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appropriate district office
See Rule 401 & Rule 1122

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

Form C-122
Revised 4-1-91
RECEIVED
OCD - ARTESIA

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Murchison Oil & Gas, Inc.				Lease or Unit Name Carbon Valley 25 Federal			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 8/10/00		Well No. 1	
Completion Date 8/4/00		Total Depth 9650		Plug Back TD 9472		Elevation 3508' GL	
Csg. Size 5 1/2		Wt. 17#	d 4.892	Set At 9520	Perforations: From: 9310 To: 9359		Unit Ltr. - Sec. - TWP - Rge. I 25 16s 27e
Tbg. Size 2 3/8		Wt. 4.7#	d 1.995	Set At 9248	Perforations: From: Open To: Ended		County Eddy
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 9248		Formation Morrow	
Producing Thru Tbg 9248		Reservoir Temp. °F 149.9@9248		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
Meter Run 4.026		Taps FLG		Prover			

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Onifice 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
SI							2270		PACKER		
1.	4.026	x	1.000	25	17.00	83	2150		"		1 Hr.
2.	4.026	x	1.000	27	46.00	87	1995		"		1 Hr.
3.	4.026	x	1.000	29	87.00	89	1800		"		1 Hr.
4.	4.026	x	1.000	30	148.00	81	1595		"		1 Hr.
5.											

RATE OF FLOW CALCULATIONS

NO.	COEFFICIENT (24 HOUR)	$h_w P_m$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	4.753	25.48	38.2	.9786	1.080	1.004	129
2.	4.753	43.00	40.2	.9750	1.080	1.004	216
3.	4.753	60.59	42.2	.9732	1.080	1.004	304
4.	4.753	79.96	43.2	.9804	1.080	1.004	404
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Mcf/bbl.
1.	.05	543	1.40	.990	A.P.I. Gravity of Liquid Hydrocarbons	Dry	Deg.
2.	.05	547	1.41	.990	Specific Gravity Separator Gas	.857	XXXXXXXXXX
3.	.05	549	1.41	.990	Specific Gravity Flowing Fluid	XXXXXX	
4.	.05	541	1.39	.990	Critical Pressure	* 737	P.S.I.A. P.S.I.A.
5.					Critical Temperature	* 387	R R

P _c 2283.2	P _c 5213.0						
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.988$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.726$	
1.	2163.3	4679.9	533.1				
2.	2008.5	4034.3	1178.7				
3.	1814.0	3290.5	1922.5				
4.	1609.8	2591.3	2621.7				
5.							

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = .697$

Absolute Open Flow **697** Mcfd @ 15.025 Angle of Slope θ **51.54** Slope, n **.7942**

Remarks: * = Corrected to 20.775% CO2 and 7.764% N2
No fluid produced

Approved By Division _____ Conducted By: **Jarrel Services, Inc.** Calculated By: **Bob Murray** Checked By: **Bob Murray**