

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

C-122 file
RECEIVED
JAN 11 1979
FORM C-122
Revised 9-1-65.
MESA-PBD

JAN 17 1979

Type Test ☒ Initial ☐ Annual ☐ G.C. ☐ Special		Test Date 1-6-79	
Company MESA PETROLEUM COMPANY		Connection AIR	
Pool MORROW		Formation MORROW	
Completion Date 12-22-77	Total Depth 7785	Plug Back TD 7714	Elevation
Farm or Lease Name GARDNER STATE		Well No. # 1	
Csg. Size 5" 17"	Set At 7785	Perforations: From 7613 To 7686	Well No. # 1
Tub. Size 2 3/8" 4.7"	Set At 7573	Perforations: From To	Unit Sec. Twp. Rge. K 8 19s 23e
Type Well - Single - Brdenhead - G.G. or G.O. Multiple SINGLE		Packer Set At 7557	County EDDY
Producing Thru TBC	Reservoir Temp. °F 150 @ 7573	Mean Annual Temp. °F 60°	Buro. Press. - P ₀ 13.2
State NEW MEXICO		State	
L 7573	H 7573	Gg .624	% CO ₂ .694
		% N ₂ 1.219	% H ₂ S
Prover		Meter Run 4	Taps FLG.

FLOW DATA							TUBING DATA		CASING 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	Duration of Flow
SI							2182				72 HRS.
1.	4" X	2.500	500	4.0	86	2070					1 HR.
2.	4" X	2.500	510	8.5	83	1960					1 HR.
3.	4" X	2.500	510	15.0	82	1795					1 HR.
4.	4" X	2.500	510	25.0	78	1540					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, Mcfd
1	32.64	45.31	513.2	.9759	1.266	1.040	1900
2	32.64	66.69	523.2	.9786	1.266	1.043	2813
3	32.64	88.59	523.2	.9795	1.266	1.044	3743
4	32.64	114.37	523.2	.9831	1.266	1.045	4855
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mc/Std.
1	.75	546	1.50	.924	55.463	
2	.72	543	1.49	.920	59.1 @ 60	
3	.73	542	1.48	.918		
4	.73	538	1.47	.916		
5.						

NO.	P _r	P _w	P _w ²	P _r ² - P _w ²	(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 2.567$	(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.764$
1	2102.5	4420.5	398.4			
2	2017.0	4068.3	750.6			
3	1892.1	3580.0	1238.9			
4	1715.1	2941.6	1877.3			
5						

Absolute Open Flow 8,564 Mcfd @ 15.025 Angle of Slope 59° Slope, n 602

Remarks: WELL PRODUCED 10 BBL OF DISTILLATE DURING THE TEST

NO. 2000 W. J. Dumas, CTY, NMCD 5
Conducted By: Calculated By: Checked By: