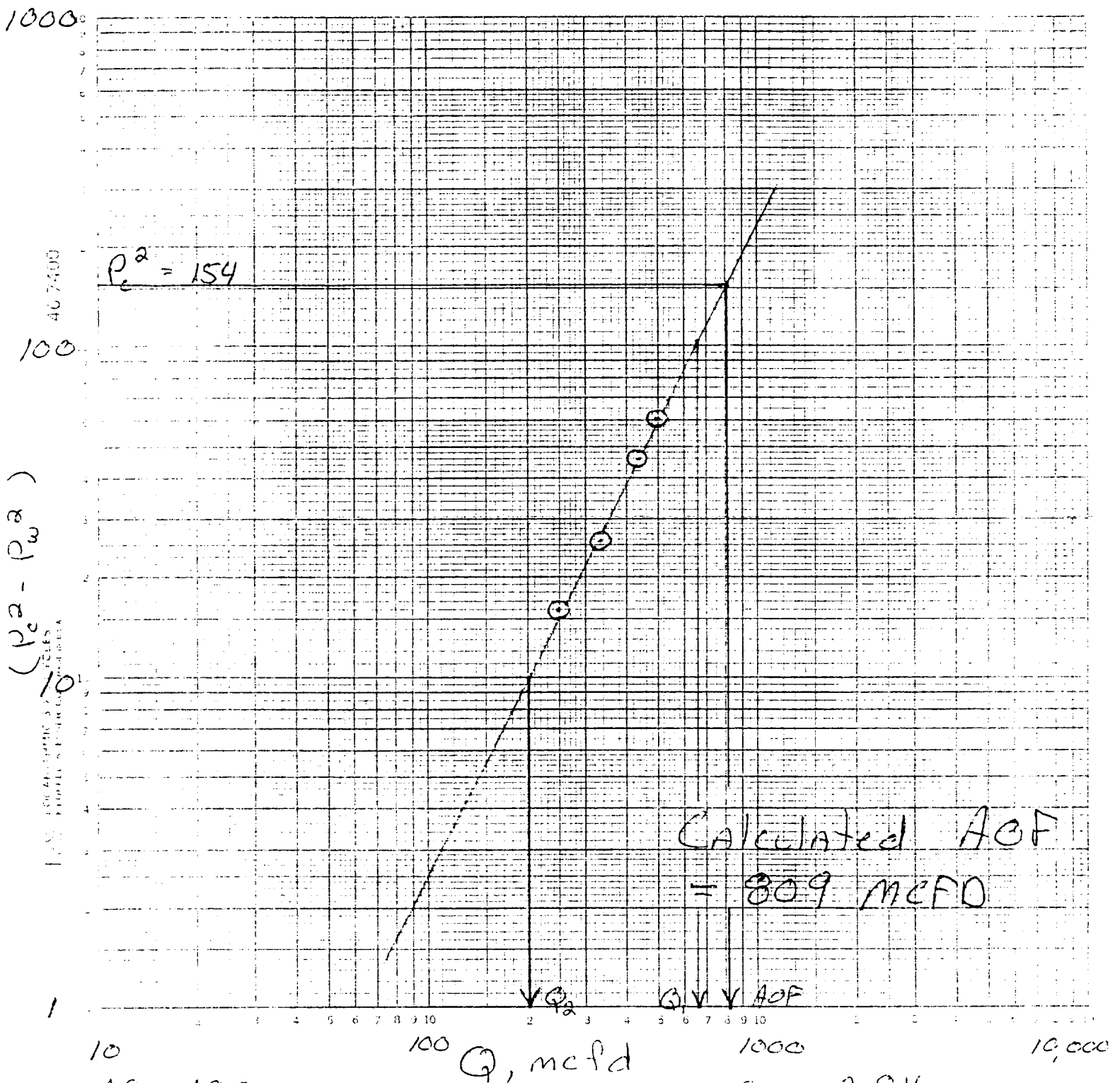


MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 1-12-93	
Company Elk Oil Co.		Connection Line	
Pool n/a		Formation Abo	
Completion Date 9-26-92		Total Depth 5392	
Plug Back TD 5040		Elevation n/a	
Farm or Lease Name Aikman St. Com		Well No. #2	
Csg. Size 4.5	Wt. 11.6	d 4.000	Set At 5392
Perforations: From 4863 To 4875		Unit H	
Tbg. Size 2.375	Wt. 4.7	d 1.995	Set At 4793
Perforations: From -- To --		Sec. 14	
Type Well - Single - Blindhead - G.G. or G.O. Multiple Single (gas)		Twp. 9S	
Packer Set At 4793		Rnge. 26E	
Producing Thru Tbg. (gas) 108 #4869		County Chaves	
Mean Annual Temp. °F 60		State N.M.	
L 4869	H 4869	Gg 0.648	% CO ₂ 0.205
% N ₂ 4.738	% H ₂ S 0.00	Prover 0.00	Meter Run 3.0
Taps Flg.			
FLOW DATA			
NO.	Prover Line Size	X	Orifice Size
SI			
1.	3.0 x 0.75		240
2.	3.0 x 0.75		240
3.	3.0 x 0.75		245
4.	3.0 x 0.75		240
5.			
RATE OF FLOW CALCULATIONS			
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m
1	2.675	72.92	253.2
2	2.675	98.09	253.2
3	2.675	128.55	258.2
4	2.675	145.84	253.2
5			
Flow Temp. Factor Ft.			
1	1.000	1.242	1.024
2	1.000	1.242	1.024
3	1.000	1.242	1.024
4	1.000	1.242	1.024
5			
Gravity Factor Fg			
1	1.024	1.024	1.024
2	1.024	1.024	1.024
3	1.024	1.024	1.024
4	1.024	1.024	1.024
5			
Super Compress. Factor, F _{spv}			
1	1.024	1.024	1.024
2	1.024	1.024	1.024
3	1.024	1.024	1.024
4	1.024	1.024	1.024
5			
Rate of Flow Q, Mcfd			
1	248	334	437
2	334	437	496
3	437	496	
4	496		
5			
Gas Liquid Hydrocarbon Ratio Dry Gas Mcf/bbl.			
A.P.I. Gravity of Liquid Hydrocarbons Dry Gas Deg.			
Specific Gravity Separator Gas 0.648 XXXXXXXXXX			
Specific Gravity Flowing Fluid XXXXX			
Critical Pressure 691 P.S.I.A. P.S.I.A.			
Critical Temperature 368 R °F			
$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 3.35$ $(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.86$ $AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 809$			
NO.	P _c ²	P _w ²	P _w ² - P _c ²
1	393	154	16
2	372	138	26
3	359	128	46
4	329	108	61
5	305	93	
Absolute Open Flow 809 Mcfd @ 15.025 Angle of Slope 0 Slope, n 0.513			
Remarks: Choke sizes, 1st rate = 10/64, 2nd - 13/64, 3rd - 16/64, 4th - 19/64			
Approved By Division Conducted By: Keltic Services Calculated By: Checked By:			

Company : Elk Oil Co.
 Well : Aikman St. Com # 2
 Location : S14-T9S-R26E
 County : Chaves
 Date : 1-12-93



$\Delta P_1 = 100$
 $\Delta P_2 = 10$
 $Q_1 = 655$
 $Q_2 = 201$

$\log Q_1 = 2.816$
 $\log Q_2 = 2.303$
 $n = 0.513$

s3B
s0B

"Let us interest in measurement be our concern"

DOS

PRECISION SERVICE, INC.

P.O. Box 3659 * Casper, Wyoming 82602 * (307) 237-9327
P.O. Box 2604 * Roswell, New Mexico 88201 * (505) 622-9874
Analysis Results Summary

Run No. 930113-1
Date Run 01/13/93
Date Sampled 01/12/93

Analysis for KELTIC SERVICES

GPANGL L50

Field:
Well Name: AIKMAN STATE COM. #2
Sta. Number:
Purpose: SPOT
Sampling Temp: 50 DEG F
Volume/day:
Pressure on Cylinder: 240 PSIG

Producer: ELK OIL COMPANY
County: CHAVES State: NM
Sampled By: JIM
Atmos Temp: 50 DEG F
Formation:
Line Pressure: 253.2 PSIA

GAS COMPONENT ANALYSIS

Pressure Base: 14.730

		Mol %	GPM
Carbon Dioxide	CO2	0.205	
Nitrogen	N2	4.738	
Methane	C1	86.788	14.710
Ethane	C2	4.739	1.267
Propane	C3	1.864	0.514
Isobutane	IC4	0.304	0.099
Norbutane	NC4	0.595	0.188
Isopentane	IC5	0.185	0.068
Noropentane	NC5	0.184	0.067
Hexanes Plus	C6+	0.398	0.171
TOTAL		100.000	17.084

Real BTU Dry: 1074
Real BTU Wet: 1055
Real Calc. Specific Gravity: 0.648
Field Specific Gravity: 0.000

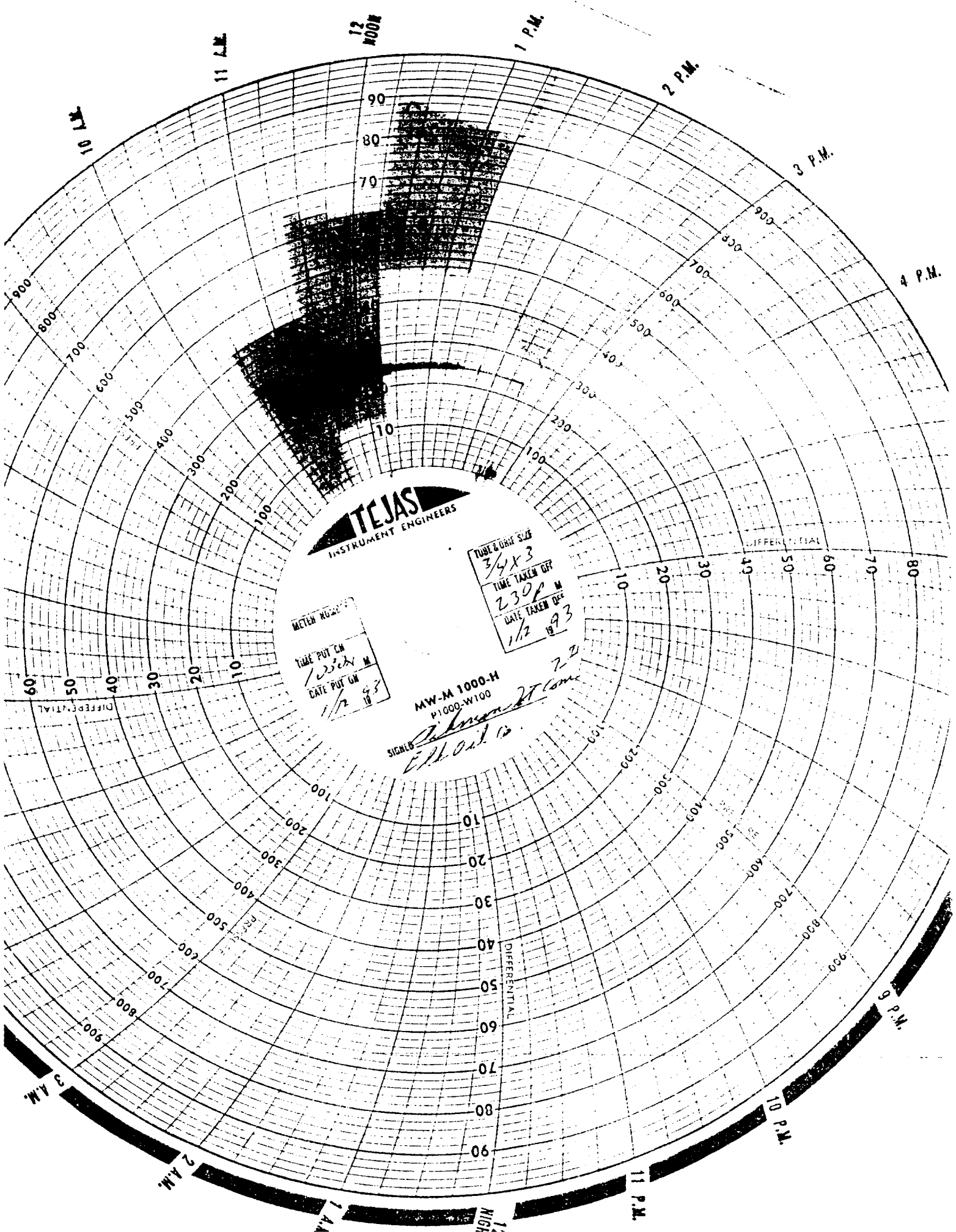
Standard Pressure: 14.696
BTU Dry: 1072
BTU Wet: 1053

Z Factor: 0.9976
N Value: 1.2991
Avg Mol Weight: 18.7420
Avg CuFt/Gal: 58.5690
26 Lb Product: 0.4748
Methane+ GPM: 17.084
Ethane+ GPM: 2.374
Propane+ GPM: 1.106
Butane+ GPM: 0.592
Pentane+ GPM: 0.305

REMARKS:

Approved by: JEFF DECK

Wed Jan 13 09:05:40 1993



TEJAS
INSTRUMENT ENGINEERS

TUBE & GAGE SIZE
3/4 x 3
TIME TAKEN OFF
230 P.M.
DATE TAKEN OFF
1/2 1993

METER NO. 225
TIME PUT ON
1/2 1993
DATE PUT ON
1/2 1993

MW-M 1000-H
P1000-W100

SIGNED *Edmond J. Combs*
Edmond J. Combs