

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 4-23-94	
Company PALOMA RESOURCES		Connection PIPELINE	
Pool		Formation MORROW	
Completion Date 4-6-94		Total Length 11.025	
Casing Size 7.0		Set At 11.025	
Perforations From 9992 To 10008		Well No. #2	
Flow Size 2.875		Set At 9857	
Perforations From - To -		Unit Sec. Twp. Rge. 29 15s 30e	
Type Well - Single - Drillinghead - G.C. or G.C. Multiple SINGLE (GAS)		Packer Set At 9848	
Producing thru TBG. (GAS)		Reservoir Temp. °F 140° 9936	
Mean Annual Temp. °F 60		Duro. Press. - P ₀ 14.65	
L 10.000		H 10.000	
G _g 0.736		% CO ₂ 0.14	
% N ₂ 1.212		% H ₂ S 0.00	
Prover 0.00		Meter Run 3.0	
Taps FLG.		County EDDY Chaves	
State NEW MEXICO			

FLOW DATA							TUBING DATA		BHP 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							2055	60	3427	140	72
1.	3.0	X	1.75	5.0	5.4	70	1600	60	2927	140	1.0
2.	3.0	X	1.75	5.3	7.7	70	1590	60	2724	140	1.0
3.	3.0	X	2.00	6.1	7.8	70	1330	60	2217	140	1.0
4.	3.0	X	2.00	6.4	9.0	70	1145	60	1897	140	1.0
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 _{sp}	Rate of Flow Q, Mscf
1	19.03	27.0	5.0	0.9905	1.166	1.110	570
2	19.03	40.81	5.3	0.9905	1.166	1.115	866
3	25.99	47.58	6.1	0.9905	1.166	1.120	1385
4	25.99	57.60	6.4	0.9905	1.166	1.116	1671
5							

NO.	P ₁	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/Ubl.
1	530	1.17	0.811		17.9	
2	530	1.17	0.804			
3	530	1.17	0.797			
4	530	1.17	0.803			
5						

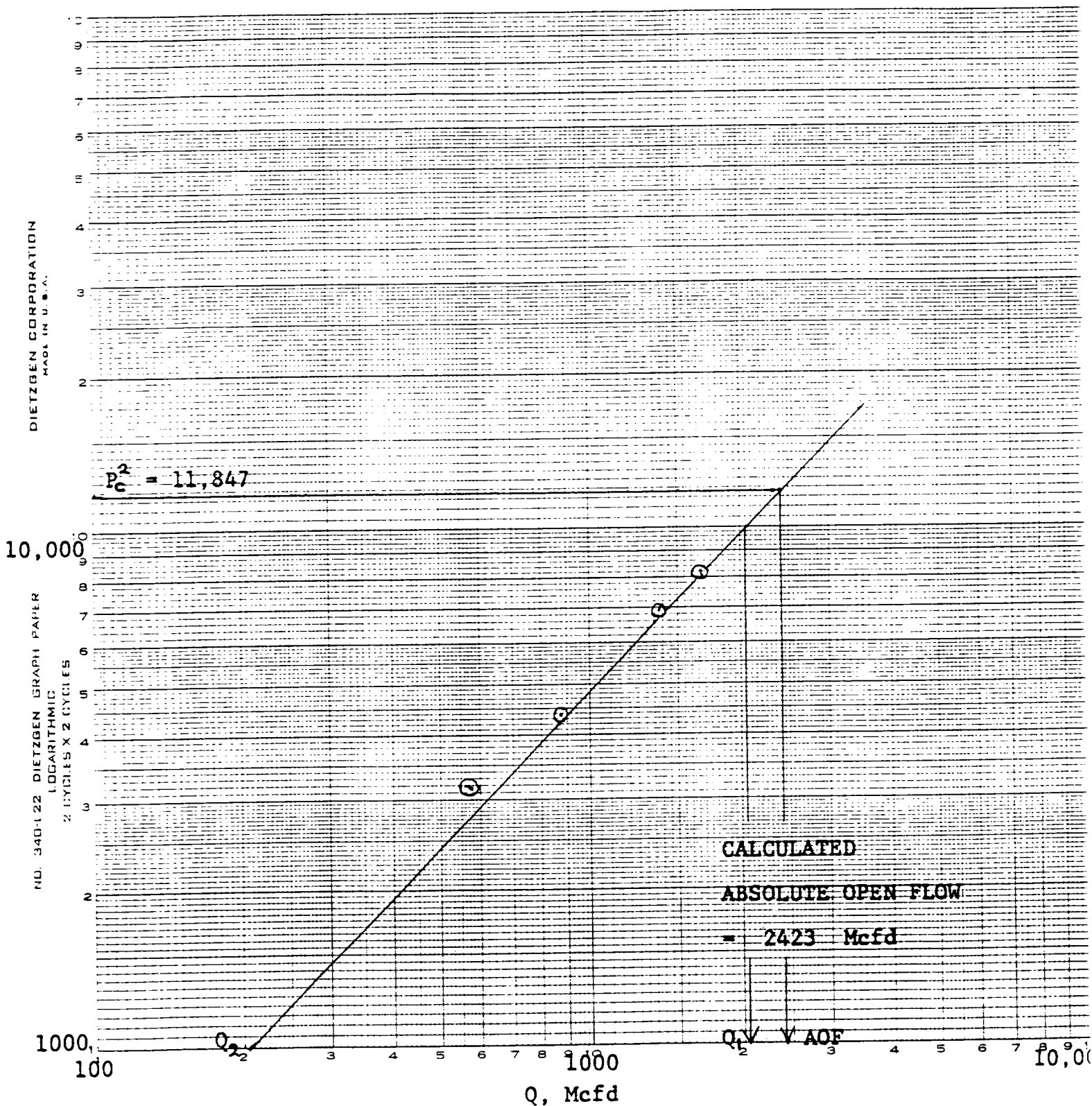
NO.	P ₁	P ₂	P ₁ ²	P ₂ ²	(1) $\frac{P_1^2}{P_2^2 - P_1^2} =$	(2) $\left[\frac{P_1^2}{P_2^2 - P_1^2} \right]^n =$
1	2942	8.65	3192		1.45	1.45
2	2739	7.50	4345			
3	2232	4.98	6865			
4	1912	3.65	8191			
5						

Absolute Open Flow			Angle of Slope		Slope, n	
2423			45		1.00	

Remarks:	
Bottom Hole Pressures taken from bombs hung during test	

Approved By Division	Conducted By	Calculated By	Checked By
	Keltic Services	Jim Smith	

COMPANY : ALOMA RESOURCES
 WELL : PEERY FED # 2
 LOCATION : 29 - 15s - 30
 COUNTY : EDDY
 DATE : 4-23-94



$\Delta P_1 = 10,000$
 $\Delta P_2 = 1,000$

$Q_1 = 2050 \text{ Mcfd}$
 $Q_2 = 205 \text{ Mcfd}$

$\text{LOG } Q_1 = 3.312$
 $\text{LOG } Q_2 = 2.312$

$n = 1.000$

COMPANY: PALOMA RESOURCES
CLIENT: GENE LEE
GAUGE NUMBER: 29353
WELL NAME: PEERY FED
WELL NUMBER: #2
TEST NUMBER: 1
LOCATION:
TEST OPERATOR: KELTIC SERVICES
COMMENTS: 4 pt. W/ BOMBS @ 9800 ft.,
PRESS. EXTRAP. TO MID PERFS.

PAGE START DATE: 4/23/94

GAUGE S/N: 29353

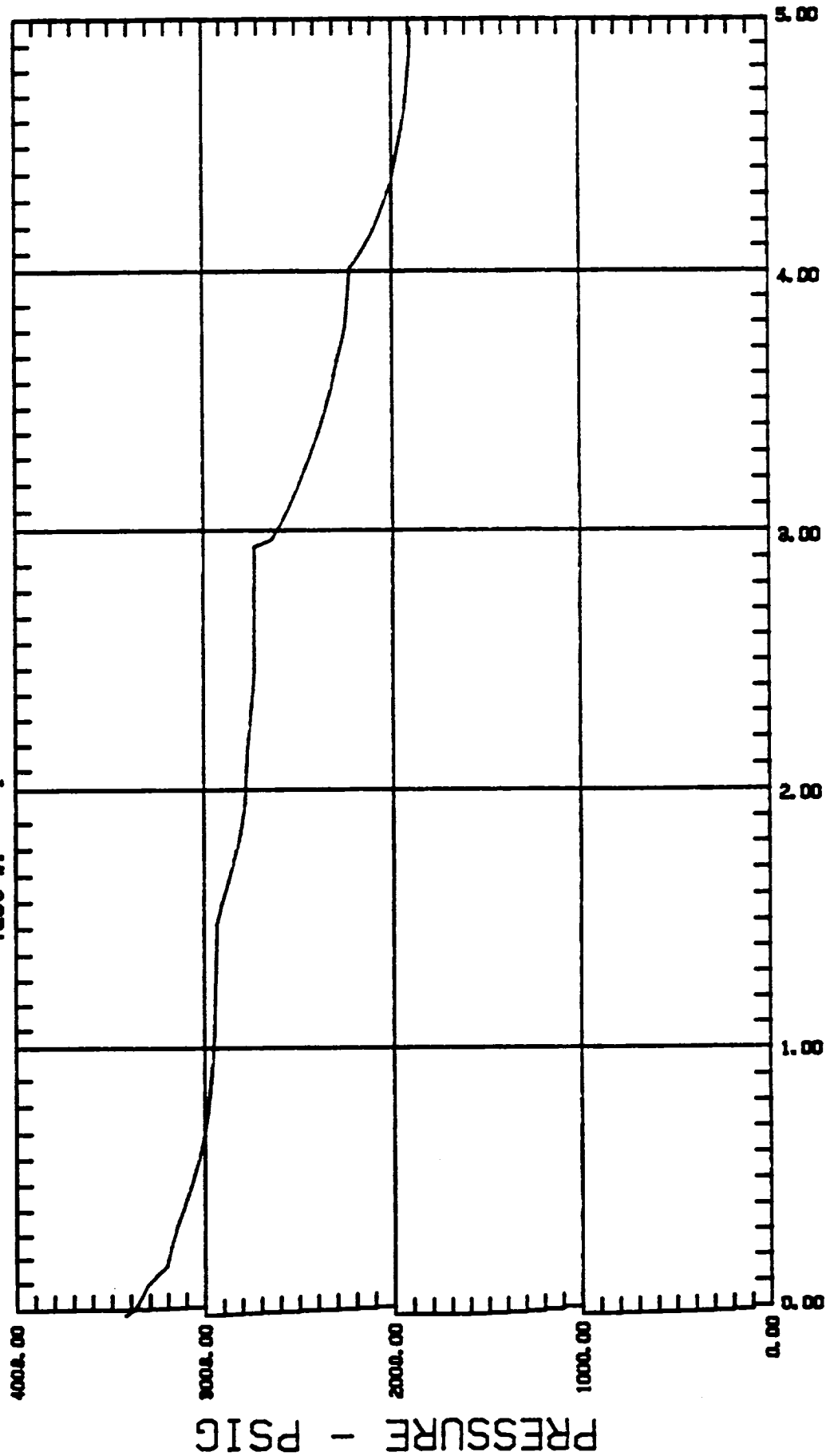
DATA FILE: 11

DATA POINT	REAL TIME	DELTA TIME HRS	DEFLECTION IN	PRESSURE PSIG	COMMENTS
1	13:32:12	0.000	1.1424	3427.27	START FLOW WELL
2	13:34:14	0.034	1.1240	3371.84	
3	13:39:20	0.119	1.1039	3311.29	
4	13:41:36	0.157	1.0878	3262.79	
5	13:43:53	0.195	1.0685	3204.65	
6	13:48: 1	0.264	1.0611	3182.36	
7	13:53: 3	0.348	1.0498	3148.32	
8	13:59: 0	0.447	1.0328	3097.11	
9	14: 4:49	0.544	1.0180	3052.52	
10	14:11:12	0.650	1.0050	3013.36	
11	14:19:27	0.788	0.9938	2979.62	
12	14:26:10	0.899	0.9878	2961.55	
13	14:36:41	1.075	0.9819	2943.77	
14	14:48:13	1.267	0.9795	2936.54	
15	14:58:55	1.445	0.9769	2928.71	
16	15: 3:27	1.521	0.9765	2927.51	END FIRST RATE
17	15: 7:39	1.591	0.9686	2903.71	
18	15:13:11	1.633	0.9558	2865.15	
19	15:18: 1	1.764	0.9462	2836.23	
20	15:23:54	1.862	0.9345	2800.98	
21	15:31: 4	1.981	0.9265	2776.88	
22	15:43: 2	2.181	0.9220	2763.32	
23	15:51:48	2.327	0.9159	2744.95	
24	15:59: 0	2.447	0.9107	2729.28	
25	16: 2:14	2.501	0.9091	2724.46	END SECOND RATE
26	16: 9:53	2.628	0.9091	2724.46	SHUT-IN WELL
27	16:18:17	2.768	0.9091	2724.46	TO CHANGE FLAT
28	16:26:14	2.901	0.9091	2724.46	IN METER RUN
29	16:27:57	2.929	0.9091	2724.46	START
30	16:30:24	2.970	0.9091	2724.46	THIRD RATE
31	16:32:14	3.001	0.8781	2631.07	
32	16:36:24	3.070	0.8596	2575.34	
33	16:41:14	3.151	0.8415	2520.81	
34	16:47:49	3.260	0.8200	2456.03	
35	16:56:14	3.401	0.7969	2386.44	
36	17: 5:28	3.554	0.7765	2324.98	
37	17:13:23	3.686	0.7639	2287.02	
38	17:21:20	3.819	0.7492	2242.73	
39	17:30:15	3.968	0.7434	2225.26	
40	17:34:53	4.045	0.7409	2217.73	END THIRD RATE
41	17:38:42	4.108	0.7211	2158.07	
42	17:43:29	4.188	0.7004	2095.71	
43	17:49:20	4.286	0.6830	2043.29	
44	17:55:48	4.393	0.6671	1995.38	
45	18: 4:34	4.539	0.6532	1953.50	
46	18:12:57	4.679	0.6435	1924.28	
47	18:20: 5	4.798	0.6385	1909.22	
48	18:25:55	4.895	0.6354	1899.88	
49	18:29:53	4.961	0.6347	1897.77	END FOURTH RATE

Plot starting date: 4/23/94
Time: 13:32:12
Gauge S/N 29353

Company: PALOMA RESOURCES
Client: GENE LEE
Well name: PEERY FED
Well #: #2
Test #: 1

Location:
Operator: KELLIC SERVICES
Comments: 4 pt. W/ BOMBS @ 9800 ft..
PRESS. EXTRAP. TO MID PERFS.



DELTA TIME - HRS