Environmental GEO-Technologies, LLC

November 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 twenty-fourth 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.

EGT also hereby timely submits its seventh Injection Fluid Analyses (for October, 2015) identified on both Pages A-3 of # also in conformance with EGT's two EPA UIC permits with the attached "Data Summary Sheet" from a contract laboratory, Ann Arbor Technical Services, Inc., and, those results demonstrate compliance with all of the limits for each of the chemical entities ("Names") identified on Page A-3 of # for F039 waste which EGT accepted in October.

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,

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

cc: J. Frost (EGT), T. Athans (EGT), P. Sullivan (EGT)
att. rjp113015/EGT EPA Monthly Report-October 2015

P 734-946-1000 F 734-946-1002 - 28470 Citrin Drive. Romulus, Michigan 48174
www.envgeotech.com

AVERAGE INJECTION RATE

Calculation of Average Injection Rate

CURRENT REPORTING YEAR 2015

CURRENT REPORTING MONTH OCTOBER

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	223,165	0	223,165
Since facility first injected			3,481,771
MI-163-1W-C011, Well #2-12			
Current Month			5,146
Since facility first injected			1,865,609
		Lifetime Combined	5,347,380

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

Calculations
Whole number of months of injection 24

24 lifetime number of months of injection × 43,830 minutes/month
= 1,051,920 minutes of injection

Lifetime combined injected volume 5,347,380 ÷ 1,051,920 minutes of injection
= 5.1 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 Differentail Pressure (PSIG)	Max Differential Pressure (PSIG)
10/1/2015	-0.6	739.0	32.2	33.6	894.9	1202.0	1.8	2.5	10.3	106.2	309.0	935.2
10/2/2015	9.9	728.7	32.0	33.4	886.8	1201.2	1.6	1.9	5.9	100.5	296.6	945.3
10/3/2015	8.5	10.2	32.2	32.5	901.6	918.2	1.6	1.7	0.0	0.0	892.5	908.2
10/4/2015	8.1	11.4	31.7	32.3	900.0	1007.9	1.6	1.7	0.0	0.0	891.1	996.8
10/5/2015	1.2	729.2	31.8	32.9	896.9	1203.3	1.6	1.7	8.6	105.3	388.6	990.6
10/6/2015	0.9	1.9	32.1	32.4	920.7	930.4	1.6	1.6	0.0	0.0	918.8	928.8
10/7/2015	1.1	2.1	32.2	32.4	916.7	920.8	1.6	1.6	0.0	0.0	914.9	919.5
10/8/2015	-9.4	735.6	32.1	33.5	876.1	1207.8	1.6	1.8	13.4	135.6	295.6	983.0
10/9/2015	-1.5	736.5	32.2	33.5	885.0	1203.8	-0.5	8.8	24.3	132.5	315.1	951.1
10/10/2015	-3.7	-0.3	31.8	32.5	900.0	1006.6	1.7	1.9	0.0	0.0	902.3	1007.5
10/11/2015	-3.7	-2.3	31.8	32.0	988.3	994.7	1.7	1.7	0.0	0.0	990.9	998.1
10/12/2015	-3.2	731.6	31.8	33.2	899.9	1205.0	1.7	3.4	13.1	108.1	348.6	997.1
10/13/2015	3.5	5.5	31.9	32.1	973.8	994.0	1.9	2.4	0.0	0.0	970.0	988.7
10/14/2015	3.2	739.6	31.8	34.3	881.1	1204.4	2.1	2.8	9.9	89.5	299.1	977.9
10/15/2015	20.6	23.0	31.9	32.1	959.6	993.7	1.1	2.6	0.0	0.0	938.4	971.1
10/16/2015	19.9	21.2	31.9	32.1	950.2	959.6	1.4	1.6	0.0	0.0	929.6	939.0
10/17/2015	19.5	20.6	31.9	32.1	944.1	950.2	1.5	1.6	0.0	0.0	924.0	930.3
10/18/2015	19.2	20.2	31.8	32.1	939.9	944.2	1.6	1.6	0.0	0.0	920.2	924.7
10/19/2015	19.0	20.1	31.8	32.1	937.3	940.0	1.6	1.7	0.0	0.0	917.5	920.7
10/20/2015	-7.1	740.1	31.7	33.2	837.3	1204.2	1.4	1.8	11.1	117.2	310.3	991.6
10/21/2015	-4.4	0.4	32.0	32.2	939.9	950.5	1.8	1.8	0.0	0.0	939.5	954.9
10/22/2015	-4.8	729.1	31.9	33.3	839.7	1204.4	1.7	1.8	14.7	128.6	303.4	985.6
10/23/2015	-5.8	745.8	32.0	33.3	869.8	1204.0	1.8	2.4	21.4	132.1	312.7	995.2
10/24/2015	-1.5	-0.5	31.9	32.2	910.8	923.9	2.2	2.2	0.0	0.0	911.5	925.1
10/25/2015	-1.5	-0.5	31.9	32.2	905.4	910.8	2.2	2.2	0.0	0.0	906.2	912.2
10/26/2015	-6.1	749.6	31.9	33.2	862.7	1202.6	2.2	2.3	14.1	148.8	325.4	995.2
10/27/2015	-0.6	0.2	31.8	32.1	913.8	922.3	2.2	2.2	0.0	0.0	913.7	922.5
10/28/2015	-0.6	0.3	31.9	32.1	910.5	913.8	2.2	2.3	0.0	0.0	910.5	914.4
10/29/2015	-0.9	0.2	31.8	32.1	906.6	910.6	2.2	3.2	0.0	0.0	906.8	911.0
10/30/2015	-5.1	728.6	31.8	33.4	819.2	1202.8	2.1	16.9	8.4	184.3	302.3	979.5
10/31/2015	0.5	3.3	31.8	32.0	920.3	928.9	2.2	2.3	0.0	0.0	918.5	925.9

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

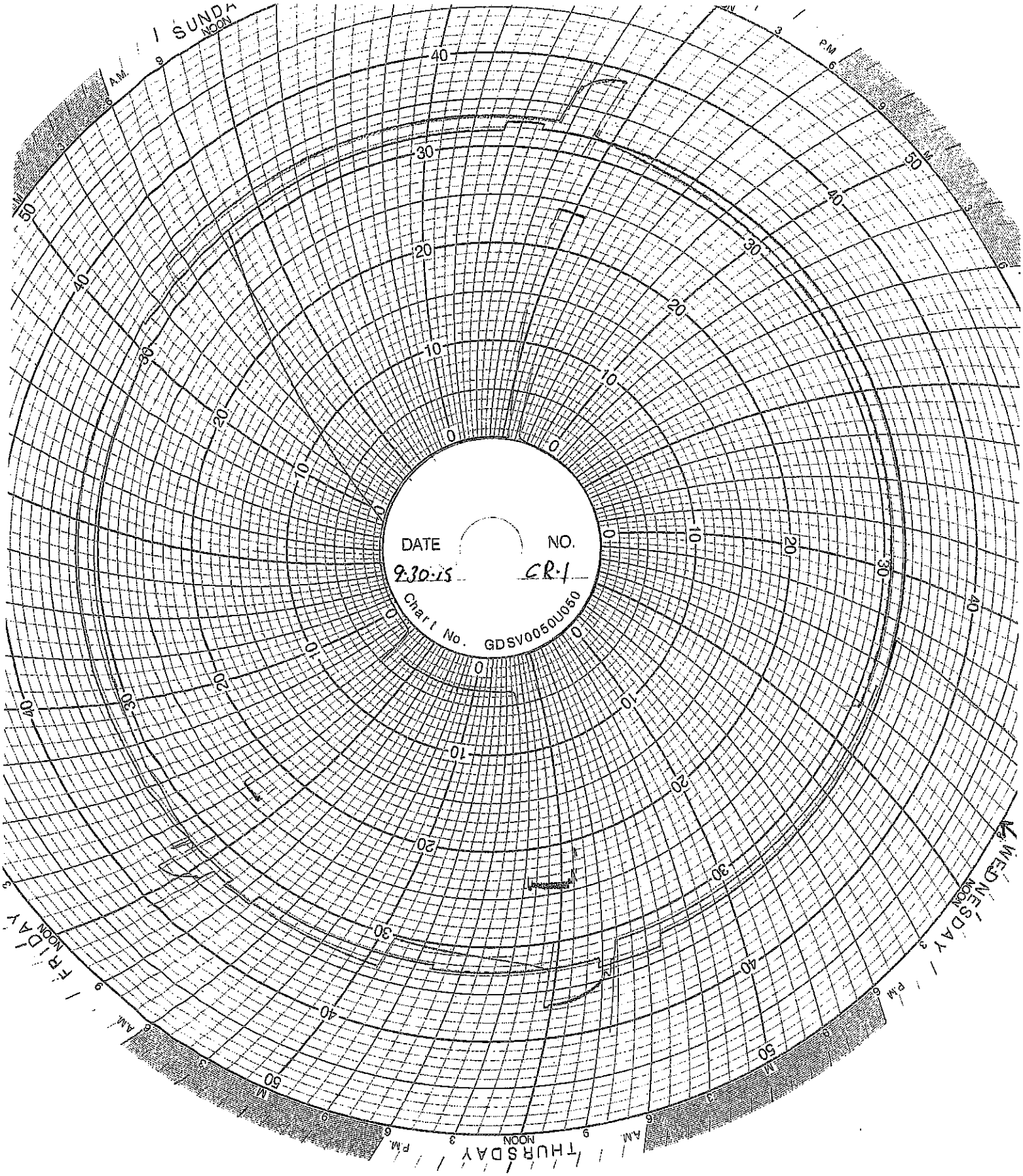
Red Pen – Well 1 Monthly Volume

Channel #3

Green Pen – Well 2 Monthly Volume

Channel #4

Black Pen - Temperature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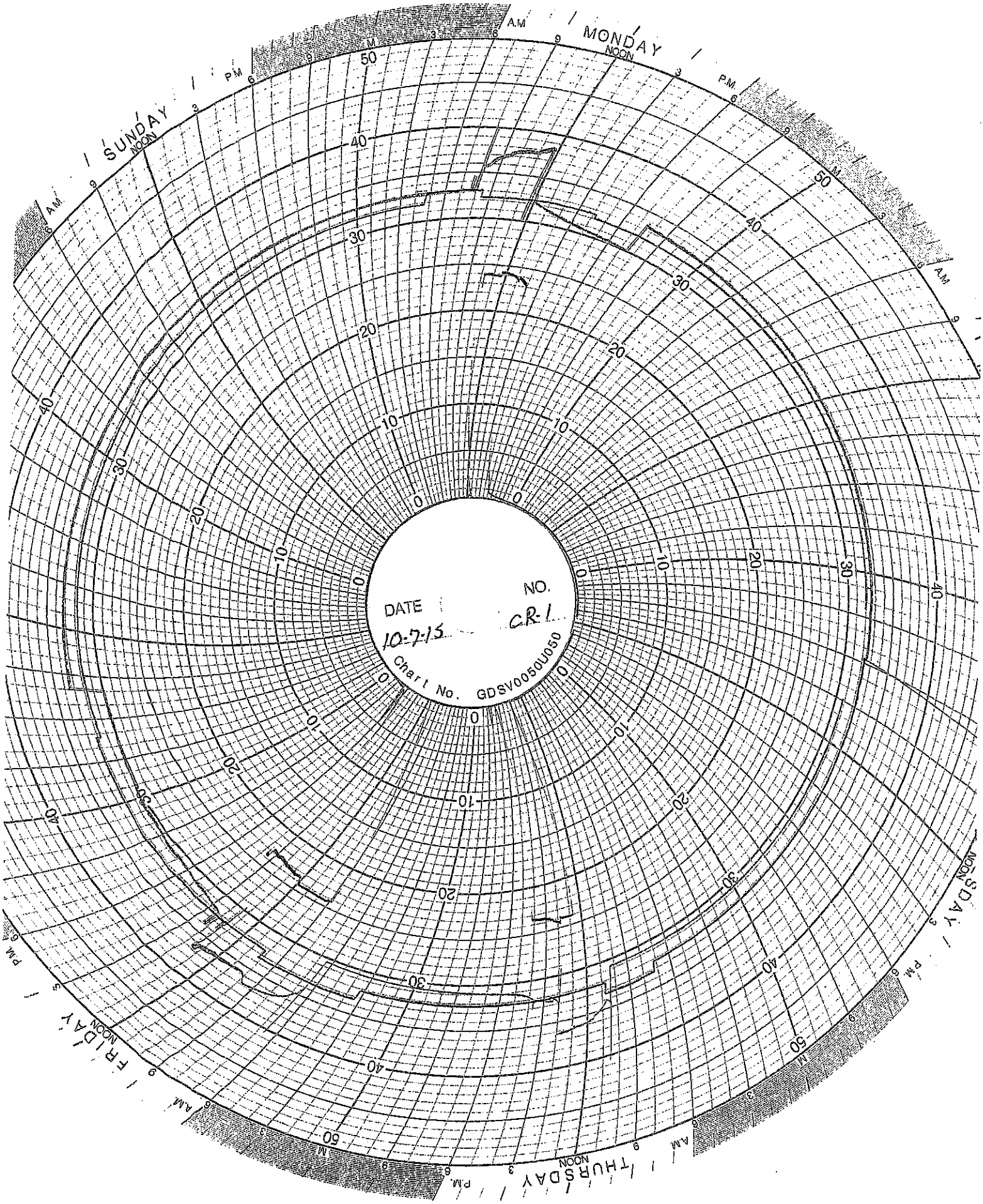
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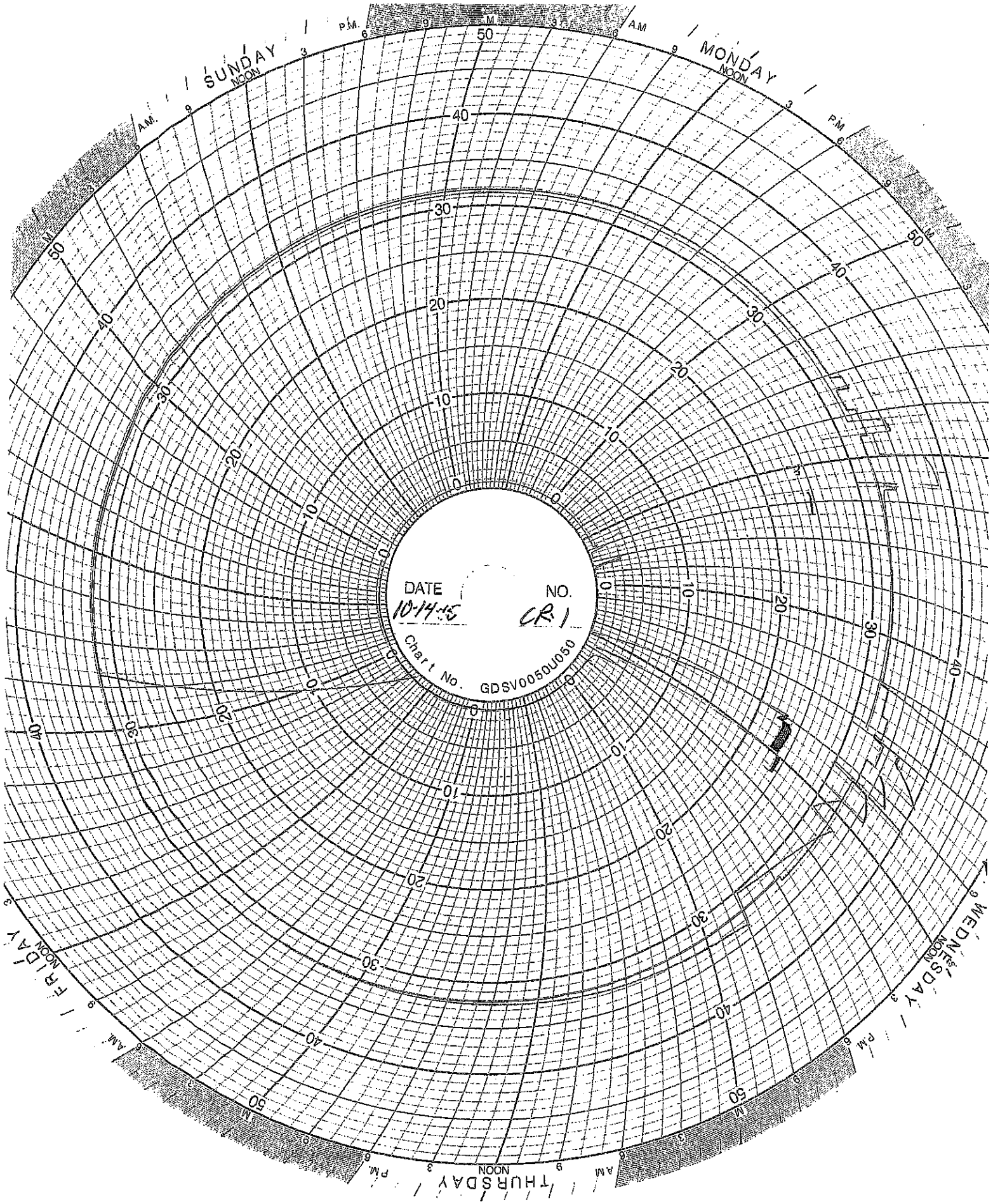
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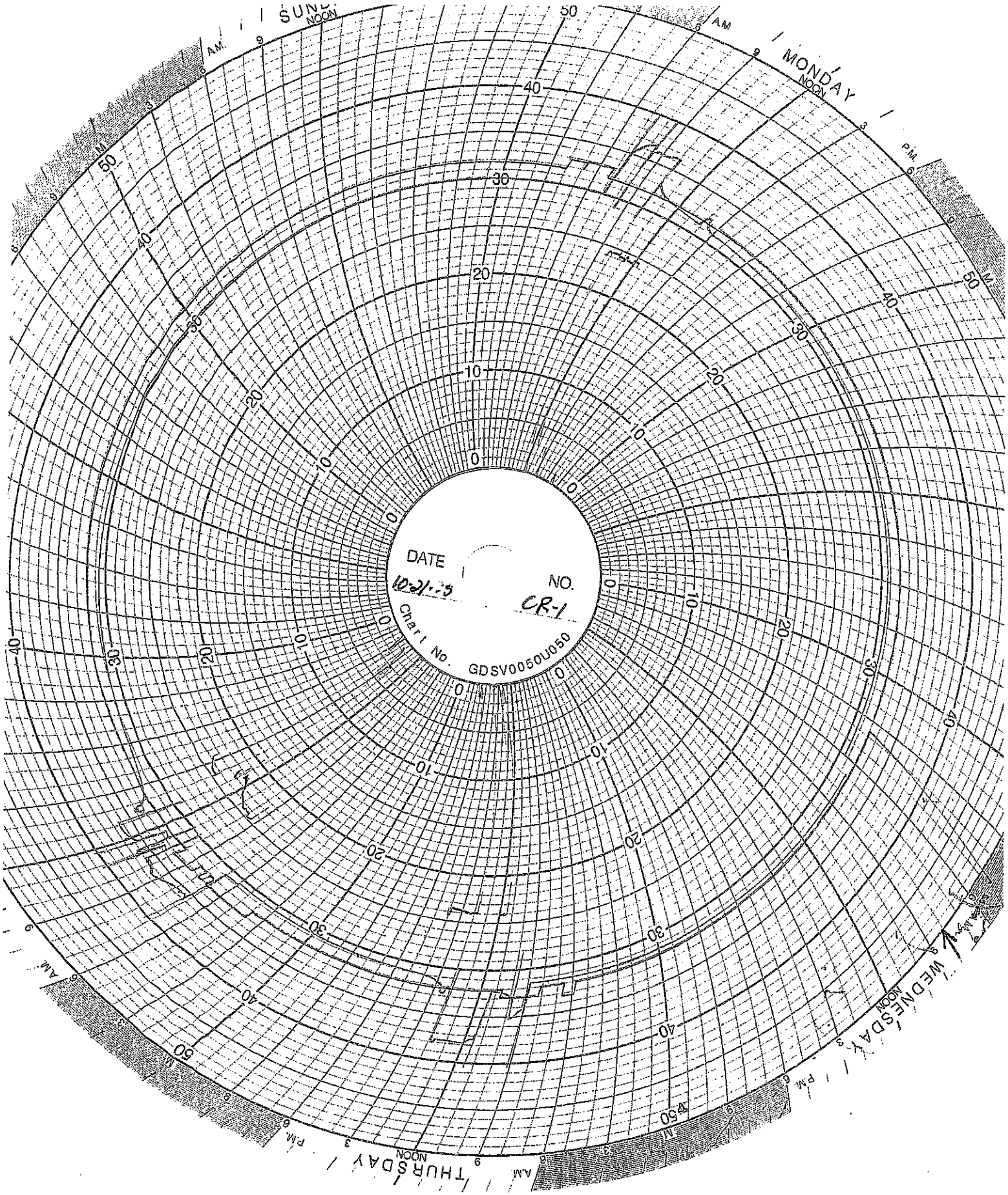
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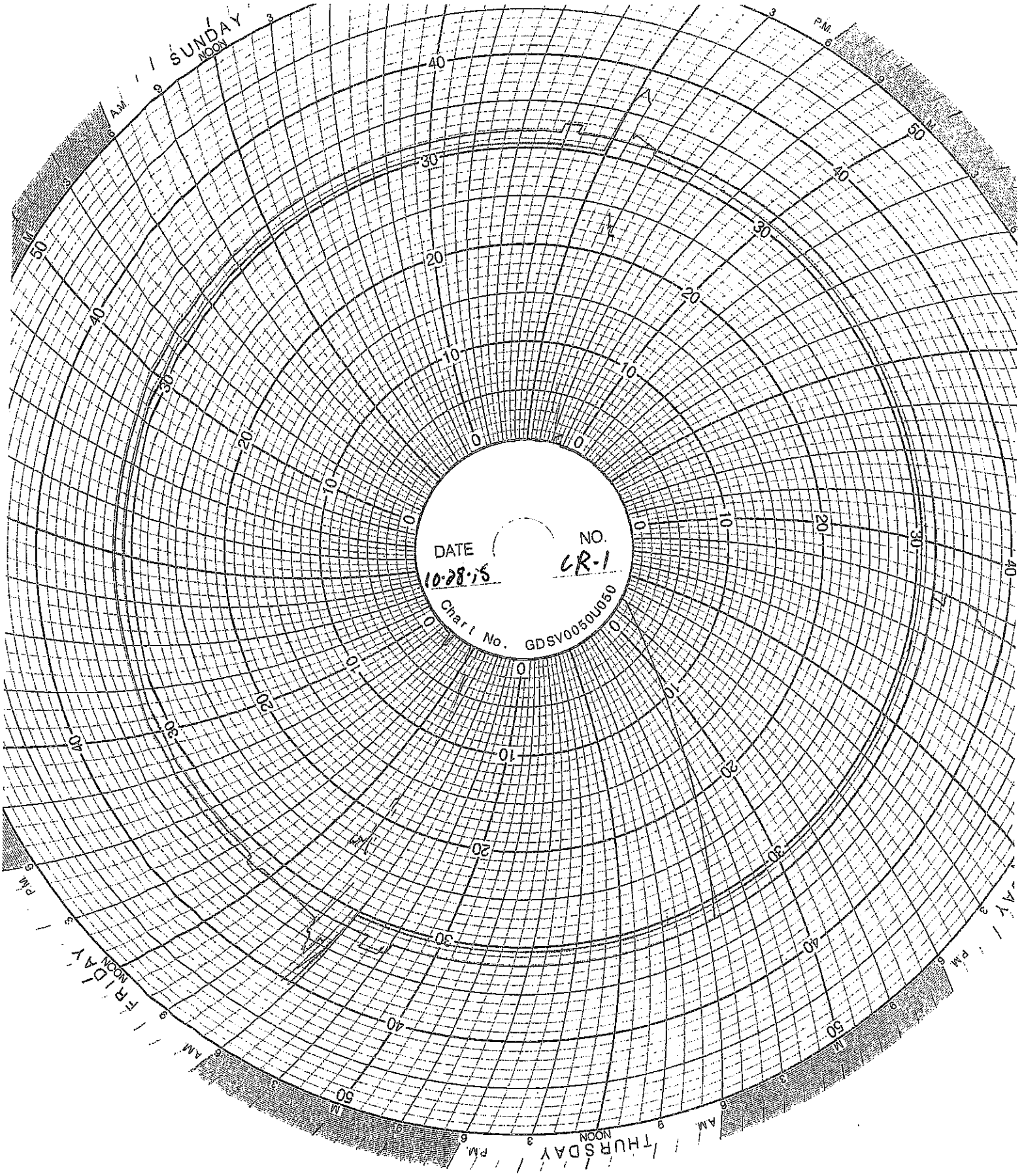
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WELL 2 DATA

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 Differentail Pressure (PSIG)	Max Differential Pressure (PSIG)
10/1/2015	-6.0	-4.7	25.1	25.2	308.2	311.3	1.8	2.5	0.0	0.0	313.0	317.2
10/2/2015	-4.9	-3.8	25.0	25.1	305.7	308.8	1.6	1.9	0.0	0.0	309.5	313.6
10/3/2015	-4.0	-3.3	25.0	25.1	302.5	306.3	1.6	1.7	0.0	0.0	305.9	310.2
10/4/2015	-3.4	-3.1	25.0	25.1	301.0	303.2	1.6	1.7	0.0	0.0	304.2	306.6
10/5/2015	-3.2	-2.7	24.7	25.4	300.4	333.7	1.6	1.7	0.0	0.0	303.6	336.8
10/6/2015	-3.2	-2.9	24.8	25.3	325.7	328.8	1.6	1.6	0.0	0.0	328.8	331.9
10/7/2015	-3.3	-3.0	24.8	25.4	323.7	326.4	1.6	1.6	0.0	0.0	326.9	329.5
10/8/2015	-3.3	-2.4	25.0	25.4	322.2	325.4	1.6	1.8	0.0	0.0	325.4	327.9
10/9/2015	-2.9	-1.9	24.8	25.4	321.8	325.2	-0.5	8.8	0.0	0.0	324.3	327.3
10/10/2015	-2.8	-2.4	24.8	25.4	318.7	322.4	1.7	1.9	0.0	0.0	321.5	324.9
10/11/2015	-2.8	-2.6	24.8	25.4	317.1	319.3	1.7	1.7	0.0	0.0	319.8	322.1
10/12/2015	-2.8	-1.9	24.9	25.5	316.1	359.7	1.7	3.4	0.0	0.0	318.8	362.2
10/13/2015	-2.7	-2.3	24.6	25.2	352.0	356.2	1.9	2.4	0.0	0.0	354.6	358.5
10/14/2015	-2.8	-2.3	24.6	25.2	350.2	353.1	2.1	2.8	0.0	0.0	352.8	355.5
10/15/2015	-2.9	-2.6	24.5	25.2	348.1	350.8	1.1	2.6	0.0	0.0	350.9	353.5
10/16/2015	-3.0	-2.7	24.8	24.9	345.8	348.8	1.4	1.6	0.0	0.0	348.8	351.6
10/17/2015	-3.0	-3.0	24.7	24.8	343.7	346.5	1.5	1.6	0.0	0.0	346.6	349.5
10/18/2015	-3.0	-3.0	24.7	24.8	342.0	344.3	1.6	1.6	0.0	0.0	345.0	347.3
10/19/2015	-3.0	-3.0	24.4	25.0	340.8	342.8	1.6	1.7	0.0	0.0	343.8	345.7
10/20/2015	-3.0	-3.0	24.8	25.2	341.1	344.0	1.4	1.8	0.0	0.0	344.0	346.9
10/21/2015	-3.0	-3.0	24.6	25.2	340.1	342.5	1.8	1.8	0.0	0.0	343.1	345.5
10/22/2015	-3.0	-3.0	24.6	25.2	339.1	342.0	1.7	1.8	0.0	0.0	342.1	345.0
10/23/2015	-3.0	-3.0	24.5	25.2	337.5	341.4	1.8	2.4	0.0	0.0	340.5	344.4
10/24/2015	-3.0	-3.0	24.6	25.1	336.3	339.1	2.2	2.2	0.0	0.0	339.3	342.1
10/25/2015	-3.0	-3.0	24.6	25.2	334.0	337.0	2.2	2.2	0.0	0.0	337.0	340.0
10/26/2015	-3.0	-3.0	24.8	24.9	332.8	336.4	2.2	2.3	0.0	0.0	335.8	339.4
10/27/2015	-3.0	-3.0	24.8	24.8	331.8	333.8	2.2	2.2	0.0	0.0	334.8	336.8
10/28/2015	-3.0	-3.0	24.8	24.9	330.4	332.4	2.2	2.3	0.0	0.0	333.4	335.4
10/29/2015	-3.0	-3.0	24.7	24.8	328.4	331.1	2.2	3.2	0.0	0.0	331.4	334.1
10/30/2015	-10.0	730.3	21.9	26.8	294.2	1202.1	2.1	16.9	3.6	256.0	193.8	1018.8
10/31/2015	-6.5	-6.2	24.6	24.6	355.3	368.1	2.2	2.3	0.0	0.0	361.5	374.4

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

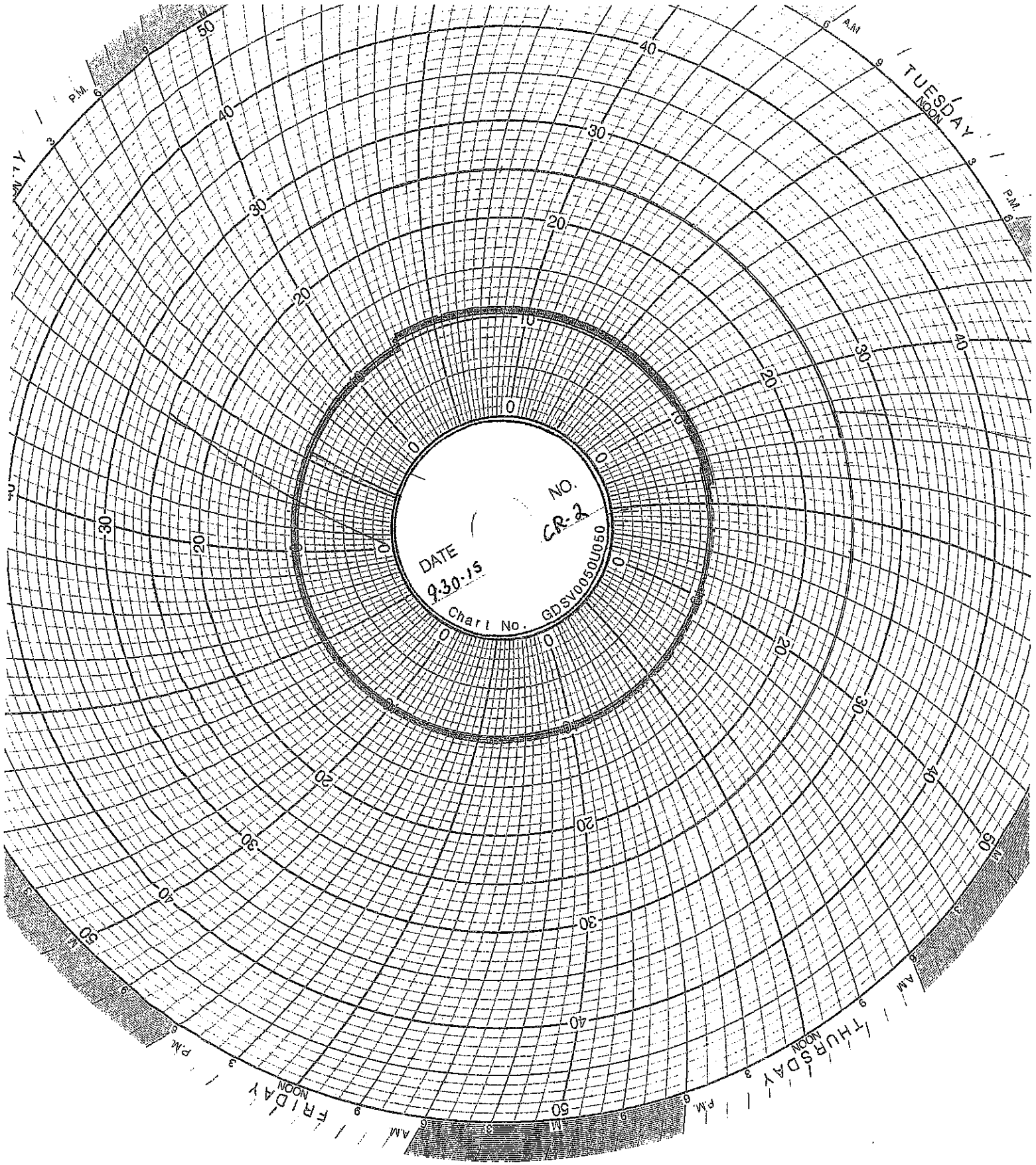
Red Pen – Well 1 Monthly Volume

Channel #3

Green Pen – Well 2 Monthly Volume

Channel #4

Black Pen - Temperature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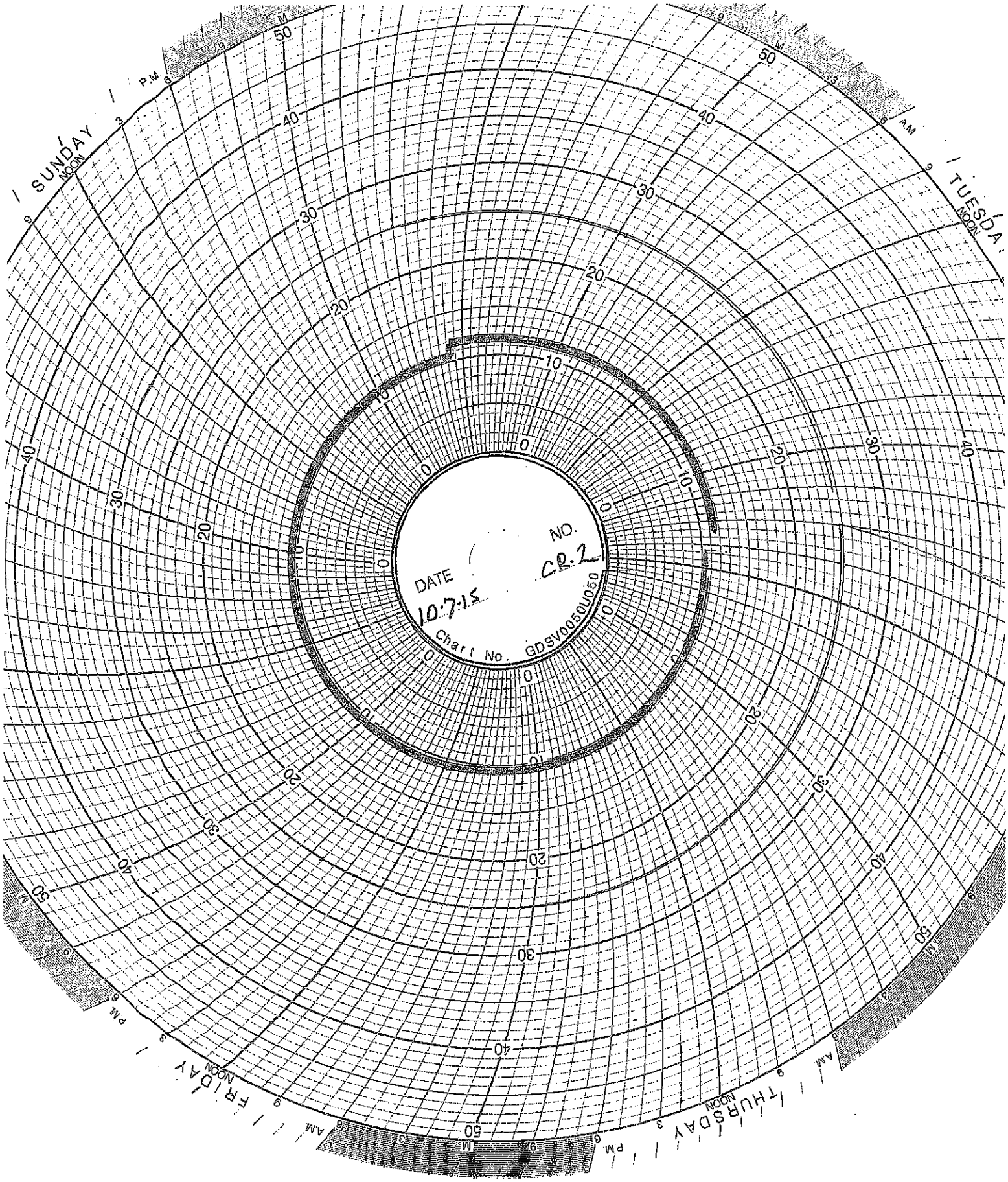
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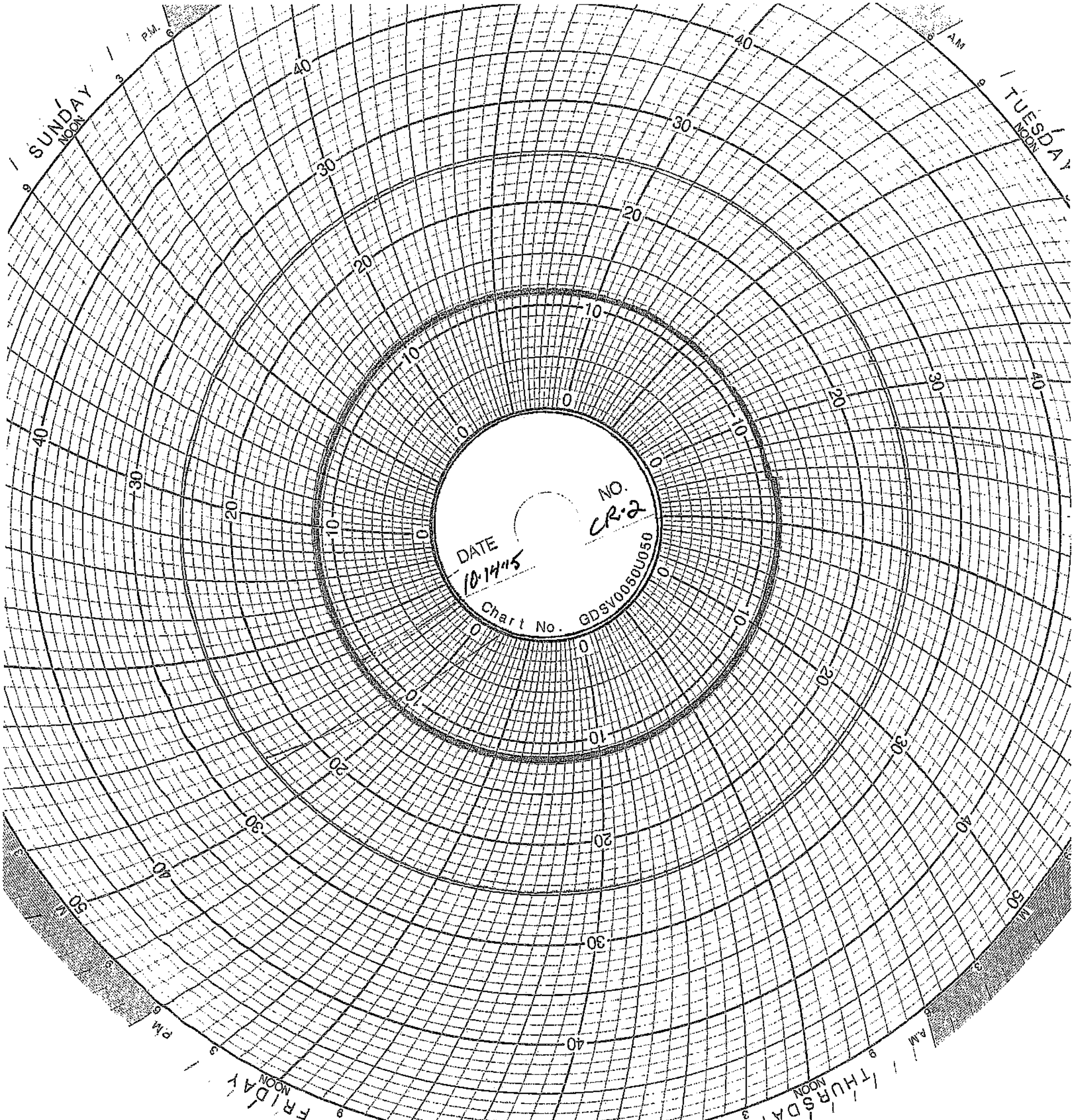
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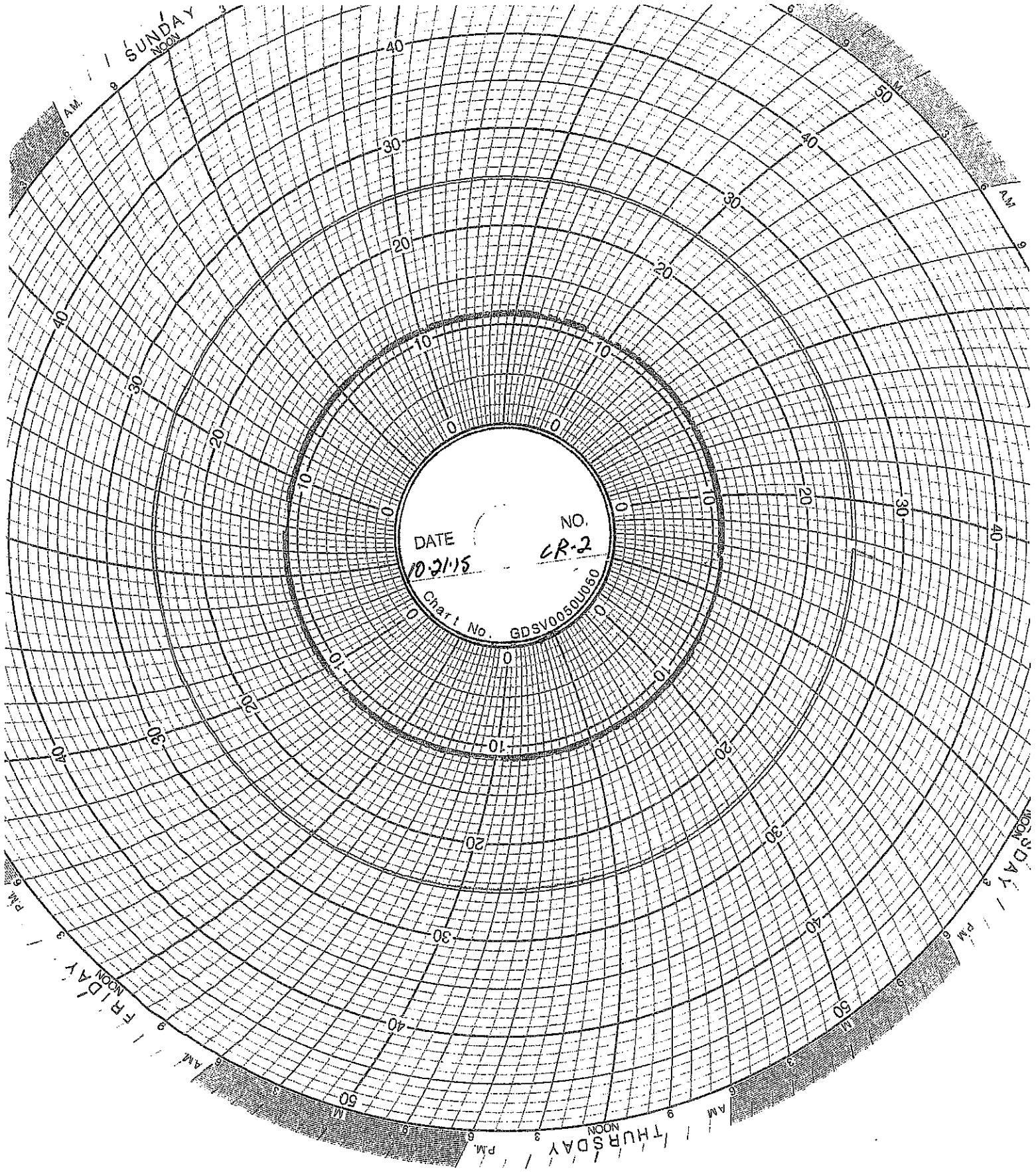
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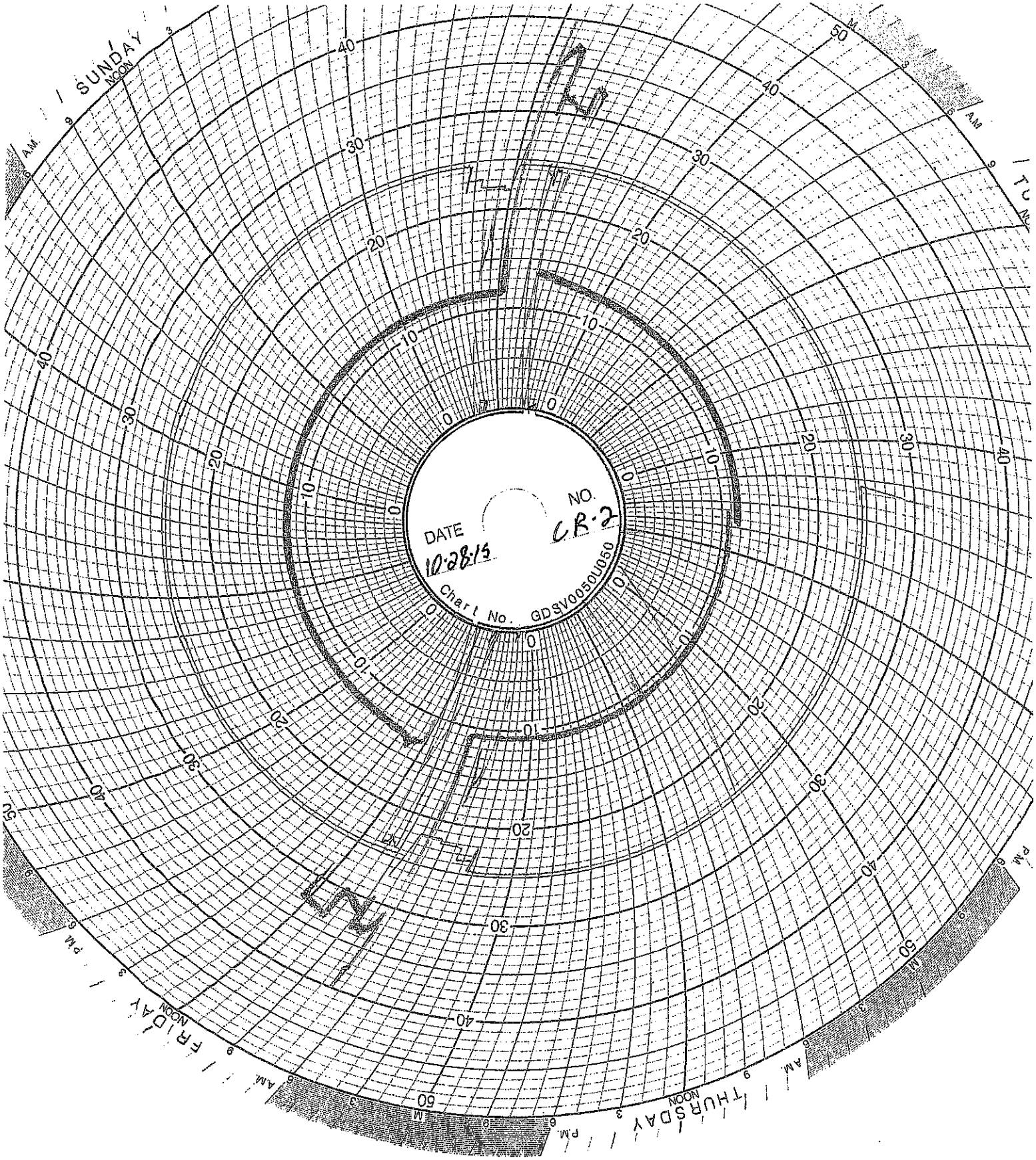
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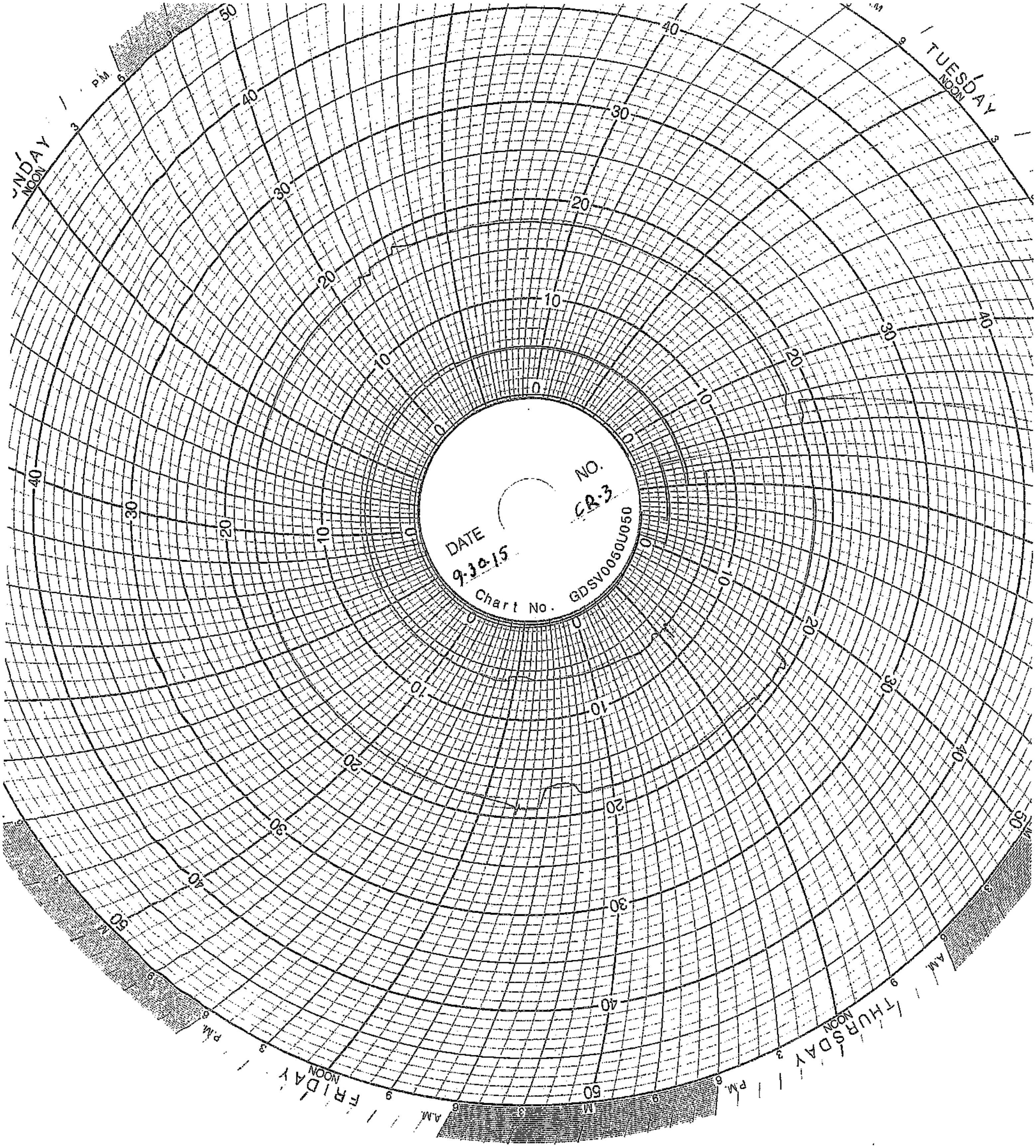
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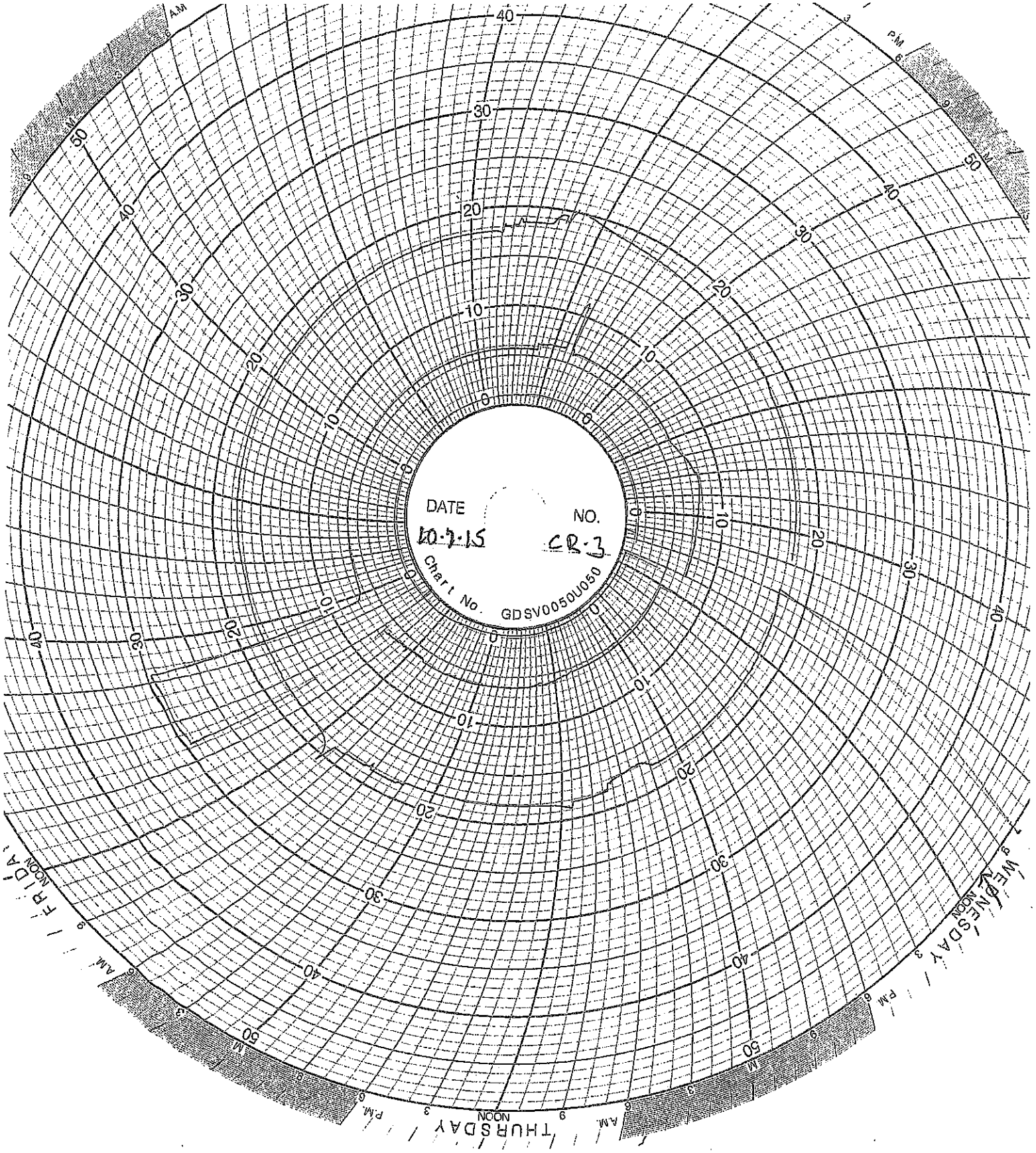
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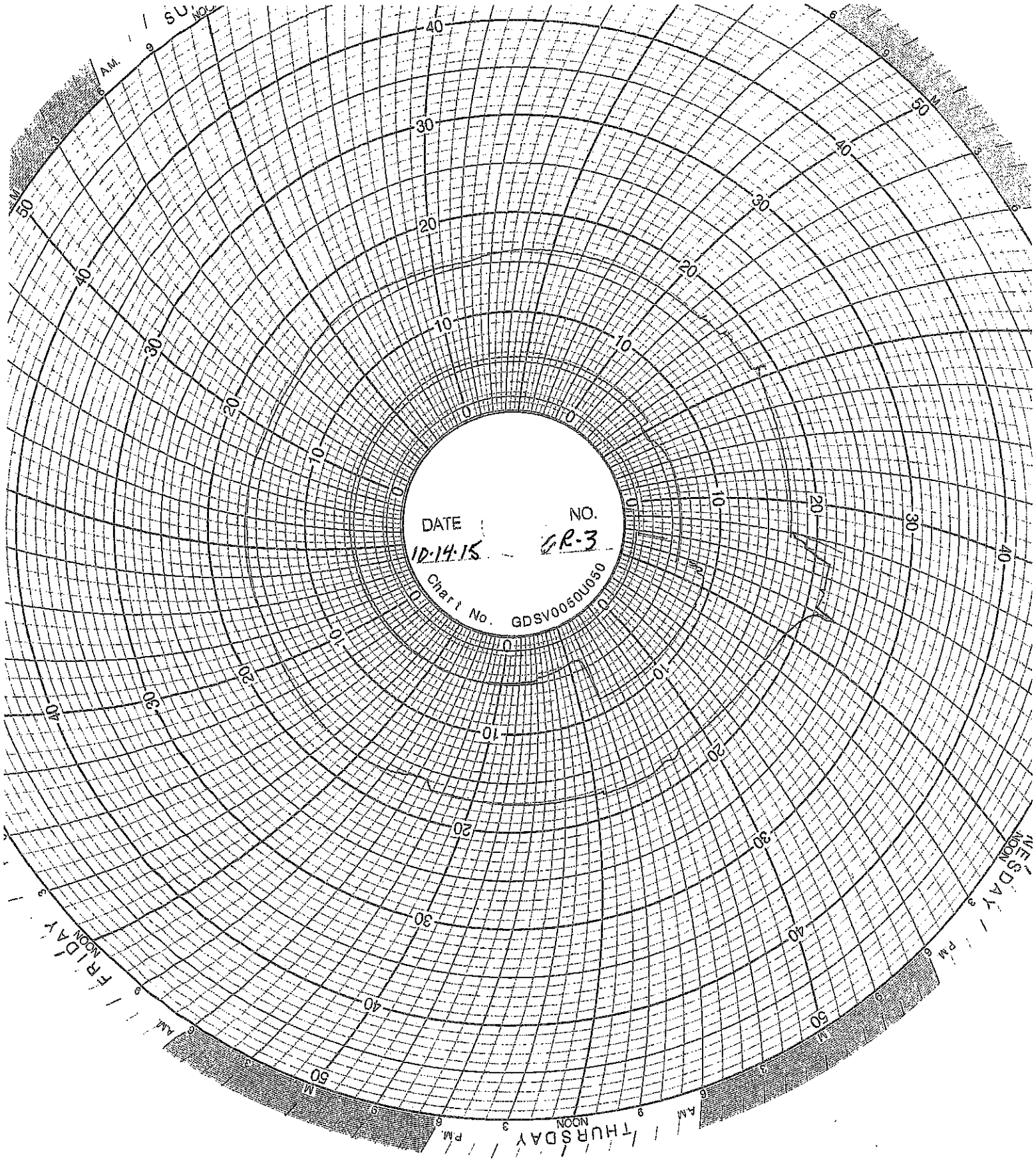
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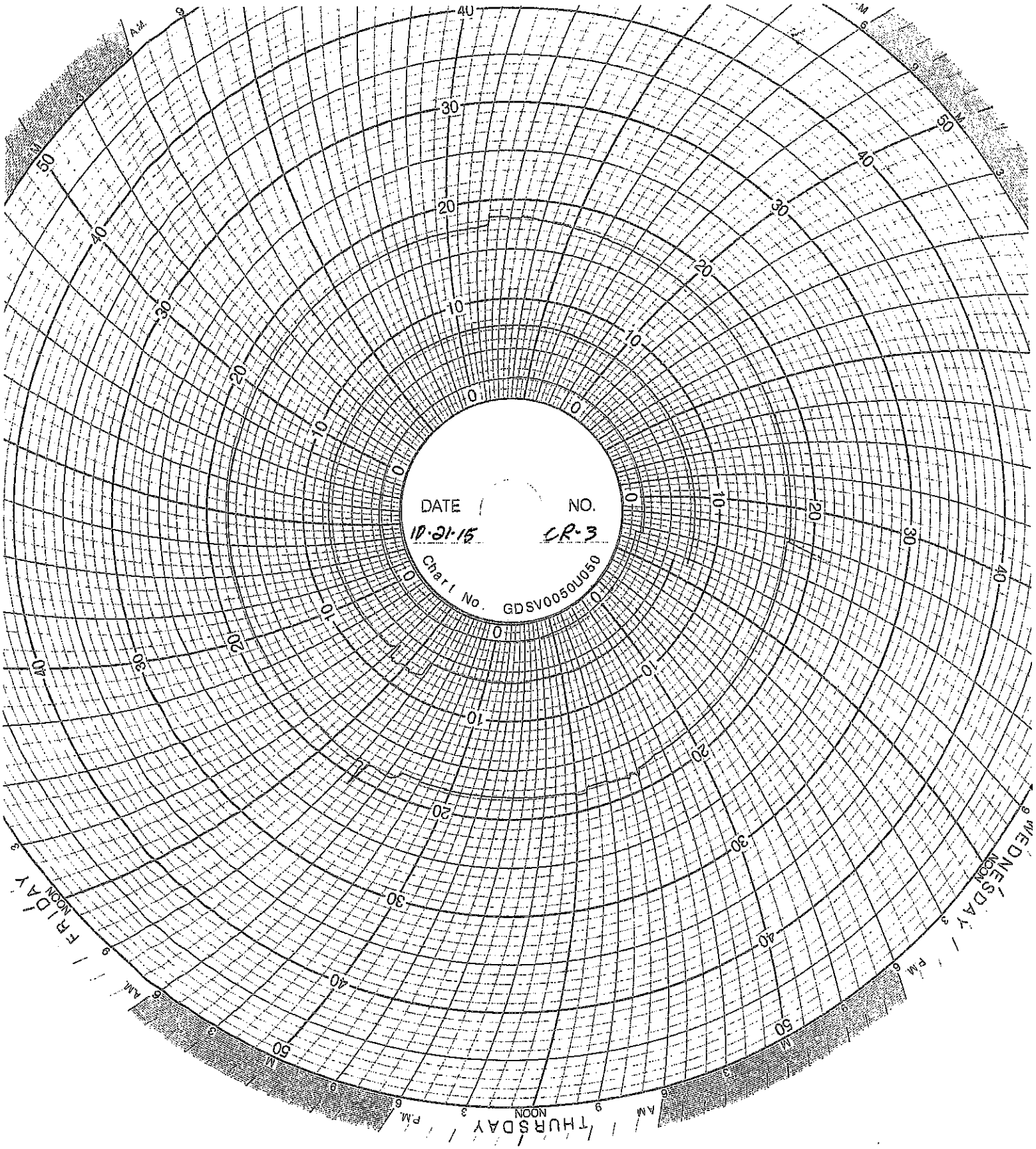
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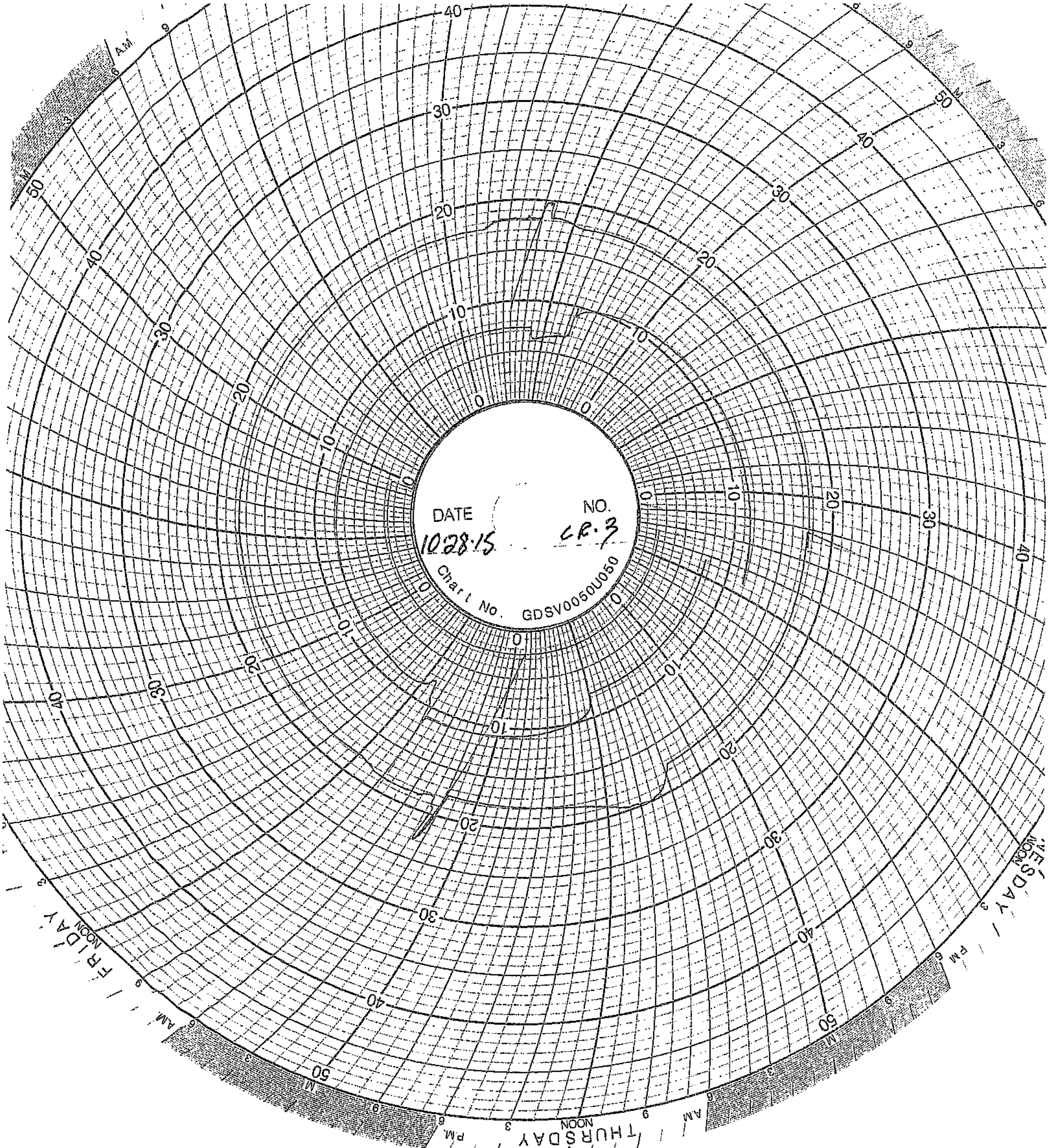
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MAINTENANCE LOG

UIC Monthly Maintenance Log

10/15/2015	SST Tank	Extended the inlet pipe to a alternate inlet so that the level indicator could be remounted on the SST tank
10/16/2015	Wellhead 2	Lower valve and 3 gaskets were replaced
10/28/2015	Wellhead 2	Upper valve and 3 gaskets were replaced

CORROSION MONITORING

CORROSION MONITORING COUPONS BASELINE VISUAL DESCRIPTION

November 4, 2013

Fiberglass

The fiberglass coupon is Red Box 2000 type and is 2-1/2 inches long by 1/2 inch wide and 1/4 inches thick. It is a dark orange (rust) in color with a glossy shine on one side a polished look on the opposite side and the cut edges look sanded.

Hastelloy

The hastelloy coupon is identified as C276 with serial number 1. The dimensions of the coupon are 3 inches long by 1/2 inch wide and 1/4 inch thick. The coupon is silver in color with a lightly sandblasted surface.

Stainless Steel

The stainless steel coupon is identified as 316L with serial number C1562. The dimensions of the coupon are 3 inches long by 1/2 inch wide and 1/4 inch thick. The coupon is silver in color with a lightly sandblasted surface.

CORROSION MONITORING COUPONS VISUAL DESCRIPTION

October 19, 2015

Fiberglass Coupon

The observation is the same as last Month. The coupon is dark orange (rust) in color with similar semi-smooth textures on both sides. There is less of a black coating on the coupon then there was in September. Its cut edges appear sanded. The coupon is free of pits, cracks, swelling, wicking and blemishes.

Hastelloy Coupon

This coupon is identified as C276 with Serial Number 5. The coupon is silver in color with a lightly sandblasted texture. It is clean and free of pits, cracks, and blemishes. There appears to be no effect on this coupon.

Stainless Steel Coupon

The coupon is silver in color with a pock-marked and corroded surface.

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	New hastelloy coupon
3/31/2015	13.339 g	9.286 g	7.005 g	
4/27/2015	13.335 g	9.130 g	6.852 g	
5/21/2015	13.336 g	9.124 g	6.809 g	
6/12/2015	13.334 g	9.126 g	6.819 g	
7/27/2015	13.337 g	9.127 g	6.818 g	
8/26/2015	13.337 g	9.022 g	6.780 g	
9/21/2015	13.336 g	8.987 g	6.792 g	
10/19/2015	13.335 g	8.985 g	6.797 g	

October 22, 2015

· TEST REPORT ·

PN 125322
PO 00154

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, Sr.
Physical & Plastic Testing, Manager

October 22, 2015

John Frost
Environmental Geo-Technologies, LLC

SUBJECT: Barcol Hardness on one material.

RECEIVED: One small section identified as; Fiberglass Coupon.

BARCOL HARDNESS ASTM D 2583-13a
Instant Reading

	Results
Barcol Hardness, Instant	96

Prepared By: _____
Melissa Martin
Sr. Project Technician

Approved By: _____
Scott W. Yates
Plastics Testing Assistant Manager

tc

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

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

TOTAL 1 PAGES

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

October 2, 2014

John Frost
Environmental Geo-Technologies, LLC

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

st

INJECTION
FINGERPRINTS

FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	10/1/15
Receiving ID#	T10011501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H
Sampled by	

COPY

LAB INFORMATION: All Waste Shipments		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.)	1.4	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.02	TDS	2.7%
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	69°F		
Conductivity	2.7 mS		
% Solids			
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	10/2/15
Receiving ID#	T10021501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	BP

COPY

LAB INFORMATION All Waste Shipments		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.)	1.2	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.07	TDS	5.17
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	70°F		
Conductivity	101.4 ms		
% Solids	5.1		
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	10/5/13
Receiving ID#	I.10051501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H
Sampled by	BB

COPY

LAB INFORMATION All Waste Shipments		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.)	1.6	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.01	TDS	1.39
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	67°F		
Conductivity	25.9 mS		
% Solids	1.3		
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	10/8/15
Receiving ID#	I.10081501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	S.T.
Sampled by	SB

COPY

LAB INFORMATION All Waste Shipments		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.)	0.7	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.07	TDS	10.1%
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	66°F		
Conductivity	198.5mS		
% 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	10/8/15
Receiving ID#	I10081502
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	
Sampled by	

COPY

LAB INFORMATION All Waste Shipments		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	1.10	TDS	18.19
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	70°F		
Conductivity	359.1 mS		
% Solids	18.1		
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	10/9/15
Receiving ID#	T.10091501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	

COPY

LAB INFORMATION All Waste Shipments		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	1.09	TDS	18.3%
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	68°F		
Conductivity	362.3 mS		
% Solids	18.3		
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	10/9/15
Receiving ID#	I/0091502
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	BP

COPY

LAB INFORMATION All Waste Shipments		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.)	0.8	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.10	TDS	10.3%
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	68°F		
Conductivity	203.4 mS		
% Solids	10.3		
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	10/9/15
Receiving ID#	I.10091503
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	SP

COPY

LAB INFORMATION All Waste Shipments		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.)	1.2	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.05	TDS	5.17.
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	66° F		
Conductivity	103.2 mS		
% Solids	5.1		
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	10/12/15
Receiving ID#	T.1012/501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.T.
Sampled by	BP

COPY

LAB INFORMATION All Waste Shipments		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.)	1.1	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.07	TDS	5.12
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	68°F		
Conductivity	102.4 mS		
% Solids	5.1		
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	10/14/15
Receiving ID#	I1014150I
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	SP

COPY

LAB INFORMATION All Waste Shipments		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.)	1.7	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.03	TDS	3.67.
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	69°F		
Conductivity	71.6 mS		
% Solids	3.6		
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	10/20/13
Receiving ID#	T.10201501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	

COPY

LAB INFORMATION All Waste Shipments		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.)	0.8	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.13	TDS	26.82
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	66°F		
Conductivity	> 400.0 mS		
% Solids	26.8		
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	10/20/15
Receiving ID#	T 10201502
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	
Sampled by	

COPY

LAB INFORMATION All Waste Shipments		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.)	0.7	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.10	TDS	11.37.
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	66°F		
Conductivity	222.6 mS		
% Solids	11.3		
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	10/22/15
Receiving ID#	#1022150
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H
Sampled by	BB

COPY

LAB INFORMATION: All Waste Shipments		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.)	0.7	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.12	TDS	17.37
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	69°F		
Conductivity	345.9 mS		
% Solids	17.3		
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	10/23/13
Receiving ID#	T1023150 2
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	RP

COPY

LAB INFORMATION All Waste Shipments		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.)	0.7	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.11	TDS	12.79
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	67°F		
Conductivity	250.8 mS		
% Solids	12.7		
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	10/23/15
Receiving ID#	F102315O1
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	S.H.
Sampled by	

COPY

LAB INFORMATION All Waste Shipments		Oil field 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.)	1.0	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.11	TDS	6.99.
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	63°F		
Conductivity	138.7 mS		
% Solids	6.9		
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	10/26/15
Receiving ID#	T.1026150 2
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	

COPY

LAB INFORMATION All Waste Shipments		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.)	0.3	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.13	TDS	11.87.
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	68°F		
Conductivity	238.0 mS		
% Solids	11.8		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			

FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, L.L.C.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	10/26/15
Receiving ID#	I.10261501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	S.H.
Sampled by	

COPY

LAB INFORMATION All Waste Shipments		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	1.13	TDS	14.82.
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	68°F		
Conductivity	289.4 m.S		
% Solids	14.8		
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	10/30/15
Receiving ID#	T.10301501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	

COPY

LAB INFORMATION All Waste Shipments		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.)	< 0.1	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.22	TDS	37.8%
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	81°F		
Conductivity	> 400.0 mS		
% Solids	37.8		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			

WASTE STREAMS
CHARACTERIZATIONS

FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	11/19/15
Receiving ID#	Electro Polish Sol.
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	[redacted]
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	[signature]

LAB INFORMATION All Waste Streams		Oilfield Brines Only	
Compatible? (RT#)	(Yes) No	Barium	
PCBs (ppm)(Oily Waste Only)?	N/A	Calcium	
TOC (ppm)(CC Waste Only)?	N/A	Total Iron	
Flash Point (°F)	> 140	Magnesium	
pH (S.U.)	< 0.1	Sodium Chloride	
Cyanides? (mg/L)	< 30	Bicarbonate	
Sulfides? (ppm)	< 200	Carbonate	
Specific Gravity	1.46	TDS	
Physical Description	liquid	Resistivity	
Stream Consistency	(Yes) No	Sulfate	
Oil in Sample	Yes (No)		
Temperature	65°F		
Conductivity	376.4 mS		
% Solids	48.1		
Turbidity	(Yes) No		
Color (visual)	Green		
TSS (%)	< 0.1		
Radiation Screen (as needed)	Negative		
Lab Signature	[signature]		

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC
28470 Citrin Dr, Romulus, MI 48174 Telephone 734 946 1000 Fax 734 946 1002

Generator Waste Profile

Profile # 00713

GENERATOR INFORMATION

Name: [redacted] USEPA ID # [redacted]

Facility Address: [redacted] SIC/NAICS Code: _____ State Code: _____

City: [redacted] State: [redacted] Zip Code: [redacted]

Contact: [redacted] Title: Supervisor Phone: [redacted] Fax: (616) [redacted]

BILLING INFORMATION [X] SAME AS ABOVE

Company Name: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Attention: Paul Spindler Phone: (616) 719-4803 Fax: (616) 245-0039

WASTE INFORMATION

Name of Waste/Common Chemical Name:

Spent electro polish solution

Process Generating Waste (Please *be specific, incomplete information may delay the approval process*):

acid bath used to etch stainless steel prior to electroplating operation

USEPA / STATE WASTE IDENTIFICATION

1. This waste is considered to be: ☐ Non Hazardous Liquid Industrial Waste ☒ Hazardous Waste
2. Regulated by TSCA? ☐ Yes ☒ No (PCBs, etc.)
3. List ALL Applicable Waste Codes: D002 D007 D010 _____ _____ _____ _____ _____ _____

PHYSICAL CHARACTERISTICS OF WASTE

Color:	Suspended Solids	Layers:	Specific Gravity:	
☐ White/Clear	☒ 0-1 % ☐ 3-5 %	☐ Multi-Layered	☐ <0.8 ☐ 1.0 – 1.2	acceptable
☐ Black/Brown	☐ 1-3 % ☐ > 5%	☐ Bi-Layered	☐ 0.8 – 1.0 ☐ 1.3 – 1.4	
☒ Other dark green		☒ Single Phase	Exact / Other 1.0-1.65	10/3/15

pH: ☐ NA ☒ ≤ 2 ☐ 2 – 4 ☐ 4 – 6 ☐ 6 – 8 ☐ 8 – 10 ☐ 10 – 12.5 ☐ ≥ 12.5

Liquid Flash Point: ☐ <73°F ☐ 73 – 100°F ☐ 101 – 140°F ☐ 141 – 200°F ☒ >200°F ☐ None ☒ Closed Cup ☐ Open Cup

VOC CONCENTRATION - 0 PPM (MUST BE COMPLETED)

TOTAL COMPOSITION OF WASTE - *MUST BE EQUAL TO OR GREATER THAN 100% (LIST EACH CONSTITUENT >/= 0.1%)*

CONSTITUENT	MAX	MIN		CONSTITUENT	MAX	MIN
Sulfuric acid	60	30	%			
Phosphoric Acid	60	30	%			
Water	40	10	%			
			%			
			%			

Metals: Indicate if this waste contains any of the following metals. If Generator knowledge-provide backup
☒ Lab Analysis ☐ Generator Knowledge ☐ TCLP ☐ TOTAL

	Not Present	Concentration		Not Present	Concentration
PCB	☐	____ppm	Aromatic Amine	☐	____ ppm
Dioxins	☐	____ppm	Pesticides	☐	____ ppm
Cyanides Reactive	☐	____ppm	Rodenticides	☐	____ ppm
Cyanides Total	☐	____ppm	Fungicides	☐	____ ppm
Sulfides Reactive	☐	____ppm			
Sulfides Total	☐	____ppm			

Arsenic (As)	D004	☒	< 5	ppm	2.8	ppm
Barium (Ba)	D005	☒	<100	ppm	<1.8	ppm
Cadmium (Cd)	D006	☒	< 1	ppm	.61	ppm
Chromium (Cr)	D007	☒	< 5	ppm	11000	ppm
Lead (Pb)	D008	☒	< 5	ppm	4.8	ppm
Mercury (Hg)	D009	☒	< 0.2	ppm	0.0018	ppm
Selenium (Se)	D010	☒	< 1	ppm	9.4	ppm
Silver (Ag)	D011	☒	< 5	ppm	<0.50	ppm

TCLP Organics D012 – D043 above regulatory limits: Present ☐ Not Present ☒

IS WASTE ANY OF THE FOLLOWING? *At Least One Box Must Be Checked.*
☐ Radioactive ☐ Water Reactive ☐ Oxidizer ☐ Shock Sensitive ☐ Reactive (other) ☐ DOT Explosives
☒ NIOSH Human-Positive Carcinogens ☐ NESHAP Wastes (Benzene, etc.) ☐ Biological ☒ None Apply
nickel

SHIPPING INFORMATION

1. Is this a DOT Hazardous Material (49CFR 172.101 & 173 Subpart D)? ☒Yes ☐No
2. Reportable Quantity (RQ) in pounds _____
3. DOT Shipping Name RQ, WASTE CORROSIVE LIQUID,ACIDIC, INORGANIC Hazard Class 8 UN/NA 3264

PG II ERG 154 Hazardous Constituents for "n.o.s." Sulfuric Acid, Phosphoric Acid

4. Method of Shipment: ☐Bulk Tanker ☒Vac truck ☐Rail Car ☒Drums ☐Totes
5. Number of Units to Ship Now: _____ 6. Anticipated Volume / Units per Year: 15000 gls ÷ per year or ☐ One Time
6. Special Handling Requirements including PPE: _____

CERTIFICATION STATEMENT

I hereby represent and warrant that I have personally examined and am familiar with the information contained and submitted in this and all attached documents. Based on my inquiry and personal knowledge of those individuals responsible for supplying or obtaining the information, the information contained herein is true, accurate, and complete to the best of my knowledge and belief. Furthermore, no material fact has been omitted as to make this information misleading. I understand that others may rely on this representation and warranty in the handling and processing of the waste material described herein. If this box is checked ☐, I request Environmental Geo-Technologies not to correct any inconsistencies. Any corrections Environmental Geo-Technologies makes will be consistent with the results of the sample characterization and/or regulatory requirements.

Printed Name: [redacted] Title: [redacted]

Generator's Signature: [redacted] Date: 9/30/2015

GENERATOR'S CHAIN OF CUSTODY RECORD INSTRUCTIONS:

PLEASE collect a representative 1-quart sample of the waste described in the above referenced GENERATORS WASTE PROFILE REPORT using an appropriate container. A representative sample is one obtained using any of the applicable sampling methods cited in 40 CFR 261-Appendix 1. Fill in the sampling information in the spaces provided below. If you have problems obtaining a representative sample of your waste, please contact your Environmental Geo-Technologies representative.

1. _____ SAMPLING METHOD 2. _____ COLLECTION POINT

3. _____ SAMPLE COLLECTOR'S NAME, TITLE, EMPLOYER

4. Sample No. _____ Preservation: Yes ☐ No ☐

5. CHAIN OF CUSTODY *Each person who handles the sample must sign below when the sample passes from one to another.*

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	[redacted]	Work Order:	[redacted]
Project:	Waste Characterization	Description:	[redacted]
Client Sample ID:	**Electropolish Solution**	Sampled:	01/05/11 08:30
Lab Sample ID:	**1101048-01**	Sampled By:	C.D.
Matrix:	Waste	Received:	01/05/11 16:45

TCLP Metals by EPA 1311/6000/7000 Series Methods

Analyte	Analytical Result	RL	Action Limit	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Arsenic	**2.8**	0.50	5	mg/L	1	USEPA-6010C	01/10/11 09:15	KLV	1100169
Barium	<1.8	1.8	100	mg/L	1	USEPA-6010C	01/10/11 09:15	KLV	1100169
Cadmium	**0.61**	0.050	1	mg/L	1	USEPA-6010C	01/10/11 09:15	KLV	1100169
Chromium	**11000**	250	5	mg/L	1000	USEPA-6010C	01/10/11 08:29	KLV	1100169
Lead	**4.8**	0.25	5	mg/L	1	USEPA-6010C	01/10/11 09:15	KLV	1100169
Mercury	**0.0018**	0.0010	0.2	mg/L	1	USEPA-7470A	01/12/11 14:40	KLV	1100258
Selenium	**9.4**	0.50	1	mg/L	1	USEPA-6010C	01/10/11 09:15	KLV	1100169
*Silver	<0.50	0.50	5	mg/L	10	USEPA-6010C	01/10/11 08:46	KLV	1100169

*See Statement of Data Qualifications

5560 Corporate Exchange Court SE ♦ Grand Rapids, MI 49512 ♦ 616.975.4500 ♦ Fax 616.942.7463 ♦ www.trimatrixlabs.com

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC
28470 Citrin Dr, Romulus, MI 48174. Telephone 734 946 1000. Fax 734 946 1002

Generator Waste Profile

Profile # 00714

GENERATOR INFORMATION

Name: [redacted] USEPA ID # [redacted]

Facility Address: [redacted] SIC/NAICS Code: _____ State Code: _____

City: [redacted] State: [redacted] Zip Code: [redacted]

Contact: [redacted] Title: [redacted] Phone: [redacted] Fax: ( ) _____

BILLING INFORMATION ☒ SAME AS ABOVE

Company Name: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Attention: _____ Phone: ( ) _____ Fax: ( ) _____

WASTE INFORMATION

Name of Waste/Common Chemical Name:

Hazardous Waste Liquid

Process Generating Waste (Please *be specific, incomplete information may delay the approval process):*

Scrubber Water

USEPA / STATE WASTE IDENTIFICATION (SEE ATTACHED)

1. This waste is considered to be: ☐ Non Hazardous Liquid Industrial Waste ☒ Hazardous Waste
2. Regulated by TSCA? ☐ Yes ☒ No (PCBs, etc.)
3. List ALL Applicable Waste Codes: D004 D006 D007 D008 D010 _____ _____ _____ _____

PHYSICAL CHARACTERISTICS OF WASTE

Color:	Suspended Solids	Layers:	Specific Gravity:	
☐ White/Clear	☒ 0-1 % ☐ 3-5 %	☐ Multi-Layered	☐ <0.8 ☒ 1.0 – 1.2	acceptable
☐ Black/Brown	☐ 1-3 % ☐ > 5%	☐ Bi-Layered	☐ 0.8 –1.0 ☒ 1.3 – 1.4	
☒ Other VARIES		☒ Single Phase	Exact / Other _____	10.21.15

pH: ☐ NA ☐ ≤ 2 ☒ 2 – 4 ☒ 4 – 6 ☒ 6 – 8 ☒ 8 – 10 ☒ 10 – 12.5 ☐ ≥12.5

Liquid Flash Point: ☐ <73°F ☐ 73 – 100°F ☐ 101 – 140°F ☒ 141 – 200°F ☒ >200°F ☒ None ☒ Closed Cup ☐ Open Cup

VOC CONCENTRATION - ≤10 **PPM (MUST BE COMPLETED)**

TOTAL COMPOSITION OF WASTE - *MUST BE EQUAL TO OR GREATER THAN 100% (LIST EACH CONSTITUENT >/= 0.1%)* (SEE ATTACHED)

CONSTITUENT	MAX	MIN		CONSTITUENT	MAX	MIN	
Water	100	80	%				%
Sodium chloride	10	0	%				%
Potassium Chloride	10	0	%				%
			%				%
			%				%

Metals: Indicate if this waste contains any of the following metals. If Generator knowledge-provide backup
☒ Lab Analysis ☒ Generator Knowledge ☒ TCLP ☐ TOTAL

	Not Present	Concentration		Not Present	Concentration
PCB	☐	____ppm	Aromatic Amine	☐	____ ppm
Dioxins	☐	____ppm	Pesticides	☐	____ ppm
Cyanides Reactive	☐	____ppm	Rodenticides	☐	____ ppm
Cyanides Total	☐	____ppm	Fungicides	☐	____ ppm
Sulfides Reactive	☐	____ppm			
Sulfides Total	☐	____ppm			

Arsenic (As)	D004	☐ < 5 ppm	____ ppm		
Barium (Ba)	D005	☒ <100 ppm	____ ppm		
Cadmium (Cd)	D006	☐ < 1 ppm	____ ppm		
Chromium (Cr)	D007	☐ < 5 ppm	____ ppm		
Lead (Pb)	D008	☐ < 5 ppm	____ ppm		
Mercury (Hg)	D009	☒ < 0.2 ppm	____ ppm		
Selenium (Se)	D010	☐ < 1 ppm	____ ppm		
Silver (Ag)	D011	☒ < 5 ppm	____ ppm		

TCLP Organics D012 – D043 above regulatory limits: Present ☐ Not Present ☒

IS WASTE ANY OF THE FOLLOWING? *At Least One Box Must Be Checked.*

☐ Radioactive ☐ Water Reactive ☐ Oxidizer ☐ Shock Sensitive ☐ Reactive (other) ☐ DOT Explosives
☐ NIOSH Human-Positive Carcinogens ☐ NESHAP Wastes (Benzene, etc.) ☐ Biological ☒ None Apply

SHIPPING INFORMATION

1. Is this a DOT Hazardous Material (49CFR 172.101 & 173 Subpart D)? ☒Yes ☐No
2. Reportable Quantity (RQ) in pounds _____
3. DOT Shipping Name NA3082, Hazardous Waste, Liquid, N.O.S. (D004, D006, D007, D008, D010) Hazard Class 9 UN/NA 3082
PG III ERG 171 Hazardous Constituents for "n.o.s." D004, D006, D007, D008, D010
4. Method of Shipment: ☒Bulk Tanker ☒Vac truck ☐Rail Car ☐Drums ☐Totes
5. Number of Units to Ship Now: VARIES 6. Anticipated Volume / Units per Year: VARIES or ☐ One Time
6. Special Handling Requirements Including PPE: _____

CERTIFICATION STATEMENT

I hereby represent and warrant that I have personally examined and am familiar with the information contained and submitted in this and all attached documents. Based on my inquiry and personal knowledge of those individuals responsible for supplying or obtaining the information, the information contained herein is true, accurate, and complete to the best of my knowledge and belief. Furthermore, no material fact has been omitted as to make this information misleading. I understand that others may rely on this representation and warranty in the handling and processing of the waste material described herein. If this box is checked ☐, I request Environmental Geo-Technologies not to correct any inconsistencies. Any corrections Environmental Geo-Technologies makes will be consistent with the results of the sample ch[redacted] requirements.

Printed Name: [redacted] Title [redacted]

Generator's Signature: [redacted] Date: 10,21,15

GENERATOR'S CHAIN OF CUSTODY RECORD INSTRUCTIONS:

PLEASE collect a representative 1-quart sample o the waste described in the above referenced GENERATORS WASTE PROFILE REPORT using an appropriate container. A representative sample is one obtained using any of the applicable sampling methods cited in 40 CFR 261-Appendix 1. Fill in the sampling information in the spaces provided below. If you have problems obtaining a representative sample of your waste, please contact your Environmental Geo-Technologies representative.

1. _____ **SAMPLING METHOD** 2. _____ **COLLECTION POINT**

3. _____ **SAMPLE COLLECTOR'S NAME, TITLE, EMPLOYER**

4. **Sample No.** _____ **Preservation:** Yes ☐ No ☐

5. **CHAIN OF CUSTODY** *Each person who handles the sample must sign below when the sample passes from one to another.*

Relinquished by: (Signature)	*Date*	*Time*	Received by: (Signature)	Date	Time

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number [redacted] | 2. Page 1 of 1 | 3. Emergency Response [redacted] | 4. Manifest Tracking Number [redacted] JJK

GENERATOR

5. Generator's Name and Mailing Address [redacted]

Generator's Site Address (if different than mailing address)

Generator's Phone: [redacted]

6. Transporter 1 Company Name [redacted] U.S. EPA ID Number [redacted]

7. Transporter 2 Company Name U.S. EPA ID Number

8. Designated Facility Name and Site Address [redacted] U.S. EPA ID Number

Facility's Phone: [redacted]

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. NA3082, HAZARDOUS WASTE, LIQUID, N.O.S., (D004,D006,D007,D008,D010), 9, PG III, RQ		TT			D004 D006 D007 D008 D010
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information

1. WPS# 90002 ERG# 171 SG 1.35 [redacted] PROFILE F10627. SEE LDR FOR ADDITIONAL DERIVED FROM WASTE CODES.
SHIPPER #_____

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name | Signature | Month | Day | Year

INTL

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name | Signature | Month | Day | Year

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) | Month | Day | Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name | Signature | Month | Day | Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Richard Powals

From: [redacted]
Sent: Tuesday, October 20, 2015 1:51 PM
To: Richard Powals
Subject: RE: waste code info

Rick,
Below is from [redacted] t our lab. I will look for a manifest from [redacted]

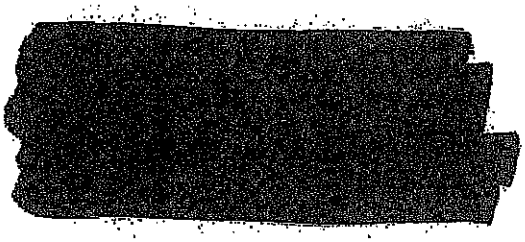
The gravity is coming up very slowly due to the recent complete cleanout. Compounding this is the favorable pH's > 6.9 which will help induce settling. I really discourage using even the recent MST water, since that too, won't be up to normal gravity. The cooler temperatures at night will also be knocking stuff out of solution. I can monitor this and see if Friday would be a better sampling point.

Here is some data they can use. I don't have trace metals analysis, and I'm not sure if they need that. But if they do, I can get that run. I have converted elements to the salts and concentrations in ppm that is fairly typical. If preferred, I have also listed individual elements (in case they have limits specified as individual elements).

7.78 pH 1.105 Sp Gr
8-25-15 clarifier water almost at wier

salt	Distribution	compound mass ppm
NaCl	**47.1%**	**63160**
CaCl	0.2%	318
CaSO4.2H2O	0.9%	1239
K2SO4	3.4%	4530
Na2SO4	**34.5%**	**46276**
NaF	0.1%	148
MgSO4.7H2O	3.0%	4082
NaBr	2.2%	2977
MgCl2	1.2%	1564
KCl	2.9%	3878
Na HCO3 (bicarbonate)	0.9%	1153
ZnCl2	0.4%	520
Cu, Mn, Cd, Li, Pb, Al, Fe, P	1.4%	1900
Total Organic Carbon	0.0%	1
Al(OH)3	1.0%	1277
H3BO3	0.4%	569
Total Silica (probably as SiOH)	0.3%	428
sulfur (as sulfide or sulfite)	0.1%	100

Lab pH	Sodium Bicarb Alk mg/L	Lab specific Gravity	Total Dissolved Solids g/L	Bromide	Ca	Na	Chloride	Sulfate all sulfur as sul
7.78	1153	1.105	148	2311	453	49210	41078	36036



ENVIRONMENTAL GEO-TECHNOLOGIES, LLC
28470 Citrin Dr, Romulus, MI 48174, Telephone 734 946 1000, Fax 734 946 1002

Generator Waste Profile

Profile # 00727

GENERATOR INFORMATION

Name: [redacted] USEPA ID #: [redacted]

Facility Address: [redacted] SIC/NAICS Code: [redacted] State Code: [redacted]

City: [redacted] State: [redacted] Zip Code: [redacted]

Contact: [redacted] Title: [redacted] Phone: [redacted] Fax: [redacted]

BILLING INFORMATION [redacted] AS ABOVE

Company Name: [redacted]

Address: [redacted]

City: [redacted] State: [redacted] Zip Code: [redacted]

Attention: [redacted] Phone: [redacted] Fax: [redacted]

WASTE INFORMATION

Name of Waste/Common Chemical Name:

Ammonium Sulphate Solution

Process Generating Waste (Please be specific, incomplete information may delay the approval process):

Scrubber solution from compost operations

USEPA / STATE WASTE IDENTIFICATION

1. This waste is considered to be: ☒ Non Hazardous Liquid Industrial Waste ☐ Hazardous Waste
2. Regulated by TSCA? ☐ Yes ☒ No (PCBs, etc.)
3. List ALL Applicable Waste Codes: 029L

PHYSICAL CHARACTERISTICS OF WASTE

Color:	Suspended Solids	Layers:	Specific Gravity:	
☒ White/Clear	☒ 0-1 % ☐ 3-5 %	☐ Multi-Layered	☐ <0.8 ☒ 1.0 - 1.2	acceptable
☐ Black/Brown	☐ 1-3 % ☐ > 5%	☐ Bi-Layered	☐ 0.8 - 1.0 ☐ 1.3 - 1.4	10/21/15
☐ Other		☒ Single Phase	Exact / Other	

pH: ☐ NA ☐ ≤ 2 ☒ 2 - 4 ☐ 4 - 6 ☐ 6 - 8 ☐ 8 - 10 ☐ 10 - 12.5 ☐ ≥ 12.5

Liquid Flash Point: ☐ <73°F ☐ 73 - 100°F ☐ 101 - 140°F ☐ 141 - 200°F ☒ >200°F ☒ None ☐ Closed Cup ☐ Open Cup

VOC Concentration: < 10 PPM (MUST BE COMPLETED)

TOTAL COMPOSITION OF WASTE - *MUST BE EQUAL TO OR GREATER THAN 100% (LIST EACH CONSTITUENT >/= 0.1%)*

CONSTITUENT	MAX	MIN	CONSTITUENT	MAX	MIN
See Analysis	%	%		%	%
	%	%		%	%
	%	%		%	%
	%	%		%	%

EGT - 28470 Clirin Drive – Romulus – MI – 48174 Waste Profile – Page 2

Metals: Indicate if this waste contains any of the following metals.. If Generator knowledge-provide backup
☒ Lab Analysis ☐ Generator Knowledge ☐ TCLP ☐ TOTAL

	Not Present	Concentration		Not Present	Concentration
PCB	☐	____ppm	Aromatic Amine	☐	____ ppm
Dioxins	☐	____ppm	Pesticides	☐	____ ppm
Cyanides Reactive	☐	____ppm	Rodenticides	☐	____ ppm
Cyanides Total	☐	____ppm	Fungicides	☐	____ ppm
Sulfides Reactive	☐	____ppm			
Sulfides Total	☐	____ppm			

Arsenic (As)	D004	☐ < 5 ppm	____ ppm	
Barium (Ba)	D005	☐ <100 ppm	____ ppm	
Cadmium (Cd)	D006	☐ < 1 ppm	____ ppm	
Chromium (Cr)	D007	☐ < 5 ppm	____ ppm	
Lead (Pb)	D008	☐ < 5 ppm	____ ppm	
Mercury (Hg)	D009	☐ < 0.2 ppm	____ ppm	
Selenium (Se)	D010	☐ < 1 ppm	____ ppm	
Silver (Ag)	D011	☐ < 5 ppm	____ ppm	

TCLP Organics D012 – D043 above regulatory limits: Present ☐ Not Present ☒

IS WASTE ANY OF THE FOLLOWING? *At Least One Box Must Be Checked.*

☐ Radioactive ☐ Water Reactive ☐ Oxidizer ☐ Shock Sensitive ☐ Reactive (other) ☐ DOT Explosives
☐ NIOSH Human-Positive Carcinogens ☐ NESHAP Wastes (Benzene, etc.) ☐ Biological ☒ None Apply

SHIPPING INFORMATION

1. Is this a DOT Hazardous Material (49CFR 172.101 & 173 Subpart D)? ☐Yes ☒No
2. Reportable Quantity (RQ) in pounds _____
3. DOT Shipping Name Non Hazardous Non Regulated material Hazard Class _____ UN/NA _____

PG _____ ERG _____ Hazardous Constituents for "n.o.s." _____

4. Method of Shipment: ☒Bulk Tanker ☒Vac truck ☐Rail Car ☒Drums ☒Totes
5. Number of Units to Ship Now: 1 Vac Tanker 6. Anticipated Volume / Units per Year 200,000 Gal or ☐ One Time
6. Special Handling Requirements including PPE:

CERTIFICATION STATEMENT

I hereby represent and warrant that I have personally examined and am familiar with the information contained and submitted in this and all attached documents. Based on my inquiry and personal knowledge of those individuals responsible for supplying or obtaining the information, the information contained herein is true, accurate, and complete to the best of my knowledge and belief. Furthermore, no material fact has been omitted as to make this information misleading. I understand that others may rely on this representation and warranty in the handling and processing of the waste material described herein. If this box is checked ☐, I request Environmental Geo-Technologies not to correct any inconsistencies. Any corrections Environmental Geo-Technologies makes will be consistent with the results of the sample characterization and/or regulatory requirements.

Printed Name: [redacted] Title: [redacted]

Generator's Signature: [redacted] Date 10.21.15

GENERATOR'S CHAIN OF CUSTODY RECORD INSTRUCTIONS:

PLEASE collect a representative 1-quart sample of the waste described in the above referenced GENERATORS WASTE PROFILE REPORT using an appropriate container. A representative sample is one obtained using any of the applicable sampling methods cited in 40 CFR 261-Appendix 1. Fill in the sampling information in the spaces provided below. If you have problems obtaining a representative sample of your waste, please contact your Environmental Geo-Technologies representative.

1. _____ SAMPLING METHOD 2. _____ COLLECTION POINT

3 _____ SAMPLE COLLECTOR'S NAME, TITLE, EMPLOYER

4. Sample No. _____ Preservation: Yes ☐ No ☐

5. CHAIN OF CUSTODY *Each person who handles the sample must sign below when the sample passes from one to another.*

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

REPORT NO.
C15195-70012

A & L Canada Laboratories Inc.

2136 Jetstream Road, London, ON, N5V 3P5 Tel: (519) 457-2575 Fax: (519) 457-2664

CERTIFICATE OF ANALYSIS

PROJECT NO:

PO#:
LAB NUMBER:1957033
SAMPLE ID:AMMONIUM SULPHATE 20TH MAY

SAMPLE MATRIX:LIQUID
DATE SAMPLED:NONE GIVEN
DATE RECEIVED:2015-07-14
DATE REPORTED:2015-07-29
DATE PRINTED:2015-07-29

PARAMETER	Result Dry Weight	Result As Received	UNIT	DETECTION LIMIT	METHOD REFERENCE
Total Solids (as received)		15.79	%	0.10	Gravimetric
Heavy Metals					
Arsenic	BDL*	BDL*	ug/g	1.00	EPA 3050/6010 (mod)
Cadmium	BDL*	BDL*	ug/g	1.00	EPA 3050/6010 (mod) *
Cobalt	BDL*	BDL*	ug/g	1.00	EPA 3050/6010 (mod)
Chromium	1.78	BDL*	ug/g	1.00	EPA 3050/6010 (mod)
Copper	1.69	BDL*	ug/g	1.00	EPA 3050/6010 (mod)*
Mercury	BDL*	BDL*	ug/g	0.10	CVAAS
Molybdenum	BDL*	BDL*	ug/g	1.0	EPA 3050/6010 (mod)*
Nickel	BDL*	BDL*	ug/g	1.00	EPA 3050/6010 (mod)
Lead	BDL*	BDL*	ug/g	1.00	EPA 3050/6010 (mod) *
Selenium	BDL	BDL*	ug/g	1.00	EPA 3050/6010 (mod)
Zinc	8.01	1.26	ug/g	1.00	EPA 3050/6010 (mod)*
Metals					
Potassium (Total)	0.02	BDL*	%	0.01	ICP
Phosphorus (Total)	BDL*	BDL*	%	0.01	ICP *
Nitrogen & Carbon					
Nitrogen (Total)	21.29	3.36	%	0.10	Combustion
Physical & Miscellaneous					
pH		7.41	---	0.10	pH Meter
Conductivity (@ 25 deg C)		89.90	ms/cm	0.02	Conductivity Meter
Microbiology					
Fecal Coliform	0	<3	MPN/g dry		TMECC 07.01
Additional Parameters					

* - accredited test
BDL - Below detectable levels

The results of this report relate to the sample submitted and analyzed.

C15195-70012

Results Authorized By:

Haifeng Song, Senior Chemist / Agriculture Supervisor

REPORT NO.
C15195-70012

ACCOUNT NUMBER
06326

A & L Canada Laboratories Inc.

2136 Jetstream Road, London, ON, N5V 3P5 Tel: (519) 457-2575 Fax: (519) 457-2664

TO [redacted]

ATTN

Phone

CERTIFICATE OF ANALYSIS

PROJECT NO:

PO#:
LAB NUMBER:1957033
SAMPLE ID:AMMONIUM SULPHATE 20TH MAY

SAMPLE MATRIX:LIQUID
DATE SAMPLED:NONE GIVEN
DATE RECEIVED:2015-07-14
DATE REPORTED:2015-07-29
DATE PRINTED:2015-07-29

PARAMETER	Result Dry Weight	Result As Received	UNIT	DETECTION LIMIT	METHOD REFERENCE
NO3/NO2 - N	6.02	BDL*	ug/g	1.00	Automated Colourimetric
Total Potassium (as K20)	BDL*	BDL*	%	0.05	ICP
E. Coli	<3	0	CFU/g dry		E3433
Salmonella spp.	NEGATIVE	0	P-A/25.0g(ml)		MFLP-75 *
Ammonia (NH3/NH4-N)	186437.18	29438.43	ug/g	.01	Colourimetric
Total Phosphorus (As P205)	BDL*	BDL*	%	0.05	ICP

* - accredited test
BDL - Below detectable levels
The results of this report relate to the sample submitted and analyzed.

C15195-70012

Results Authorized By:

Haifeng Song, Senior Chemist / Agriculture Supervisor

REPORT NO.
C15195-70012

ACCOUNT NUMBER
06326

A & L Canada Laboratories Inc.

2136 Jetstream Road, London, ON, N5V 3P5 Tel: (519) 457-2575 Fax: (519) 457-2664

TO: [redacted]

ATTN [redacted]

Phon [redacted]

CERTIFICATE OF ANALYSIS

PROJECT NO:

PO#:

LAB NUMBER:1957034

SAMPLE ID:AMMONIUM SULPHATE 3RD JUNE

SAMPLE MATRIX:LIQUID
DATE SAMPLED:NONE GIVEN
DATE RECEIVED:2015-07-14
DATE REPORTED:2015-07-29
DATE PRINTED:2015-07-29

PARAMETER	Result Dry Weight	Result As Received	UNIT	DETECTION LIMIT	METHOD REFERENCE
Total Solids (as received)		17.68	%	0.10	Gravimetric
Heavy Metals					
Arsenic	BDL*	BDL*	ug/g	1.00	EPA 3050/6010 (mod)
Cadmium	BDL*	BDL*	ug/g	1.00	EPA 3050/6010 (mod) *
Cobalt	BDL*	BDL*	ug/g	1.00	EPA 3050/6010 (mod)
Chromium	2.23	BDL*	ug/g	1.00	EPA 3050/6010 (mod)
Copper	BDL*	BDL*	ug/g	1.00	EPA 3050/6010 (mod)*
Mercury	BDL*	BDL*	ug/g	0.10	CVAAS
Molybdenum	BDL*	BDL*	ug/g	1.0	EPA 3050/6010 (mod)*
Nickel	BDL*	BDL*	ug/g	1.00	EPA 3050/6010 (mod)
Lead	BDL*	BDL*	ug/g	1.00	EPA 3050/6010 (mod) *
Selenium	BDL*	BDL*	ug/g	1.00	EPA 3050/6010 (mod)
Zinc	6.53	1.15	ug/g	1.00	EPA 3050/6010 (mod)*
Metals					
Potassium (Total)	0.03	BDL*	%	0.01	ICP
Phosphorus (Total)	BDL*	BDL*	%	0.01	ICP *
Nitrogen & Carbon					
Nitrogen (Total)	21.11	3.73	%	0.10	Combustion
Physical & Miscellaneous					
pH		2.42	---	0.10	pH Meter
Conductivity (@ 25 deg C)		96.10	ms/cm	0.02	Conductivity Meter
Microbiology					
Fecal Coliform	0	<3	MPN/g dry		TMECC 07.01
Additional Parameters					

* - accredited test
BDL - Below detectable levels

The results of this report relate to the sample submitted and analyzed.

C15195-70012

Results Authorized By:

Haifeng Song, Senior Chemist / Agriculture Supervisor

REPORT NO.
C15195-70012

ACCOUNT NUMBER
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TO [redacted]

ATTN

Phone

CERTIFICATE OF ANALYSIS

PROJECT NO:

PO#:
LAB NUMBER:1957034
SAMPLE ID:AMMONIUM SULPHATE 3RD JUNE

SAMPLE MATRIX:LIQUID
DATE SAMPLED:NONE GIVEN
DATE RECEIVED:2015-07-14
DATE REPORTED:2015-07-29
DATE PRINTED:2015-07-29

PARAMETER	Result Dry Weight	Result As Received	UNIT	DETECTION LIMIT	METHOD REFERENCE
NO3/NO2 - N	2.44	BDL*	ug/g	1.00	Automated Colourimetric
Total Potassium (as K20)	BDL*	BDL*	%	0.05	ICP
E. Coli	<3	0	CFU/g dry		E3433
Salmonella spp.	NEGATIVE	0	P-A/25.0g(ml)		MFLP-75 *
Ammonia (NH3/NH4-N)	192459.95	34026.92	ug/g	.01	Colourimetric
Total Phosphorus (As P205)	BDL*	BDL*	%	0.05	ICP

* - accredited test
BDL - Below detectable levels

The results of this report relate to the sample submitted and analyzed.

C15195-70012

Results Authorized By:

Haifeng Song, Senior Chemist / Agriculture Supervisor

REPORT NO.
C15195-70012

ACCOUNT NUMBER
06326

A & L Canada Laboratories Inc.

2136 Jetstream Road, London, ON, N5V 3P5 Tel: (519) 457-2575 Fax: (519) 457-2664

TO [redacted]

ATTN [redacted]

Phon [redacted]

CERTIFICATE OF ANALYSIS

PROJECT NO:

PO#:

LAB NUMBER:1957035

SAMPLE ID:AMMONIUM SULPHATE 9TH JUNE

SAMPLE MATRIX:LIQUID
DATE SAMPLED:NONE GIVEN
DATE RECEIVED:2015-07-14
DATE REPORTED:2015-07-29
DATE PRINTED:2015-07-29

PARAMETER	Result Dry Weight	Result As Received	UNIT	DETECTION LIMIT	METHOD REFERENCE
Total Solids (as received)		15.81	%	0.10	Gravimetric
Heavy Metals					
Arsenic	BDL*	BDL*	ug/g	1.00	EPA 3050/6010 (mod)
Cadmium	BDL*	BDL*	ug/g	1.00	EPA 3050/6010 (mod) *
Cobalt	BDL*	BDL*	ug/g	1.00	EPA 3050/6010 (mod)
Chromium	1.99	BDL*	ug/g	1.00	EPA 3050/6010 (mod)
Copper	BDL*	BDL*	ug/g	1.00	EPA 3050/6010 (mod)*
Mercury	BDL*	BDL*	ug/g	0.10	CVAAS
Molybdenum	BDL*	BDL*	ug/g	1.0	EPA 3050/6010 (mod)*
Nickel	BDL*	BDL*	ug/g	1.00	EPA 3050/6010 (mod)
Lead	BDL*	BDL*	ug/g	1.00	EPA 3050/6010 (mod) *
Selenium	BDL*	BDL*	ug/g	1.00	EPA 3050/6010 (mod)
Zinc	6.46	1.02	ug/g	1.00	EPA 3050/6010 (mod)*
Metals					
Potassium (Total)	0.03	BDL*	%	0.01	ICP
Phosphorus (Total)	BDL*	BDL*	%	0.01	ICP *
Nitrogen & Carbon					
Nitrogen (Total)	20.81	3.29	%	0.10	Combustion
Physical & Miscellaneous					
pH		2.48	---	0.10	pH Meter
Conductivity (@ 25 deg C)		89.20	ms/cm	0.02	Conductivity Meter
Microbiology					
Fecal Coliform	0	<3	MPN/g dry		TMECC 07.01
Additional Parameters					

* - accredited test

BDL - Below detectable levels

The results of this report relate to the sample submitted and analyzed.

C15195-70012

Results Authorized By:

Haifeng Song, Senior Chemist / Agriculture Supervisor

REPORT NO.
C15195-70012

ACCOUNT NUMBER
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A & L Canada Laboratories Inc.

2136 Jetstream Road, London, ON, N5V 3P5 Tel: (519) 457-2575 Fax: (519) 457-2664

TO
[redacted]
ATT
Phone

CERTIFICATE OF ANALYSIS

PROJECT NO:

PO#:
LAB NUMBER:1957035
SAMPLE ID:AMMONIUM SULPHATE 9TH JUNE

SAMPLE MATRIX:LIQUID
DATE SAMPLED:NONE GIVEN
DATE RECEIVED:2015-07-14
DATE REPORTED:2015-07-29
DATE PRINTED:2015-07-29

PARAMETER	Result Dry Weight	Result As Received	UNIT	DETECTION LIMIT	METHOD REFERENCE
NO3/NO2 - N	2.20	BDL*	ug/g	1.00	Automated Colourimetric
Total Potassium (as K20)	BDL*	BDL*	%	0.05	ICP.
E. Coli	<3	0	CFU/g dry		E3433
Salmonella spp.	NEGATIVE	0	P-A/25.0g(ml)		MFLP-75 *
Ammonia (NH3/NH4-N)	188398.67	29785.83	ug/g	.01	Colourimetric
Total Phosphorus (As P205)	BDL*	BDL*	%	0.05	ICP

* - accredited test
BDL - Below detectable levels
The results of this report relate to the sample submitted and analyzed.

C15195-70012

Results Authorized By:

Haifeng Song, Senior Chemist / Agriculture Supervisor

REPORT NO.
C15195-70012

ACCOUNT NUMBER
06326

A & L Canada Laboratories Inc.

2136 Jetstream Road, London, ON, N5V 3P5 Tel: (519) 457-2575 Fax: (519) 457-2664

TO:
[redacted]
ATTN:
Phone:

CERTIFICATE OF ANALYSIS

PROJECT NO:

PO#:
LAB NUMBER:1957036
SAMPLE ID:AMMONIUM SULPHATE 16TH JUNE

SAMPLE MATRIX:LIQUID
DATE SAMPLED:NONE GIVEN
DATE RECEIVED:2015-07-14
DATE REPORTED:2015-07-29
DATE PRINTED:2015-07-29

PARAMETER	Result Dry Weight	Result As Received	UNIT	DETECTION LIMIT	METHOD REFERENCE
Total Solids (as received)		16.41	%	0.10	Gravimetric
Heavy Metals					
Arsenic	BDL*	BDL*	ug/g	1.00	EPA 3050/6010 (mod)
Cadmium	BDL*	BDL*	ug/g	1.00	EPA 3050/6010 (mod) *
Cobalt	BDL*	BDL*	ug/g	1.00	EPA 3050/6010 (mod)
Chromium	1.90	BDL*	ug/g	1.00	EPA 3050/6010 (mod)
Copper	BDL*	BDL*	ug/g	1.00	EPA 3050/6010 (mod)*
Mercury	BDL*	BDL*	ug/g	0.10	CVAAS
Molybdenum	BDL*	BDL*	ug/g	1.0	EPA 3050/6010 (mod)*
Nickel	BDL*	BDL*	ug/g	1.00	EPA 3050/6010 (mod)
Lead	1.35	BDL*	ug/g	1.00	EPA 3050/6010 (mod) *
Selenium	BDL*	BDL*	ug/g	1.00	EPA 3050/6010 (mod)
Zinc	6.15	1.01	ug/g	1.00	EPA 3050/6010 (mod)*
Metals					
Potassium (Total)	0.03	BDL*	%	0.01	ICP
Phosphorus (Total)	BDL*	BDL*	%	0.01	ICP *
Nitrogen & Carbon					
Nitrogen (Total)	20.57	3.38	%	0.10	Combustion
Physical & Miscellaneous					
pH		2.37	---	0.10	pH Meter
Conductivity (@ 25 deg C)		92.20	ms/cm	0.02	Conductivity Meter
Microbiology					
Fecal Coliform	0	<3	MPN/g dry		TMECC 07.01
Additional Parameters					

* - accredited test
BDL - Below detectable levels

The results of this report relate to the sample submitted and analyzed.

C15195-70012

Results Authorized By:

Haifeng Song, Senior Chemist / Agriculture Supervisor

REPORT NO.
C15195-70012

ACCOUNT NUMBER
06326

A & L Canada Laboratories Inc.

2136 Jetstream Road, London, ON, N5V 3P5 Tel: (519) 457-2575 Fax: (519) 457-2664

TO [redacted]

ATT

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CERTIFICATE OF ANALYSIS

PROJECT NO:

PO#:
LAB NUMBER:1957036
SAMPLE ID:AMMONIUM SULPHATE 16TH JUNE

SAMPLE MATRIX:LIQUID
DATE SAMPLED:NONE GIVEN
DATE RECEIVED:2015-07-14
DATE REPORTED:2015-07-29
DATE PRINTED:2015-07-29

PARAMETER	Result Dry Weight	Result As Received	UNIT	DETECTION LIMIT	METHOD REFERENCE
NO3/NO2 - N	2.00	BDL*	ug/g	1.00	Automated Colourimetric
Total Potassium (as K20)	BDL*	BDL*	%	0.05	ICP
E. Coli	<3	0	CFU/g dry		E3433
Salmonella spp.	NEGATIVE	0	P-A/25.0g(ml)		MFLP-75 *
Ammonia (NH3/NH4-N)	187886.59	30832.19	ug/g	.01	Colourimetric
Total Phosphorus (As P205)	BDL*	BDL*	%	0.05	ICP

* - accredited test
BDL - Below detectable levels

The results of this report relate to the sample submitted and analyzed.

C15195-70012

Results Authorized By:

Haifeng Song, Senior Chemist / Agriculture Supervisor

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC
28470 Citrin Dr, Romulus, MI 48174. Telephone 734 946 1000. Fax 734 946 1002

Generator Waste Profile
Profile # 00728

GENERATOR INFORMATION

Name: [redacted] USEPA ID #

Facility Address: [redacted] SIC/NAICS Code: 9999 State Code:

City: [redacted] State: [redacted] Zip Code: [redacted]

Contact [redacted] Title [redacted] Phone [redacted] Fax: ( )

BILLING INFORMATION ☐ SAME AS ABOVE

Company Name: [redacted]

Address: [redacted]

City: [redacted] State: [redacted] Zip Code: [redacted]

Attention: [redacted] Phone [redacted] Fax [redacted]

WASTE INFORMATION

Name of Waste/Common Chemical Name: Non-hazardous leachate collection water

Process Generating Waste (Please *be specific, incomplete information may delay the approval process):* Sump waters collected from a CERCLA site that was a former steel mill. Material is water with 15-20% suspended solids/sludges.

USEPA / STATE WASTE IDENTIFICATION

1. This waste is considered to be: ☒ Non Hazardous Liquid Industrial Waste ☐ Hazardous Waste
2. Regulated by TSCA? ☐ Yes ☒ No (PCBs, etc.)
3. List ALL Applicable Waste Codes: none 029L

PHYSICAL CHARACTERISTICS OF WASTE

Color:	Suspended Solids	Layers:	Specific Gravity:	
☐ White/Clear	☐ 0-1 % ☐ 3-5 %	☐ Multi-Layered	☐ <0.8 ☐ 1.0 – 1.2	accepted 10.26.15
☒ Black/Brown	☐ 1-3 % ☒ > 5%	☐ Bi-Layered	☒ 0.8 – 1.0 ☐ 1.3 – 1.4	
☐ Other _____		☒ Single Phase	Exact / Other _____	

pH: ☐ NA ☐ ≤ 2 ☐ 2 – 4 ☐ 4 – 6 ☐ 6 – 8 ☒ 8 – 10 ☐ 10 – 12.5 ☐ ≥ 12.5

Liquid Flash Point: ☐ <73°F ☐ 73 – 100°F ☐ 101 – 140°F ☐ 141 – 200°F ☒ >200°F ☒ None ☐ Closed Cup ☐ Open Cup

VOC Concentration - X <10 PPM (MUST BE COMPLETED)

TOTAL COMPOSITION OF WASTE - *MUST BE EQUAL TO OR GREATER THAN 100% (LIST EACH CONSTITUENT >/= 0.1%)*

CONSTITUENT	MAX	MIN	CONSTITUENT	MAX	MIN
water	80	95 %			%
trace contaminants -phenols	<	1 %			%
sediment	<	20 %			%
		%			%
		%			%

Metals: Indicate if this waste contains any of the following metals. If Generator knowledge-provide backup
☒ Lab Analysis ☒ Generator Knowledge ☒ TCLP ☐ TOTAL

	Not Present	Concentration		Not Present	Concentration
PCB	☒	____ ppm	Aromatic Amine	☒	____ ppm
Dioxins	☒	____ ppm	Pesticides	☒	____ ppm
Cyanides Reactive	☒	____ ppm	Rodenticides	☒	____ ppm
Cyanides Total	☒	____ ppm	Fungicides	☒	____ ppm
Sulfides Reactive	☒	____ ppm			
Sulfides Total	☒	____ ppm			

Arsenic (As)	D004	☒ < 5 ppm	____ ppm
Barium (Ba)	D005	☒ <100 ppm	____ ppm
Cadmium (Cd)	D006	☒ < 1 ppm	____ ppm
Chromium (Cr)	D007	☒ < 5 ppm	____ ppm
Lead (Pb)	D008	☒ < 5 ppm	____ ppm
Mercury (Hg)	D009	☒ <0.2 ppm	____ ppm
Selenium (Se)	D010	☒ < 1 ppm	____ ppm
Silver (Ag)	D011	☒ < 5 ppm	____ ppm

TCLP Organics D012 – D043 above regulatory limits: Present ☐ Not Present ☒

IS WASTE ANY OF THE FOLLOWING? *At Least One Box Must Be Checked.*
☐ Radioactive ☐ Water Reactive ☐ Oxidizer ☐ Shock Sensitive ☐ Reactive (other) ☐ DOT Explosives
☐ NIOSH Human-Positive Carcinogens ☐ NESHAP Wastes (Benzene, etc.) ☐ Biological ☒ None Apply

SHIPPING INFORMATION

1. Is this a DOT Hazardous Material (49CFR 172.101 & 173 Subpart D)? ☐Yes ☒No
2. Reportable Quantity (RQ) in pounds _____
3. DOT Shipping Name Waste Non-Regulated Material Hazard Class _____ UN/NA _____

PG _____ ERG _____ Hazardous Constituents for "n.o.s." _____

4. Method of Shipment: ☒Bulk Tanker ☐Vac truck ☐Rail Car ☐Drums ☐Totes
5. Number of Units to Ship Now: _est. 10,000 gallons__ 6. Anticipated Volume / Units per Year: _____ or ☒ One Time
6. *Special Handling Requirements including PPE:* _____

CERTIFICATION STATEMENT

I hereby represent and warrant that I have personally examined and am familiar with the information contained and submitted in this and all attached documents. Based on my inquiry and personal knowledge of those individuals responsible for supplying or obtaining the information, the information contained herein is true, accurate, and complete to the best of my knowledge and belief. Furthermore, no material fact has been omitted as to make this information misleading. I understand that others may rely on this representation and warranty in the handling and processing of the waste material described herein. If this box is checked ☐, I request Environmental Geo-Technologies not to correct any inconsistencies. Any corrections Environmental Geo-Technologies makes will be consistent with the results of the sample characterization and/or analysis.

Printed Name: [redacted] Title: [redacted]

Generator's Signature: [redacted] Date: [redacted]

GENERATOR'S CHAIN OF CUSTODY RECORD INSTRUCTIONS:

PLEASE collect a representative 1-quart sample o the waste described in the above referenced GENERATORS WASTE PROFILE REPORT using an appropriate container. A representative sample is one obtained using any of the applicable sampling methods cited in 40 CFR 261-Appendix 1. Fill in the sampling information in the spaces provided below. If you have problems obtaining a representative sample of your waste, please contact your Environmental Geo-Technologies representative.

1. _____ 2. _____
SAMPLING METHOD COLLECTION POINT

3. _____
SAMPLE COLLECTOR'S NAME, TITLE, EMPLOYER

4. Sample No. _____ Preservation: Yes ☐ No ☐

5. CHAIN OF CUSTODY *Each person who handles the sample must sign below when the sample passes from one to another.*

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Environmental Geo-Technologies, LLC
28470 Citrin Drive, Romulus, MI 48174
O: 734.946.1000 F: 734.946.1000
Website: www.envgeotech.com

Waste Profile Addendum A

[regarding Polychlorinated Biphenyls ("PCBs")]

[redacted] I hereby certify that this subject waste stream identified as [redacted] is ***not*** a TSCA regulated PCB [redacted].

I further represent and warrant that I have personally examined and am familiar with the information contained and submitted in this and all attached documents. Based on my inquiry and personal knowledge of those individuals responsible for supplying or obtaining the information, the information contained herein is true, accurate, and complete to the best of my knowledge and belief. Furthermore, no material fact has been omitted as to make this information misleading. I understand that others may rely on this representation and warranty in the handling and processing of the waste material identified above.

Printed Name: [redacted]

Generator's Signature: [redacted]

Title: [redacted]

Date: [redacted]

ALS Environmental

14-Sep-2015

[redacted]

Re: [redacted] Work Order: **1509085**

Dear James,

ALS Environmental received 2 samples on 02-Sep-2015 09:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 43.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Electronically approved by: Bill Carey

Bill Carey
Project Manager

NELAP ACCREDITED LABORATORY

Certificate No: MI: 0022

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

ALS Group USA, Corp

Date: 14-Sep-15

Client: [redacted]
Project:
Work Order: 1509085

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1509085-01	Oil/Water Vat 1	Liquid		8/31/2015	9/2/2015 09:30	☐
1509085-02	Oil/Water Vat 1 (TCLP)	Tclp Extract		8/31/2015	9/2/2015 09:30	☐

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and PQL, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
°F	Degrees Fahrenheit
µg/Kg	Micrograms per Kilogram
µg/L	Micrograms per Liter
mg/Kg	Milligrams per Kilogram
mg/L	Milligrams per Liter
s.u.	Standard Units

Client: [redacted]
Project:
Work Order: 1509085

Case Narrative

Batch 75587, Method PCB_8082_W, Sample 1509085-01B: Low surrogate recovery due to sample matrix effects confirmed by re-extraction. Decachlorobiphenyl

Batch 75600, Method ICP_6010_W, Sample 1509085-01BMS: The MS recovery was outside of the control limit; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required for this analyte: Al,Fe,Mn,Na

Batch 75600, Method ICP_6010_W, Sample 1509085-01BMSD: The RPD between the MS and MSD was outside the control limit. The corresponding result in the parent sample should be considered estimated for this analyte: Zn

Batch R170965, Method PH_9045_WST, Sample 1509085-01B: Possible bias due to sodium error at pH > 10. A low sodium electrode is not used in the measurement process.

ALS Group USA, Corp

Date: *14-Sep-15*

Client: [redacted]
Project:
Sample ID: [redacted] Water Vat 1
Collection Date: 8/31/2015

Work Order: 1509085
Lab ID: 1509085-01
Matrix: LIQUID

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			Method: SW8082		Prep: SW3510 / 9/3/15		Analyst: EB
Aroclor 1016	U		0.96	4.0	µg/L	1	9/3/2015 18:47
Aroclor 1221	U		0.96	4.0	µg/L	1	9/3/2015 18:47
Aroclor 1232	U		0.96	4.0	µg/L	1	9/3/2015 18:47
Aroclor 1242	U		0.96	4.0	µg/L	1	9/3/2015 18:47
Aroclor 1248	**1.9**	J	**0.96**	**4.0**	µg/L	1	9/3/2015 18:47
Aroclor 1254	U		0.62	4.0	µg/L	1	9/3/2015 18:47
Aroclor 1260	**1.3**	J	**0.62**	**4.0**	µg/L	1	9/3/2015 18:47
Surr: Decachlorobiphenyl	*18.0*	S		*40-110*	*%REC*	1	9/3/2015 18:47
MERCURY BY CVAA			Method: SW7470		Prep: SW7470 / 9/3/15		Analyst: LR
Mercury	**0.0046**	J	**0.00090**	**0.010**	mg/L	1	9/3/2015 17:55
METALS ANALYSIS BY ICP			Method: SW846 6010C		Prep: SW3005A / 9/3/15		Analyst: JEC
Aluminum	**2.2**		**0.0018**	**0.020**	mg/L	1	9/3/2015 14:02
Antimony	**0.0064**	J	**0.0032**	**0.010**	mg/L	1	9/3/2015 14:02
Arsenic	**0.032**		**0.0028**	**0.010**	mg/L	1	9/3/2015 14:02
Barium	**0.066**		**0.0012**	**0.010**	mg/L	1	9/3/2015 14:02
Beryllium	**0.0012**	J	**0.00024**	**0.0040**	mg/L	1	9/3/2015 14:02
Cadmium	U		0.0015	0.020	mg/L	1	9/3/2015 14:02
Calcium	**12**		**0.044**	**1.0**	mg/L	1	9/3/2015 14:02
Chromium	**0.019**		**0.00030**	**0.010**	mg/L	1	9/3/2015 14:02
Cobalt	**0.0042**	J	**0.00044**	**0.010**	mg/L	1	9/3/2015 14:02
Copper	**0.12**		**0.00072**	**0.020**	mg/L	1	9/3/2015 14:02
Iron	**340**		**0.0088**	**0.16**	mg/L	1	9/3/2015 14:02
Lead	U		0.0038	0.010	mg/L	1	9/3/2015 14:02
Magnesium	**33**		**0.044**	**0.40**	mg/L	1	9/3/2015 14:02
Manganese	**3.2**		**0.00034**	**0.010**	mg/L	1	9/3/2015 14:02
Nickel	**0.43**		**0.0010**	**0.010**	mg/L	1	9/3/2015 14:02
Potassium	**11**		**0.046**	**0.40**	mg/L	1	9/3/2015 17:28
Selenium	**0.011**	J	**0.0084**	**0.020**	mg/L	1	9/3/2015 14:02
Silver	**0.00081**	J	**0.00076**	**0.010**	mg/L	1	9/3/2015 14:02
Sodium	**180**		**0.048**	**0.40**	mg/L	1	9/3/2015 17:28
Thallium	**0.20**		**0.0040**	**0.020**	mg/L	1	9/3/2015 14:02
Vanadium	**0.014**		**0.00096**	**0.010**	mg/L	1	9/3/2015 14:02
Zinc	**0.057**		**0.0036**	**0.020**	mg/L	1	9/3/2015 14:02
SEMI-VOLATILE ORGANIC COMPOUNDS			Method: SW846 8270D		Prep: SW3510 / 9/3/15		Analyst: RS
1,2,4-Trichlorobenzene	U		6.6	100	µg/L	1	9/3/2015 23:24
1,2-Dichlorobenzene	U		6.6	100	µg/L	1	9/3/2015 23:24
1,3-Dichlorobenzene	U		6.6	100	µg/L	1	9/3/2015 23:24

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *14-Sep-15*

Client: [redacted]
Project:
Sample ID: Oil/Water Vat 1
Collection Date: 8/31/2015

Work Order: 1509085
Lab ID: 1509085-01
Matrix: LIQUID

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dichlorobenzene	U		8.2	100	µg/L	1	9/3/2015 23:24
2,4,5-Trichlorophenol	U		5.8	100	µg/L	1	9/3/2015 23:24
2,4,6-Trichlorophenol	U		5.0	100	µg/L	1	9/3/2015 23:24
2,4-Dichlorophenol	U		3.4	100	µg/L	1	9/3/2015 23:24
2,4-Dimethylphenol	**260**		**3.6**	**100**	**µg/L**	1	9/3/2015 23:24
2,4-Dinitrophenol	U		30	100	µg/L	1	9/3/2015 23:24
2,4-Dinitrotoluene	U		2.8	100	µg/L	1	9/3/2015 23:24
2,6-Dinitrotoluene	U		4.0	100	µg/L	1	9/3/2015 23:24
2-Chloronaphthalene	U		0.60	100	µg/L	1	9/3/2015 23:24
2-Chlorophenol	U		5.8	100	µg/L	1	9/3/2015 23:24
2-Methylnaphthalene	**4.8**	J	**2.0**	**100**	**µg/L**	1	9/3/2015 23:24
2-Methylphenol	U		2.8	100	µg/L	1	9/3/2015 23:24
2-Nitroaniline	U		4.8	100	µg/L	1	9/3/2015 23:24
2-Nitrophenol	U		5.4	100	µg/L	1	9/3/2015 23:24
3&4-Methylphenol	**220**		**4.8**	**100**	**µg/L**	1	9/3/2015 23:24
3,3'-Dichlorobenzidine	U		14	100	µg/L	1	9/3/2015 23:24
3-Nitroaniline	U		4.8	100	µg/L	1	9/3/2015 23:24
4,6-Dinitro-2-methylphenol	U		2.4	100	µg/L	1	9/3/2015 23:24
4-Bromophenyl phenyl ether	U		5.8	100	µg/L	1	9/3/2015 23:24
4-Chloro-3-methylphenol	U		3.2	100	µg/L	1	9/3/2015 23:24
4-Chloroaniline	U		4.4	100	µg/L	1	9/3/2015 23:24
4-Chlorophenyl phenyl ether	U		4.0	100	µg/L	1	9/3/2015 23:24
4-Nitroaniline	U		2.6	100	µg/L	1	9/3/2015 23:24
4-Nitrophenol	U		12	100	µg/L	1	9/3/2015 23:24
Acenaphthene	U		0.82	100	µg/L	1	9/3/2015 23:24
Acenaphthylene	U		0.78	100	µg/L	1	9/3/2015 23:24
Anthracene	U		0.56	100	µg/L	1	9/3/2015 23:24
Benzo(a)anthracene	U		1.4	100	µg/L	1	9/3/2015 23:24
Benzo(a)pyrene	U		0.72	100	µg/L	1	9/3/2015 23:24
Benzo(b)fluoranthene	U		0.86	100	µg/L	1	9/3/2015 23:24
Benzo(g,h,i)perylene	U		1.4	100	µg/L	1	9/3/2015 23:24
Benzo(k)fluoranthene	U		1.2	100	µg/L	1	9/3/2015 23:24
Bis(2-chloroethoxy)methane	U		4.6	100	µg/L	1	9/3/2015 23:24
Bis(2-chloroethyl)ether	U		3.2	100	µg/L	1	9/3/2015 23:24
Bis(2-chloroisopropyl)ether	U		3.8	100	µg/L	1	9/3/2015 23:24
Bis(2-ethylhexyl)phthalate	U		3.6	100	µg/L	1	9/3/2015 23:24
Butyl benzyl phthalate	U		2.4	100	µg/L	1	9/3/2015 23:24
Carbazole	U		2.4	100	µg/L	1	9/3/2015 23:24
Chrysene	U		0.84	100	µg/L	1	9/3/2015 23:24
Dibenzo(a,h)anthracene	U		1.5	100	µg/L	1	9/3/2015 23:24

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: [redacted]
Project:
Sample ID: Oil/water Vat 1
Collection Date: 8/31/2015

Work Order: 1509085
Lab ID: 1509085-01
Matrix: LIQUID

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzofuran	U		4.6	100	µg/L	1	9/3/2015 23:24
Diethyl phthalate	U		3.4	100	µg/L	1	9/3/2015 23:24
Dimethyl phthalate	U		3.0	100	µg/L	1	9/3/2015 23:24
Di-n-butyl phthalate	U		3.0	100	µg/L	1	9/3/2015 23:24
Di-n-octyl phthalate	U		3.0	100	µg/L	1	9/3/2015 23:24
Fluoranthene	U		0.94	100	µg/L	1	9/3/2015 23:24
Fluorene	U		0.72	100	µg/L	1	9/3/2015 23:24
Hexachlorobenzene	U		4.6	100	µg/L	1	9/3/2015 23:24
Hexachlorobutadiene	U		7.4	100	µg/L	1	9/3/2015 23:24
Hexachlorocyclopentadiene	U		3.6	100	µg/L	1	9/3/2015 23:24
Hexachloroethane	U		9.4	100	µg/L	1	9/3/2015 23:24
Indeno(1,2,3-cd)pyrene	U		1.3	100	µg/L	1	9/3/2015 23:24
Isophorone	U		5.0	100	µg/L	1	9/3/2015 23:24
Naphthalene	U		1.0	100	µg/L	1	9/3/2015 23:24
Nitrobenzene	U		4.6	100	µg/L	1	9/3/2015 23:24
N-Nitrosodi-n-propylamine	U		4.8	100	µg/L	1	9/3/2015 23:24
N-Nitrosodiphenylamine	U		4.8	100	µg/L	1	9/3/2015 23:24
Pentachlorophenol	U		10	100	µg/L	1	9/3/2015 23:24
Phenanthrene	U		1.1	100	µg/L	1	9/3/2015 23:24
Phenol	360		2.6	100	µg/L	1	9/3/2015 23:24
Pyrene	U		1.4	100	µg/L	1	9/3/2015 23:24
Surr: 2,4,6-Tribromophenol	*80.0*			*38-115*	*%REC*	1	9/3/2015 23:24
Surr: 2-Fluorobiphenyl	*67.2*			*32-100*	*%REC*	1	9/3/2015 23:24
Surr: 2-Fluorophenol	*42.6*			*22-59*	*%REC*	1	9/3/2015 23:24
Surr: 4-Terphenyl-d14	*83.5*			*23-112*	*%REC*	1	9/3/2015 23:24
Surr: Nitrobenzene-d5	*63.7*			*31-93*	*%REC*	1	9/3/2015 23:24
Surr: Phenol-d6	*31.2*			*13-36*	*%REC*	1	9/3/2015 23:24
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B		Prep: SW5035 / 9/3/15		Analyst: JNJ
1,1,1-Trichloroethane	U		11	30	µg/Kg	1	9/4/2015 17:47
1,1,2,2-Tetrachloroethane	U		13	30	µg/Kg	1	9/4/2015 17:47
1,1,2-Trichloroethane	U		11	30	µg/Kg	1	9/4/2015 17:47
1,1-Dichloroethane	U		11	30	µg/Kg	1	9/4/2015 17:47
1,1-Dichloroethene	U		13	30	µg/Kg	1	9/4/2015 17:47
1,2-Dichloroethane	U		14	30	µg/Kg	1	9/4/2015 17:47
1,2-Dichloropropane	U		9.9	30	µg/Kg	1	9/4/2015 17:47
2-Butanone	U		74	200	µg/Kg	1	9/4/2015 17:47
2-Hexanone	U		7.4	30	µg/Kg	1	9/4/2015 17:47
4-Methyl-2-pentanone	U		10	30	µg/Kg	1	9/4/2015 17:47
Acetone	U		64	100	µg/Kg	1	9/4/2015 17:47

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *14-Sep-15*

Client: [redacted]
Project:
Sample ID: Oil/Water Vat 1
Collection Date: 8/31/2015

Work Order: 1509085
Lab ID: 1509085-01
Matrix: LIQUID

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Benzene	U		12	30	µg/Kg	1	9/4/2015 17:47
Bromodichloromethane	U		6.7	30	µg/Kg	1	9/4/2015 17:47
Bromoform	U		5.9	30	µg/Kg	1	9/4/2015 17:47
Bromomethane	U		11	75	µg/Kg	1	9/4/2015 17:47
Carbon disulfide	U		15	30	µg/Kg	1	9/4/2015 17:47
Carbon tetrachloride	U		8.5	30	µg/Kg	1	9/4/2015 17:47
Chlorobenzene	U		12	30	µg/Kg	1	9/4/2015 17:47
Chloroethane	U		64	100	µg/Kg	1	9/4/2015 17:47
Chloroform	U		12	30	µg/Kg	1	9/4/2015 17:47
Chloromethane	U		17	100	µg/Kg	1	9/4/2015 17:47
cis-1,2-Dichloroethene	U		12	30	µg/Kg	1	9/4/2015 17:47
cis-1,3-Dichloropropene	U		10	30	µg/Kg	1	9/4/2015 17:47
Dibromochloromethane	U		5.6	30	µg/Kg	1	9/4/2015 17:47
Ethylbenzene	U		11	30	µg/Kg	1	9/4/2015 17:47
m,p-Xylene	U		23	60	µg/Kg	1	9/4/2015 17:47
Methylene chloride	U		12	30	µg/Kg	1	9/4/2015 17:47
o-Xylene	U		13	30	µg/Kg	1	9/4/2015 17:47
Styrene	U		11	30	µg/Kg	1	9/4/2015 17:47
Tetrachloroethene	U		13	30	µg/Kg	1	9/4/2015 17:47
Toluene	U		11	30	µg/Kg	1	9/4/2015 17:47
trans-1,2-Dichloroethene	U		9.2	30	µg/Kg	1	9/4/2015 17:47
trans-1,3-Dichloropropene	U		10	30	µg/Kg	1	9/4/2015 17:47
Trichloroethene	U		14	30	µg/Kg	1	9/4/2015 17:47
Vinyl chloride	U		14	30	µg/Kg	1	9/4/2015 17:47
1,2-Dichloroethene, Total	U		21	60	µg/Kg	1	9/4/2015 17:47
1,3-Dichloropropene, Total	U		20	60	µg/Kg	1	9/4/2015 17:47
Xylenes, Total	U		35	90	µg/Kg	1	9/4/2015 17:47
Surr: 1,2-Dichloroethane-d4	*101*			*70-130*	*%REC*	1	9/4/2015 17:47
Surr: 4-Bromofluorobenzene	*99.4*			*70-130*	*%REC*	1	9/4/2015 17:47
Surr: Dibromofluoromethane	*94.8*			*70-130*	*%REC*	1	9/4/2015 17:47
Surr: Toluene-d8	*101*			*70-130*	*%REC*	1	9/4/2015 17:47
CYANIDE, REACTIVE		Method: SW7.3.3.2					Analyst: TVD
Cyanide, Reactive	57	J	23	100	mg/Kg	1	9/2/2015 16:29
FLASHPOINT/IGNITABILITY ANALYSIS		Method: SW1010A					Analyst: EE
Flashpoint/Ignitability	>200		0		°F	1	9/10/2015 11:00
PH		Method: SW9045					Analyst: JB
pH	10.0		0		s.u.	1	9/3/2015 14:30
SULFIDE, REACTIVE		Method: SW7.3.4.2					Analyst: TVD

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *14-Sep-15*

Client: [redacted]
Project:
Sample ID: Oil/Water Vat 1
Collection Date: 8/31/2015

Work Order: 1509085
Lab ID: 1509085-01
Matrix: LIQUID

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Sulfide, Reactive	58	J	52	100	mg/Kg	1	9/2/2015 14:00

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *14-Sep-15*

Client: [redacted]
Project:
Sample ID: Oil/Water Vat 1 (TCLP)
Collection Date: 8/31/2015

Work Order: 1509085
Lab ID: 1509085-02
Matrix: TCLP EXTRACT

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY BY CVAA			Method: SW7470A		Prep: SW7470 / 9/3/15		Analyst: LR
Mercury	U		0.00090	0.010	mg/L	1	9/3/2015 18:04
TCLP METALS ANALYSIS BY ICP			Method: SW846 6010C		Prep: SW3005A / 9/3/15		Analyst: JEC
Arsenic	**0.0097**	J	**0.0028**	**0.010**	**mg/L**	1	9/3/2015 16:19
Barium	**0.014**		**0.0012**	**0.010**	**mg/L**	1	9/3/2015 16:19
Cadmium	U		0.0015	0.020	mg/L	1	9/3/2015 16:19
Chromium	**0.0022**	J	**0.00030**	**0.010**	**mg/L**	1	9/3/2015 16:19
Lead	**0.0051**	J	**0.0038**	**0.010**	**mg/L**	1	9/3/2015 16:19
Selenium	U		0.0084	0.020	mg/L	1	9/3/2015 16:19
Silver	U		0.00076	0.010	mg/L	1	9/3/2015 16:19
TCLP SEMI-VOLATILE ORGANICS			Method: SW8270		Prep: SW3510 / 9/3/15		Analyst: RS
1,4-Dichlorobenzene	U		8.2	100	µg/L	1	9/3/2015 22:59
2,4,5-Trichlorophenol	U		5.8	100	µg/L	1	9/3/2015 22:59
2,4,6-Trichlorophenol	U		5.0	100	µg/L	1	9/3/2015 22:59
2,4-Dinitrotoluene	U		2.8	100	µg/L	1	9/3/2015 22:59
Hexachloro-1,3-butadiene	U		7.4	100	µg/L	1	9/3/2015 22:59
Hexachlorobenzene	U		4.6	100	µg/L	1	9/3/2015 22:59
Hexachloroethane	U		9.4	100	µg/L	1	9/3/2015 22:59
m-Cresol	**200**		**4.8**	**100**	**µg/L**	1	9/3/2015 22:59
Nitrobenzene	U		4.6	100	µg/L	1	9/3/2015 22:59
o-Cresol	U		2.8	100	µg/L	1	9/3/2015 22:59
p-Cresol	**200**		**4.8**	**100**	**µg/L**	1	9/3/2015 22:59
Pentachlorophenol	U		10	400	µg/L	1	9/3/2015 22:59
Pyridine	U		61	400	µg/L	1	9/3/2015 22:59
Surr: 2,4,6-Tribromophenol	*93.4*			*38-115*	*%REC*	1	9/3/2015 22:59
Surr: 2-Fluorobiphenyl	*75.7*			*32-100*	*%REC*	1	9/3/2015 22:59
Surr: 2-Fluorophenol	*50.1*			*22-59*	*%REC*	1	9/3/2015 22:59
Surr: 4-Terphenyl-d14	*89.5*			*23-112*	*%REC*	1	9/3/2015 22:59
Surr: Nitrobenzene-d5	*74.3*			*31-93*	*%REC*	1	9/3/2015 22:59
Surr: Phenol-d6	*32.8*			*13-36*	*%REC*	1	9/3/2015 22:59
TCLP VOLATILE ORGANICS			Method: SW8260B		Leachate: SW1311 / 9/3/15		Analyst: JNJ
1,1-Dichloroethene	U		4.7	20	µg/L	20	9/3/2015 21:18
1,2-Dichloroethane	U		5.3	20	µg/L	20	9/3/2015 21:18
2-Butanone	U		17	100	µg/L	20	9/3/2015 21:18
Benzene	U		5.0	20	µg/L	20	9/3/2015 21:18
Carbon tetrachloride	U		2.8	20	µg/L	20	9/3/2015 21:18
Chlorobenzene	U		3.7	20	µg/L	20	9/3/2015 21:18
Chloroform	U		4.9	20	µg/L	20	9/3/2015 21:18

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *14-Sep-15*

Client: [redacted]
Project:
Sample ID: Oil/Water Vat 1 (TCLP)
Collection Date: 8/31/2015

Work Order: 1509085
Lab ID: 1509085-02
Matrix: TCLP EXTRACT

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Tetrachloroethene	U		4.9	20	µg/L	20	9/3/2015 21:18
Trichloroethene	U		6.9	20	µg/L	20	9/3/2015 21:18
Vinyl chloride	U		3.8	20	µg/L	20	9/3/2015 21:18
Surr: 1,2-Dichloroethane-d4	*104*			*70-130*	*%REC*	20	9/3/2015 21:18
Surr: 4-Bromofluorobenzene	*94.6*			*70-130*	*%REC*	20	9/3/2015 21:18
Surr: Dibromofluoromethane	*100*			*70-130*	*%REC*	20	9/3/2015 21:18
Surr: Toluene-d8	*103*			*70-130*	*%REC*	20	9/3/2015 21:18

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 14-Sep-15

Client: [redacted]

Work Order: 1509085

Project: [redacted]

QC BATCH REPORT

Batch ID: 75587 Instrument ID GC14 Method: SW8082

MBLK	Sample ID: PBLKW1-75587-75587			Units: µg/L			Analysis Date: 9/3/2015 04:03 PM			
Client ID:	Run ID: GC14_150903A			SeqNo: 3446275			Prep Date: 9/3/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	U	0.20								
Aroclor 1221	U	0.20								
Aroclor 1232	U	0.20								
Aroclor 1242	U	0.20								
Aroclor 1248	U	0.20								
Aroclor 1254	U	0.20								
Aroclor 1260	U	0.20								
Surr: Decachlorobiphenyl	*0.088*	0	*0.1*	0	*88*	*40-110*	0			

LCS	Sample ID: PLCSW1-75587-75587			Units: µg/L			Analysis Date: 9/3/2015 04:20 PM			
Client ID:	Run ID: GC14_150903A			SeqNo: 3446276			Prep Date: 9/3/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	1.865	0.20	2.5	0	74.6	50-130	0			
Aroclor 1260	*2.006*	*0.20*	*2.5*	*0*	*80.2*	*50-130*	*0*			
Surr: Decachlorobiphenyl	*0.091*	0	*0.1*	0	*91*	*40-110*	0			

MS	Sample ID: 1509115-01A MS			Units: µg/L			Analysis Date: 9/3/2015 04:52 PM			
Client ID:	Run ID: GC14_150903A			SeqNo: 3446278			Prep Date: 9/3/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	1.741	0.20	2.5	0	69.6	40-140	0			
Aroclor 1260	1.722	0.20	2.5	0	68.9	40-140	0			
Surr: Decachlorobiphenyl	*0.055*	0	*0.1*	0	*55*	*40-110*	0			

DUP	Sample ID: 1509115-02A DUP			Units: µg/L			Analysis Date: 9/3/2015 05:25 PM			
Client ID:	Run ID: GC14_150903A			SeqNo: 3446280			Prep Date: 9/3/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	U	0.20	0	0	0	0-0	0	0	50	
Aroclor 1221	U	0.20	0	0	0	0-0	0	0	50	
Aroclor 1232	U	0.20	0	0	0	0-0	0	0	50	
Aroclor 1242	U	0.20	0	0	0	0-0	0	0	50	
Aroclor 1248	U	0.20	0	0	0	0-0	0	0	50	
Aroclor 1254	U	0.20	0	0	0	0-0	0	0	50	
Aroclor 1260	U	0.20	0	0	0	0-0	0	0	50	
Surr: Decachlorobiphenyl	*0.063*	0	*0.1*	0	*63*	*40-110*	0.063	*0*	*50*	

The following samples were analyzed in this batch: 1509085-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: [redacted]
Work Order: 1509085
Project: [redacted]

QC BATCH REPORT

Batch ID: 75666 Instrument ID GC14 Method: SW8082

MBLK Sample ID: PBLKW1-75666-75666 Units: µg/L Analysis Date: 9/5/2015 01:47 PM
Client ID: Run ID: GC14_150905A SeqNo: 3446995 Prep Date: 9/4/2015 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	U	0.20								
Aroclor 1221	U	0.20								
Aroclor 1232	U	0.20								
Aroclor 1242	U	0.20								
Aroclor 1248	U	0.20								
Aroclor 1254	U	0.20								
Aroclor 1260	U	0.20								
Surr: Decachlorobiphenyl	*0.089*	0	*0.1*	0	*89*	*40-110*	0			

LCS Sample ID: PLCSW1-75666-75666 Units: µg/L Analysis Date: 9/5/2015 02:03 PM
Client ID: Run ID: GC14_150905A SeqNo: 3446996 Prep Date: 9/4/2015 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	1.698	0.20	2.5	0	67.9	50-130	0			
Aroclor 1260	1.982	0.20	2.5	0	79.3	50-130	0			
Surr: Decachlorobiphenyl	*0.085*	0	*0.1*	0	*85*	*40-110*	0			

MS Sample ID: 1509181-01A MS Units: µg/L Analysis Date: 9/5/2015 02:37 PM
Client ID: Run ID: GC14_150905A SeqNo: 3446998 Prep Date: 9/4/2015 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	1.785	0.20	2.5	0	71.4	40-140	0			
Aroclor 1260	2.091	0.20	2.5	0	83.6	40-140	0			
Surr: Decachlorobiphenyl	*0.088*	0	*0.1*	0	*88*	*40-110*	0			

DUP Sample ID: 1509181-02A DUP Units: µg/L Analysis Date: 9/5/2015 03:10 PM
Client ID: Run ID: GC14_150905A SeqNo: 3447000 Prep Date: 9/4/2015 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	U	0.20	0	0	0	0-0	0	0	50	
Aroclor 1221	U	0.20	0	0	0	0-0	0	0	50	
Aroclor 1232	U	0.20	0	0	0	0-0	0	0	50	
Aroclor 1242	U	0.20	0	0	0	0-0	0	0	50	
Aroclor 1248	U	0.20	0	0	0	0-0	0	0	50	
Aroclor 1254	U	0.20	0	0	0	0-0	0	0	50	
Aroclor 1260	U	0.20	0	0	0	0-0	0	0	50	
Surr: Decachlorobiphenyl	*0.082*	0	*0.1*	0	*82*	*40-110*	0.082	*0*	*50*	

The following samples were analyzed in this batch: 1509085-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: [redacted]
Work Order: 1509085
Project: [redacted]

QC BATCH REPORT

Batch ID: 75608 Instrument ID HG1 Method: SW7470 (Dissolve)

MBLK	Sample ID: MBLK-75582-75608			Units: mg/L			Analysis Date: 9/3/2015 05:34 PM			
Client ID:	Run ID: HG1_150903A			SeqNo: 3445397			Prep Date: 9/3/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.00020								

MBLK	Sample ID: MBLK-75608-75608			Units: mg/L			Analysis Date: 9/3/2015 05:39 PM			
Client ID:	Run ID: HG1_150903A			SeqNo: 3446399			Prep Date: 9/3/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.00020								

LCS	Sample ID: LCS-75582-75608			Units: mg/L			Analysis Date: 9/3/2015 05:36 PM			
Client ID:	Run ID: HG1_150903A			SeqNo: 3445398			Prep Date: 9/3/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.002038	0.00020	0.002	0	102	80-120		0		

LCS	Sample ID: LCS-75608-75608			Units: mg/L			Analysis Date: 9/3/2015 05:41 PM			
Client ID:	Run ID: HG1_150903A			SeqNo: 3445400			Prep Date: 9/3/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.002041	0.00020	0.002	0	102	80-120		0		

MS	Sample ID: 1509080-01AMS			Units: mg/L			Analysis Date: 9/3/2015 05:50 PM			
Client ID:	Run ID: HG1_150903A			SeqNo: 3445404			Prep Date: 9/3/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.01873	0.0020	0.02	-0.00023	94.8	75-125		0		

MSD	Sample ID: 1509080-01AMSD			Units: mg/L			Analysis Date: 9/3/2015 05:52 PM			
Client ID:	Run ID: HG1_150903A			SeqNo: 3445405			Prep Date: 9/3/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.01935	0.0020	0.02	-0.00023	97.9	75-125	0.01873	3.26	20	

The following samples were analyzed in this batch: 1509085-01B 1509085-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: [redacted]
Work Order: 1509085
Project: [redacted]

QC BATCH REPORT

Batch ID: 75600 Instrument ID ICP2 Method: SW846 6010C

MBLK Sample ID: MBLK-75600-75600 Units: mg/L Analysis Date: 9/3/2015 01:51 PM
Client ID: Run ID: ICP2_150903A SeqNo: 3444459 Prep Date: 9/3/2015 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.001015	0.010								J
Antimony	U	0.0050								
Arsenic	U	0.0050								
Barium	U	0.0050								
Beryllium	0.0002758	0.0020								J
Cadmium	U	0.010								
Calcium	U	0.50								
Chromium	U	0.0050								
Cobalt	U	0.0050								
Copper	0.001085	0.010								J
Iron	U	0.080								
Lead	U	0.0050								
Magnesium	U	0.20								
Manganese	U	0.0050								
Nickel	U	0.0050								
Potassium	U	0.20								
Selenium	U	0.010								
Silver	U	0.0050								
Sodium	U	0.20								
Thallium	U	0.010								
Vanadium	0.0005136	0.0050								J
Zinc	U	0.010								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: [redacted]
Work Order: 1509085
Project: [redacted]

QC BATCH REPORT

Batch ID: 75600 Instrument ID ICP2 Method: SW846 6010C

LCS	Sample ID: LCS-75600-75600				Units: mg/L			Analysis Date: 9/3/2015 01:57 PM		
Client ID:	Run ID: ICP2_150903A				SeqNo: 3444460			Prep Date: 9/3/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1086	0.010	0.1	0	109	80-120	0			
Antimony	0.1082	0.0050	0.1	0	108	80-120	0			
Arsenic	0.1002	0.0050	0.1	0	100	80-120	0			
Barium	0.1023	0.0050	0.1	0	102	80-120	0			
Beryllium	0.09435	0.0020	0.1	0	94.4	80-120	0			
Cadmium	0.09344	0.010	0.1	0	93.4	80-120	0			
Calcium	9.503	0.50	10	0	95	80-120	0			
Chromium	0.09778	0.0050	0.1	0	97.8	80-120	0			
Cobalt	0.09727	0.0050	0.1	0	97.3	80-120	0			
Copper	0.1086	0.010	0.1	0	109	80-120	0			
Iron	10.42	0.080	10	0	104	80-120	0			
Lead	0.09932	0.0050	0.1	0	99.3	80-120	0			
Magnesium	10.41	0.20	10	0	104	80-120	0			
Manganese	0.09811	0.0050	0.1	0	98.1	80-120	0			
Nickel	0.1058	0.0050	0.1	0	106	80-120	0			
Potassium	10.46	0.20	10	0	105	80-120	0			
Selenium	0.1024	0.010	0.1	0	102	80-120	0			
Silver	0.1052	0.0050	0.1	0	105	80-120	0			
Sodium	11.06	0.20	10	0	111	80-120	0			
Thallium	0.1143	0.010	0.1	0	114	80-120	0			
Vanadium	0.09644	0.0050	0.1	0	96.4	80-120	0			
Zinc	0.09012	0.010	0.1	0	90.1	80-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: [redacted]
Work Order: 1509085
Project: [redacted]

QC BATCH REPORT

Batch ID: 75600 Instrument ID ICP2 Method: SW846 6010C

MS Sample ID: 1509085-01BMS Units: mg/L Analysis Date: 9/3/2015 02:08 PM
Client ID: Oil/Water Vat 1 Run ID: ICP2_150903A SeqNo: 3444462 Prep Date: 9/3/2015 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	2.832	0.020	0.2	2.172	330	75-125	0			SO
Antimony	0.2171	0.010	0.2	0.006415	105	75-125	0			
Arsenic	0.2454	0.010	0.2	0.0317	107	75-125	0			
Barium	0.2626	0.010	0.2	0.06562	98.5	75-125	0			
Beryllium	0.189	0.0040	0.2	0.001195	93.9	75-125	0			
Cadmium	0.1877	0.020	0.2	-0.003236	95.5	75-125	0			
Calcium	29.2	1.0	20	11.63	87.9	75-125	0			
Chromium	0.223	0.010	0.2	0.01862	102	75-125	0			
Cobalt	0.1917	0.010	0.2	0.004179	93.8	75-125	0			
Copper	0.3232	0.020	0.2	0.1175	103	75-125	0			
Iron	372.5	0.16	20	340.1	162	75-125	0			SO
Lead	0.1704	0.010	0.2	-0.01705	93.7	75-125	0			
Magnesium	53.53	0.40	20	33.46	100	75-125	0			
Manganese	3.417	0.010	0.2	3.183	117	75-125	0			O
Nickel	0.6428	0.010	0.2	0.4274	108	75-125	0			
Potassium	33.41	0.40	20	12.01	107	75-125	0			
Selenium	0.1779	0.020	0.2	0.01068	83.6	75-125	0			
Silver	0.2156	0.010	0.2	0.0008132	107	75-125	0			
Sodium	210.5	0.40	20	196	72.8	75-125	0			SO
Thallium	0.4307	0.020	0.2	0.1995	116	75-125	0			
Vanadium	0.2064	0.010	0.2	0.01436	96	75-125	0			
Zinc	0.2157	0.020	0.2	0.0572	79.3	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: [redacted]
Work Order: 1509085
Project: [redacted]

QC BATCH REPORT

Batch ID: 75600 Instrument ID ICP2 Method: SW846 6010C

MSD	Sample ID: 1509085-01BMSD					Units: mg/L		Analysis Date: 9/3/2015 02:13 PM			
Client ID: Oil/Water Vat 1		Run ID: ICP2_150903A				SeqNo: 3444463		Prep Date: 9/3/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	3.04	0.020	0.2	2.172	434	75-125	2.832	7.07	20	SO
Antimony	0.2267	0.010	0.2	0.006415	110	75-125	0.2171	4.35	20	
Arsenic	0.248	0.010	0.2	0.0317	108	75-125	0.2454	1.05	20	
Barium	0.2814	0.010	0.2	0.06562	108	75-125	0.2626	6.89	20	
Beryllium	0.1926	0.0040	0.2	0.001195	95.7	75-125	0.189	1.86	20	
Cadmium	0.1916	0.020	0.2	-0.003236	97.4	75-125	0.1877	2.09	20	
Calcium	31.99	1.0	20	11.63	102	75-125	29.2	9.1	20	
Chromium	0.2291	0.010	0.2	0.01862	105	75-125	0.223	2.7	20	
Cobalt	0.1962	0.010	0.2	0.004179	96	75-125	0.1917	2.32	20	
Copper	0.3504	0.020	0.2	0.1175	116	75-125	0.3232	8.1	20	
Iron	387.3	0.16	20	340.1	236	75-125	372.5	3.9	20	SO
Lead	0.1863	0.010	0.2	-0.01705	102	75-125	0.1704	8.92	20	
Magnesium	55.97	0.40	20	33.46	113	75-125	53.53	4.46	20	
Manganese	3.541	0.010	0.2	3.183	179	75-125	3.417	3.56	20	SO
Nickel	0.6617	0.010	0.2	0.4274	117	75-125	0.6428	2.89	20	
Potassium	34.34	0.40	20	12.01	112	75-125	33.41	2.75	20	
Selenium	0.1793	0.020	0.2	0.01068	84.3	75-125	0.1779	0.809	20	
Silver	0.2194	0.010	0.2	0.0008132	109	75-125	0.2156	1.74	20	
Sodium	219.5	0.40	20	196	118	75-125	210.5	4.19	20	O
Thallium	0.4364	0.020	0.2	0.1995	118	75-125	0.4307	1.32	20	
Vanadium	0.2094	0.010	0.2	0.01436	97.5	75-125	0.2064	1.42	20	
Zinc	0.2956	0.020	0.2	0.0572	119	75-125	0.2157	31.2	20	R

The following samples were analyzed in this batch: 1509085-01B 1509085-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Client: [redacted]
Work Order: 1509085
Project: [redacted]

Batch ID: 75585 Instrument ID SVMS4 Method: SW8270

MBLK Sample ID: SBLKW1-75585-75585 Units: µg/L Analysis Date: 9/3/2015 04:37 PM
Client ID: Run ID: SVMS4_150903A SeqNo: 3445724 Prep Date: 9/3/2015 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	U	5.0								
2,4,5-Trichlorophenol	U	5.0								
2,4,6-Trichlorophenol	U	5.0								
2,4-Dinitrotoluene	U	5.0								
Hexachloro-1,3-butadiene	U	5.0								
Hexachlorobenzene	U	5.0								
Hexachloroethane	U	5.0								
m-Cresol	U	5.0								
Nitrobenzene	U	5.0								
o-Cresol	U	5.0								
p-Cresol	U	5.0								
Pentachlorophenol	U	20								
Pyridine	U	20								
Surr: 2,4,6-Tribromophenol	*34.93*	0	*50*	0	*69.9*	*38-115*		0		
Surr: 2-Fluorobiphenyl	*32.86*	0	*50*	0	*65.7*	*32-100*		0		
Surr: 2-Fluorophenol	*22.48*	0	*50*	0	*45*	*22-59*		0		
Surr: 4-Terphenyl-d14	*43.32*	0	*50*	0	*86.6*	*23-112*		0		
Surr: Nitrobenzene-d5	*33.27*	0	*50*	0	*66.5*	*31-93*		0		
Surr: Phenol-d6	*13.57*	0	*50*	0	*27.1*	*13-36*		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: [redacted]
Work Order: 1509085
Project: [redacted]

QC BATCH REPORT

Batch ID: 75585 Instrument ID SVMS4 Method: SW8270

LCS	Sample ID: SLCSW1-75585-75585				Units: µg/L				Analysis Date: 9/3/2015 05:03 PM	
Client ID:	Run ID: SVMS4_150903A				SeqNo: 3445725		Prep Date: 9/3/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	13.65	5.0	20	0	68.2	30-110		0		
2,4,5-Trichlorophenol	16.14	5.0	20	0	80.7	50-110		0		
2,4,6-Trichlorophenol	17.41	5.0	20	0	87	50-115		0		
2,4-Dinitrotoluene	18.92	5.0	20	0	94.6	50-120		0		
Hexachloro-1,3-butadiene	13.27	5.0	20	0	66.4	25-105		0		
Hexachlorobenzene	17.5	5.0	20	0	87.5	50-110		0		
Hexachloroethane	13.36	5.0	20	0	66.8	30-95		0		
m-Cresol	12.95	5.0	20	0	64.8	30-110		0		
Nitrobenzene	15.33	5.0	20	0	76.6	45-110		0		
o-Cresol	13.58	5.0	20	0	67.9	40-110		0		
p-Cresol	12.95	5.0	20	0	64.8	30-110		0		
Pentachlorophenol	15.14	20	20	0	75.7	40-115		0		J
Pyridine	7.53	20	20	0	37.6	10-71		0		J
Surr: 2,4,6-Tribromophenol	*42.74*	0	*50*	0	*85.5*	*38-115*		0		
Surr: 2-Fluorobiphenyl	*38.75*	0	*50*	0	*77.5*	*32-100*		0		
Surr: 2-Fluorophenol	*23.52*	0	*50*	0	*47*	*22-59*		0		
Surr: 4-Terphenyl-d14	*42.83*	0	*50*	0	*85.7*	*23-112*		0		
Surr: Nitrobenzene-d5	*40.25*	0	*50*	0	*80.5*	*31-93*		0		
Surr: Phenol-d6	*15.01*	0	*50*	0	*30*	*13-36*		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: [redacted]
Work Order: 1509085
Project: [redacted]

QC BATCH REPORT

Batch ID: 75585 Instrument ID SVMS4 Method: SW8270

MS Sample ID: 1509123-04B MS Units: µg/L Analysis Date: 9/4/2015 12:49 PM
Client ID: Run ID: SVMS4_150904A SeqNo: 3446765 Prep Date: 9/3/2015 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	11.89	5.0	20	0	59.4	30-110	0			
2,4,5-Trichlorophenol	14.86	5.0	20	0	74.3	50-110	0			
2,4,6-Trichlorophenol	14.1	5.0	20	0	70.5	50-115	0			
2,4-Dinitrotoluene	17.7	5.0	20	0	88.5	50-120	0			
Hexachloro-1,3-butadiene	11.62	5.0	20	0	58.1	25-105	0			
Hexachlorobenzene	16.21	5.0	20	0	81	50-110	0			
Hexachloroethane	11.14	5.0	20	0	55.7	30-95	0			
m-Cresol	9.69	5.0	20	0	48.4	30-110	0			
Nitrobenzene	11.52	5.0	20	0	57.6	45-110	0			
o-Cresol	10.39	5.0	20	0	52	40-110	0			
p-Cresol	9.69	5.0	20	0	48.4	30-110	0			
Pentachlorophenol	18.79	20	20	0	94	40-115	0			J
Pyridine	3.95	20	20	0	19.8	10-80	0			J
Surr: 2,4,6-Tribromophenol	*42.39*	0	*50*	0	*84.8*	*38-115*	0			
Surr: 2-Fluorobiphenyl	*29.81*	0	*50*	0	*59.6*	*32-100*	0			
Surr: 2-Fluorophenol	*17.05*	0	*50*	0	*34.1*	*22-59*	0			
Surr: 4-Terphenyl-d14	*36.22*	0	*50*	0	*72.4*	*23-112*	0			
Surr: Nitrobenzene-d5	*31.22*	0	*50*	0	*62.4*	*31-93*	0			
Surr: Phenol-d6	*10.73*	0	*50*	0	*21.5*	*13-36*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: [redacted]
Work Order: 1509085
Project: [redacted]

QC BATCH REPORT

Batch ID: 75585 Instrument ID SVMS4 Method: SW8270

DUP Sample ID: 1509123-06B DUP Units: µg/L Analysis Date: 9/4/2015 02:04 PM
Client ID: Run ID: SVMS4_150904A SeqNo: 3446768 Prep Date: 9/3/2015 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	U	5.0	0	0	0		0	0	20	
2,4,5-Trichlorophenol	U	5.0	0	0	0		0	0	20	
2,4,6-Trichlorophenol	U	5.0	0	0	0		0	0	20	
2,4-Dinitrotoluene	U	5.0	0	0	0		0	0	20	
Hexachloro-1,3-butadiene	U	5.0	0	0	0		0	0	20	
Hexachlorobenzene	U	5.0	0	0	0		0	0	20	
Hexachloroethane	U	5.0	0	0	0		0	0	20	
m-Cresol	U	5.0	0	0	0		0	0	20	
Nitrobenzene	U	5.0	0	0	0		0	0	20	
o-Cresol	U	5.0	0	0	0		0	0	20	
p-Cresol	U	5.0	0	0	0		0	0	20	
Pentachlorophenol	U	20	0	0	0		0	0	20	
Pyridine	U	20	0	0	0		0	0	20	
Surr: 2,4,6-Tribromophenol	*34*	0	*0*	0	*0*		34.38	*1.11*	*20*	
Surr: 2-Fluorobiphenyl	*27*	0	*0*	0	*0*		26.88	*0.445*	*20*	
Surr: 2-Fluorophenol	*15.52*	0	*0*	0	*0*		12.89	*18.5*	*20*	
Surr: 4-Terphenyl-d14	*32.49*	*0*	*0*	*0*	*0*		*33.53*	*3.15*	*20*	
Surr: Nitrobenzene-d5	*28.19*	0	*0*	0	*0*		*27*	*4.31*	*20*	
Surr: Phenol-d6	*9.84*	0	*0*	0	*0*		8.3	*17*	*20*	

The following samples were analyzed in this batch: 1509085-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: [redacted]
Work Order: 1509085
Project: [redacted]

QC BATCH REPORT

Batch ID: 75586 Instrument ID SVMS4 Method: SW846 8270D

MBLK Sample ID: SBLKW1-75586-75586 Units: µg/L Analysis Date: 9/3/2015 04:37 PM
Client ID: Run ID: SVMS4_150903A SeqNo: 3445758 Prep Date: 9/3/2015 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	U	5.0								
1,2-Dichlorobenzene	U	5.0								
1,3-Dichlorobenzene	U	5.0								
1,4-Dichlorobenzene	U	5.0								
2,4,5-Trichlorophenol	U	5.0								
2,4,6-Trichlorophenol	U	5.0								
2,4-Dichlorophenol	U	5.0								
2,4-Dimethylphenol	U	5.0								
2,4-Dinitrophenol	U	5.0								
2,4-Dinitrotoluene	U	5.0								
2,6-Dinitrotoluene	U	5.0								
2-Chloronaphthalene	U	5.0								
2-Chlorophenol	U	5.0								
2-Methylnaphthalene	U	5.0								
2-Methylphenol	U	5.0								
2-Nitroaniline	U	5.0								
2-Nitrophenol	U	5.0								
3&4-Methylphenol	U	5.0								
3,3'-Dichlorobenzidine	U	5.0								
3-Nitroaniline	U	5.0								
4,6-Dinitro-2-methylphenol	U	5.0								
4-Bromophenyl phenyl ether	U	5.0								
4-Chloro-3-methylphenol	U	5.0								
4-Chloroaniline	U	5.0								
4-Chlorophenyl phenyl ether	U	5.0								
4-Nitroaniline	U	5.0								
4-Nitrophenol	U	5.0								
Acenaphthene	U	5.0								
Acenaphthylene	U	5.0								
Anthracene	U	5.0								
Benzo(a)anthracene	U	5.0								
Benzo(a)pyrene	U	5.0								
Benzo(b)fluoranthene	U	5.0								
Benzo(g,h,i)perylene	U	5.0								
Benzo(k)fluoranthene	U	5.0								
Bis(2-chloroethoxy)methane	U	5.0								
Bis(2-chloroethyl)ether	U	5.0								
Bis(2-chloroisopropyl)ether	U	5.0								
Bis(2-ethylhexyl)phthalate	U	5.0								
Butyl benzyl phthalate	U	5.0								
Carbazole	U	5.0								
Chrysene	U	5.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: 75586 Instrument ID SVMS4 Method: SW846 8270D

Dibenzo(a,h)anthracene	U	5.0						
Dibenzofuran	U	5.0						
Diethyl phthalate	U	5.0						
Dimethyl phthalate	0.59	5.0						J
Di-n-butyl phthalate	U	5.0						
Di-n-octyl phthalate	U	5.0						
Fluoranthene	U	5.0						
Fluorene	U	5.0						
Hexachlorobenzene	U	5.0						
Hexachlorobutadiene	U	5.0						
Hexachlorocyclopentadiene	U	5.0						
Hexachloroethane	U	5.0						
Indeno(1,2,3-cd)pyrene	U	5.0						
Isophorone	U	5.0						
Naphthalene	U	5.0						
Nitrobenzene	U	5.0						
N-Nitrosodi-n-propylamine	U	5.0						
N-Nitrosodiphenylamine	U	5.0						
Pentachlorophenol	U	5.0						
Phenanthrene	U	5.0						
Phenol	U	5.0						
Pyrene	U	5.0						
Surr: 2,4,6-Tribromophenol	*34.93*	0	*50*	0	*69.9*	*38-115*	0	
Surr: 2-Fluorobiphenyl	*32.86*	0	*50*	0	*65.7*	*32-100*	0	
Surr: 2-Fluorophenol	*22.48*	0	*50*	0	*45*	*22-59*	0	
Surr: 4-Terphenyl-d14	*43.32*	0	*50*	0	*86.6*	*23-112*	0	
Surr: Nitrobenzene-d5	*33.27*	0	*50*	0	*66.5*	*31-93*	0	
Surr: Phenol-d6	*13.57*	0	*50*	0	*27.1*	*13-36*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: [redacted]
Work Order: 1509085
Project: [redacted]

QC BATCH REPORT

Batch ID: 75586 Instrument ID SVMS4 Method: SW846 8270D

LCS Sample ID: SLCSW1-75586-75586 Units: µg/L Analysis Date: 9/3/2015 05:03 PM
Client ID: Run ID: SVMS4_150903A SeqNo: 3445759 Prep Date: 9/3/2015 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	13.96	5.0	20	0	69.8	35-105		0		
1,2-Dichlorobenzene	13.52	5.0	20	0	67.6	35-100		0		
1,3-Dichlorobenzene	13.18	5.0	20	0	65.9	30-100		0		
1,4-Dichlorobenzene	13.65	5.0	20	0	68.2	30-100		0		
2,4,5-Trichlorophenol	16.14	5.0	20	0	80.7	50-110		0		
2,4,6-Trichlorophenol	17.41	5.0	20	0	87	50-115		0		
2,4-Dichlorophenol	15.44	5.0	20	0	77.2	50-105		0		
2,4-Dimethylphenol	15.28	5.0	20	0	76.4	30-110		0		
2,4-Dinitrophenol	13.87	5.0	20	0	69.4	15-140		0		
2,4-Dinitrotoluene	18.92	5.0	20	0	94.6	50-120		0		
2,6-Dinitrotoluene	18.11	5.0	20	0	90.6	50-115		0		
2-Chloronaphthalene	16.06	5.0	20	0	80.3	50-105		0		
2-Chlorophenol	14.81	5.0	20	0	74	35-105		0		
2-Methylnaphthalene	14.87	5.0	20	0	74.4	45-105		0		
2-Methylphenol	13.58	5.0	20	0	67.9	40-110		0		
2-Nitroaniline	18.27	5.0	20	0	91.4	50-115		0		
2-Nitrophenol	14.32	5.0	20	0	71.6	40-115		0		
3&4-Methylphenol	12.95	5.0	20	0	64.8	30-110		0		
3,3'-Dichlorobenzidine	16.23	5.0	20	0	81.2	30-120		0		
3-Nitroaniline	18.99	5.0	20	0	95	20-125		0		
4,6-Dinitro-2-methylphenol	17.33	5.0	20	0	86.6	40-130		0		
4-Bromophenyl phenyl ether	16.94	5.0	20	0	84.7	50-115		0		
4-Chloro-3-methylphenol	16.23	5.0	20	0	81.2	45-110		0		
4-Chloroaniline	14.66	5.0	20	0	73.3	15-110		0		
4-Chlorophenyl phenyl ether	16.37	5.0	20	0	81.8	50-110		0		
4-Nitroaniline	18.86	5.0	20	0	94.3	35-150		0		
4-Nitrophenol	6.5	5.0	20	0	32.5	10-58		0		
Acenaphthene	16.17	5.0	20	0	80.8	45-110		0		
Acenaphthylene	15.91	5.0	20	0	79.6	50-105		0		
Anthracene	17.33	5.0	20	0	86.6	55-110		0		
Benzo(a)anthracene	18.77	5.0	20	0	93.8	55-110		0		
Benzo(a)pyrene	18.95	5.0	20	0	94.8	55-110		0		
Benzo(b)fluoranthene	18.89	5.0	20	0	94.4	45-120		0		
Benzo(g,h,i)perylene	18.74	5.0	20	0	93.7	40-125		0		
Benzo(k)fluoranthene	19.32	5.0	20	0	96.6	45-125		0		
Bis(2-chloroethoxy)methane	15.2	5.0	20	0	76	45-105		0		
Bis(2-chloroethyl)ether	15.59	5.0	20	0	78	35-110		0		
Bis(2-chloroisopropyl)ether	17.48	5.0	20	0	87.4	25-130		0		
Bis(2-ethylhexyl)phthalate	19.5	5.0	20	0	97.5	40-125		0		
Butyl benzyl phthalate	18.47	5.0	20	0	92.4	45-115		0		
Carbazole	19.47	5.0	20	0	97.4	50-150		0		
Chrysene	19.28	5.0	20	0	96.4	55-110		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: 75586 Instrument ID SVMS4 Method: SW846 8270D

Dibenzo(a,h)anthracene	17.92	5.0	20	0	89.6	40-125	0
Dibenzofuran	16.45	5.0	20	0	82.2	55-105	0
Diethyl phthalate	19.02	5.0	20	0	95.1	40-120	0
Dimethyl phthalate	18.69	5.0	20	0	93.4	25-125	0
Di-n-butyl phthalate	19.74	5.0	20	0	98.7	55-115	0
Di-n-octyl phthalate	18.79	5.0	20	0	94	35-135	0
Fluoranthene	18.72	5.0	20	0	93.6	55-115	0
Fluorene	16.56	5.0	20	0	82.8	50-110	0
Hexachlorobenzene	17.5	5.0	20	0	87.5	50-110	0
Hexachlorobutadiene	13.27	5.0	20	0	66.4	25-105	0
Hexachlorocyclopentadiene	10.15	5.0	20	0	50.8	25-105	0
Hexachloroethane	13.36	5.0	20	0	66.8	30-95	0
Indeno(1,2,3-cd)pyrene	17.66	5.0	20	0	88.3	45-125	0
Isophorone	16.34	5.0	20	0	81.7	50-110	0
Naphthalene	14.94	5.0	20	0	74.7	40-100	0
Nitrobenzene	15.33	5.0	20	0	76.6	45-110	0
N-Nitrosodi-n-propylamine	17.18	5.0	20	0	85.9	35-130	0
N-Nitrosodiphenylamine	17.78	5.0	20	0	88.9	50-110	0
Pentachlorophenol	15.14	5.0	20	0	75.7	40-115	0
Phenanthrene	17.45	5.0	20	0	87.2	50-115	0
Phenol	6.51	5.0	20	0	32.6	12-43	0
Pyrene	18.86	5.0	20	0	94.3	50-130	0
Surr: 2,4,6-Tribromophenol	*42.74*	0	*50*	0	*85.5*	*38-115*	0
Surr: 2-Fluorobiphenyl	*38.75*	0	*50*	0	*77.5*	*32-100*	0
Surr: 2-Fluorophenol	*23.52*	0	*50*	0	*47*	*22-59*	0
Surr: 4-Terphenyl-d14	*42.83*	0	*50*	0	*85.7*	*23-112*	0
Surr: Nitrobenzene-d5	*40.25*	0	*50*	0	*80.5*	*31-93*	0
Surr: Phenol-d6	*15.01*	0	*50*	0	*30*	*13-36*	0

Client: [redacted]
Work Order: 1509085
Project: [redacted]

QC BATCH REPORT

Batch ID: 75586 Instrument ID SVMS4 Method: SW846 8270D

MS Sample ID: 1509123-04B MS Units: µg/L Analysis Date: 9/4/2015 12:49 PM
Client ID: Run ID: SVMS4_150904A SeqNo: 3446753 Prep Date: 9/3/2015 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	11.09	5.0	20	0	55.4	35-105		0		
1,2-Dichlorobenzene	11.1	5.0	20	0	55.5	35-100		0		
1,3-Dichlorobenzene	11.18	5.0	20	0	55.9	30-100		0		
1,4-Dichlorobenzene	11.89	5.0	20	0	59.4	30-100		0		
2,4,5-Trichlorophenol	14.86	5.0	20	0	74.3	50-110		0		
2,4,6-Trichlorophenol	14.1	5.0	20	0	70.5	50-115		0		
2,4-Dichlorophenol	12.36	5.0	20	0	61.8	50-105		0		
2,4-Dimethylphenol	12.22	5.0	20	0	61.1	30-110		0		
2,4-Dinitrophenol	18.77	5.0	20	0	93.8	15-140		0		
2,4-Dinitrotoluene	17.7	5.0	20	0	88.5	50-120		0		
2,6-Dinitrotoluene	15.78	5.0	20	0	78.9	50-115		0		
2-Chloronaphthalene	12.66	5.0	20	0	63.3	50-105		0		
2-Chlorophenol	11.89	5.0	20	0	59.4	35-105		0		
2-Methylnaphthalene	12.27	5.0	20	0	61.4	45-105		0		
2-Methylphenol	10.39	5.0	20	0	52	40-110		0		
2-Nitroaniline	16.39	5.0	20	0	82	50-115		0		
2-Nitrophenol	11.76	5.0	20	0	58.8	40-115		0		
3&4-Methylphenol	9.69	5.0	20	0	48.4	30-110		0		
3,3'-Dichlorobenzidine	11.56	5.0	20	0	57.8	30-120		0		
3-Nitroaniline	16.59	5.0	20	0	83	20-125		0		
4,6-Dinitro-2-methylphenol	16.92	5.0	20	0	84.6	40-130		0		
4-Bromophenyl phenyl ether	16.11	5.0	20	0	80.6	50-115		0		
4-Chloro-3-methylphenol	14.42	5.0	20	0	72.1	45-110		0		
4-Chloroaniline	11.23	5.0	20	0	56.2	15-110		0		
4-Chlorophenyl phenyl ether	14.24	5.0	20	0	71.2	50-110		0		
4-Nitroaniline	17.7	5.0	20	0	88.5	35-150		0		
4-Nitrophenol	6.72	5.0	20	0	33.6	1-58		0		
Acenaphthene	13.63	5.0	20	0	68.2	45-110		0		
Acenaphthylene	13.56	5.0	20	0	67.8	50-105		0		
Anthracene	16.8	5.0	20	0	84	55-110		0		
Benzo(a)anthracene	18.51	5.0	20	0	92.6	55-110		0		
Benzo(a)pyrene	18.59	5.0	20	0	93	55-110		0		
Benzo(b)fluoranthene	19.38	5.0	20	0	96.9	45-120		0		
Benzo(g,h,i)perylene	17.41	5.0	20	0	87	40-125		0		
Benzo(k)fluoranthene	18.81	5.0	20	0	94	45-125		0		
Bis(2-chloroethoxy)methane	11.95	5.0	20	0	59.8	45-105		0		
Bis(2-chloroethyl)ether	11.88	5.0	20	0	59.4	35-110		0		
Bis(2-chloroisopropyl)ether	12.92	5.0	20	0	64.6	25-130		0		
Bis(2-ethylhexyl)phthalate	19.34	5.0	20	0.57	93.8	40-125		0		
Butyl benzyl phthalate	19.04	5.0	20	0	95.2	45-115		0		
Carbazole	18.79	5.0	20	0	94	50-150		0		
Chrysene	18.55	5.0	20	0	92.8	55-110		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: 75586 Instrument ID SVMS4 Method: SW846 8270D

Dibenzo(a,h)anthracene	17.5	5.0	20	0	87.5	40-125	0	
Dibenzofuran	13.82	5.0	20	0	69.1	55-105	0	
Diethyl phthalate	17.63	5.0	20	0	89.2	40-120	0	
Dimethyl phthalate	17.43	5.0	20	0.63	84	25-125	0	
Di-n-butyl phthalate	18.75	5.0	20	0	93.8	55-115	0	
Di-n-octyl phthalate	20.54	5.0	20	0	103	35-135	0	
Fluoranthene	18.24	5.0	20	0	91.2	55-115	0	
Fluorene	14.89	5.0	20	0	74.4	50-110	0	
Hexachlorobenzene	16.21	5.0	20	0	81	50-110	0	
Hexachlorobutadiene	11.62	5.0	20	0	58.1	25-105	0	
Hexachlorocyclopentadiene	8.13	5.0	20	0	40.6	25-105	0	
Hexachloroethane	11.14	5.0	20	0	55.7	30-95	0	
Indeno(1,2,3-cd)pyrene	17.42	5.0	20	0	87.1	45-125	0	
Isophorone	12.21	5.0	20	0	61	50-110	0	
Naphthalene	11.71	5.0	20	0	58.6	40-100	0	
Nitrobenzene	11.52	5.0	20	0	57.6	45-110	0	
N-Nitrosodi-n-propylamine	13.33	5.0	20	0	66.6	35-130	0	
N-Nitrosodiphenylamine	16.91	5.0	20	0	84.6	50-110	0	
Pentachlorophenol	18.79	5.0	20	0	94	40-115	0	
Phenanthrene	16.9	5.0	20	0	84.5	50-115	0	
Phenol	4.86	5.0	20	0	24.3	12-43	0	J
Pyrene	18.95	5.0	20	0	94.8	50-130	0	
Surr: 2,4,6-Tribromophenol	*42.39*	0	*50*	0	*84.8*	*38-115*	0	
Surr: 2-Fluorobiphenyl	*29.81*	0	*50*	0	*59.6*	*32-100*	0	
Surr: 2-Fluorophenol	*17.05*	0	*50*	0	*34.1*	*22-59*	0	
Surr: 4-Terphenyl-d14	*36.22*	0	*50*	0	*72.4*	*23-112*	0	
Surr: Nitrobenzene-d5	*31.22*	0	*50*	0	*62.4*	*31-93*	0	
Surr: Phenol-d6	*10.73*	0	*50*	0	*21.5*	*13-36*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: [redacted]
Work Order: 1509085
Project: [redacted]

QC BATCH REPORT

Batch ID: 75586 Instrument ID SVMS4 Method: SW846 8270D

DUP Sample ID: 1509123-06B DUP Units: µg/L Analysis Date: 9/4/2015 02:04 PM
Client ID: Run ID: SVMS4_150904A SeqNo: 3446756 Prep Date: 9/3/2015 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	U	5.0	0	0	0	0-0	0	0	30	
1,2-Dichlorobenzene	U	5.0	0	0	0	0-0	0	0	30	
1,3-Dichlorobenzene	U	5.0	0	0	0	0-0	0	0	30	
1,4-Dichlorobenzene	U	5.0	0	0	0	0-0	0	0	30	
2,4,5-Trichlorophenol	U	5.0	0	0	0	0-0	0	0	30	
2,4,6-Trichlorophenol	U	5.0	0	0	0	0-0	0	0	30	
2,4-Dichlorophenol	U	5.0	0	0	0	0-0	0	0	30	
2,4-Dimethylphenol	U	5.0	0	0	0	0-0	0	0	30	
2,4-Dinitrophenol	U	5.0	0	0	0	0-0	0	0	30	
2,4-Dinitrotoluene	U	5.0	0	0	0	0-0	0	0	30	
2,6-Dinitrotoluene	U	5.0	0	0	0	0-0	0	0	30	
2-Chloronaphthalene	U	5.0	0	0	0	0-0	0	0	30	
2-Chlorophenol	U	5.0	0	0	0	0-0	0	0	30	
2-Methylnaphthalene	U	5.0	0	0	0	0-0	0	0	30	
2-Methylphenol	U	5.0	0	0	0	0-0	0	0	30	
2-Nitroaniline	U	5.0	0	0	0	0-0	0	0	30	
2-Nitrophenol	U	5.0	0	0	0	0-0	0	0	30	
3&4-Methylphenol	U	5.0	0	0	0		0	0	30	
3,3'-Dichlorobenzidine	U	5.0	0	0	0	0-0	0	0	30	
3-Nitroaniline	U	5.0	0	0	0	0-0	0	0	30	
4,6-Dinitro-2-methylphenol	U	5.0	0	0	0	0-0	0	0	30	
4-Bromophenyl phenyl ether	U	5.0	0	0	0	0-0	0	0	30	
4-Chloro-3-methylphenol	U	5.0	0	0	0	0-0	0	0	30	
4-Chloroaniline	U	5.0	0	0	0	0-0	0	0	30	
4-Chlorophenyl phenyl ether	U	5.0	0	0	0	0-0	0	0	30	
4-Nitroaniline	U	5.0	0	0	0	0-0	0	0	30	
4-Nitrophenol	U	5.0	0	0	0	0-0	0	0	30	
Acenaphthene	U	5.0	0	0	0	0-0	0	0	30	
Acenaphthylene	U	5.0	0	0	0	0-0	0	0	30	
Anthracene	U	5.0	0	0	0	0-0	0	0	30	
Benzo(a)anthracene	U	5.0	0	0	0	0-0	0	0	30	
Benzo(a)pyrene	U	5.0	0	0	0	0-0	0	0	30	
Benzo(b)fluoranthene	U	5.0	0	0	0	0-0	0	0	30	
Benzo(g,h,i)perylene	U	5.0	0	0	0	0-0	0	0	30	
Benzo(k)fluoranthene	U	5.0	0	0	0	0-0	0	0	30	
Bis(2-chloroethoxy)methane	U	5.0	0	0	0	0-0	0	0	30	
Bis(2-chloroethyl)ether	U	5.0	0	0	0	0-0	0	0	30	
Bis(2-chloroisopropyl)ether	U	5.0	0	0	0	0-0	0	0	30	
Bis(2-ethylhexyl)phthalate	U	5.0	0	0	0	0-0	0	0	30	
Butyl benzyl phthalate	U	5.0	0	0	0	0-0	0	0	30	
Carbazole	U	5.0	0	0	0	0-0	0	0	30	
Chrysene	U	5.0	0	0	0	0-0	0	0	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: 75586 Instrument ID SVMS4 Method: SW846 8270D

Dibenzo(a,h)anthracene	U	5.0	0	0	0	0-0	0	0	30
Dibenzofuran	U	5.0	0	0	0	0-0	0	0	30
Diethyl phthalate	U	5.0	0	0	0	0-0	0	0	30
Dimethyl phthalate	U	5.0	0	0	0	0-0	0.56	0	30
Di-n-butyl phthalate	U	5.0	0	0	0	0-0	0	0	30
Di-n-octyl phthalate	U	5.0	0	0	0	0-0	0	0	30
Fluoranthene	U	5.0	0	0	0	0-0	0	0	30
Fluorene	U	5.0	0	0	0	0-0	0	0	30
Hexachlorobenzene	U	5.0	0	0	0	0-0	0	0	30
Hexachlorobutadiene	U	5.0	0	0	0	0-0	0	0	30
Hexachlorocyclopentadiene	U	5.0	0	0	0	0-0	0	0	30
Hexachloroethane	U	5.0	0	0	0	0-0	0	0	30
Indeno(1,2,3-cd)pyrene	U	5.0	0	0	0	0-0	0	0	30
Isophorone	U	5.0	0	0	0	0-0	0	0	30
Naphthalene	U	5.0	0	0	0	0-0	0	0	30
Nitrobenzene	U	5.0	0	0	0	0-0	0	0	30
N-Nitrosodi-n-propylamine	U	5.0	0	0	0	0-0	0	0	30
N-Nitrosodiphenylamine	U	5.0	0	0	0	0-0	0	0	30
Pentachlorophenol	U	5.0	0	0	0	0-0	0	0	30
Phenanthrene	U	5.0	0	0	0	0-0	0	0	30
Phenol	U	5.0	0	0	0	0-0	0	0	30
Pyrene	U	5.0	0	0	0	0-0	0	0	30
Surr: 2,4,6-Tribromophenol	*34*	0	*50*	0	*68*	*38-115*	34.38	*1.11*	*40*
Surr: 2-Fluorobiphenyl	*27*	0	*50*	0	*54*	*32-100*	26.88	*0.445*	*40*
Surr: 2-Fluorophenol	*15.52*	0	*50*	0	*31*	*22-59*	12.89	*18.5*	*40*
Surr: 4-Terphenyl-d14	*32.49*	0	*50*	0	*65*	*23-112*	33.53	*3.15*	*40*
Surr: Nitrobenzene-d5	*28.19*	0	*50*	0	*56.4*	*31-93*	27	*4.31*	*40*
Surr: Phenol-d6	*9.84*	0	*50*	0	*19.7*	*13-36*	8.3	*17*	*40*

The following samples were analyzed in this batch: 1509085-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: [redacted]
Work Order: 1509085
Project: [redacted]

QC BATCH REPORT

Batch ID: 75619 Instrument ID VMS9 Method: SW8260B

MBLK Sample ID: MBLK-75619-75619 Units: µg/Kg Analysis Date: 9/4/2015 01:10 AM
Client ID: Run ID: VMS9_150903A SeqNo: 3445461 Prep Date: 9/3/2015 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	30								
1,1,2,2-Tetrachloroethane	U	30								
1,1,2-Trichloroethane	U	30								
1,1-Dichloroethane	U	30								
1,1-Dichloroethene	U	30								
1,2-Dichloroethane	U	30								
1,2-Dichloropropane	U	30								
2-Butanone	U	200								
2-Hexanone	U	30								
4-Methyl-2-pentanone	U	30								
Acetone	U	100								
Benzene	U	30								
Bromodichloromethane	U	30								
Bromoform	U	30								
Bromomethane	U	75								
Carbon disulfide	U	30								
Carbon tetrachloride	U	30								
Chlorobenzene	U	30								
Chloroethane	U	100								
Chloroform	U	30								
Chloromethane	U	100								
cis-1,2-Dichloroethene	U	30								
cis-1,3-Dichloropropene	U	30								
Dibromochloromethane	U	30								
Ethylbenzene	U	30								
m,p-Xylene	U	60								
Methylene chloride	U	30								
o-Xylene	U	30								
Styrene	U	30								
Tetrachloroethene	U	30								
Toluene	U	30								
trans-1,2-Dichloroethene	U	30								
trans-1,3-Dichloropropene	U	30								
Trichloroethene	U	30								
Vinyl chloride	U	30								
1,2-Dichloroethene, Total	U	60								
1,3-Dichloropropene, Total	U	60								
Xylenes, Total	U	90								
Surr: 1,2-Dichloroethane-d4	*957.5*	0	*1000*	0	*95.8*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*880.5*	0	*1000*	0	*88*	*70-130*	0			
Surr: Dibromofluoromethane	*983.5*	0	*1000*	0	*98.4*	*70-130*	0			
Surr: Toluene-d8	*983.5*	0	*1000*	0	*98.4*	*70-130*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: [redacted]
Work Order: 1509085
Project: [redacted]

QC BATCH REPORT

Batch ID: 75619 Instrument ID VMS9 Method: SW8260B

LCS Sample ID: LCS-75619-75619 Units: µg/Kg Analysis Date: 9/3/2015 11:28 PM
Client ID: Run ID: VMS9_150903A SeqNo: 3445457 Prep Date: 9/3/2015 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	940	30	1000	0	94	70-135	0			
1,1,2,2-Tetrachloroethane	958	30	1000	0	95.8	55-130	0			
1,1,2-Trichloroethane	1040	30	1000	0	104	60-125	0			
1,1-Dichloroethane	1042	30	1000	0	104	75-125	0			
1,1-Dichloroethene	979	30	1000	0	97.9	65-135	0			
1,2-Dichloroethane	983	30	1000	0	98.3	70-135	0			
1,2-Dichloropropane	916.5	30	1000	0	91.6	70-120	0			
2-Butanone	763.5	200	1000	0	76.4	30-160	0			
2-Hexanone	700	30	1000	0	70	45-145	0			
4-Methyl-2-pentanone	1053	30	1000	0	105	74-176	0			
Acetone	811	100	1000	0	81.1	20-160	0			
Benzene	944	30	1000	0	94.4	75-125	0			
Bromodichloromethane	891.5	30	1000	0	89.2	70-130	0			
Bromoform	920	30	1000	0	92	55-135	0			
Bromomethane	899	75	1000	0	89.9	30-160	0			
Carbon disulfide	775.5	30	1000	0	77.6	45-160	0			
Carbon tetrachloride	881	30	1000	0	88.1	65-135	0			
Chlorobenzene	944.5	30	1000	0	94.4	75-125	0			
Chloroethane	882.5	100	1000	0	88.2	40-155	0			
Chloroform	906.5	30	1000	0	90.6	70-125	0			
Chloromethane	781	100	1000	0	78.1	50-130	0			
cis-1,2-Dichloroethene	911	30	1000	0	91.1	65-125	0			
cis-1,3-Dichloropropene	893.5	30	1000	0	89.4	70-125	0			
Dibromochloromethane	852.5	30	1000	0	85.2	65-135	0			
Ethylbenzene	881.5	30	1000	0	88.2	75-125	0			
m,p-Xylene	1779	60	2000	0	89	80-125	0			
Methylene chloride	963	30	1000	0	96.3	55-145	0			
o-Xylene	871.5	30	1000	0	87.2	75-125	0			
Styrene	928.5	30	1000	0	92.8	75-125	0			
Tetrachloroethene	941	30	1000	0	94.1	64-140	0			
Toluene	915.5	30	1000	0	91.6	70-125	0			
trans-1,2-Dichloroethene	849	30	1000	0	84.9	65-135	0			
trans-1,3-Dichloropropene	867	30	1000	0	86.7	65-125	0			
Trichloroethene	1015	30	1000	0	102	75-125	0			
Vinyl chloride	809	30	1000	0	80.9	60-125	0			
Xylenes, Total	2650	90	3000	0	88.4	75-125	0			
Surr: 1,2-Dichloroethane-d4	*943.5*	0	*1000*	0	*94.4*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1050*	0	*1000*	0	*105*	*70-130*	0			
Surr: Dibromofluoromethane	*930.5*	0	*1000*	0	*93*	*70-130*	0			
Surr: Toluene-d8	*1016*	0	*1000*	0	*102*	*70-130*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: [redacted]
Work Order: 1509085
Project: [redacted]

QC BATCH REPORT

Batch ID: 75619 Instrument ID VMS9 Method: SW8260B

MS Sample ID: 1509168-08A MS Units: µg/Kg Analysis Date: 9/4/2015 09:13 AM
Client ID: Run ID: VMS9_150903A SeqNo: 3445545 Prep Date: 9/3/2015 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1030	30	1000	0	103	70-135	0			
1,1,2,2-Tetrachloroethane	867	30	1000	0	86.7	55-130	0			
1,1,2-Trichloroethane	1002	30	1000	0	100	60-125	0			
1,1-Dichloroethane	1025	30	1000	0	102	75-125	0			
1,1-Dichloroethene	1100	30	1000	0	110	65-135	0			
1,2-Dichloroethane	984.5	30	1000	0	98.4	70-135	0			
1,2-Dichloropropane	956	30	1000	0	95.6	70-120	0			
2-Butanone	880.5	200	1000	0	88	30-160	0			
2-Hexanone	780.5	30	1000	0	78	45-145	0			
4-Methyl-2-pentanone	896	30	1000	0	89.6	74-176	0			
Acetone	1037	100	1000	0	104	20-160	0			
Benzene	994.5	30	1000	0	99.4	75-125	0			
Bromodichloromethane	893.5	30	1000	0	89.4	70-130	0			
Bromoform	863	30	1000	0	86.3	55-135	0			
Bromomethane	524	75	1000	0	52.4	30-160	0			
Carbon disulfide	832.5	30	1000	0	83.2	45-160	0			
Carbon tetrachloride	963.5	30	1000	0	96.4	65-135	0			
Chlorobenzene	969.5	30	1000	0	97	75-125	0			
Chloroethane	880.5	100	1000	0	88	40-155	0			
Chloroform	921.5	30	1000	0	92.2	70-125	0			
Chloromethane	834	100	1000	0	83.4	50-130	0			
cis-1,2-Dichloroethene	920	30	1000	0	92	65-125	0			
cis-1,3-Dichloropropene	813	30	1000	0	81.3	70-125	0			
Dibromochloromethane	792.5	30	1000	0	79.2	65-135	0			
Ethylbenzene	925.5	30	1000	0	92.6	75-125	0			
m,p-Xylene	1896	60	2000	0	94.8	80-125	0			
Methylene chloride	975	30	1000	0	97.5	55-145	0			
o-Xylene	911.5	30	1000	0	91.2	75-125	0			
Styrene	962	30	1000	0	96.2	75-125	0			
Tetrachloroethene	1702	30	1000	0	170	64-140	0			S
Toluene	952	30	1000	0	95.2	70-125	0			
trans-1,2-Dichloroethene	965	30	1000	0	96.5	65-135	0			
trans-1,3-Dichloropropene	790	30	1000	0	79	65-125	0			
Trichloroethene	1120	30	1000	0	112	75-125	0			
Vinyl chloride	965	30	1000	0	96.5	60-125	0			
Xylenes, Total	2807	90	3000	0	93.6	75-125	0			
Surr: 1,2-Dichloroethane-d4	*983*	0	*1000*	0	*98.3*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1076*	0	*1000*	0	*108*	*70-130*	0			
Surr: Dibromofluoromethane	*961.5*	0	*1000*	0	*96.2*	*70-130*	0			
Surr: Toluene-d8	*977*	0	*1000*	0	*97.7*	*70-130*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: [redacted]
Work Order: 1509085
Project: [redacted]

QC BATCH REPORT

Batch ID: **75619** Instrument ID **VMS9** Method: **SW8260B**

MSD Sample ID: **1509168-08A MSD** Units: µg/Kg Analysis Date: **9/4/2015 09:38 AM**
Client ID: Run ID: **VMS9_150903A** SeqNo: **3445549** Prep Date: **9/3/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1092	30	1000	0	109	70-135	1030	5.75	30	
1,1,2,2-Tetrachloroethane	830.5	30	1000	0	83	55-130	867	4.3	30	
1,1,2-Trichloroethane	1020	30	1000	0	102	60-125	1002	1.88	30	
1,1-Dichloroethane	1074	30	1000	0	107	75-125	1025	4.62	30	
1,1-Dichloroethene	1154	30	1000	0	115	65-135	1100	4.83	30	
1,2-Dichloroethane	1013	30	1000	0	101	70-135	984.5	2.85	30	
1,2-Dichloropropane	988	30	1000	0	98.8	70-120	956	3.29	30	
2-Butanone	1250	200	1000	0	125	30-160	880.5	34.6	30	R
2-Hexanone	911.5	30	1000	0	91.2	45-145	780.5	15.5	30	
4-Methyl-2-pentanone	968.5	30	1000	0	96.8	74-176	896	7.78	30	
Acetone	1749	100	1000	0	175	20-160	1037	51.1	30	SR
Benzene	1017	30	1000	0	102	75-125	994.5	2.24	30	
Bromodichloromethane	911.5	30	1000	0	91.2	70-130	893.5	1.99	30	
Bromoform	921	30	1000	0	92.1	55-135	863	6.5	30	
Bromomethane	570.5	75	1000	0	57	30-160	524	8.5	30	
Carbon disulfide	856	30	1000	0	85.6	45-160	832.5	2.78	30	
Carbon tetrachloride	989.5	30	1000	0	99	65-135	963.5	2.66	30	
Chlorobenzene	1010	30	1000	0	101	75-125	969.5	4.09	30	
Chloroethane	976.5	100	1000	0	97.6	40-155	880.5	10.3	30	
Chloroform	980.5	30	1000	0	98	70-125	921.5	6.2	30	
Chloromethane	889.5	100	1000	0	89	50-130	834	6.44	30	
cis-1,2-Dichloroethene	979	30	1000	0	97.9	65-125	920	6.21	30	
cis-1,3-Dichloropropene	857.5	30	1000	0	85.8	70-125	813	5.33	30	
Dibromochloromethane	851.5	30	1000	0	85.2	65-135	792.5	7.18	30	
Ethylbenzene	971.5	30	1000	0	97.2	75-125	925.5	4.85	30	
m,p-Xylene	1994	60	2000	0	99.7	80-125	1896	5.04	30	
Methylene chloride	990.5	30	1000	0	99	55-145	975	1.58	30	
o-Xylene	944.5	30	1000	0	94.4	75-125	911.5	3.56	30	
Styrene	994.5	30	1000	0	99.4	75-125	962	3.32	30	
Tetrachloroethene	1846	30	1000	0	185	64-140	1702	8.12	30	S
Toluene	997	30	1000	0	99.7	70-125	952	4.62	30	
trans-1,2-Dichloroethene	1031	30	1000	0	103	65-135	965	6.61	30	
trans-1,3-Dichloropropene	839	30	1000	0	83.9	65-125	790	6.02	30	
Trichloroethene	1233	30	1000	0	123	75-125	1120	9.6	30	
Vinyl chloride	974.5	30	1000	0	97.4	60-125	965	0.98	30	
Xylenes, Total	2938	90	3000	0	97.9	75-125	2807	4.56	30	
Surr: 1,2-Dichloroethane-d4	*994.5*	0	*1000*	0	*99.4*	*70-130*	983	*1.16*	*30*	
Surr: 4-Bromofluorobenzene	*1074*	0	*1000*	0	*107*	*70-130*	1076	*0.14*	*30*	
Surr: Dibromofluoromethane	*991*	0	*1000*	0	*99.1*	*70-130*	961.5	*3.02*	*30*	
Surr: Toluene-d8	*1010*	0	*1000*	0	*101*	*70-130*	977	*3.37*	*30*	

The following samples were analyzed in this batch: 1509085-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: [redacted]
Work Order: 1509085
Project: [redacted]

QC BATCH REPORT

Batch ID: R170943A Instrument ID VMS6 Method: SW8260

MBLK	Sample ID: VBLKW1-150903-R170943A			Units: µg/L			Analysis Date: 9/3/2015 02:14 PM			
Client ID:	Run ID: VMS6_150903A			SeqNo: 3445247		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	U	1.0								
1,2-Dichloroethane	U	1.0								
2-Butanone	U	5.0								
Benzene	U	1.0								
Carbon tetrachloride	U	1.0								
Chlorobenzene	U	1.0								
Chloroform	U	1.0								
Tetrachloroethene	U	1.0								
Trichloroethene	U	1.0								
Vinyl chloride	U	1.0								
Surr: 1,2-Dichloroethane-d4	*20.9*	0	*20*	0	*104*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*18.63*	0	*20*	0	*93.2*	*80-110*	0			
Surr: Dibromofluoromethane	*19.9*	0	*20*	0	*99.5*	*85-115*	0			
Surr: Toluene-d8	*20.78*	0	*20*	0	*104*	*85-110*	0			

LCS	Sample ID: VLCSW1-150903-R170943A			Units: µg/L			Analysis Date: 9/3/2015 12:54 PM			
Client ID:	Run ID: VMS6_150903A			SeqNo: 3445245		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	22.77	1.0	20	0	114	70-145	0			
1,2-Dichloroethane	19.42	1.0	20	0	97.1	78-125	0			
2-Butanone	15.43	5.0	20	0	77.2	55-150	0			
Benzene	20.79	1.0	20	0	104	85-125	0			
Carbon tetrachloride	18.93	1.0	20	0	94.6	65-140	0			
Chlorobenzene	20.48	1.0	20	0	102	80-120	0			
Chloroform	19.42	1.0	20	0	97.1	80-130	0			
Tetrachloroethene	20.43	1.0	20	0	102	77-138	0			
Trichloroethene	19.53	1.0	20	0	97.6	84-130	0			
Vinyl chloride	19.36	1.0	20	0	96.8	50-136	0			
Surr: 1,2-Dichloroethane-d4	*20.44*	0	*20*	0	*102*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.2*	0	*20*	0	*96*	*80-110*	0			
Surr: Dibromofluoromethane	*20.34*	0	*20*	0	*102*	*85-115*	0			
Surr: Toluene-d8	*21.01*	0	*20*	0	*105*	*85-110*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: [redacted]
Work Order: 1509085
Project: [redacted]

QC BATCH REPORT

Batch ID: R170943A Instrument ID VMS6 Method: SW8260

MS	Sample ID: 15081601-12A MS			Units: µg/L			Analysis Date: 9/3/2015 09:44 PM			
Client ID:	Run ID: VMS6_150903A			SeqNo: 3445255		Prep Date:		DF: 200		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	4496	200	4000	0	112	70-145	0			
1,2-Dichloroethane	3614	200	4000	0	90.4	78-125	0			
2-Butanone	2890	1,000	4000	0	72.2	55-150	0			
Benzene	3870	200	4000	0	96.8	85-125	0			
Carbon tetrachloride	3528	200	4000	0	88.2	65-140	0			
Chlorobenzene	3802	200	4000	0	95	80-120	0			
Chloroform	3720	200	4000	0	93	80-130	0			
Tetrachloroethene	3912	200	4000	0	97.8	77-138	0			
Trichloroethene	8568	200	4000	0	214	84-130	0			S
Vinyl chloride	10560	200	4000	0	264	50-136	0			S
Surr: 1,2-Dichloroethane-d4	*3928*	0	*4000*	0	*98.2*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*3966*	0	*4000*	0	*99.2*	*80-110*	0			
Surr: Dibromofluoromethane	*4088*	0	*4000*	0	*102*	*85-115*	0			
Surr: Toluene-d8	*4140*	0	*4000*	0	*104*	*85-110*	0			

MSD	Sample ID: 15081601-12A MSD			Units: µg/L			Analysis Date: 9/3/2015 10:10 PM			
Client ID:	Run ID: VMS6_150903A			SeqNo: 3445256		Prep Date:		DF: 200		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	4846	200	4000	0	121	70-145	4496	7.49	30	
1,2-Dichloroethane	3658	200	4000	0	91.4	78-125	3614	1.21	30	
2-Butanone	2838	1,000	4000	0	71	55-150	2890	1.82	30	
Benzene	4116	200	4000	0	103	85-125	3870	6.16	30	
Carbon tetrachloride	3942	200	4000	0	98.6	65-140	3528	11.1	30	
Chlorobenzene	4120	200	4000	0	103	80-120	3802	8.03	30	
Chloroform	3914	200	4000	0	97.8	80-130	3720	5.08	30	
Tetrachloroethene	4378	200	4000	0	109	77-138	3912	11.2	30	
Trichloroethene	8818	200	4000	0	220	84-130	8568	2.88	30	S
Vinyl chloride	10350	200	4000	0	259	50-136	10560	1.97	30	S
Surr: 1,2-Dichloroethane-d4	*3870*	0	*4000*	0	*96.8*	*75-120*	3928	*1.49*	*30*	
Surr: 4-Bromofluorobenzene	*3904*	0	*4000*	0	*97.6*	*80-110*	3966	*1.58*	*30*	
Surr: Dibromofluoromethane	*3994*	0	*4000*	0	*99.8*	*85-115*	4088	*2.33*	*30*	
Surr: Toluene-d8	*4186*	0	*4000*	0	*105*	*85-110*	4140	*1.1*	*30*	

The following samples were analyzed in this batch: 1509085-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: [redacted]
Work Order: 1509085
Project: [redacted]

QC BATCH REPORT

Batch ID: R170888 Instrument ID WETCHEM Method: SW7.3.4.2

MBLK	Sample ID: MB-R170888-R170888			Units: mg/Kg			Analysis Date: 9/2/2015 02:00 PM			
Client ID:	Run ID: WETCHEM_150902R			SeqNo: 3442991			Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide, Reactive	U	100								

LCS	Sample ID: LCS-R170888-R170888			Units: mg/Kg			Analysis Date: 9/2/2015 02:00 PM			
Client ID:	Run ID: WETCHEM_150902R			SeqNo: 3442992			Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide, Reactive	1716	100	2149	0	79.9	60-120		0		

The following samples were analyzed in this batch: 1509085-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: [redacted]
Work Order: 1509085
Project: [redacted]

QC BATCH REPORT

Batch ID: **R170897** Instrument ID **WETCHEM** Method: **SW7.3.3.2**

MBLK Sample ID: **MB-R170897-R170897** Units: mg/Kg Analysis Date: 9/2/2015 04:29 PM
Client ID: Run ID: WETCHEM_150902V SeqNo: 3443082 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	U	100								

LCS Sample ID: **LCS-R170897-R170897** Units: mg/Kg Analysis Date: 9/2/2015 04:29 PM
Client ID: Run ID: WETCHEM_150902V SeqNo: 3443083 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	124.8	100	125	0	99.8	75-125	0			

MS Sample ID: **15081579-01A MS** Units: mg/Kg Analysis Date: 9/2/2015 04:29 PM
Client ID: Run ID: WETCHEM_150902V SeqNo: 3443087 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	243.7	100	250	14.34	91.7	50-150	0			

MSD Sample ID: **15081579-01A MSD** Units: mg/Kg Analysis Date: 9/2/2015 04:29 PM
Client ID: Run ID: WETCHEM_150902V SeqNo: 3443088 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	229.3	100	250	14.34	86	50-150	243.7	6.09	35	

The following samples were analyzed in this batch: 1509085-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: [redacted]
Work Order: 1509085
Project: [redacted]

QC BATCH REPORT

Batch ID: R170965 Instrument ID WETCHEM Method: SW9045

LCS	Sample ID: WLCSW1-150903-R170965				Units: s.u.		Analysis Date: 9/3/2015 02:30 PM			
Client ID:	Run ID: WETCHEM_150903H				SeqNo: 3444447		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	4	0	4	0	100	90-110	0			

DUP	Sample ID: 1509085-01B DUP				Units: s.u.		Analysis Date: 9/3/2015 02:30 PM			
Client ID: Oil/Water Vat 1	Run ID: WETCHEM_150903H				SeqNo: 3444450		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	10	0	0	0	0	0-0	10	0	20	

The following samples were analyzed in this batch: 1509085-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: [redacted]
Work Order: 1509085
Project: [redacted]

QC BATCH REPORT

Batch ID: R171385 Instrument ID WETCHEM Method: SW1010A

LCS	Sample ID: WLCSW1-091015-R171385				Units: °F		Analysis Date: 9/10/2015 11:00 AM			
Client ID:	Run ID: WETCHEM_150910L				SeqNo: 3452943		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Flashpoint/Ignitability	79	0	81	0	97.5	97-103	0			

DUP	Sample ID: 1509219-01A DUP				Units: °F		Analysis Date: 9/10/2015 11:00 AM			
Client ID:	Run ID: WETCHEM_150910L				SeqNo: 3452947		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Flashpoint/Ignitability	U	0	0	0	0	0-0	0	0	10	

The following samples were analyzed in this batch: 1509085-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ANALYTICAL REQUEST FORM

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

1. ☑ REGULAR Status

☐ RUSH Status Requested - ADDITIONAL CHARGE
RESULTS REQUIRED BY _____
DATE
CONTACT ALS DATACHEM PRIOR TO SENDING SAMPLES

2. Date 9/1/2015 Purchase Order No. 65000-0078

3. Company Name [redacted]
Address [redacted]
Person to Contact [redacted]
Telephone [redacted]
Fax Telephone [redacted]
E-mail Address [redacted]
Billing Address [redacted]

4. Quote No.
ALS Project Manager
5. Sample Collection [redacted]
Sampling Site
Industrial Process
Date of Collection 8-31-2015
Time Collected 15:15
Date of Shipment 9/1/2015
Chain of Custody No 9012015

6. REQUEST FOR ANALYSES

Laboratory Use Only	Client Sample Number	Matrix*	Sample Volume	ANALYSES REQUESTED - Use method number if known	Units**
	Oil / Water Vat 1	liquid	2.25 L	TAL Metals ✓	
				TCLP Metals	
				TCL Volatiles ✓	
				TCLP Vloatiles	
				TCL Semi Volatiles ✓	
				TCLP Semi Volatiles	
				Ignitability ✓	
				Corrosivity ✓	
				Reactivity ✓	
				PCB's ✓	

* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impingar solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. mg/sample 2. mg/m^3 3. ppm 4. % 5. _____ (other) Please indicate one or more units in the column entitled Units**

Comments _____

Possible Contamination and/or Chemical Hazards: N/A

Relinquished by [redacted]		Date/Time 9/1/15 / 12:25
Received by [redacted]	9-1-15 1220	Date/Time
Relinquished by [redacted]	5 1700	Date/Time
Received by		Date/Time
Relinquished by		Date/Time
Received by		Date/Time

4388 Glendale Milford Rd, Cincinnati, OH 45242 800-280-8071 or 800-458-1943 / FAX: 513-733-5347
ALS Laboratory Group [redacted]

ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
Tel. +1 616 399 6070
Fax. +1 616 399 6185

CUSTODY SEAL

Date: 9-1-15	Time: 1700
Name: CJ	
Company:	

Seal Broken By:
Date:

ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
Tel. +1 616 399 6070
Fax. +1 616 399 6185

CUSTODY SEAL

Date: 9-1-15	Time: 1700
Name: CJ	
Company:	

Seal Broken By:
Date:

49424
MI-US GRR

68 HLMA

PRIORITY OVERNIGHT
WED - 02 SEP 10:30A

TRK# 0201 7812 5831 9309

REL# 3765348

FedEx Express

E

HOLLAND MI 49424
(616) 399-6070

ALS ENVIRONMENTAL
3352 128TH AVENUE

[redacted]

Part# 156297-435

B
10:30
6

828

4.8°C

ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
Tel. +1 616 399 6070
Fax. +1 616 399 6185

CUSTODY SEAL

Date: 9-1-15	Time: 1700
Name: CJ	
Company:	

Date:

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: [redacted]

Date/Time Received: 02-Sep-15 09:30

Work Order: 1509085

Received by: KRW

Checklist completed by Keith Werenga (eSignature) 02-Sep-15 (Date)

Reviewed by: Bill Carey (eSignature) 02-Sep-15 (Date)

Matrices: Liquid

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	4.8/4.8 C	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	9/2/2015 10:30:51 AM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

290 South Wagner Road
Ann Arbor, Michigan 48103
Tel. 734/995-0995 Fax. 734/995-3731
Michigan Laboratory ID: 9604
Wisconsin Laboratory ID: 998321720

Semivolatile Organic Compound Data Summary Shee

For: Mr. Richard Powals
Environmental Geo-Technologies, Inc.
28470 Citrin Drive
Romulus, MI 48174

ATS Project: Environmental Geo-Technologies, Inc. #E008-0
Report Date: 11/24/15
ATS SRF: 1104151

Sample Identification: Injection - October 2015

Sample Date:	11/3/15	QC Batch Number:	QCORG1105151-E
Laboratory Receipt Date:	11/4/15		B5K0086
Preparation Date:	11/5/15, 11/18/15	Sample Matrix:	Wastewater
Analysis Date:	11/17/15, 11/19/15	Dilution Factor:	500

Parameter (CAS)	Method	Units	Result	Reporting Limit
Aldrin (309-00-2)	EPA 8270 Mod	mg/mL	<0.00001	0.00001
Benzidine (92-87-5)	EPA 8270 Mod	mg/mL	<0.00075	0.00075
N-Nitrosodimethylamine (62-75-9)	EPA 8270 Mod	mg/mL	<0.0001	0.0001
Tetraethyl Lead (78-00-2)	EPA 8270 Mod	mg/mL	<0.00005	0.00005
Hexachlorodibenzo-p-dioxins	EPA 1613B	mg/mL	<0.00000000005	0.00000000005
Octachlorodibenzofuran (39001-02-0)	EPA 1613B	mg/mL	<0.00000000005	0.00000000005
Octachlorodibenzo-p-dioxin (3268-87-9)	EPA 1613B	mg/mL	0.00000000022	0.00000000005
Tetrachlorodibenzo-p-dioxins	EPA 1613B	mg/mL	<0.00000000004	0.00000000004

Surrogates / Labeled Standards:	Method	Percent Recovery	Recovery Limits
2-Fluorobiphenyl	EPA 8270 Mod	79.0	(50 - 150)
Nitrobenzene-d5	EPA 8270 Mod	72.2	(50 - 150)
p-Terphenyl-d14	EPA 8270 Mod	104.3	(50 - 150)
Tetrachloro-m-xylene (TCMX)	EPA 8270 Mod	62.8	(50 - 150)
13C-1,2,3,4,7,8-HxCDD	EPA 1613B	94.7	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	EPA 1613B	93.0	(28 - 130)
13C-1,2,3,7,8,9-HxCDD	EPA 1613B	91.0	(32 - 141)
13C-OCDF	EPA 1613B	76.2	(17 - 157)
13C-OCDD	EPA 1613B	81.9	(17 - 157)
13C-2,3,7,8-TCDD	EPA 1613B	88.1	(25 - 164)

Comments:
USEPA Analysis 1613B performed by Vista Analytical.