

Correction report

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Hlinebery Formation Hlinebery County Lea Co. New Mex.
 Initial X Annual _____ Special _____ Date of Test Aug. 19-23, 1958
 Company Sinclair Oil & Gas Co. Lease A.M. York Well No. 1
 Unit H Sec. 20 Twp. 21S Rge. 37E Purchaser None
 Casing 5" Wt. 15# I.D. 4.408 Set at 6,651 Perf. 5,590 To 5,803
 Tubing 2" Wt. 4.7# I.D. 1.995 Set at Garrett Sleeve Perf. _____ To 6,564
 Gas Pay: From 5,590 To 5,803 L 5,590 xG .679 -GL 3,796 Bar. Press. 13.2
 Producing Thru: Casing X Tubing _____ Type Well G.O. Dual
 Date of Completion: 8-19-58 Packer _____ Single-Bradenhead-G. G. or G.O. Dual
 Reservoir Temp. 78 Deg.

OBSERVED DATA

Tested Through (XXXXXX) (XXXX) (Meter) Type Taps Flg.

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								1648		72
1.	4	1.250	475	6	46			1532	72	3
2.	4	1.250	490	42	40			1362	71	3
3.	4	1.250	495	65	45			1357	70	3
4.	4	2.000	500	13	41			1294	70	3
5.	4	2.000	510	17	45			1227	71	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.	9.643	54.12	488.2	1.0137	0.9393	1.062	528
2.	9.643	145.37	505.2	1.0198	0.9393	1.064	1429
3.	9.643	181.75	508.2	1.0147	0.9393	1.064	1777
4.	25.58	81.68	513.2	1.0188	0.9393	1.068	2195
5.	25.58	94.31	523.2	1.0147	0.9393	1.068	2456

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 121,500 cf/bbl.
 Gravity of Liquid Hydrocarbons 49° deg.
 F_c 2.834 (1-e^{-s}) .230
 Specific Gravity Separator Gas .679
 Specific Gravity Flowing Fluid .702
 P_c 1661.2 P_c² 2759.6

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.	1545.2	2,388	1.496	2.24	.52	2388.1	371.5	1545.3	93.0
2.	1375.2	1,891	4.050	16.40	3.77	1894.9	864.7	1376.6	82.9
3.	1370.2	1,877	5.036	25.36	5.83	1883.3	876.3	1372.3	82.6
4.	1307.2	1,709	6.051	36.61	8.42	1717.2	1042.4	1310.4	78.9
5.	1240.2	1,538	6.960	48.44	11.14	1549.2	1210.4	1244.7	74.9

Absolute Potential: 5,599 MCFPD; n 1.000
 COMPANY Sinclair Oil & Gas Co.
 ADDRESS Box 2431 Hobbs N.M. Main Off. Box 1470 Midland Texas
 AGENT and TITLE Rayford Gas Analyst
 WITNESSED _____
 COMPANY _____

REMARKS

This is a correction report
 es; Orig. & 2 N.M. Conservation Commission
 2-Div. Prod Off.
 2-Div. Gas Products Dept.
 1- File 1-District Prod. Off.

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} = Supercompressibility factor.

n = Slope of back pressure curve.

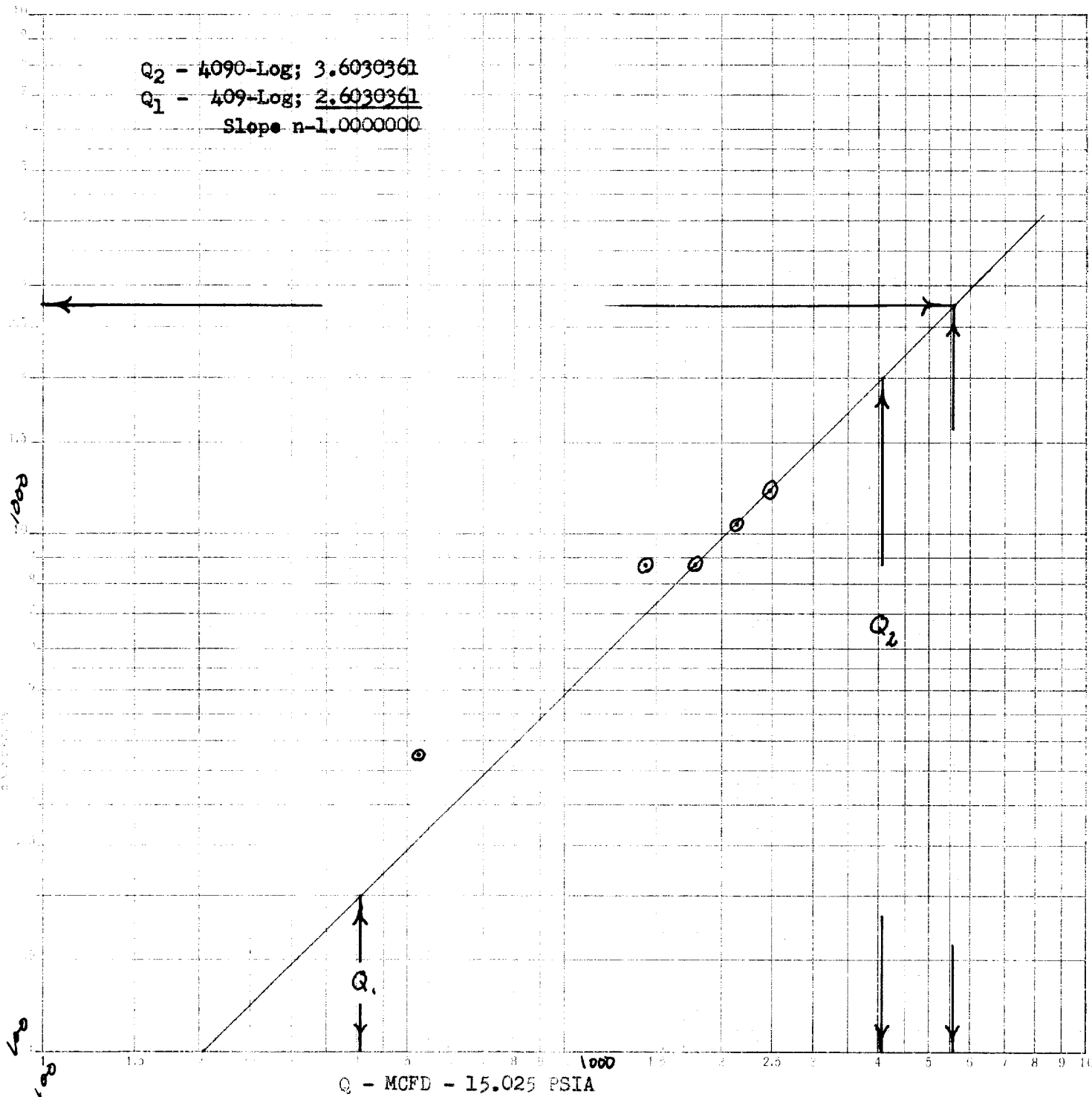
Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t .

Sinclair Oil & Gas Co.
 A.M. York #1
 Unit H Sec. 20-21S-37E
 Lea Co. New Mexico

$Q_2 = 4090\text{-Log}; 3.6030361$
 $Q_1 = 409\text{-Log}; 2.6030361$
 Slope $n=1.0000000$

$P_e \approx P_w \approx \text{thru}$

LOG LOGARITHMIC 359-110
 1000
 100
 10
 1



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