7	2993	887	.4562
4.	740.2	547.9	3.726	13.88	3.525	551.4	3228	742	.3816
5.	741.2	549.4	3.680	13.54	3.439	552.8	3227	743	.3822

Absolute Potential: 300 MCFPD; n 1.00

COMPANY TEXACO Inc.

ADDRESS P. O. Box 1270, Midland, Texas

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

WITNESSED _____

COMPANY _____

REMARKS

No.	Gas Produced	Condensate Produced	GOR	
1	21	0		5th point
2	22	0		continuation of
3	31	0		4th point.
4	33	.5	66,000	
5	175	3.5	50,000	

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 .

TEXACO Inc.

J.C. Estlin

Well No 1 LT

Tubb Zone

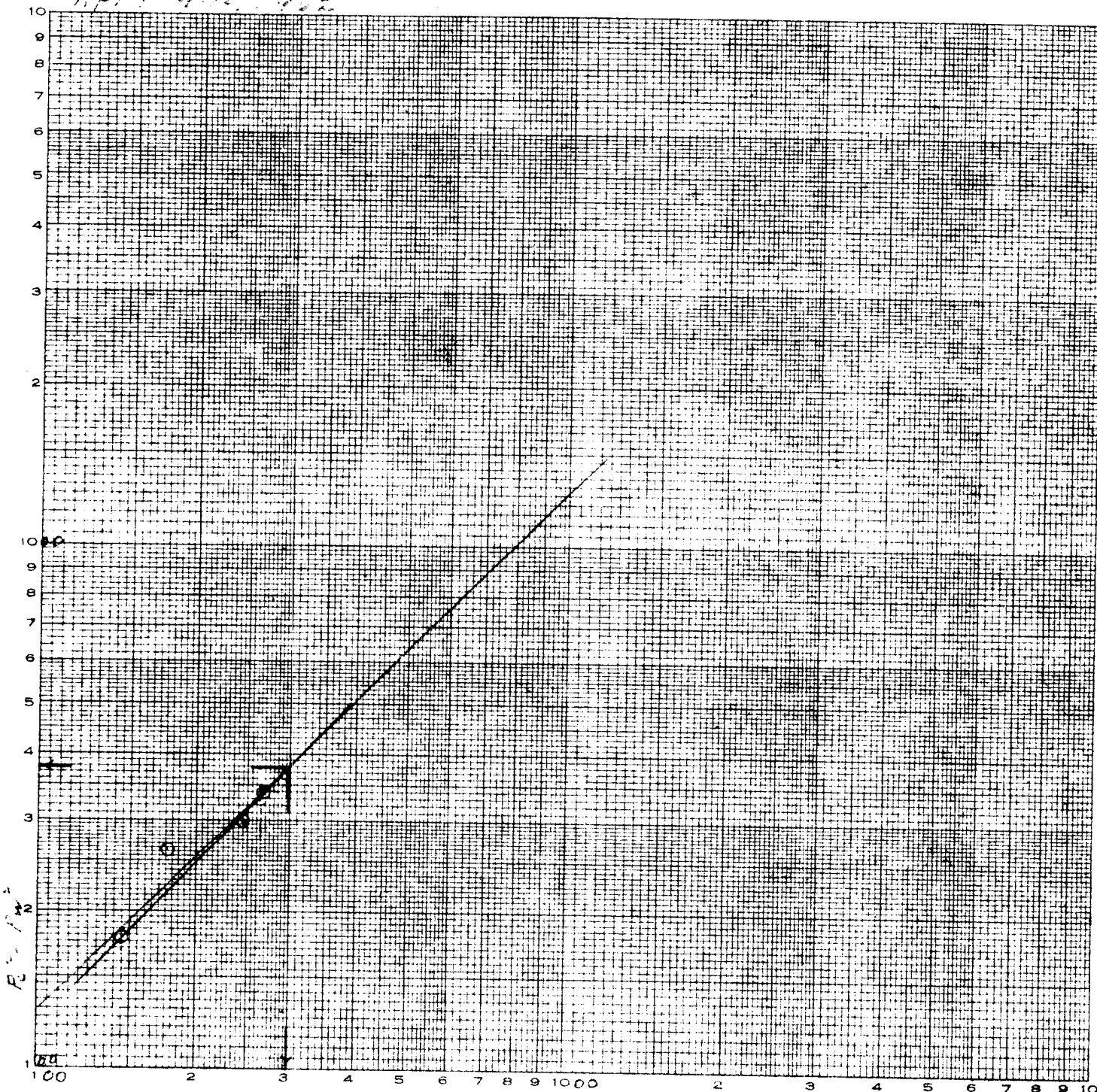
S-3 T-21 A-67

Lee County, Texas

April 9, 1966

EUGENE DIETZEN CO.
MADE IN U.S.A.

NO. 340-L22 DIETZEN GRAPH PAPER
LOGARITHMIC - 2 CYCLES X 2 CYCLES



C - MICRO 15.225 PISA

Absolute Potential for MICRO
1.00