1-Z7
1-File
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Form C-122
Revised 9-1-65

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

RECEIVED
APR 24 1978
O. C. C.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special			Test Date: 4-3-78	
Company: Mesa Petroleum Company	Connection: Air			Unit: L
Pool: Undesignated	Formation: ~~Morrow~~			
Completion Date: 3-16-78	Total Depth: 8985	Plug Back TD: 8922	Elevation: 3597	Farm or Lease Name: Diamond Mound Fed.
Csg. Size: 5 1/2 / Wt.: / d: / Set At: 8985	Perforations: From 8735 To 8788			Well No.: # 1
Tbg. Size: 2 3/8 / Wt.: 4.7 / d: / Set At: 8690	Perforations: From To			Unit: L / Sec.: 1 / Twp.: 16S / Rge.: 27E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 8690		County: Eddy
Producing Thru: Tubing	Reservoir Temp. °F: 161 @ 8690	Mean Annual Temp. °F: 60°	Baro. Press. – P_a: 13.2	State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
		.660	.220	.579			3"	Flange

FLOW DATA / TUBING DATA / CASING DATA

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							2527				72 Hr
1.	3	X	1.375	527	2.0	83	2240				1 Hr
2.	3	X	1.375	535	5.0	85	2187				1 Hr
3.	3	X	1.375	540	11.0	87	2140				1 Hr
4.	3	X	1.375	547	24.0	84	2020				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	9.249	32.87	540.2	.9786	1.231	1.050	385
2.	9.249	52.35	548.2	.9768	1.231	1.051	612
3.	9.249	78.01	553.2	.9750	1.231	1.050	909
4.	9.249	115.95	560.2	.9777	1.231	1.052	1358
5.							

NO.	P_r	Temp. °R	T_r	Z
1.	.81	543	1.44	.907
2.	.82	545	1.44	.906
3.	.83	547	1.45	.907
4.	.84	544	1.44	.904
5.				

Gas Liquid Hydrocarbon Ratio: Dry Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: Deg.
Specific Gravity Separator Gas: .660 XXXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 670 P.S.I.A. P.S.I.A.
Critical Temperature: 378 R R

P_c 2540.2 P_c^2 6452.6

NO	P_w	P_w^2	$P_c^2 - P_w^2$
1	2254.4	5082.3	1370.3
2	2202.6	4851.4	1601.2
3	2158.0	4657.0	1795.7
4	2044.6	4180.4	2272.2
5			

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.840$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.840^{.8}$

$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3.856$

Absolute Open Flow: 3,856 Mcfd @ 15.025 Angle of Slope θ: 45° Slope, n: 1.000

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	John Davis	Larry Davis	