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See Rule 401 & Rule 1122

State of New Mexico
Energy, Minerals and Natural Resources Department

C/SF

Form C-122
Revised 4-1-91

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator BURLINGTON RESOURCES OIL & GAS CO.						Lease or Unit Name EAST MILLMAN 13 FED COM					
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 6/1/98		Well No. 1			
Completion Date 5/28/98		Total Depth 11,300		Plug Back TD 11,070		Elevation 3,375		Unit Ltr. - Sec. - TWP - Rge. 13 19S 28E			
Crg. Size 5 1/2		Wt. 17		d 4.892		Set At 11,300		Perforations: From: 10,687 To: 10,960		County EDDY	
Tbg. Size 2-3/8		Wt. 4.7		d 1.995		Set At 10,600'		Perforations: From: To:		Pool Turkey Track - Morrow	
Type Well - Single - Bradenhead - G.G. or G.C. Multiple single						Packer Set At 10,602'		Formation MORROW			
Producing Thru TBG		Reservoir Temp. °F 60°		Mean Annual Temp. °F 60°		Baro. Press - P 13.2		Connection AIR			
L 10,617		H 10,617		Gg .686		% CO ₂ 2.357		% N ₂ 1.23		% H ₂ S -0-	
Prover -0-		Meter Run 3.068		Taps flg							

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	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	
1.	3.068 X 1.000	200	8"	80°	3360	N/A	N/A	Phr.	N/A	60 min
2.	3.068 X 1.000	200	12"	80°	2980					60 min
3.	3.068 X 1.000	200	15"	80°	2260					60 min
4.	3.068 X 1.000	200	18"	80°	1720					60 min
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 _{sp}	Rate of Flow Q, Mcfd
1.	4.789	41.29	213.2	.9813	1.207	1.052	246
2.	4.789	50.58	213.2	.9813	1.207	1.052	301
3.	11.13	56.55	213.2	.9813	1.207	1.052	784
4.	11.13	61.94	213.2	.9813	1.207	1.052	858
5.							

NO.	P _i	Temp. °R	T _i	Z	Gas Liquid Hydrocarbon Ratio	Mc/bbl
1.	.79	540	1.42	.904	N/A	N/A
2.	.79	540	1.42	.904	A.P. I. Gravity of Liquid Hydrocarbons	N/A
3.	.79	540	1.42	.904	Specific Gravity Separator Gas	.686
4.	.79	540	1.42	.904	Specific Gravity Flowing Fluid	N/A
5.					Critical Pressure	676
					Critical Temperature	379

$P_c = 4907.1$ $P_c^2 = 24079.6$

NO.	P_i^2	P_w	P_w^2	$P_c^2 - P_w^2$
1.		4587.633	20859.9	
2.		4082.3	16665.3	
3.		3176.9	10092.6	
4.		2433.3	5920.9	
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.326$

2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^2 = 1.280$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^2 = 1.098$

Absolute Open Flow 1.098 Mcfd @ 15.025		Angle of Slope θ 48.8		Slope, n .874	
Remarks: * NO FLUID MADE DURING TEST					
* CALCULATED FROM KNOWN BOTTOM HOLE PRESSURES					
Approved By Division		Conducted By: PRO WELL TESTING		Calculated By: MB	
				Checked By: BM	