

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

Form C-122
Revised 9-1-55

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 11-19-73		NOV 26 1973	
Company Monsanto Company				Connection None			
Well Burton Flat Morrow				Formation Morrow		O. C. C. ARTESIA, OFFICE	
Completion Date 11-19-73		Total Depth 11,540		Plug Back TD 11,475		Elevation 3210 KB	
Csg. Size 5 1/2		Wt. 17#		Set At 11,540		Perforations: From 11,221 To 11,475	
Req. Size 2 7/8 EUE		Wt. 6.5		Set At 11,057		Perforations: From To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 167 @ 11,540		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2	
L		H		G _g .593		% CO ₂ % N ₂ % H ₂ S	
Prover		Meter Run		Taps			

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	
SI							3508	75		
1.	4		2.25	270	14	75	2665	70		1 Hr
2.	4		2.25	270	25	81	2490	68		1 Hr
3.	4		2.25	278	39	80	2095	66		1 Hr
4.	4		2.25	279	51	84	1702	68		1 Hr
5.										

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mgd
1.	25.64	62.97	283.2	.9859	1.2986	1.022	2112
2.	25.64	84.14	283.2	.9804	1.2986	1.021	2804
3.	25.64	106.57	291.2	.9813	1.2986	1.021	3555
4.	25.64	122.07	292.2	.9777	1.2986	1.021	4057
5.							

NO.	P _r	Temp. °R	T _r	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.	.42	535	1.51	.958	314458	46.1 @ 60°	.593	XXXXXX	672	354
2.	.42	541	1.53	.960				XXXXX	670	375
3.	.43	540	1.53	.959						
4.	.43	544	1.54	.960						
5.										

NO.	P _r ²	P _w	P _w ²	P _r ² - P _w ²
1.	3521.2	2687.5	7223	5176
2.	12399	2519.6	6348	6051
3.		2137.3	4568	7831
4.		1759.7	3096	9303
5.				

(1) $\frac{P_r^2}{P_r^2 - P_w^2} = \frac{12399}{9303}$

AOF = Q $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 5408$

(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.333$

Absolute Open Flow	5408	Mgd @ 15.025	Angle of Slope ϕ	45°	Slope, n	1.0
Remarks:						
Approved By Commission:		Conducted By: W T Hagler		Calculated By: H L Hagler		Checked By:
WEST TEXAS CONSULTING SERVICE, INC.						