

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 9-23-81		DEC 15 1981	
Company Mesa Petroleum Co.				Connection UNCONNECTED			O. C. D.	
Pool DIAMOND MOUND MORROW				Formation MORROW			Unit ARTESIA, OFFICE	
Completion Date 9-23-81		Total Depth 8620		Plug Back TD 8547		Elevation 3498		Farm or Lease Name SINK FEDERAL
Csg. Size 4 1/2	Wt. 10.5#	d 1.6#	Set At 8613	Perforations: From 8393 To 8457		Well No. 2		
Thg. Size 2 3/8	Wt. 4.7	d	Set At 8294	Perforations: From OPEN ENDED		Unit N	Sec. 9	Twp. 16S
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE				Packer Set At 8294		County EDDY		
Producing Thru TUBING		Reservoir Temp. °F 133 8620		Mean Annual Temp. °F 60		Baro. Press. - P _g 13.2		State NEW MEXICO
L 8620	H 8620	G _g .66	% CO ₂ 1	% N ₂ 1	% H ₂ S	Prover	Meter Run 3 "	Taps FLANGE

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
SI							1770				64 hr. SI
1.	3" X .5"			393	9	101	1700	73			1 hr.
2.	3" X .5"			393	19	101	1645	75			1 hr.
3.	3" X .5"			394	43	105	1572	77			1 hr.
4.	3" X .5"			398	75	103	1470	78			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	1.183	60.4632	406.2	.9628	1.231	1.037	88
2	1.183	87.8510	406.2	.9628	1.231	1.037	128
3	1.183	132.3238	407.2	.9594	1.231	1.038	192
4	1.183	175.6132	411.2	.9610	1.231	1.039	255
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.	.6036	561	1.5000	.930	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.	.6036	561	1.5000	.930	Specific Gravity Separator Gas _____ X X X X X X X X
3.	.6051	565	1.5107	.928	Specific Gravity Flowing Fluid _____ X X X X X
4.	.6109	563	1.5053	.927	Critical Pressure _____ 673 P.S.I.A. _____ P.S.I.A.
5.					Critical Temperature _____ 374 R _____ R

P _c 1783	P _c ² 3179	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.2538$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.7912$
NO.	P _w ²	P _w	P _w ²
1	2934	1713	2934
2	2749	1658	2749
3	2512	1586	2512
4	2199	1484	2202
5			

Absolute Open Flow _____ 700 Mcfd @ 15.025		Angle of Slope θ _____ 48.9°	Slope, n _____ .87
Remarks: _____			
Approved By Commission:	Conducted By: Ed Bannister	Calculated By: E.L. Buttross, Jr.	Checked By: