

NEW MEXICO OIL CONSERVATION COMMISSION

MULTI-POINT BACK PRESSURE TEST FOR GAS

Pool Blinberry Gas Formation Blinberry Loc. New Mexico
 Initial Annual Special X Date of Test 8-3/8-9 1957
 Company Shell Oil Company Lease Turner Well No. 13
 Unit N Sec. 22 Twp. -21-S Rge. -37-E Purchaser El Paso Natural Gas Company
 Casing 5 1/2" Wt. 15.54 I.D. - Set at 6550' Perf. - To -
 Tubing 2" Wt. 4.74 I.D. - Set at 6624' Perf. - To -
 Gas Pay: From 5510' To 3621' I. 5510' Wing 744 4099' 13.8
 Producing Thru: Casing X Tubing - Type Well G. O. Dual
 Date of Completion: 10-3-52 Packer 6400' 101 deg. F.

OBSERVED DATA

Tested Through (Pressure) (Shut-in) (Meter) Flange

No.	Flow Data			Tubing Data		Casing Data		Duration of Flow
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	
SI								
1.	4	1.500	528	10.34	68			1725/1732/1730 24/48/72
2.	4	1.500	544	28.62	60			1372 24
3.	4	1.500	549	37.21	60			1279 24
4.	4	1.500	562	51.12	63			1202 24
5.								1088 24

FLOW CALCULATIONS

No.	Coefficient (Flg.) (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor P_t	Gravity Factor P_g	Compress. Factor $P_{c,v}$	Rate of Flow Oil Q-MCFPD Prod. @ 15.025 psia
1.	13.99	73.43		.9924	.9225	1.066	1.016 11.00
2.	13.99	126.27		1.0000	.9225	1.068	1.741 29.19
3.	13.99	144.61		1.0000	.9225	1.068	1.993 32.08
4.	13.99	171.45		.9971	.9225	1.073	2.368 41.09
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 62.791 cf/bbl.
 Gravity of Liquid Hydrocarbons 68 deg.
 Fc 1.758 (1-e^{-S}) 0.246
 Specific Gravity Separator Gas 0.705
 Specific Gravity Flowing Fluid 0.744
 P₀ 1745.2 P₁ 3045.7

No.	P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ³ (1-e ^{-S})	P _w ²	P _t ² -P _w ²	Q ₁ (1-e ^{-S})	P _w (1-e ^{-S})
1.	1745.2	1918.6	1.79	3.20	0.79	1919.6	1126.1	1385.4	79.4
2.	1202.2	1669.8	3.08	9.36	2.30	1672.1	1373.6	1294.1	74.2
3.	1215.2	1476.7	3.50	12.25	3.01	1479.7	1566.0	1217.0	69.7
4.	1101.2	1212.6	4.16	17.30	4.26	1216.9	1828.8	1102.9	63.2
5.									

Absolute Potential: 4,000 MCFPD; 1,000

COMPANY Shell Oil Company
 ADDRESS Box 1957, Hobbs, New Mexico
 AGENT and TITLE P. A. Dennie, Division Exploitation Engineer Original Signed by P. A. Dennie
 WITNESSED Smith & Blumer
 COMPANY 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.

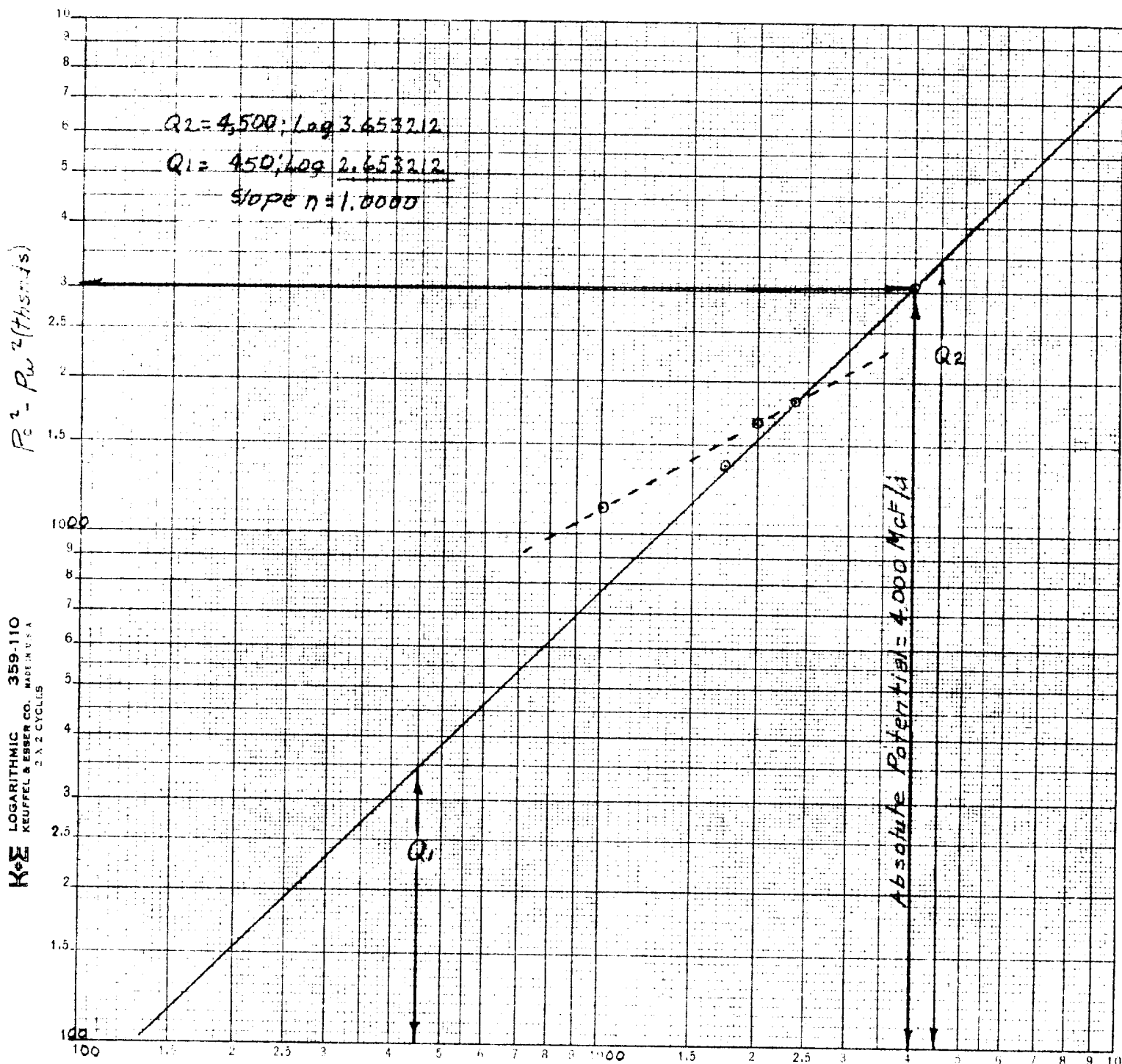
F_t = Flowing temperature correction factor.

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 .

Shell Oil Co.
 Turner No 13 Blinbry
 N-22-21-37 Lea Co, N. Mex.
 8-9-57



Q - McFD - 15.025 PSIA @ 60°F