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See Rule 401 & Rule 1122

State of New Mexico
Energy, Minerals and Natural Resources Department

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 ENRON OIL AND GAS COMPANY						Lease or Unit Name DIAMOND 7 FEDERAL COM					
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 12/4/92		Well No. 1			
Completion Date 10/5/92		Total Depth 15,623		Plug Back TD 15481		Elevation 3343' GL		Unit Ltr. - Sec. - TWP - Rge. B 7 25S 34E			
Csg. Size 3 1/2	Wt. 12.95	d 2.750	Set At 15621	Perforations: From: 15352 To: 15358				Country LEA			
Tbg. Size	Wt.	d	Set At	Perforations: From: To:				Pool PITCHFORK RANCH			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE						Packer Set At NONE		Formation MORROW "C"			
Producing Thru CSG		Reservoir Temp. °F		Mean Annual Temp. °F 60°		Baro. Press - P _a 13.2		Connection TRANSWESTERN			
L 15623	H 15623	Gg .598	% CO ₂ 1.05	% N ₂ 0.17	% H ₂ S	Prover		Meter Run 4.026		Taps FLG	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	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								3201	60	24 Hours
1.	4.026 X	1.625	675	2.5	52			2793		1 Hour
2.	4.026 X	1.625	675	4.0	59			2585		1 Hour
3.	4.026 X	1.625	675	9.0	68			2277		1 Hour
4.	4.206 X	1.625	675	13.0	70			1912		1 Hour
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, F _{pv}	Rate of Flow Q, Mcfd
1.	12.79	41.48	688.2	1.008	1.293	1.061	734
2.	12.79	52.47	688.2	1.001	1.293	1.059	920
3.	12.79	78.70	688.2	.9924	1.293	1.055	1363
4.	12.79	94.59	688.2	.9905	1.293	1.055	1635
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	1.02	512	1.45	.888	A.P. I Gravity of Liquid Hydrocarbons 53 @ 60°	Deg.
2.	1.02	519	1.47	.892	Specific Gravity Separator Gas .598	XXXXXXXXXX
3.	1.02	528	1.50	.899	Specific Gravity Flowing Fluid XXXXXX	
4.	1.02	530	1.50	.899	Critical Pressure 676 P.S.I.A.	P.S.I.A.
5.					Critical Temperature 353 R	R

P_c 3201 P_c² 10246.4

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1.	2793.5	7803.4	2440.9	
2.	2585.8	6686.2	3557.0	
3.	2278.9	5193.4	5046.2	
4.	1915.3	3668.3	6568.5	
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.559$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.397$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.284$

Absolute Open Flow	2,284	Mcf @ 15.025	Angle of Slope θ	53°	Slope, n	.754
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Remarks: WELL PRODUCED ONE BBL 53° OIL DURING TEST

Approved By Division	Conducted By: JARRELL SERVICES	Calculated By: DD	Checked By: GW, JOHN WEST ENG.
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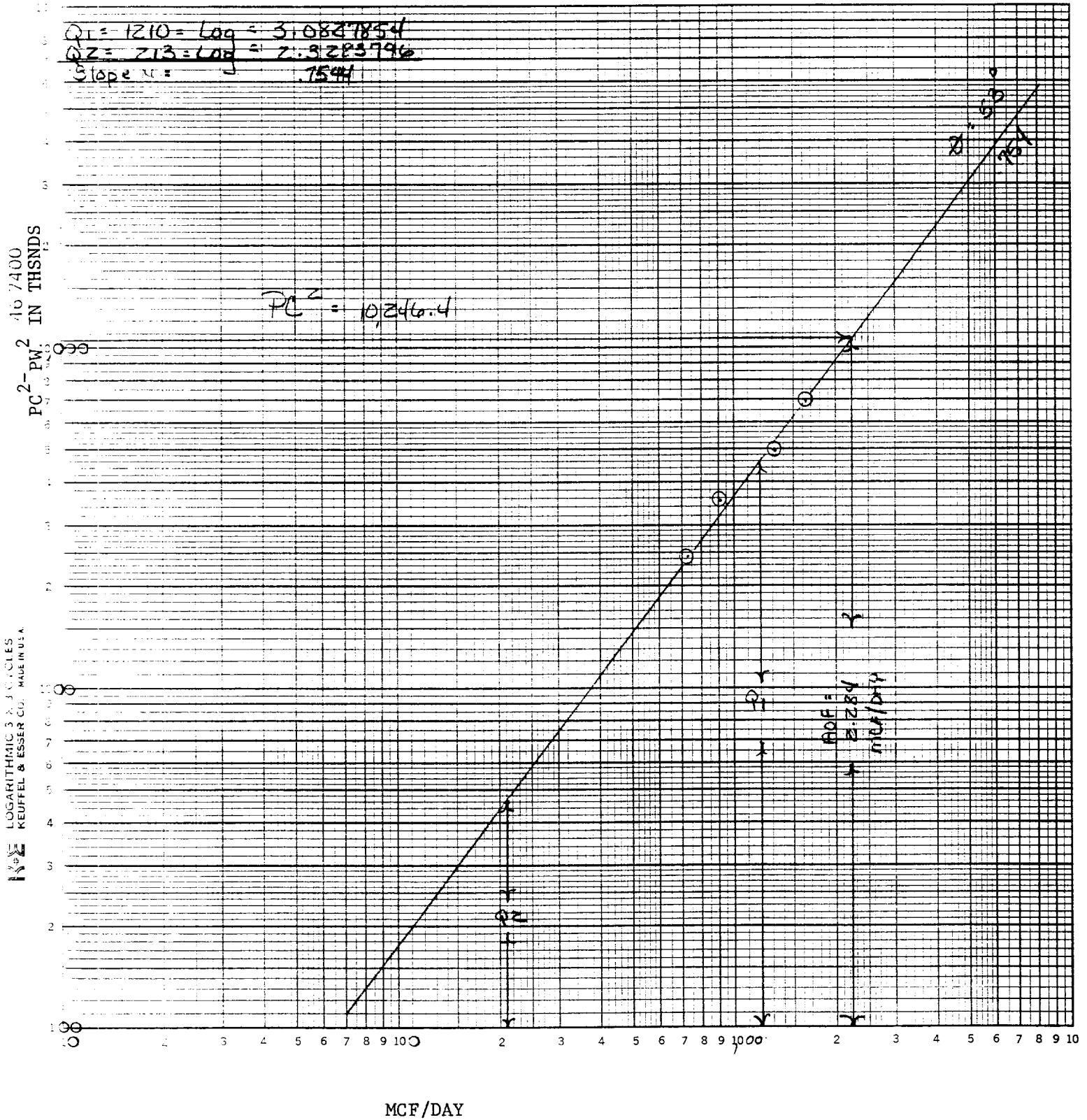
Betty Wilson
Enron oil & gas company
12/10/92

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300 HOBBS ST

ENRON OIL AND GAS COMPANY
 DIAMOND 7 FEDERAL COM WELL NO. 1
 UNIT B SEC. 7 TWP. 25S RGE. 34E
 DECEMBER 4, 1992



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COMPANY : ENRON OIL & GAS LEASE : DIAMOND 7 FED COM WELL NO. : 1 Pc = 3201 Pc2 = 10246.4 *
 UNIT : B SECTION : 7 TOWNSHIP : 25S Pt2 = 7800.8 Pw = 2793.8 *
 L : 15623 H : 15623 L/H : 1 G/GMIX : 0.598 DATE : 12/4/92 6682.2 2586.4 *
 %CO2 : 1.05 %N2 : 0.17 H2S : RANGE : 34E 5184.7 2280.4 *
 d : 2.75 Fr : 0.007883 GH : 9342.6 3655.7 1917.8 *

VOL 1 : 734 PSIA 1 : 2793.0 RESV. TEMP 230.2 Pc2-Pw2 = 2440.9 Pw2 = 7805.5 *
 VOL 2 : 920 PSIA 2 : 2585.0 3557.0 6689.4 *
 VOL 3 : 1363 PSIA 3 : 2277.0 SHUT-IN PR = 3201 5046.2 5200.2 *
 VOL 4 : 1635 PSIA 4 : 1912.0 6568.5 3677.9 *

PCR : 676 n = 0.754 *
 TCR : 353

LINE	RATE 1		RATE 2		RATE 3		RATE 4		Pc2 / (Pc2-Pw2) =
	1ST	2ND	1ST	2ND	1ST	2ND	1ST	2ND	2.881
									2.031
									1.560
1 QM	0.734	0.734	0.920	0.920	1.363	1.363	1.635	1.635	
2 TW	534	534	534	534	534	534	534	534	
3 Ts	690.2	690.2	690.2	690.2	690.2	690.2	690.2	690.2	[Pc2/Pc2-Pw2]n = 2.950
4 T	612.1	612.1	612.1	612.1	612.1	612.1	612.1	612.1	2.220
PR (est)	4.13		3.82		3.37		2.83		1.706
5 Z(est)	0.858	0.874	0.854	0.866	0.853	0.857	0.858	0.853	1.398
6 TZ	525.0	535.2	523.0	529.9	522.3	524.4	525.0	522.2	
7 GH/TZ	17.794	17.455	17.862	17.631	17.889	17.817	17.797	17.890	ADP = Q 2.165
8 eS	1.949	1.924	1.954	1.937	1.956	1.951	1.949	1.956	2.043
9 1-e-S	0.487	0.480	0.488	0.484	0.489	0.487	0.487	0.489	2.325
10 Pt	2793.0	2793.0	2585.0	2585.0	2277.0	2277.0	1912.0	1912.0	2.286
11 Pt2 /1000	7800.8	7800.8	6682.2	6682.2	5184.7	5184.7	3655.7	3655.7	
12 Fr	0.007883	0.007883	0.007883	0.007883	0.007883	0.007883	0.007883	0.0078836	
13 Fc=FrTZ	4.139	4.220	4.124	4.178	4.117	4.134	4.139	4.117	
14 FcQm	3.04	3.10	3.79	3.84	5.61	5.63	6.77	6.73	
15 L/H(FcQm)	9.2	9.6	14.4	14.8	31.5	31.7	45.8	45.3	
16 Fw	14.494395	14.607770	17.026059	17.145540	15.39120	15.47150	122.29549	122.145520	
17 Pw2	7805.3	7805.5	6689.3	6689.4	5200.1	5200.2	3678.0	3677.9	
18 Ps2	15211.9	15019.9	13070.0	12957.5	10170.7	10143.6	7169.0	7193.7	
19 Ps	3900.2	3875.5	3615.2	3599.7	3189.2	3184.9	2677.5	2682.1	
20 P	3346.6	3334.3	3100.1	3092.3	2733.1	2731.0	2294.7	2297.1	
21 Pr	4.95	4.93	4.59	4.57	4.04	4.04	3.39	3.40	
22 Tr	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	
23 Z	0.874	0.874	0.866	0.865	0.857	0.857	0.853	0.853	

FORM C122-D *



Laboratory Services

1331 Tasker Drive
Hobbs, New Mexico 88240

Telephone: (505) 397-3713

FOR: Jarrel Services
Attention: Mr. Donnie Dickerson
P. O. Box 1230
Hobbs, New Mexico 88240

SAMPLE IDENTIFICATION: Diamond 7
COMPANY: Fed. Com. #1
LEASE: Enron Oil & Gas
PLANT:

SAMPLE DATA: DATE SAMPLED: 12-04-92
ANALYSIS DATE: 12-04-92
PRESSURE - PSIG
SAMPLE TEMP. °F
ATMOS. TEMP. °F

GAS (XX) LIQUID ()
SAMPLED BY: Jarrel Services
ANALYSIS BY: Vickie Walker

REMARKS:

COMPONENT ANALYSIS

COMPONENT	MOL PERCENT	GPM
Hydrogen Sulfide (H2S)		
Nitrogen (N2)	0.17	
Carbon Dioxide (CO2)	1.05	
Methane (C1)	94.64	
Ethane (C2)	2.90	0.771
Propane (C3)	0.59	0.163
I-Butane (IC4)	0.08	0.024
N-Butane (NC4)	0.10	0.032
I-Pentane (IC5)	0.02	0.007
N-Pentane (NC5)	0.01	0.004
Hexane (C6)	0.44	0.189
Heptanes Plus (C7+)	0.00	0.000
	100.00	1.190
BTU/CU.FT. - DRY	1050	MOLECULAR WT. 17.3268
AT 14.650 DRY	1053	
AT 14.650 WET	1035	26# GASOLINE - 0.211
AT 15.025 DRY	1027	
AT 15.025 WET	1009	
SPECIFIC GRAVITY -		
CALCULATED	0.598	
MEASURED		

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