

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 10-12-89		ARTESIAN OFFICE	
Company SANTA FE ENERGY			Connection PIPELINE		
Formation WOLFCAMP			Unit		
Completion Date 7-28-89		Total Depth 12120.		Plug Back TD 11665.	
Elevation 7.		Farm or Lease Name LOVELACE			
Cas. Size 5.500	Wt. 20.0	d 4.778	Set At 12120.	Perforations: From 9456. To 10010.	
Tub. Size 2.375	Wt. 4.7	d 1.995	Set At 9306	Perforations: From 0. To 0.	
Type Well - Single - Broadhead - G.C. or G.O. Multiple SINGLE - GAS				Packer Set At 9298.	
Producing Thru TUBING		Reservoir Temp. °F 167.0 9733.		Mean Annual Temp. °F 60.0	
Baro. Press. - P _g 13.2		County EDDY			
State NM					
L 9733.	H 9733.	G _g .702	% CO ₂ .07	% N ₂ .77	% H ₂ S .00
Prover .0		Meter Run 3.1		Taps FLANGE	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							1620.	72.			24.0
1.	3.07 X .625			500.	2.0	75.	1522.	65.	0.	0.	1.0
2.	3.07 X .625			500.	4.0	84.	1403.	66.	0.	0.	1.0
3.	3.07 X .625			500.	6.2	87.	1210.	69.	0.	0.	1.0
4.	3.07 X .625			490.	10.0	88.	985.	69.	0.	0.	1.0
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor F _{pv}	Rate of Flow Q, Mcfd
1	1.85	32.04	513.2	.9859	1.1935	1.0563	74.
2	1.85	45.31	513.2	.9777	1.1935	1.0528	103.
3	1.85	56.41	513.2	.9750	1.1935	1.0517	128.
4	1.85	70.94	503.2	.9741	1.1935	1.0503	160.
5							

NO.	P _r	Temp. °R	T _g	Z	Gas Liquid Hydrocarbon Ratio	Mcft/bbl.
1	.77	535.	1.38	.896	37.2	
2	.77	544.	1.40	.902	65.5	
3	.77	547.	1.41	.904		
4	.76	548.	1.41	.907		
5						

NO.	P _r	P _w	P _w ²	P _r ² - P _w ²	(1) $\frac{P_r^2}{P_r^2 - P_w^2}$	(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n$
1	2357.	1530.	2341.	275.	1.6047	1.2668
2	2006.	1411.	1990.	626.		
3	1496.	1215.	1476.	1140.		
4	996.	993.	986.	1630.		
5						

Absolute Open Flow 203. Mcfd @ 15.025		Angle of Slope @ 63.4		Slope, n .500	
Remarks: CHOKE SIZE: 1ST RATE 5/64 2ND RATE 5.5/64 3RD RATE 6/64 4TH RATE 7/64					
Approved By Division DRA		Conducted By C & W WIRELINE, INC. BENNETT-CATHEY		Calculated By: MATT LEE	
				Checked By:	