

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

Form C-122
Revised 9-1-65

C/SF
C-122 4565

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 1-27-82		FEB 3 1982	
Company MESA PETROLEUM CO. ✓		Connection Unconnected		O. C. D.	
Pool Underground ABO Peers Slope		Formation ABO		Unit ARTESIA, OFFICE	
Completion Date 1-27-82		Total Depth 4150'		Plug Back TD 4087'	
Elevation 3818.8'		Packer Set At none		County Chaves	
Csg. Size 4 1/2"		Set At 4150'		Well No. 1	
Perforations: From 3442' To 3717'		Casing Size 2 3/8"		Set At 3346'	
Perforations: From open ended To		Unit J		Sec. 19	
Type Well - Single - Protenthead - G.G. or G.O. Multiple single		Packer Set At none		Twp. 6	
Producing Thru tubing		Reservoir Temp. °F 102° @ 4150		Mean Annual Temp. °F 60	
Baro. Press. - P _a 13.2		State New Mexico		Prover 2" ORIFICE WELL TESTER	
L		R		G ₁ .65	
% CO ₂ 1		% N ₂ 1		% H ₂ S	
FLOW DATA		TUBING DATA		CASING DATA	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w
1.	2" ORIFICE	1 1/4	9	52	790
2.	Well	1 1/4	18	56	600
3.	Tester	1 1/4	20.5	58	425
4.		1 1/4	21	59	310
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
1.	708	2" ORIFICE WELL		1.0078	.9608
2.	1074	TESTER		1.0039	.9608
3.	1250			1.0019	.9608
4.	1270			1.0010	.9608
5.					
NO.	P _c	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio
1.					A.P.L. Gravity of Liquid Hydrocarbons
2.					Specific Gravity Separator Gas
3.					Specific Gravity Flowing Fluid
4.					Critical Pressure
5.					Critical Temperature
$P_c^2 = 883$ $P_w^2 = 780$ (1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.2704$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.1271$					
NO.	P _c ²	P _w ²	P _w ²	P _c ² - P _w ²	ACN = 0 $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1400$
1.		788	691	89	
2.		618	382	398	
3.		503	253	527	
4.		408	166	614	
Absolute Open Flow 1400 Melt @ 15.025 Angle of Slope @ 63.5° Slope, n .5					
Remarks: Plot of P _c ² - P _w ² vs. Q yielded a straight line with a θ greater than 63.5°. Drew 63.5° line through highest point.					
Approved By Commission:		Conducted By: James Craig		Calculated By: <i>E.L. Buttross, Jr.</i>	
				Checked By:	

*Posted ID-2
+ Comp. Book
SI*

2-12-82