

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Tubb Formation Tubb County Lea
Initial X Annual _____ Special _____ Date of Test 9-19-57
Company The Texas Company Lease A. H. Blinberry NCT-1 Well No. 7
Unit G Sec. 19 Twp. 22-S Rge. 38-E Purchaser Permian Basin Pipe Line Co.
Casing 7.0 Wt. 20# I.D. 6.456 Set at 6210 Perf. 6120 To 6200
Tubing 2 1/2" Wt. 6.5# I.D. 2.441 Set at 6200 Perf. 6197 To 6200
Gas Pay: From 6120 To 6200 L (1) 687 (2) 5510 xG .700 -GL (1) 519 (2) 4166 Bar. Press. 13.2
Producing Thru: Casing X Tubing _____ Type Well Gas-Oil Dual
Date of Completion: 3-11-56 Packer 5510 6105 Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

OBSERVED DATA

 $CO_2 = 0.25\%$ $N_2 = 2.49\%$ Tested Through (Proven) (Choke) (Meter)Type Taps Pipe

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										
1.	4	2.00	516.3	6.0	65			1775.6		72
2.	4	2.00	504.9	9.0	69			1330.5		24
3.	4	2.00	501.7	14.5	81			1157.9		24
4.	4	2.00	501.7	14.5	81			802.5		24
5.	4	2.00	511.8	16.5	94			570.3		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.	29.92	56.36	529.5	.9952	.9258	1.066	1,656
2.	29.92	68.29	518.1	.9915	.9258	1.062	1,992
3.	29.92	86.41	514.9	.9804	.9258	1.055	2,476
4.	29.92	93.08	525.0	.9688	.9258	1.054	2,633
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio (Avg.) 43.161 cf/bbl.
Gravity of Liquid Hydrocarbons 67.6 deg.
 F_c (1) 5.866 (2) .823 ($1-e^{-s}$) (1) .003 (2) .249

Specific Gravity Separator Gas .700
Specific Gravity Flowing Fluid .756
 P_c 1788.8 P_c^2 3199.8

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	$\frac{P_w}{P_c}$
1.	1343.7	1805.5	11.07	122.5	30.87	1836.4	1363.4	1350.2	.75
2.	1171.1	1371.5	13.32	177.4	44.70	1416.2	1783.6	1190.0	.66
3.	815.7	665.4	16.56	274.2	69.10	734.5	2465.3	857.0	.48
4.	583.5	340.3	17.62	310.5	78.24	418.7	2771.1	647.1	.36
5.									

Absolute Potential: 2,940 MCFPD; n .67

COMPANY THE TEXAS COMPANY
ADDRESS BOX 1270, MIDLAND, TEXAS
AGENT and TITLE L. I. BAKER, DISTRICT GAS MAN
WITNESSED H. L. WEST and J. D. HORTON
COMPANY PERMIAN BASIN PIPE LINE COMPANY

REMARKS

Well is producing through tubing for 687 ft., then through cross-over tool into the tubing-casing annulus.

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.

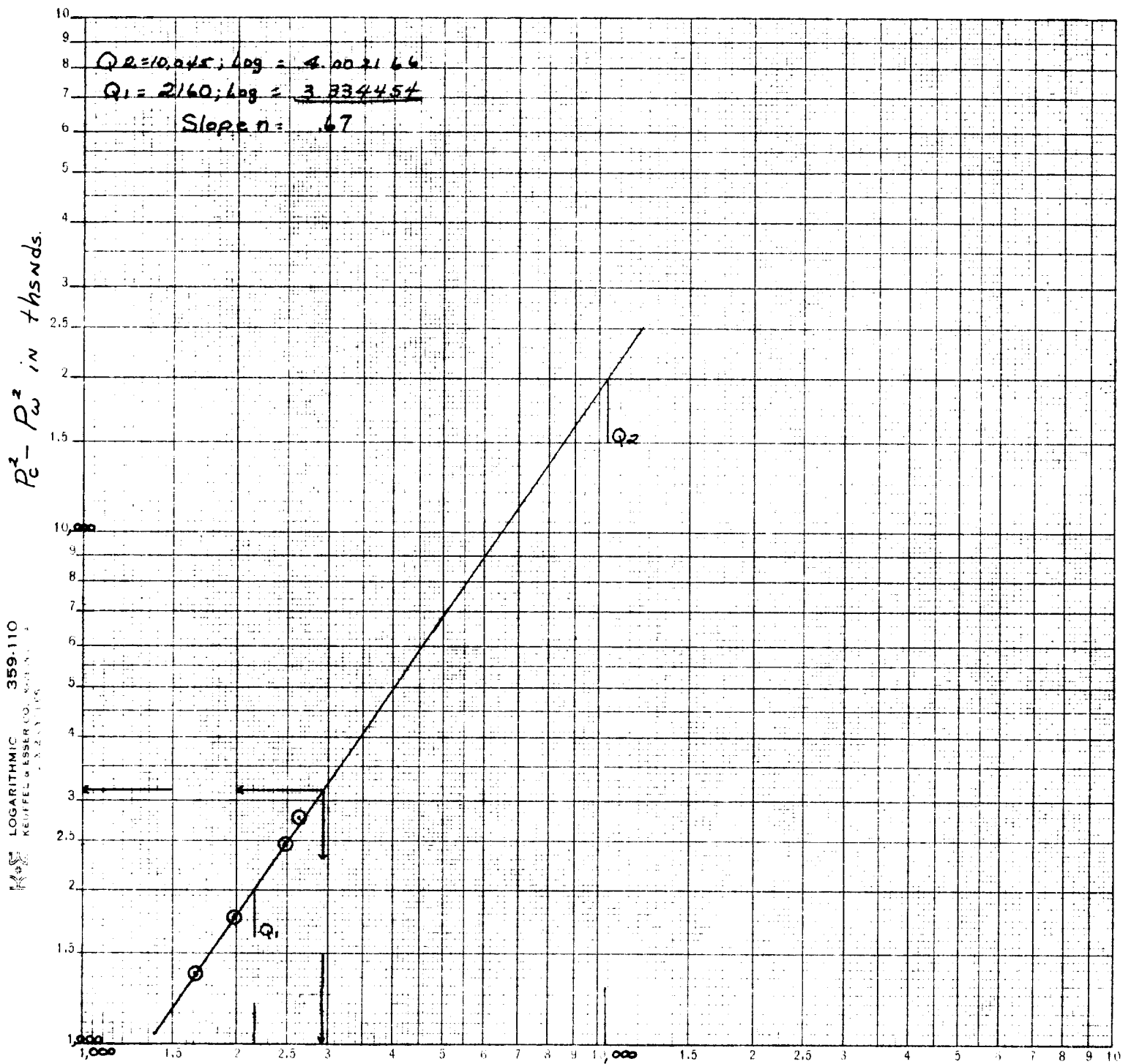
Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t .

* * * * *

The Texas Co

A. H. Blinbry Nct. 1

Well # 7 (Tubb)



$Q = \text{MCF/Day}$

$Q = 2,940$