

30-025-31619

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 10/14/92	
Company Mitchell Energy Corporation				Connection	
Pool Hat Mesa Field				Formation Morrow	
Completion Date 10/7/92		Total Depth 14,550		Plug Back TD 14,472	
				Elevation 3842'	
Farm or Lease Name Comanche State Unit					
Csg. Size 5 1/2"		Wt. 17#		Set At 14,550	
Thq. Size 2 3/8"		Wt. 4.7#		Set At 13,958	
				Perforations: From 13,987 To 14,302	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 13,896	
Producing Thru Tbg		Reservoir Temp. °F 210# 14300		Mean Annual Temp. °F 60	
				Baro. Press. - P _a 13.2	
L 14144		H 14144		G _g .657	
				% CO ₂ .79	
				% N ₂ .36	
				% H ₂ S	
				Prover	
				Meter Run 3.068	
				Taps Flg	

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. BHP p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI							6328	210			15.0
1.	3.07	X	2.000	650.	2.0	79.	6086	210			1.0
2.	3.07	X	2.000	705.	8.0	79.	5546	210			1.0
3.	3.07	X	2.000	750.	16.0	80.	4765	210			1.0
4.	3.07	X	2.000	730.	33.0	80.	4182	210			1.0
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	.02	36.42	663.2	.9822	1.2337	1.0614	964.
2	.02	75.80	718.2	.9822	1.2337	1.0667	2068.
3	.02	110.50	763.2	.9813	1.2337	1.0705	3046.
4	.02	156.61	743.2	.9813	1.2337	1.0686	4313.
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	.99	539.	1.44	.888	28.000 Mcf/bbl.	50.1 Deg.	.657	X X X X X	673.	374.
2	1.07	539.	1.44	.879				X X X X X	668.	404.
3	1.13	540.	1.44	.873						
4	1.11	540.	1.44	.876						
5										

P _c 4482.7	P _c ² 20095.				(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.5803$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.4258$
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 6150.$	
1		4273.	18257.	1838.		
2		3812.	14533.	5562.		
3		3170.	10050.	10045.		
4		2716.	7379.	12716.		
5						

Absolute Open Flow 6150 Mcfd @ 15.025 Angle of Slope 52.2 Slope, n .775

Remarks: NOV 02 '92

ORIGINAL SIGNED BY JERRY SEXTON

Approved By Division Engineer

Conducted By:

John West Engineering

Calculated By:

James Blount

Checked By: