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appropriate district office
See Rule 401 & Rule 1122

State of New Mexico
Energy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-122
Revised 4-1-91

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Santa Fe Energy Resources, Inc.						Lease or Unit Name Sanagua 18 Federal Com							
Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special						Test Date 5/5/95			Well No. 2				
Completion Data N/A			Total Depth 13,925'			Plug Back TD 13,580'			Elevation 3644.5'				
Csg. Size 5-1/2"		Wt. 20#	d 4.778"	Set At N/A		Perforations: From: 13,307' To: 13,460'							
Tbg. Size 2-3/8"		Wt. 4.6#	d 1.995"	Set At 13,001'		Perforations: From: To:							
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 13,001'			Formation Morrow				
Producing Thru		Reservoir Temp. F @		Mean Annual Temp. F 60		Baro. Press - Pa 13.2			Connection Vented				
L 13,001'	H 13,001'	Cg 0.646		%CO2 0.50	%N2 0.60	%H2S -	Prover		Meter Run 3.068"	Taps Flanged			
FLOW DATA						TUBING DATA			CASING DATA				
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. Inw	Temp. F	Press. p.s.i.g.	Temp. F	Press. p.s.i.g.	Temp. F	Duration of Flow		
SI													
1.	3		0.75	202	8	68	1260		138		24 hr		
2.	3		0.75	202	9	83	1035		138		1 hr		
3.	3		0.75	202	6	83	740		138		1 hr		
4.	3		0.75	25	9	76	440		138		1 hr		
5.							55		138		1 hr		
RATE OF FLOW CALCULATIONS													
NO.	COEFFICIENT (24 HOURS)		V_{hwPm}	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg.	Super Compress. Factor, Fpv		Rate of Flow Q, Mcfd				
1.	3.449		41.49	215.2	0.9786	1.244	1.0145		176.73				
2.	3.449		44.00	215.2	0.9786	1.244	1.0145		187.42				
3.	3.449		35.93	215.2	0.9786	1.244	1.0145		153.05				
4.	3.449		30.90	38.2	0.9850	1.244	1.0021		130.86				
5.													
NO.	Pr	Temp. R	Tr	Z	Gas Liquid Hydrocarbon Ratio			9.6		Mcf/bbl.			
1.	1.56	643	1.73	0.920	A.P.I. Gravity of Liquid Hydrocarbons			60		Deg.			
2.	1.12	643	1.73	0.940	Specific Gravity Separator Gas			0.965		XXXXXXXXXXXXXXXXXXXX			
3.	0.68	643	1.73	0.962	Specific Gravity Flowing Fluid			N/A		G. Mix =			
4.	0.10	636	1.71	1.000	Critical Pressure			670 P.S.I.A.		P.S.I.A.			
5.					Critical Temperature			372 R		R			
Pc	3122		Pc ²	9747									
NO.	$\frac{Pc^2}{Pt^2}$	$\frac{Pw}{Pc}$	$\frac{Pw^2}{Pc^2}$	$\frac{Pc^2}{Pc - Pw}$	1) $\frac{Pc^2}{2 \frac{Pc^2}{Pt^2} - Pw} = 1.40$			2) $\frac{Pc^2}{2 \frac{Pc^2}{Pt^2} - Pw} = 1.400$					
1.	9169	2038	4153	5594									
2.	7274	1725	2796	6951									
3.	5457	1395	1946	7801									
4.	4008	1035	1071	8676	AOF = Q			$\frac{Pc^2}{2 \frac{Pc^2}{Pt^2} - Pw} = 263$					
5.													
Absolute Open Flow			245 Mcfd @ 15.025			Angle of Slope O			45			Slope, n	1.00
Remarks: Bombs were run in hole prior to 4 pt test. Have flowing bottom hole pressure (Pt) and shut in pressure (Pc). Well produced condensate at end of test.													
Approved By Division SIGNED BY JERRY SEXTON DISTRICT SUPERVISOR				Conducted By: Omega Engineering and Production Services				Calculated By: M. J. DeMarco				Checked By:	
MAY 16 1995													

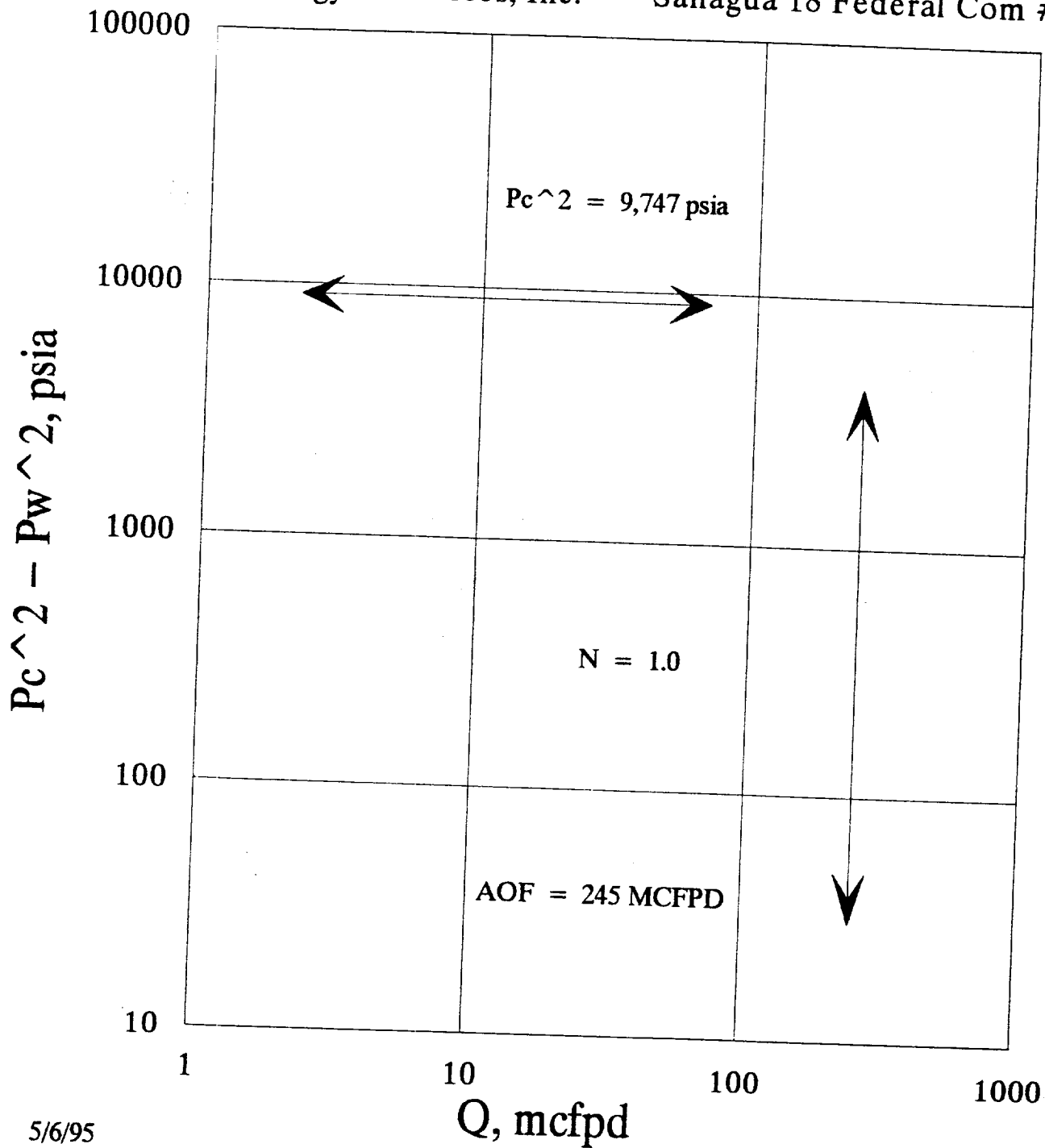
ORIGINAL SIGNED BY JERRY SEXTON
DISTRICT SUPERVISOR

MAY 16 1995

FOUR POINT PLOT

Santa Fe Energy Resources, Inc.

Sanagua 18 Federal Com #2



5/6/95