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NE EXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Rumont Gas Pool Formation 1982 NOV 1955 PH 1 1 2 5 County Lea
Initial X Annual _____ Special _____ Date of Test 11-20-62
Company Tidewater Oil Company Lease R. M. Marshall Well No. 1
Unit 6 Sec. 13 Twp. 21S Rge. 34E Purchaser El Paso Natural Gas Co.
Casing 5-1/2 Wt. 17 I.D. _____ Set at 3677 Perf. 3568 To 3644
Tubing 2-3/8 Wt. 4.7 I.D. _____ Set at 3524 Perf. _____ To _____
Gas Pay: From 3568 To 3644 L 3521 xG Mix. -.726 -GL 2556 Bar. Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single
Re- Single-Bradenhead-G. C. or G.O. Dual
Date of Completion: 11-9-62 Packer None Reservoir Temp. 93° Estimated

OBSERVED DATA

Tested Through (Prover) (~~Orifice~~) (~~Valve~~) Type Taps _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) Size	(Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						649				72
1.	2	0.625	20		44	635		Bad		3
2.	2	0.625	36		44	531		Needle		3
3.	2	0.875	40		41	431		Valve		3
4.	2	1.000	39		40	340				3
5.	2	0.625	16		36	622				24

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.	8.3553		33.2	1.0157	0.9219		259.7
2.	8.3553		49.2	1.0157	0.9219		341.4
3.	16.7816		53.2	1.0158	0.9219		838.6
4.	22.0663		32.2	1.0198	0.9219		1063
5.	8.3553		29.2	1.0039	0.9219		225.8

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 145.2 cf/bbl.
Gravity of Liquid Hydrocarbons 37.8° @ 60 deg.
F_c 9.936 (1-e^{-S}) 0.161
Specific Gravity Separator Gas 0.706*
Specific Gravity Flowing Fluid 0.8358
P_c 668.2 P_c 438.5
*Assumed

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.	648.2	420.2	2.38	6.66	1.07	421.3	17.2	649.1	980
2.	564.2	318.3	3.38	28.94	4.46	323.0	115.3	563.3	858
3.	444.2	197.3	8.33	69.39	11.2	208.5	236.0	456.6	689
4.	353.2	124.7	10.8	116.6	18.8	143.5	295.0	325.5	572
5.	635.2	403.5	2.24	5.02	.80	404.3	34.2	635.8	960

Absolute Potential: 1350 MCFPD; n 0.727
COMPANY El Paso Natural Gas Company
ADDRESS Jal, New Mexico
AGENT and TITLE J. Little Field
WITNESSED Troy Gladden
COMPANY Tidewater Oil Company

REMARKS

C. L. Wade

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.

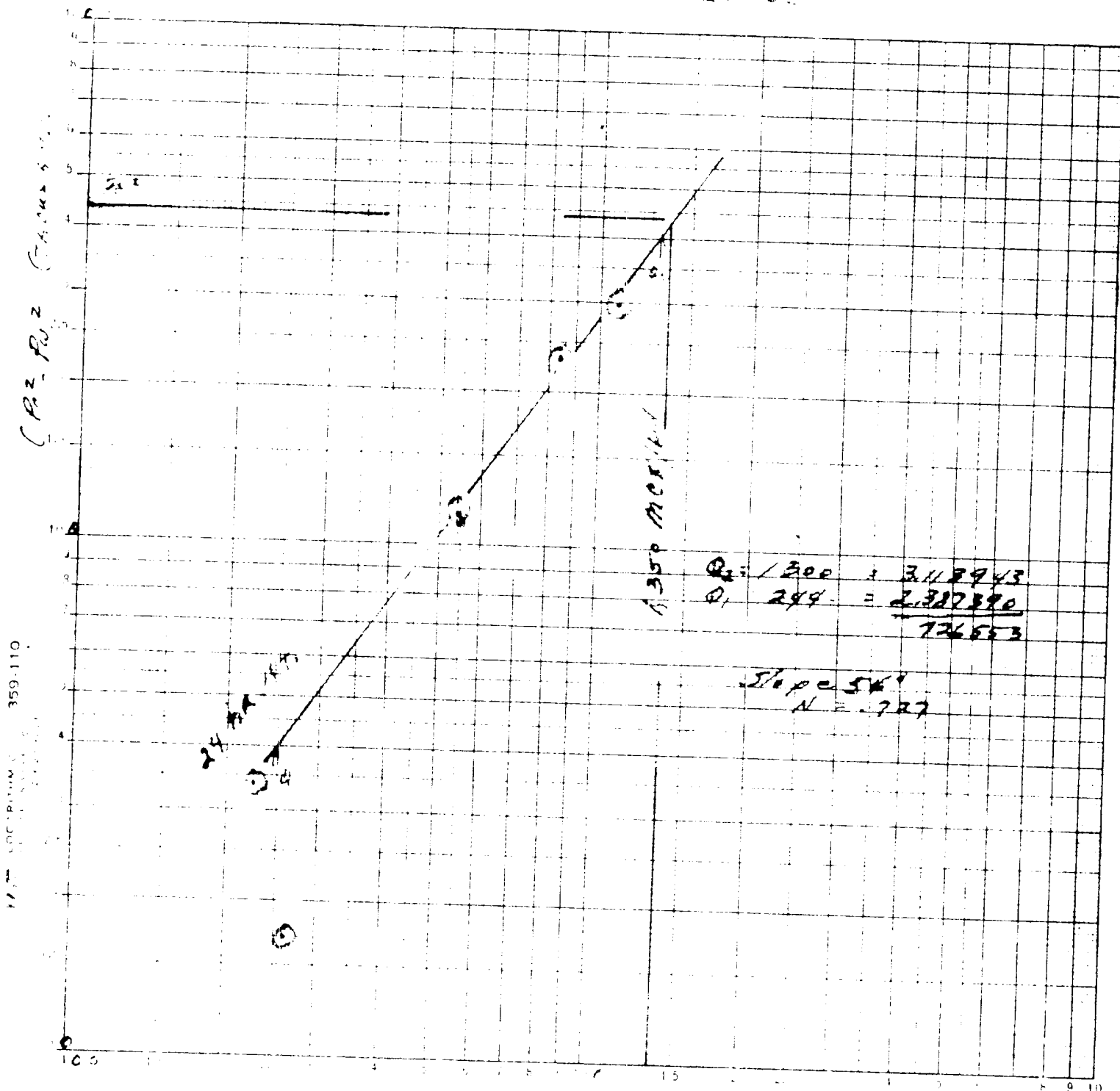
F_t = Flowing temperature correction factor.

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 .

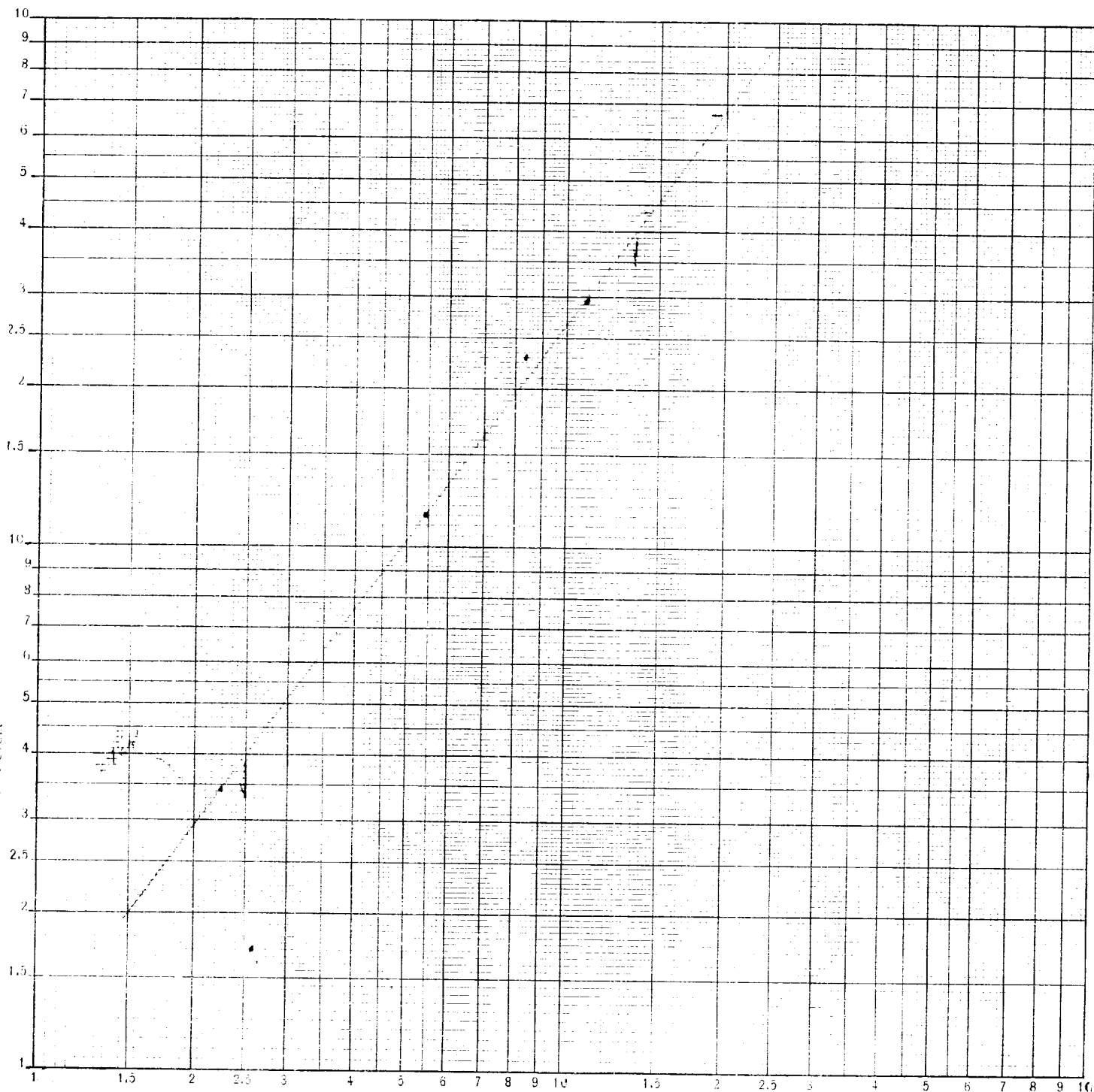
TIDEWATER OIL COMPANY
 R. M. MARSHALL #1
 UNIT 6 Sec. 18 Twp. 21 Rge 36
 WPA CO DATE 11-20-62



$$\begin{aligned} Q_2 &= 1.300 = 3.118943 \\ Q_1 &= 244 = 2.327390 \\ \hline &= 72653 \end{aligned}$$

$Q = N$ MCF/DAY

WPA LOC. RTHM 359-110



10
 100
 1000

100 1040