

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 7-22-76		AUG 2 1976	
Company Cities Service Oil Company				Connection To Air			
Pool Boston Flat <i>Landisig</i>				Formation Morrow		Unit O. C. C. ARTESIA, OFFICE	
Completion Date 7-22-76		Total Depth 11,329'		Plug Back TD 11,320'		Elevation 3291 Gr.	
Casing Size 5 1/2"		Wt. 20#		Set At 11,329'		Perforations: From 11,069' To 11,158'	
Tub. Size 2 7/8"		Wt. 6.5#		Set At 11,047'		Perforations: From Open to Ended	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 11,020'		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 181 @ 11,089'		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L 1.1047		H 11047		Gg 0.6057		Prover	
				CO ₂ 0.77		Meter Run 4"	
				N ₂ 0.69		Taps Flange	
				H ₂ S -----			

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.	
SI							3449.0		Packer	Choke
1.	4" x	1.75		700.0	6.0	60	3072.0	75		10/64
2.	4" x	1.75		700.0	13.0	70	2752.0	74		13/64
3.	4" x	1.75		710.0	22.0	70	2314.0	74		16/64
4.	4" x	1.75		700.0	32.0	80	1670.0	74		21/64
5.										

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, Mcfd
1	14.93	65.42	713.2	1.0000	1.285	1.061	1332
2	14.93	96.29	713.2	0.9905	1.285	1.056	1932
3	14.93	126.14	723.2	0.9905	1.285	1.057	2534
4	14.93	151.07	713.2	0.9813	1.285	1.052	2992
5							

					ISTM		
NO.	P _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Mcft/bbl.
1	1.06	520	1.47	.889			
2	1.06	530	1.50	.896			
3	1.07	530	1.50	.895			
4	1.06	540	1.53	.903			
5							

					P _f 4325.2 P _f ² 18707	
NO.	P _f ²	P _s	P _s ²	P _f ² - P _s ²	(1) $\frac{P_f^2}{P_f^2 - P_s^2} = 1.375$	(2) $\left[\frac{P_f^2}{P_f^2 - P_s^2} \right]^n = 1.188$
1	9518	3950.2	15604	3103		
2	7646	3536.3	12505	6202		
3	5416	3030.2	9182	9525		
4	2833	2258.2	5099	13608		
5						

Absolute Open Flow				Angle of Slope	
3554 Mcfd @ 15.025				61.6°	
Slope, n				0.541	

Remarks: Bottom hole pressures measured with Amerada Gauge @ 11,089 feet

Approved By Commission:	Conducted By: D. Tyson	Calculated By: R. West	Checked By: J. West
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