



NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7131

October 15, 1996

CF 7662  
R-7082  
WFX-641  
PDEV0020600641

Plains Petroleum Operating Company  
415 West Wall Street, Suite 1000  
Midland, Texas 79701

Attn: Ms. Bonnie Husband

**RE: Injection Pressure Increase  
Carter-Mattix Waterflood Project - 3 wells,  
Lea County, New Mexico.**

Dear Ms. Husband:

Reference is made to your request dated August 22, 1996 to increase the surface injection pressure on three wells in the above referenced project. This request is based on step rate tests conducted on these wells on August 14 and 15, 1996. The results of the tests have been reviewed by my staff and we feel an increase in injection pressures on these wells is justified at this time.

You are therefore authorized to increase the surface injection pressure on the following wells:

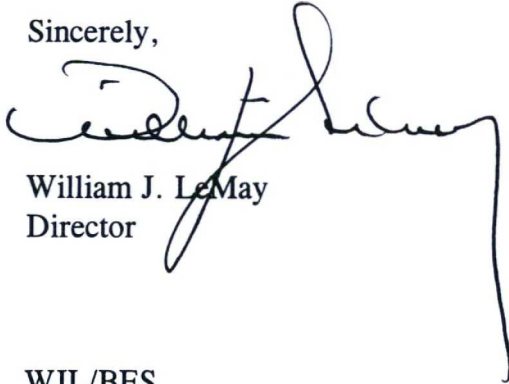
<i>Well and Location</i>	<i>Maximum Injection Surface Pressure</i>
G.H. Mattix Federal Well No.5 Unit E, Section 3, Township 24 South, Range 37 East	1035 PSIG
G.H. Mattix Federal Well No.6 Unit O, Section 3, Township 24 South, Range 37 East	940 PSIG
G.H. Mattix Federal Well No.7 Unit K, Section 3, Township 24 South, Range 37 East	860 PSIG
All wells located in Lea County, New Mexico.	

The Division Director may rescind this injection pressure increase if it becomes apparent that the injected water is not being confined to the injection zone or is endangering any fresh water aquifers.

*Injection Pressure Increase*  
*Plains Petroleum Operating Company*  
*October 15, 1996*  
*Page 2*

---

Sincerely,

A handwritten signature in black ink, appearing to read 'William J. LeMay', with a long, sweeping vertical line extending downwards from the end of the signature.

William J. LeMay  
Director

WJL/BES

cc: Oil Conservation Division - Hobbs  
Bureau of Land Management - Carlsbad  
Files: Case File Nos. 7662; WFX-641; 1st Qtr. 97-PSI-X /

md

## PLAINS PETROLEUM OPERATING COMPANY

*a subsidiary of Barrett Resources Corporation*

August 22, 1996



Mr. Jerry Sexton  
 Supervisor, District I  
 Oil Conservation Division  
 P. O. Box 1980  
 Hobbs, NM 88241-1980

Re: Division Order No. R-7082  
 State of New Mexico  
 Waterflood Project in the  
 Langlie Mattix Pool - Lea County

Gentlemen:

Please refer to your July 19, 1996 letter regarding bradenhead tests/injection pressure on the following listed injection wells. Step rate tests have been conducted on each well and as a result of these tests, we feel an increase in the pressure limit is necessary and justified, therefore, we respectfully request administrative approval to increase injection pressure limits as listed below.

<u>Lease/Well</u>	<u>Location</u>	<u>Approved Limit</u>	<u>Requested Limit</u>
G. H. Mattix #5	Sec. 3 (E), 24, 37	900 psi	1035 <del>1180</del> psi
G. H. Mattix #6	Sec. 3 (O), 24, 37	900 psi	940 <del>990</del> psi
G. H. Mattix #7	Sec. 3 (K), 34, 37	695 psi	860 <del>910</del> psi

Copies of step rate test sheets/results are enclosed for your information and review.

Yours very truly,

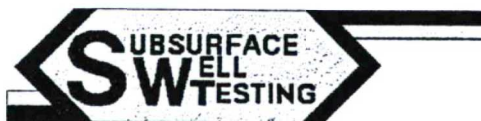
PLAINS PETROLEUM OPERATING CO.

Bonnie Husband  
 Administrative Assistant

7662  
 wfx. 641

cc: Mr. William J. LeMay

P. O. BOX 5254  
MIDLAND, TEXAS 79704



PHONE  
915/682-7580

COMPANY: Plains Petroleum

LEASE: G.H. Mattix #6

BOMB DEPTH:

TUBING: 2 3/8 pc tubing set @ 3410

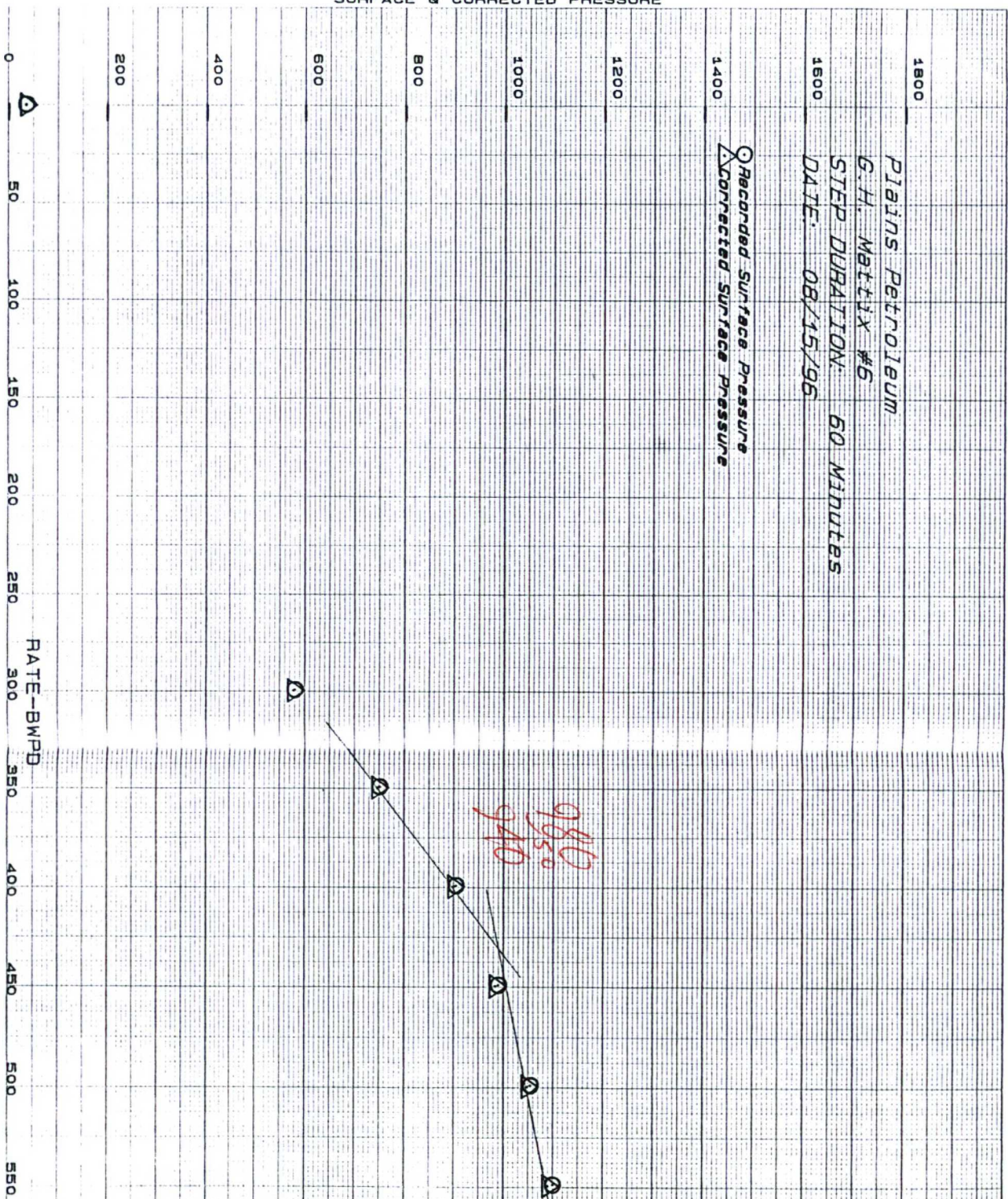
TEST DATE: 08/15/96

DURATION OF STEPS: 60 Minutes

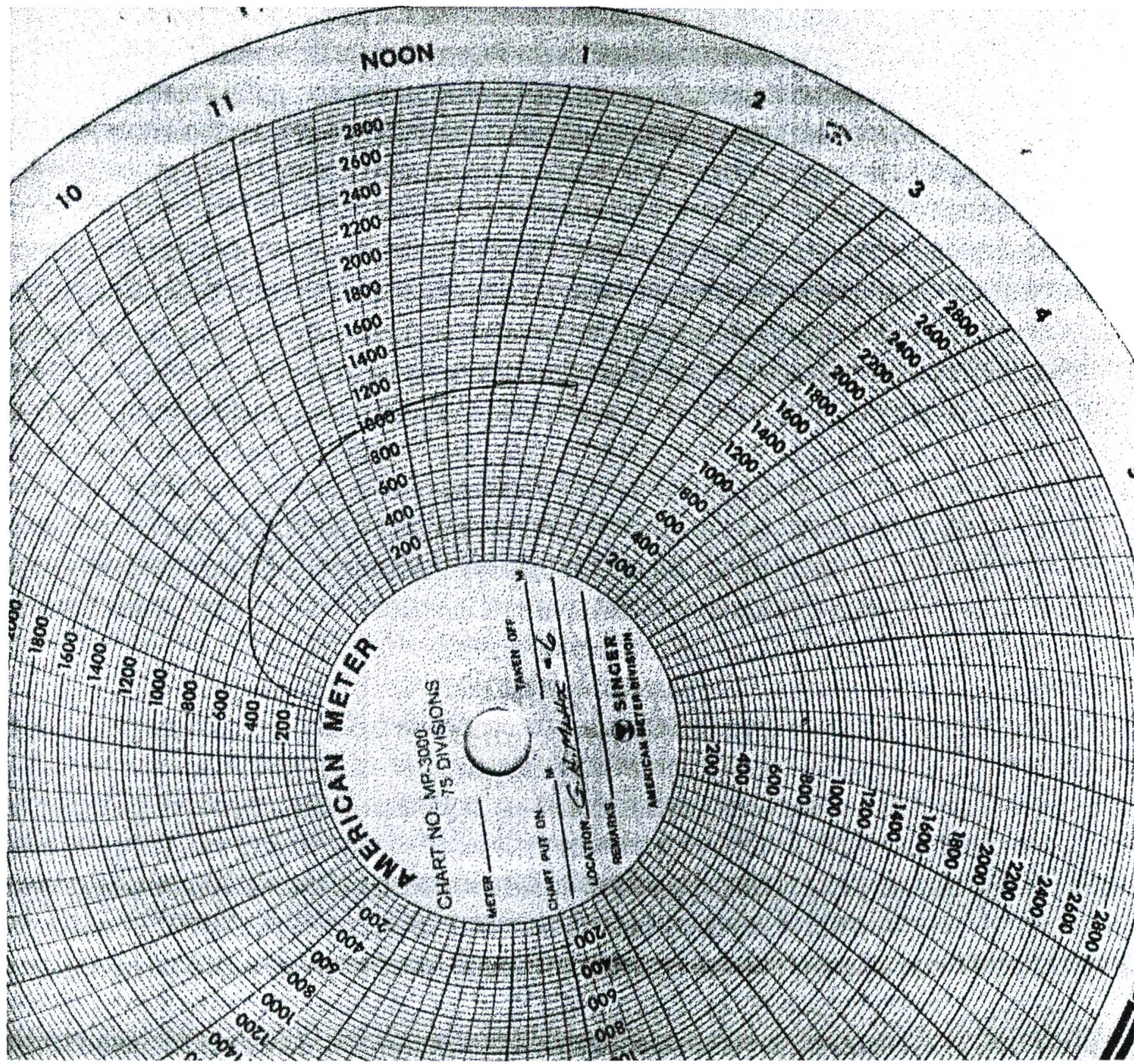
POINT	TIME	RATE(BWPD)	GAUGE	FRICTION	CORRECTED BHP
	08:00	0	35		35
1	09:00	300	580	3	577
2	10:00	350	750	4	746
3	11:00	400	905	5	900
4	12:00	450	990	6	984
5	13:00	500	1055	7	1048
6	14:00	550	1100	10	1090



SURFACE & CORRECTED PRESSURE









P. O. BOX 5254  
MIDLAND, TEXAS 79704



PHONE  
915/682-7580

COMPANY: Plains Petroleum

LEASE: G.H. Mattix #5

BOMB DEPTH:

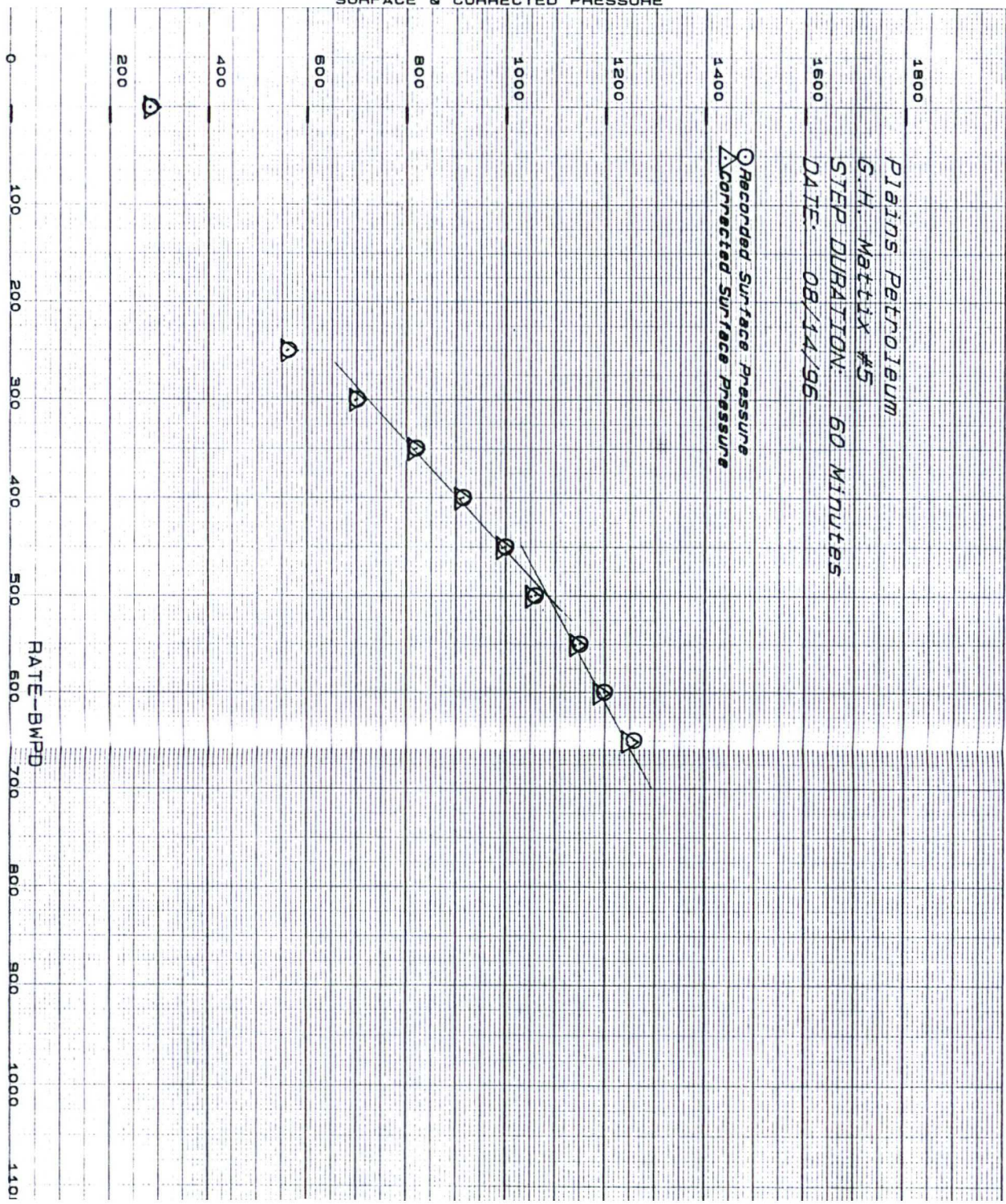
TUBING: 2 3/8 pc tubing set @ 3360

TEST DATE: 08/14/96

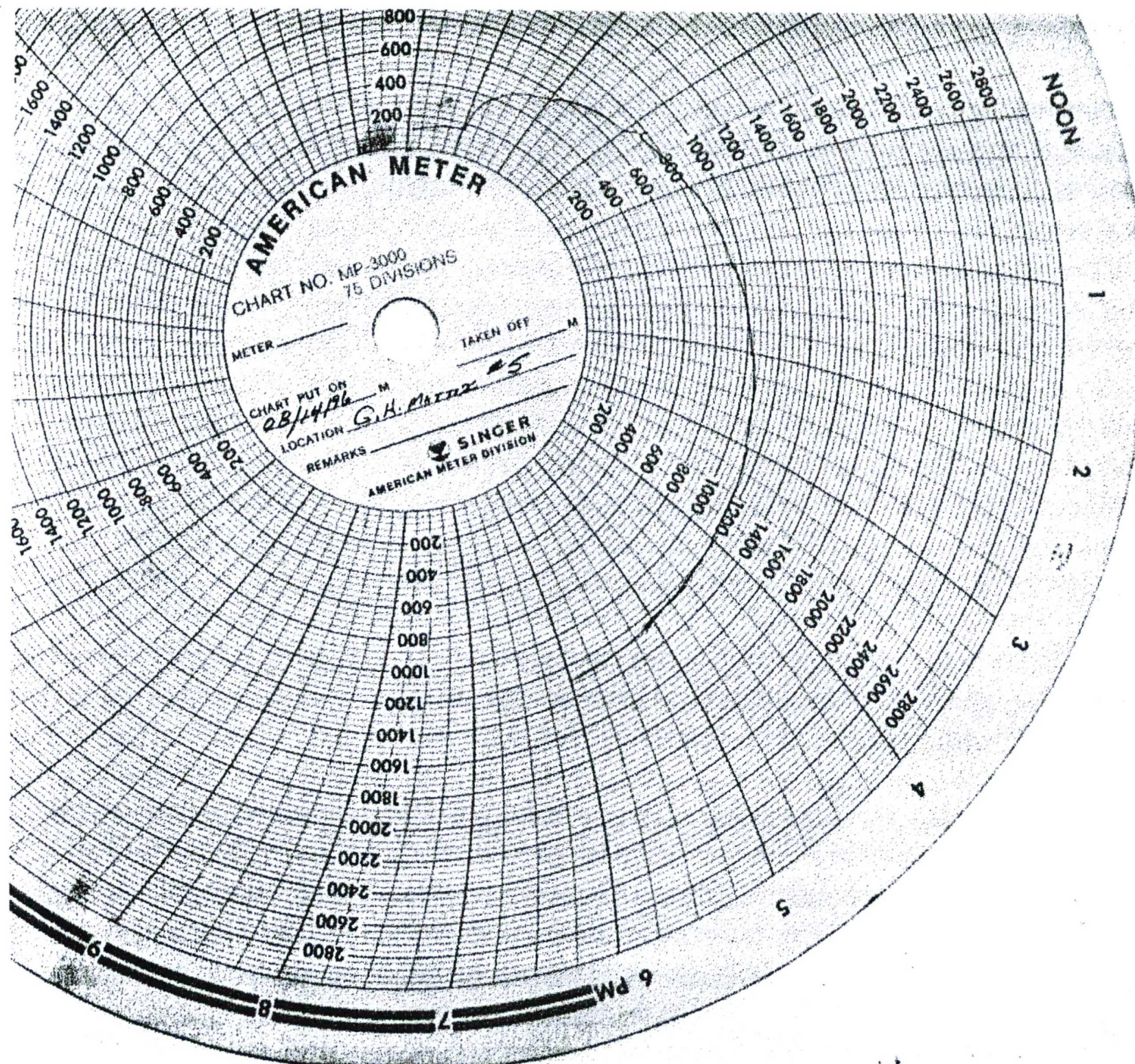
DURATION OF STEPS: 60 Minutes

POINT	TIME	RATE(BWPD)	GAUGE	FRICTION	CORRECTED BHP
	09:00	0	280		280
1	10:00	250	562	2	560
2	11:00	300	700	3	697
3	12:00	350	820	5	815
4	13:00	400	915	5	910
5	14:00	450	1000	7	993
6	15:00	500	1060	8	1052
7	16:00	550	1150	9	1141
8	17:00	600	1200	11	1189
9	18:00	650	1260	13	1247

SURFACE & CORRECTED PRESSURE









P. O. BOX 5254  
MIDLAND, TEXAS 79704



PHONE  
915/682-7580

COMPANY: Plains Petroleum

LEASE: G.H. Mattix #7

BOMB DEPTH:

TUBING: 2 3/8 pc tubing set @ 3410

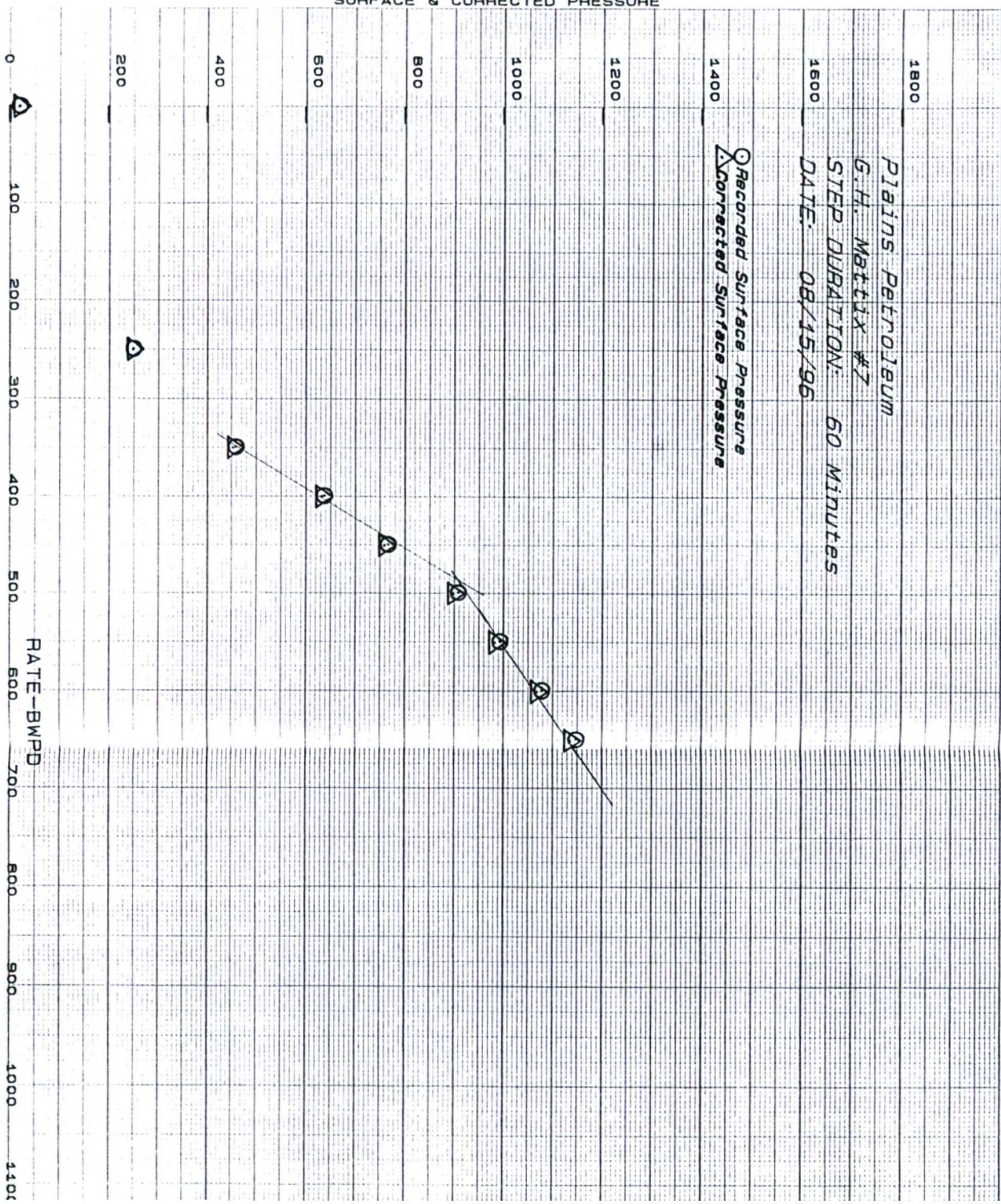
TEST DATE: 08/15/96

DURATION OF STEPS: 60 Minutes

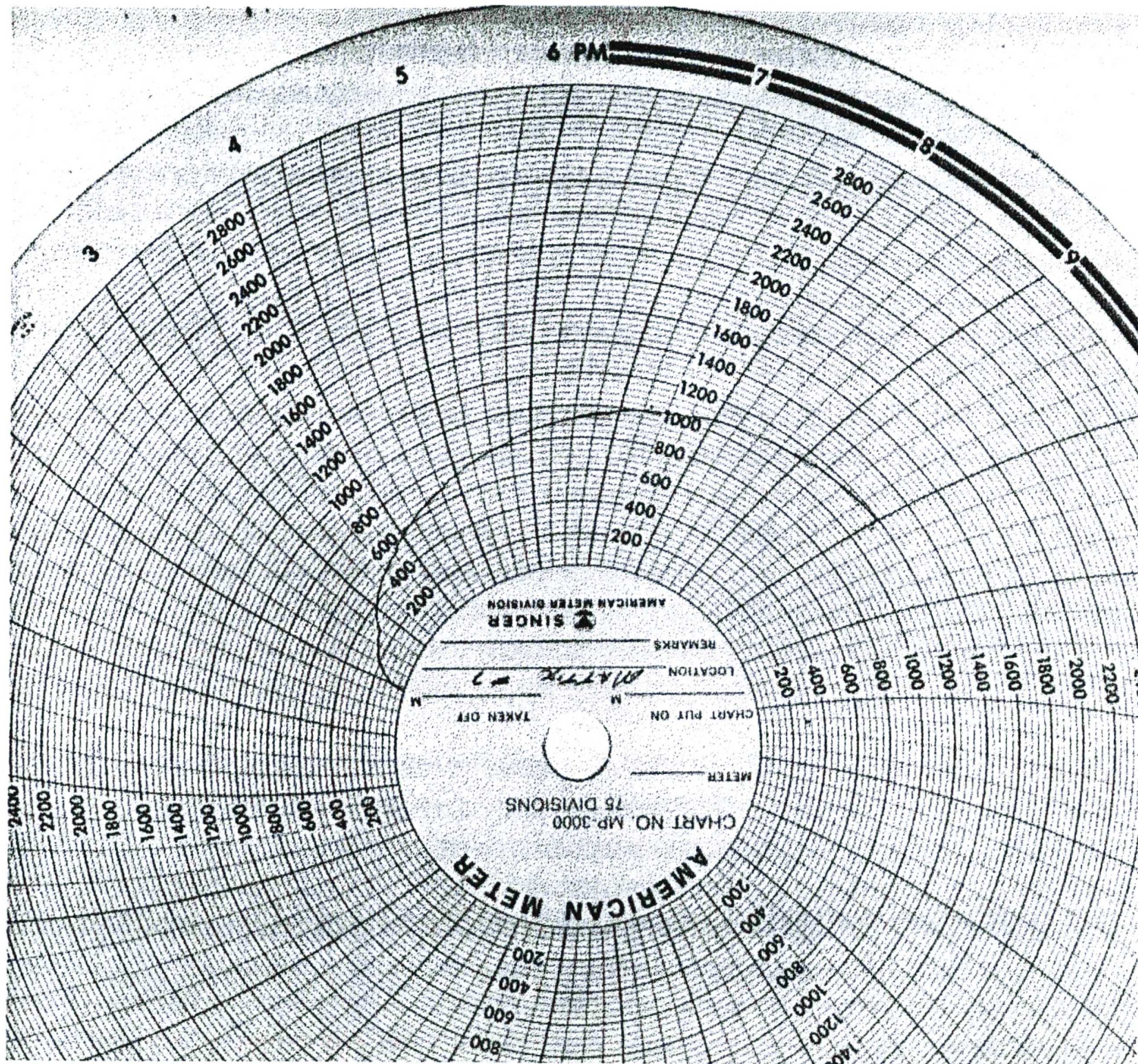
POINT	TIME	RATE(BWPD)	GAUGE	FRICTION	CORRECTED BHP
	07:00	0	20		20
1	08:00	250	250	1	249
2	09:00	350	460	5	455
3	10:00	400	638	5	633
4	11:00	450	767	7	760
5	12:00	500	910	10	900
6	13:00	550	995	11	984
7	14:00	600	1080	11	1069
8	15:00	650	1150	13	1137



SURFACE & CORRECTED PRESSURE









6 5 4 3 2 1  
7 12  
18 13  
19 24 25  
20 26  
31 34 35 36