

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

File # Form C-122
122 Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☒ Special		Test Date 8-16-79		SEP 5 1979							
Company GULF OIL COMPANY		Connection AIR		Date 8-29-1979							
Pool Under No. Loving Morrow Gas		Formation MORROW		Unit G							
Completion Date 7-27-79		Total Depth 12,901'		Plug Back TD 12,590'							
Casing Size 5" liner 15#		Set At 12,900'		Perforations: From 12,142' To 12,364'							
Tubing Size 2-3/8" N-80		Set At 12,083'		Perforations: From To							
Type Well - Single - Broadhead - G.C. or G.O. Multiple Single		Packer Set At 12080		Form or Lease Name Eddy "GR" State							
Producing Thru Tbg.		Reservoir Temp. °F 135 @ 12080		Mean Annual Temp. °F 60°							
L 12,080		H 12,080		Gg .701							
% CO ₂ 0		% N ₂ 0		% H ₂ S 0							
Prover		Meter Run 4.026		Taps FLANGE							
FLOW DATA			TUBING DATA		CASING DATA						
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	Duration of Flow
SI							3325				
1.	4.026		1.500	700	8	83	1961	83			1
2.	4.026		1.500	700	20	91	1898	91			1
3.	4.026		1.500	700	40	78	1885	78			1
4.	4.026		1.500	700	73	78	1362	78			1
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, Mcfd				
1	10.84	75.61	715	0.9786	1.1944	1.0751	1030				
2	10.84	119.56	715	0.9715	1.1944	1.0707	1610				
3	10.84	169.08	715	0.9831	1.1944	1.0780	2319				
4	10.84	228.41	715	0.9831	1.1944	1.0780	3131				
5											
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.						
1	1.07	543	1.39	0.862	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.						
2	1.07	551	1.41	0.869	Specific Gravity Separator Gas .701 X X X X X X X X						
3	1.07	538	1.37	0.854	Specific Gravity Flowing Fluid X X X X X						
4	1.07	538	1.37	0.854	Critical Pressure 668 P.S.I.A. P.S.I.A.						
5					Critical Temperature 392 R R						
P _r 3338 P _r ² 11143.6											
NO.	P _r	P _w	P _r ²	P _r ² - P _w ²	(1) $\frac{P_r^2}{P_r^2 - P_w^2} = \frac{11143.6}{8845.3}$ (2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.26$						
1	3893.5	1977	3908.5	7235.1	AOF = Q $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 3945$						
2	3648.9	1933	3736.5	7407.1							
3	3599.4	1939	3759.7	7383.9							
4	1888.4	1516	2298.3	8845.3							
5											
Actual Open Flow 3945 Mcfd @ 15.025					Angle of Slope 45			Slope, n 1			
Remarks: 45° LINE THROUGH LAST (HIGHEST) RATE POINT USED ON PLOT											
Approved By Commission:			Conducted By: Otis Engineering			Calculated By: Otis Engineering			Checked By:		