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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-122
Revised 4-1-91

c\sf

OIL CONSERVATION DIVISION

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

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator: Penwell Energy					Lease or Unit Name: Filaree 24 Fed Com			
Type Test: [X] Initial [ ] Annual [ ] Special					Test Date: 7-3-97		Well No.: 1	
Completion Date: 5-13-97		Total Depth: 11557		Plug Back TD: 11510	Elevation: 3380 GR		Unit Ltr. - Sec. - TWP - Rge.: H 24 22-S 25-E	
Csg. Size: 5 1/2	Wt.: 17	d: 4.87	Set At: 11557	Perforations: From: 10,144	To: 11557		County: Eddy	
Tbg. Size: 2 3/8	Wt.: 4.7	d: 1.995	Set At: 10,141	Perforations: From:	To: JUL 16 1997		Pool: E McKittrick Hills Atoka	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple: Single				Packer Set At: 10,141			Formation: Atoka	
Producing Thru: TBG	Reservoir Temp. °F: 175°	Mean Annual Temp. °F: 60°		Baro. Press - P_a: 13.2			Connection: Sales	
L: 10,144	H: 10,144	Gg: .594	% CO_2: .44	% N_2: .75	% H_2S: 0	Prover: 0	Meter Run: 3.068	Taps: F/G

NO.	FLOW DATA: Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA: Press. p.s.i.g.	Temp. °F	CASING DATA: Press. p.s.i.g.	Temp. °F	Duration of Flow
SI					1210		PKR		
1.	3.068 X 1.500	410	2.3	118°	1125	91°			60 min
2.	3.068 X 1.500	397	7.7	114°	980	92°			60 min
3.	3.068 X 1.500	397	16.0	111°	805	92°			60 min
4.	3.068 X 1.500	384	25.0	103°	570	92°			60 min
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.	11.13	31.2	423.2	.9485	1.298	1.030	440
2.	11.13	56.2	410.2	.9518	1.298	1.031	796
3.	11.13	81.0	410.2	.9543	1.298	1.031	1148
4.	11.13	99.6	397.2	.9610	1.298	1.034	1429
5.							

NO.	P_r	Temp. °R	T_r	Z
1.	.85	578	1.65	.942
2.	.85	574	1.64	.941
3.	.84	571	1.63	.940
4.	.83	563	1.60	.936
5.				

Gas Liquid Hydrocarbon Ratio: N/A Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: N/A Deg.
Specific Gravity Separator Gas: .594 XXXXXXXXX
Specific Gravity Flowing Fluid: N/A XXXXX N/A
Critical Pressure: 675 P.S.I.A. N/A P.S.I.A.
Critical Temperature: 350 R N/A R

P_c 1223.2 P_c^2 1496.2

NO.	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1.	1295.5	1140.8	1301.4	194.8
2.	986.4	1003.1	1006.2	490.1
3.	669.5	843.3	711.2	785.0
4.	340.1	637.7	406.6	1089.6
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.373$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.245$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.779$

Absolute Open Flow: 1.779 Mcfd @ 15.025 | Angle of Slope θ: 55.39 | Slope, n: .6899

Remarks:

Approved By Division	Conducted By:	Calculated By:	Checked By:
	Pro Well Tester's	MB	BM