

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

9/5/84
 Form C-122
 Revised 9-1-83

Type Test 4-POINT ☒ Initial ☐ Annual ☐ Special				Test Date 7-24-84		RECEIVED BY	
Company SANTA FE ENERGY				Connection TO AIR		AUG 23 1984	
Pool SOUTH CARLSBAD <i>N. L. Artesia</i>				Formation ATOKA		Unit O. C. D.	
Completion Date 7-21-84				Total Depth 12650.		Plug Hole 11840.	
Well Size 5.500				Well ID 17.0		CARRASCO <i>11121</i>	
Perforations: From 11180. To 11214.				Well No. #1			
Perforations: From 0. To 0.				Unit Sec. Twp. Rge. D 18 23S 28E			
Type Well - Single - Freedomhead - G.O. or G.O. Multiple SINGLE				Packer Set At 11121.		County EDDY	
Producing thru TUBING		Reservoir Temp. °F 220.0 11197.		Mean Annual Temp. °F 60.0		State NEW MEXICO	
L 11197.	H 11197.	Gg 0.657	% CO ₂ 0.97	% N ₂ 0.70	% H ₂ S 0.	Prover 0.	Meter Run 4.0
Tape FLANGE							

FLOW DATA						TUBING DATA		B.H.P. 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.		CHOKE
51							3787.	80.	5032.		73.7
1	4.03 X 1.250			560.	4.0	102.	3405.	83.	4726.	4/64	1.0
2	4.03 X 1.250			600.	9.5	104.	3040.	84.	4453.	6.5/64	1.0
3	4.03 X 1.250			600.	15.0	100.	2620.	84.	4146.	8/64	1.0
4	4.03 X 1.250			600.	40.0	88.	2125.	85.	3783.	11/64	1.0

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{P/P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor F _{sp}	Rate of Flow O. Mcfd
1	7.47	47.88	573.2	0.9619	1.2337	1.0441	443.
2	7.47	76.32	613.2	0.9602	1.2337	1.0466	707.
3	7.47	95.91	613.2	0.9636	1.2337	1.0479	892.
4	7.47	156.61	613.2	0.9741	1.2337	1.0523	1479.

NO.	P ₁	Temp. °R	T ₁	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	0.85	562.	1.51	0.917	73.4	64.0	0.657	XXXXXX	673.	373.
2	0.91	564.	1.51	0.913				XXXXXX		
3	0.91	560.	1.50	0.911						
4	0.91	548.	1.47	0.903						

NO.	P ₁ ²	P _w ²	R ₁ ²	P _c ² - R _w ²
1	22460.	3596.	12930.	1945.
2	19947.	3366.	11332.	3543.
3	17299.	3112.	9686.	5189.
4	14411.	2819.	7947.	6928.

(1) $\frac{P_c^2}{R^2 - R_w^2} = 2.1472$

AOG = Q $\left[\frac{R^2}{R^2 - R_w^2} \right]^n = 3063.$

(2) $\left[\frac{R^2}{R^2 - R_w^2} \right]^n = 2.0704$

*Post ID-2
8-24-84
Comp + BK*

Absolute Open Flow	3063.	Mcf @ 15.025	Angle of Slope	46.4	Slope, n	0.952
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Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMERADA PRESSURE ELEMENTS.

Approved By Commission:	Conducted By: RICHARD TOWNLEY	Calculated By: BENNETT & CATHEY INC.	Checked By:
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