

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool EUMONT Formation QUEENS County LEA

Initial _____ Annual _____ Special X Date of Test 6-11/19-1959

Company OIL WELL DRILLING COMPANY Lease Wood State "A" Well No. 2

Unit F Sec. 16 Twp. 20 Rge. 37 Purchaser El Paso Natural Gas Co.

Casing 5½ Wt. 17 I.D. _____ Set at 3466 Perf. 3311 To 3403

Tubing 2½ Wt. 6.5 I.D. _____ Set at 3266 Perf. 3310 To 3420

Gas Pay: From 3310 To 3420 L 3266 xG .670 -GL 2138 Bar.Press. 13.2

Producing Thru: Casing _____ Tubing X Type Well Single

Date of Completion: 3-4-59 Packer 3290 Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)

Type Taps _____

No.	Flow Data			Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	
SI								
1.	4x1.500		582	14.44	80	947		72
2.	4x1.500		554	30.25	72	935		24
3.	4 x 1.500		571	46.24	69	925		24
4.	4 x 1.500		568	85.56	67	896		24
5.								

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.	13.99	92.71		.9813	.9463	1.0259	1,276
2.	13.99	131.0		.9887	.9463	1.060	1,818
3.	13.99	164.4		.9915	.9463	1.062	2,291
4.	13.99	223.0		.9933	.9463	1.062	3,114
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.

Gravity of Liquid Hydrocarbons _____ deg.

P_c 5.866 (1-e^{-s}) .140

Specific Gravity Separator Gas _____

Specific Gravity Flowing Fluid _____

P_c 967.2 P_c 935.5

No.	P _w P _t (psia)	P _c 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 _c ² P _w	P _c ² x P _w x P _t ²
1.	960.2	922.0	7.48	55.95	7.83	929.8	5.7		13.5
2.	948.2	899.1	10.66	113.6	15.9	915.0	20.5		36.4
3.	938.2	880.2	13.44	180.6	25.3	905.5	30.0		55.3
4.	909.2	826.6	18.27	334.8	46.7	873.3	62.2		108.9
5.									

Absolute Potential: 12.750

COMPANY OIL WELL DRILLING COMPANY MCFPD; n 63.5 ; n .499

ADDRESS 614-617 Adolphus Tower, Dallas 2, Texas

AGENT and TITLE L. R. Massey, Lease Pumper

WITNESSED Jack T. Littlefield conducted and calculated test for

COMPANY EL PASO NATURAL GAS COMPANY

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.

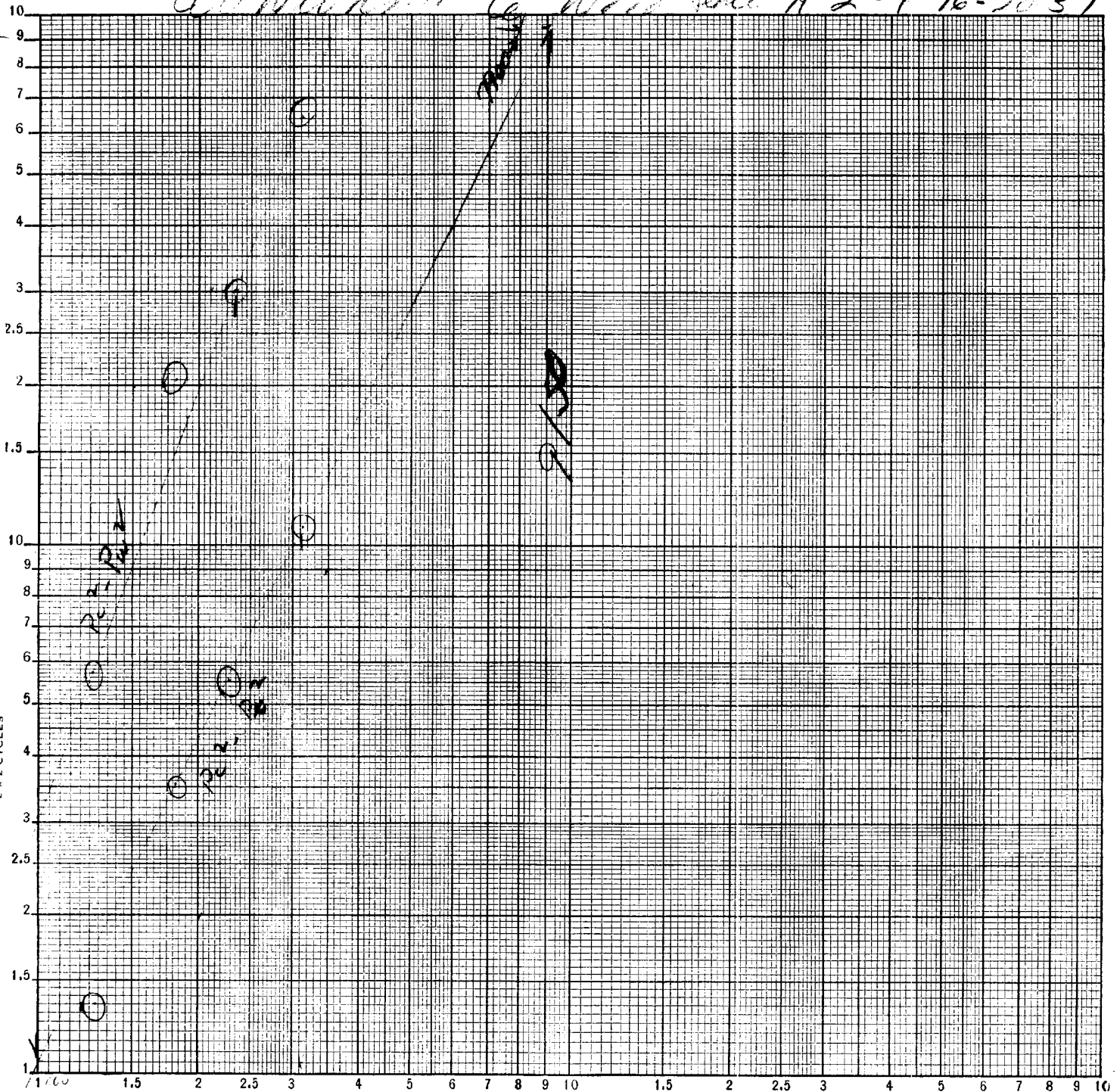
Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t .

ILLEGIBLE

6-19-59

Oil Well No. 6, Wood State A*2-5 16-20 37

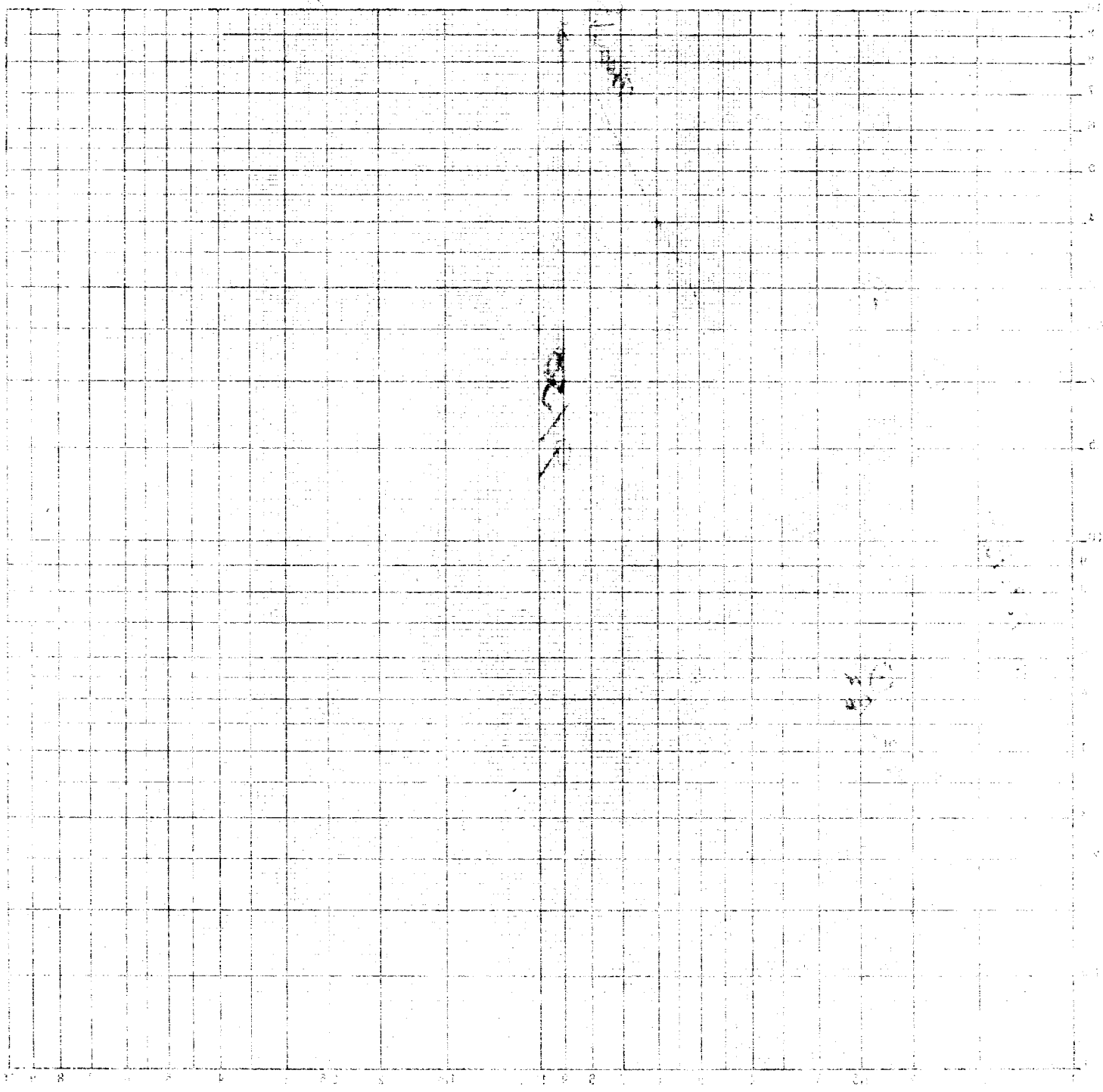
LOGARITHMIC 359-110
KEUFFEL & ESSER CO. MADE IN U.S.A.
2 X 2 CYCLES



$$P_c^2 - P_z^2 \left\{ \begin{array}{l} G_2 = 2330 - 8367356 \\ 1000 = 3.67356 \end{array} \right.$$

$$P_c^2 - P_z^2 \left\{ \begin{array}{l} G_2 = 1000 = 3.491362 \\ G_1 = 1000 = 3 \end{array} \right.$$

.491362



0110250 0110100 0110100