

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

Form C-122
 Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special		Four Point		Test Date 7-15-80	
Company Union Oil Co. of California			Connection		
Pool Undesignated (Gem Morrow Gas)			Formation Morrow		Well
Completion Date 5- 9-80		Total Depth 13,620'		Plug Back To 13,570'	
				Elevation 3576' GR.	
Csg. Size 5-1/2" OD			Set At 13,620'		Perforations: From 13,478' To 13,487'
Trq. Size 2-7/8" OD			Set At 13,350'		Perforations: From To
Type Well - Single - Bronthead - G.G. or G.O. Multiple Single			Packer Set At 13,350'		Form. or Lease Name Maduro Unit
Producing Thru Tubing		Reservoir Temp. °F 174 @ 13,478'		Mean Annual Temp. °F 60	
				Baro. Press. - P _a 13.2	
L 13,478'		H 13,478'		G _g .660	
				% CO ₂ .59	
				% N ₂ .48	
				% H ₂ S 0.0	
				Prover 0.0	
				Meter Run 3.1	
				Flange	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow Hrs.	
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
1.	3.07		1.500	490	4.0	84	3920	60			24
2.	3.07		1.500	480	11.0	87	3290	82	0	0	1.7
3.	3.07		1.500	470	22.0	84	2910	84	0	0	1.2
4.	3.07		1.500	450	35.0	83	2330	83	0	0	2.0
5.											2.5

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, Mgd
1.	11.13	44.86	503.2	.9777	1.2309	1.0453	628
2.	11.13	73.66	493.2	.9750	1.2309	1.0435	1,026
3.	11.13	103.10	483.2	.9777	1.2309	1.0435	1,441
4.	11.13	127.33	463.2	.9786	1.2309	1.0420	1,778
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	12.669	Mcf/Sbl.
1.	.75	544	1.45	.915	A.P.I. Gravity of Liquid Hydrocarbons	48.5	Deg.
2.	.73	547	1.46	.918	Specific Gravity Separator Gas	.660	X X X X X X X X
3.	.72	544	1.45	.918	Specific Gravity Flowing Fluid	X X X X X	.868
4.	.69	543	1.45	.921	Critical Pressure	671	P.S.I.A. 661
5.					Critical Temperature	375	R 440

NO.	P _r	P _w	P _w ²	P _r ² - P _w ²	(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 1.5150$	(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.3029$
1		3670	13472	1998	$AOF = Q \left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 2,317$	
2		3266	10664	4806		
3		2880	8292	7178		
4		2293	5259	10211		
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Absolute Open Flow	2,317	Mgd @ 15.025	Angle of Slope	57.5	Slope, n	.637
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Remarks: Calculations completed using Garrett Computing System's AOF program.

Approved By: <i>John W. Ruyter</i>	Conducted By: C. A. Bagley	Calculated By: M. F. Standifer	Checked By: L. H. Pardue
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