

MULTIPOINT AT ONE POINT BACK PRESSURE TEST FOR GAS WELL

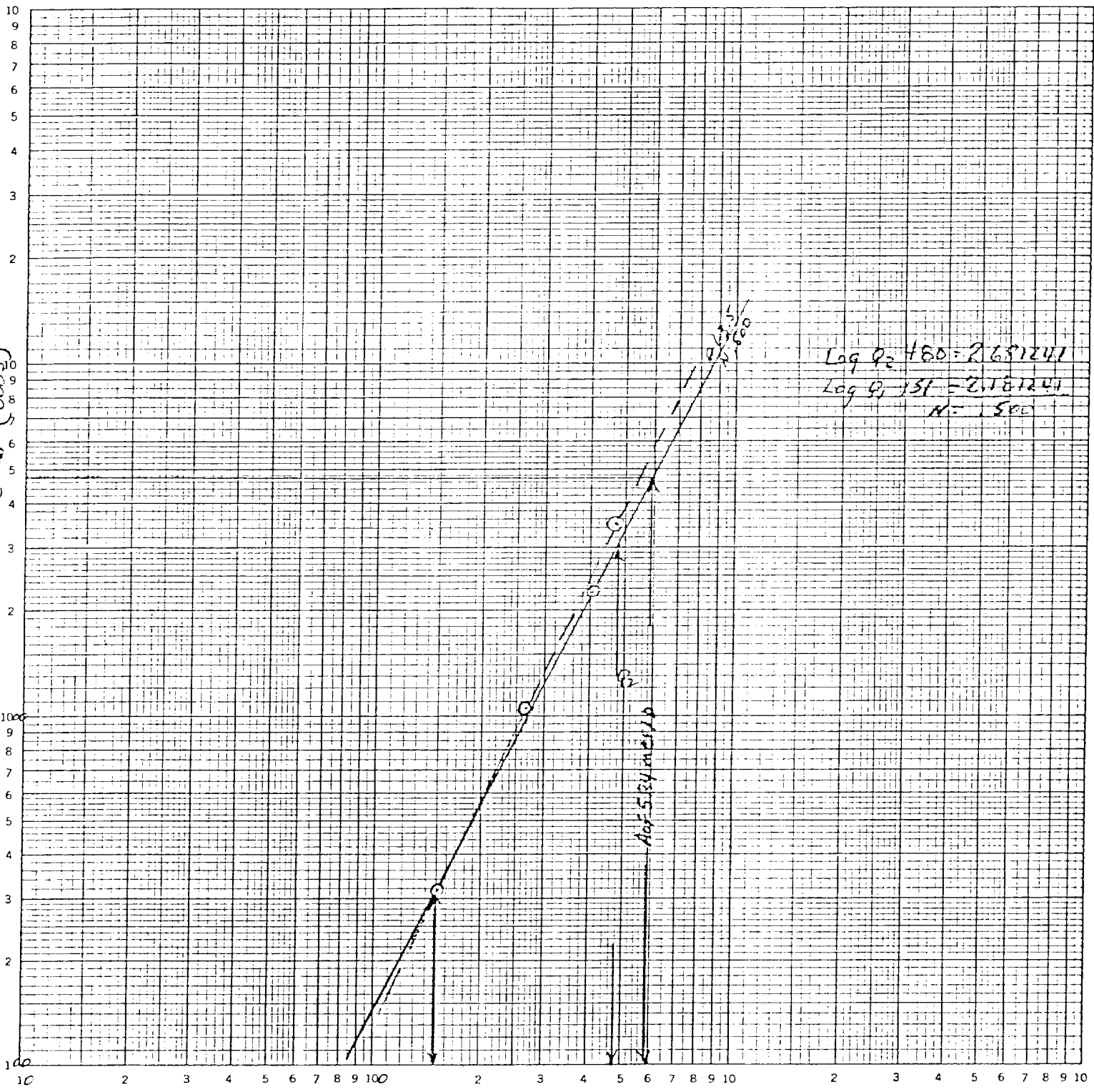
Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special		Test Date 5-29-80		SPUD DATE: 1-20-80											
Company Pogo Producing Company			Connection None		RECEIVED										
Pool Wildcat			Formation Morrow												
Completion Date 5-29-80		Total Depth 12339		Plug Back TD 12150											
				Elevation 3319 GL											
Casing Size 5 1/2		WL. 17#		Set At 12339											
Perforations: From 11712 To 12103				Well No. ARTESIA, CENCE 1											
Req. Size 2 3/8		WL. 4.7		Set At 11513											
Perforations: From open To ended				Unit Sec. Twp. Rng. M 2 21 28											
Type Well - Single - (Wardenhead - G.C. or G.O. Multiple) Single				Packer Set At 11513											
				County Eddy											
Producing thru Tbg.		Reservoir Temp. °F 191 @ 11712 (Est.)		Mean Annual Temp. °F 60											
				Basic Press. - P ₀ 13.2											
				State New Mexico											
I 11513		H 11513		G _g .645											
		S _{CO2}		S _{N2}											
				S _{H2S}											
				Provat											
				Meter Run 4"											
				Taps Flange											
FLOW DATA															
TUBING DATA															
CASING DATA															
Duration of Flow															
NO.	Flow Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow				
SI							2150		Pkr.		48 hrs.				
1.	4	x	.750	330	6.00	81	2084		Pkr.		45 Min.				
2.	4	x	.750	439	14.00	86	1900		Pkr.		45 Min.				
3.	4	x	.750	515	27.00	86	1555		Pkr.		1 hr.				
4.	4	x	.750	445	42.00	87	1095		Pkr.		1 hr.				
5.															
RATE OF FLOW CALCULATIONS															
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor FL	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd								
1	2.661	45.38	343.2	.9804	1.245	1.081	152								
2	2.661	79.57	452.2	.9754	1.245	1.036	267								
3	2.661	119.42	528.2	.9759	1.245	1.042	402								
4	2.661	138.72	458.2	.9750	1.245	1.036	464								
5															
Gas Liquid Hydrocarbon Ratio <u>Dry Gas</u> Mcf/bbl.															
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.															
1	.51	541	1.45	.941	Specific Gravity Separator Gas <u>.645</u>	XXXXXXXXXXXX									
2	.67	546	1.47	.932	Specific Gravity Flowing Fluid _____	XXXXXXXXXX									
3	.79	546	1.47	.921	Critical Pressure <u>670</u> P.S.I.A.	P.S.I.A.									
4	.68	547	1.47	.932	Critical Temperature <u>372</u> R	R									
5															
P_c 2172.2 P_c^2 4718.5 (1) $\frac{P_c^2}{P_c^2 - P_w^2} = 14.768$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.843$															
NO.	P _w	P _w ²	P _c ² - P _w ²												
1	2097.4	4399.0	319.5												
2	1913.8	3662.8	1055.7												
3	1570.0	2464.9	2253.6												
4	111.8	1236.0	3482.5												
5															
Absolute Open Flow <u>584</u> Mcfd @ 15.025 Angle of Slope @ <u>63.5</u> Slope, n <u>.500</u>															
Remarks:															
Approved By Division				Conducted By: Randy Kiker				Calculated By: Randy Kiker				Checked By:			

State No. 1
2-21-28
Eddy County, New Mexico
May 30, 1980

46 7400

K&E LOGARITHMIC 3 X 3 CYCLES
KEUFFEL & ESSER CO. MADE IN U.S.A.

$P_e - P_w$ (000's)



Q MCF/D

