

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 8-2-79		AUG 14 1979	
Company Hanagan Petroleum Corp.				Location Llano 7-26-79		O.C.C.	
Field Avalon Wolfcamp Gas				Formation Wolfcamp		Unit ARTEBIA, OFFICE	
Completion Date 3-15-79		Total Depth 11280'		Flow Back To Temp. 10792		Elevation 3356 KB	
Well Size 4 1/2		Wt. 11.6		Set At 4.000		Perforations: From 9083' To 9146'	
Well Size 2 3/8		Wt. 4.7		Set At 1.995		Perforations: From To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 9004'		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 157 @ 9115'		Mean Annual Temp. °F 70		Baro. Press. - P _a 13.2	
L 9115		H 9115		Cg 0.9748		% CO ₂ Trace	
				% N ₂ 0.761		% H ₂ S -	
				Prover		Meter Run X	
						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	Shut in						2473		Pkr.		17 hr.
1.	4" X 1.500			580	2	70	2437	77			1 hr.
2.	4" X 1.500			580	8	66	2415	76			1 hr.
3.	4" X 1.500			570	22	64	2387	76			1 hr.
4.	4" X 1.500			590	90	60	2244	77			1 hr.
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	10.840	34.444	593.2	0.9905	1.013	1.1851	444.0
2	10.840	68.888	593.2	0.9943	1.013	1.1938	897.9
3	10.840	113.271	583.2	0.9962	1.013	1.1911	1475.9
4	10.840	232.998	603.2	1.0000	1.013	1.2117	3100.2
5							

NO.	P _i	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	0.900	530	1.102	0.712	13.892	
2	0.900	526	1.094	0.702	56.0	
3	0.885	524	1.089	0.705	0.9748	
4	0.915	520	1.081	0.681		
5						

NO.	P _i	P _w	P _s	P _i ² - P _w ²	(1) $\frac{P_c^2}{P_i^2 - P_w^2} =$	(2) $\left[\frac{P_c^2}{P_i^2 - P_w^2} \right]^n =$
1	6003.5	4170.0	17388.9	203.3	16.92371	8.61863
2	5896.2	4163.5	17334.7	257.5		
3	5761.0	4147.3	17200.0	392.2		
4	5095.0	4068.5	16552.7	1039.6		
5						

Absolute Free Flow		26719.46 Mcfd @ 15.025		Angle of Slope @ 52.713		Slope, n 0.76145	
Remarks: BHP calculated by computer program.							

Approved By Commission:	Conducted By: Marshall Morris	Calculated By: Tefteller, Inc.	Checked By: Hugh E. Hanagan
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