

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED

C/SF 6-122 USGS

Type Test ☒ Initial FOUR POINT ☐ Annual				Special ☐ Test Date 2-24-82		MAR 11 1982	
Company VIKING PETROLEUM INC. ✓				Connection AIR NEW WELL			
Pool <i>Pecos Slope</i> UNDESIGNATED				Formation ABO		Unit ARTESIA, OFFICE	
Completion Date 2-20-82		Total Depth 4138		Plug Back TD 4054		Elevation 4135 KB	
Casing Size 4.5		WT. 10.5		Set At 4004		Perforations: From 3688 To 3861	
Tubing Size 2.375		WT. 4.70		Set At 3623		Perforations: From OPEN To ENDED	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple SINGLE				Packer Set At NONE		County CHAVES	
Producing Thru TUBING		Reservoir Temp. °F 102 @ 3775		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2	
L 3775		H 3775		G _g .744		% CO ₂ 9.01	
				% N ₂ 8.76		% H ₂ S	
				Prover		Meter Run 3.000	
						Taps FLANGE	

FLOW DATA						TUBING DATA		B.H.P. 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							902		1007		96 HRS.
1.	3.000	X	1.375	390	14.0	46	855	54	955		1
2.	3.000	X	1.375	395	23.0	46	819	57	915		1
3.	3.000	X	1.375	405	51.0	51	742	60	850		1
4.	3.000	X	1.375	405	90.0	54	639	61	757		1
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 _{pv}	Rate of Flow Q, Mcfd
1	9.4860	75.13	403.2	1.0137	1.1593	1.0403	871
2	9.4860	96.89	408.2	1.0137	1.1593	1.0409	1124
3	9.4860	146.04	418.2	1.088	1.1593	1.0403	1686
4	9.4860	194.00	418.2	1.0058	1.1593	1.0398	2231
5							

NO.	R ₁	Temp. °R	T ₁	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/LbL.
1	.55	506	1.39	.924	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2	.59	506	1.39	.923	Specific Gravity Separator Gas .7440 X X X X X X X X
3	.60	511	1.40	.924	Specific Gravity Flowing Fluid X X X X X
4	.60	514	1.41	.925	Critical Pressure 691 P.S.I.A. _____ P.S.I.A.
5					Critical Temperature 364 R _____ R

NO.	P ₁ ²	P _w	P ₂ ²	P ₂ ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.3232$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.8550$
1		938.2	937.4	103.0	$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4,138.5$	<i>Ported ID 2 & Comp. Book SI 3-19-82</i>
2		928.2	861.6	179.0		
3		863.2	745.1	296.0		
4		770.2	593.2	448.0		
5						

Absolute Open Flow <u>4,138.5</u> Mcfd @ 15.025		Angle of Slope <u>53.75</u>	Slope, n <u>.7330</u>
Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMERADA PRESSURE ELEMENTS.			
Approved By Commission:		Conducted By: RICHARD TOWNLEY	Calculated By: BENNETT-CATHEY
		Checked By:	