

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

File 122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 12-13-79		DEC 20 1979	
Company WAINOCO OIL & GAS				Connection AIR		O. C. D.	
Test WHITE RANCH <i>Mississ.</i>				Formation MISSISSIPPI		Office MARTESIA, OFFICE	
Completion Date 12-09-79		Total Depth 8770		Perforations From 8340 To 8370		Elevation 3778 GL	
Casing Size 5 1/2		Set At 8770		Perforations From 8340 To 8370		Well No. # 23	
Tub. Size 2 7/8		Set At 8237		Perforations From To		Unit Sec. Wp. Pgs. M 34 11 29	
Type Well - Sample - Branchhead - G.G. or G.O. Multiple SINGLE				Packer Set At 8237		County CHAVES	
Producing Thru TBG.		Reservoir Temp. °F 158 @ 8355		Mean Annual Temp. °F 60*		State NEW MEXICO	
L 8355		H 8355		Gg 709		Prover 4"	
		% CO ₂ 742		% N ₂ 1.761		% H ₂ S	
FLOW DATA				TUBING DATA		CASING DATA	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Duration of Flow
51						2145	72 HRS
1.	4 X 2.000			450	2.0	82	1 HR.
2.	4 X 2.000			530	3.75	105	1 HR.
3.	4 X 2.000			590	5.0	94	1 HR.
4.	4 X 2.000			570	7.0	87	1 HR.
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, Fpv	Rate of Flow Q, Mgd
1	19.81	30.44	463.2	.9795	1.188	1.052	738
2	19.81	45.13	543.2	.9594	1.188	1.051	1071
3	19.81	54.92	603.2	.9688	1.188	1.062	1330
4	19.81	63.89	583.2	.9750	1.188	1.064	1560
5.							
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 65.000 Met/Sol.		
1	.69	542	1.37	.904	A.P.L. Gravity of Liquid Hydrocarbons 23 @ 60* Deg.		
2	.81	565	1.43	.905	Specific Gravity Separator Gas 709 XXXXXXXXX		
3	.90	554	1.40	.887	Specific Gravity Flowing Fluid XXXXX		
4	.87	547	1.38	.884	Critical Pressure 668 P.S.I.A.		
5.					Critical Temperature 395 °R		
*2329.3 P _r 5425.6				(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.150$			
NO. BHP				(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.739$			
1	2805.2	2168.0	4700.2	725.4	$AOI = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.714$		
2	2580.2	1991.8	3967.3	1458.3			
3	2379.2	1838.5	3380.1	2045.5			
4	2200.2	1703.7	2902.6	2523.0			
5	3010.2	S.I.P.					
Absolute Open Flow 2,714 Mc/D @ 15,025				Angle of Slope 54.25*		Slope, n 723	
Remarks: ** CALCULATED FROM STATIC B.H.P. TAKEN AT 8355.							
Approved by Commission:		Conducted By: LARRY C. DAVIS		Calculated By: LARRY C. DAVIS		Checked By:	