

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 3-25-75		APR 1 1975	
Company Mobil Oil Corp.		Connection ---		O. C. C. ARTESIA OFFICE	
Pool Burton Flat		Formation Morrow		Unit 320	
Completion Date 3-20-75		Total Depth 11,500		Plug Back TD 11,448	
Elevation 3208-44		Farm or Lease Name Fed. 00		Well No. #2	
Csg. Size 5 1/2"	Wt. 17 #/ft	d 4.892	Set At 11,500	Perforations: From 11,193 To 11,410	
Tbg. Size 2 3/8"	Wt. 4.7 #/ft	d 1.995	Set At 11,190	Perforations: From --- To ---	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 11,168	
Producing Thru Tubing		Reservoir Temp. °F 173 @ 11,500		Mean Annual Temp. °F 60°	
Baro. Press. - P _a 13.2		State New Mexico		County Eddy	
L 11,190	H 11,193	G _g 0.579	% CC ₂ 0.98	% N ₂ 0.27	% H ₂ S ---
Prover ---		Meter Run 4"		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							38.33				21 Hr. 51
1.	4 X 2			630	8	66	3652	60	0	60	1 Hr.
2.	4 X 2			660	21	62	3428	60	0	60	1 Hr.
3.	4 X 2			690	40	66	3144	60	0	60	1 Hr.
4.	4 X 2			860	48	65	2853	60	0	60	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 F _g	Super Compress. Factor F _{pv}	Rate of Flow Q, Mcfd
1	19.81	71.73	643.20	0.9942	1.3141	1.0500	1950
2	19.81	118.89	673.20	0.9980	1.3141	1.0538	3256
3	19.81	167.71	703.20	0.9942	1.3141	1.0546	4578
4	19.81	204.72	823.20	0.9952	1.3141	1.0673	5662
5.							

NO.	P _t	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	0.95	526	1.50	0.906			0.579			
2.	0.99	522	1.49	0.900						
3.	1.04	526	1.50	0.899						
4.	1.29	525	1.50	0.877						
5.										

$P_c = 3846.2 P_c^2 = 14793.2$				$(1) \frac{P_c^2}{P_c^2 - R_w^2} = 2.636$		$(2) \left[\frac{P_c^2}{P_c^2 - R_w^2} \right]^n = 2.016$	
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²			
1	13433.6	3682.2	13558.7	1235			
2	11841.8	3490.2	12181.7	2612			
3	9967.9	3258.7	10619.4	4174			
4	8215.1	3030.0	9181.4	5612			
5							

$AOF = Q \left[\frac{P_c^2}{P_c^2 - R_w^2} \right]^n = 11,427$		$\frac{P_c^2}{P_c^2 - R_w^2} = 2.636$		$\left[\frac{P_c^2}{P_c^2 - R_w^2} \right]^n = 2.016$	
Absolute Open Flow 11,427 Mcfd @ 15.025		Angle of Slope 54.1°		Slope, n 0.723	

Remarks: Calculations by computer. Print out attached.			
Approved By Commission:	Conducted By: W. H. Bradfield	Calculated By: K. W. Lewis	Checked By: W. H. Bradfield