NEW MEXICO OIL CONSERVATION COMMISSION

ELVIS A. UTZ
GAS ENGINEER

Form C-122
Revised 12-1-55

HOBBS OFFICE OCC
1956 OCT 10 PM 3:06

MAIN OFFICE OCC
1956 SEP 4 AM 8:29

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool [illegible] Formation Queen County Lea

Initial X Annual ___ Special ___ Date of Test 8-10-56

Company Gulf Oil Corporation Lease [illegible], Fred Well No. 2

Unit D Sec. 29 Twp. 19S Rge. 37E Purchaser Permian Basin PL Co.

Casing 5.5 Wt. 17.0 I.D. 4.892 Set at 3764 Perf. 3432 To 3586

Tubing 2.375 Wt. 4.7 I.D. 1.995 Set at 3099 Perf. ___ To ___

Gas Pay: From 3432 To 3586 L 3432 xG .680 -GL 2334 Bar.Press. 13.2

Producing Thru: Casing X Tubing ___ Type Well GO Dual
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 3-28-56 Packer 3760 Reservoir Temp. ___

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps Pipe

No.	Flow Data: (Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Tubing Data: Press. psig	Temp. °F.	Casing Data: Press. psig	Temp. °F.	Duration of Flow Hr.
SI								[illegible]		72
1.	4	2.75	[illegible]	[illegible]	[illegible]			[illegible]		[illegible]
2.	4	2.75	[illegible]	[illegible]	[illegible]			[illegible]		[illegible]
3.	4	2.75	[illegible]	[illegible]	[illegible]			[illegible]		[illegible]
4.	4	2.75	[illegible]	[illegible]	[illegible]			[illegible]		[illegible]
5.										

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.	73.11	[illegible]	[illegible]	.9795	[illegible]	[illegible]	[illegible]
2.	73.11	[illegible]	[illegible]	1.0029	[illegible]	[illegible]	[illegible]
3.	73.11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4.	73.11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5.							

CO2 [illegible]
N2 [illegible]

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ___ cf/bbl.
Gravity of Liquid Hydrocarbons ___ deg.
F_c [illegible] $(1-e^{-s})$ [illegible]

Specific Gravity Separator Gas ___
Specific Gravity Flowing Fluid ___
P_c [illegible] P_c^2 [illegible]

No.	P_w P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$\frac{(F_cQ)^2}{(1-e^{-s})}$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5.									

Absolute Potential: [illegible] MCFPD; n .70

COMPANY Gulf Oil Corporation

ADDRESS Box 2167, Hobbs, N.M.

AGENT and TITLE [signature]

WITNESSED ___

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.

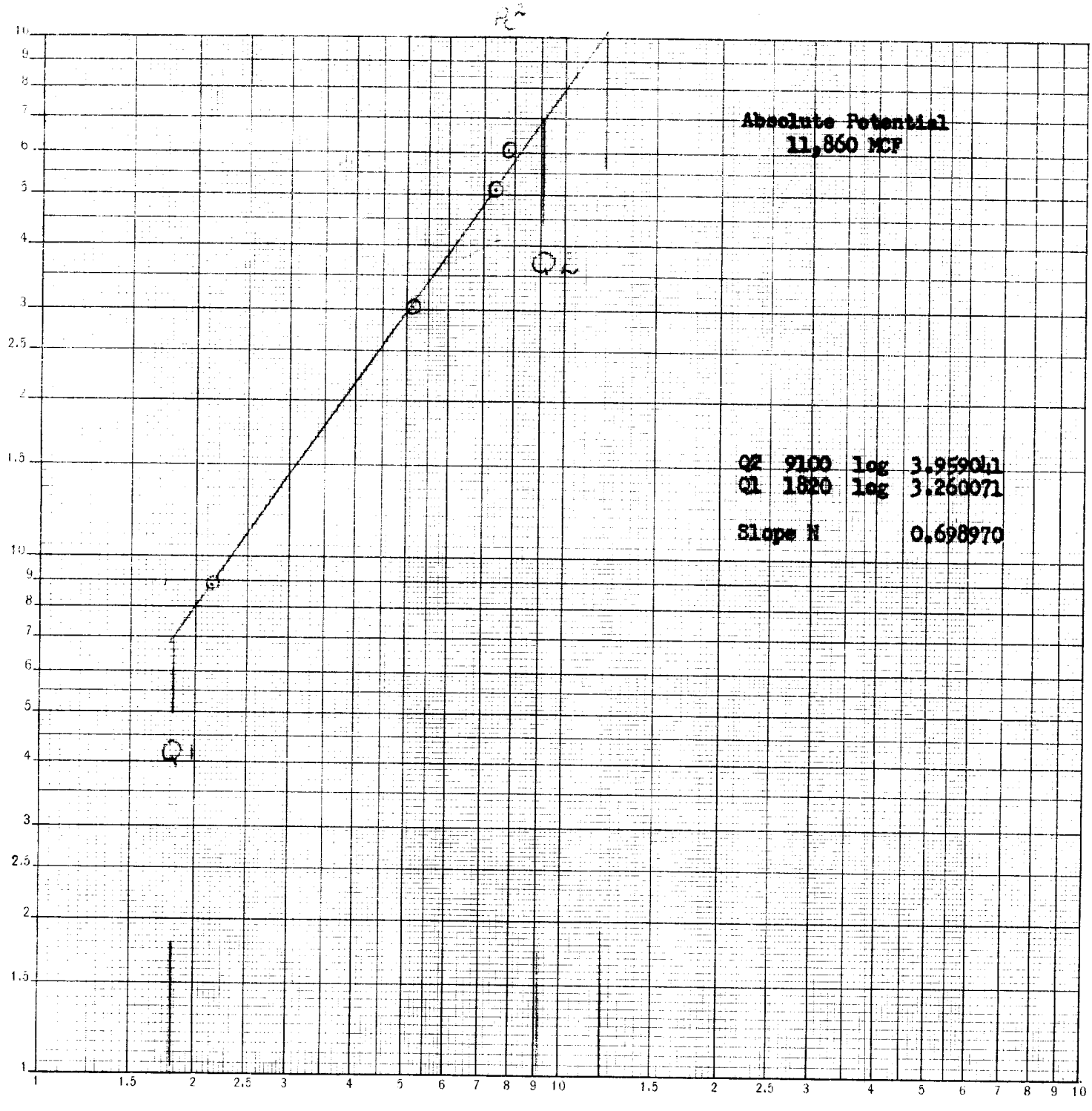
F_t = Flowing temperature correction factor.

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.

Gulf Oil Corporation
Luthy, Fred No. 2
D-29-19S-37E, Lea Co.
8-10-56
Fumont Pool



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