

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalmat Formation Tates County Lea
Initial Annual Special x Date of Test 6-21-60
Company Phillips Petroleum Company Lease Woolworth Co. 3 Well No. 1
Unit 4 Sec. 6 Twp. 25 Rge. 37 Purchaser El Paso Natural Gas Company
Casing 7 Wt. 24 I.D. Set at 3040 Perf. 2830 To 3000
Tubing 2 Wt. 4.7 I.D. Set at 2974 Perf. Open ended To
Gas Pay: From 2830 To 3000 L 2974 xG 0.653 -GL 1942 Bar.Press. 13.2
Producing Thru: Casing Tubing x Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 5-9-60 Packer None Reservoir Temp.

OBSERVED DATA

Tested Through (Packer) (Meter) Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						351		383		72
1.	4	1.250	354	6.25	86	354		372		3
2.	4	1.250	346.3	16.80	83	347		361		3
3.	4	1.250	296.4	36.00	80	299		350		3
4.	4	1.250	212	88.36	74	214		335		3
5.	4	1.250	208	84.64	77	216		325		24

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	47.91	367.2	0.9759	0.9586	1.032	445.5
2.	9.643	77.71	359.5	0.9786	0.9586	1.032	724.7
3.	9.643	105.57	309.6	0.9813	0.9586	1.028	182.4
4.	9.643	141.06	225.2	0.9868	0.9586	1.022	131.6
5.	9.643	136.83	221.2	0.9840	0.9586	1.020	126.8

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry cf/bbl.
Gravity of Liquid Hydrocarbons deg.
F_c (1-e^{-s})
Specific Gravity Separator Gas 0.653
Specific Gravity Flowing Fluid
P_c 396.2 P_c 157.0

No.	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.	367.2	134.8				143.4	8.6	385.2	0.9722
2.	360.2	129.7				140.0	17.0	374.2	0.9445
3.	312.2	97.46	Measured			131.9	25.1	363.2	0.9167
4.	227.2	51.62				121.2	35.8	348.2	0.8728
5.	229.2	52.53				114.4	42.6	338.2	0.8536

Absolute Potential: 3800 MCFPD; n 0.83519

COMPANY Phillips Petroleum Company

ADDRESS Box 2105 - Hobbs, New Mexico

AGENT and TITLE J. A. Larrell, Engineer

WITNESSED Test conducted by Carl Tapscott, Gas Dept, Phillips Petroleum Company and

COMPANY Jack O. Whitting, El Paso Natural Gas 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

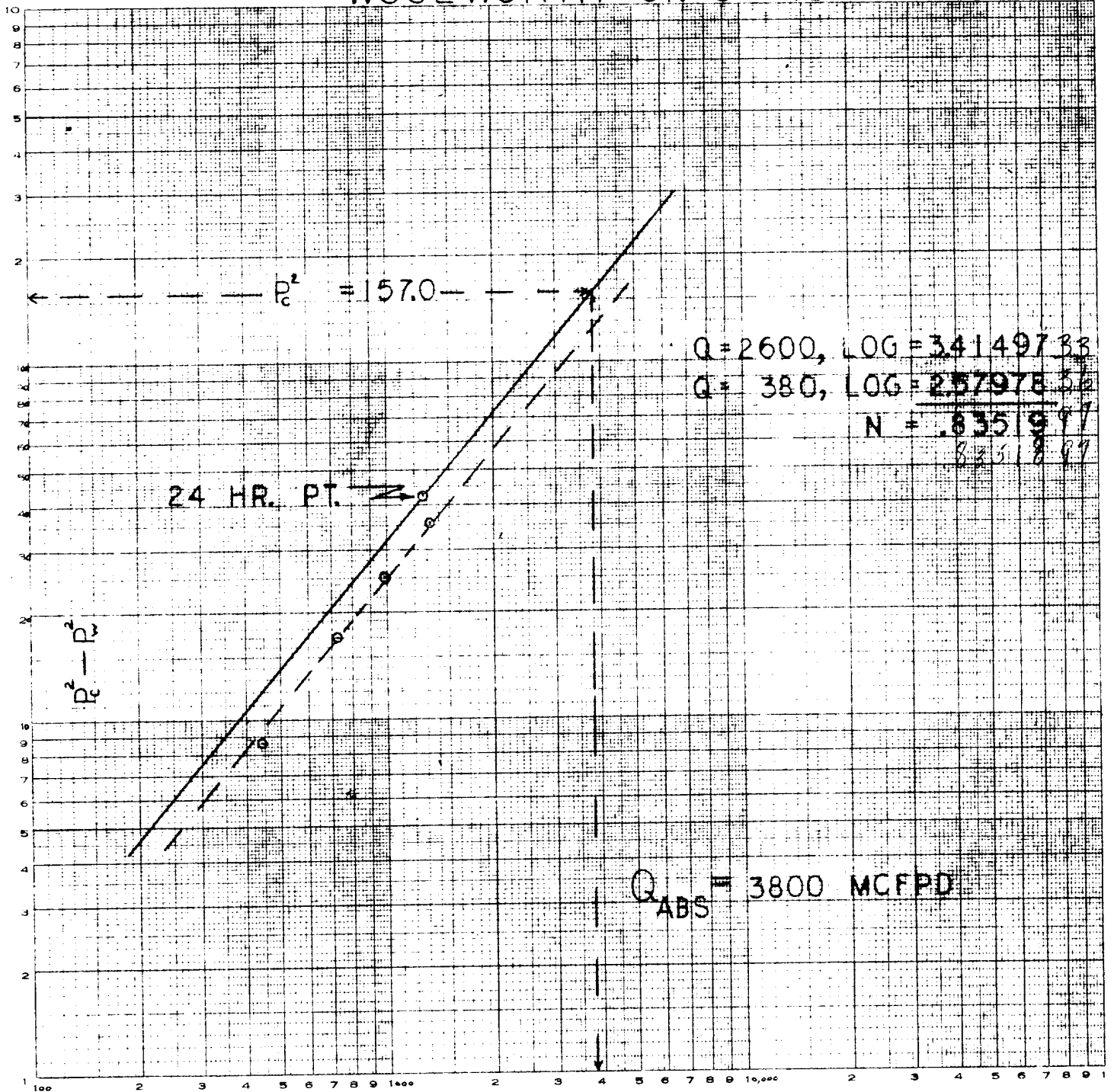
- Q = Actual rate of flow at end of flow period at W. H. working pressure (P_w).
MCF/da. @ 15.025 psia and 60° F.
- P_c = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.
psia
- P_w = Static wellhead working pressure as determined at the end of flow period.
(Casing if flowing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

WOOLWORTH GP. 3 NO. 1

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

NO. 340-LB3 DIETZEN GRAPH PAPER
LOGARITHMIC
3 CYCLES X 3 CYCLES



Q — MCFPD