

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Tubb Gas Formation Tubb County Lea
Initial X Annual _____ Special _____ Date of Test 6-6-65
Company Shell Oil Company Lease Rinewalt Well No. 4
Unit C Sec. 4 Twp. 22-S Rge. 37-E Purchaser _____
Casing 5 1/2 Wt. 15.5 I.D. 4.976 Set at 7750 Perf. 6008 To 6221
Tubing 2" Wt. 4.7 I.D. 1.995 Set at 6700 Perf. 6759 To 7084
Gas Pay: From 6008 To 6221 L 6008 xG Mix.704 -GL 4230 Bar.Press. 13.2
Producing Thru: Casing X Tubing _____ Type Well G.O. Dual
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 6-6-65 Packer 6700 Reservoir Temp. _____

OBSERVED DATA

Tested Through (Proven) (Choke) (Meter) Type Taps Flange

No.	Flow Data				Tubing Data		Casing Data		Duration of Flow Hr.
	(Proven) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.
SI						Packer	1363		40
1.	4	1.750	11.0	20.0	48		1234		1
2.	4	1.750	18.0	28.0	43		1085		1
3.	4	1.750	20.0	46.0	48		932		1
4.	4	1.750	21.0	74.0	52		712		1
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.	19.27	22.00	24.2	1.0117	.9359		401.4
2.	19.27	29.56	31.2	1.0168	.9359		542.1
3.	19.27	39.08	33.2	1.0117	.9359		713.1
4.	19.27	50.30	34.2	1.0078	.9359		914.3
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 156,250 cf/bbl.
Gravity of Liquid Hydrocarbons 38.7 API deg.
F_c 1.758 (1-e^{-s}) .253

Specific Gravity Separator Gas .685
Specific Gravity Flowing Fluid .8314
P_c 1376.2 P_c² 1893.9

No.	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.	1247.2	1555.5	.706	.498	.126	1555.6	338.3	1247.3	90.6
2.	1098.2	1206.0	.953	.908	.230	1206.2	687.7	1098.3	79.8
3.	945.2	893.4	1.254	1.572	.398	893.8	1090.1	945.4	68.7
4.	725.2	525.9	1.607	2.582	.653	526.5	1367.4	725.6	52.7
5.									

Absolute Potential: 1,170 MCFPD; n .775COMPANY Shell Oil CompanyADDRESS P. O. Box 1858, Roswell, New MexicoAGENT and TITLE A. L. Ellard - Gas Tester

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.

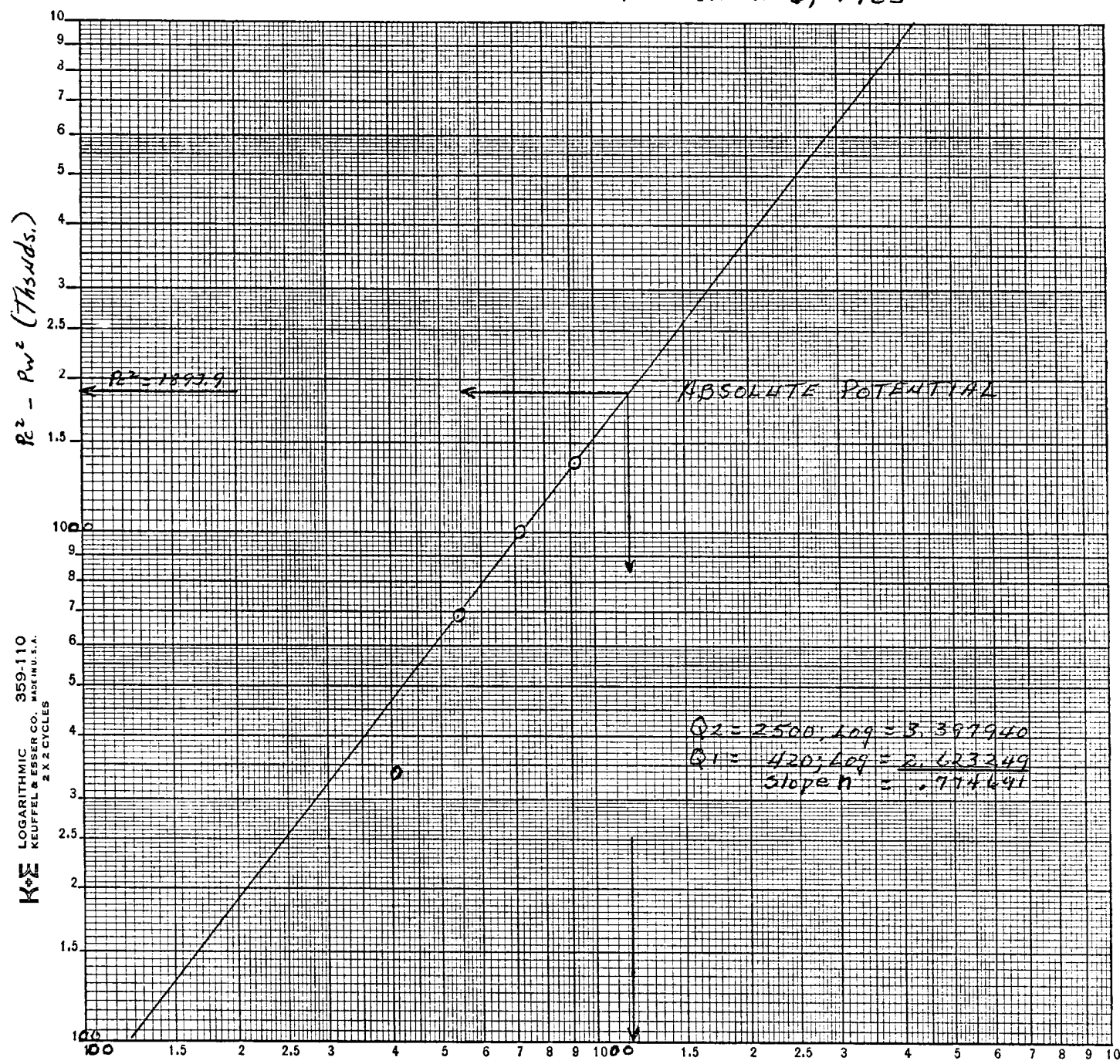
The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

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 .

Operator SHELL OIL COMPANY
 Lease RINEWALT well No. 4
 Volume 1,170 MCF/24 hr.
 Date JUNE 6, 1965



Q - MCFD - 15.025 psia