

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

Form C-122
 Revised 9-1-78

C/SF

<input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special		Date: 7/15/80	
Company: Marathon Oil Company		Production: None	
Well: <i>Winchester morrow</i> Undesignated		Formation: Morrow	
Completion Date: 7 15 '80		Total Depth: 11450'	
Casing Size: 17.0" ID 4.892" WT 20.0" ID 4.778" WT		Plug back To: 11358' Elevation: 3317' KB-16	
Tubing Size: 2 3/8" ID 4.7" WT 1.995" WT 11175'		Perforations: 11238' To 11292' Opened Ended	
Type Well - Single Single		Packer Set At: 11150'	
Producing thru: Tubing		Reservoir Temp. °F: 206 @ 11265' Mean Annual Temp. °F: 60	
L: 11265'		H: - Gg: 0.6062 % CO ₂ : 0.601 % N ₂ : 0.381 % H ₂ S: - Prover: -	
Meter Run: 6" X 2.00		State: New Mexico	

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	TUBING DATA		CASING DATA		Location of Flow
							Press. p.s.i.g. DWT	Temp. °F	Press. p.s.i.g.	Temp. °F	
5!							3224	100	PACKER		2.0
1.	5 24 64		2.00	260	27	88	1895				1.0
2.	5 22 64		2.00	260	23	85	1956				1.0
3.	5 20 64		2.00	260	14	87	2307				1.0
4.	5 18 64		2.00	260	9	86	2416				1.0

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, MscfD
2	19.16	79.34	273.2	0.9768	1.285	1.020	1946.25
3	19.16	61.82	273.2	0.9750	1.285	1.019	1512.20
4	19.16	49.59	273.2	0.9759	1.285	1.020	1215.35

NO.	R ₁	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	0.41					
2	0.41	545	1.54	0.962				XXXXXX			
3	0.41	547	1.55	0.963							
4	0.41	546	1.54	0.962							

NO.	P ₁	P ₂	P ₁ ²	P ₂ ²	P ₁ ² - P ₂ ²	Equations	
						1	5078.2
2	3166.2	10024.8	8717.2	8717.2			
3	3580.2	12817.8	5924.2	5924.2			
4	3771.2	14221.9	4520.1	4520.1			

Absolute Gas Flow: 3584 MscfD @ 15.625
 Angle of Slope: 52° 49'
 Slope Coef: 0.758

Remarks: * BOTTOM HOLE PRESSURE @ (-7948) 11265' USED FOR PRESSURE CALCULATION

Approved by: _____ Conducted By: JARREL SERVICES, INC.	Calculated By: Joe A. Coleman	Checked By: Joe A. Coleman
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