Submit in duplicate to appropriate district office
See Rule 401 & Rule 1122

State of New Mexico
Energy, Minerals and Natural Resources Depar[illegible]

Form C-122
Revised 4-1-91

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator: Mack Energy						Lease or Unit Name: M.C. Fed		
Type Test: [X] Initial [ ] Annual [ ] Special						Test Date: 10-20-99	Well No.: 1	
Completion Date: 9-29-99		Total Depth: 14909		Plug Back TD: 14844		Elevation:	Unit Ltr. - Sec. - TWP. - Rge.: 22 17-S 32-E	
Csg. Size: 7"	Wt.: 29#	d: 6.184	Set At: 19.909	Perforations: From: 14805	To: 14821		County: Lea	
Tbg. Size: 2 7/8	Wt.: 7.9#	d: 2.441	Set At: 14,717	Perforations: From:	To:		Pool:	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple: Single				Packer Set At: 14726			Formation: McKee Sand	
Producing Thru: Tbg	Reservoir Temp. °F: 221.3	Mean Annual Temp. °F: 60°		Baro. Press - P_a: 13.2			Connection: Sales	
L: 14726	H: 14726	Gg: .674	% CO_2: 1.581	% N_2: 4.795	% H_2S: 0	Prover: 0	Meter Run: 4.026	Taps: F/G

	FLOW DATA				TUBING DATA		CASING DATA		
NO.	Prover Line Size X Orifice Size	Press. psig.	Diff. h_w	Temp. °F	Press. psig.	Temp. °F	Press. psig.	Temp. °F	Duration of Flow
SI					3420		PKR		
1.	4.026 X 1.625	23.1	1.3	47°	3410				60 min
2.	4.026 X 1.625	23.1	5.0	62°	3320				60 min
3.	4.026 X 1.625	30.4	26.3	70°	3040				60 min
4.	4.026 X 1.625	36.3	43.0	72°	2832				60 min
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	Super Compress. Factor, F_{pv}	Rate of Flow Q, Mcfd
1.							163
2.							360
3.		GAS VOLUMES MEASURED BY TOTAL FLOW METER					847
4.							1422
5.							

NO.	P_r	Temp. °R	T_r	Z
1.				
2.		TOTAL FLOW METER		
3.				
4.				
5.				

Gas Liquid Hydrocarbon Ratio: 11.633 Mcf/bbl
A.P.I. Gravity of Liquid Hydrocarbons: 61.6 Deg.
Specific Gravity Separator Gas: .674 XXXXXXXXX
Specific Gravity Flowing Fluid: N/A XXXXX
Critical Pressure: 664 PSIA PSIA
Critical Temperature: 367 R R

P_c 3433.2 P_c^2 11786.9

NO.	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1.		3423.2	11718.3	68.6
2.		3333.2	11110.2	676.6
3.		3053.2	9322.0	2464.8
4.		2845.2	8095.2	3697.7
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.193$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.938$

$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.756$

Absolute Open Flow: 2.756 Mcfd @ 15.025 Angle of Slope θ: 60.31 Slope, n: .5701

Remarks: *Well made in BBLS of 61.6 API gravity condensate during test.

Approved By Division	Conducted By:	Calculated By:	Checked By:
	Pro Well Testing	M.B.	B.M.

JC


1999