

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

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Form C-122
Revised October, 1999

30-015-25959

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Tempo Energy Inc						Lease or Unit Name Penasco Draw Federal					
Type Test ☐ Initial ☐ Annual ☒ Special						Test Date 11-08-99			Well No. 1		
Completion Date		Total Depth 8850		Plug Back TD 8050		Elevation			Unit Ltr. - Sec. - TWP - Rge. 35 18S 24E		
Csg. Size 5.5	Wt. 17	D 4.892	Set At 8850	Perforations: From: To:					County Eddy		
Thg. Size 2.875	Wt. 6.5	D 2.441	Set At 7400	Perforations: From: 7466 To: 7472					Pool		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At			Formation Canyon		
Producing Thru Tubing		Reservoir Temp. °F 150		Mean Annual Temp. °F		Baro. Press - P _a 13.2			Connection Pipeline		
L 8850	H 8850	Gg 0.692	%CO ₂ 0.962	%N ₂ 1.975	%H ₂ S 0.0	Prover		Meter Run 2 inch	Taps pipe		

FLOW DATA						TUBING DATA		CASING 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							2050				120 Hours
1.	2 inch	X	1.125	240	10	95	1450				1 Hour
2.	2 inch	X	1.125	240	14	98	1060				1 Hour
3.	2 inch	X	1.125	250	12	100	650				1 Hour
4.	2 inch	X	1.125	250	8	100	510				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 F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	6.48	50.31	253.2	0.967	1.202	1.042	395
2.	6.48	59.53	253.2	0.965	1.202	1.041	466
3.	6.48	56.19	263.2	0.963	1.202	1.041	439
4.	6.48	45.88	263.2	0.963	1.202	1.041	358
5.							

No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Mcf/bbl.
1.				0.921	A. P. I. Gravity of Liquid Hydrocarbons		Deg.
2.				0.922	Specific Gravity Separator Gas 0.692		XXXXXXXXXX
3.				0.922	Specific Gravity Flowing Fluid		XXXXXX
4.				0.922	Critical Pressure		P.S.I.A. P.S.I.A.
5.					Critical Temperature		R. R.

No.	P _i ²	P _w ²	P _w ²	P _c ² - P _w ²
1.			2077.2	3539
2.			1578.2	5363
3.			1085.2	6676
4.			960.2	6932
5.				

(1) P_{c2} = 2.218

$\frac{P_c^2 - P_w^2}{P_c^2 - P_w^2}$

AOF = Q

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \underline{1.86}$

$\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \underline{735}$

Absolute Open Flow 735		Mcf/d @ 15.025	Angle of Slope θ: 50	Slope, n: 0.779
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Remarks: Flow 1 Choke Size 8/64 Flow 2 choke Size 10/64 Flow 3 Choke Size 11/64 Flow 4 Choke Size 12/64

Approved By Division	Conducted By: Keltic Services Inc	Calculated By: JJ McGlasson	Checked By:
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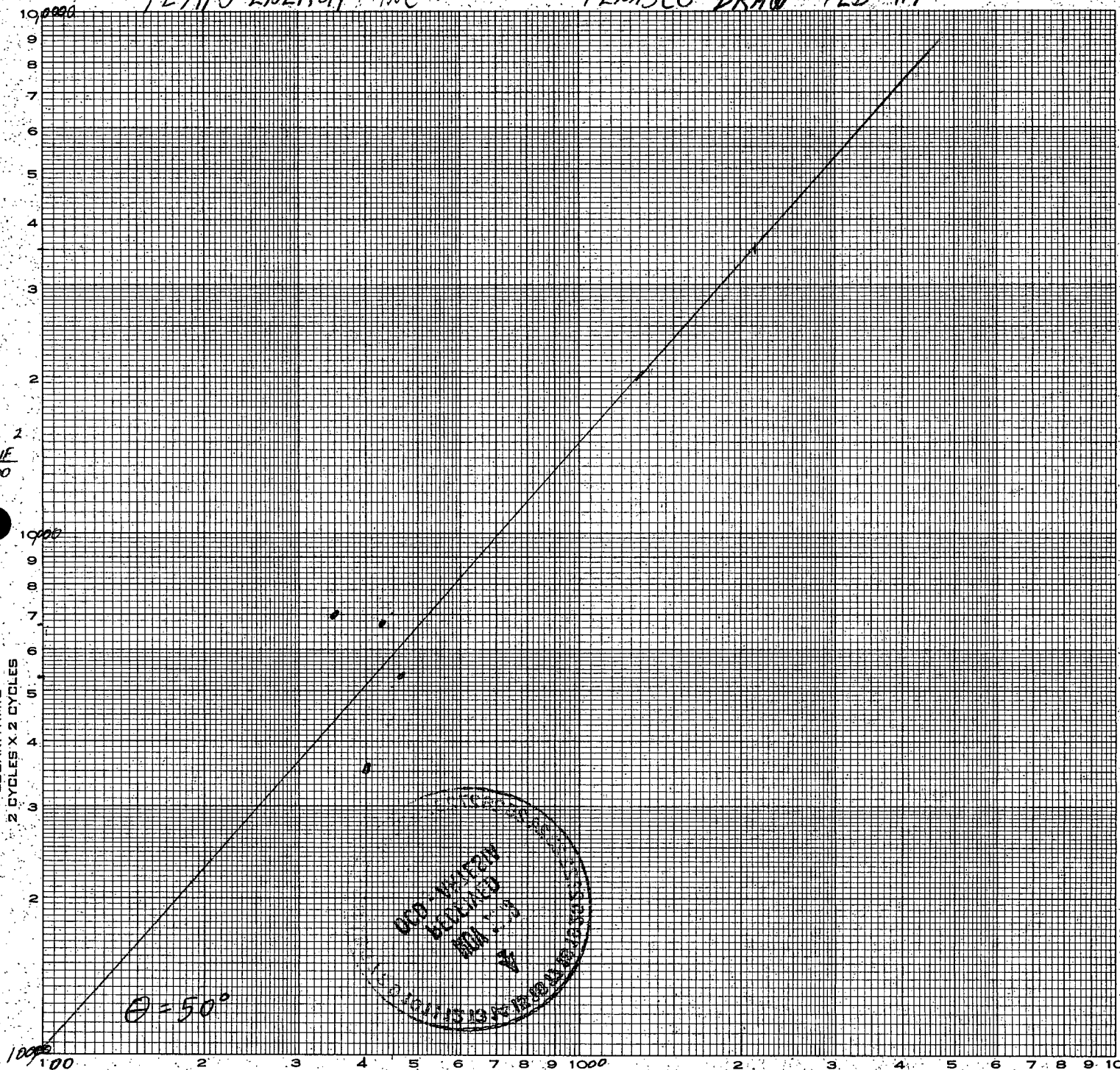
TEST DATE 11-8-99

TEMPO ENERGY INC

PENASCO DRAW FED #1

DIETZGEN CORPORATION
MADE IN U.S.A.
 $\frac{P^2 - P_{WF}^2}{1000}$

NO. 340-L22 DIETZGEN GRAPH PAPER
LOGARITHMIC
2 CYCLES X 2 CYCLES



Q MSCFPD

$$Q_1 = 395 \quad \text{LOG } Q_1 = 2.597$$

$$Q_2 = 2150 \quad \text{LOG } Q_2 = 3.332$$

$$\frac{\text{LOG } Q_2}{\text{LOG } Q_1} = .779 = N$$

SUGGESTED FIELD DATA SHEET (Not Required To Be Filled)													
Type Test ☐ Initial ☐ Annual ☒ Special										Test Date 11-8-99		Lease No. or Serial No.	
Company TEMPO ENERGY										Connection		Allottee	
Field Reservoir CANYON										Location		Unit	
Completion Date		Total Depth 8850		Plug Back TD 8050		Elevation		Form or Lease Name PENASCO DRAW Fcd					
Csg. Size 5.5		Wt. 17		d 4.892		Set At 8850		Perforations: From To		Well No.			
Tbg. Size 2.875		Wt. 6.5		d 2.441		Set At 7400		Perforations: From To 7466 To 7472		Sec. 35 Twp. 18N Rge. 24E			
Type Completion (Describe) SINGLE										Packer Set At		County or Parish EDDY	
Producing Thru TUBING		Reservoir Temp. F 150		Mean Annual Temp. F		Baro. Press. - P _a 13.2		State NEW MEXICO					
L 8850		H 8850		G _a 0.692		% CO ₂ 0.962		% N ₂ 1.975		% H ₂ S 0.0			
								Prover		Meter Run 2 IN			
										Taps PIPE			
DATE	ELAP. TIME	Wellhead Working Pressure			METER OR PROVER				REMARKS				
Time of Reading	Hrs.	Tbg. Psig.	Csg. Psig.	Temp. F	Pressure Psig.	Diff.	Temp. F	Orifice	(Include liquid production data: Type-A.P.L. Gravity--Amount)				
11:15		1960			320	18	90		8/64 CHOKE				
11:30		1800			320	18	92						
11:45		1700			320	12	90						
12:00		1550			320	10	90						
12:15		1450			320	10	95						
12:30		1380			340	22	98		10/64 CHOKE				
12:45		1250			340	20	98						
1:00		1150			320	15	98						
1:15		1060			320	14	98						
1:30		880			310	20	100		11/64 CHOKE				
1:45		800			310	16	100						
2:00		690			320	12	100						
2:15		650			320	12	100						
2:30		590			320	12	100		12/64 CHOKE				
2:45		550			340	10	100						
3:00		525			340	9	100						
3:15		510			320	8	100						

Wildcat Measurement Service
PO Box 1836
Artesia, New Mexico 88211-1836
Office #505-746-3481
"Quality and Service is our First Concern"

DOS 2.0

Run No. 990911-05
Date Run 11/09/99
Date Sampled 11/08/99

Analysis for: TEMPO ENERGY
Well Name: PENASCO DRAW #1
Field:

GPANGL.L60

Sta. Number:
Purpose: SPOT
Sampling Temp: DEG F
Volume/day:
Pressure on Cylinder: 320 PSIG

Producer: TEMPO ENERGY
County: EDDY State: NM
Sampled By: KELTIC SERVICES
Atmos Temp: DEG F
Formation:
Line Pressure: 333.2 PSIA

GAS COMPONENT ANALYSIS

		Mol %	GPM
Carbon Dioxide	CO2	0.962	
Nitrogen	N2	1.975	
Methane	C1	80.687	13.676
Ethane	C2	11.191	2.993
Propane	C3	3.400	0.937
Iso-Butane	IC4	0.333	0.109
Nor-Butane	NC4	0.682	0.215
Iso-Pentane	IC5	0.174	0.064
Nor-Pentane	NC5	0.233	0.084
Hexanes Plus	C6+	0.363	0.156
TOTAL		100.000	18.234

Pressure Base: 14.730
Real BTU Dry: 1169
Real BTU Wet: 1149
Real Calc. Specific Gravity: 0.692
Field Specific Gravity: 0.000

Standard Pressure: 14.696
BTU Dry: 1166
BTU Wet: 1146

Z Factor: 0.9970
N Value: 1.2862
Avg Mol Weight: 20.0025
Avg CuFt/Gal: 55.9024
26 Lb Product: 0.4692
Methane+ GPM: 18.234
Ethane+ GPM: 4.558
Propane+ GPM: 1.565
Butane+ GPM: 0.628
Pentane+ GPM: 0.304

REMARKS:

Thu Nov 11 08:07:32 1999

Approved by: DON NORMAN

