

OIL CONSERVATION DIVISION
P.O. BOX 2088
SANTA FE, NEW MEXICO 87501

Thurston #1A

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

Form 122
Rev. 5/84-1-91

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Grenier

#238 C-31-31-11

Operator Meridian Oil, Inc. <i>Southland</i>					Lease or Unit Name Grenier																		
Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 01-24-94					Well No. 238													
Completion Date 05-25-93			Total Depth 7,181 MD			Plug Back TD 5,100			Elevation			Unit Letter - Sec. - TWN - RNC Unit Letter Q Sec 31 T11N R11W											
Csg. Size 4 1/2"		Wt. 11.6#		d N. 80		Set At 7,181		Perforations: From 4,990 To 4,771			County San Juan												
Tbg. Size 2 3/8"		Wt. 4.7		d J-55		Set At 4,840		Perforations: From To			Pool Blanco Mesa Verde												
Type Well - Single - Gradienthead - G.O. or Q.O. Multiple Single					Packer Set At None					Formation Mesa Verde													
Prod Thru Tubing		Resv Temp °F		Mean Ann T °F		Baro. Press. Pd 12.20			Connection														
L		H		Og 0.8601		% CO2 0.591		% N2 0.344		% H2S		Prover		Meter Run		Taps							
FLOW DATA										TUBING DATA				CASINO DATA				Duration of Flow					
NO.		Prover Line Size		X		Orifice Size		Press. p.s.i.g.		Diff. hw		Temp. F°		Press. p.s.i.g.		Temp. F°		Press. p.s.i.g.		Temp. F°		Duration of Flow	
81		3.064				2.000								830		910						51	
1.								172		88.36		88		355		66		735				1 Hour	
2.								172		81.00		70		285		70		670				21 hours	
3.								172		73.10		73		270		73		610				3 Hours	
4.																							
5.																							
RATE OF FLOW CALCULATIONS																							
NO.		Coefficient (24 Hour)		$\sqrt{h_w P_m}$		Pressure Pm		Flow Temp. Factor Ft.		Gravity Factor Fg		Super Compress. Factor, Fpv		Rate of Flow Q, Mcfd									
1.		21.320		116.64		184.20		0.9877		1.2212		1.0166		3.0347e									
2.																							
3.																							
4.																							
5.																							
NO.		Pr		Temp. °R		Tr		Z		Gas Liquid Hydrocarbon Ratio API Gravity of Liquid Hydrocarbons Specific Gravity Separator Gas Specific Gravity Flowing Fluid Critical Pressure Critical Temperature				Mcft/bbl. Day. XXXXXXXXXXXXXXXXXXXX P.S.I.A R									
1.		0.2157		532.87		1.3968		0.9878															
2.																							
3.																							
4.																							
5.																							
Pc		922.20		Pc2		650.45284																	
NO.		Pt2		Pw		Pw2		Pc2 - Pw2															
1.				622.20		587.13284		463.32000															
2.																							
3.																							
4.																							
5.																							
										(1) $\frac{Pc2}{Pc2 - Pw2} = 1.8308$				(2) $\left[\frac{Pc2}{Pc2 - Pw2} \right]^n = 1.5770$									
										AOF = Q $\left[\frac{Pc2}{Pc2 - Pw2} \right]^n = 4.79207$													
Absolute Open Flow										4.792 Mcfd @ 18.025				Angle of Slope				Slope, n 0.75					
Remarks: Heavy water mist throughout test																							
Approved By Division				Conducted By: Steve Adams				Calculated By: Connie Forbes				Checked By: Noel H. Myers / Kelly Maxwell											