

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

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 12-9-77		DEC 28 1977	
Company CITIES SERVICE CO.				Connection TO AIR		O. C. C. ARTESIA, OFFICE	
Pool Wildcat UNDESIGNATED				Formation CISCO SANDS		Unit	
Completion Date 12-9-77		Total Depth 8,390'		Plug Back TD 7,755'		Elevation 4395 DF	
Csg. Size 5 1/2"		Wt. 17#		Set At 4,892"		Perforations: From 5,875' To 6,061'	
Tbg. Size 2 7/8"		Wt. 6.5#		Set At 2,441"		Perforations: From OPEN ENDED	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE				Packer Set At 5,792'		County EDDY	
Producing Thru TUBING		Reservoir Temp. °F 135 @ 6,066'		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L		H		G _g		Prover	
				% CO ₂		% N ₂	
						% H ₂ S	
						Meter Run	
						Taps	

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							1555				72 HRS
1.	4"	x	0.750"	510	16	110	1510				1 HR
2.	4"	x	0.750"	510	34	106	1491				1 HR
3.	4"	x	0.750"	510	94	97	1452				1 HR
4.	4"	x	1.250"	470	44	76	1404				1 HR
5.	4"	x	1.250"	500	82	80	1310				1 HR

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	2.661	91.49	523.2	.9951	1.200	1.045	304
2	2.661	133.37	523.2	.9585	1.200	1.046	427
3	2.661	221.77	523.2	.9662	1.200	1.048	717
4	7.469	145.81	483.2	.9850	1.200	1.051	1353
5	7.469	205.14	513.2	.9813	1.200	1.054	1902

NO.	P _i	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	TSTM	Mcf/bbl.
1.	.78	570	1.47	.916	A.P.I. Gravity of Liquid Hydrocarbons	69 @ 60	Deg.
2.	.78	566	1.46	.914	Specific Gravity Separator Gas	.695	XXXXXXX
3.	.78	557	1.44	.910	Specific Gravity Flowing Fluid	XXXXX	
4.	.72	536	1.38	.906	Critical Pressure	669	P.S.I.A.
5.	.77	540	1.39	.900	Critical Temperature	388	R

NO.	P _i ²	P _s ²	P _s ²	P _i ² - P _s ²	(1) $\frac{P_i^2}{P_i^2 - P_s^2} = 3.505$	(2) $\left[\frac{P_i^2}{P_i^2 - P_s^2} \right]^n = 2.974$
1	1754.2	3077.2	109.7			
2	1737.2	3017.9	169.0			
3	1700.2	2890.7	296.2			
4	1631.2	2660.8	526.1			
5	1509.2	2277.7	909.2			

AOF = Q $\left[\frac{P_i^2}{P_i^2 - P_s^2} \right]^n = 5.657$

Absolute Open Flow 5.657 Mcfd @ 15.025 Angle of Slope θ 49° Slope, n .869

Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMERADA GAUGE @ 6,066', WELL MADE
SMALL AMOUNT OF CONDENSATE DURING THE TEST.

Approved By Commission Conducted By: Calculated By: Checked By: