

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalmat Formation Yates County Lea
Initial _____ Annual X Special _____ Date of Test 12-7-56
Company Stanolind Oil and Gas Company Lease L. Woolworth Well No. 4
Unit E Sec. 28 Twp. 24-S Rge. 37-E Purchaser Permian Basin Pipeline Company
Casing 7" Wt. 20.0# I.D. 6.456" Set at 3263' Perf. 2990' To 3145'
Tubing 2-3/8" Wt. 4.7# I.D. 1.995" Set at 3190' Perf. _____ To _____
Gas Pay: From 2990 To 3145 L 2990 xG 0.665 -GL 1938' Bar.Press. _____
Producing Thru: Casing X Tubing _____ Type Well Gas-Oil Dual
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 1-24-44 Packer _____ Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (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								661.0		73 Hr. SI
1.	4	1.00	508.1	5.0	117			615.0		23
2.	4	1.00	508.5	12.9	85			578.7		24
3.	4	1.00	508.0	23.8	72			548.2		24-1/4
4.	4	1.00	484.5	50.0	75			503.0		24
5.										

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.	6.375	51.06		0.9493	0.9498	1.032	303
2.	6.375	82.04		0.9768	0.9498	1.042	506
3.	6.375	111.4		0.9887	0.9498	1.045	697
4.	6.375	157.8		0.9859	0.9498	1.042	982
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 0.707 (1-e^{-s}) 0.128
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 674.2 P_c 454.5

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.	628.2	394.6	0.2142	0.0459	0.0059	394.6	59.9	628.2	.93
2.	591.9	350.3	0.3577	0.1279	0.0164	350.3	104.2	591.9	.88
3.	561.4	315.2	0.4928	0.2429	0.0311	315.2	139.3	561.4	.83
4.	516.2	266.5	0.6943	0.4821	0.0617	266.6	187.9	516.3	.77
5.									

Absolute Potential: 2,375 MCFPD; n 1.0 (limited)COMPANY Stanolind Oil and Gas CompanyADDRESS Box 68 - Hobbs, New Mexico

AGENT and TITLE _____

WITNESSED _____

COMPANY _____

REMARKS

Good point alignment on three data points but resulting slope in excess of 1.0. Due to this being a retest, a slope of 1.0 was drawn through the high rate of flow data point to be submitted to the commission.

JAMES A. UTZ
REG. ENGINEER

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 .

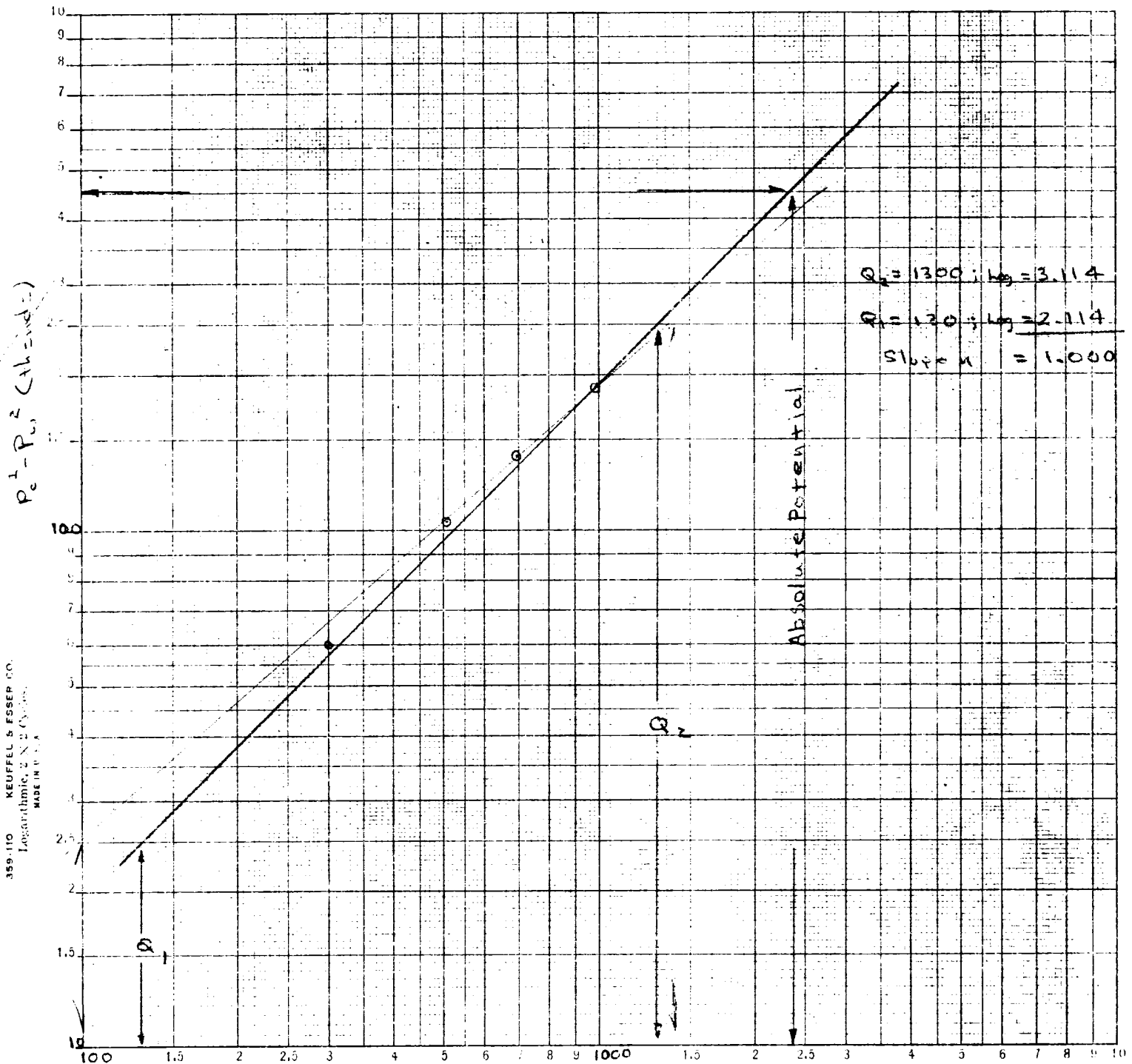
COMPANY Stanolind Oil and Gas Co.

WELL L. Woolworth No. 4

LOCATION Sec. 28, T-24-S, R-37-E

COUNTY Lea

DATE 12-7-56



Q - mcfpd - 15.025 Pe/a