



Environmental GEO-Technologies, LLC

April 30, 2015

Mr. Allan Batka
United States Environmental Protection Agency
Region 5 (WU-16J)
77 West Jackson Blvd.
Chicago, Illinois 60604

Re: EGT Monthly Report (in conformance with MI-163-1W-C010 & MI-163-1W-C011)

Dear Mr. Batka:

Environmental Geo-Technologies, LLC ("EGT") hereby timely submits its seventeenth Monthly Report in conformance with the requirements of its two EPA UIC permits (#s MI-163-1W-C010 & MI-163-1W-C011).

EGT is providing all of the attached information in the same sequence as required by both subject permits, i.e. Part II.D.1 (a – i), Part III, Attachment A, and Part III, Attachment E.G.2 & E.I.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

We trust that you find this report satisfactory, however, if you have any questions or comments, please feel free to contact us.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard J. Powals".

Richard J. Powals, P.E.
Vice-President

cc: J. Frost (EGT), T. Athans (EGT), P.Sullivan (EGT)

att.

rjp043015/EGTEPAMonthlyReport-March 2015

AVERAGE INJECTION RATE

Calculation of Average Injection Rate

CURRENT REPORTING YEAR 2015CURRENT REPORTING MONTH MARCH

Date (month, year) of the first injection into either well at the Citrin Road Facility

NOVEMBER 2013

CURRENT MONTH (all volumes in gallons)

	Injected Waste	Injected Non-Waste	Total injected
MI-163-1W-C010, Well #1-12			
Current Month	66,523	0	66,523
Since facility first injected			1,264,679
MI-163-1W-C011, Well #2-12			
Current Month	53,529	0	53,529
Since facility first injected			1,075,715
		Lifetime Combined	2,340,414

Conversion factors

365.25 days per year ÷ 12 months per year = 30.4375 days per month

30.4375 days per month × 1440 minutes per day = 43,830 minutes per month

CalculationsWhole number of months of injection 17

17 lifetime number of months of injection × 43,830 minutes/month
 = 745,110 minutes of injection

Lifetime combined injected volume 2,340,414 ÷ 745,110 minutes of injection
 = 3.1 gpm average injection rate

WELL 1 DATA

WELL 01 Monthly Data

Date	Min Injection Pressure (PSIG)	Max Injection Pressure (PSIG)	Min Sight Glass Level (in)	Max Sight Glass Level (in)	Min Annulus Pressure (PSIG)	Max Annulus Pressure (PSIG)	Min Injectate pH	Max Injectate pH	Min Flow Rate (GPM)	Max Flow Rate (GPM)	Min Differential Pressure (PSIG)	Max Differential Pressure (PSIG)
3/1/2015	0.0	0.0	23.0	23.0	276.0	279.0	6.7	6.7	0.0	0.0	276.0	279.0
3/2/2015	0.0	720.0	21.3	23.7	225.0	1014.0	5.2	7.3	0.0	44.0	219.0	315.0
3/3/2015	0.0	720.0	21.5	23.5	234.0	1011.0	5.2	9.8	0.0	36.0	240.0	285.0
3/4/2015	0.0	0.0	23.3	23.4	240.0	243.0	6.4	7.1	0.0	0.0	240.0	243.0
3/5/2015	0.0	0.0	23.3	23.3	237.0	240.0	6.1	6.4	0.0	0.0	237.0	240.0
3/6/2015	-0.9	-0.3	23.2	23.2	231.3	232.8	6.1	6.2	0.0	1.6	232.3	233.0
3/7/2015	-1.1	-0.1	23.1	23.2	231.9	232.9	6.1	6.1	0.0	2.1	232.3	233.6
3/8/2015	-1.0	-0.1	23.2	23.3	232.6	233.3	6.1	6.1	0.0	3.7	233.0	234.1
3/9/2015	-1.1	-0.1	23.2	23.3	232.5	233.3	6.1	6.1	0.0	0.0	233.0	234.1
3/10/2015	-0.9	-0.1	23.3	23.3	232.7	233.3	6.1	6.1	0.0	0.0	233.0	233.9
3/11/2015	-0.9	4.3	23.3	23.4	232.7	236.3	5.4	6.2	0.0	9.5	231.1	233.9
3/12/2015	0.7	2.4	23.3	23.4	233.1	234.7	5.9	6.1	0.0	0.9	231.5	232.6
3/13/2015	0.3	2.0	23.3	23.5	232.6	233.9	5.4	5.6	0.0	19.0	231.5	232.5
3/14/2015	0.5	1.7	23.3	23.5	233.0	233.6	5.5	6.3	0.2	43.6	231.8	232.7
3/15/2015	0.3	1.3	23.2	23.5	232.4	233.1	6.0	6.1	0.0	10.8	231.4	232.5
3/16/2015	0.6	3.0	23.3	23.5	232.6	234.5	5.4	6.6	0.1	22.2	231.2	232.3
3/17/2015	0.4	2.0	23.3	23.5	232.0	233.7	6.3	6.4	0.1	26.7	231.0	232.3
3/18/2015	0.3	1.4	23.3	23.5	231.2	232.0	6.3	6.3	0.0	0.0	230.2	231.7
3/19/2015	-0.2	1.2	23.3	23.5	230.6	231.6	6.3	6.3	0.0	0.0	229.8	231.2
3/20/2015	-7.3	710.1	21.5	23.4	230.8	983.8	5.6	10.8	5.1	45.2	181.5	400.5
3/21/2015	-6.2	-4.2	22.9	23.0	325.8	341.8	6.2	6.3	0.0	2.8	331.4	346.7
3/22/2015	-4.8	-3.3	22.8	23.0	341.3	341.8	6.2	6.2	0.0	6.4	344.7	346.5
3/23/2015	-10.0	722.2	21.6	23.2	245.0	1012.8	5.5	6.4	2.5	70.0	170.0	389.4
3/24/2015	-8.9	74.9	22.9	23.2	293.7	330.1	6.0	6.3	0.0	102.5	251.7	308.5
3/25/2015	-9.9	708.5	21.5	23.3	264.4	1006.0	6.2	6.9	2.3	60.6	181.0	401.8
3/26/2015	-6.5	-1.7	23.1	23.3	258.5	274.4	6.6	6.7	0.0	26.4	263.5	276.8
3/27/2015	-2.4	65.5	22.2	23.3	265.3	319.2	5.8	6.7	0.6	196.1	208.3	278.2
3/28/2015	17.3	18.6	23.1	23.3	273.5	276.5	6.5	6.6	1.5	1.5	254.8	258.8
3/29/2015	16.4	18.4	23.1	23.4	276.0	277.2	6.6	6.7	1.5	1.5	257.9	260.4
3/30/2015	-2.9	721.7	21.6	23.3	276.5	964.1	6.4	8.2	4.2	44.0	193.5	390.2
3/31/2015	-0.3	711.1	21.5	23.1	305.0	970.7	6.3	9.2	2.2	50.0	195.0	368.9

Circle Chart Index

Environmental Geo-Technologies, LLC 28470 Citrin Drive Romulus, MI 48174

Chart Recorder #1

Channel #1

Blue Pen - Well 1 Injection Pressure

Channel #2

Red Pen – Well 1 Annulus Pressure

Channel #3

Green Pen – Well 1 Flow Rate

Channel #4

Black Pen – Well 1 Annulus Tank Level

Chart Recorder #2

Channel #1

Blue Pen – Well 2 Injection Pressure

Channel #2

Red Pen – Well 2 Annulus Pressure

Channel #3

Green Pen – Well 2 Flow Rate

Channel #4

Black Pen – Well 2 Annulus Tank Level

Chart Recorder #3

Channel #1

Blue Pen – Injection pH Well 1 & 2

Channel #2

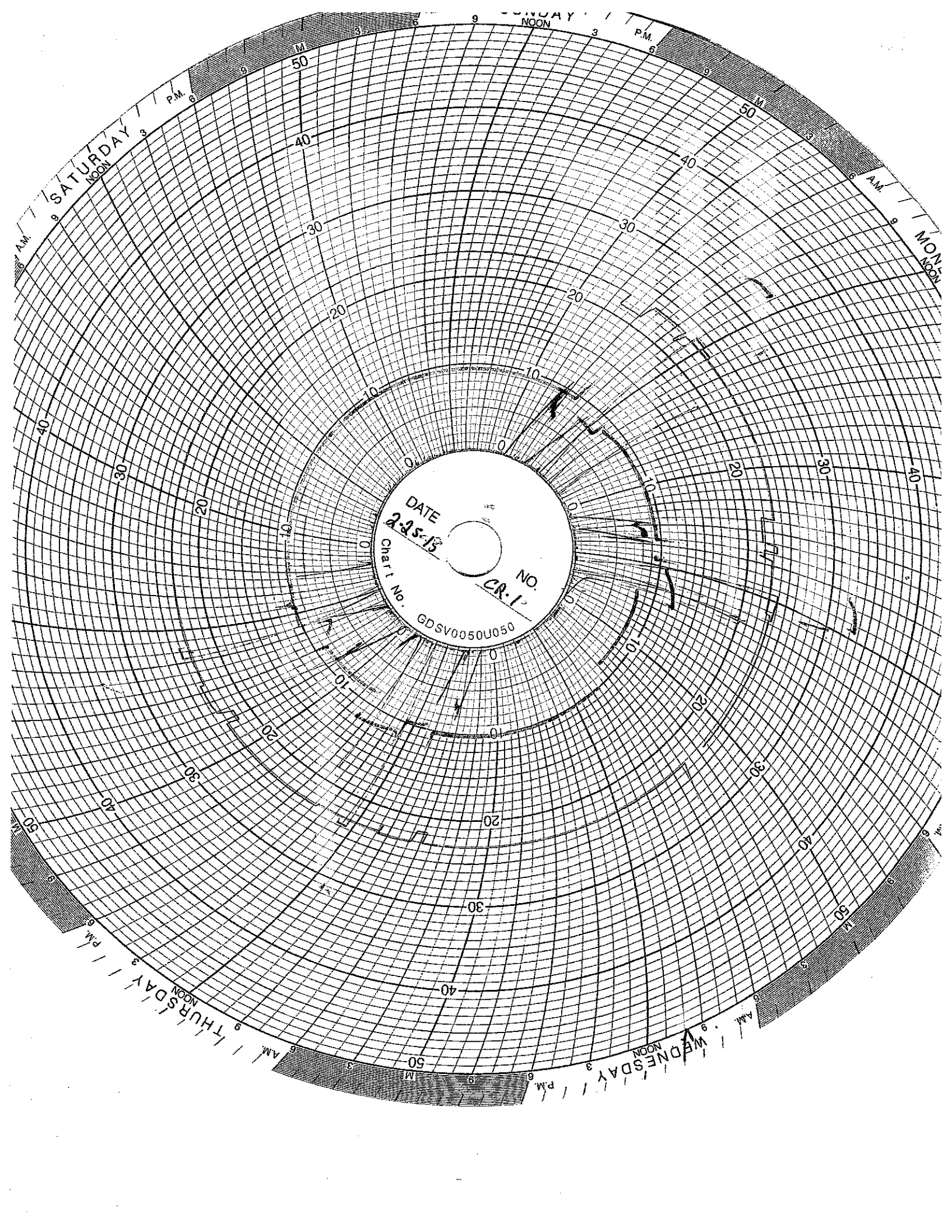
Red Pen – Well 1 Monthly Volume

Channel #3

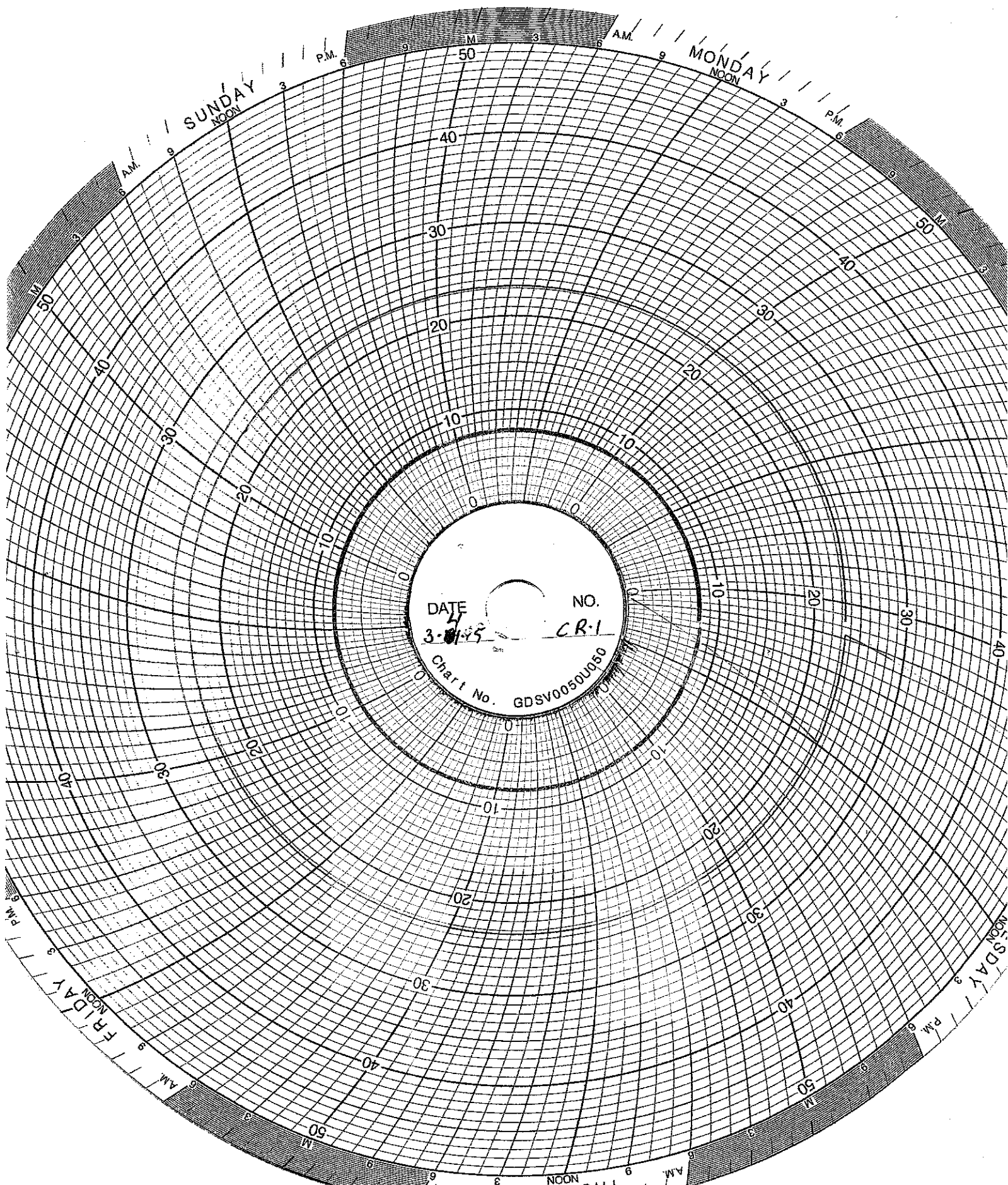
Green Pen – Well 2 Monthly Volume

Channel #4

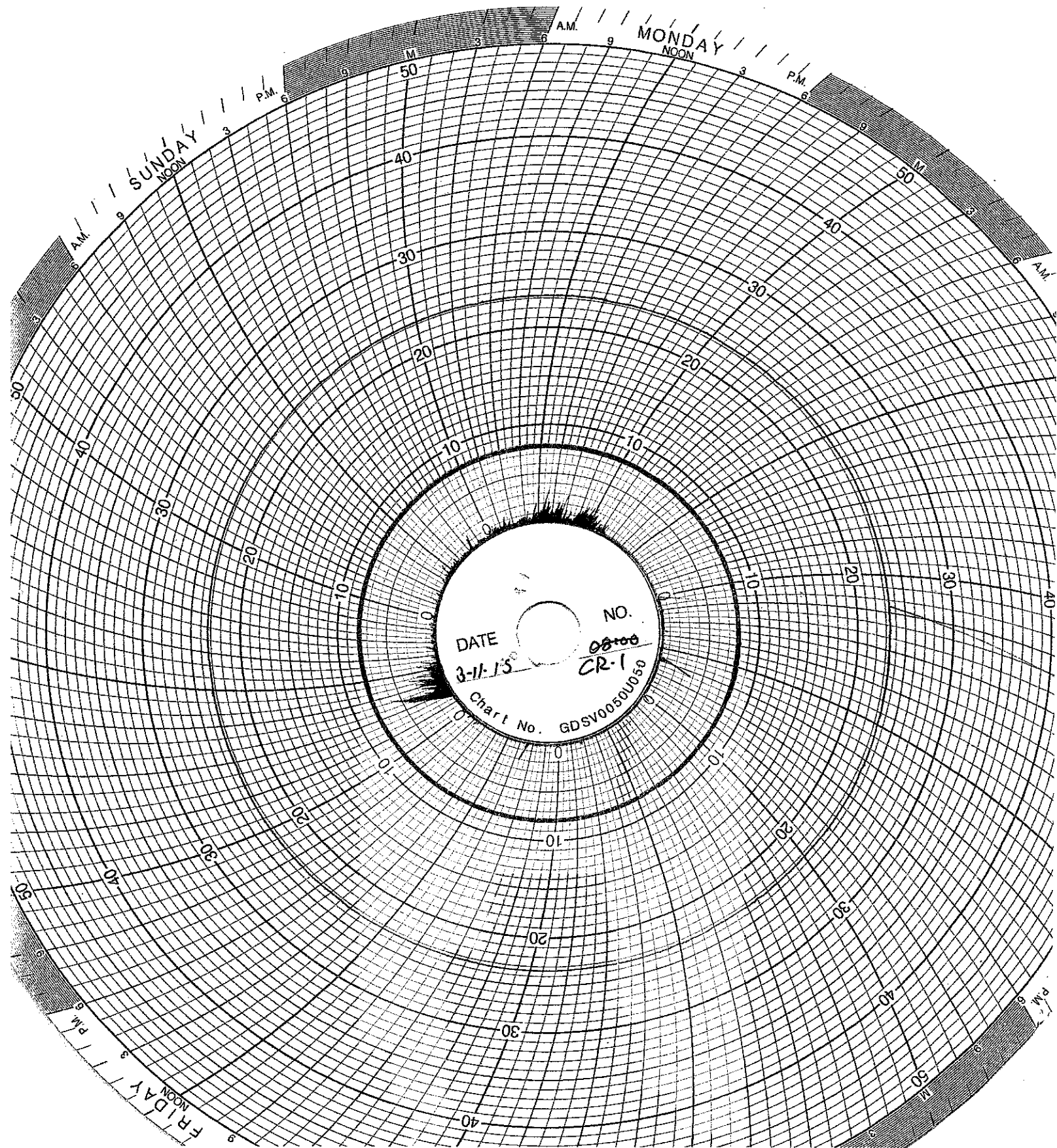
Black Pen - Temperature



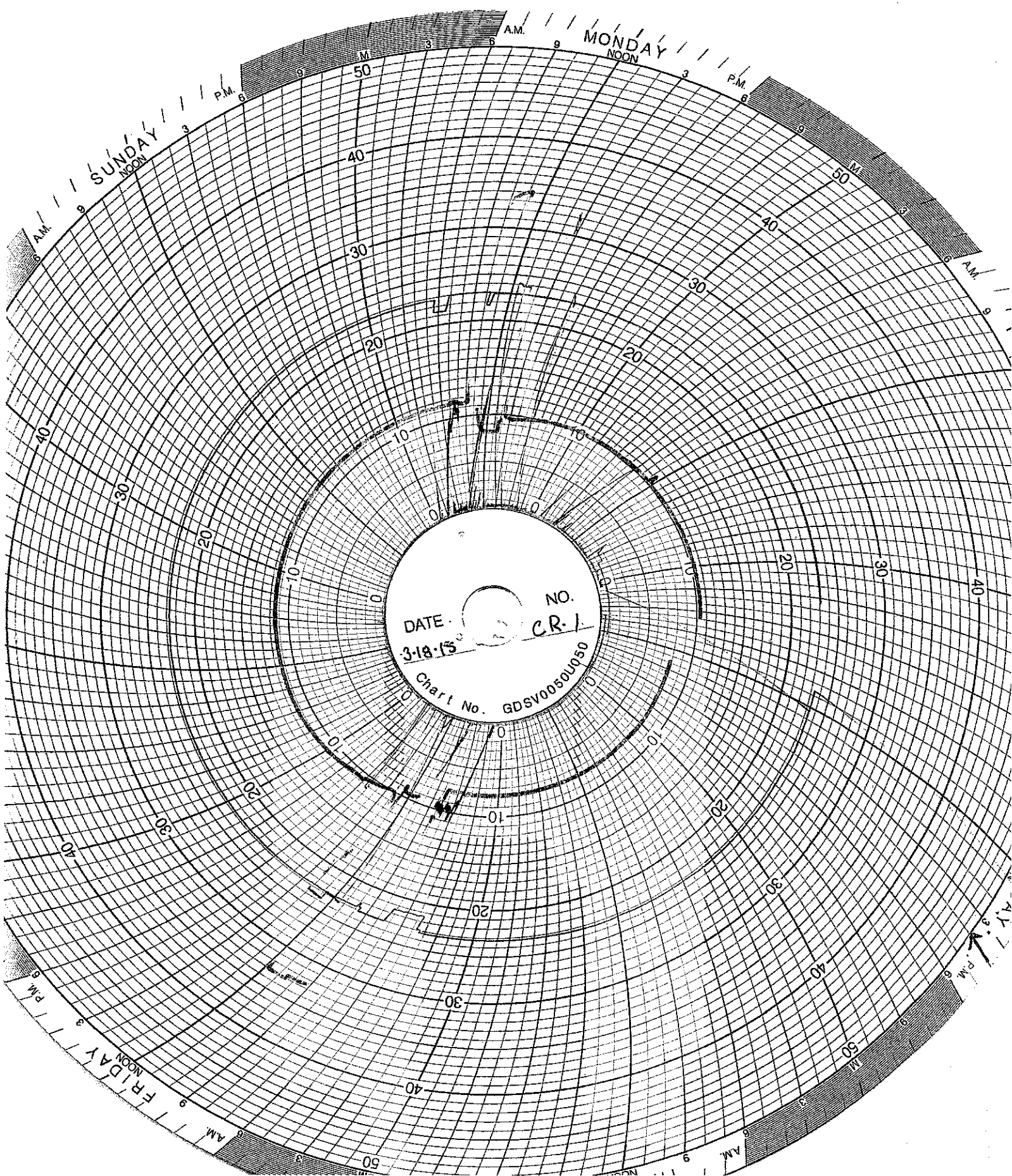
DATE 2-25-13
NO. CR-1
GDSV0050U050



DATE 3-21-75 NO. CR-1
Chart No. GDSV00500050



DATE 3-11-13
NO. 08-00
CR-1
Chart No. GDSV0050U050



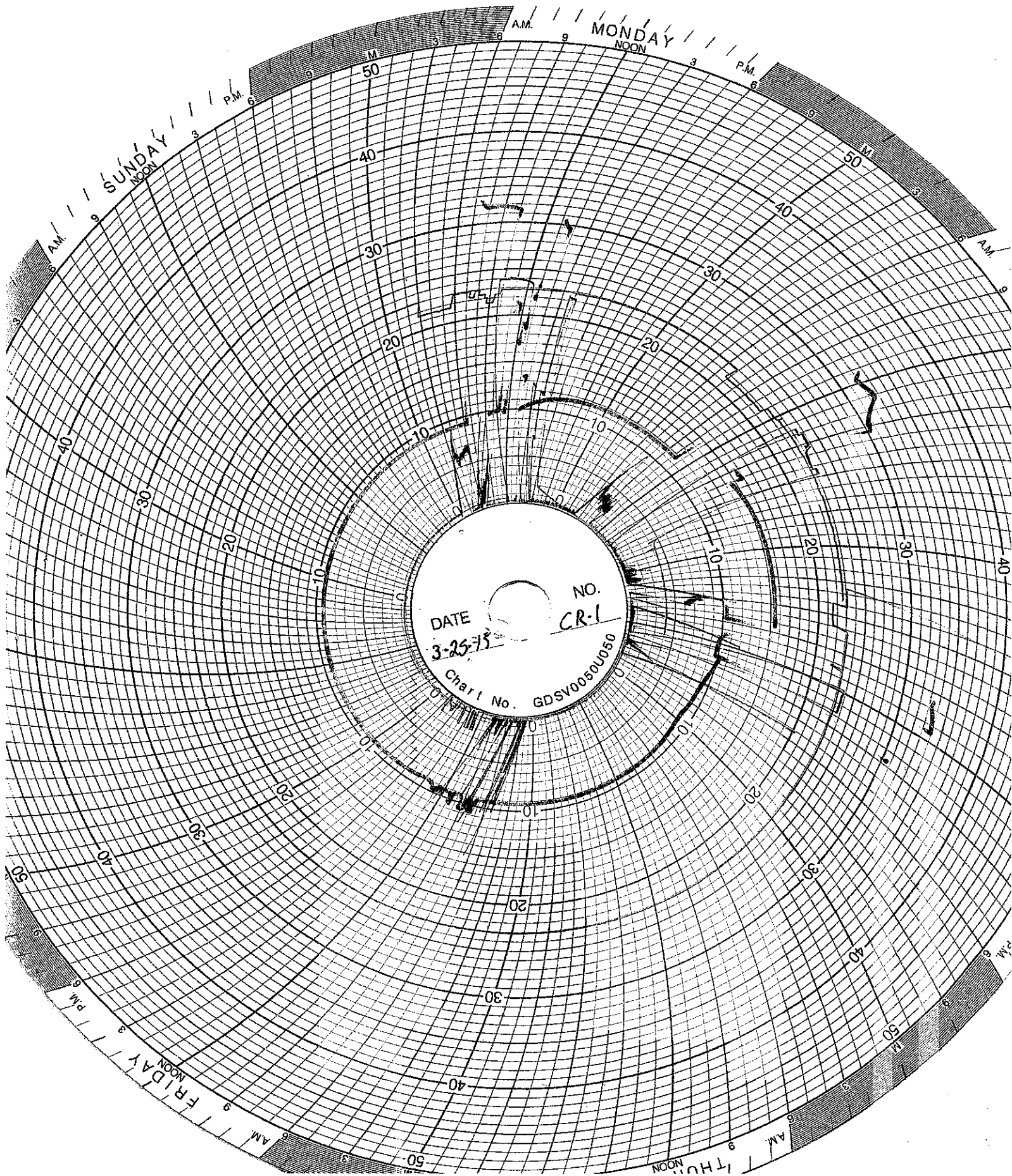
SUNDAY
NOON
3
6
9
P.M.

MONDAY
NOON
3
6
9
P.M.

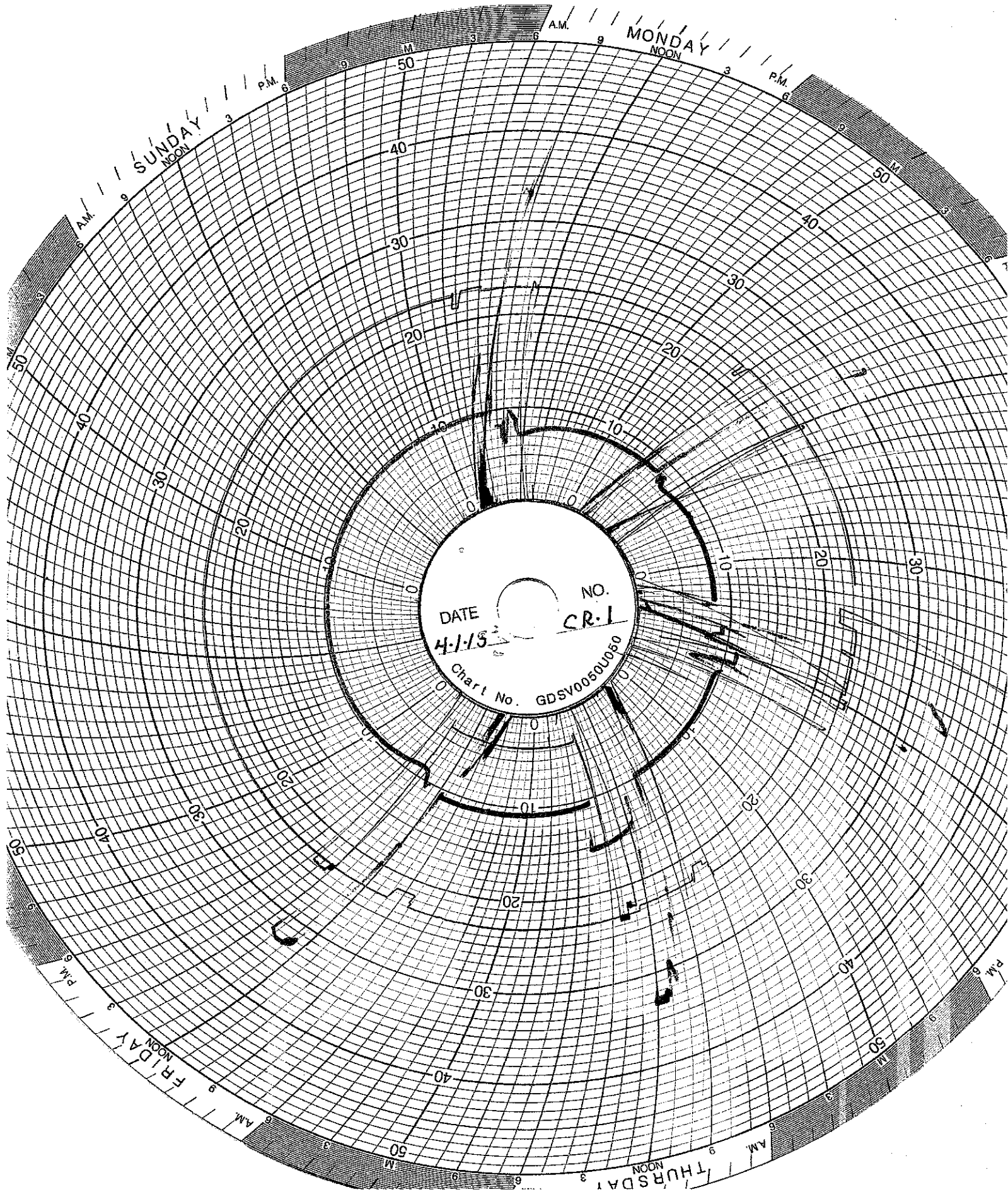
FRIDAY
NOON
3
6
9
P.M.

SATURDAY
NOON
3
6
9
P.M.

DATE 3-18-53
NO. CR-1
Chart No. GDSV0050U050



DATE 3-25-75 NO. CR-1
Chart No. GDSV0050U050



DATE 4-1-53
NO. CR-1
Chart No. GDSV0050U050

WELL 2 DATA

Circle Chart Index

Environmental Geo-Technologies, LLC 28470 Citrin Drive Romulus, MI 48174

Chart Recorder #1

Channel #1

Blue Pen - Well 1 Injection Pressure

Channel #2

Red Pen – Well 1 Annulus Pressure

Channel #3

Green Pen – Well 1 Flow Rate

Channel #4

Black Pen – Well 1 Annulus Tank Level

Chart Recorder #2

Channel #1

Blue Pen – Well 2 Injection Pressure

Channel #2

Red Pen – Well 2 Annulus Pressure

Channel #3

Green Pen – Well 2 Flow Rate

Channel #4

Black Pen – Well 2 Annulus Tank Level

Chart Recorder #3

Channel #1

Blue Pen – Injection pH Well 1 & 2

Channel #2

Red Pen – Well 1 Monthly Volume

Channel #3

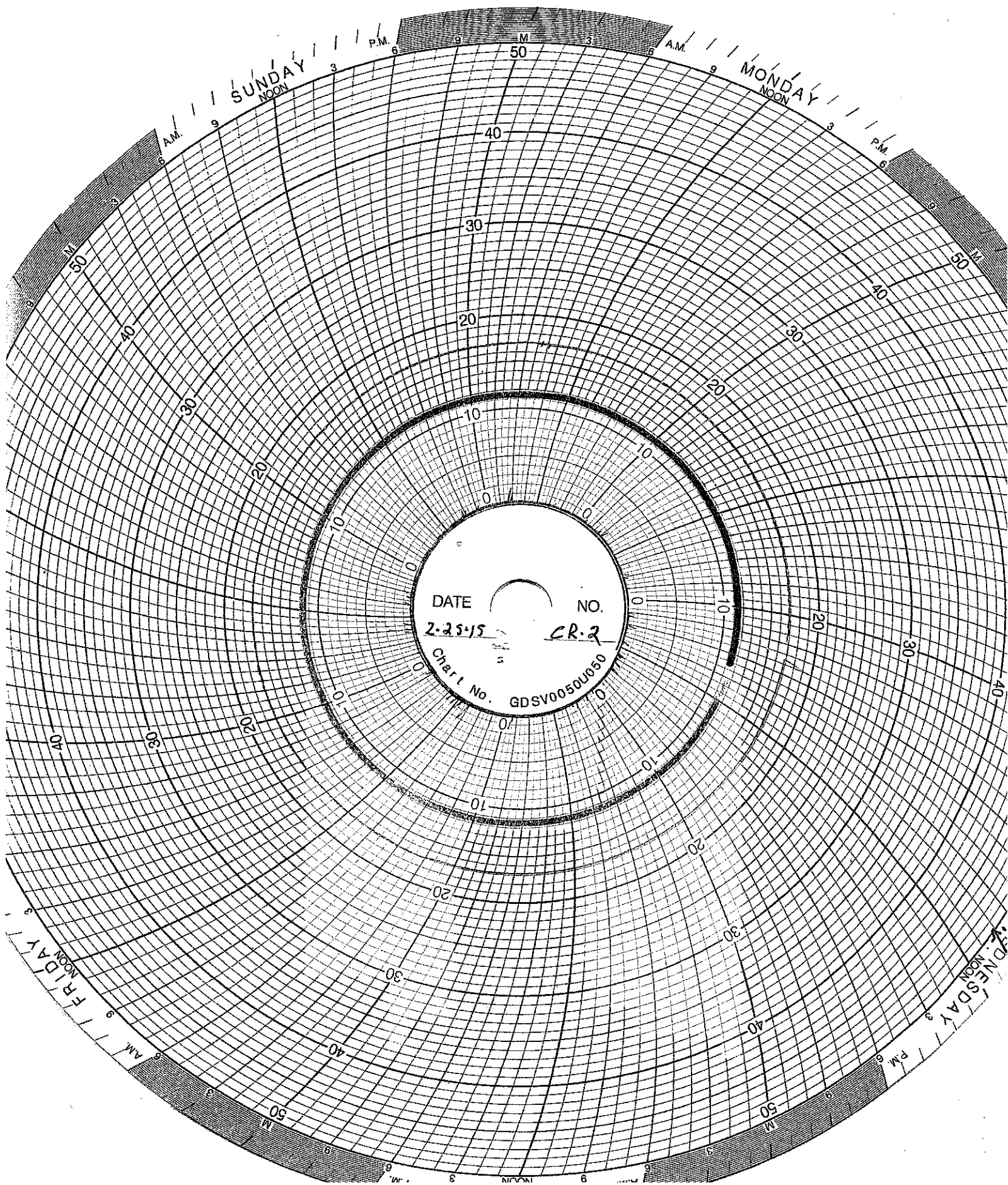
Green Pen – Well 2 Monthly Volume

Channel #4

Black Pen - Temperature

Well 02 Monthly Data

Date	Min Injection Pressure (PSIG)	Max Injection Pressure (PSIG)	Min Sight Glass Level (in)	Max Sight Glass Level (in)	Min Annulus Pressure (PSIG)	Max Annulus Pressure (PSIG)	Min Injectate pH	Max Injectate pH	Min Flow Rate (GPM)	Max Flow Rate (GPM)	Min Differential Pressure (PSIG)	Max Differential Pressure (PSIG)
3/1/2015	0.0	0.0	17.0	17.0	345.0	348.0	2.0	2.0	0.0	0.0	345.0	348.0
3/2/2015	0.0	0.0	17.0	17.0	348.0	348.0	1.6	2.2	0.0	0.0	348.0	348.0
3/3/2015	0.0	0.0	17.0	17.0	345.0	348.0	1.6	3.0	0.0	0.0	345.0	348.0
3/4/2015	0.0	0.0	16.9	17.0	339.0	342.0	1.9	2.2	0.0	0.0	339.0	342.0
3/5/2015	0.0	0.0	16.9	16.9	339.0	339.0	1.9	1.9	0.0	0.0	339.0	339.0
3/6/2015	2.0	2.1	16.9	17.0	342.1	344.5	6.1	6.2	0.0	0.0	341.2	341.8
3/7/2015	2.0	2.4	17.0	17.0	342.7	344.6	6.1	6.1	0.0	0.0	340.6	342.3
3/8/2015	1.9	2.3	17.0	17.0	343.2	344.9	6.1	6.1	0.0	0.0	341.2	342.8
3/9/2015	1.8	2.2	17.0	17.0	342.9	344.7	6.1	6.1	0.0	0.0	341.0	342.6
3/10/2015	1.9	2.2	17.0	17.0	343.1	344.3	6.1	6.1	0.0	37.5	341.1	342.2
3/11/2015	-4.1	704.7	15.7	17.0	290.3	968.7	5.4	6.2	30.7	142.4	195.4	381.2
3/12/2015	-4.1	-3.9	17.0	17.0	290.5	305.4	5.9	6.1	0.0	0.0	294.5	309.5
3/13/2015	-9.4	697.8	15.1	17.7	272.2	1015.7	5.4	5.6	6.0	179.1	177.9	399.4
3/14/2015	-8.3	47.9	17.2	17.4	248.8	324.3	5.5	6.3	0.7	242.0	242.2	293.2
3/15/2015	-3.8	-3.5	16.9	17.7	275.7	282.3	6.0	6.1	0.0	0.0	279.3	286.0
3/16/2015	-10.0	653.2	15.7	17.6	244.5	987.4	5.4	6.6	13.3	318.7	191.6	350.6
3/17/2015	-4.4	-3.8	16.9	17.7	263.1	272.9	6.3	6.4	0.0	222.6	267.4	277.0
3/18/2015	-4.3	-4.0	16.9	17.7	272.0	274.2	6.3	6.3	0.0	0.0	276.2	278.3
3/19/2015	-4.4	-4.1	16.9	17.7	272.9	274.6	6.3	6.3	0.0	0.0	277.2	278.8
3/20/2015	-4.3	-3.2	17.2	17.8	273.4	276.9	5.6	10.8	0.0	0.0	277.6	280.2
3/21/2015	-4.3	-3.7	17.3	17.4	274.4	275.8	6.2	6.3	0.0	0.0	278.5	279.7
3/22/2015	-4.4	-4.1	17.2	17.3	273.5	275.1	6.2	6.2	0.0	0.0	277.8	279.3
3/23/2015	-4.5	-3.9	17.2	17.3	273.0	275.1	5.5	6.4	0.0	0.0	277.4	279.1
3/24/2015	-4.5	-3.6	16.7	18.0	272.7	275.6	6.0	6.3	0.0	0.0	277.0	279.5
3/25/2015	-3.7	-2.6	17.2	17.4	273.1	275.6	6.2	6.9	0.0	0.0	276.6	278.3
3/26/2015	-3.2	-2.9	17.0	17.7	273.6	275.1	6.6	6.7	0.0	0.0	276.8	278.1
3/27/2015	-3.4	62.4	8.1	17.8	265.9	320.1	5.8	6.7	2.9	295.9	211.4	278.9
3/28/2015	9.2	10.6	17.2	17.4	273.7	277.1	6.5	6.6	0.0	0.0	263.3	267.6
3/29/2015	9.2	9.6	17.3	17.4	275.6	277.6	6.6	6.7	0.0	0.0	266.4	268.0
3/30/2015	8.0	24.7	17.0	17.8	276.6	279.3	6.4	8.2	0.1	70.3	252.4	269.3
3/31/2015	23.0	702.1	15.1	17.5	276.5	1005.7	6.3	9.2	18.4	222.4	180.9	381.1



DATE

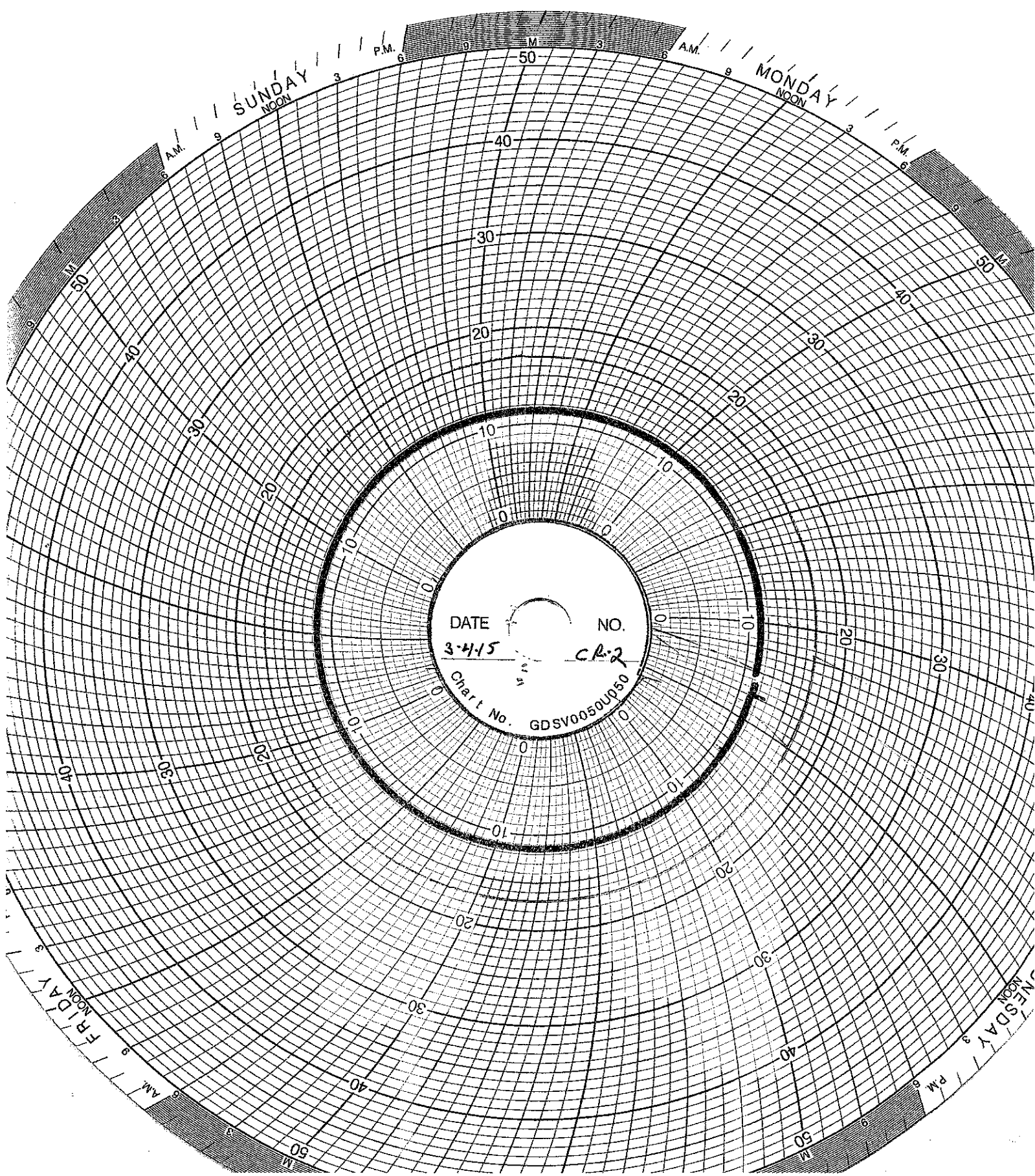
2-25-15

NO.

CR-2

Chart No.

GDSV0050U050



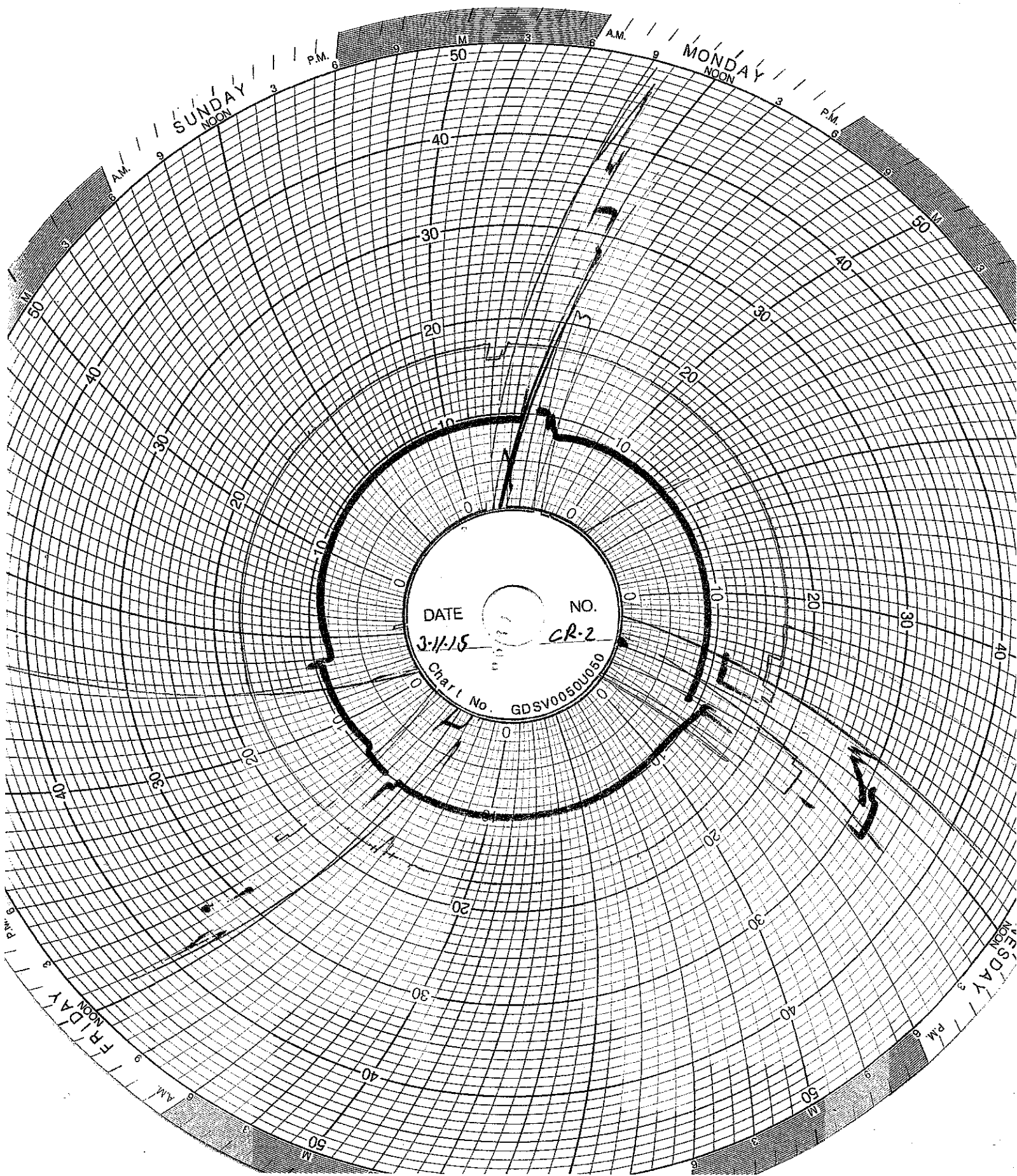
SUNDAY
NOON

MONDAY
NOON

TUESDAY
NOON

FRIDAY
NOON

DATE 3-4-15 NO. CR-2
Chart No. GDSV0050U050



DATE

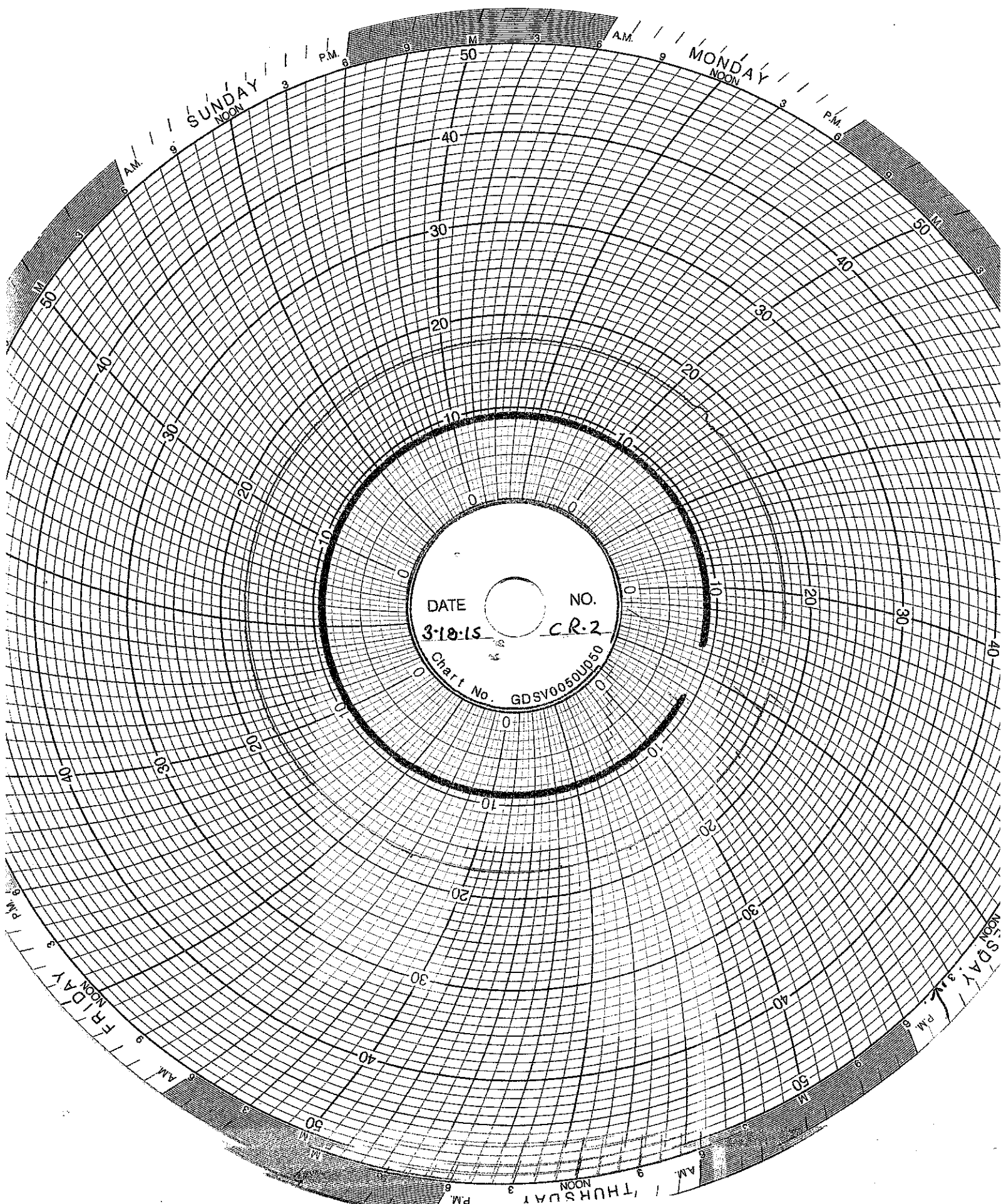
3-1-18

NO.

CR-2

Chart No.

GDSV0050U050



DATE

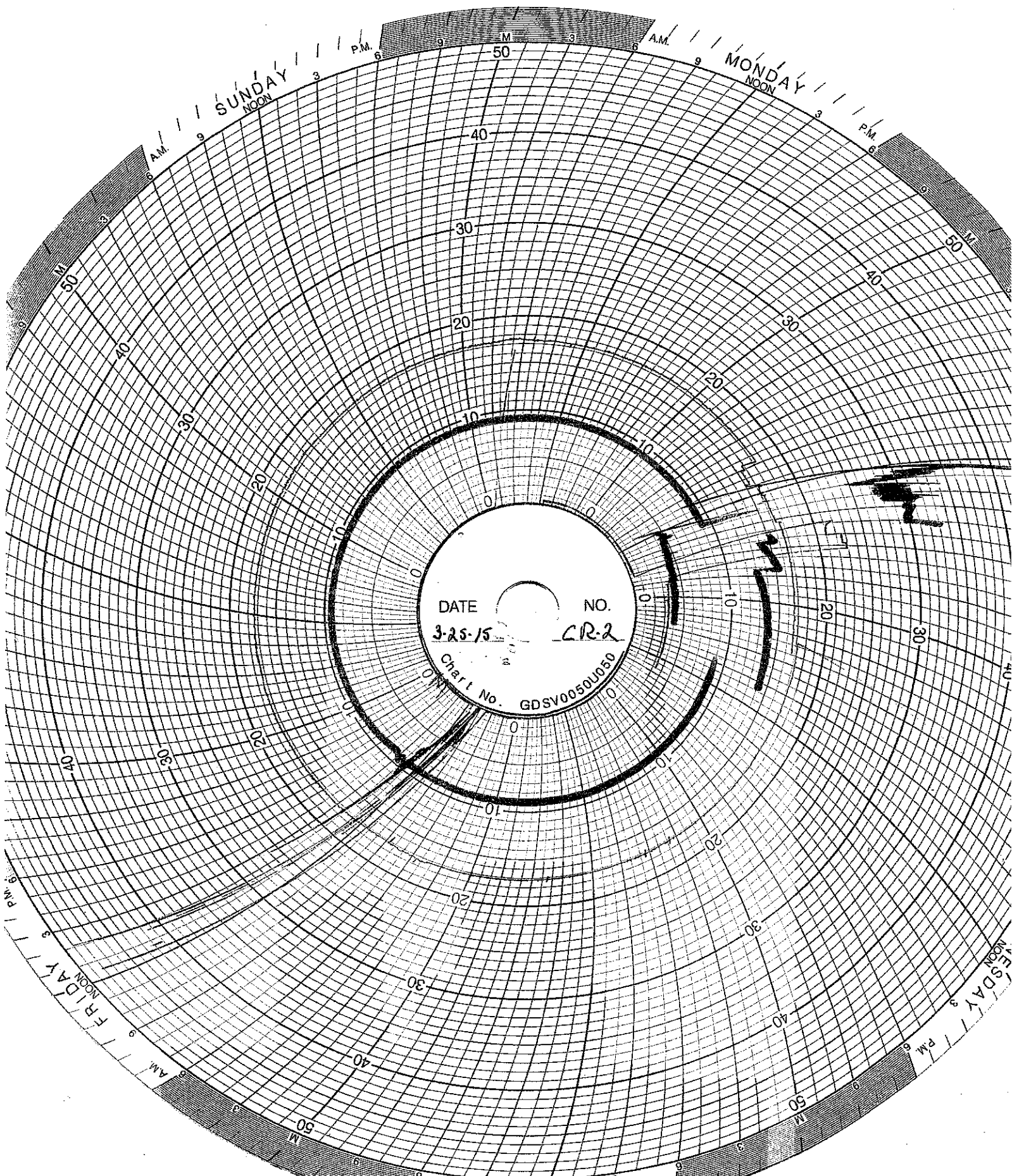
3-18-15

NO.

CR-2

Chart No.

GDSV00501050



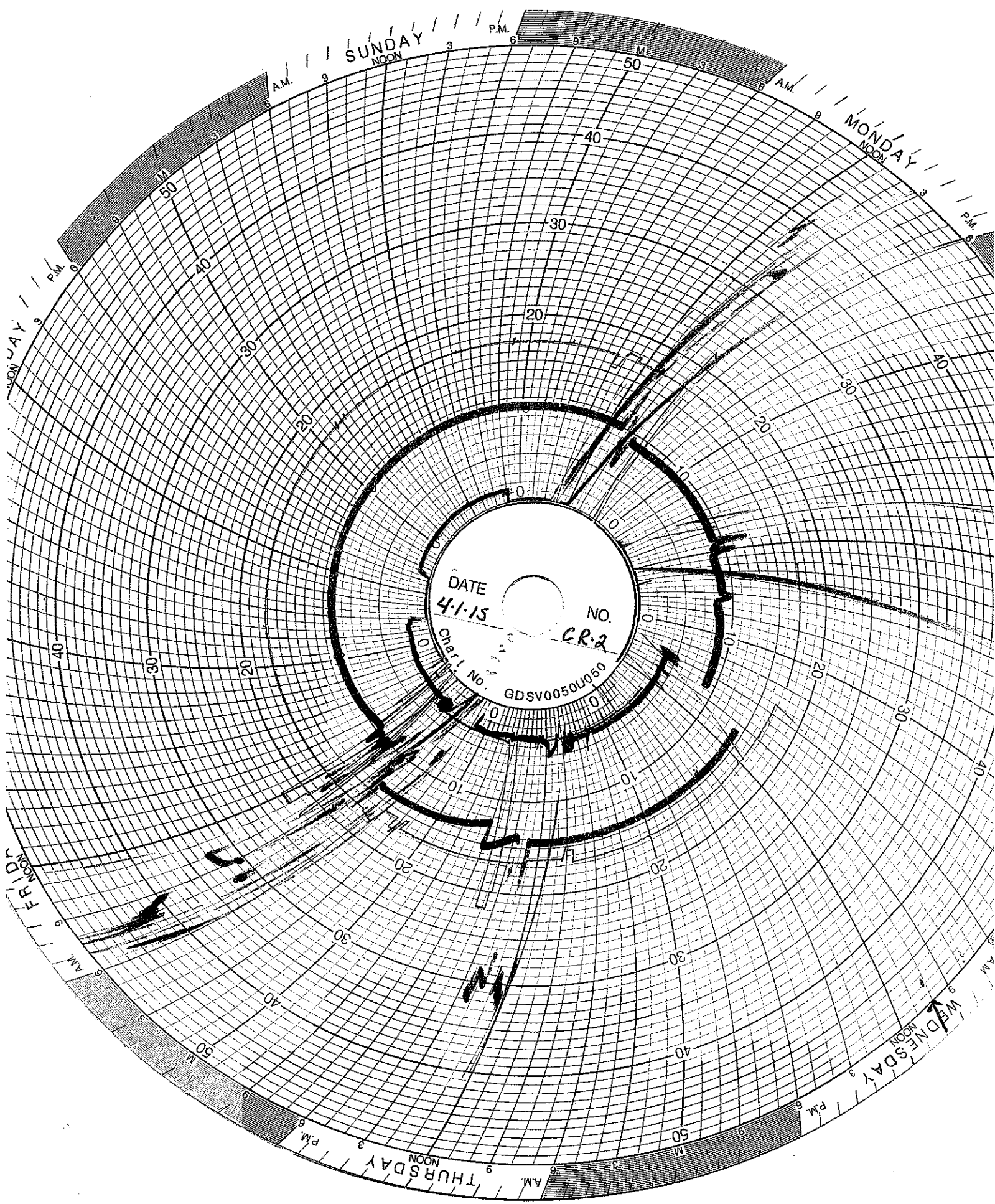
SUNDAY

MONDAY

FRIDAY

THURSDAY

DATE 3-25-15 NO. CR-2
Chart No. GDSV0050U050



DATE
4-1-15

NO.
CR-2

Chart No.
GDSV0050U050

SUNDAY
NOON

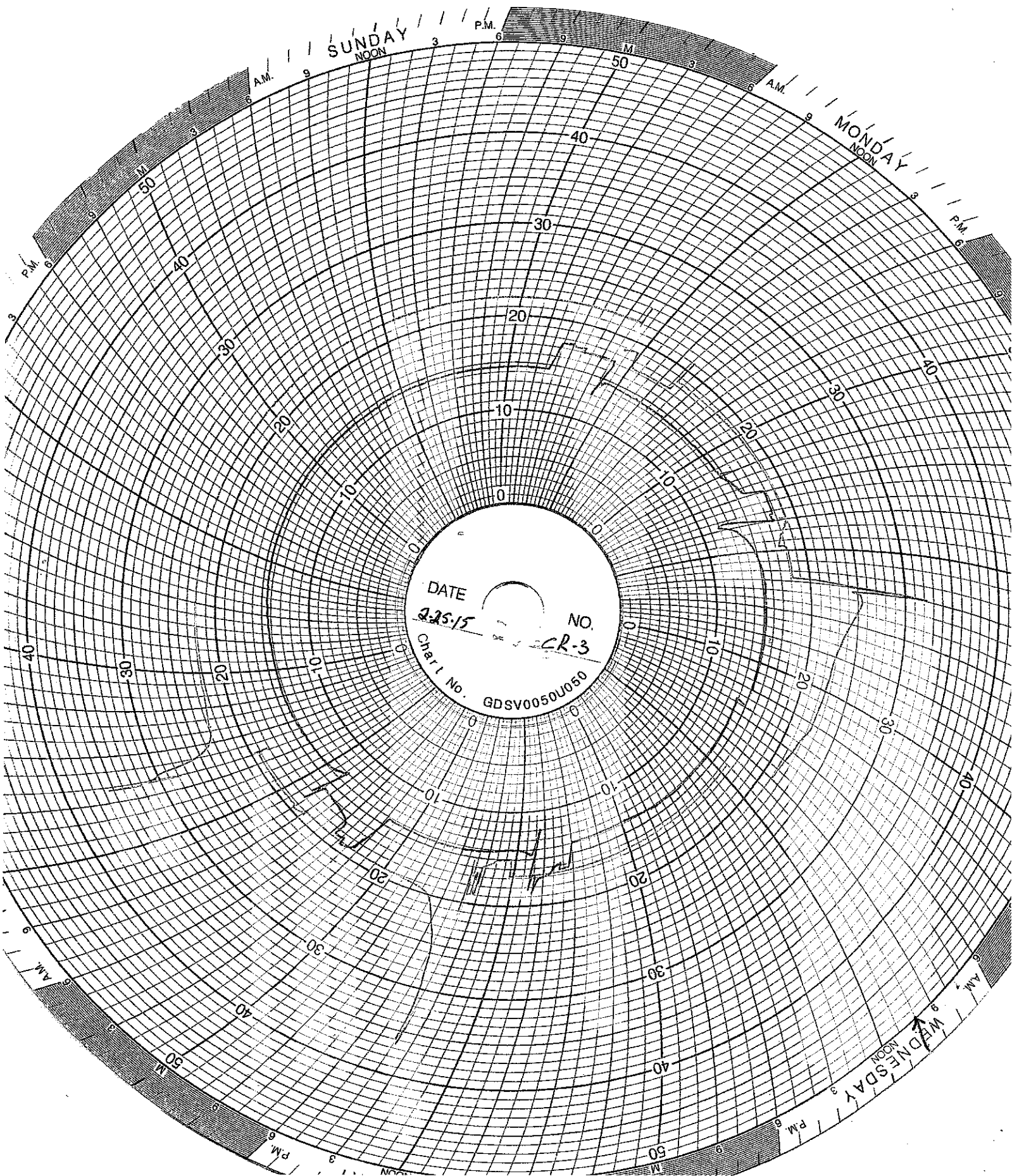
MONDAY
NOON

THURSDAY
NOON

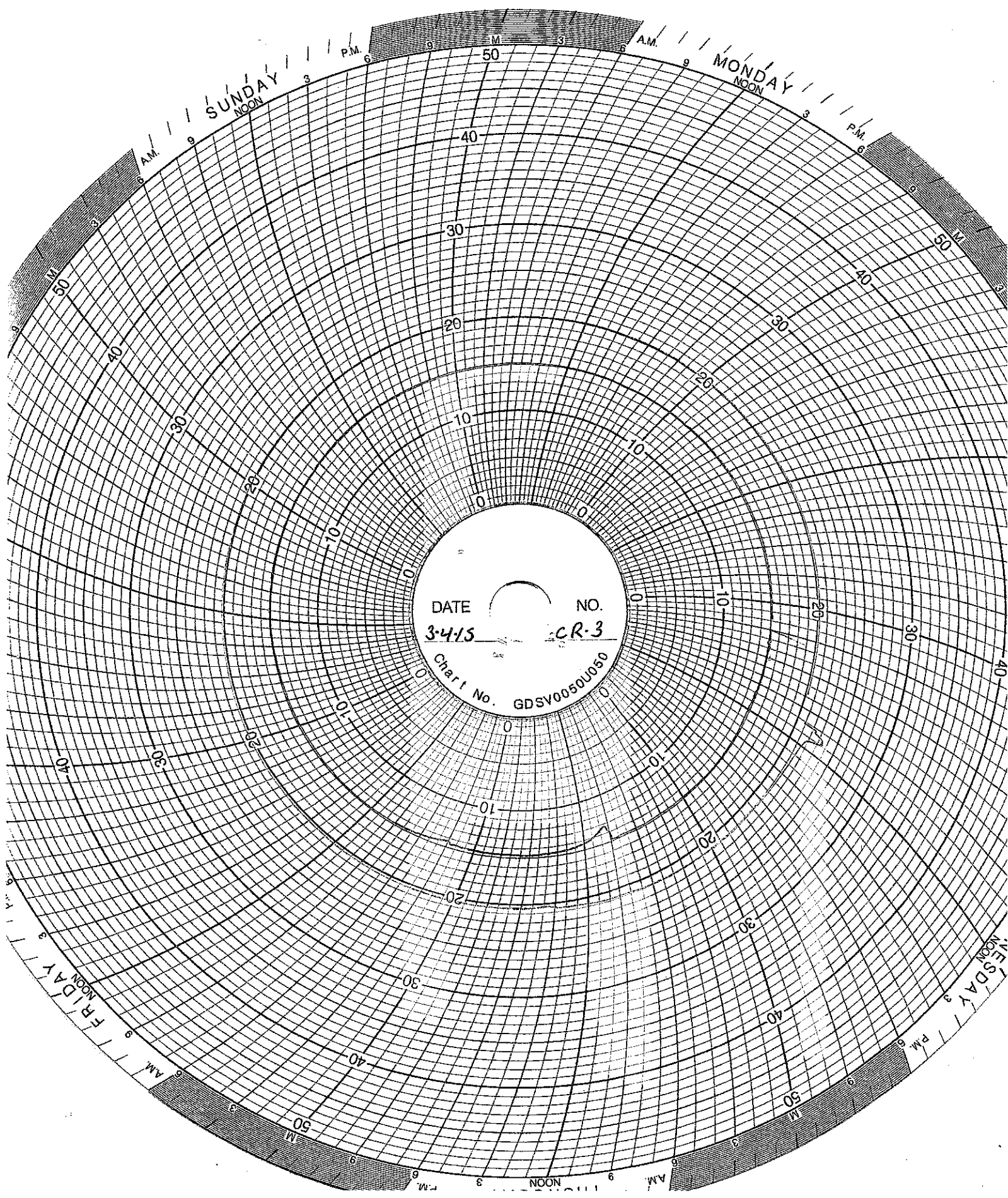
WEDNESDAY
NOON

FRIDAY
NOON

THURSDAY
NOON



DATE 2-25-15 NO. CR-3
Chart No. GDSV0050J050



DATE

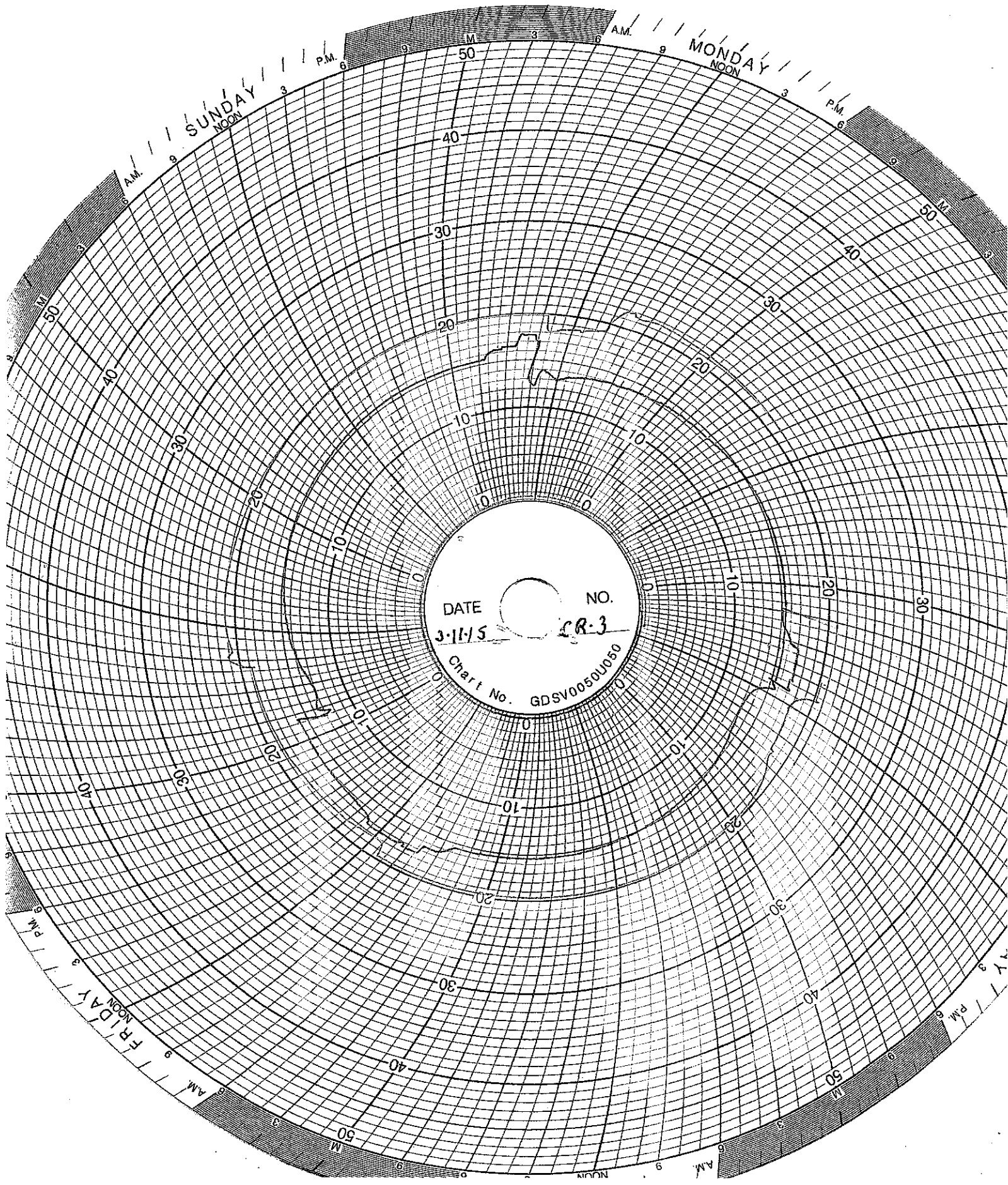
3-4-15

NO.

CR-3

Chart No.

GDSV0050J050



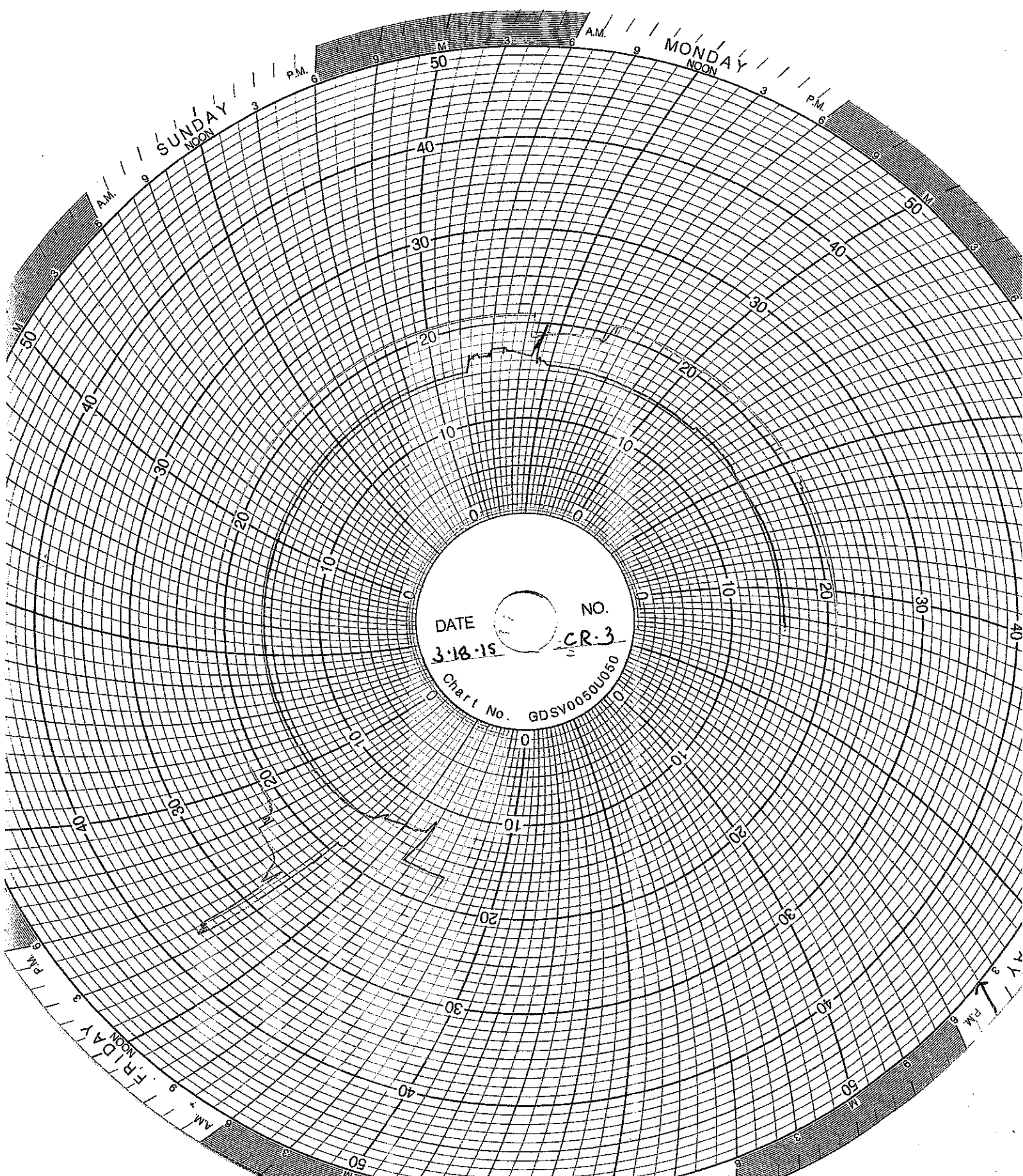
SUNDAY
NOON

MONDAY
NOON

FRIDAY
NOON

SATURDAY
NOON

DATE 3-11-5 NO. CR-3
Chart No. GDSV0050U050



SUNDAY
NOON
3
6
9
P.M.

MONDAY
NOON
3
6
9
P.M.

50
40
30
20
10
0

50
40
30
20
10
0

DATE

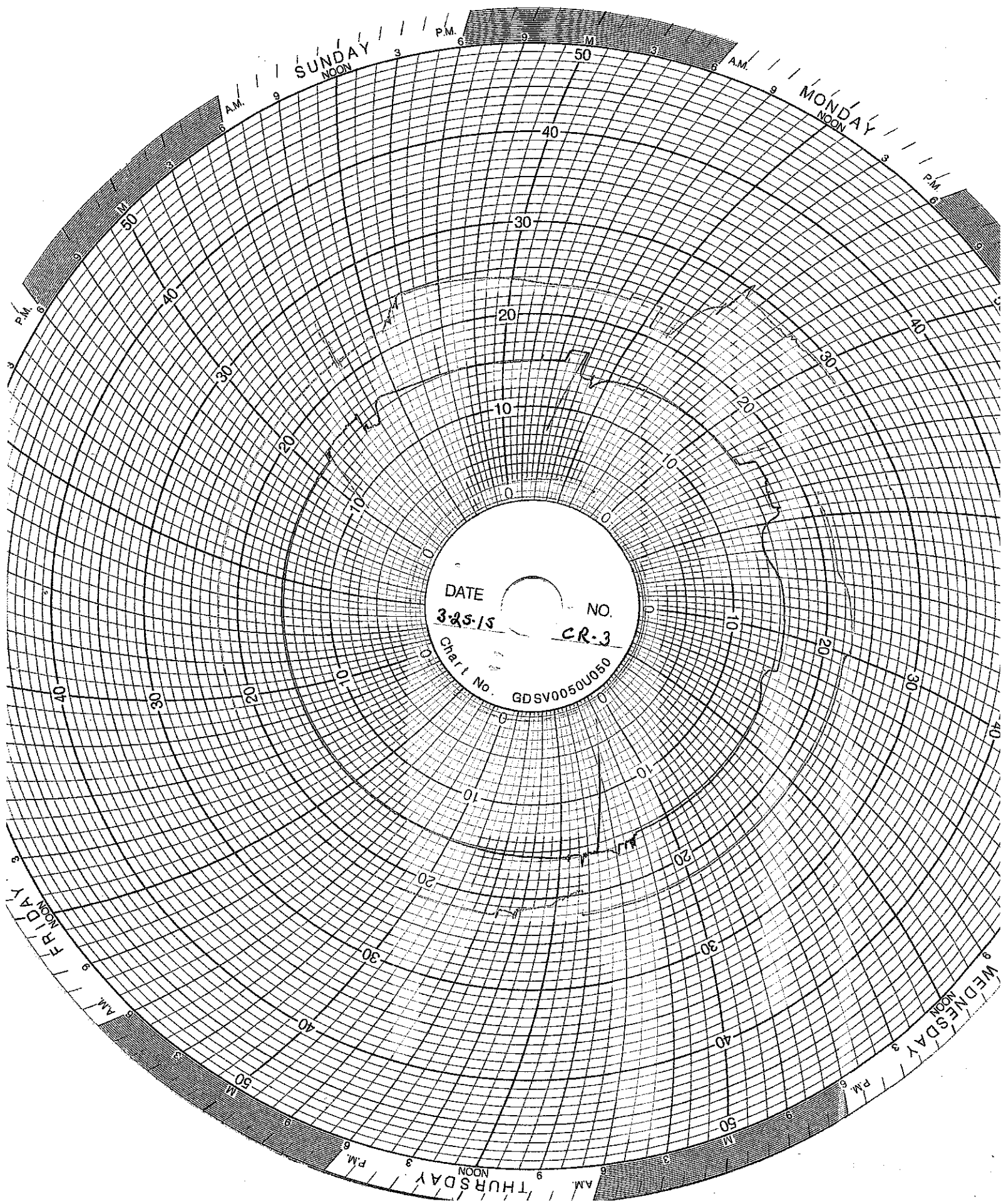
3.18.15

NO.

CR-3

Chart No.

GDSV0060050



SUNDAY
NOON

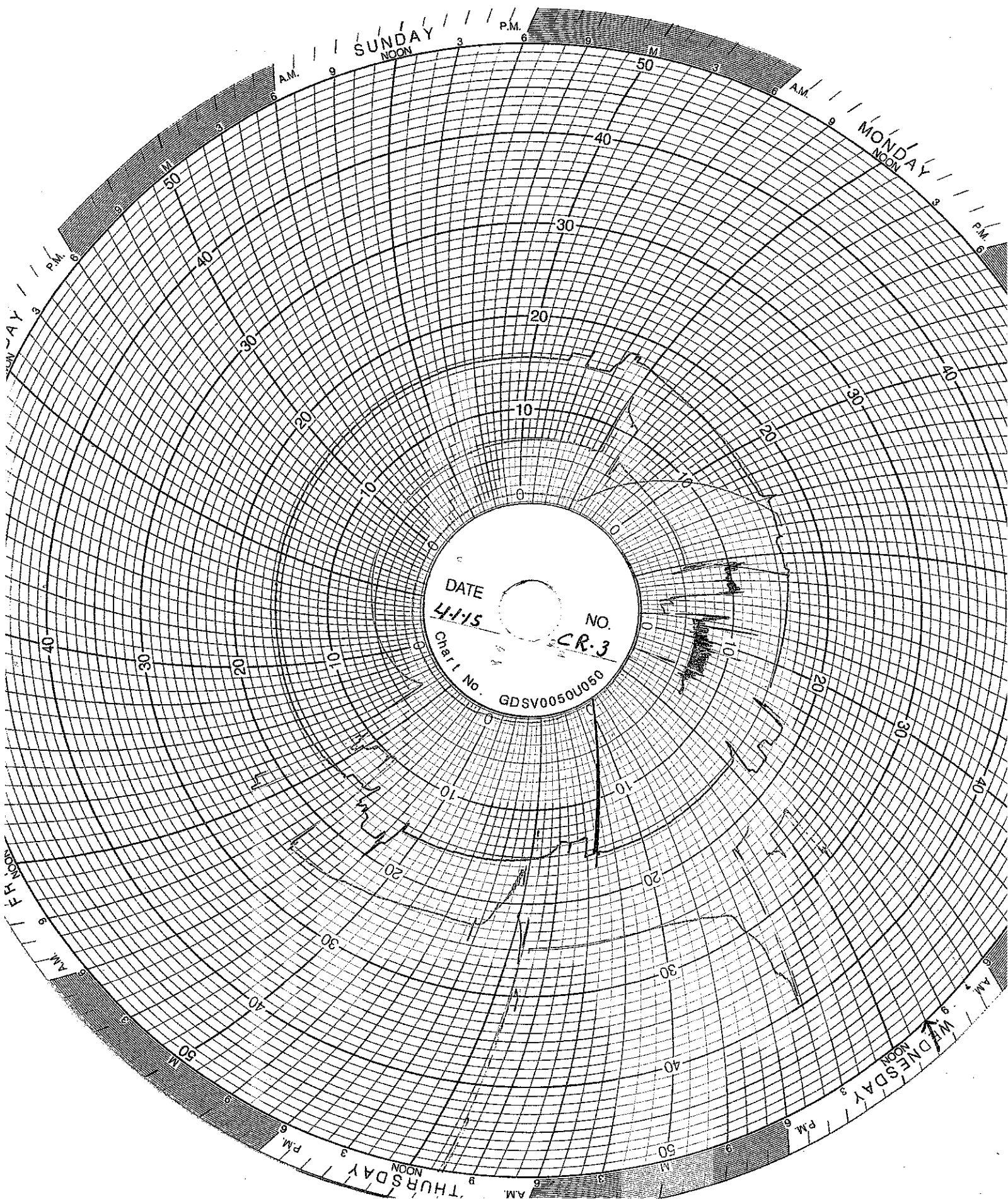
MONDAY
NOON

DATE 3-25-15 NO. CR-3
Chart No. GDSV0050U050

FRIDAY
NOON

WEDNESDAY
NOON

THURSDAY
NOON



SUNDAY
NOON

MONDAY
NOON

THURSDAY
NOON

WEDNESDAY
NOON

DATE
4-15

NO.
CR.3

Chart No.
GDSV0050U050

MAINTENANCE LOG

UIC Monthly Maintenance Log

	No maintenance performed this month
--	-------------------------------------

DATA DESCRIPTION

March 2015

This month's data is reported from the report generator except for the first 10 days were extrapolated from the circle charts. The report generator is now functional but the data recorded from the foundation fieldbus requires manual observation by the deepwell operators. The system foundation fieldbus is recording flow when the pipe is empty. There are two dates that show exceedance in the injection rate as 318.8 gpm on the 16th and 295.9 gpm on the 27th of March, however, these were not actual exceedances and were not identified until this report was generated. The deepwell operators have been manually checking flow rate by displacement of tank volume over time. This has identified a multiplier of 0.6 to 0.9 for well 2 and 1.3 to 1.6 for well 1. At no time was the shut-off alarm triggered while injection was taking place. Utility Instrumentation Services is currently working on the foundation fieldbus and instrumentation.

CORROSION MONITORING

**CORROSION MONITORING PLAN
COUPON SUMMARY**

Date	Hastelloy (C267)	Stainless Steel (316L)	Fiberglass (Redbox)	
12/19/2013	13.330 g	10.848 g	7.309 g	Initial Mass @ start up
2/21/2014	13.329 g	10.846 g	7.306 g	
3/10/2014	13.327 g	10.845 g	7.300 g	
4/18/2014	13.324 g	10.841 g	7.272 g	
5/30/2014	13.328 g	10.818 g	7.226 g	
6/30/2014	13.321 g	10.337 g	7.196 g	
7/11/2014	13.323 g	10.304 g	7.196 g	
8/12/2014	13.328 g	10.045 g	7.182 g	
9/17/2014	13.321 g	9.997 g	7.090 g	
10/30/2014	13.321 g	9.387 g	7.075 g	
11/21/2014	13.320 g	9.386 g	7.069 g	
12/19/2014	13.321 g	9.315 g	7.084 g	
1/12/2015	13.321 g	9.289 g	7.063 g	
2/23/2015	13.339 g	9.286 g	7.005 g	
3/31/2015	13.339 g	9.286 g	7.005 g	

CORROSION MONITORING COUPONS VISUAL DESCRIPTION

March 31, 2015

Fiberglass Coupon

The fiberglass coupon is Red Box 2000 with dimensions of 2-1/2 inches long by 1/2 inch wide by 3/16 inches thick. It is brown in color with semi-smooth texture. There is no real change in the overall condition of the coupon. The coupon is faded in color from its original condition. There is no pitting, wear or swelling evident.

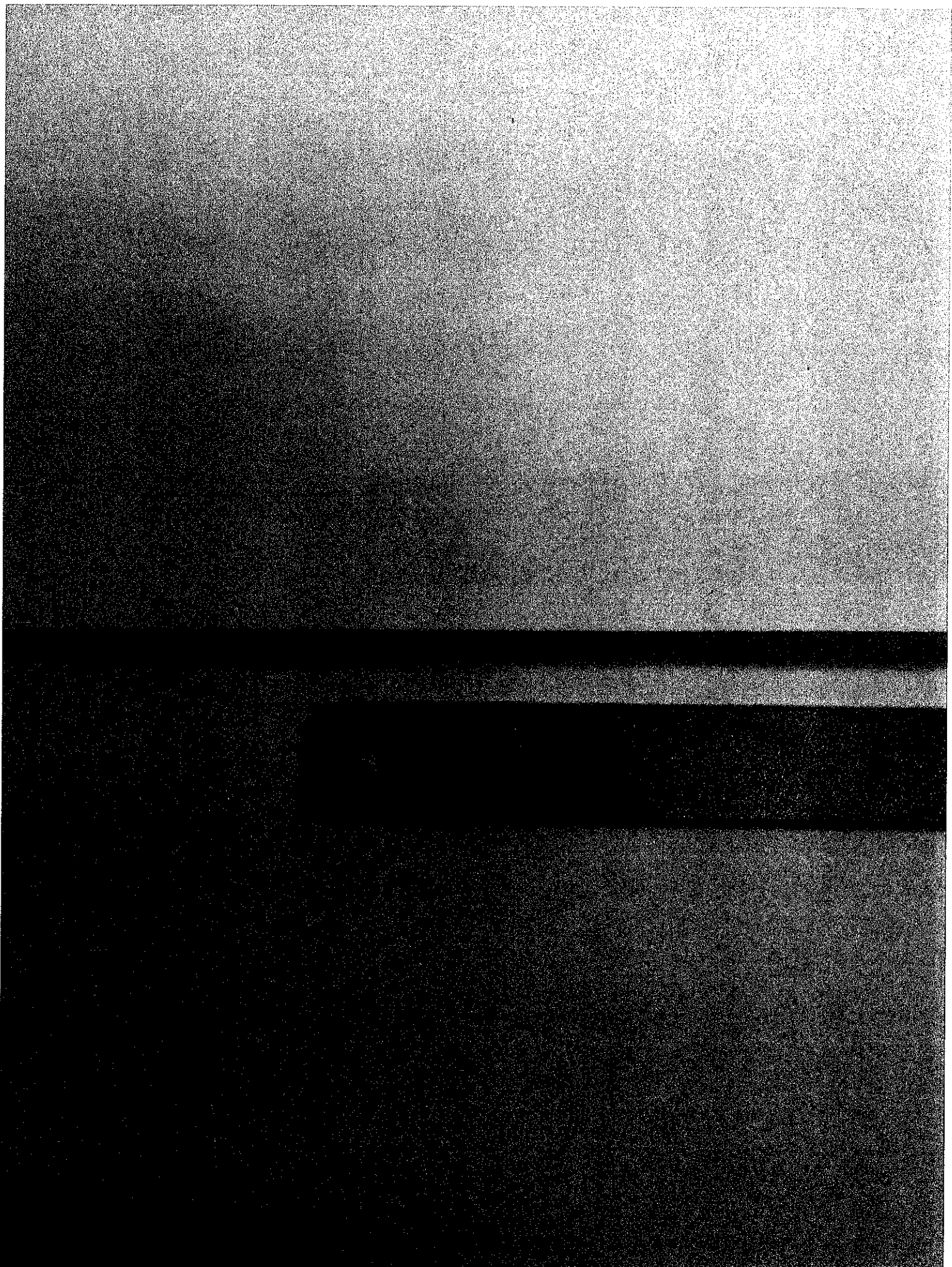
Hastelloy Coupon

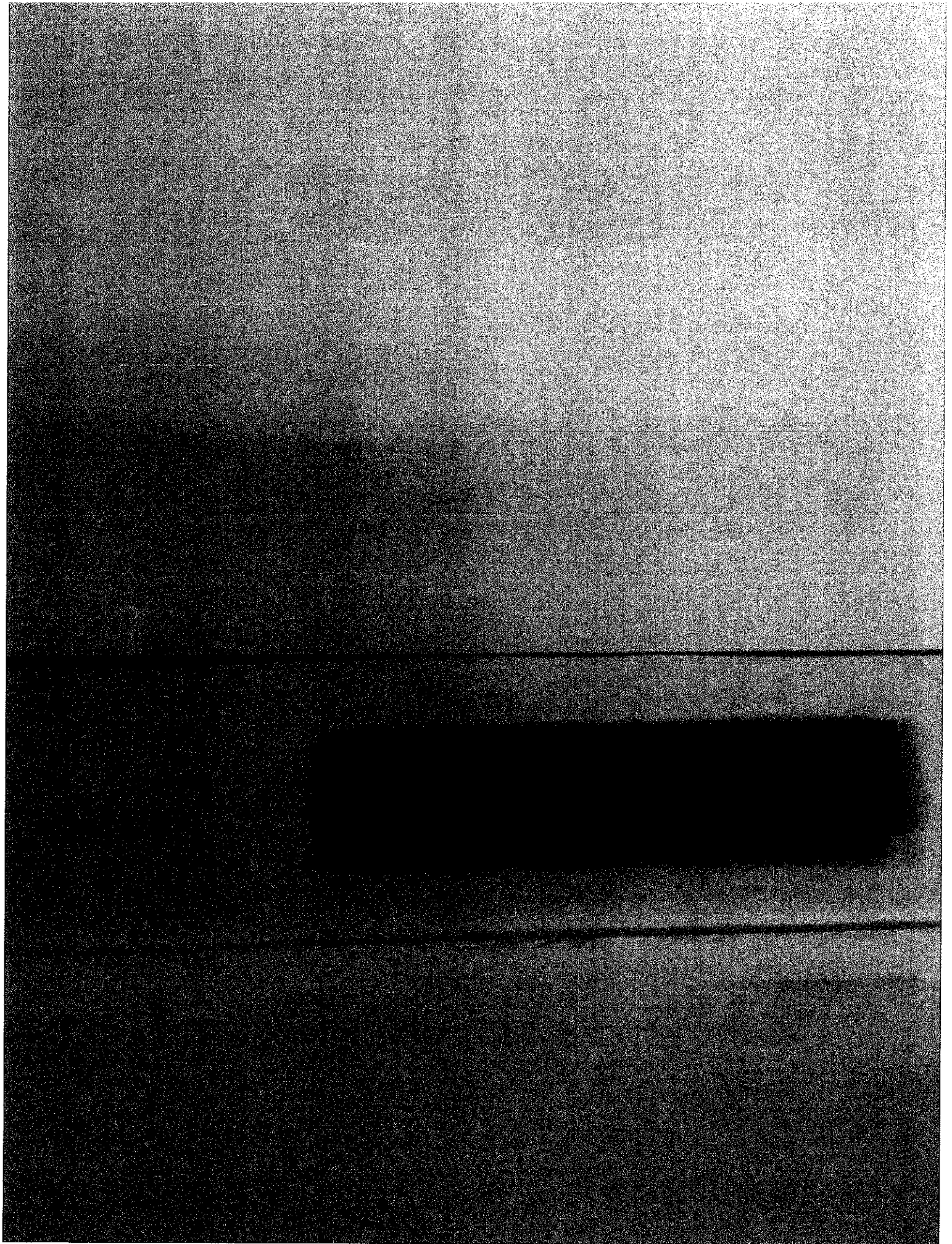
The Hastelloy coupon C276 is a new coupon with Serial Number 5 and part number C0100A120104100. The dimensions of the coupon are 3 inches long by 1/2 inch wide by 1/16 inches thick. The coupon is silver in color with a lightly sandblasted texture. The installation weight was 13.339 grams.

Stainless Steel Coupon

The Stainless Steel coupon is 316 L with serial number C1562. The dimensions of the coupon are 3 inches long by 1/2 inch wide by 1/16 inches thick. The coupon is silver in color. The materials seem to be aggressive to the stainless steel and pitting of the surface area appears to be growing with time. No parts on either of the deepwells are made with stainless steel parts.







Ghesquiere Plastic Testing, Inc.

20450 HARPER AVENUE
HARPER WOODS, MI 48225
PHONE (313) 885-3535
FAX (313) 885-1771

Report Date: November 15, 2013
Test Date: October 15 - November 14, 2013

Report #1310-77651
Performed for:
Environmental Geo-Technologies
28470 Citrin Drive
Romulus, MI 48174

Attention: Mr. Don Anderson

WORK REQUESTED:

Perform Barcol Hardness test on sample submitted.

DESCRIPTION OF SAMPLE:

Sample submitted was identified as a fiberglass test coupon.

(P. O. #Credit Card).

WORK PERFORMED:

Test specimen was prepared as necessary and conditioned for a minimum of 24 hours at standard laboratory conditions prior to testing.

Barcol Hardness test was performed in accordance with the procedures of ASTM D2583-13. One specimen was tested.

RESULTS:

The following determination was made based upon the above test:

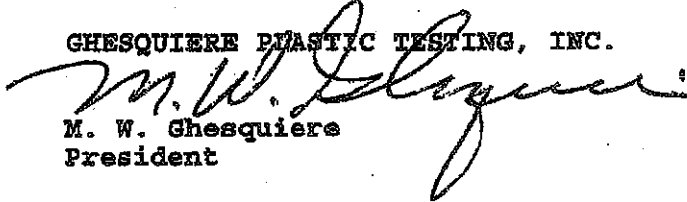
BARCOL HARDNESS

Hardness

Specimen 1	90
------------	----

Specimen is being returned with this report for further evaluation.

Ghesquiere Plastic Testing, Inc.


M. W. Ghesquiere
President

MWG/kni

Our letters and reports are for the exclusive use of the client to whom they are addressed, and shall not be reproduced except in full without our written approval. Our letters and reports apply only to the sample tested and are not necessarily indicative of the qualities of apparently identical or similar products. The letters and reports and the name of Ghesquiere Plastic Testing, Inc., are not to be used under any circumstances in advertising to the general public. Samples, extra and related test materials will be destroyed 30 days after the date of the final report unless the client indicates otherwise in writing.

TOTAL 1 PAGES

Ghesquiere Plastic Testing, Inc.

20450 HARPER AVENUE
HARPER WOODS, MI 48225
PHONE (313) 885-3535
FAX (313) 885-1771

Report Date: February 17, 2014
Test Date: February 14 - 17, 2014

Report #1402-78036
Performed for:
Environmental Geo-Technologies
28470 Citrin Drive
Romulus, MI 48174

Attention: Mr. Don Anderson

WORK REQUESTED:

Perform Barcol Hardness test on sample submitted.

DESCRIPTION OF SAMPLE:

Sample submitted was identified as a fiberglass test coupon.
(P. O. #Credit Card).

WORK PERFORMED:

Test specimen was prepared as necessary and conditioned for a minimum of 24 hours at standard laboratory conditions prior to testing.

Barcol Hardness test was performed in accordance with the procedures of ASTM D2583-13. One specimen was tested.

RESULTS:

The following determination was made based upon the above test:

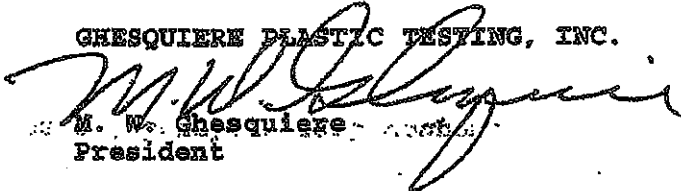
BARCOL HARDNESS

Hardness

Specimen 1: 90

Specimen was returned to the client on February 17, 2014.

Ghesquiere Plastic Testing, Inc.


M. W. Ghesquiere
President

MWG/dm

Ghesquiere Plastic Testing, Inc.

20450 HARPER AVENUE
HARPER WOODS, MI 48225
PHONE (313) 885-3535
FAX (313) 885-1771

Report Date: June 16, 2014
Test Date: June 13 - 16, 2014

Report #1406-78499
Performed for:
Environmental Geo-Technologies, LLC
28470 Citrin Drive
Romulus, MI 48174

Attention: Mr. Don Anderson

WORK REQUESTED:

Perform Barcol Hardness test on sample submitted.

DESCRIPTION OF SAMPLE:

Sample submitted was identified as a fiberglass test coupon.

(P. O. #Credit Card).

WORK PERFORMED:

Test specimen was prepared as necessary and conditioned for a minimum of 24 hours at standard laboratory conditions prior to testing.

Barcol Hardness test was performed in accordance with the procedures of ASTM D2583-13. One specimen was tested.

RESULTS:

The following determination was made based upon the above test:

BARCOL HARDNESS

Hardness

Specimen 1

85

Specimen was returned to the client June 16, 2014.

Ghesquiere Plastic Testing, Inc.


M. W. Ghesquiere
President

MWG/dm

October 2, 2014

• TEST REPORT •

PN 118325


PO Attn: John Frost

PLASTICS TESTING DEPARTMENT

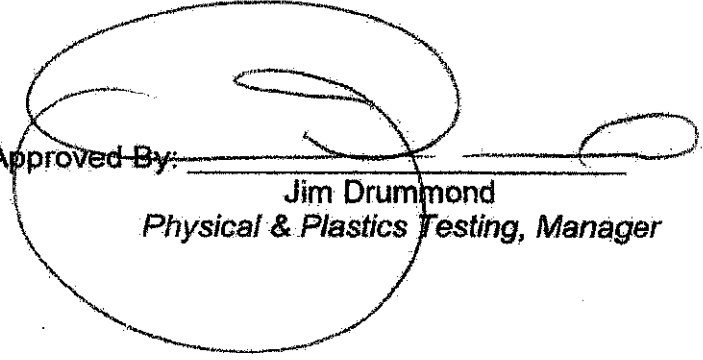
Prepared For:

John Frost
Environmental Geo-Technologies, LLC
28470 Citrin Drive
Romulus, MI 48174

Prepared By:


Melissa Martin
Sr. Project Technician

Approved By:


Jim Drummond
Physical & Plastics Testing, Manager



An A2LA ISO 17025 Accredited Testing Laboratory — Certificate Numbers 255.01 & 255.02
ISO 9001:2008 Registered

ISO 9001:2008
Registered

Letters and reports are for the exclusive use of the clients to whom they are addressed and shall not be reproduced, except in full, without the written permission of Akron Rubber Development Laboratory, Inc. (ARDL). The information contained herein applies to the specific material, products or processes tested or evaluated. No warranty of any kind is herein construed or implied. The liability of ARDL, Inc. shall be limited to the amount of consideration paid for services. ARDL, Inc. is ISO 17025 accredited by A2LA for the test methods listed on the attached scope.

www.ardl.com

2887 Gilchrist Rd. | Akron, Ohio 44305 | answers@ardl.com
Toll Free (800) 830-ARDL | Worldwide (330) 794-6600 | Fax (330) 794-6610

October 2, 2014

John Frost
Environmental Geo-Technologies, LLC

Page 2 of 2
PN118325

SUBJECT: Barcol Hardness on one material.
PO# Attn; John Frost

RECEIVED: One small section identified as; Fiberglass Coupon.

BARCOL HARDNESS ASTM D 2583-13a

Results

Barcol Hardness, Instant

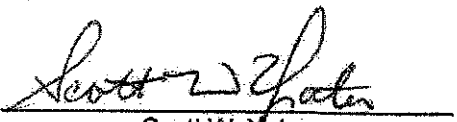
97

Prepared By:



Melissa Martin
Sr. Project Technician

Approved By:



Scott W. Yates
Plastics Testing Assistant Manager

www.ardl.com

2887 Gilchrist Rd. | Akron, Ohio 44305 | answers@ardl.com
Toll Free (800) 830-ARDL | Worldwide (330) 794-6600 | Fax (330) 794-6610

**INJECTION
FINGERPRINTS**

FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	3/2/15
Receiving ID#	LC3021501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	[Signature]

COPY

LAB INFORMATION		Oil Field Sites Only	
All Waste Shipments			
Compatible? (RT#)	(Yes) No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total iron	
Flash Point (°F)	> 140	Magnesium	
pH (S.U.)	1.6	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.12	TDS	5.62
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	65°F		
Conductivity	111.0 mS		
% Solids	5.6		
Turbidity	Yes No		
Color (visual)			
TSS (%)	20.1		
Radiation Screen (as needed)			
Lab Signature	[Signature]		

FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	03-03-15
Receiving ID#	I03031501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	<i>[Signature]</i>
Sampled by	<i>[Signature]</i>

COPY

LAB INFORMATION All Waste Shipments		Oilfield Brines Only	
Compatible? (RT#)	<input checked="" type="radio"/> Yes <input type="radio"/> No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	> 140	Magnesium	
pH (S.U.)	1.2	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.11	TDS	5.27
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	65°F		
Conductivity	104.6 mS		
% Solids	5.2		
Turbidity	Yes No		
Color (visual)			
TSS (%)	<0.1		
Radiation Screen (as needed)			
Lab Signature	<i>[Signature]</i>		

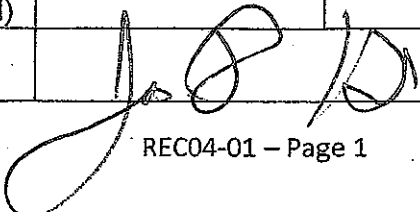
FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	03-11-15
Receiving ID#	Z 03111501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J. H.
Sampled by	D. H.

COPY

LAB INFORMATION		Oilfield Brines Only	
All Waste Shipments			
Compatible? (RT#)	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	140	Magnesium	
pH (S.U.)	0.9	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.10	TDS	10.17
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	64°F		
Conductivity	2013.5		
% Solids	10.1		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			

FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	03/13/15
Receiving ID#	10313150
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	[Signature]

COPY

LAB INFORMATION		Oilfield Brines Only	
All Waste Streams			
Compatible? (RT#)	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	> 140	Magnesium	
pH (S.U.)	1.0	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.10	TDS	7.22
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	65°F		
Conductivity	144.1 mS		
% Solids	2.2		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature	[Signature]		

FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	03-16-13
Receiving ID#	I 08161801
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	
Sampled by	RM

COPY

LAB INFORMATION		Oilfield Brines Only	
All Waste Shipments			
Compatible? (RT#)	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	140	Magnesium	
pH (S.U.)	< 0.1	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.22	TDS	7.47
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	63°F		
Conductivity	149.1 mS		
% Solids	7.4		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			

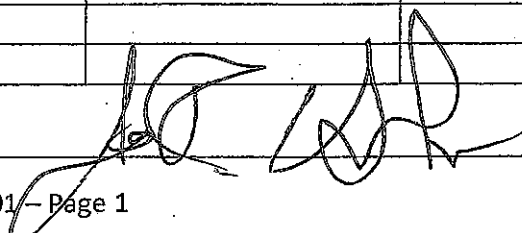
FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	3/20/15
Receiving ID#	103201501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	D.H.

COPY

LAB INFORMATION		Oilfield Brines Only	
Compatible? (RT#)	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	140	Magnesium	
pH (S.U.)	0.6	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.15	TDS	7.82
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	62°F		
Conductivity	155.8 mS		
% Solids	7.8		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			

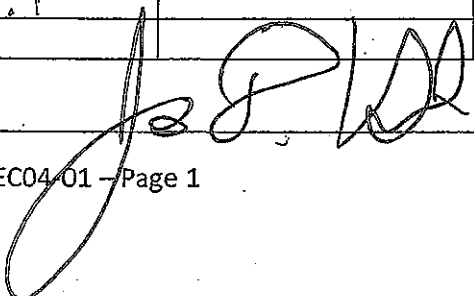
FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	3-25-15
Receiving ID#	I03251501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	D.H.

COPY

LAB INFORMATION		Oilfield Brines Only	
All Waste Shipments			
Compatible? (RT#)	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	> 140	Magnesium	
pH (S.U.)	1.3	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.12	TDS	6.17
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	63F		
Conductivity	118.3mS		
% Solids	6.1		
Turbidity	Yes No		
Color (visual)			
TSS (%)	<0.1		
Radiation Screen (as needed)			
Lab Signature			

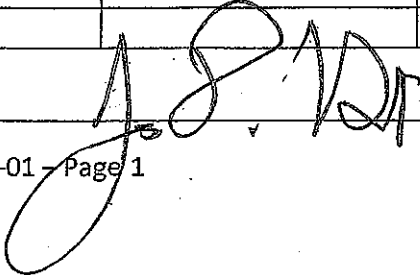
FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	3-21-15
Receiving ID#	I03271501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	D.A.

COPY

LAB INFORMATION		Oilfield Brines Only	
All Waste Shipments			
Compatible? (RT#)	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	> 140	Magnesium	
pH (S.U.)	0.7	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.13	TDS	2.87
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	62°F		
Conductivity	155.7 mS		
% Solids	13.8		
Turbidity	Yes No		
Color (visual)			
TSS (%)	6.0		
Radiation Screen (as needed)			
Lab Signature			

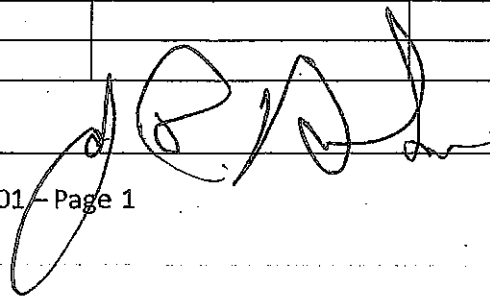
FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	3-31-15
Receiving ID#	283311501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	JH
Sampled by	DA

COPY

LAB INFORMATION		Oilfield Brines Only	
All Waste Shipments			
Compatible? (RT#)	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	> 140	Magnesium	
pH (S.U.)	1.1	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.05	TDS	3.57
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	62°F		
Conductivity	70.0 mS		
% Solids	3.5		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			

**WASTE STREAMS
CHARACTERIZATIONS**