NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
SEP 22 1978
O. C. C.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special			Test Date: 9-18-78	
Company: MESA PETROLEUM COMPANY	Connection: AIR			
Pool: Undesignated	Formation: MORROW		Unit:	
Completion Date: 8-14-78	Total Depth: 8638	Plug Back TD: 8541	Elevation: 3674 RKB	Farm or Lease Name: Lincoln St. Com.
Csg. Size: 4½ / Wt.: 11.6 / d: / Set At: 8638		Perforations: From 8497 To 8513		Well No.: #1
Tbg. Size: 2 3/8 / Wt.: N-80 / d: / Set At: 8447		Perforations: From To		Unit: H / Sec.: 24 / Twp.: 18 / Rge.: 24
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE		Packer Set At: 8447		County: EDDY
Producing Thru: TBG.	Reservoir Temp. °F: 160 @ PERFS.	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
8447	8447	.671					4"	FLG.

	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					2470				72 HRS.
1.	4 X 2.000	530	2.0	112	2100				1 HR.
2.	4 X 2.000	505	3.6	103	1910				1 HR.
3.	4 X 2.000	500	7.2	87	1490				1 HR.
4.	4 X 2.000	500	12.0	81	765				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	19.81	32.96	543.2	.9535	1.221	1.043	793
2.	19.81	43.19	518.2	.9610	1.221	1.044	1048
3.	19.81	60.79	513.2	.9750	1.221	1.048	1502
4.	19.81	78.48	513.2	.9804	1.221	1.050	1954
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	.81	572	1.50	.919
2.	.77	563	1.47	.918
3.	.77	547	1.43	.910
4.	.77	541	1.42	.907
5.				

Gas Liquid Hydrocarbon Ratio: DRY Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: Deg.
Specific Gravity Separator Gas: .671 XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 669 P.S.I.A. P.S.I.A.
Critical Temperature: 382 R R

P_c P_c^2

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		2116.9	4481.3	1685.0
2		1930.3	3726.2	2440.1
3		1522.5	2317.9	3848.4
4		846.2	716.1	5450.2
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.131$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.098$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.145$

Absolute Open Flow: 2,145 Mcfd @ 15.025 | Angle of Slope θ: 53° | Slope, n: .757

Remarks:

Approved by Commission: | Conducted By: | Calculated By: | Checked By: