

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

O. C. C.
ARTESIA, OFFICE

Type Test		☒ Initial		☐ Annual		☐ Special		Test Date		7-20-77	
Company				Cities Service Company				None			
Pool				Und.				Wolfcamp			
Completion Date		7-15-77		Total Depth		11,815		Flow Back To		11,295	
Csg. Size		5 1/2		Wt.		17#		Perforations:		From 9505 To 9716	
Tbg. Size		2-7/8		Wt.		6.5#		Perforations:		From Perf. Nipples to	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple				Single				Packer Set At			
								8378 & 10,530			
Producing Thru		Tbg.		Reservoir Temp. °F		172 @ 9750		Mean Annual Temp. °F		60	
L		H		Gg		9750		Baro. Press. - P ₀		13.2	
9750		9750		.693		0.18		0.86		0.02 hr/100	
Prover		Meter Run		Taps		4"		Flange			
FLOW DATA											
NO.	Prover 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
Sl.											
1.	4 x 1.500			520	2.0	69	1679		Packer	Choke	96 Hrs.
2.	4 x 1.500			550	3.0	74	1604			8/64	1 Hr.
3.	4 x 1.500			555	14.0	80	1452			11/64	1 Hr.
4.	4 x 1.500			570	24.0	80	1315			14/64	1 Hr.
5.							1182			17/64	1 Hr.
RATE OF FLOW CALCULATIONS											
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super. Compress. Factor, Fpv	Rate of Flow Q, Mcf/d				
1.	10.84	32.66	533.2	.9215	1.201	1.062	1148				
2.	10.84	67.12	563.2	.9868	1.201	1.062	916				
3.	10.84	89.19	568.2	.9813	1.201	1.060	1208				
4.	10.84	118.31	583.2	.9813	1.201	1.061	1504				
5.											
NO.	P _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.						
1.	.80	529	1.36	.886	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.						
2.	.94	534	1.38	.837	Specific Gravity Separator Gas _____ XXXXXXXXXX						
3.	.85	540	1.39	.890	Specific Gravity Flowing Fluid _____ XXXXXX						
4.	.87	540	1.39	.888	Critical Pressure _____ 669 P.S.I.A. _____ P.S.I.A.						
5.					Critical Temperature _____ 388 R _____ R						
$P_1 = 2471.2$ $P_2 = 6106.8$											
NO.	P _f	P _s	P _s ²	P _f ² - P _s ²	$(1) \frac{P_f^2}{P_f^2 - P_s^2} = 1.607$						
1.		2411.2	5813.9	292.9	$(2) \left[\frac{P_f^2}{P_f^2 - P_s^2} \right]^n = 1.799$						
2.		2295.2	5267.9	838.9							
3.		2140.2	4580.5	1526.3							
4.		1940.2	3764.4	2342.4							
5.											
$Q = \left[\frac{P_f^2}{P_f^2 - P_s^2} \right]^n = 2.886$											
Absolute Open Flow <u>2886</u> Mcf/d @ 15.025 Angle of Slope <u>58.5</u> Slope, n <u>.613</u>											
Remarks: Bottom Hole Pressure Measured with Kuster Gauge. Small Amount Of Water Made During Test.											
Approved By Commission:		Conducted By:		Calculated By:		Checked By:					
		M.C.T.		R.D.W.		J.W.S.					