

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE

Form approved. ✓
Budget Bureau No. 1004-0137
Expires August 31, 1985

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL GAS WELL DRY Other _____

b. TYPE OF COMPLETION: NEW WELL WORK OVER DEEP-EN PLUG BACK DIFF. REVER. Other _____

2. NAME OF OPERATOR
Tempo Energy, Inc. ✓

3. ADDRESS OF OPERATOR
4000 N. Big Spring, Suite 109, Midland, Texas 79705

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)
At surface Unit O, 990' FSL & 1980' FEL

At top prod. interval reported below
At total depth

RECEIVED

SEP-26 '88

O. C. D.
ARTESIA, OFFICE

5. LEASE DESIGNATION AND SERIAL NO.
NM-33661

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Penasco Draw Federal

9. WELL NO.
1

10. FIELD AND POOL, OR WILDCAT
PENASCO DRAW
Wildcat (1980)

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA
Sec. 35, 18-S, 24-E

12. COUNTY OR PARISH
Eddy

13. STATE
NM

15. DATE SPUDDED 7-27-88
16. DATE T.D. REACHED 8-19-88
17. DATE COMPL. (Ready to prod.) 8-29-88
18. ELEVATIONS (DP, RKB, RT, GR, ETC.)* 3716.5 GR
19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD 8,850'
21. PLUG, BACK T.D., MD & TVD
22. IF MULTIPLE COMPL., HOW MANY*
23. INTERVALS DRILLED BY
ROTARY TOOLS X
CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*
8641-8662' Upper Morrow

25. WAS DIRECTIONAL SURVEY MADE
yes

26. TYPE ELECTRIC AND OTHER LOGS RUN
CNL, Comp. Density, DL

27. WAS WELL CORED
no

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13 3/8"	48#	388'	17 1/2"	440 sx Hi Early II w/2% CaCl + circ'd	
9 5/8"	36#	1216'	12 1/2"	400 sx Hi Early II w/2% CaCl	
5 1/2"	17#	8840'	7 7/8"	400 sx Lite Poz + 100 sx Cl "C" near circ'd	
				350 sx Lite + 225 sx Cl "H"	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2 7/8"	8840'	8600'

30. TUBING RECORD

31. PERFORATION RECORD (Interval, size and number)
8641' - 8662' w/30 shots

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
8641' - 8662'	3000 gal. 7% NeFe acid

33.* PRODUCTION

DATE FIRST PRODUCTION 8-29-88
PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Flowing
WELL STATUS (Producing or shut-in) Shut-in

DATE OF TEST 8-29-88
HOURS TESTED 4
CHOKE SIZE 8/64-14/64
PROD'N. FOR TEST PERIOD
OIL—BBL. trace
GAS—MCF. 2,141
WATER—BBL. trace
GAS-OIL RATIO 2,141/1

FLOW. TUBING PRESS. 2330#
CASING PRESSURE packer
CALCULATED 24-HOUR RATE
OIL—BBL. 0
GAS—MCF. 12.8 MMCF
WATER—BBL. 0
OIL GRAVITY-API (CORR.) none

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)
Vented CAOF
TEST WITNESSED BY Lynn Foster

35. LIST OF ATTACHMENTS
Inclination report & set of logs.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

SIGNED *J.P. [Signature]* TITLE President DATE 9-1-88

*(See Instructions and Spaces for Additional Data on Reverse Side) CARLSBAD, NEW MEXICO

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
			<p>NO IMPORTANT POROSITY ZONES</p> <p>NO CORES - NO DST</p>

38. GEOLOGIC MARKERS

NAME	MEAS. DEPTH	TOP
	TRUE VERT. DEPTH	
Yeso	2116'	
Abo	4040'	
Cisco	7008'	
Canyon	7425'	
Strawn	7697'	
Atoka	7991'	
Morrow	8625'	

**RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION**

RECEIVED

Form W-12
(1-1-71)

SEP 26 '88

INCLINATION REPORT (One Copy Must Be Filed With Each Completion Report.)		O. C. D.	6. RRC District New Mexico
		ARTESIA, OFFICE	7. RRC Lease Number. (Oil completions only)
1. FIELD NAME (as per RRC Records or Wildcat) U.A.D. Wildcat Penasco Draw (Marzo)	2. LEASE NAME Penasco Federal		8. Well Number #1
3. OPERATOR Tempo Energy			9. RRC Identification Number (Gas completions only)
4. ADDRESS 4000 North Big Spring, Suite 109, Midland, Texas 79705			10. County Eddy
5. LOCATION (Section, Block, and Survey) Section 35, Township 18 South, Range 24 East			

RECORD OF INCLINATION

11. Measured Depth (feet)	12. Course Length (Hundreds of feet)	13. Angle of Inclination (Degrees)	14. Displacement per Hundred Feet (Sine of Angle X100)	15. Course Displacement (feet)	16. Accumulative Displacement (feet)
150	1.50	1	1.75	2.63	2.63
388	2.38	2	3.49	8.31	10.94
525	1.37	1 3/4	3.05	4.18	15.12
721	1.96	1 1/4	2.18	4.27	19.39
1216	4.95	1 1/2	2.62	12.97	32.36
1401	1.85	1 1/2	2.62	4.85	37.21
1622	2.21	1 1/2	2.62	5.79	43.00
1810	1.88	1 1/2	2.62	4.93	47.93
2114	3.04	3/4	1.31	3.98	51.91
2630	5.16	3/4	1.31	6.76	58.67
3133	5.03	1	1.75	8.80	67.47
3597	4.61	1/2	.87	4.01	71.48
4109	5.15	1/2	.87	4.48	75.96
4395	2.86	1/2	.87	2.49	78.45
4856	4.61	3/4	1.31	6.04	84.49
5360	5.04	3/4	1.31	6.60	91.09

If additional space is needed, use the reverse side of this form.

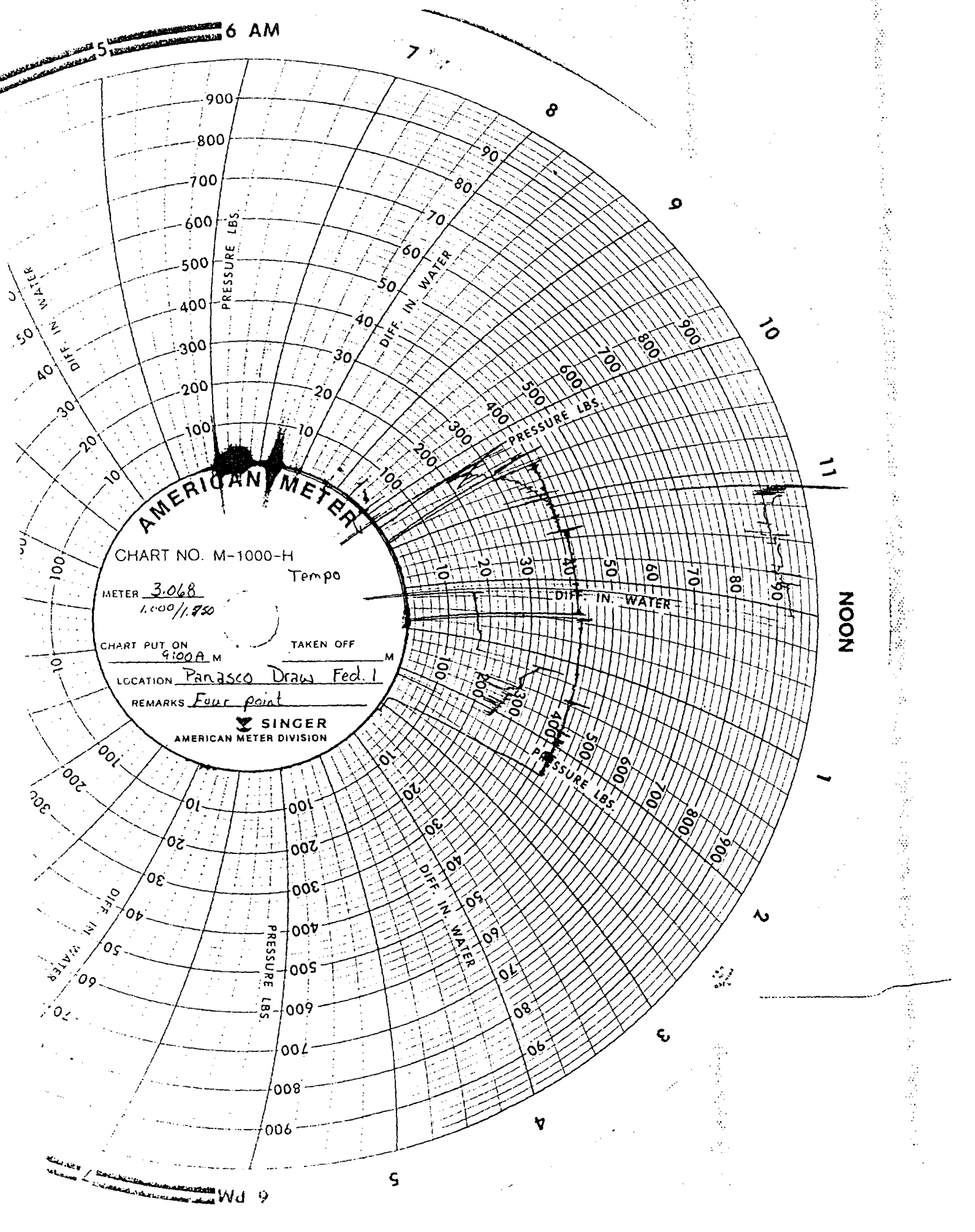
17. Is any information shown on the reverse side of this form? yes no
18. Accumulative total displacement of well bore at total depth of 8850 feet = 147.50 feet.
- *19. Inclination measurements were made in - Tubing Casing Open hole Drill Pipe
20. Distance from surface location of well to the nearest lease line _____ feet.
21. Minimum distance to lease line as prescribed by field rules _____ feet.
22. Was the subject well at any time intentionally deviated from the vertical in any manner whatsoever? No
- (If the answer to the above question is "yes", attach written explanation of the circumstances.)

<p>INCLINATION DATA CERTIFICATION</p> <p>I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have personal knowledge of the inclination data and facts placed on both sides of this form and that such data and facts are true, correct, and complete to the best of my knowledge. This certification covers all data as indicated by asterisks (*) by the item numbers on this form.</p> <p><i>G.P. Green</i> Signature of Authorized Representative</p> <p>G.P. Green - Representative Name of Person and Title (type or print)</p> <p>Cherokee Drilling & Development Corporation Name of Company</p> <p>Telephone: <u>915</u> <u>563-1516</u> Area Code</p>	<p>OPERATOR CERTIFICATION</p> <p>I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have personal knowledge of all information presented in this report, and that all data presented on both sides of this form are true, correct, and complete to the best of my knowledge. This certification covers all data and information presented herein except inclination data as indicated by asterisks (*) by the item numbers on this form.</p> <p><i>T.B. Garber</i> Signature of Authorized Representative</p> <p>T. B. Garber, President Name of Person and Title (type or print)</p> <p>Tempo Energy, Inc. Operator</p> <p>Telephone: <u>915</u> <u>686-0431</u> Area Code</p>
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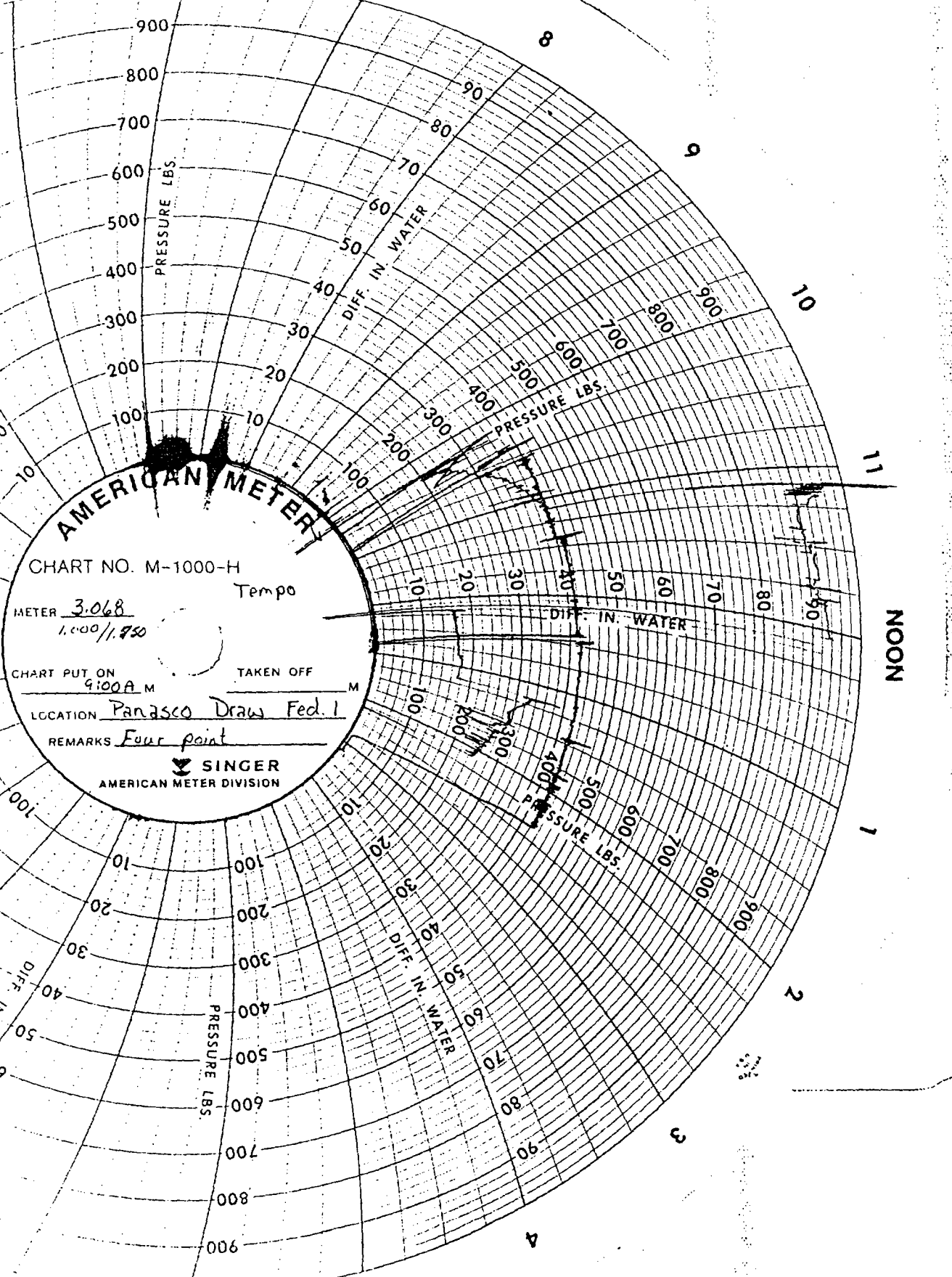
Railroad Commission Use Only:

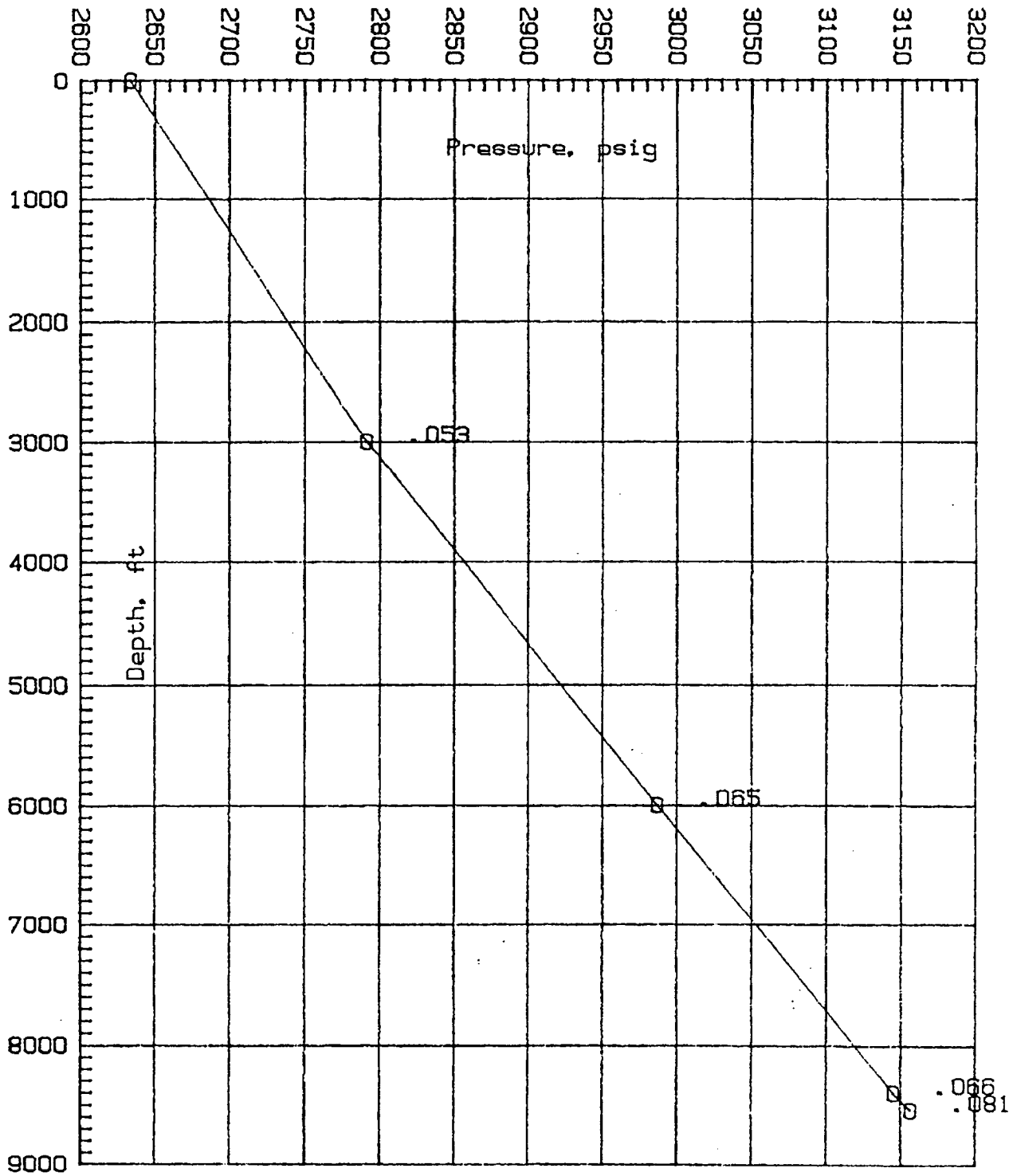
Approved By: _____ Title: _____ Date: _____

* Designates items certified by company that conducted the inclination surveys.



AMERICAN METER
 CHART NO. M-1000-H
 METER 3.068 Tempo
 1,000/1.950
 CHART PUT ON 9:00 A M TAKEN OFF _____ M
 LOCATION Panasco Draw Fed. 1
 REMARKS Four point
SINGER
 AMERICAN METER DIVISION





GRADIENT SURVEY

TEMPO Field : WILDCAT Well # 1
 Lease : PENASCO DRAW FED. County : EDDY State : NM
 Date of Run : 8/29/88 Gauge # 27626A Run by : FAULKENBERRY

DEPTH ft	dDEPTH ft	PRESSURE psig	dPRESSURE psig	GRADIENT psig/ft
0		2633.5		
3000	3000	2791.3	157.8	.053
6000	3000	2987.0	195.7	.065
8400	2400	3145.1	158.0	.066
8541	141	3156.5	11.4	.081
EXTRAPOLATION TO MIDPOINT OF PERFORATIONS ;				
8652		3165.4		.081

BENNETT-CATHEY WIRE LINE SERVICE
 PHONE (505) 748-3354
 ARTESIA, NEW MEXICO, 88210

PRESSURE TRANSIENT TEST DATA

COMPANY: TEMPO CONTACT: TOM GARBER
 LEASE: PENASCO DRAW FEDERAL WELL: #1
 FIELD: WILDCAT ZONE: MORROW, UPPER
 COUNTY: Eddy STATE: New Mexico
 STATUS: FOUR POINT BACK PRESSURE TEST OPERATOR: FAULKENBERRY

PERFORATIONS FROM: 8,641.0' TO: 8,662.0'
 DEPTH: 8,541.0' TEMPERATURE: 188.0°F

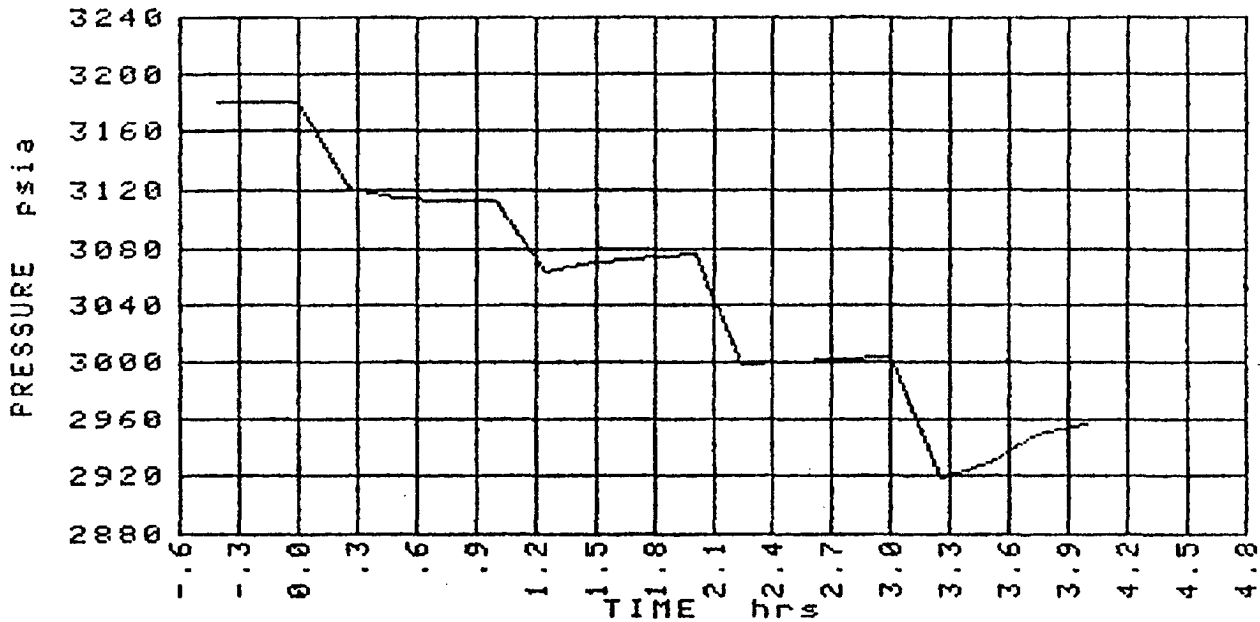
ELEMENT: RPG3#29353 RANGE: 6025 psig
 CLOCK: 21664 RANGE: 12 hrs
 ELEMENT: RPG3#27626 RANGE: 6175 psig
 CLOCK: 23463 RANGE: 12 hrs

SURFACE PRESSURE MEASUREMENTS

EVENT	DATE	TIME	DEAD WEIGHT PRESSURE
START CLOCK	08/29/88	08:50:00	2,632.0 psig
SET ELEMENT	08/29/88	10:12:00	2,632.0 psig
WELL SHUT IN	08/28/88	00:00:00	0.0 psig
TEST ENDED	08/29/88	14:45:00	2,371.0 psig

SUBSURFACE PRESSURE MEASUREMENTS

DATE	TIME	t hrs	GAUGE PRESSURE psig	ABSOLUTE PRESSURE psia	RESERVOIR PRESSURE psia
08/29/88	10:20:17	-.412	3,157.8	3,171.0	3,180.0
08/29/88	10:45:00	0.000	3,157.8	3,171.0	3,180.0
08/29/88	11:00:00	.250	3,098.8	3,112.0	3,121.0
08/29/88	11:15:01	.500	3,093.2	3,106.4	3,115.4
08/29/88	11:30:00	.750	3,091.4	3,104.6	3,113.6
08/29/88	11:45:00	1.000	3,091.4	3,104.6	3,113.6
08/29/88	12:00:00	1.250	3,041.7	3,054.9	3,063.9
08/29/88	12:15:00	1.500	3,047.9	3,061.1	3,070.1
08/29/88	12:45:01	2.000	3,054.3	3,067.5	3,076.5
08/29/88	13:00:00	2.250	2,976.8	2,990.0	2,999.0
08/29/88	13:15:01	2.500	2,977.1	2,990.3	2,999.3
08/29/88	13:30:00	2.750	2,979.9	2,993.1	3,002.1
08/29/88	13:45:00	3.000	2,980.8	2,994.0	3,003.0
08/29/88	14:00:00	3.250	2,896.9	2,910.1	2,919.1
08/29/88	14:15:00	3.500	2,907.0	2,920.2	2,929.2
08/29/88	14:30:00	3.750	2,926.2	2,939.4	2,948.4
08/29/88	14:45:00	4.000	2,934.5	2,947.7	2,956.7



COMPANY: TEMPO
 LEASE: PENASCO DRAW FEDERAL
 FIELD: WILDCAT
 COUNTY: Eddy
 STATUS: FOUR POINT BACK PRESSURE TEST
 PERFORATIONS FROM: 8641 ft
 DEPTH: 8541 ft

CONTACT: TOM GARBER
 WELL: #1
 ZONE: MORROW, UPPER
 STATE: New Mexico
 OPERATOR: FAULKENBERRY
 TO: 8662 ft
 TEMPERATURE: 188°F

ELEMENT# RPG3#29353
 CLOCK# 21664
 ELEMENT# RPG3#27626
 CLOCK# 23463

ELEMENT RANGE: 6025 psig
 CLOCK RANGE: 12 hrs
 ELEMENT RANGE: 6175 psig
 CLOCK RANGE: 12 hrs

START CLOCK	08/29/88	08:50:00	2632 psig
SET ELEMENT	08/29/88	10:12:00	2632 psig
WELL SHUT IN	08/28/88	00:00:00	0 psig
TEST ENDED	08/29/88	14:45:00	2371 psig

GAIN= 1
 FILE: 146-TEMPO:D701

BIAS= 9 psi
 BAROMETRIC PRESSURE= 13.2 psia

BENNETT-CATHEY

BOTTOM HOLE
PRESSURE / GRADIENT
REPORT

FOR:
TEMPO
8/29/88

WELL INFORMATION :

LEASE :PENASCO DRAW FED.	WELL # 1	FIELD : WILDCAT
LOCATION :S35/T18S/R24E		FILE # TEMPO
COUNTY :EDDY		STATE :NM
ELEVATION :3734.00		ZERO POINT :TH
TUBING SIZE :2.875		DEPTH : 8542.0
CASING SIZE :5.5		DEPTH : 8833.0
PACKER TYPE :		@ 8542.00 feet
PERFORATED 8641.0 to 8662.0 feet		TOTAL DEPTH : 8767.0

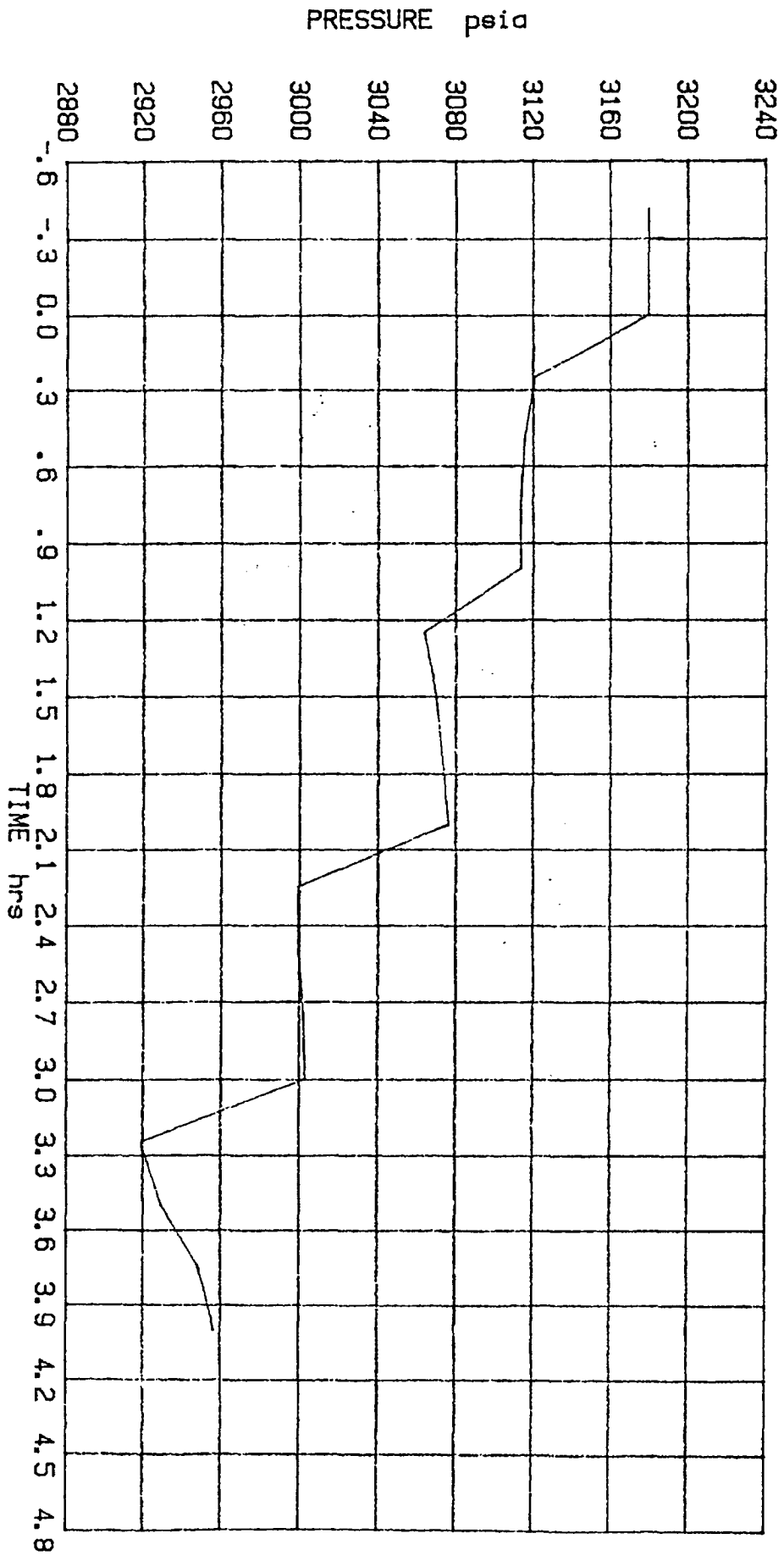
TEST INFORMATION :

WELL CONDITION :SI	WELL TYPE :GAS
SURFACE TUBING PRESSURE 2632 psig by DWT	
SURFACE CASING PRESSURE 0 psig by	
BOTTOM HOLE TEMPERATURE 188 deg. F. at 8541.0 feet	
BOTTOM HOLE PRESSURE 3156.5 psig at 8541.0 feet	
INSTRUMENT TYPE : RPG-3	NUMBER : 27626 RUN BY : FAULKENBERRY

C&W WIRELINE dba BENNETT-CATHEY,P.O.BOX 787 ARTESIA,NM 88210

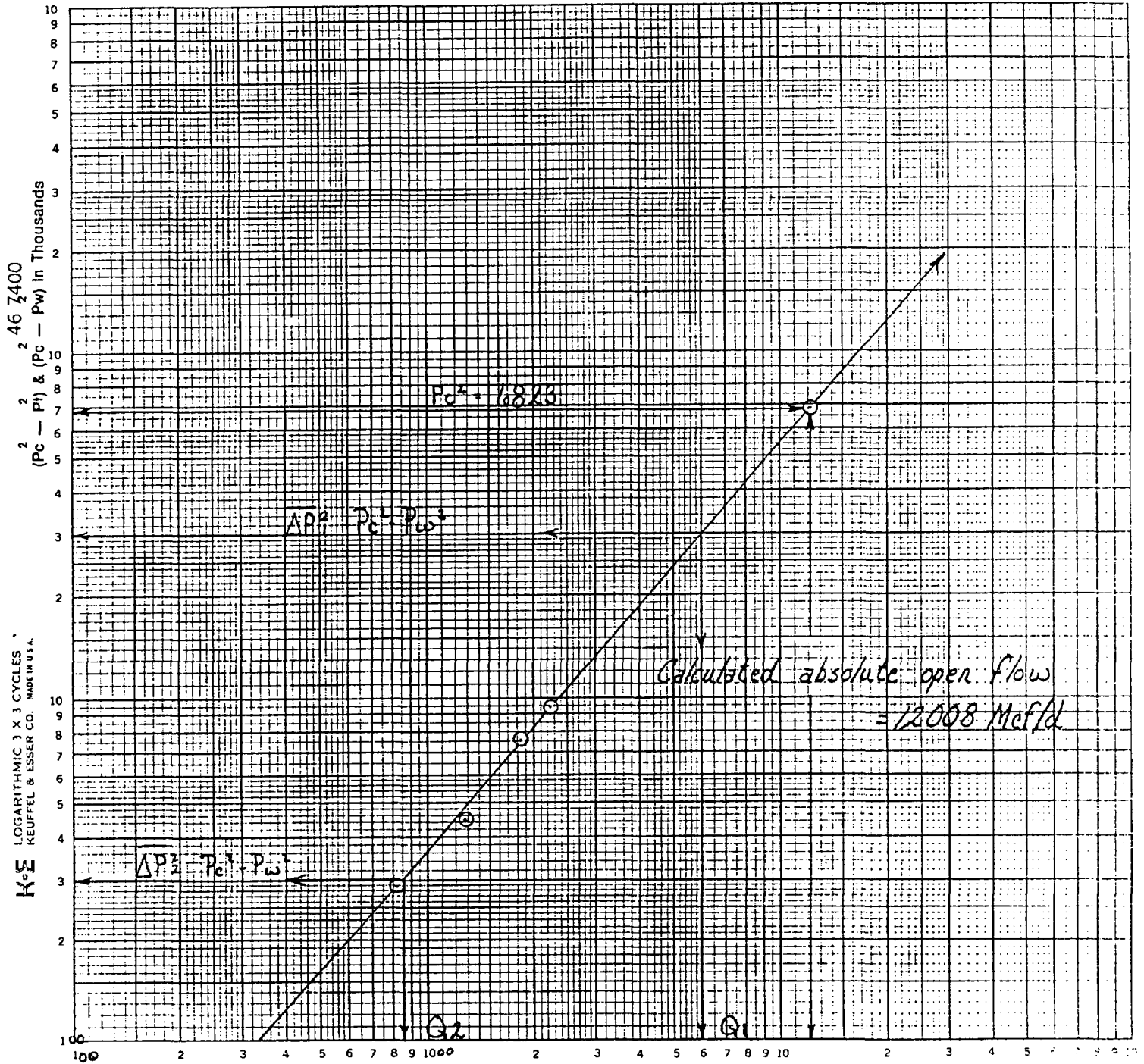
TEST DATE, 08/29/88 TO 08/29/88
 TEST DEPTH, 8541 ft
 ELEMENT NO, RPC3#27626
 RANGE, 6175 psi g
 CLOCK, 23463
 RANGE, 12 hrs
 OPERATOR, FAULKENBERRY

TOM GARBER
TEMPO
PENASCO DRAW FEDERAL #1
BENNETT-CATHEY WIRE LINE SERVICE
Box 787 Artesia, N.M. 88210 (505) 748-3354



BENNETT & CATHEY PRODUCTION TESTING BACK PRESSURE CURVE

Operator TEMPO ENERGY, INC. Lease Penasco Draw Fed. Well No. 1
 County Eddy Field WILDCAT Location 0 Sec 35 Twp 18S Rge 24E
 Date of Test 8-29-88 Slope "n" 0.847 Angle of Slope 49.7
 Calc. Abs. Potential 12008 MCF/D



$\overline{\Delta P}_1^2 \quad P_c^2 - P_w^2 = 3000$

$\overline{\Delta P}_2^2 \quad P_c^2 - P_w^2 = 300$

$Q_1 = 6000$

$Q_2 = 853$

LOG $Q_1 = 3.7781$

LOG $Q_2 = 2.9309$

$n = \frac{3.7781 - 2.9309}{3.7781 - 2.9309} = 0.8472 = 0.847$

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-122
Revised 10-1-78 *25/1/88*

RECEIVED

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test 4 PT. <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special				Test Date 8-29-88		SEP 02 '88						
Company TEMPO ENERGY, INC. ✓				Connection TO AIR				O. C. D.				
Pool PENASCO DRAW MORROW WILDCAT				Formation UPPER MORROW				Unit ARTESIA, OFFICE				
Completion Date 8-27-88		Total Depth 8850		Plug Back TD 8767		Elevation 3717		Farm or Lease Name PENASCO DRAW FED.				
Coq. Size 5.500	Wt. 17.0	d 4.892	Set At 8833	Perforations: From 8641 To 8662				Well No. 1				
Tq. Size 2.875	Wt. 6.5	d 2.441	Set At 8542	Perforations: From OPEN To ENDED				Unit 0	Sec. 35	Twp. 18S	Rge. 24E	
Type Well - Single - Broadhead - G.G. or G.O. Multiple SINGLE						Packer Set At 8542		County EDDY				
Producing Thru TUBING		Reservoir Temp. °F 188 @ 8651.5		Mean Annual Temp. °F 60		Baro. Press. - P _g 13.2		State NEW MEXICO				
L 8651.5	H 8651.5	C _g 0.591	% CO ₂ 0.69	% N ₂ 0.27	% H ₂ S 0	Prover 0	Meter Run 3.068	Taps FLNG				
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. BHP p.s.i.g.	Temp. °F	Duration of Flow	
51							2632	74	3167	188	48 HRS	
1.	3.068	1.000	400	40.0	70	2569	74	3100	188	1.0		
2.	3.068	1.000	415	94.0	70	2517	74	3063	188	1.0		
3.	3.068	1.750	425	18.0	70	2433	73	2990	188	1.0		
4.	3.068	1.750	420	25.5	50	2371	73	2944	188	1.0		
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	4.79	128.56	413.2	0.9905	1.3008	1.0324	819					
2	4.79	200.63	428.2	0.9905	1.3008	1.0336	1280					
3	15.61	88.81	438.2	0.9905	1.3008	1.0344	1848					
4	15.61	105.10	433.2	1.0098	1.3008	1.0397	2240					
5												
NO.	P ₁	Temp. °R	T ₁	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.							
1	0.61	530	1.50	0.938	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.							
2	0.63	530	1.50	0.936	Specific Gravity Separator Gas 0.591 _____ XXXXXXXXX							
3	0.65	530	1.50	0.935	Specific Gravity Flowing Fluid _____ XXXXX 0.591							
4	0.64	510	1.44	0.925	Critical Pressure 676 _____ P.S.I.A. 676 P.S.I.A.							
5					Critical Temperature 354 _____ R 354 R							
P _c 2612.2	P _c ² 6823											
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 7.2504$			(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 5.3595$				
1		2556	6535	288				Post ID-2 1-27-89 Comp + BH				
2		2525	6377	446								
3		2464	6071	753								
4		2425	5882	941	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 12008$							
5												
Absolute Open Flow 12008 Mcfd @ 15.025				Angle of Slope θ 49.7				Slope, n 0.847				
Remarks: BHP WITH AMERADA BOMBS / PRODUCED 15 GALS H2O												
Approved By Division				Conducted By: RICHARD TOWNLEY				Calculated By: <i>Richard Townley</i>				Checked By: