

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

Form O-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 3-6-74	MAR 13 1974	
Company Morsanto Company		Connection		
Well Burton Flat (Morrow)		Formation Morrow		
Completion Date 3-5-74		Total Depth 11,540	Plug Back TD 11,482	Elevation 3229 KB
Casing Size 7" 26#		Set At 11,540	Perforations: From 10,932 To 11,360	
2 7/8 NuLoc 6.50 2.441		Set At 10,720	Perforations: From To	
Type Well - Single - Broadhead - G.G. or G.O. Multiple Single		Packer Set At 10,720	Unit Sec. Twp. Rpt. E 35 20-S 28-E	
Producing Zone Tubing		Reservoir Temp. °F 165° 11,540	Mean Annual Temp. °F 60	Baro. Press. - P _a 13.2
11,146 11,146 C _g .617 % CO ₂ % N ₂ % H ₂ S		Prover Meter Run X Taps		
State New Mexico				
County Eddy				

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Time Sec.	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	
1	4.0*	1.0	470	16	90	2821	60		
2	4.0*	1.0	470	29	92	2568	62		1 Hr
3	4.0*	1.0	470	38	99	2291	70		1 Hr
4	4.0*	1.0	470	47	105	1975	73		1 Hr

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (100 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	4.965	87.93	483.2	.9723	1.2731	1.038	561
2	4.965	117.14	473.2	.9706	1.2731	1.037	745
3	4.965	135.50	483.2	.9645	1.2731	1.036	856
4	4.965	150.69	483.2	.9594	1.2731	1.034	945

NO.	P _c	Temp. °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	.72	550	1.51	.929				671	365
2	.71	552	1.51	.930				671	365
3	.72	559	1.53	.932				671	365
4	.72	565	1.55	.936				671	365

$(1) \frac{P_c^2}{P_c^2 - P_w^2} = \frac{10518}{6539}$				$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.40725$			
$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1330$							

NO.	P _w	P _w ²	P _c ² - P _w ²
1	2835.4	8039	2479
2	2597.6	6747	3771
3	2306.1	5318	5200
4	1924.8	3979	6539

Pipe ID on Meter Run 3.826"		Mold @ 15.025	Angle of Slope @ 54° 17'	Slope, n .719
Shut In 96 Hours.				

Conducted By: W T Hagler	Calculated By: H L Hagler	Checked By:
WEST TEXAS CONSULTING SERVICE INC		