

MAIN OFFICE CCC

NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE CCC

1957 OCT 30 AM

1957 OCT 30 PM 2:46

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blinebry Formation Blinebry County Lea
 Initial _____ Annual _____ Special x Date of Test 10-7/10-11-1957
 Company Humble Oil & Refining Company Lease New Mexico State S Well No. 14
 Unit C Sec. 2 Twp. 22 Rge. 37 Purchaser El Paso Natural Gas Company
 Casing 5-1/2 Wt. 14.0 I.D. 5.012 Set at 6429 Perf. 5485 To 5620
 Tubing 2-3/8 Wt. 4.7 I.D. _____ Set at 6481 Perf. _____ To _____
 Gas Pay: From 5485 To 5620 L 5485 xG .719 -GL 3944 Bar.Press. 13.2
 Producing Thru: Casing x Tubing _____ Type Well G. O. Dual
 Date of Completion: 4-6-54 Packer 6347 Single-Bradenhead-G. G. or G.O. Dual
 Reservoir Temp. _____

OBSERVED DATA

Tested Through (Dresser) (Globe) (Meter) Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Dresser) (Line) Size	(Globe) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.	4	1.500	521	17.22	50			1693		72
2.	4	1.500	520	37.82	47			1319		24
3.	4	1.500	521	62.41	46			1279		24
4.	4	1.500	547	82.81	50			1191		24
5.								1115		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.	13.99	95.91	534.2	1.0098	0.9393	1.070	1362
2.	13.99	142.00	533.2	1.0127	0.9393	1.073	2029
3.	13.99	182.59	534.2	1.0137	0.9393	1.073	2611
4.	13.99	214.42	555.2	1.0098	0.9393	1.070	3043
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 60.460 cf/bbl.
 Gravity of Liquid Hydrocarbons 72 deg.
 F_c 1.712 (1-e^{-s}) 0.238
 Specific Gravity Separator Gas .680
 Specific Gravity Flowing Fluid .6953
 P_c 1706.2 P_c² 2911.1

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.	1332.2	1774.8	2.33	5.42	1.29	1774.1	1135.0	1332.7	78.1
2.	1292.2	1669.8	3.47	12.04	2.87	1672.7	1238.4	1293.3	75.8
3.	1204.2	1450.0	4.47	19.98	4.76	1454.8	1456.3	1206.7	70.7
4.	1128.2	1272.8	5.21	27.14	6.46	1279.3	1631.8	1131.0	66.3
5.									

Absolute Potential: 5500 MCFPD; n 1.00
 COMPANY Humble Oil & Refining Company
 ADDRESS Box 2347, Hobbs, New Mexico
 AGENT and TITLE R. G. Jordan District Superintendent
 WITNESSED Earl G. Smith
 COMPANY El Paso Natural Gas Company

REMARKS

Resulting slope greater than 1.000; slope of 1.000 was drawn through data point corresponding to highest rate of flow.

Retest
 JRW/mcb

INSTRUCTIONS

This form is to be used for reporting multi-point back wells in the State, except those on which special orders are copies of this form and the back pressure curve shall be filed at Box 871, Santa Fe.

pressure tests on gas applicable. Three with the Commission

The log log paper used for plotting the back pressure least three inch cycles.

ve shall be of at

NOMENCLATURE

Q = Actual rate of flow at end of flow period at W. H. work MCF/da. @ 15.025 psia and 60° F.

pressure (P_w).

P_c = 72 hour wellhead shut-in casing (or tubing) pressure when psia

ever is greater.

P_w = Static wellhead working pressure as determined at the end of flow period. (Casing if flowing thru tubing, tubing if flowing thru

ing.) psia

P_t = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia

g, casing if

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.

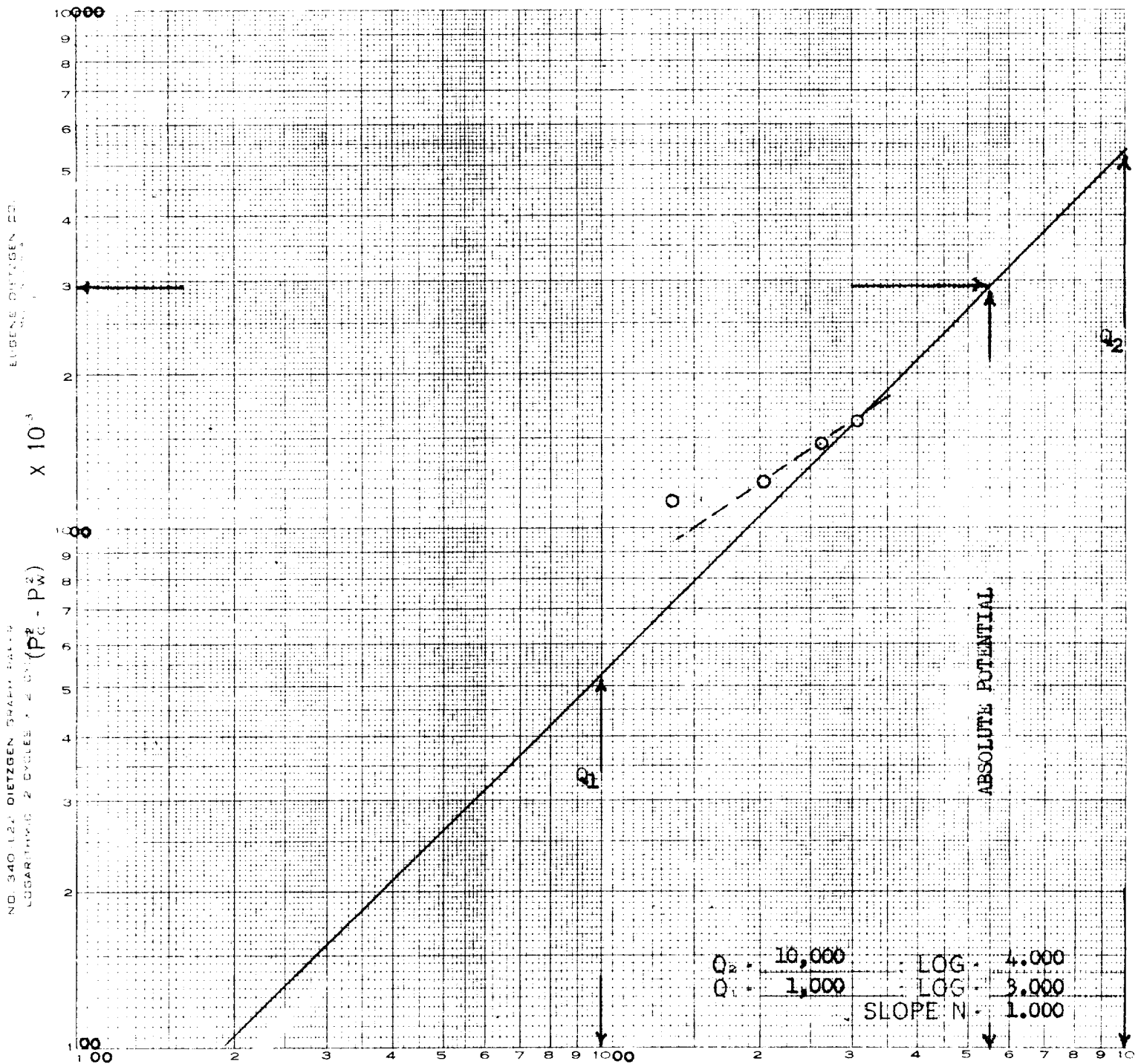
n = Slope of back pressure curve.

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 .

HUMBLE OIL AND REFINING COMPANY

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Well New Mexico State S No. 14
 Location C-2-22S-R37E
 County Lea
 Date 10-21-57



Q - MCFD - 15.025 PSI

*Re-test