

Mobil Producing Texas & New Mexico Inc.

P.O. BOX 633
MIDLAND, TEXAS 79702

April 13, 1987

MIDLAND DIVISION

State of New Mexico
Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87501

Attention: W. J. LeMay

MOBIL PRODUCING TX. & N.M., INC.
NORTH VACUUM ABO UNIT
WATER INJECTION WELL NOS. 143,
149, 203 AND 209
NORTH VACUUM ABO FIELD
LEA COUNTY, NEW MEXICO

Gentlemen:

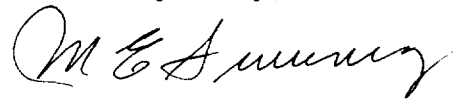
Under the provisions of Order No. WFX-557 dated February 11, 1986, Mobil Producing Texas & New Mexico, Inc. (MPTM) was granted permission to inject water into the Abo formation for the subject wells. The order limited the pressure on the injection wells to no more than 0.2 psi per foot to the uppermost injection interval. MPTM has completed step-rate tests for these wells which show that higher pressure will not result in migration of the injected fluid from the Abo formation. MPTM therefore requests an increase in the injection pressure as follows:

	<u>Injection Interval</u>	<u>Present Surface Inj. Pressure Limit</u>	<u>Requested Surface Inj. Pressure Limit</u>
Well No. 143 Unit D, Sec. 27 T-17-S, R-34-E	8605-8674'	1721 psig.	2970 psig.
Well No. 149 Unit J, Sec. 27 T-17-S, R-34-E	8628-8611'	1726 psig	2760 psig

	<u>Injection Interval</u>	<u>Present Surface Inj. Pressure Limit</u>	<u>Requested Surface Inj. Pressure Limit</u>
Well No. 203 Unit B, Sec. 22 T-17-S, R-34-S	8705-8759'	2205 psig.	3055 Psig.
Well No. 209 Unit J, Sec. 22 T-17-S, R-34-E	8654-8714'	2771 psig.	3405 psig.

Enclosed are copies of the step rate tests.

Yours very truly,



M. E. Sweeney
Environmental & Regulatory Mgr.

CCSmith/

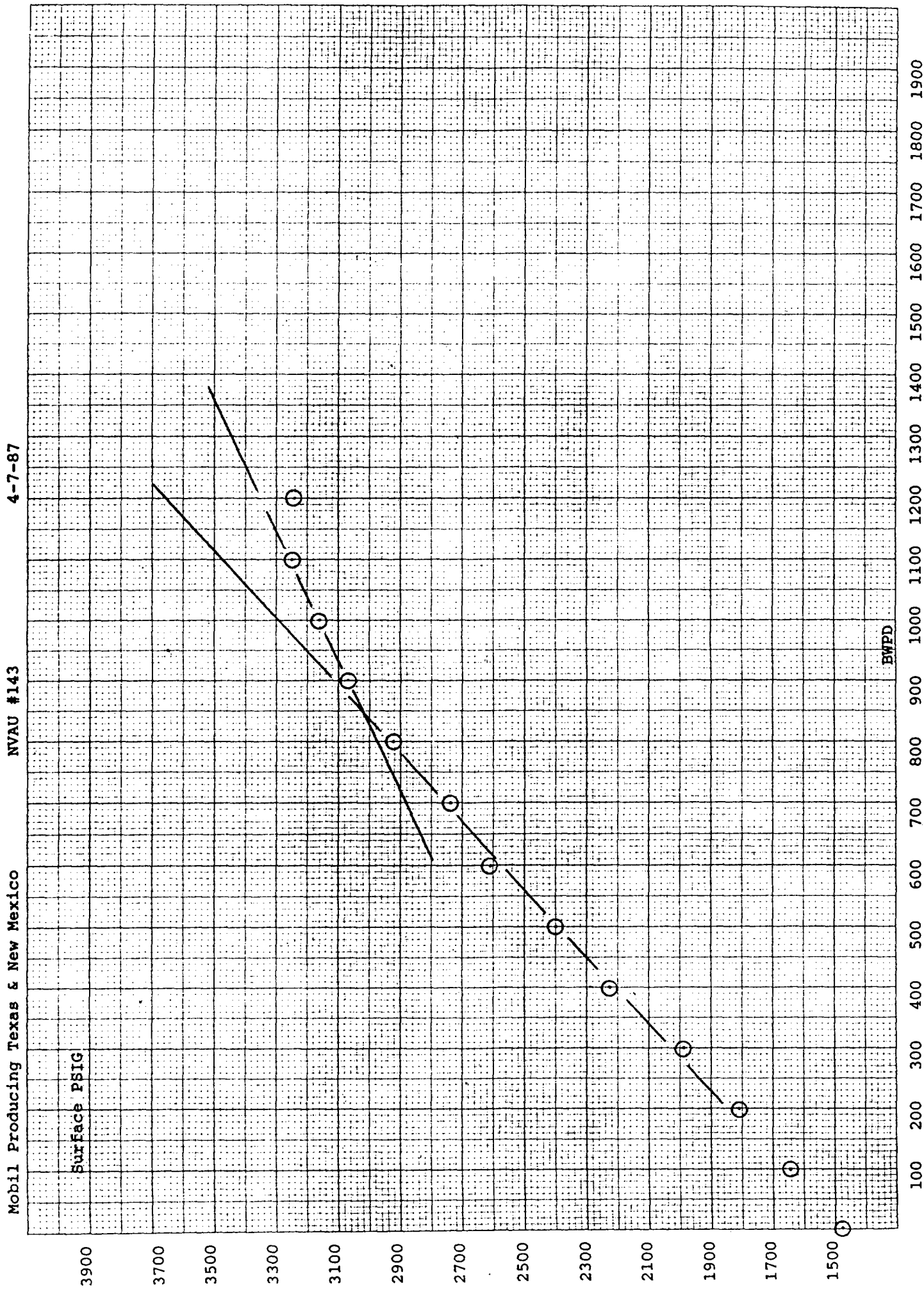
Attachments

cc: District Director OCD-Hobbs

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Hobbs, New Mexico 88240

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B & D WELL TESTERS, INC.

P.O. Box 5683

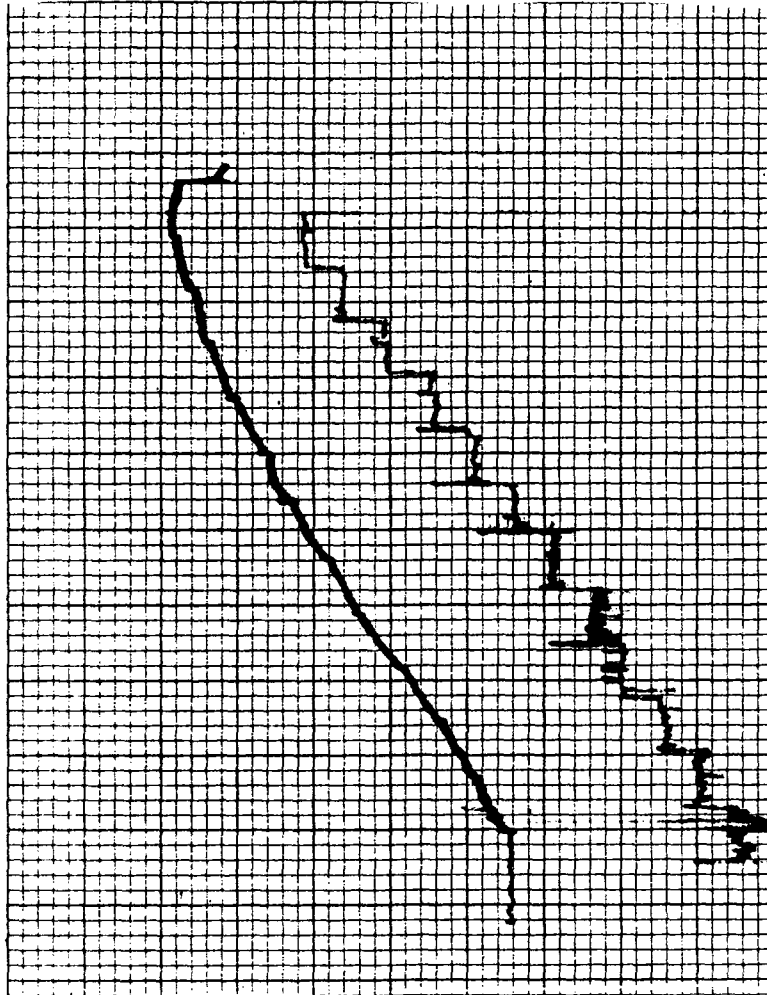
HOBBS, NEW MEXICO

505 397-3914

Mobil Producing Texas & New Mexico

NVAU #143

4-7-87



Step Rate Test

Hobbs, New Mexico 88240

Company Mobil Producing Texas & New Mexico Test Date 4-7-87							Unit
Total Depth 8750' Plug Back TD 8708' Elevation 4040'							Lease NVAU
Csg size 5 1/2" Wt 15.5# 10# Set at 8750 Perfs: From 8628' To 8611'							Well # 149
Tbg size 2 3/8 Wt 6.5 d Set at 8500 Perfs: From To							Sec 22 Twp-Blk 17S Rge 34E
Producing thru tbg Packer set at 8500							County Lea State New Mexico
							Co. Rep David Howell
Time of Reading	Elap Time Hrs.	Well Information					Remarks
		Rate BBLS Per Day	Total BBLS Per Rate	Surface PSIG	Surface PSI Cor for Friction	BHP	
12:20	SI			1630			
12:25	Start	100		1660			
12:30		100		1680			
12:35		100		1700			
12:40	:15	100	1.0	1710			
12:45		200		1750			
12:50		200		1780			
12:55	:30	200	2.1	1800			
1:00		300		1850			
1:05		300		1890			
1:10	:45	300	3.1	1920			
1:15		400		1980			
1:20		400		2020			
1:25	1:00	400	4.2	2060			
1:30		500		2120			
1:35		500		2170			
1:40	1:15	500	5.2	2210			
1:45		600		2290			
1:50		600		2340			
1:55	1:30	600	6.3	2390			
2:00		700		2460			
2:05		700		2510			
2:10	1:45	700	7.3	2540			
2:15		800		2615			
2:20		800		2660			
2:25	2:00	800	8.4	2690			
2:30		900		2760			
2:35		900		2800			
2:40	2:15	900	9.4	2820			

Step Rate Test

Hobbs, New Mexico 88240

Phone (505) 397-3914

Company	Mobil Producing Texas & New Mexico	Test Date	4-7-87	Lease	NVAU
Total Depth	8750'	Plug Back TD	8708'	Elevation	4040'
Csg size	5 1/2"	Wt 15.5#, 17#	Set at 8750	Perfs: From 8628' To 8611'	Sec 22 Twp-Blk 17S Rge 34E
Tbg size	2 3/8	Wt 6.5 d	Set at 8500	Perfs: From To	County Lea State New Mexi
Producing thru	tbg	Packer set at	8500	Co. Rep	David Howell

4-7-87

NVAU #149

Mobil Producing Texas & New Mexico

Surface PSIG

BWPD

100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900

4000

3800

3600

3400

3200

3000

2800

2600

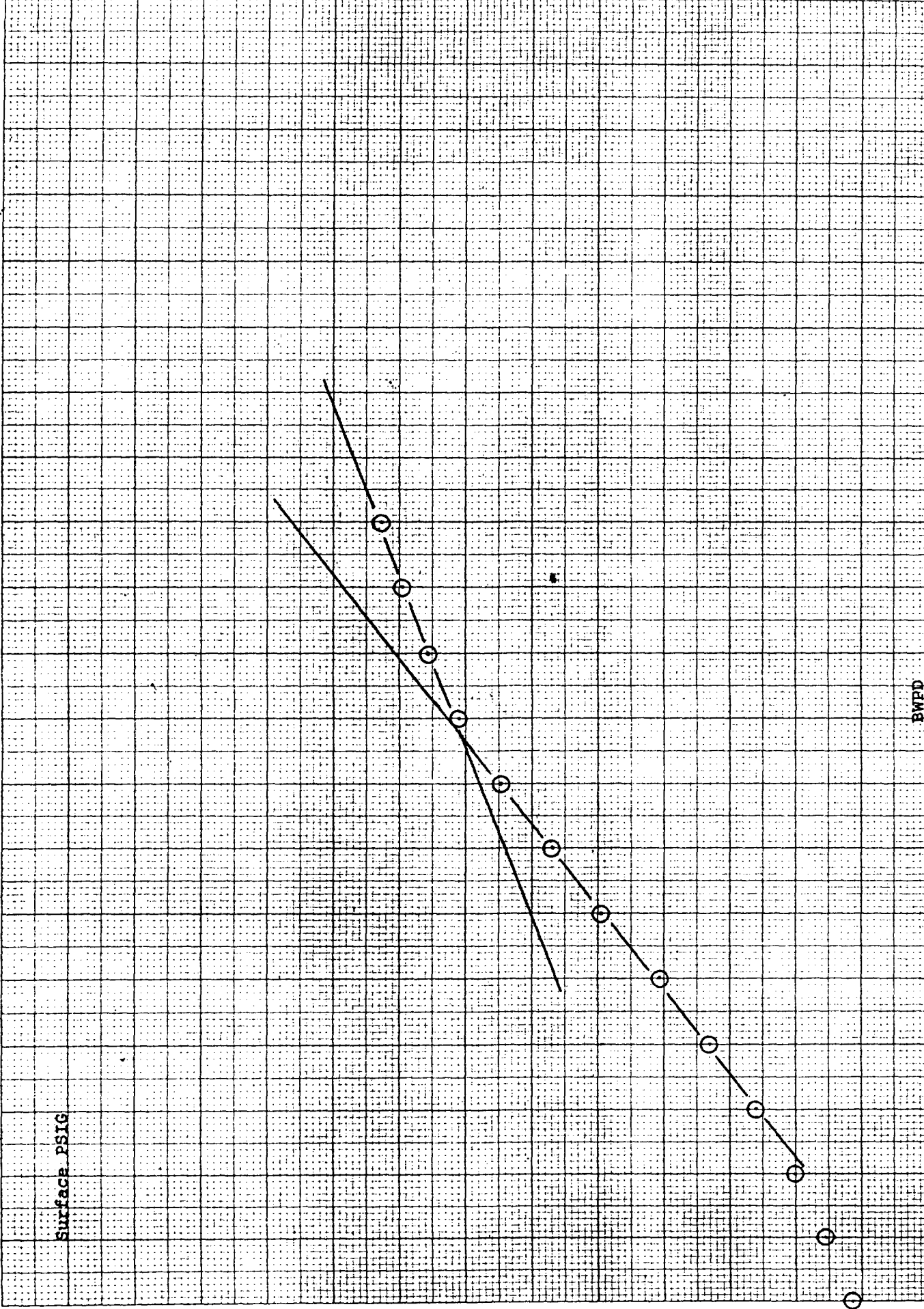
2400

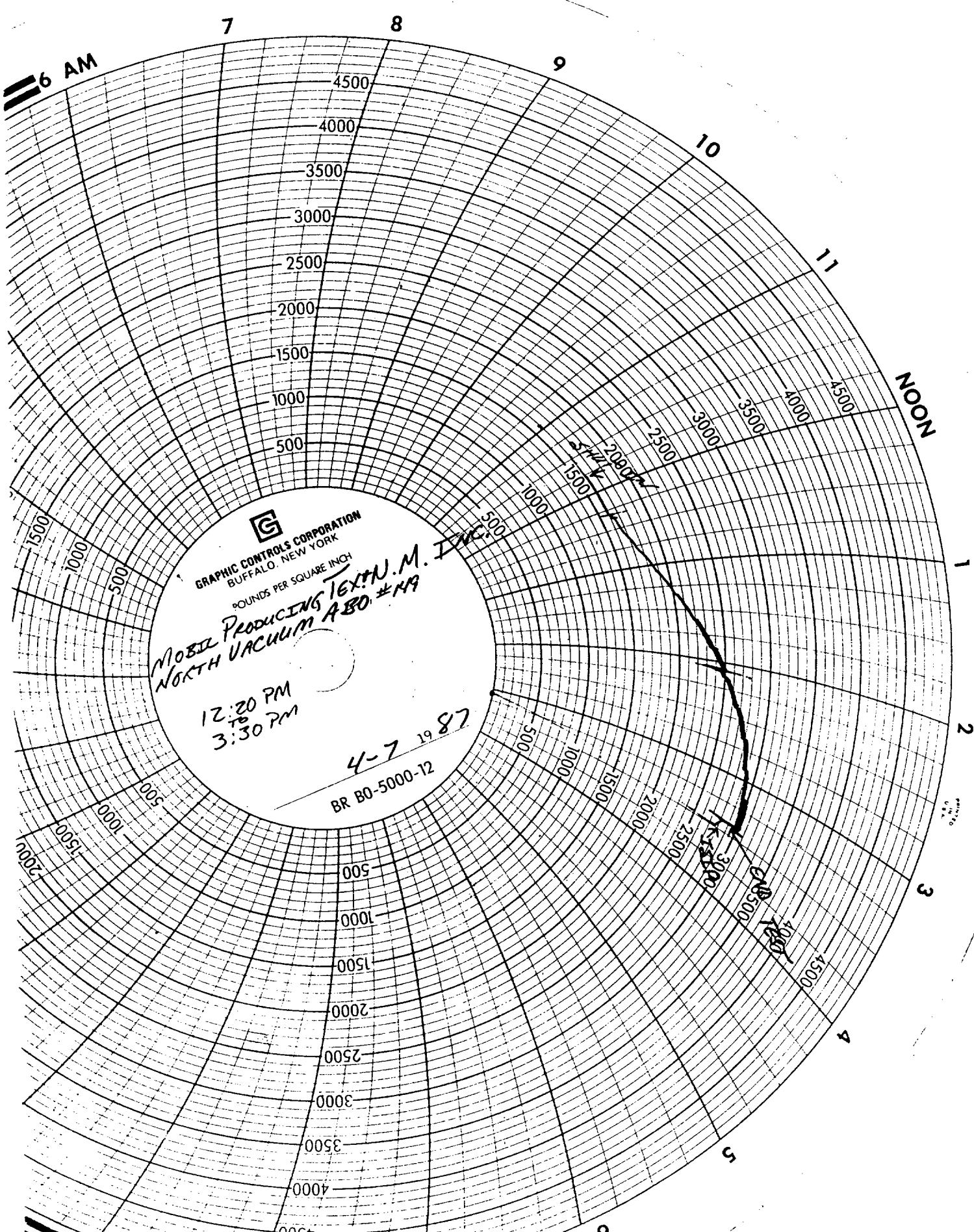
2200

2000

1800

1600





G
GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK
POUNDS PER SQUARE INCH

MOBIL PRODUCING TEXAS M. INC.
NORTH VACUUM ABO #119

12:20 PM
TO
3:30 PM

4-7 1987
BR 80-5000-12

B & D WELL TESTERS

Step Rate Test

Phone (505) 397-3914

Hobbs, New Mexico 88240

Company Mobil Producing Texas & New Mexico Test Date 4-7-87						Unit
Total Depth 8900' Plug Back TD 8870' Elevation 4062'						Lease NVAU
Csg size 5 1/2 Wt d Set at 8900' Perfs: From 8705' To 8759'						Well # 203
Tbg size 2 3/8 Wt d Set at Perfs: From To						Sec Twp-Blk Rge
Producing thru Packer set at 8610'						County Lea State New Mexico
						Co. Rep David Howell

Time of Reading	Elap Time Hrs.	Well Information					Remarks
		Rate BBLS Per Day	Total BBLS Per Rate	Surface PSIG	Surface PSI Cor for Friction	BHP	
8:00	SI			1980			1" TM
8:05	Start	100		1980			
8:10		100		2000			
8:15		100		2010			
8:20	:15	100	1.0	2020			
8:25		200		2050			
8:30		200		2070			
8:35	:30	200	2.1	2090			
8:40		300		2130			
8:45		300		2170			
8:50	:45	300	3.1	2200			
8:55		400		2240			
9:00		400		2305			
9:05	1:00	400	4.2	2330			
9:10		500		2415			
9:15		500		2440			
9:20	1:15	500	5.2	2485			
9:25		600		2560			
9:30		600		2600			
9:35	1:30	600	6.3	2650			
9:40		700		2715			
9:45		700		2775			
9:50	1:45	700	7.3	2805			
9:55		800		2865			
10:00		800		2915			
10:05	2:00	800	8.4	2950			
10:10		900		3005			
10:15		900		3040			
10:20	2:15	900	9.4	3065			

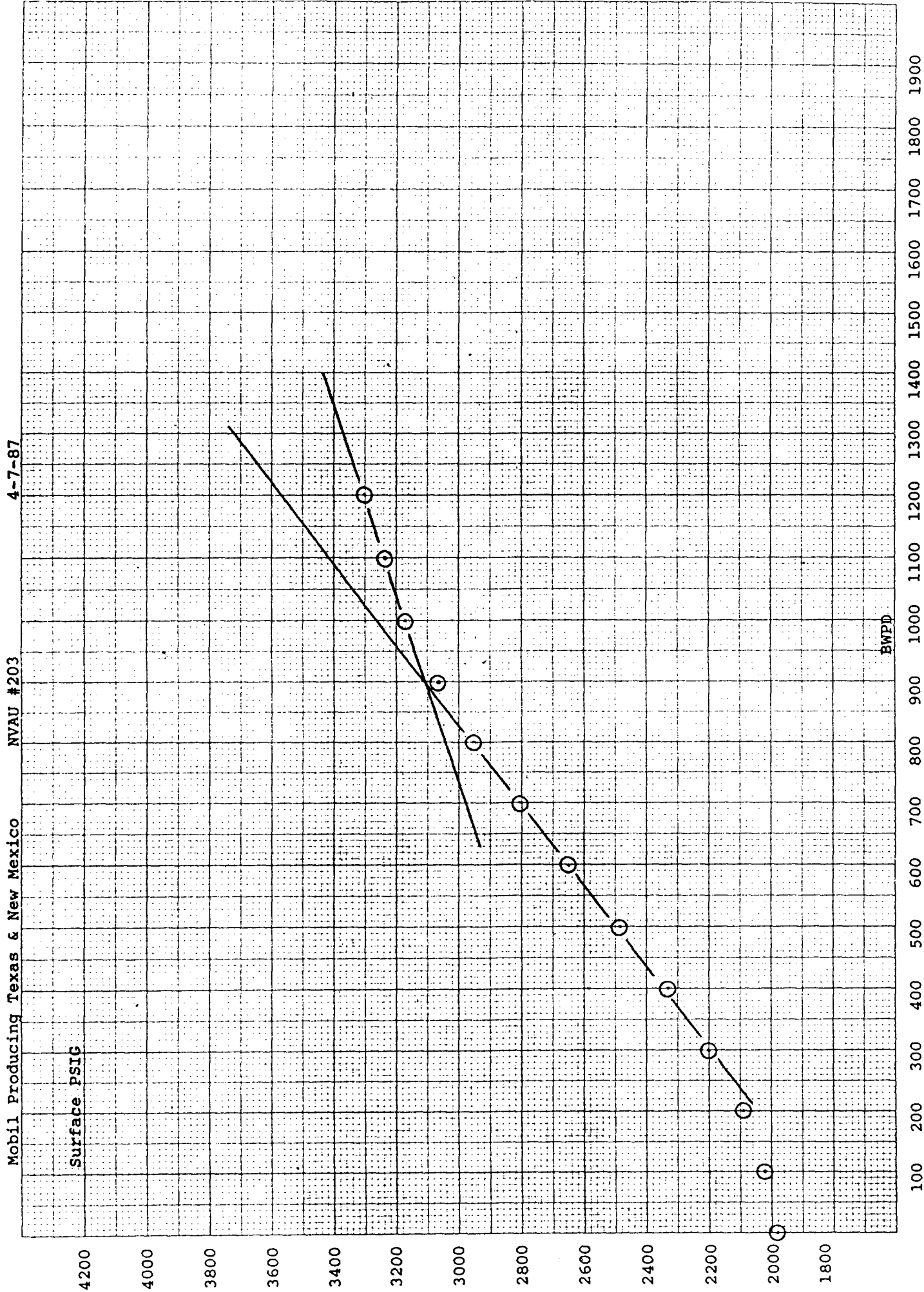
Step Rate Test

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Phone (505) 397-3914

Hobbs, New Mexico 88240

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B & D WELL TESTERS, INC.

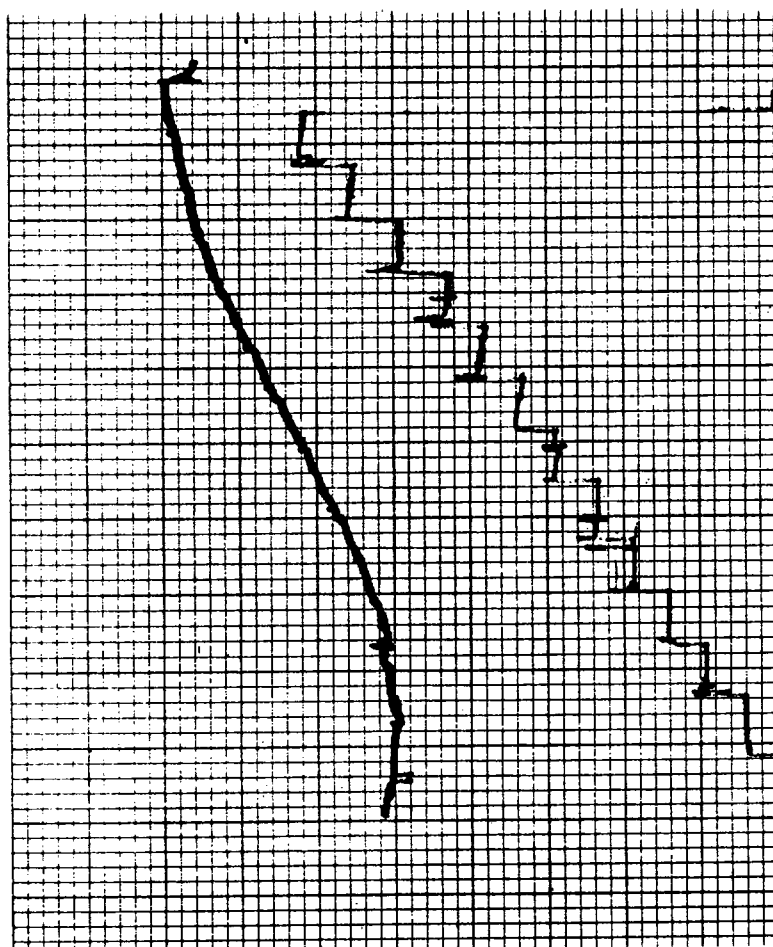
P.O. Box 5683
HOBBS, NEW MEXICO

505 397-3914

Mobil Producing Texas & New Mexico

NVAU #203

4-7-87



NO. 59018

Step Rate Test

Hobbs, New Mexico 88240

Company Mobil Producing Texas & New Mexico Test Date 4-7-87						Unit	
Total Depth 8800' Plug Back TD 8764' Elevation 4041.5'						Lease NVAU	
Csg size 5 1/2 Wt 17#, 15.5# Set at 8800' Perfs: From 8654' To 8714'						Well # 209	
Tbg size 2 3/8 Wt 6.5# d Set at 8560' Perfs: From To						Sec 22 Twp-Blk 17S Rge 34E	
Producing thru tbg Packer set at 8560'						County Lea State New Mexico	
Co. Rep David Howell							
Time of Reading	Elap Time Hrs.	Well Information					Remarks
		Rate BBLS Per Day	Total BBLS Per Rate	Surface PSIG	Surface PSI Cor for Friction	BHP	
7:45	SI			2850			
7:50	Start	100		2860			
7:55		100		2900			
8:00		100		2930			
8:05	:15	100	1.0	2960			
8:10		200		2990			
8:15		200		3020			
8:20	:30	200	2.1	3050			
8:25		300		3100			
8:30		300		3140			
8:35	:45	300	3.1	3170			
8:40		400		3220			
8:45		400		3260			
8:50	1:00	400	4.2	3285			
8:55		500		3350			
9:00		500		3390			
9:05	1:15	500	5.2	3410			
9:10		600		3460			
9:15		600		3490			
9:20	1:30	600	6.3	3500			
9:25		700		3540			
9:30		700		3560			
9:35	1:45	700	7.3	3565			
9:40		800		3610			
9:45		800		3625			
9:50	2:00	800	8.4	3640			
9:55		900		3660			
10:00		900		3660			
10:05	2:15	900	9.4	3670			

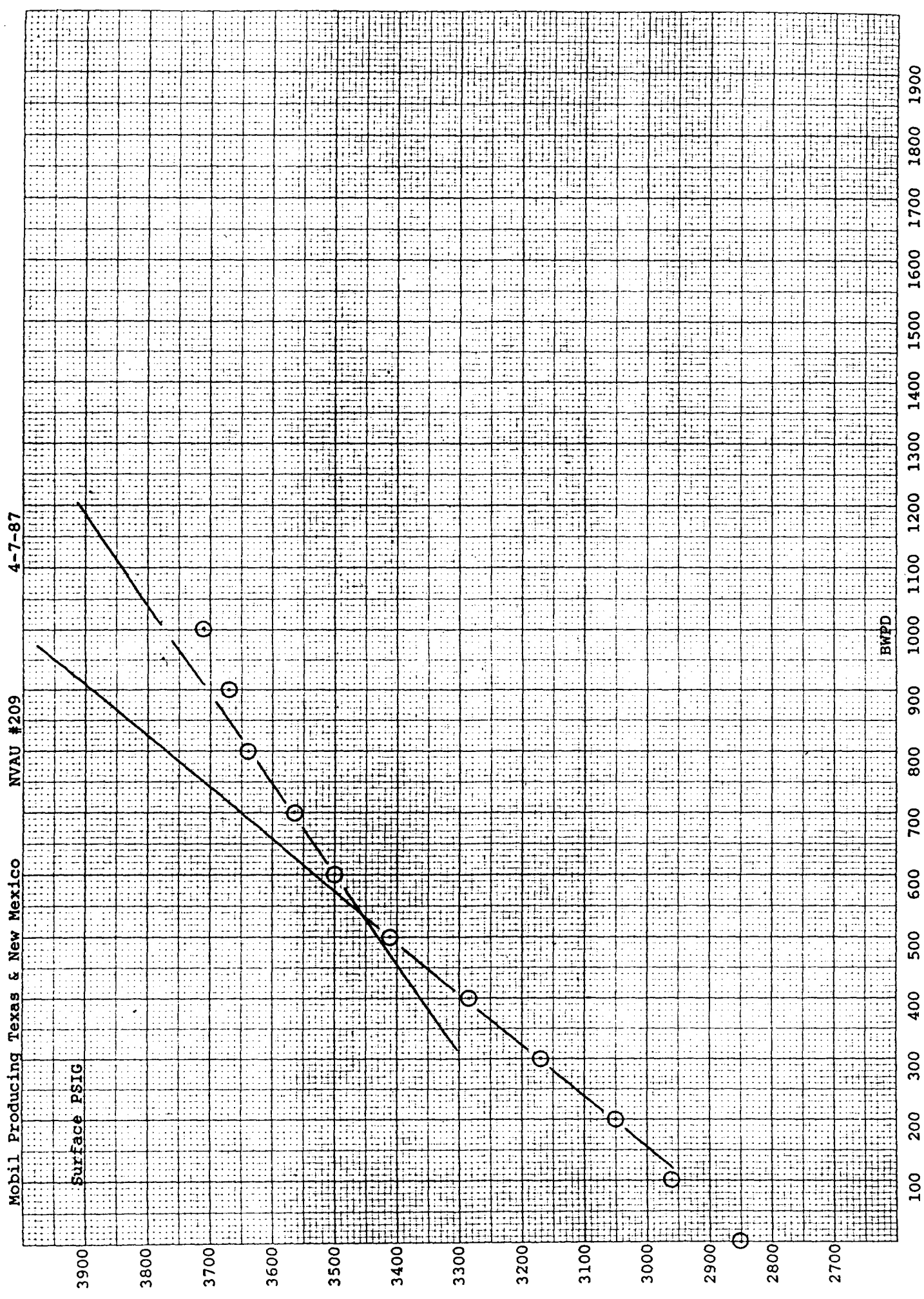
Step Rate Test

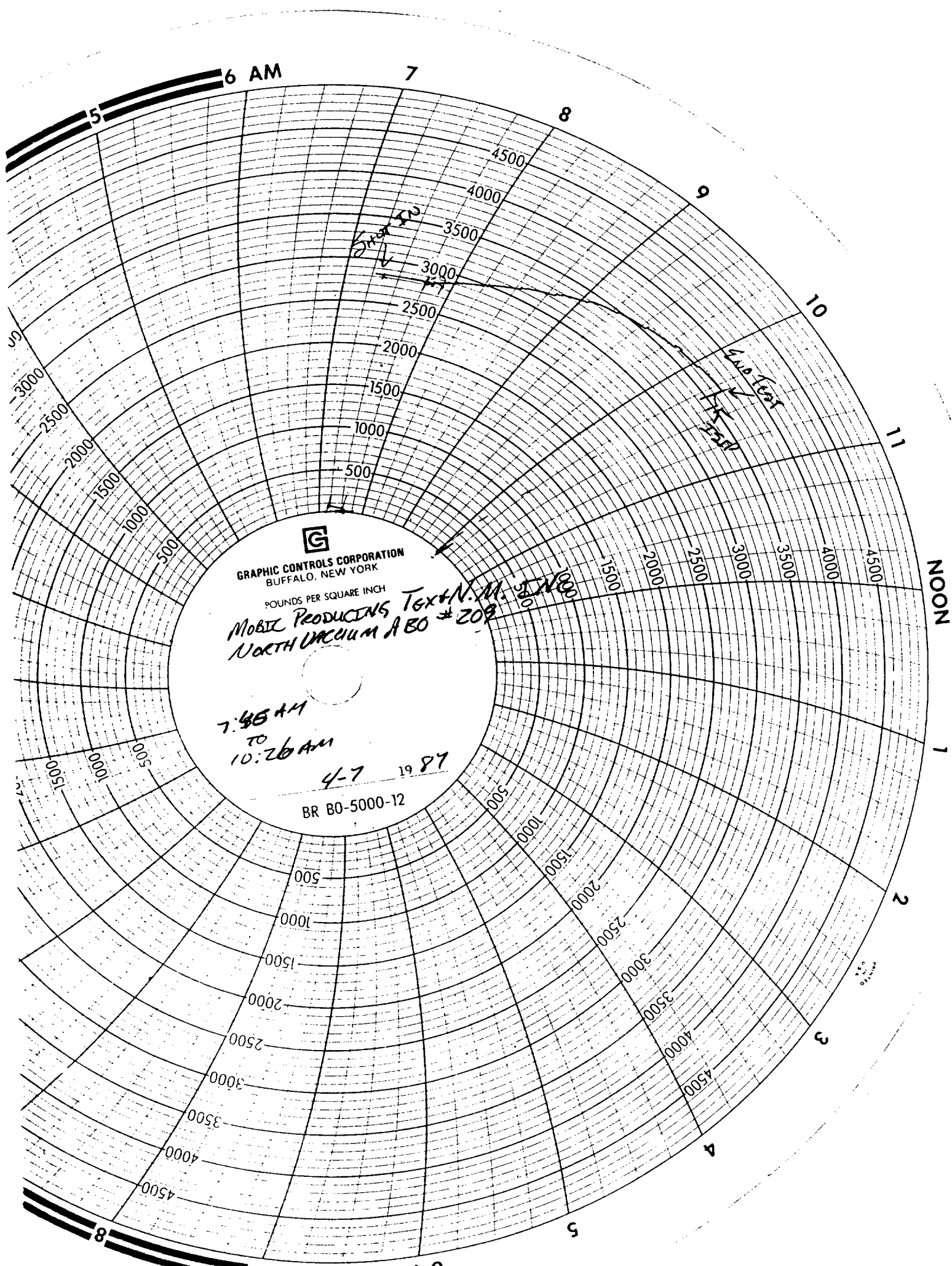
Pione (505) 397-3914

Page #2

Hobbs, New Mexico 88240

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G
GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK
POUNDS PER SQUARE INCH

MOBIL PRODUCING TEXAS N.M. 51N80
NORTH VACUUM ABO #209

7:45 AM
TO
10:26 AM

4-7 1987
BR 80-5000-12

NOON