

OIL CONSERVATION DIVISION

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

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator OXY USA INC.				Lease or Unit Name VIKING FEDERAL			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 9-MAY-97		Well No. 1	
Completion Date 4-18-97		Total Depth 9650		Plug Back ID		Elevation	
Csg. Size 5.5"		Wt. 4.6		Set At		Country EDDY	
Perforations: From: 9289 To: 9299				Pool Logan Draw Monnet			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple				Packer Set At 9072			
Producing Thru 9294		Reservoir Temp. °F 160		Mean Annual Temp. °F 60		Baro. Press. - P 13.2	
L 9294		H 9294		Gg 0.676		% CO ₂ 0.74	
				% N ₂ 1.36		% H ₂ S 0	
				Prover		Meter Run 3.0	
						Taps Flange	

FLOW DATA

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	Duration of Flow
1.	3.0 X 0.875		1963	54.8	98			3133	160	96.3
2.	3.0 X 0.875		1725	77.7	93			2536	160	1
3.	3.0 X 0.875		1544	96.3	92			2299	160	1
4.								2016	160	1
5.										

RATE OF FLOW CALCULATIONS

NO.	COEFFICIENT (24 HOUR)	h _w P _{atm}	Pressure P _{atm}	Flow Temp. Factor Ft.	Gravity Factor Fg.	Super Compress. Factor. F _{pv}	Rate of Flow Q, Mcfd
1.		329.04	1975.7	0.9653	1.2163	1.1444	928
2.		367.50	1738.2	0.9701	1.2163	1.1417	1059
3.		387.21	1556.9	0.9701	1.2163	1.1324	1239
4.							
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.	2.95	558	1.48	0.764	0		0.676	XXXXXX	670	377
2.	2.60	553	1.46	0.767				XXXXXX		
3.	2.33	552	1.46	0.780				XXXXXX		
4.										
5.										

P_c	2408.4	P_w	5800		
NO.	P_c^2	P_w^2	$P_c^2 - P_w^2$	1) $\frac{P_c^2}{P_c^2 - P_w^2}$	2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n$
1.	6500	1948	3793	1.7207	1.3475
2.	5345	1769	3130		
3.	4116	1559	2429		
4.					
5.					

$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1655$

Absolute Open Flow	1655	Mcf/d @ 15.025	Angle of Slope °	61.2	Slope, n	0.55
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Remarks: **BASED ON BOTTOM HOLE PRESSURE DATA.**

Approved By Division	Conducted By <i>Harry Davis</i>	Calculated By <i>Thomas L. Byler</i>	Checked By <i>Robert Hammer</i>
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