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appropriate district office
See Rule 401 & Rule 1122

State of New Mexico
Energy, Minerals and Natural Resources Department

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 Meridian Oil, Inc.						Lease or Unit Name Moberly Rhodes Waterflood					
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 10-27-95		Well No. 10			
Completion Date 10/26/95		Total Depth 3303'		Plug Back TD 3130'		Elevation		Unit Ltr. - Sec. - TWP - Rge. I 20 26 37			
Csg. Size 7"	Wt. 20#	d	Set At 3150'	Perforations: From: 2960' To: 3108'		Country Lea					
Tbg. Size 3.5"	Wt.	d	Set At 2812'	Perforations: From: To:		Pool Rhodes Yates Seven Rivers					
Type Well - Single - Bradenhead - G.G. or G.O. Multiple						Packer Set At		Formation Upper Yates Gas			
Producing Thru Tubing L		Reservoir Temp. °F		Mean Annual Temp. °F 60°		Baro. Press - P _a 13.2		Connection Vented			
L	H	Gg .675	% CO ₂ 2.96	% N ₂ 1.73	% H ₂ S	Prover 2"	Meter Run		Taps		

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. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI						74	365		365		24 Hours
1.	2	X	3/32	335		65	335		340		1 Hour
2.	2	X	3/16	265		72	265		270		1 Hour
3.	2	X	1/4	215		74	215		220		1 Hour
4.	2	X	7/16	30		74	30		125		1 Hour
5.											

RATE OF FLOW CALCULATIONS							
NO.	COEFFICIENT (24 HOUR)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	.1410		348.2	.9952	1.217	1.033	61
2.	.6082		278.2	.9887	1.217	1.027	209
3.	1.087		228.2	.9868	1.217	1.022	304
4.	3.408		43.2	.9868	1.217	1.004	178
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Mcf/bbl.
1.	.51	525	1.39	.936	A.P. L Gravity of Liquid Hydrocarbons	Dry	Deg.
2.	.41	532	1.41	.948	Specific Gravity Separator Gas	.675	XXXXXXXXXX
3.	.33	534	1.42	.958	Specific Gravity Flowing Fluid	XXXXXX	
4.	.06	534	1.42	.990	Critical Pressure	*676	P.S.I.A. P.S.I.A.
5.					Critical Temperature	*376	R R

P _c 378.2		P _c ² 143.0	
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NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1.		353.2	124.8	18.2
2.		283.2	80.2	63.0
3.		233.2	54.4	88.6
4.		138.2	19.1	123.9
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.614$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = .491$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.614$

Absolute Open Flow	491	Mcf/d @ 15.025	Angle of Slope θ	45	Slope, n	1.000
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Remarks: * = Corrected to 2.96% CO₂ & 1.73% N₂

Approved By Division	Conducted By: West-Test, Inc.	Calculated By: B.M.	Checked By: B.M.
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