



**REPUBLIC**  
SERVICES

28470 Citrin Drive Romulus, MI 48174  
o 734.946.1000 republicservices.com

January 9, 2023

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

Re: RIES Monthly Report

Dear Mr. Batka:

Republic Industrial and Energy Solutions, LLC (RIES) hereby submits the Hundred and Sixth Monthly Report ("MR") in conformance with the requirements of its two EPA UIC permits (#s MI-163-1W-C010 & MI-163-1W-C011). RIES is providing all 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.

RIES accepted F039 waste in November of 2022 so as stated on page A-3 of RIES's two EPA UIC permits an analysis is required and is included in this report.

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 supervision and interaction with the persons who manage and operate the system, and those persons responsible for the collection of 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,



John Frost

cc: Rick Sauve (Republic Services)

## **AVERAGE INJECTION RATE**

### Calculation of Average Injection Rate

CURRENT REPORTING YEAR 2022

CURRENT REPORTING MONTH November

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 |
|------------------------------------|----------------|--------------------|----------------|
| <b>MI-163-1W-C010 , Well #1-12</b> |                |                    |                |
| Current Month                      | 471,259        | 0                  | 471,259        |
| Since facility first injected      |                |                    | 50,325,032     |
| <b>MI-163-1W-C011, Well #2-12</b>  |                |                    |                |
| Current Month                      | 547,771        | 0                  | 547,771        |
| Since facility first injected      |                |                    | 30,361,547     |
|                                    |                | Lifetime Combined  | 80,686,579     |

#### 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 107

107 lifetime number of months of injection × 43,830 minutes/month  
= 4,689,810 minutes of injection

Lifetime combined injected volume 80,686,579 ÷ 4,689,810 minutes of injection  
= 17.20 gpm average injection rate

## **WELL 1 DATA**





**Injection Well 1, November 2022**

|            | Injection Pressure (psig) |       | Annulus Tank Level (inch) |      | Annulus Pressure (psig) |         | Injection pH |      | Flow Rate (gpm) |      | Differential Pressure (psig) |       |
|------------|---------------------------|-------|---------------------------|------|-------------------------|---------|--------------|------|-----------------|------|------------------------------|-------|
|            | Min                       | Max   | Min                       | Max  | Min                     | Max     | Min          | Max  | Min             | Max  | Min                          | Max   |
| 11/1/2022  | 134.2                     | 940.1 | 24.8                      | 24.9 | 851.9                   | 1396.6  | 2.3          | 9.1  | 0.0             | 44.5 | 323.4                        | 800.1 |
| 11/2/2022  | 125.9                     | 941.0 | 24.8                      | 24.9 | 889.1                   | 1387.4  | 2.6          | 7.8  | 0.0             | 63.2 | 360.8                        | 824.8 |
| 11/3/2022  | 137.2                     | 941.0 | 24.8                      | 24.9 | 897.0                   | 1,322.1 | 4.4          | 12.6 | 0.0             | 38.6 | 339.8                        | 808.7 |
| 11/4/2022  | 113.0                     | 940.2 | 24.8                      | 24.9 | 861.1                   | 1,323.4 | 3.1          | 7.5  | 0.0             | 38.9 | 296.8                        | 769.7 |
| 11/5/2022  | 39.4                      | 941.5 | 24.8                      | 24.9 | 849.7                   | 1,292.6 | 3.1          | 7.3  | 0.0             | 41.3 | 331.0                        | 770.0 |
| 11/6/2022  | 133.7                     | 133.7 | 24.8                      | 24.8 | 819.5                   | 819.5   | 6.7          | 6.7  | 0.0             | 0.0  | 685.8                        | 685.8 |
| 11/7/2022  | 111.3                     | 912.8 | 24.8                      | 24.8 | 801.2                   | 1,240.0 | 3.3          | 12.8 | 0.0             | 31.3 | 257.6                        | 741.0 |
| 11/8/2022  | 41.2                      | 938.7 | 24.7                      | 24.8 | 796.2                   | 1,219.7 | 3.5          | 9.2  | 0.0             | 39.4 | 215.1                        | 775.8 |
| 11/9/2022  | 30.1                      | 941.0 | 24.6                      | 24.8 | 796.8                   | 1,209.9 | 5.9          | 7.8  | 0.0             | 33.1 | 211.7                        | 743.3 |
| 11/10/2022 | 99.9                      | 939.4 | 24.7                      | 24.9 | 803.9                   | 1,217.5 | 6.1          | 7.5  | 0.0             | 39.2 | 234.7                        | 706.4 |
| 11/11/2022 | 92.3                      | 943.6 | 24.8                      | 24.9 | 808.5                   | 1,217.8 | 5.5          | 7.8  | 0.0             | 41.9 | 243.4                        | 699.9 |
| 11/12/2022 | 109.8                     | 186.4 | 24.6                      | 24.8 | 769.9                   | 847.2   | 6.9          | 7.2  | 0.0             | 0.0  | 659.7                        | 686.0 |
| 11/13/2022 | 103.0                     | 110.2 | 24.6                      | 24.6 | 754.7                   | 770.5   | 6.8          | 6.9  | 0.0             | 0.0  | 651.2                        | 660.6 |
| 11/14/2022 | 66.8                      | 940.4 | 23.5                      | 24.6 | 750.9                   | 1,323.4 | 2.7          | 9.1  | 0.0             | 39.5 | 148.7                        | 694.1 |
| 11/15/2022 | 105.7                     | 941.4 | 23.6                      | 23.7 | 967.1                   | 1,354.3 | 5.1          | 7.7  | 0.0             | 38.9 | 374.1                        | 863.2 |
| 11/16/2022 | 105.7                     | 940.5 | 23.6                      | 23.7 | 969.8                   | 1,354.1 | 6.4          | 7.9  | 0.0             | 34.5 | 386.5                        | 864.8 |
| 11/17/2022 | 110.4                     | 939.8 | 23.6                      | 23.7 | 969.1                   | 1,345.4 | 5.5          | 7.6  | 0.0             | 34.5 | 383.6                        | 861.5 |
| 11/18/2022 | 76.6                      | 940.5 | 23.6                      | 23.7 | 960.7                   | 1,308.0 | 3.4          | 7.6  | 0.0             | 29.2 | 303.6                        | 889.0 |
| 11/19/2022 | 131.4                     | 253.7 | 23.5                      | 23.6 | 936.9                   | 972.6   | 7.3          | 7.5  | 0.0             | 0.0  | 718.5                        | 813.9 |
| 11/20/2022 | 125.9                     | 131.8 | 23.4                      | 23.5 | 939.3                   | 945.3   | 7.4          | 7.4  | 0.0             | 0.0  | 812.9                        | 814.6 |
| 11/21/2022 | 63.3                      | 940.2 | 23.4                      | 23.6 | 937.3                   | 1,244.7 | 3.0          | 8.2  | 0.0             | 39.4 | 247.9                        | 866.2 |
| 11/22/2022 | 98.2                      | 939.4 | 23.5                      | 23.6 | 914.5                   | 1,256.5 | 6.0          | 8.0  | 0.0             | 39.8 | 300.0                        | 824.9 |
| 11/23/2022 | 75.2                      | 939.7 | 23.5                      | 23.7 | 916.1                   | 1,250.0 | 6.2          | 7.8  | 0.0             | 35.0 | 305.7                        | 832.4 |
| 11/24/2022 | 107.5                     | 130.0 | 23.5                      | 23.6 | 914.0                   | 916.9   | 7.1          | 7.4  | 0.0             | 0.0  | 786.1                        | 808.3 |
| 11/25/2022 | 102.6                     | 108.0 | 23.6                      | 23.7 | 911.7                   | 916.1   | 7.1          | 7.2  | 0.0             | 0.0  | 807.7                        | 809.7 |
| 11/26/2022 | 98.2                      | 103.0 | 23.5                      | 23.6 | 907.5                   | 912.0   | 7.1          | 7.2  | 0.0             | 0.0  | 807.8                        | 809.7 |
| 11/27/2022 | 96.5                      | 99.6  | 23.5                      | 23.6 | 902.8                   | 908.0   | 7.1          | 7.1  | 0.0             | 0.0  | 805.9                        | 808.5 |
| 11/28/2022 | 81.7                      | 940.2 | 23.5                      | 23.6 | 900.8                   | 1192.7  | 3.2          | 8.4  | 0.0             | 40.4 | 169.5                        | 819.0 |
| 11/29/2022 | 106.8                     | 940.4 | 23.6                      | 23.7 | 846.8                   | 1203.1  | 3.2          | 8.5  | 0.0             | 40.1 | 176.4                        | 742.0 |
| 11/30/2022 | 108.2                     | 939.4 | 23.6                      | 23.7 | 872.5                   | 1224.9  | 2.7          | 8.2  | 0.0             | 40.0 | 208.9                        | 768.8 |

## Circle Chart Index

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

### Chart Recorder #1

Channel #1

**Blue Pen** - Well 1 Injection Pressure (chart value x 30)

Channel #2

**Red Pen** - Well 1 Annulus Pressure (chart value x 30)

Channel #3

**Green Pen** - Well 1 Flow Rate (chart value x 4)

Channel #4

**Black Pen** - Well 1 Annulus Tank Level (chart value x 0)

### Chart Recorder #2

Channel #1

**Blue Pen** - Well 2 Injection Pressure (chart value x 30)

Channel #2

**Red Pen** - Well 2 Annulus Pressure (chart value x 30)

Channel #3

**Green Pen** - Well 2 Flow Rate (chart value x 4)

Channel #4

**Black Pen** - Well 2 Annulus Tank Level (chart value x 0)

### Chart Recorder #3

Channel #1

**Blue Pen** - Injection pH Well 1 & 2 (chart value + 3.3)

Channel #2

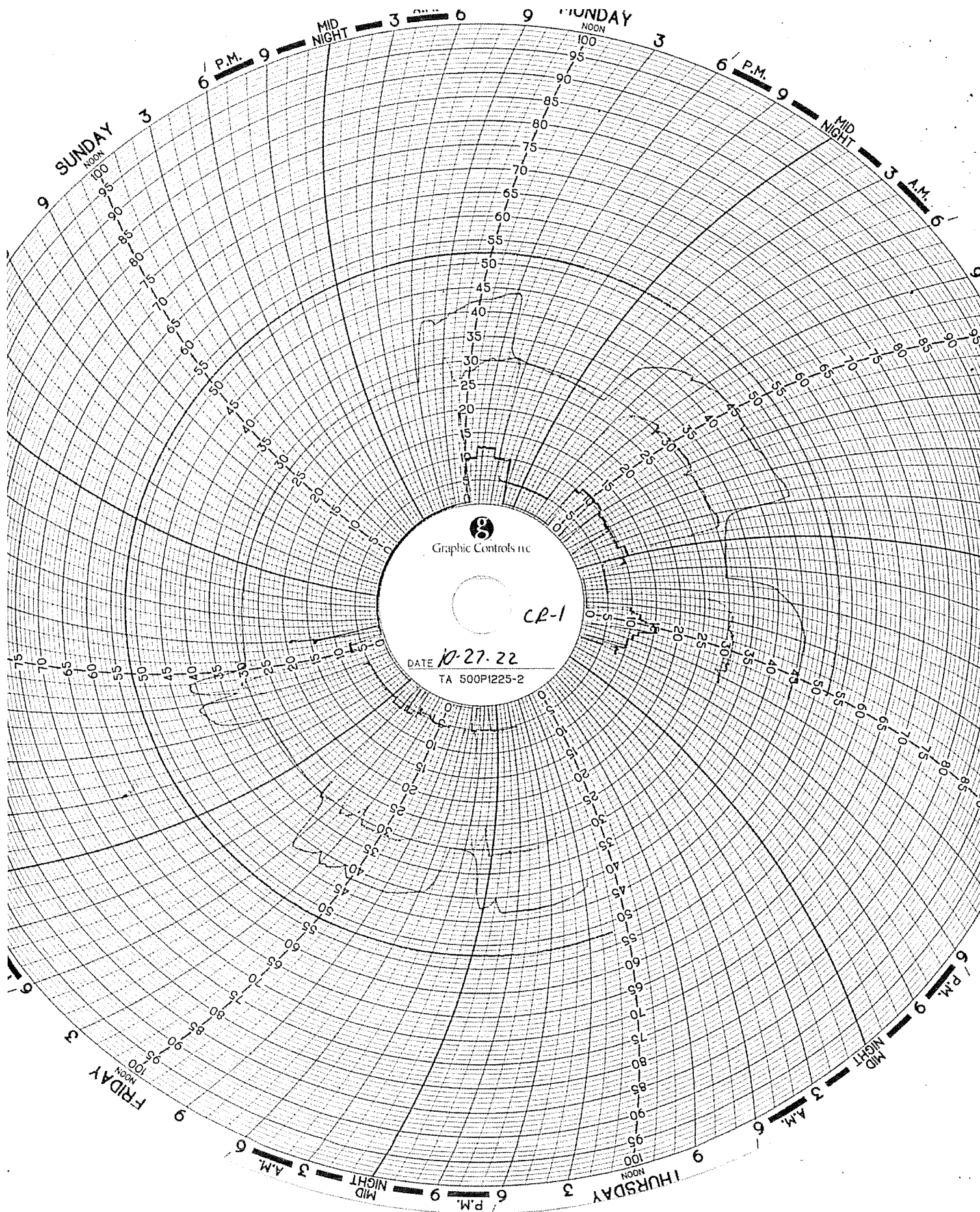
**Red Pen** - Well 1 Monthly Volume (chart value x 100,000)

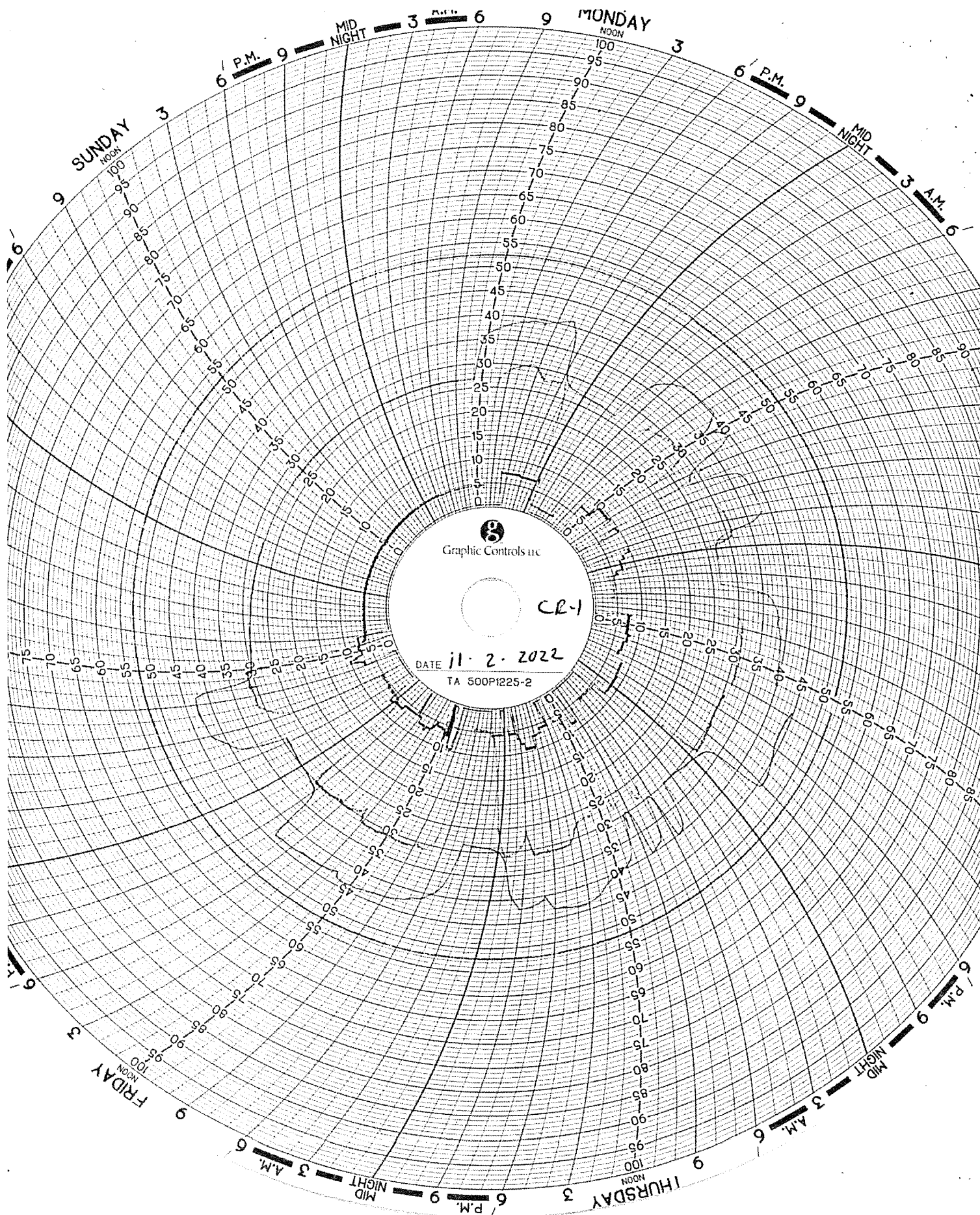
Channel #3

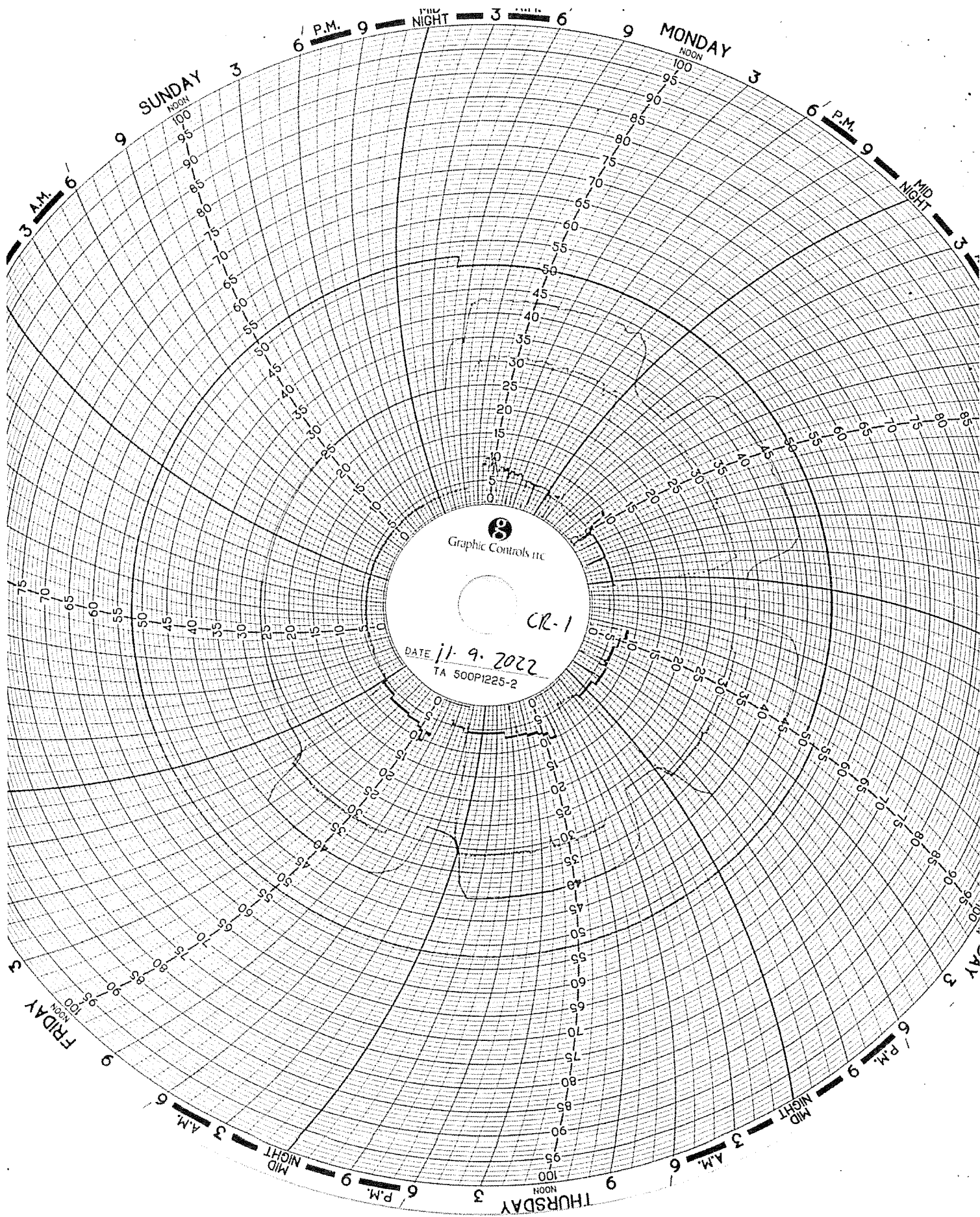
**Green Pen** - Well 2 Monthly Volume (chart value x 100,000)

Channel #4

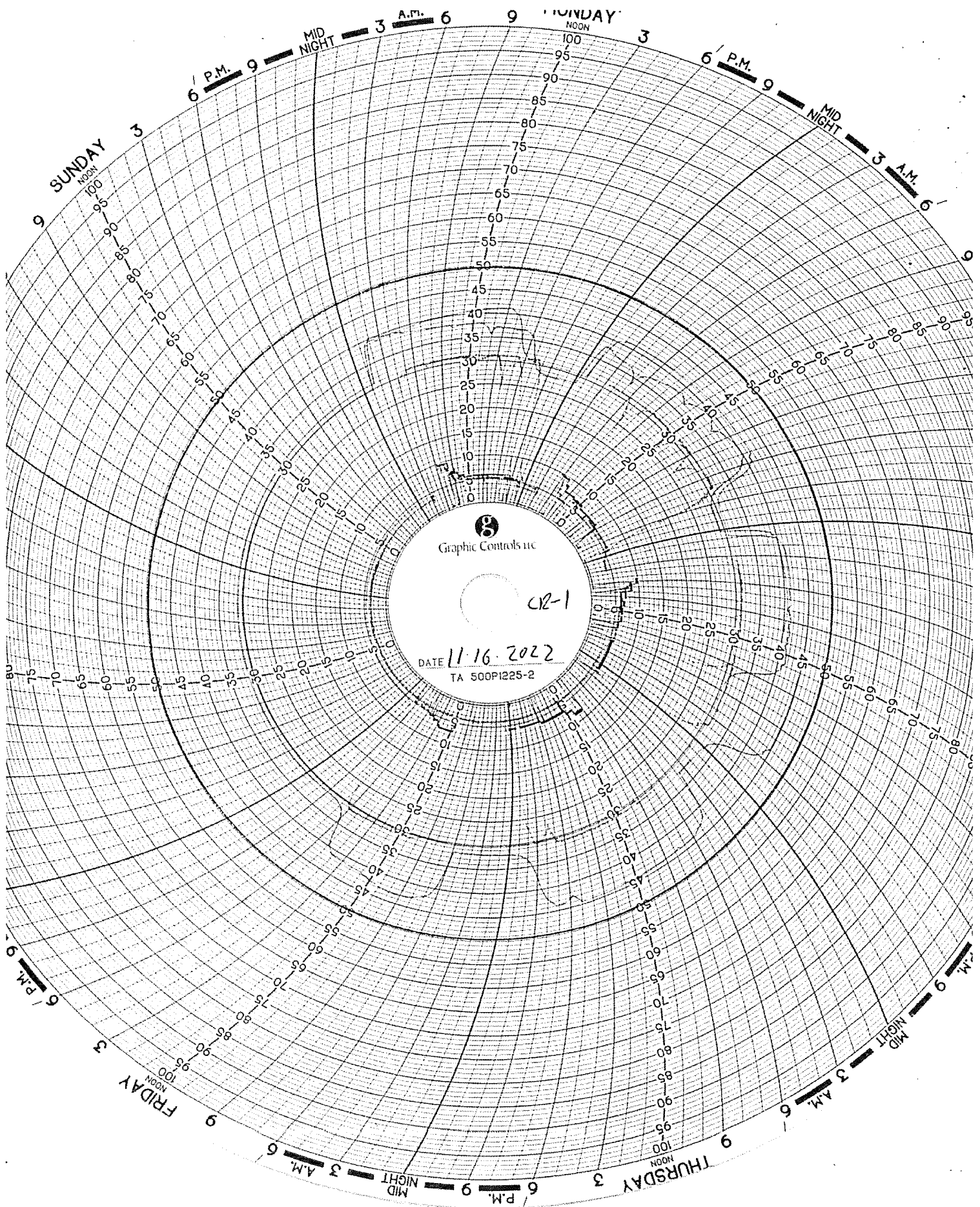
**Black Pen** - Temperature (chart value x 0)

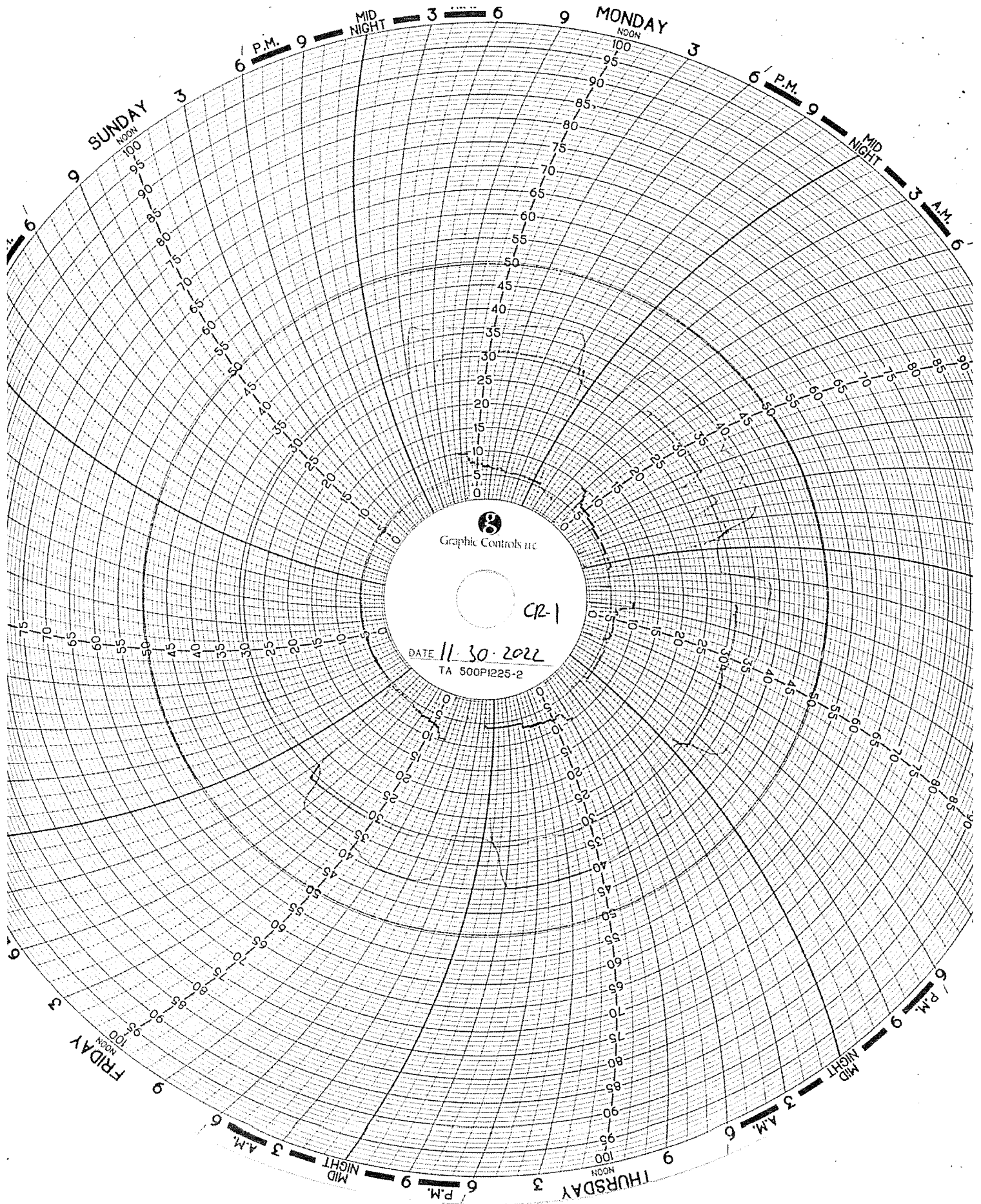






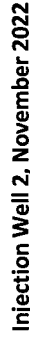






## **WELL 2 DATA**





**Injection Well 2, November 2022**

## Circle Chart Index

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

### Chart Recorder #1

Channel #1

**Blue Pen** - Well 1 Injection Pressure (chart value x 30)

Channel #2

**Red Pen** - Well 1 Annulus Pressure (chart value x 30)

Channel #3

**Green Pen** - Well 1 Flow Rate (chart value x 4)

Channel #4

**Black Pen** - Well 1 Annulus Tank Level (chart value x 0)

### Chart Recorder #2

Channel #1

**Blue Pen** - Well 2 Injection Pressure (chart value x 30)

Channel #2

**Red Pen** - Well 2 Annulus Pressure (chart value x 30)

Channel #3

**Green Pen** - Well 2 Flow Rate (chart value x 4)

Channel #4

**Black Pen** - Well 2 Annulus Tank Level (chart value x 0)

### Chart Recorder #3

Channel #1

**Blue Pen** - Injection pH Well 1 & 2 (chart value + 3.3)

Channel #2

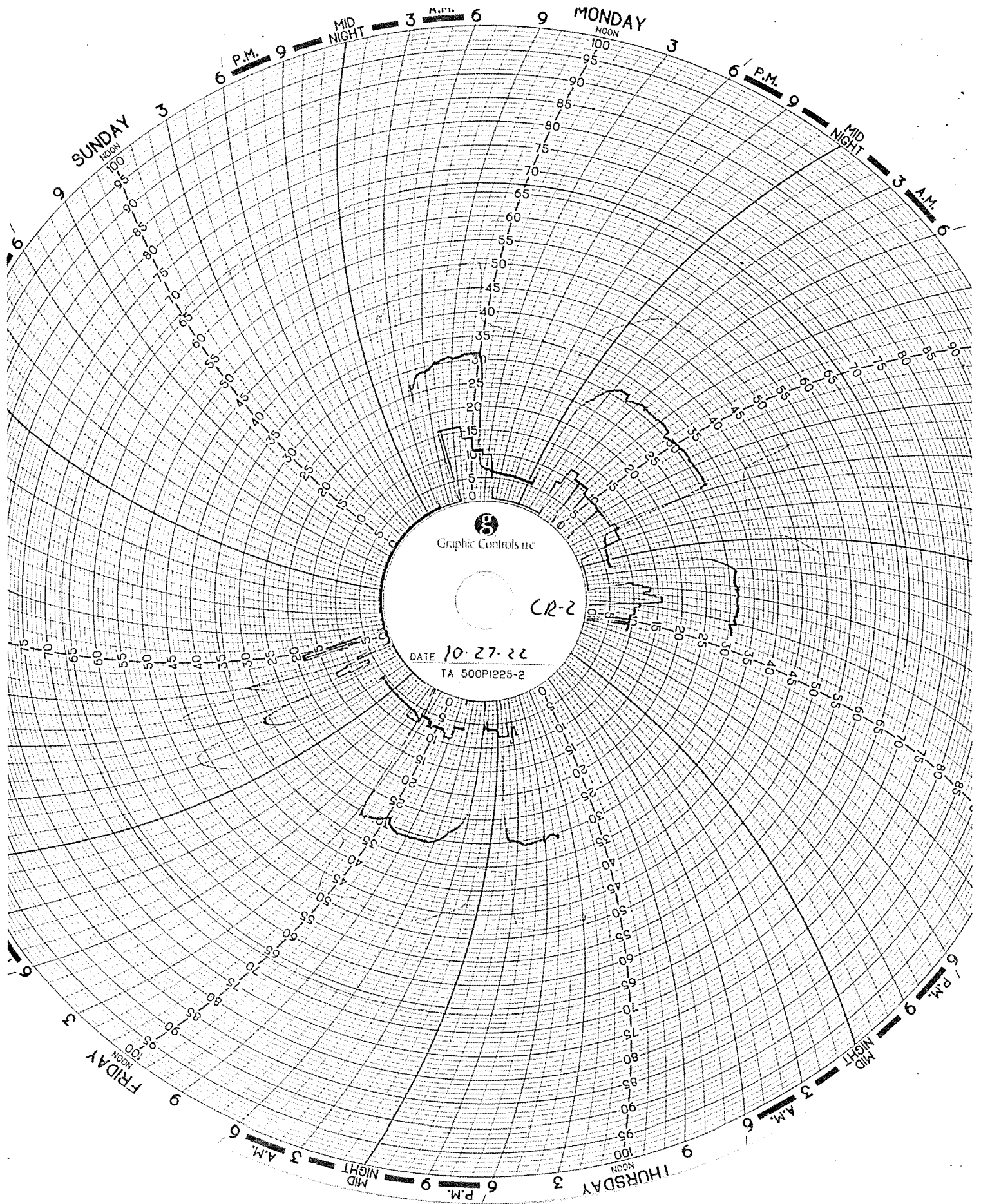
**Red Pen** - Well 1 Monthly Volume (chart value x 100,000)

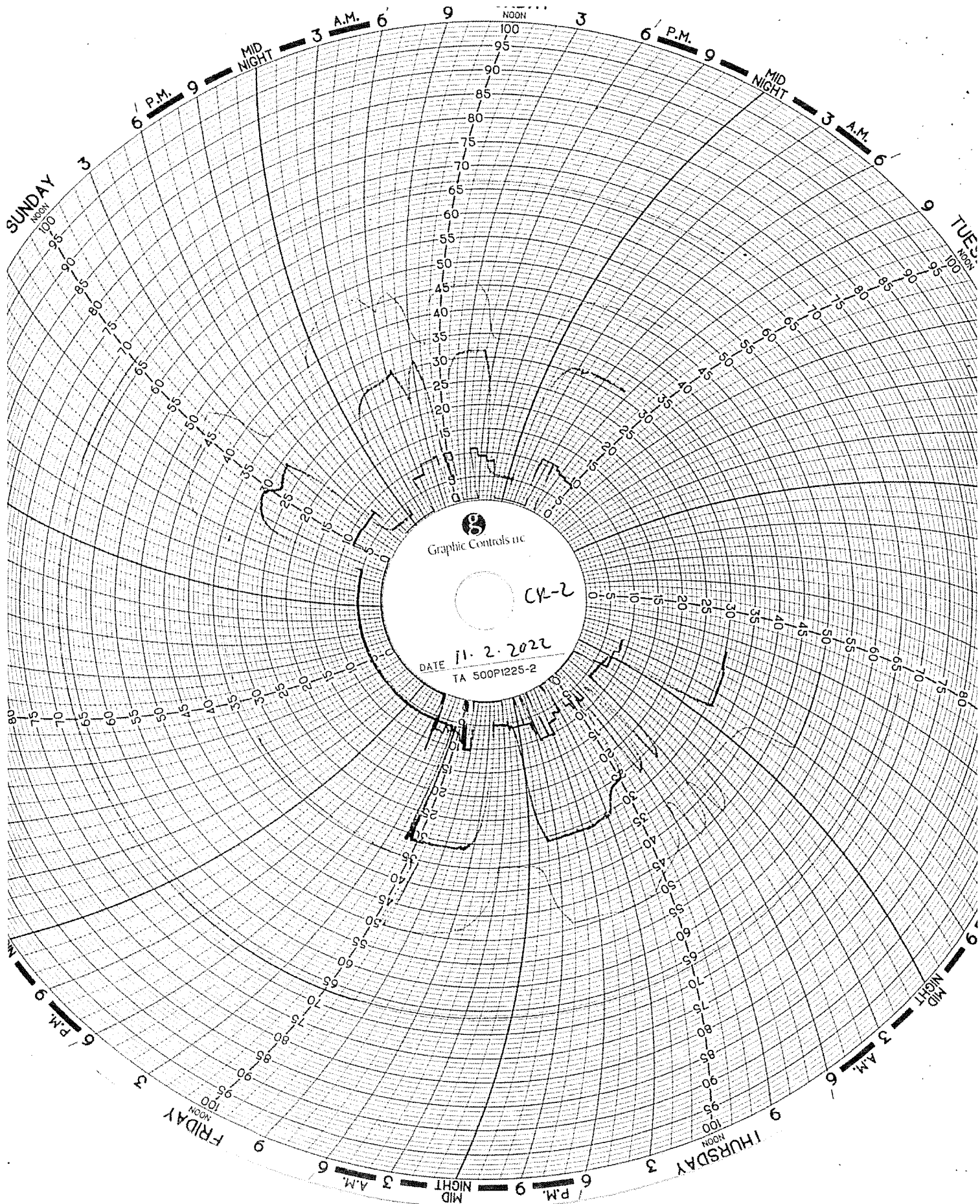
Channel #3

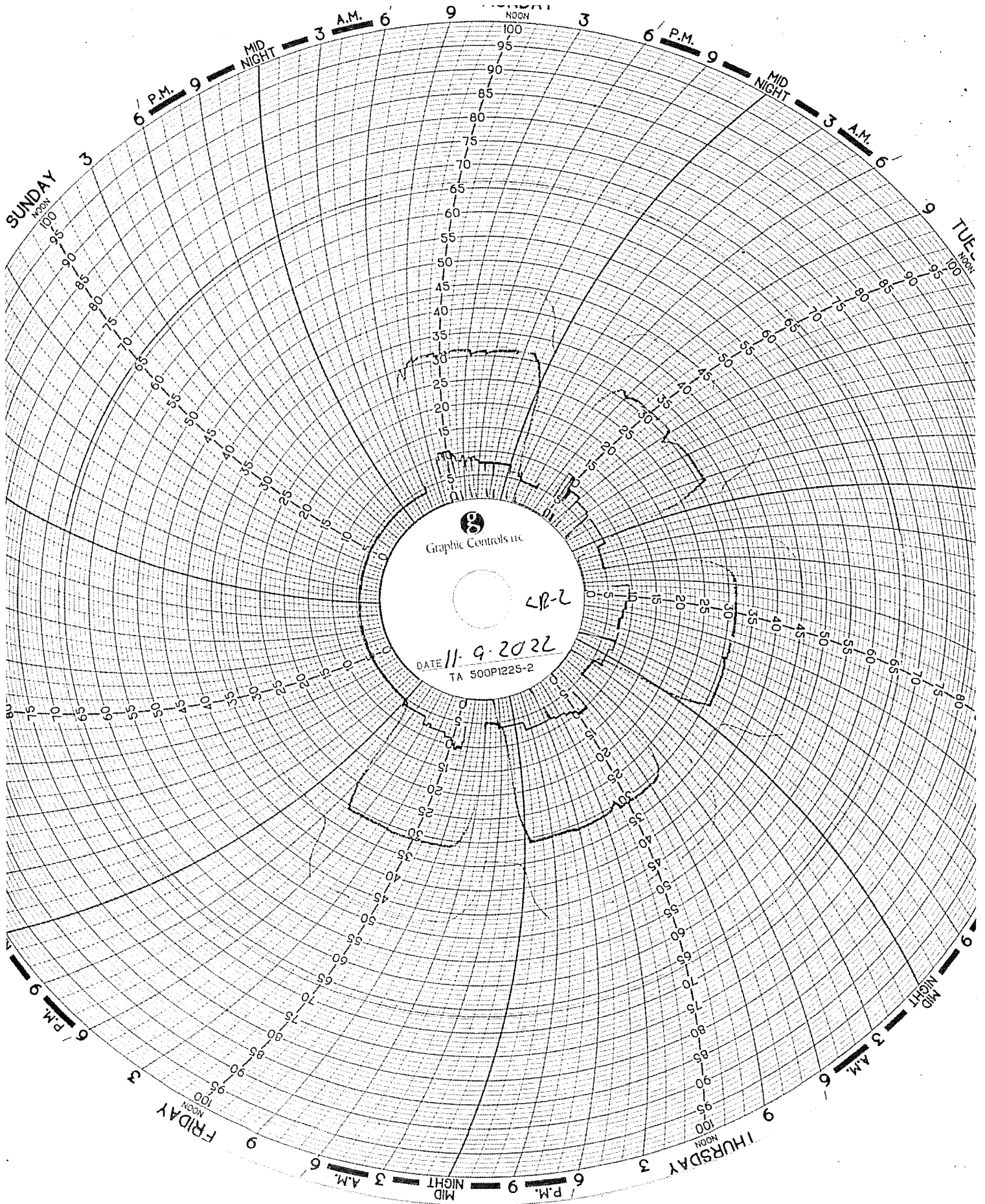
**Green Pen** - Well 2 Monthly Volume (chart value x 100,000)

Channel #4

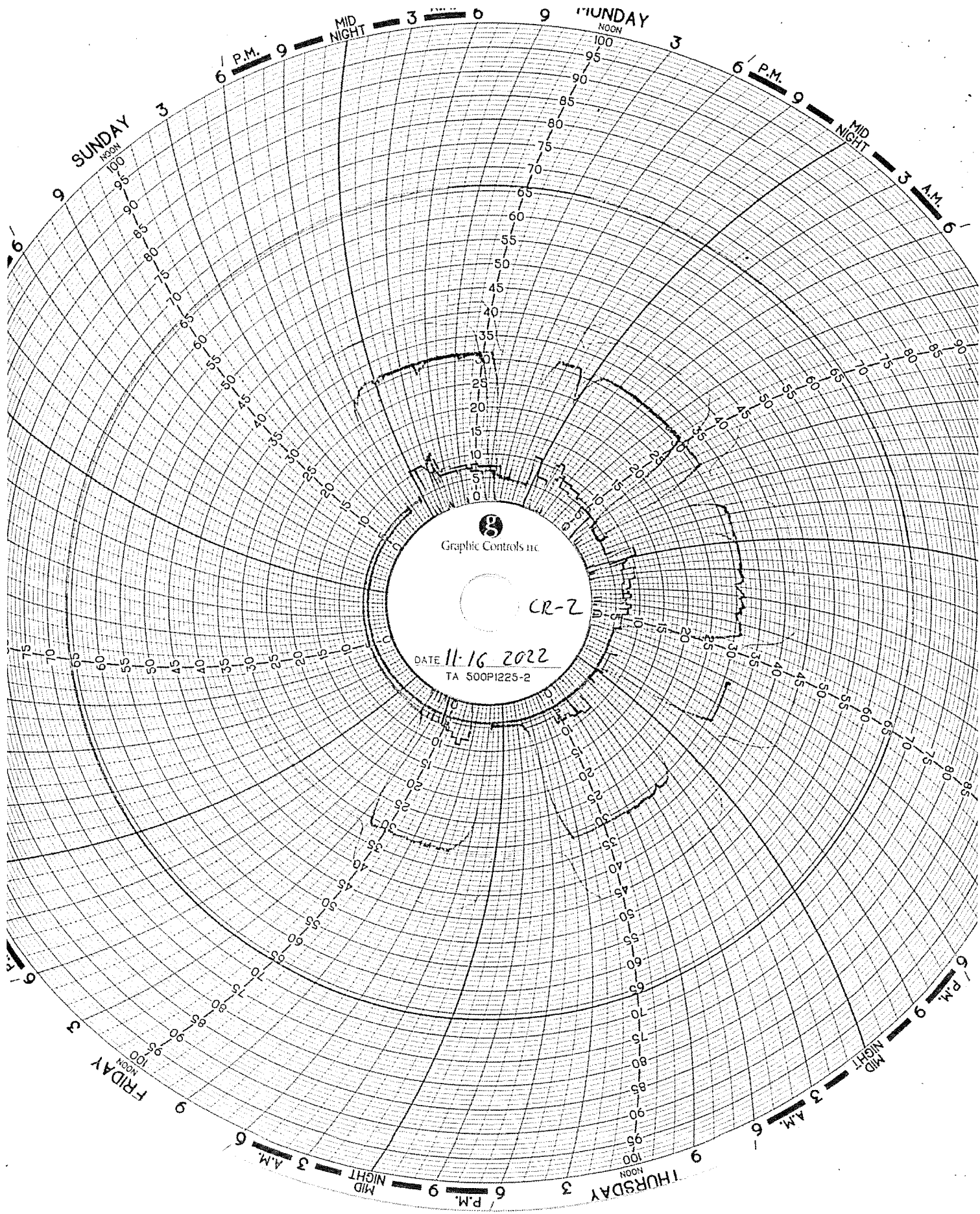
**Black Pen** - Temperature (chart value x 0)







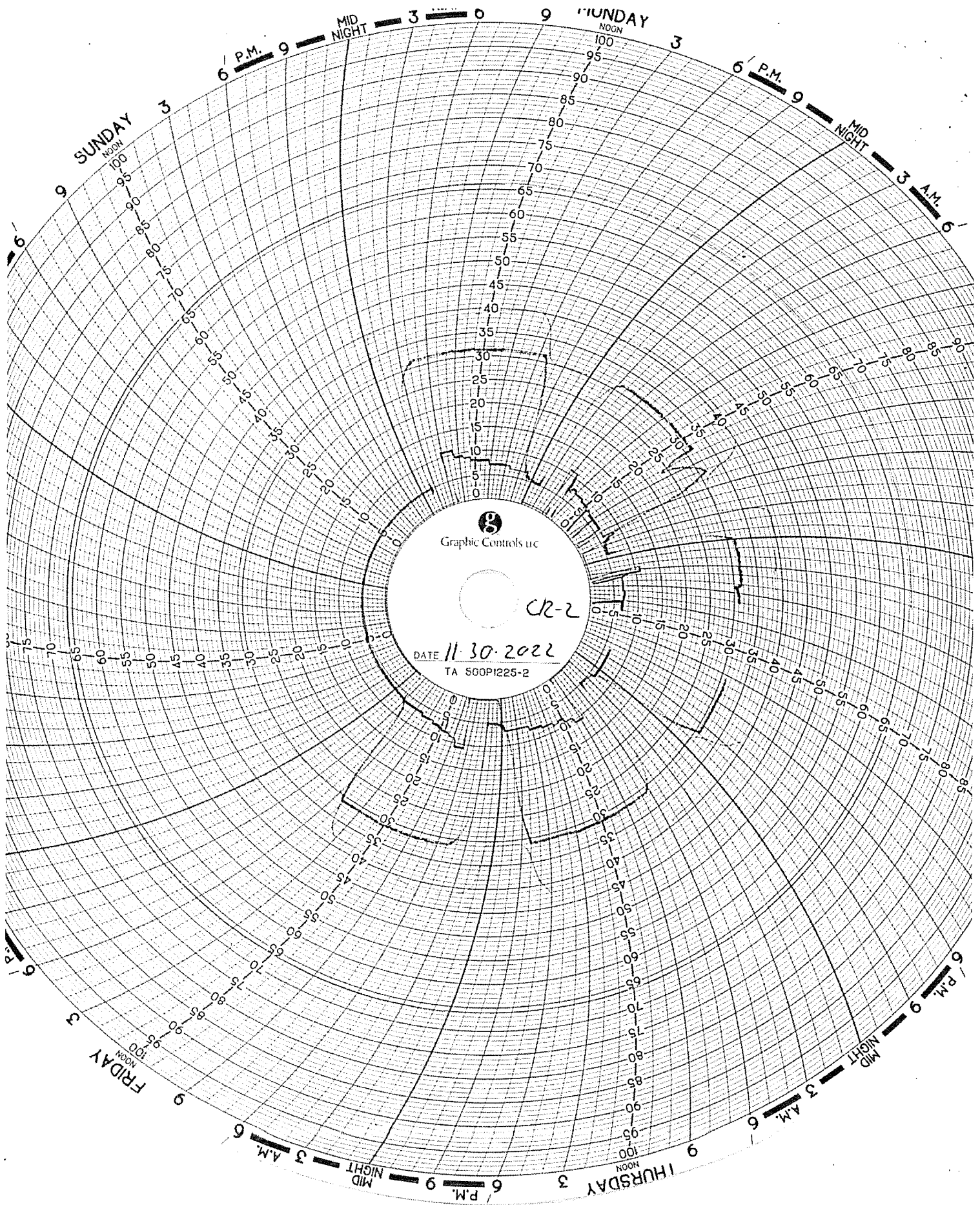




Graphic Controls inc

CR-2

DATE 11-16-2022  
TA 500PI225-2



## Circle Chart Index

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

### Chart Recorder #1

Channel #1

**Blue Pen** - Well 1 Injection Pressure (chart value x 30)

Channel #2

**Red Pen** - Well 1 Annulus Pressure (chart value x 30)

Channel #3

**Green Pen** - Well 1 Flow Rate (chart value x 4)

Channel #4

**Black Pen** - Well 1 Annulus Tank Level (chart value x 0)

### Chart Recorder #2

Channel #1

**Blue Pen** - Well 2 Injection Pressure (chart value x 30)

Channel #2

**Red Pen** - Well 2 Annulus Pressure (chart value x 30)

Channel #3

**Green Pen** - Well 2 Flow Rate (chart value x 4)

Channel #4

**Black Pen** - Well 2 Annulus Tank Level (chart value x 0)

### Chart Recorder #3

Channel #1

**Blue Pen** - Injection pH Well 1 & 2 (chart value + 3.3)

Channel #2

**Red Pen** - Well 1 Monthly Volume (chart value x 100,000)

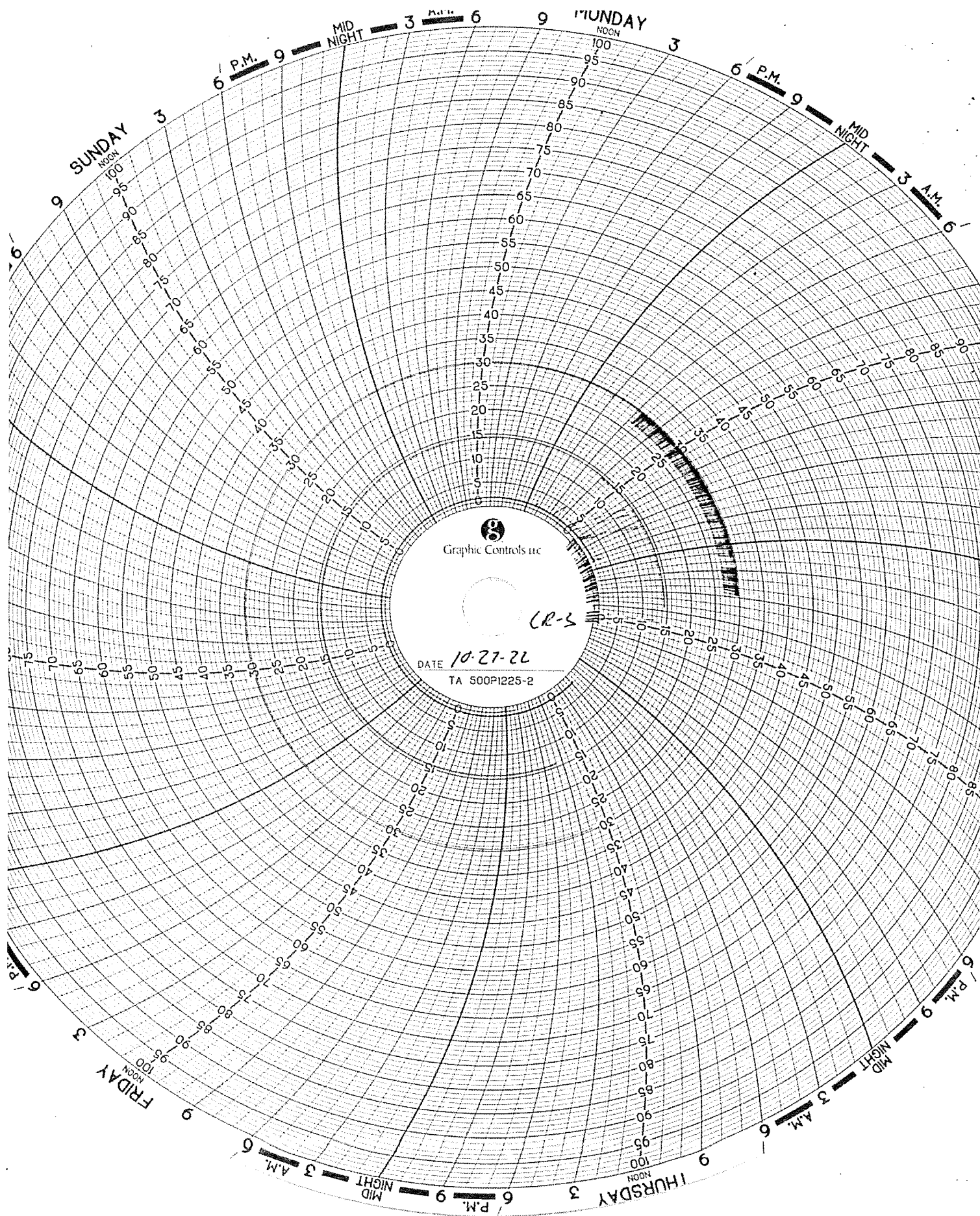
Channel #3

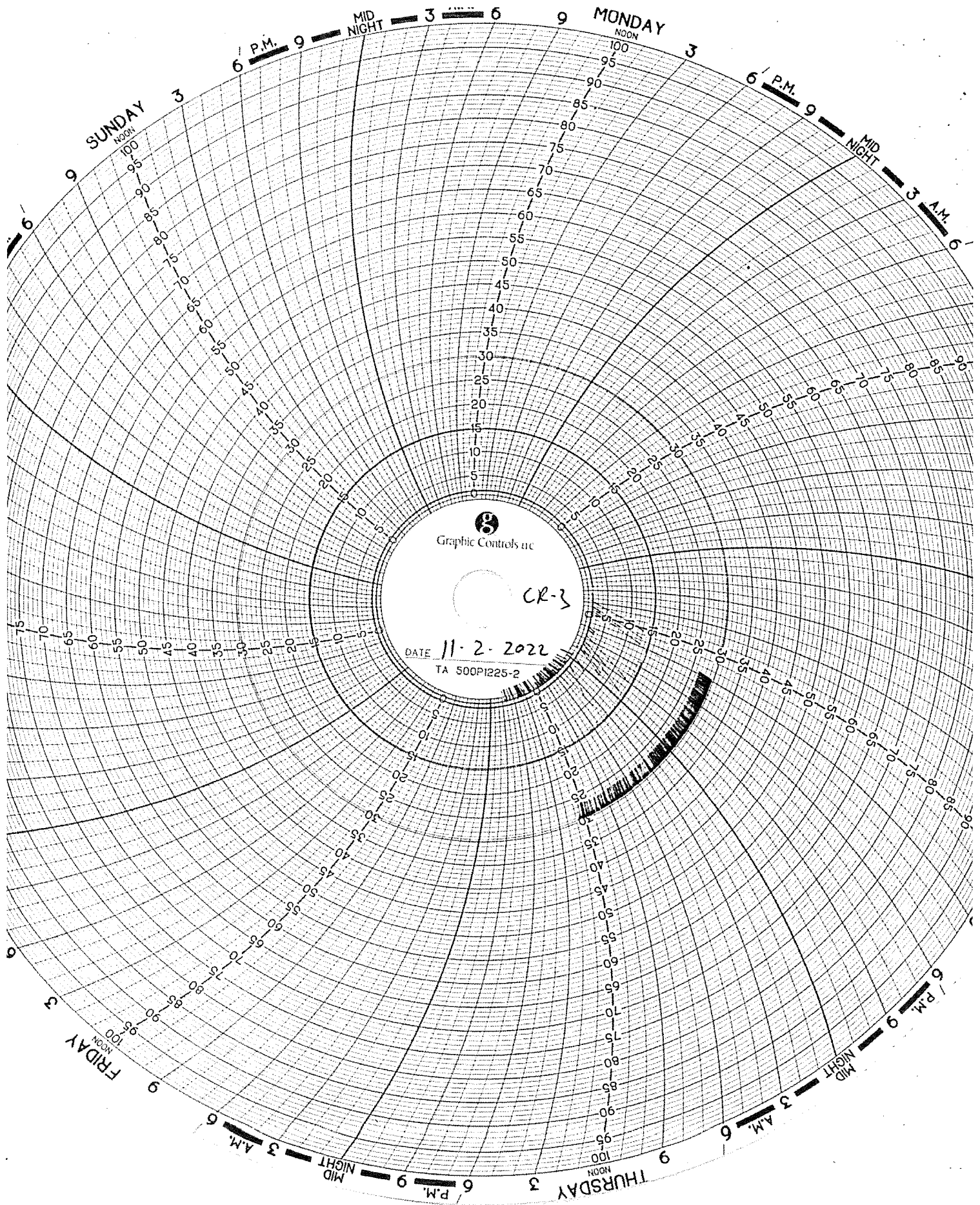
**Green Pen** - Well 2 Monthly Volume (chart value x 100,000)

Channel #4

**Black Pen** - Temperature (chart value x 0)





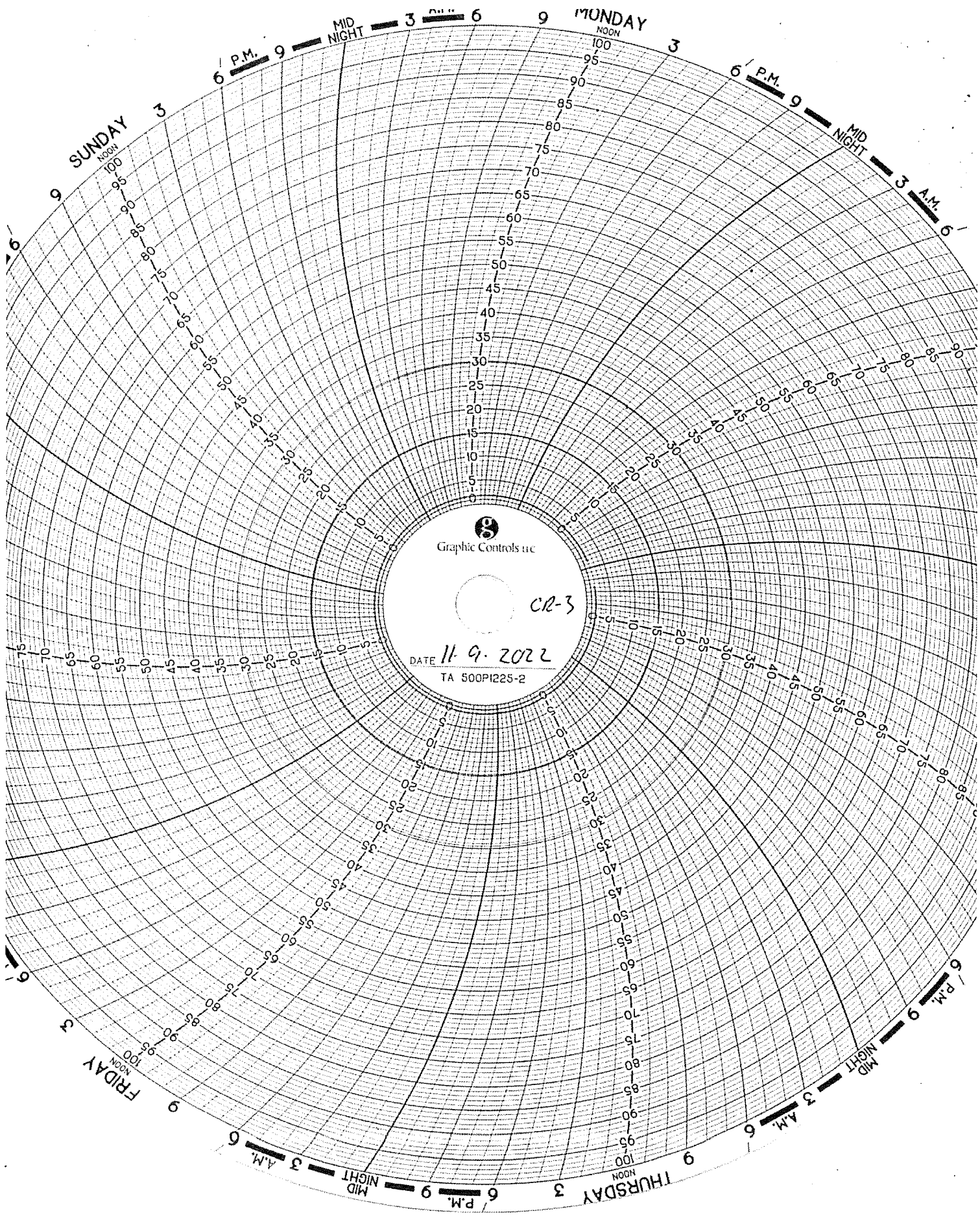


Graphic Controls inc

CR-3

DATE 11-2-2022

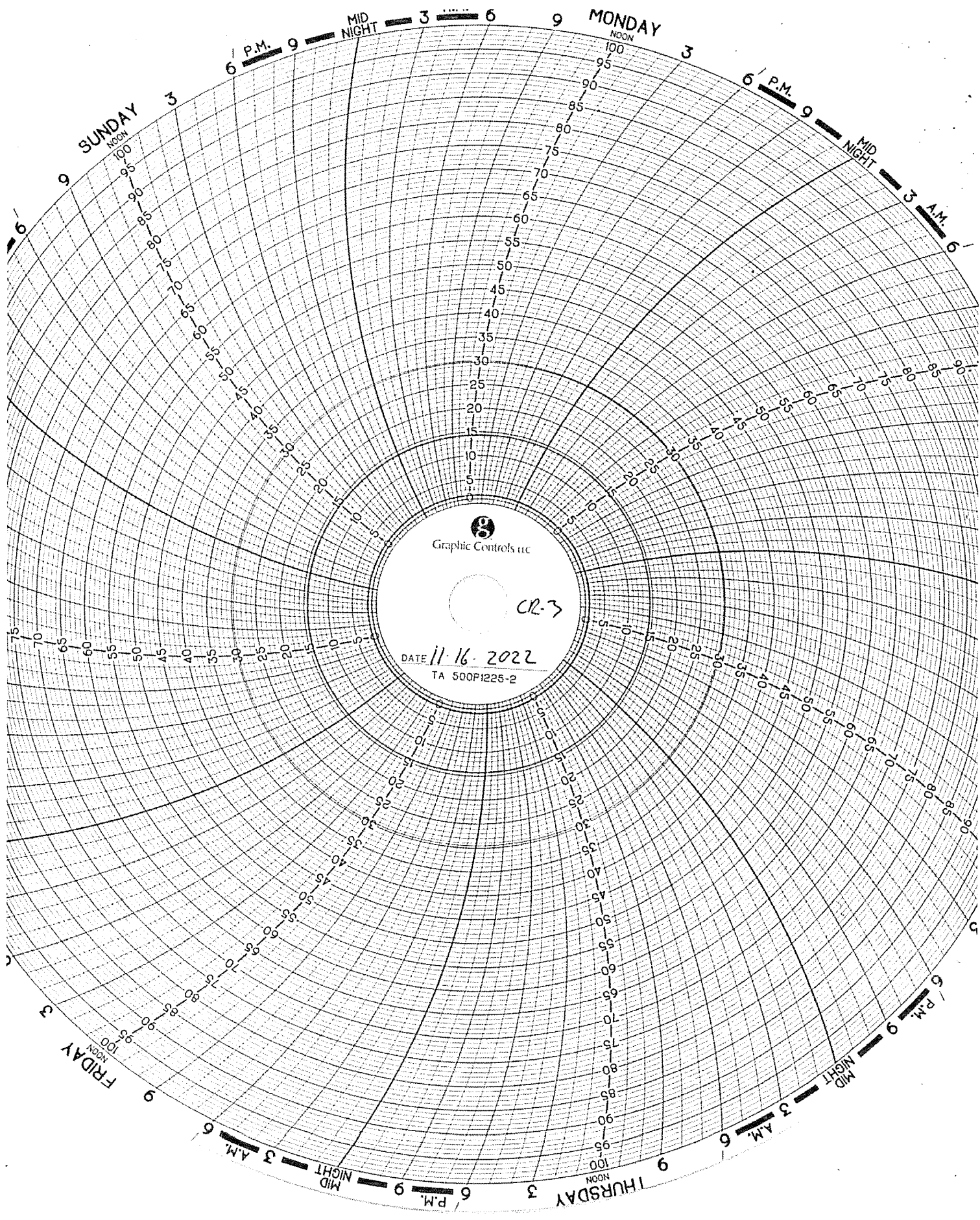
TA 500P1225-2



Graphic Controls LLC

CR-3

DATE 11-9-2022  
TA 500PI225-2

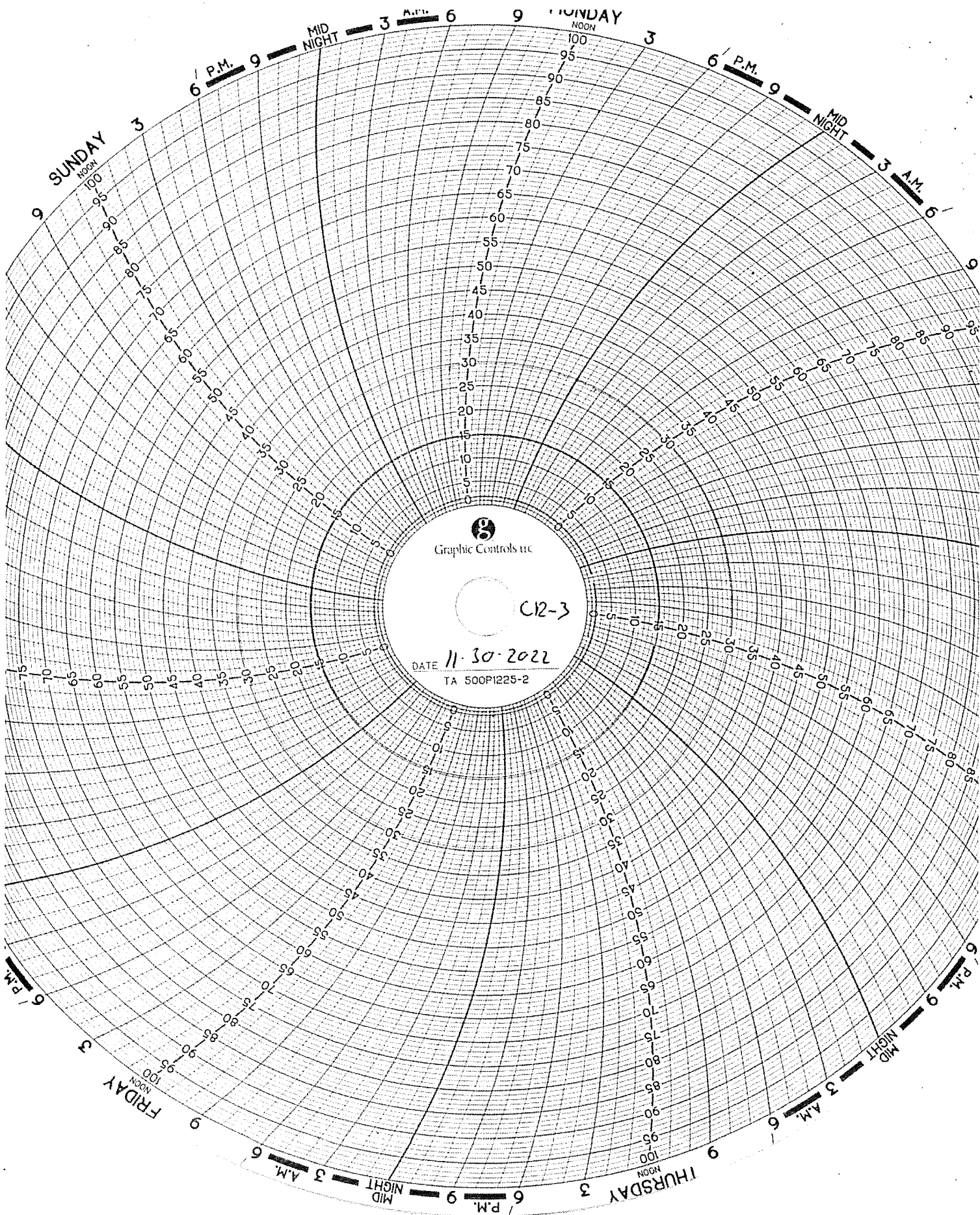


Graphic Controls LLC

CR-3

DATE 11-16-2022  
TA 500P1225-2





## **CORROSION MONITORING**

**CORROSION MONITORING PLAN**  
**COUPON SUMMARY**

| Date       | Hastelloy | Stainless Steel | Fiberglass |                            |
|------------|-----------|-----------------|------------|----------------------------|
|            | (C267)    | (316L)          | (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    | New hastelloy coupon       |
| 2/23/2015  | 13.339 g  | 9.286 g         | 7.005 g    |                            |
| 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    |                            |
| 11/16/2015 | 13.334 g  | 8.982 g         | 6.788 g    |                            |
| 12/17/2015 | 13.334 g  | 8.933 g         | 6.791 g    | New stainless steel coupon |
| 1/29/2016  | 13.334 g  | 8.931 g         | 6.788 g    |                            |
| 2/16/2016  | 13.332 g  | 8.799 g         | 6.757 g    |                            |
| 3/31/2016  | 13.339 g  | 9.286 g         | 7.005 g    |                            |
| 4/22/2016  | 13.333 g  | 8.590 g         | 6.744 g    |                            |
| 5/31/2015  | 13.334 g  | 6.084 g         | 6.784 g    |                            |
| 6/30/2016  | 13.328 g  | 10.942 g        | 6.793 g    |                            |
| 8/3/2016   | 13.326 g  | 10.529 g        | 6.743 g    |                            |
| 8/29/2016  | 13.325 g  | 10.020 g        | 6.723 g    |                            |
| 10/27/2016 | 13.325 g  | 8.765 g         | 6.708 g    |                            |
| 11/29/2016 | 13.327 g  | 8.571 g         | 6.740 g    |                            |
| 12/12/2016 | 13.323 g  | 8.223 g         | 6.717 g    | New Fiberglass coupon      |
| 1/3/2017   | 13.325 g  | 8.059 g         | 6.712 g    |                            |
| 2/28/2017  | 13.324 g  | 7.634 g         | 6.727 g    |                            |
| 3/24/2017  | 13.325 g  | 7.370 g         | 6.732 g    |                            |
| 4/28/2017  | 13.325 g  | 6.736 g         | 6.736 g    |                            |
| 5/11/2017  | 13.323 g  | 7.352 g         | 6.689 g    |                            |
| 6/12/2017  | 13.323 g  | 7.357 g         | 6.689 g    |                            |
| 7/5/2017   | 13.323 g  | 7.355 g         | 6.689 g    |                            |
| 8/30/2017  | 13.324 g  | 7.353 g         | 18.105 g   |                            |
| 9/28/2017  | 13.325 g  | 7.352 g         | 18.060 g   |                            |
| 10/11/2017 | 13.324 g  | 7.350 g         | 18.038 g   |                            |
| 11/16/2017 | 13.325 g  | 7.363 g         | 18.047 g   |                            |
| 12/12/2017 | 13.326 g  | 7.308 g         | 18.307 g   |                            |

**CORROSION MONITORING PLAN**  
**COUPON SUMMARY**

| Date       | Hastelloy | Stainless Steel | Fiberglass |                            |
|------------|-----------|-----------------|------------|----------------------------|
| 1/29/2018  | 13.326 g  | 10.930 g        | 18.027 g   | New stainless steel coupon |
| 2/9/2018   | 13.325 g  | 10.932 g        | 18.044 g   |                            |
| 3/19/2018  | 13.325 g  | 10.926 g        | 18.030 g   |                            |
| 4/16/2018  | 13.336 g  | 10.863 g        | 18.068 g   |                            |
| 5/17/2018  | 13.325 g  | 10.858 g        | 18.037 g   |                            |
| 6/20/2018  | 13.325 g  | 10.855 g        | 18.029 g   |                            |
| 7/12/2018  | 13.326 g  | 10.852 g        | 18.032 g   |                            |
| 8/21/2018  | 13.326 g  | 10.854 g        | 18.031 g   |                            |
| 9/14/2018  | 13.326 g  | 10.852 g        | 18.036 g   |                            |
| 10/10/2018 | 13.326 g  | 10.851 g        | 18.031 g   |                            |
| 11/20/2018 | 13.326 g  | 10.853 g        | 18.032 g   |                            |
| 12/11/2018 | 13.326 g  | 10.852 g        | 18.033 g   |                            |
| 1/14/2019  | 13.326 g  | 10.852 g        | 18.033 g   |                            |
| 2/20/2019  | 13.326 g  | 10.850 g        | 18.033 g   |                            |
| 3/15/2019  | 13.326 g  | 10.850 g        | 18.033 g   |                            |
| 4/10/2019  | 13.326 g  | 10.848 g        | 18.031 g   |                            |
| 5/17/2019  | 13.326 g  | 10.849 g        | 18.036 g   |                            |
| 6/5/2019   | 13.326 g  | 10.848 g        | 18.031 g   |                            |
| 7/8/2019   | 13.326 g  | 10.845 g        | 18.032 g   |                            |
| 8/12/2019  | 13.326 g  | 10.845 g        | 18.032 g   |                            |
| 9/8/2019   | 13.326 g  | 10.842 g        | 18.029 g   |                            |
| 10/17/2019 | 13.326 g  | 10.842 g        | 18.030 g   |                            |
| 11/20/2019 | 13.326 g  | 10.842 g        | 18.030 g   |                            |
| 12/11/2019 | 13.326 g  | 10.842 g        | 18.030 g   |                            |
| 1/16/2020  | 13.326 g  | 10.840 g        | 18.033 g   | Well 1 workover new well   |
| 2/6/2020   | 13.326 g  | 10.836 g        | 18.034 g   |                            |
| 3/3/2020   | 13.326 g  | 10.842 g        | 18.034 g   |                            |
| 4/9/2020   | 13.328 g  | 10.839 g        | 18.037 g   |                            |
| 5/12/2020  | 13.322 g  | 10.830 g        | 18.035 g   |                            |
| 6/16/2020  | 13.316 g  | 10.771 g        | 18.009 g   |                            |
| 7/16/2020  | 13.308 g  | 10.560 g        | 17.843 g   |                            |
| 8/25/2020  | 13.310 g  | 10.214 g        | 17.773 g   |                            |
| 9/24/2020  | 13.289 g  | 9.796 g         | 17.656 g   |                            |
| 10/19/2020 | 13.282g   | 9.737g          | 17.621g    |                            |
| 11/5/2020  | 13.280g   | 9.728g          | 17.600g    |                            |
| 12/3/2020  | 13.281g   | 9.730g          | 17.689g    |                            |
| 2/10/2021  | 13.284g   | 9.728g          | 17.683g    |                            |
| 3/9/2021   | 13.290g   | 9.733g          | 17.585g    |                            |
| 4/13/2021  | 13.288g   | 9.730g          | 17.649g    |                            |
| 5/18/2021  | 13.282g   | 9.691g          | 17.543g    |                            |
| 6/17/2021  | 13.279g   | 9.639g          | 17.546g    |                            |
| 7/19/2021  | 13.278g   | 9.480g          | 17.507g    |                            |
| 8/3/2021   | 13.278g   | 9.437g          | 17.467g    |                            |
| 9/14/2021  | 13.277g   | 9.392g          | 17.467g    |                            |
| 10/11/2021 | 13.277g   | 9.359g          | 17.465g    |                            |
| 11/3/2021  | 13.277g   | 9.350g          | 17.273g    |                            |
| 12/15/2021 | 13.276g   | 9.351g          | 17.256g    |                            |
| 1/17/2022  | 13.276g   | 9.351g          | 17.256g    |                            |
| 2/15/2022  | 13.276g   | 9.347g          | 16.965g    |                            |
| 3/18/2022  | 13.281g   | 9.368g          | 17.246g    |                            |



CORROSION MONITORING PLAN  
COUPON SUMMARY

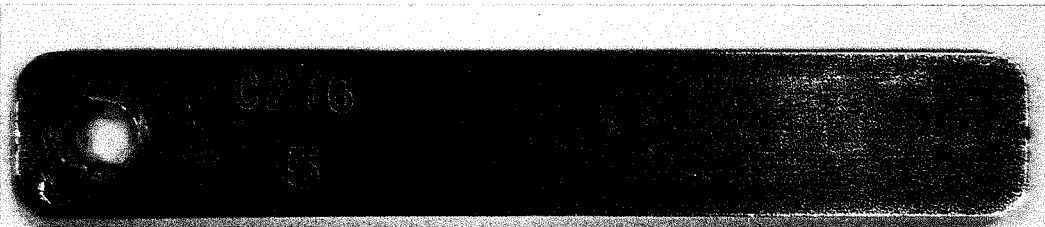
|            |        |       |        |  |
|------------|--------|-------|--------|--|
| 4/18/2022  | 13.275 | 9.339 | 16.656 |  |
| 5/16/2022  | 13.298 | 9.328 | 16.600 |  |
| 6/15/2022  | 13.276 | 9.300 | 16.219 |  |
| 7/20/2022  | 13.303 | 9.324 | 16.393 |  |
| 8/17/2022  | 13.277 | 9.195 | 15.841 |  |
| 9/9/2022   | 13.276 | 9.171 | 15.757 |  |
| 10/19/2022 | 13.274 | 9.157 | 15.623 |  |
| 11/18/2022 | 13.274 | 9.145 | 15.801 |  |



**316L / C1563**

**Weight: 9.145**

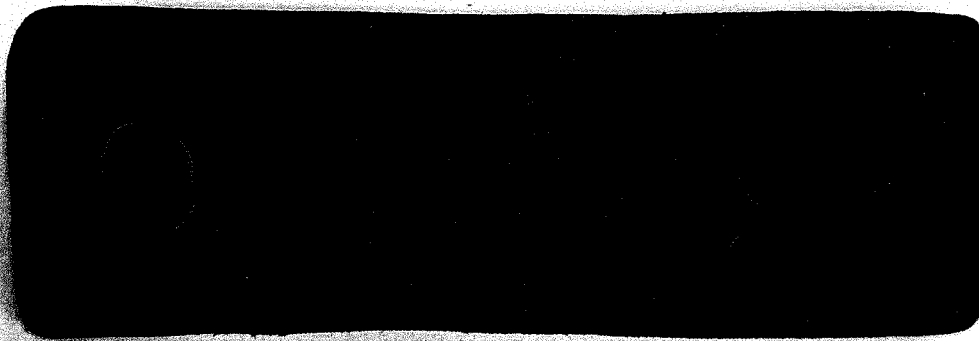
**Date: 11/18/2022**



**C276 / 5**

**Weight: 13.274**

**Date: 11/18/2022**



**Fiberglass**

**Weight: 15.801**

**Date: 11/18/2022**

## **COOROSION MONITORING COUPONS VISUAL DESCRIPTION**

**November 2022**

### **Fiberglass Coupon**

**The coupon is black in color with a semi-smooth texture on both sides. Its cut edges appear sanded. The coupon is free of cracks, pitting, swelling, blemishes, and corrosion. There is no obvious effect on this coupon since last month. The coupon has apparently been dyed black by received wastestreams.**

### **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 is no effect to this coupon.**

### **Stainless Steel Coupon**

**This coupon is identified as: Serial Number: C1563 / 316L. No change to this coupon since last month. It is clean with a small amount of pitting.**

# 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.

October 22, 2015

**• TEST REPORT •**

**PN 125322**  
**PO 00154**

**PLASTICS TESTING DEPARTMENT**

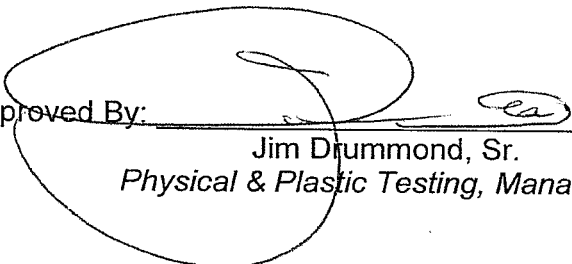
Prepared For:

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



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

**ISO 9001:2008**  
Registered

\*Certificate Numbers 255.01 & 255.02

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October 22, 2015

John Frost  
Environmental Geo-Technologies, LLC

Page 2 of 2  
PN 125322

**SUBJECT:** Barcol Hardness on one material.

**RECEIVED:** One small section identified as; Fiberglass Coupon.

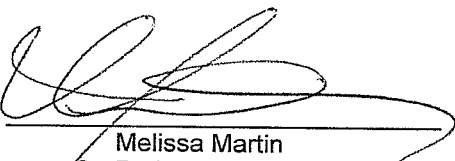
**BARCOL HARDNESS ASTM D 2583-13a**  
Instant Reading

**Results**

Barcol Hardness, Instant

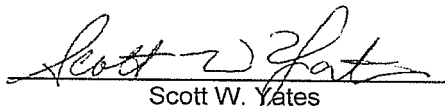
96

Prepared By:

  
Melissa Martin  
Sr. Project Technician

tc

Approved By:

  
Scott W. Yates  
Plastics Testing Assistant Manager



AKRON RUBBER DEVELOPMENT LABORATORY, INC.

Progress Through Innovation, Technology and Customer Satisfaction

December 12, 2016

## TEST REPORT

PN 132662

PO

### PLASTICS TESTING DEPARTMENT

Prepared For:

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

Prepared By:

Melissa Martin  
Senior Project Technician

Rev 041916

Approved By:

Jim Drummond  
Physical Testing, Manager



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

ISO 9001:2008  
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December 12, 2016

John Frost  
Environmental Geo-Technologies, LLC

Page 2 of 2  
PN 132662

**SUBJECT:** Barcol Hardness on one (1) material.

**RECEIVED:** One (1) small section identified as; Fiberglass Coupon.


**BARCOL HARDNESS ASTM D 2583-13a**  
Instant Reading

**RESULTS**

Barcol Hardness, Instant

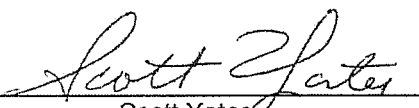
96

Prepared By:

  
Melissa Martin  
Senior Project Technician

wk

Approved By:

  
Scott Yates  
Plastics Testing, Assistant Manager

*\*ARDL is ISO 17025 accredited by A2LA for the test methods listed on the certificates referenced on page one. NOTE: Non-ISO 17025 accredited test methods are designated with the ^ symbol to differentiate from ISO 17025 accredited methods in the body of the test report.\**





AKRON RUBBER DEVELOPMENT LABORATORY, INC.

Progress Through Innovation, Technology and Customer Satisfaction

December 13, 2017

## TEST REPORT

PN 139140

PO#

### PLASTIC 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  
Rubber & Plastic Testing, Manager

Rev 041916



\*Certificate Numbers 255.01 & 255.02

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

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Registered

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December 13, 2017

John Frost  
Environmental Geo-Technologies, LLC

Page 2 of 2  
PN 139140

**SUBJECT:** Barcol Hardness on one material.

**RECEIVED:** One small section identified as; Fiberglass Coupon.

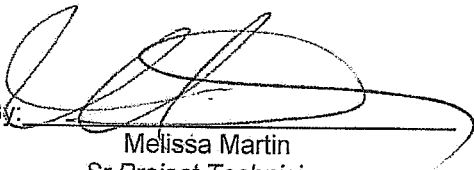
**BARCOL HARDNESS ASTM D 2583-13a**  
Instant Reading

**Results**

Barcol Hardness, Instant

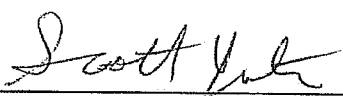
96

Prepared By:

  
Melissa Martin  
Sr Project Technician

sc

Approved By:

  
Scott Yates  
Plastics Testing, Assistant Manager

*\*ARDL is ISO 17025 accredited by A2LA for the test methods listed on the certificates referenced on page one. NOTE: Non-ISO 17025 accredited test methods are designated with the ^ symbol to differentiate from ISO 17025 accredited methods in the body of the test report.\**

# 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:

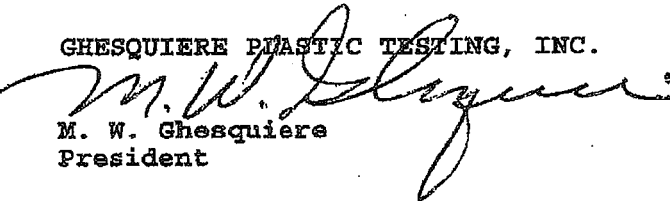
### BARCOL HARDNESS

#### Hardness

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

Specimen is being returned with this report for further evaluation.

Ghesquiere Plastic Testing, Inc.

  
M. W. Ghesquiere  
President

MWG/kni

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TOTAL 1 PAGES

# Ghesquiere Plastic Testing, Inc.

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

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

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

Attention: Mr. Don Anderson

## WORK REQUESTED:

Perform Barcol Hardness test on sample submitted.

## DESCRIPTION OF SAMPLE:

Sample submitted was identified as a fiberglass test coupon.

(P. O. #Credit Card).

## WORK PERFORMED:

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

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

## RESULTS:

The following determination was made based upon the above test:

### BARCOL HARDNESS

#### Hardness

Specimen 1: 90

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

Ghesquiere Plastic Testing, Inc.

M. W. Ghesquiere  
President

MWG/dm

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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

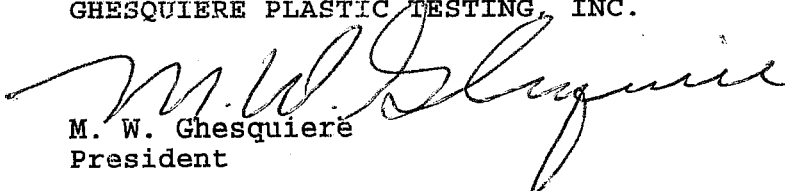
### Hardness

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

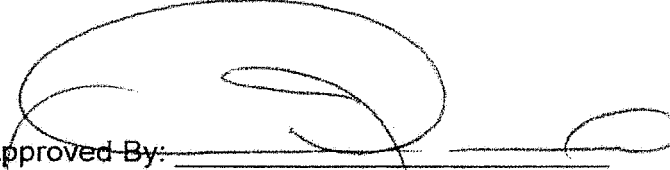
Prepared For:

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



A Testing Lab  
\*Certificate Numbers 255.01 & 255.02

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

**ISO 9001:2008**  
Registered

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[www.ardl.com](http://www.ardl.com)

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

October 2, 2014

John Frost  
Environmental Geo-Technologies, LLC

Page 2 of 2  
PN118325

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

**RECEIVED:** One small section identified as; Fiberglass Coupon.


**BARCOL HARDNESS ASTM D 2583-13a**

**Results**

Barcol Hardness, Instant

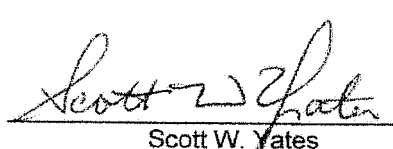
97

Prepared By: \_\_\_\_\_

  
Melissa Martin  
Sr. Project Technician

st

Approved By: \_\_\_\_\_

  
Scott W. Yates  
Plastics Testing Assistant Manager

www.ardl.com

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

### BARCOL HARDNESS REPORT

Customer: Republic Industrial and Energy Solutions, LLC

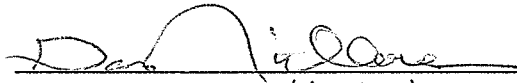
Component Tested: Test Coupon

PO Number: 9575553 Job Number: 3415

Calibration: Disc: 43 - 48 Actual Reading: 45

| Barcol Readings  | 1  | 2  | 3  | Average |
|------------------|----|----|----|---------|
| Side One:        | 62 | 63 | 58 | 61      |
| Side Two:        | 58 | 60 | 57 | 58      |
| Overall Average: |    |    |    | 60      |

Tested By:

  
(signature)

Gary Nicholson  
(print or type name)

Date: 01/12/2021



### BARCOL HARDNESS REPORT

Customer: Republic Industrial and Energy Solutions, LLC

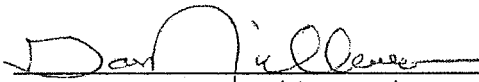
Component Tested: Test Coupon

PO Number: 10159792 Job Number: 3556

Calibration: Disc: 43 - 48 Actual Reading: 45

| Barcol Readings  | 1  | 2  | 3  | Average |
|------------------|----|----|----|---------|
| Side One:        | 56 | 60 | 60 | 59      |
| Side Two:        | 60 | 62 | 62 | 61      |
| Overall Average: |    |    |    | 60      |

Tested By:

  
(signature)

Gary Nicholson  
(print or type name)

Date: 10/11/2021

### BARCOL HARDNESS REPORT

Customer: Republic Industrial and Energy Solutions

Component Tested: Fiberglass Coupon

PO Number: Credit Card Job Number: 3734

Calibration: Disc: 43 - 48 Actual Reading: 45

| Barcol Readings  | 1  | 2  | 3  | Average |
|------------------|----|----|----|---------|
| Side One:        | 55 | 50 | 58 | 54      |
| Side Two:        | 53 | 56 | 59 | 56      |
| Overall Average: |    |    |    | 55      |

Tested By:

  
(signature)

Gary Nicholson  
(print or type name)

Date: 08/23/2022

## **MAINTENANCE**

UIC Monthly Maintenance Log

|                           |
|---------------------------|
| No Maintenance this month |
|---------------------------|

## **INJECTION FINGERPRINTS**

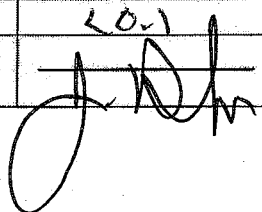
In reviewing the November 2022 injection fingerprints, RIES operations personnel discovered that twelve (12) injection fingerprints are not included in the November 2022 monthly report. The missing injection fingerprints are:

11032201  
11042203  
11082202  
11092201  
11102201  
11112201  
11112202  
11142201  
11142202  
11212201  
11212202  
11222203

Corrective actions to prevent this from occurring in the future include additional training for operations personnel responsible for obtaining and recording the fingerprints and reinforcing the gravity of accurate reporting. This issue has been discussed as part of RIES management daily meetings to ensure that injection fingerprints are up to date and complete.

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |             |
|------------------------|-------------|
| Date                   | 11 / 1 / 22 |
| Receiving ID#          | 11012201    |
| Manifest #             | Line        |
| Land Ban Cert included | Yes No      |
| EGT Approval #         |             |
| Generator              |             |
| Client                 |             |
| Transporter            |             |
| Time in                |             |
| Time out               |             |
| Received by            | S.J.        |
| Sampled by             | D           |

| LAB INFORMATION               |   |
|-------------------------------|---|
| Compatible? (RT# )            |   |
| PCBs (ppm) (Oily Waste Only)? |   |
| TOC ppm (CC Waste Only)?      |   |
| Flash Point (F)               |   |
| pH (S.U.)                     | 8.76  |
| Cyanides? (mg/L)              |   |
| Sulfides? (ppm)?              |   |
| Specific Gravity              | 1.06  |
| Physical Description          |   |
| Stream Consistency            | Yes No  |
| Oil in Sample?                | Yes No  |
| Temperature (F)               | 66.2  |
| Conductivity                  | 4.48  |
| % Solids                      |   |
| Turbidity                     | Yes No  |
| Color                         |   |
| TSS (%)                       | 20.1  |
| Radiation Screen (as needed)  |   |
| Lab Signature/Initials        |  |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |             |
|------------------------|-------------|
| Date                   | 11 / 1 / 22 |
| Receiving ID#          | 211012209   |
| Manifest #             | Line        |
| Land Ban Cert included | Yes No      |
| EGT Approval #         |             |
| Generator              |             |
| Client                 |             |
| Transporter            |             |
| Time in                |             |
| Time out               |             |
| Received by            | J.H.        |
| Sampled by             | AW          |

| LAB INFORMATION               |        |
|-------------------------------|--------|
| Compatible? (RT# )            |        |
| PCBs (ppm) (Oily Waste Only)? |        |
| TOC ppm (CC Waste Only)?      |        |
| Flash Point (F)               | > 140  |
| pH (S.U.)                     | 5.87   |
| Cyanides? (mg/L)              |        |
| Sulfides? (ppm)?              |        |
| Specific Gravity              | 1.01   |
| Physical Description          |        |
| Stream Consistency            | Yes No |
| Oil in Sample?                | Yes No |
| Temperature (F)               | 71.7   |
| Conductivity                  | 17.15  |
| % Solids                      | 0.15   |
| Turbidity                     | Yes No |
| Color                         |        |
| TSS (%)                       | < 0.1  |
| Radiation Screen (as needed)  |        |
| Lab Signature/Initials        | J.H.   |



## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |               |
|------------------------|---------------|
| Date                   | 11/1/22       |
| Receiving ID#          | J.H. 11012203 |
| Manifest #             | Line          |
| Land Ban Cert included | Yes - No      |
| EGT Approval #         |               |
| Generator              |               |
| Client                 |               |
| Transporter            |               |
| Time in                |               |
| Time out               |               |
| Received by            | J.H.          |
| Sampled by             | Ø             |

I 11012203

| LAB INFORMATION               |        |
|-------------------------------|--------|
| Compatible? (RT# )            |        |
| PCBs (ppm) (Oily Waste Only)? |        |
| TOC ppm (CC Waste Only)?      |        |
| Flash Point (F)               | 2140   |
| pH (S.U.)                     | 4.82   |
| Cyanides? (mg/L)              |        |
| Sulfides? (ppm)?              |        |
| Specific Gravity              | 1.01   |
| Physical Description          |        |
| Stream Consistency            | Yes No |
| Oil in Sample?                | Yes No |
| Temperature (F)               | 76.7   |
| Conductivity                  | 124.0  |
| % Solids                      | 0.86   |
| Turbidity                     | Yes No |
| Color                         |        |
| TSS (%)                       | <0.1   |
| Radiation Screen (as needed)  |        |
| Lab Signature/Initials        | J.H.   |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |           |
|------------------------|-----------|
| Date                   | 11/01/22  |
| Receiving ID#          | 211012204 |
| Manifest #             | Line      |
| Land Ban Cert included | Yes No    |
| EGT Approval #         |           |
| Generator              |           |
| Client                 |           |
| Transporter            |           |
| Time in                |           |
| Time out               |           |
| Received by            | J.H.      |
| Sampled by             | BA        |

| LAB INFORMATION               |        |
|-------------------------------|--------|
| Compatible? (RT# )            | U      |
| PCBs (ppm) (Oily Waste Only)? |        |
| TOC ppm (CC Waste Only)?      |        |
| Flash Point (F)               | 2140   |
| pH (S.U.)                     | 2.25   |
| Cyanides? (mg/L)              |        |
| Sulfides? (ppm)?              |        |
| Specific Gravity              | 1.03   |
| Physical Description          |        |
| Stream Consistency            | Yes No |
| Oil in Sample?                | Yes No |
| Temperature (F)               | 71.5   |
| Conductivity                  | 0.244  |
| % Solids                      | 3.37   |
| Turbidity                     | Yes No |
| Color                         |        |
| TSS (%)                       | <0.1   |
| Radiation Screen (as needed)  |        |
| Lab Signature/Initials        | J.H.   |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |           |
|------------------------|-----------|
| Date                   | 11/2/22   |
| Receiving ID#          | 211022203 |
| Manifest #             | Line      |
| Land Ban Cert included | Yes No    |
| EGT Approval #         |           |
| Generator              |           |
| Client                 |           |
| Transporter            |           |
| Time in                |           |
| Time out               |           |
| Received by            | J.H.      |
| Sampled by             | JM        |

| LAB INFORMATION               |         |
|-------------------------------|---------|
| Compatible? (RT# )            |         |
| PCBs (ppm) (Oily Waste Only)? |         |
| TOC ppm (CC Waste Only)?      |         |
| Flash Point (F)               | >140    |
| pH (S.U.)                     | 4.26    |
| Cyanides? (mg/L)              |         |
| Sulfides? (ppm)?              |         |
| Specific Gravity              | 1.00    |
| Physical Description          |         |
| Stream Consistency            | Yes No  |
| Oil in Sample?                | Yes No  |
| Temperature (F)               | 73.4    |
| Conductivity                  | 9.97 mS |
| % Solids                      | 0.37    |
| Turbidity                     | Yes No  |
| Color                         |         |
| TSS (%)                       | <0.1    |
| Radiation Screen (as needed)  |         |
| Lab Signature/Initials        | J.H.    |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |           |
|------------------------|-----------|
| Date                   | 11/02/22  |
| Receiving ID#          | 211022204 |
| Manifest #             | Line      |
| Land Ban Cert included | Yes No    |
| EGT Approval #         |           |
| Generator              |           |
| Client                 |           |
| Transporter            |           |
| Time in                |           |
| Time out               |           |
| Received by            | JH        |
| Sampled by             | BB        |

| LAB INFORMATION               |         |
|-------------------------------|---------|
| Compatible? (RT# )            | ✓       |
| PCBs (ppm) (Oily Waste Only)? |         |
| TOC ppm (CC Waste Only)?      |         |
| Flash Point (F)               |         |
| pH (S.U.)                     | 6.10    |
| Cyanides? (mg/L)              |         |
| Sulfides? (ppm)?              |         |
| Specific Gravity              | 1.00    |
| Physical Description          |         |
| Stream Consistency            | Yes No  |
| Oil in Sample?                | Yes No  |
| Temperature (F)               | 71.5    |
| Conductivity                  | 5.09 mS |
| % Solids                      | <0.1    |
| Turbidity                     | Yes No  |
| Color                         |         |
| TSS (%)                       | <0.1    |
| Radiation Screen (as needed)  |         |
| Lab Signature/Initials        | JH      |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |          |
|------------------------|----------|
| Date                   | 11/2/22  |
| Receiving ID#          | 11022205 |
| Manifest #             | Line     |
| Land Ban Cert included | Yes No   |
| EGT Approval #         |          |
| Generator              |          |
| Client                 |          |
| Transporter            |          |
| Time in                |          |
| Time out               |          |
| Received by            | JH       |
| Sampled by             | AW       |

| LAB INFORMATION               |        |
|-------------------------------|--------|
| Compatible? (RT# )            |        |
| PCBs (ppm) (Oily Waste Only)? |        |
| TOC ppm (CC Waste Only)?      |        |
| Flash Point (F)               |        |
| pH (S.U.)                     | 4.53   |
| Cyanides? (mg/L)              |        |
| Sulfides? (ppm)?              |        |
| Specific Gravity              | 1.00   |
| Physical Description          |        |
| Stream Consistency            | Yes No |
| Oil in Sample?                | Yes No |
| Temperature (F)               | 77.1   |
| Conductivity                  | 13.14  |
| % Solids                      | 0.60   |
| Turbidity                     | Yes No |
| Color                         |        |
| TSS (%)                       | 40.1   |
| Radiation Screen (as needed)  |        |
| Lab Signature/Initials        | JH     |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |              |
|------------------------|--------------|
| Date                   | 11 / 03 / 22 |
| Receiving ID#          | 11032202     |
| Manifest #             | Line         |
| Land Ban Cert included | Yes No       |
| EGT Approval #         |              |
| Generator              |              |
| Client                 |              |
| Transporter            |              |
| Time in                |              |
| Time out               |              |
| Received by            | G.H.         |
| Sampled by             | BB           |

| LAB INFORMATION               |         |
|-------------------------------|---------|
| Compatible? (RT# )            | Y       |
| PCBs (ppm) (Oily Waste Only)? |         |
| TOC ppm (CC Waste Only)?      |         |
| Flash Point (F)               | > 140   |
| pH (S.U.)                     | 7.22    |
| Cyanides? (mg/L)              |         |
| Sulfides? (ppm)?              |         |
| Specific Gravity              | 1.01    |
| Physical Description          |         |
| Stream Consistency            | Yes No  |
| Oil in Sample?                | Yes No  |
| Temperature (F)               | 73.9    |
| Conductivity                  | 20.7 mS |
| % Solids                      | 1.03    |
| Turbidity                     | Yes No  |
| Color                         |         |
| TSS (%)                       | < 0.1   |
| Radiation Screen (as needed)  |         |
| Lab Signature/Initials        | J.A.    |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |           |
|------------------------|-----------|
| Date                   | 11/03/22  |
| Receiving ID#          | 211032203 |
| Manifest #             | Line      |
| Land Ban Cert included | Yes No    |
| EGT Approval #         |           |
| Generator              |           |
| Client                 |           |
| Transporter            |           |
| Time in                |           |
| Time out               |           |
| Received by            | J.H.      |
| Sampled by             | BB        |

| LAB INFORMATION               |        |
|-------------------------------|--------|
| Compatible? (RT# )            | Y      |
| PCBs (ppm) (Oily Waste Only)? |        |
| TOC ppm (CC Waste Only)?      |        |
| Flash Point (F)               | >140   |
| pH (S.U.)                     | 6.28   |
| Cyanides? (mg/L)              |        |
| Sulfides? (ppm)?              |        |
| Specific Gravity              | 1.01   |
| Physical Description          |        |
| Stream Consistency            | Yes No |
| Oil in Sample?                | Yes No |
| Temperature (F)               | 71.5   |
| Conductivity                  | 19.68  |
| % Solids                      | 0.24   |
| Turbidity                     | Yes No |
| Color                         |        |
| TSS (%)                       | < 30   |
| Radiation Screen (as needed)  |        |
| Lab Signature/Initials        | J.H.   |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |           |
|------------------------|-----------|
| Date                   | 11/04/22  |
| Receiving ID#          | I11042201 |
| Manifest #             | Line      |
| Land Ban Cert included | Yes No    |
| EGT Approval #         |           |
| Generator              |           |
| Client                 |           |
| Transporter            |           |
| Time in                |           |
| Time out               |           |
| Received by            | Jd        |
| Sampled by             | DM        |

| LAB INFORMATION               |        |
|-------------------------------|--------|
| Compatible? (RT# )            |        |
| PCBs (ppm) (Oily Waste Only)? |        |
| TOC ppm (CC Waste Only)?      |        |
| Flash Point (F)               | >140   |
| pH (S.U.)                     | 6.42   |
| Cyanides? (mg/L)              |        |
| Sulfides? (ppm)?              |        |
| Specific Gravity              | 1.00   |
| Physical Description          |        |
| Stream Consistency            | Yes No |
| Oil in Sample?                | Yes No |
| Temperature (F)               | 72.5   |
| Conductivity                  | 9.54   |
| % Solids                      | 0.86   |
| Turbidity                     | Yes No |
| Color                         |        |
| TSS (%)                       | 50.1   |
| Radiation Screen (as needed)  |        |
| Lab Signature/Initials        | Jd     |



## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |             |
|------------------------|-------------|
| Date                   | 11 / 4 / 22 |
| Receiving ID#          | I11042202   |
| Manifest #             | Line        |
| Land Ban Cert included | Yes - No    |
| EGT Approval #         |             |
| Generator              |             |
| Client                 |             |
| Transporter            |             |
| Time in                |             |
| Time out               |             |
| Received by            | J.H.        |
| Sampled by             | DM          |

| LAB INFORMATION               |        |
|-------------------------------|--------|
| Compatible? (RT# )            |        |
| PCBs (ppm) (Oily Waste Only)? |        |
| TOC ppm (CC Waste Only)?      |        |
| Flash Point (F)               | > 140  |
| pH (S.U.)                     | 5.80   |
| Cyanides? (mg/L)              |        |
| Sulfides? (ppm)?              |        |
| Specific Gravity              | 1.00   |
| Physical Description          |        |
| Stream Consistency            | Yes No |
| Oil in Sample?                | Yes No |
| Temperature (F)               | 72.9   |
| Conductivity                  | 6.88   |
| % Solids                      |        |
| Turbidity                     | Yes No |
| Color                         |        |
| TSS (%)                       | 10.1   |
| Radiation Screen (as needed)  | J.H.   |
| Lab Signature/Initials        |        |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |                             |
|------------------------|-----------------------------|
| Date                   | 11 / 4 / 22                 |
| Receiving ID#          | <del>2111</del> I 1104 2204 |
| Manifest #             | Line                        |
| Land Ban Cert included | Yes No                      |
| EGT Approval #         |                             |
| Generator              |                             |
| Client                 |                             |
| Transporter            |                             |
| Time in                |                             |
| Time out               |                             |
| Received by            | J.H.                        |
| Sampled by             | flw                         |

| LAB INFORMATION               |        |
|-------------------------------|--------|
| Compatible? (RT# )            |        |
| PCBs (ppm) (Oily Waste Only)? |        |
| TOC ppm (CC Waste Only)?      |        |
| Flash Point (F)               | 214    |
| pH (S.U.)                     | 5.42   |
| Cyanides? (mg/L)              |        |
| Sulfides? (ppm)?              |        |
| Specific Gravity              | 1.00   |
| Physical Description          |        |
| Stream Consistency            | Yes No |
| Oil in Sample?                | Yes No |
| Temperature (F)               | 71.7   |
| Conductivity                  | 658 mS |
| % Solids                      | 0.34   |
| Turbidity                     | Yes No |
| Color                         |        |
| TSS (%)                       | <0.1   |
| Radiation Screen (as needed)  |        |
| Lab Signature/Initials        | J.H.   |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |             |
|------------------------|-------------|
| Date                   | 11 / 5 / 22 |
| Receiving ID#          | 211052261   |
| Manifest #             | Line        |
| Land Ban Cert included | Yes      No |
| EGT Approval #         |             |
| Generator              |             |
| Client                 |             |
| Transporter            |             |
| Time in                |             |
| Time out               |             |
| Received by            | J.P.        |
| Sampled by             | J.P.        |

| LAB INFORMATION               |                                       |
|-------------------------------|---------------------------------------|
| Compatible? (RT# )            |                                       |
| PCBs (ppm) (Oily Waste Only)? |                                       |
| TOC ppm (CC Waste Only)?      |                                       |
| Flash Point (F)               | 214                                   |
| pH (S.U.)                     | 6.36                                  |
| Cyanides? (mg/L)              |                                       |
| Sulfides? (ppm)?              |                                       |
| Specific Gravity              | 1.00                                  |
| Physical Description          |                                       |
| Stream Consistency            | Yes      No                           |
| Oil in Sample?                | Yes      No                           |
| Temperature (F)               | 69.1                                  |
| Conductivity                  | 5.18 mS/cm      1.307 mS/cm      J.P. |
| % Solids                      | 0.18                                  |
| Turbidity                     | Yes      No                           |
| Color                         |                                       |
| TSS (%)                       | 40.1                                  |
| Radiation Screen (as needed)  |                                       |
| Lab Signature/Initials        | J.P.                                  |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |             |
|------------------------|-------------|
| Date                   | 11 / 5 / 22 |
| Receiving ID#          | 21105-2202  |
| Manifest #             | Line        |
| Land Ban Cert included | Yes No      |
| EGT Approval #         |             |
| Generator              |             |
| Client                 |             |
| Transporter            |             |
| Time in                |             |
| Time out               |             |
| Received by            |             |
| Sampled by             | DM          |

| LAB INFORMATION               |         |
|-------------------------------|---------|
| Compatible? (RT# )            |         |
| PCBs (ppm) (Oily Waste Only)? |         |
| TOC ppm (CC Waste Only)?      |         |
| Flash Point (F)               | 2140    |
| pH (S.U.)                     | 4.67    |
| Cyanides? (mg/L)              |         |
| Sulfides? (ppm)?              |         |
| Specific Gravity              | 1.00    |
| Physical Description          |         |
| Stream Consistency            | Yes No  |
| Oil in Sample?                | Yes No  |
| Temperature (F)               | 72.1    |
| Conductivity                  | 8.85 mS |
| % Solids                      | 0.25    |
| Turbidity                     | Yes No  |
| Color                         |         |
| TSS (%)                       | < 0.1   |
| Radiation Screen (as needed)  |         |
| Lab Signature/Initials        | G.T.    |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |             |
|------------------------|-------------|
| Date                   | 11 / 7 / 22 |
| Receiving ID#          | I11072201   |
| Manifest #             | Line        |
| Land Ban Cert included | Yes      No |
| EGT Approval #         |             |
| Generator              |             |
| Client                 |             |
| Transporter            |             |
| Time in                |             |
| Time out               |             |
| Received by            | J.H.        |
| Sampled by             | OS          |

| LAB INFORMATION               |             |
|-------------------------------|-------------|
| Compatible? (RT# )            |             |
| PCBs (ppm) (Oily Waste Only)? |             |
| TOC ppm (CC Waste Only)?      |             |
| Flash Point (F)               | 57.40       |
| pH (S.U.)                     | 6.30        |
| Cyanides? (mg/L)              |             |
| Sulfides? (ppm)?              |             |
| Specific Gravity              | 1.00        |
| Physical Description          |             |
| Stream Consistency            | Yes      No |
| Oil in Sample?                | Yes      No |
| Temperature (F)               | 67.6        |
| Conductivity                  | 10.56 mS    |
| % Solids                      | 20.1        |
| Turbidity                     | Yes      No |
| Color                         |             |
| TSS (%)                       | <0.1        |
| Radiation Screen (as needed)  |             |
| Lab Signature/Initials        | J.H.        |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |             |
|------------------------|-------------|
| Date                   | 11 / 7 / 22 |
| Receiving ID#          | 1110722 02  |
| Manifest #             | Line        |
| Land Ban Cert included | Yes No      |
| EGT Approval #         |             |
| Generator              |             |
| Client                 |             |
| Transporter            |             |
| Time in                |             |
| Time out               |             |
| Received by            | J.H.        |
| Sampled by             | AW          |

| LAB INFORMATION               |        |
|-------------------------------|--------|
| Compatible? (RT# )            |        |
| PCBs (ppm) (Oily Waste Only)? |        |
| TOC ppm (CC Waste Only)?      |        |
| Flash Point (F)               | > 140  |
| pH (S.U.)                     | 5.97   |
| Cyanides? (mg/L)              |        |
| Sulfides? (ppm)?              |        |
| Specific Gravity              | 1.06   |
| Physical Description          |        |
| Stream Consistency            | Yes No |
| Oil in Sample?                | Yes No |
| Temperature (F)               | 71.6   |
| Conductivity                  | 513.05 |
| % Solids                      | 7.22   |
| Turbidity                     | Yes No |
| Color                         |        |
| TSS (%)                       | < 0.1  |
| Radiation Screen (as needed)  |        |
| Lab Signature/Initials        | J.H.   |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |             |
|------------------------|-------------|
| Date                   | 11 / 8 / 22 |
| Receiving ID#          | I11082201   |
| Manifest #             | Line        |
| Land Ban Cert included | Yes No      |
| EGT Approval #         |             |
| Generator              |             |
| Client                 |             |
| Transporter            |             |
| Time in                |             |
| Time out               |             |
| Received by            | J.H         |
| Sampled by             | DA          |

| LAB INFORMATION               |                          |
|-------------------------------|--------------------------|
| Compatible? (RT# )            |                          |
| PCBs (ppm) (Oily Waste Only)? |                          |
| TOC ppm (CC Waste Only)?      |                          |
| Flash Point (F)               | 2140                     |
| pH (S.U.)                     | 7.91 <del>5.97</del> J.H |
| Cyanides? (mg/L)              |                          |
| Sulfides? (ppm)?              |                          |
| Specific Gravity              | 1.06                     |
| Physical Description          |                          |
| Stream Consistency            | Yes No                   |
| Oil in Sample?                | Yes No                   |
| Temperature (F)               | 71.7                     |
| Conductivity                  | 60.7                     |
| % Solids                      | 2.10                     |
| Turbidity                     | Yes No                   |
| Color                         |                          |
| TSS (%)                       | <0.1                     |
| Radiation Screen (as needed)  |                          |
| Lab Signature/Initials        | J.H                      |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |           |
|------------------------|-----------|
| Date                   | 11/8/22   |
| Receiving ID#          | E11082203 |
| Manifest #             | Line      |
| Land Ban Cert included | Yes No    |
| EGT Approval #         |           |
| Generator              |           |
| Client                 |           |
| Transporter            |           |
| Time in                |           |
| Time out               |           |
| Received by            | J.H.      |
| Sampled by             | AW        |

| LAB INFORMATION               |              |
|-------------------------------|--------------|
| Compatible? (RT# )            |              |
| PCBs (ppm) (Oily Waste Only)? |              |
| TOC ppm (CC Waste Only)?      |              |
| Flash Point (F)               |              |
| pH (S.U.)                     | 6.60         |
| Cyanides? (mg/L)              |              |
| Sulfides? (ppm)?              |              |
| Specific Gravity              | 1.01         |
| Physical Description          |              |
| Stream Consistency            | Yes No       |
| Oil in Sample?                | Yes No       |
| Temperature (F)               | 71.6         |
| Conductivity                  | 26.3 $\mu$ S |
| % Solids                      | 1.02         |
| Turbidity                     | Yes No       |
| Color                         |              |
| TSS (%)                       | <0.1         |
| Radiation Screen (as needed)  |              |
| Lab Signature/Initials        | J.H.         |



## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |             |
|------------------------|-------------|
| Date                   | 11 / 9 / 22 |
| Receiving ID#          | IN092402    |
| Manifest #             | Line        |
| Land Ban Cert included | Yes No      |
| EGT Approval #         |             |
| Generator              |             |
| Client                 |             |
| Transporter            |             |
| Time in                |             |
| Time out               |             |
| Received by            | STJ         |
| Sampled by             | DM          |

| LAB INFORMATION               |         |
|-------------------------------|---------|
| Compatible? (RT# )            |         |
| PCBs (ppm) (Oily Waste Only)? |         |
| TOC ppm (CC Waste Only)?      |         |
| Flash Point (F)               | > 140   |
| pH (S.U.)                     | 6.59    |
| Cyanides? (mg/L)              |         |
| Sulfides? (ppm)?              |         |
| Specific Gravity              | 1.02    |
| Physical Description          |         |
| Stream Consistency            | Yes No  |
| Oil in Sample?                | Yes No  |
| Temperature (F)               | 27.7    |
| Conductivity                  | 34.9 mc |
| % Solids                      | 1.82    |
| Turbidity                     | Yes No  |
| Color                         |         |
| TSS (%)                       | 20.1    |
| Radiation Screen (as needed)  |         |
| Lab Signature/Initials        | STJ     |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |             |
|------------------------|-------------|
| Date                   | 11 / 9 / 22 |
| Receiving ID#          | I11092203   |
| Manifest #             | Line        |
| Land Ban Cert included | Yes - No    |
| EGT Approval #         |             |
| Generator              |             |
| Client                 |             |
| Transporter            |             |
| Time in                |             |
| Time out               |             |
| Received by            | J. H        |
| Sampled by             | DW          |

| LAB INFORMATION               |             |
|-------------------------------|-------------|
| Compatible? (RT# )            |             |
| PCBs (ppm) (Oily Waste Only)? |             |
| TOC ppm (CC Waste Only)?      |             |
| Flash Point (F)               | > 140       |
| pH (S.U.)                     | 6.74        |
| Cyanides? (mg/L)              |             |
| Sulfides? (ppm)?              |             |
| Specific Gravity              | 1.02        |
| Physical Description          |             |
| Stream Consistency            | Yes No      |
| Oil in Sample?                | Yes No      |
| Temperature (F)               | 71.5        |
| Conductivity                  | 361 $\mu$ S |
| % Solids                      | 2.01        |
| Turbidity                     | Yes No      |
| Color                         |             |
| TSS (%)                       | < 0.5       |
| Radiation Screen (as needed)  |             |
| Lab Signature/Initials        | J. H        |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |            |
|------------------------|------------|
| Date                   | 11/9/22    |
| Receiving ID#          | Z1109 2204 |
| Manifest #             | Line       |
| Land Ban Cert included | Yes No     |
| EGT Approval #         |            |
| Generator              |            |
| Client                 |            |
| Transporter            |            |
| Time in                |            |
| Time out               |            |
| Received by            | J.H.       |
| Sampled by             | R.W.       |

| LAB INFORMATION               |        |
|-------------------------------|--------|
| Compatible? (RT# )            |        |
| PCBs (ppm) (Oily Waste Only)? |        |
| TOC ppm (CC Waste Only)?      |        |
| Flash Point (F)               | 2240   |
| pH (S.U.)                     | 6.57   |
| Cyanides? (mg/L)              |        |
| Sulfides? (ppm)?              |        |
| Specific Gravity              | 1.02   |
| Physical Description          |        |
| Stream Consistency            | Yes No |
| Oil in Sample?                | Yes No |
| Temperature (F)               | 71.2   |
| Conductivity                  | 35.68  |
| % Solids                      | 2.11   |
| Turbidity                     | Yes No |
| Color                         |        |
| TSS (%)                       | <0.1   |
| Radiation Screen (as needed)  |        |
| Lab Signature/Initials        | J.H.   |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |           |
|------------------------|-----------|
| Date                   | 11/10/22  |
| Receiving ID#          | 711102262 |
| Manifest #             | Line      |
| Land Ban Cert included | Yes No    |
| EGT Approval #         |           |
| Generator              |           |
| Client                 |           |
| Transporter            |           |
| Time in                |           |
| Time out               |           |
| Received by            | ST        |
| Sampled by             | NF        |

| LAB INFORMATION               |         |
|-------------------------------|---------|
| Compatible? (RT# )            |         |
| PCBs (ppm) (Oily Waste Only)? |         |
| TOC ppm (CC Waste Only)?      |         |
| Flash Point (F)               | 2140    |
| pH (S.U.)                     | 6.49    |
| Cyanides? (mg/L)              |         |
| Sulfides? (ppm)?              |         |
| Specific Gravity              | 1.02    |
| Physical Description          |         |
| Stream Consistency            | Yes No  |
| Oil in Sample?                | Yes No  |
| Temperature (F)               | 69.8    |
| Conductivity                  | 35.2 mS |
| % Solids                      | 1.91    |
| Turbidity                     | Yes No  |
| Color                         |         |
| TSS (%)                       | 50.1    |
| Radiation Screen (as needed)  |         |
| Lab Signature/Initials        | ST      |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |           |
|------------------------|-----------|
| Date                   | 11/10/22  |
| Receiving ID#          | I11102203 |
| Manifest #             | Line      |
| Land Ban Cert included | Yes No    |
| EGT Approval #         |           |
| Generator              |           |
| Client                 |           |
| Transporter            |           |
| Time in                |           |
| Time out               |           |
| Received by            | JH        |
| Sampled by             | AW        |

| LAB INFORMATION               |         |
|-------------------------------|---------|
| Compatible? (RT# )            |         |
| PCBs (ppm) (Oily Waste Only)? |         |
| TOC ppm (CC Waste Only)?      |         |
| Flash Point (F)               | 2140    |
| pH (S.U.)                     | 12.62   |
| Cyanides? (mg/L)              |         |
| Sulfides? (ppm)?              |         |
| Specific Gravity              | 1.02    |
| Physical Description          |         |
| Stream Consistency            | Yes No  |
| Oil in Sample?                | Yes No  |
| Temperature (F)               | 70.7    |
| Conductivity                  | 35.6 mS |
| % Solids                      | 2.31    |
| Turbidity                     | Yes No  |
| Color                         |         |
| TSS (%)                       | < 6.1   |
| Radiation Screen (as needed)  |         |
| Lab Signature/Initials        | JH      |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |              |
|------------------------|--------------|
| Date                   | 11 / 10 / 22 |
| Receiving ID#          | 811102204    |
| Manifest #             | Line         |
| Land Ban Cert included | Yes      No  |
| EGT Approval #         |              |
| Generator              |              |
| Client                 |              |
| Transporter            |              |
| Time in                |              |
| Time out               |              |
| Received by            | ST           |
| Sampled by             | BH           |

| LAB INFORMATION               |             |
|-------------------------------|-------------|
| Compatible? (RT# )            | Y           |
| PCBs (ppm) (Oily Waste Only)? |             |
| TOC ppm (CC Waste Only)?      |             |
| Flash Point (F)               | > 140       |
| pH (S.U.)                     | 6.75        |
| Cyanides? (mg/L)              |             |
| Sulfides? (ppm)?              |             |
| Specific Gravity              | 1.02        |
| Physical Description          |             |
| Stream Consistency            | Yes      No |
| Oil in Sample?                | Yes      No |
| Temperature (F)               | 71.3        |
| Conductivity                  | 36.5 uS     |
| % Solids                      | 2.27        |
| Turbidity                     | Yes      No |
| Color                         |             |
| TSS (%)                       | < 0.1       |
| Radiation Screen (as needed)  |             |
| Lab Signature/Initials        | ST          |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |              |
|------------------------|--------------|
| Date                   | 11 / 11 / 22 |
| Receiving ID#          | 21112203     |
| Manifest #             | Line         |
| Land Ban Cert included | Yes No       |
| EGT Approval #         |              |
| Generator              |              |
| Client                 |              |
| Transporter            |              |
| Time in                |              |
| Time out               |              |
| Received by            | J.F.         |
| Sampled by             | BB           |

| LAB INFORMATION               |         |
|-------------------------------|---------|
| Compatible? (RT# )            | ✓       |
| PCBs (ppm) (Oily Waste Only)? |         |
| TOC ppm (CC Waste Only)?      |         |
| Flash Point (F)               | > 140   |
| pH (S.U.)                     | 6.79    |
| Cyanides? (mg/L)              |         |
| Sulfides? (ppm)?              |         |
| Specific Gravity              | 1.02    |
| Physical Description          |         |
| Stream Consistency            | Yes No  |
| Oil in Sample?                | Yes No  |
| Temperature (F)               | 72.4    |
| Conductivity                  | 36.7 us |
| % Solids                      | 2.27    |
| Turbidity                     | Yes No  |
| Color                         |         |
| TSS (%)                       | < 6.1   |
| Radiation Screen (as needed)  |         |
| Lab Signature/Initials        | J.F.    |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |          |
|------------------------|----------|
| Date                   | 11/14/22 |
| Receiving ID#          | 11142203 |
| Manifest #             | Line     |
| Land Ban Cert included | Yes No   |
| EGT Approval #         |          |
| Generator              |          |
| Client                 |          |
| Transporter            |          |
| Time in                |          |
| Time out               |          |
| Received by            | J.H.     |
| Sampled by             |          |

| LAB INFORMATION               |           |
|-------------------------------|-----------|
| Compatible? (RT# 6)           | Y         |
| PCBs (ppm) (Oily Waste Only)? | N/A       |
| TOC ppm (CC Waste Only)?      |           |
| Flash Point (F)               | 146       |
| pH (S.U.)                     | 8.96      |
| Cyanides? (mg/L)              | 230       |
| Sulfides? (ppm)?              | 2200      |
| Specific Gravity              | 1.00      |
| Physical Description          | 1.00      |
| Stream Consistency            | Yes No    |
| Oil in Sample?                | Yes No    |
| Temperature (F)               | 63.2      |
| Conductivity                  | 4.26      |
| % Solids                      | 20.1      |
| Turbidity                     | Yes No    |
| Color                         | Colorless |
| TSS (%)                       | 20.1      |
| Radiation Screen (as needed)  | Neg       |
| Lab Signature/Initials        | J.H.      |



## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |  |
|------------------------|--|
| Date                   | 11/15/22                                       |
| Receiving ID#          | OSP - <del>THH52201</del> <del>THH142203</del> |
| Manifest #             | Line 771152201                                 |
| Land Ban Cert included | Yes No   |
| EGT Approval #         |  |
| Generator              |  |
| Client                 |  |
| Transporter            |  |
| Time in                |  |
| Time out               |  |
| Received by            |  |
| Sampled by             | DM   |

| LAB INFORMATION               |        |
|-------------------------------|--------|
| Compatible? (RT# )            |        |
| PCBs (ppm) (Oily Waste Only)? |        |
| TOC ppm (CC Waste Only)?      |        |
| Flash Point (F)               | > 140  |
| pH (S.U.)                     | 6.25   |
| Cyanides? (mg/L)              |        |
| Sulfides? (ppm)?              |        |
| Specific Gravity              | 1.01   |
| Physical Description          |        |
| Stream Consistency            | Yes No |
| Oil in Sample?                | Yes No |
| Temperature (F)               | 69.9   |
| Conductivity                  | 19.73  |
| % Solids                      | < 0.1  |
| Turbidity                     | Yes No |
| Color                         |        |
| TSS (%)                       | < 0.1  |
| Radiation Screen (as needed)  |        |
| Lab Signature/Initials        | J. H.  |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |          |
|------------------------|----------|
| Date                   | 11/15/22 |
| Receiving ID#          | I1152202 |
| Manifest #             | Line     |
| Land Ban Cert included | Yes No   |
| EGT Approval #         |          |
| Generator              |          |
| Client                 |          |
| Transporter            |          |
| Time in                |          |
| Time out               |          |
| Received by            | J. J.    |
| Sampled by             | DM       |

| LAB INFORMATION               |         |
|-------------------------------|---------|
| Compatible? (RT# )            |         |
| PCBs (ppm) (Oily Waste Only)? |         |
| TOC ppm (CC Waste Only)?      |         |
| Flash Point (F)               | > 140   |
| pH (S.U.)                     | 6.58    |
| Cyanides? (mg/L)              |         |
| Sulfides? (ppm)?              |         |
| Specific Gravity              | 1.02    |
| Physical Description          |         |
| Stream Consistency            | Yes No  |
| Oil in Sample?                | Yes No  |
| Temperature (F)               | 66.9    |
| Conductivity                  | 34.8 mS |
| % Solids                      | 1.81    |
| Turbidity                     | Yes No  |
| Color                         |         |
| TSS (%)                       | < 0.1   |
| Radiation Screen (as needed)  |         |
| Lab Signature/Initials        | J. J.   |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |              |
|------------------------|--------------|
| Date                   | 11 / 15 / 22 |
| Receiving ID#          | R11152203    |
| Manifest #             | Line         |
| Land Ban Cert included | Yes No       |
| EGT Approval #         |              |
| Generator              |              |
| Client                 |              |
| Transporter            |              |
| Time in                |              |
| Time out               |              |
| Received by            | G.H.         |
| Sampled by             | GH           |

| LAB INFORMATION               |         |
|-------------------------------|---------|
| Compatible? (RT# )            | ✓       |
| PCBs (ppm) (Oily Waste Only)? |         |
| TOC ppm (CC Waste Only)?      |         |
| Flash Point (F)               | >140    |
| pH (S.U.)                     | 6.65    |
| Cyanides? (mg/L)              |         |
| Sulfides? (ppm)?              |         |
| Specific Gravity              | 1.02    |
| Physical Description          |         |
| Stream Consistency            | Yes No  |
| Oil in Sample?                | Yes No  |
| Temperature (F)               | 68.5    |
| Conductivity                  | 35.3 mS |
| % Solids                      | 1.89    |
| Turbidity                     | Yes No  |
| Color                         |         |
| TSS (%)                       | <0.1    |
| Radiation Screen (as needed)  |         |
| Lab Signature/Initials        | G.H.    |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |           |
|------------------------|-----------|
| Date                   | 11/16/22  |
| Receiving ID#          | I11162201 |
| Manifest #             | Line      |
| Land Ban Cert included | Yes No    |
| EGT Approval #         |           |
| Generator              |           |
| Client                 |           |
| Transporter            |           |
| Time in                |           |
| Time out               |           |
| Received by            | JH        |
| Sampled by             | DM        |

| LAB INFORMATION               |         |
|-------------------------------|---------|
| Compatible? (RT# )            |         |
| PCBs (ppm) (Oily Waste Only)? |         |
| TOC ppm (CC Waste Only)?      |         |
| Flash Point (F)               | >140    |
| pH (S.U.)                     | 6.67    |
| Cyanides? (mg/L)              |         |
| Sulfides? (ppm)?              |         |
| Specific Gravity              | 1.01    |
| Physical Description          |         |
| Stream Consistency            | Yes No  |
| Oil in Sample?                | Yes No  |
| Temperature (F)               | 65.3    |
| Conductivity                  | 34.7 mS |
| % Solids                      | 1.92    |
| Turbidity                     | Yes No  |
| Color                         |         |
| TSS (%)                       | <0.1    |
| Radiation Screen (as needed)  |         |
| Lab Signature/Initials        | JH      |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |           |
|------------------------|-----------|
| Date                   | 11/16/22  |
| Receiving ID#          | I11162202 |
| Manifest #             | Line      |
| Land Ban Cert included | Yes No    |
| EGT Approval #         |           |
| Generator              |           |
| Client                 |           |
| Transporter            |           |
| Time in                |           |
| Time out               |           |
| Received by            | J.H.      |
| Sampled by             | J.F.      |

| LAB INFORMATION               |         |
|-------------------------------|---------|
| Compatible? (RT# )            |         |
| PCBs (ppm) (Oily Waste Only)? |         |
| TOC ppm (CC Waste Only)?      |         |
| Flash Point (F)               | >140    |
| pH (S.U.)                     | 6.64    |
| Cyanides? (mg/L)              |         |
| Sulfides? (ppm)?              |         |
| Specific Gravity              | 1.02    |
| Physical Description          |         |
| Stream Consistency            | Yes No  |
| Oil in Sample?                | Yes No  |
| Temperature (F)               | 62.6    |
| Conductivity                  | 34.7 ns |
| % Solids                      | 1.93    |
| Turbidity                     | Yes No  |
| Color                         |         |
| TSS (%)                       | <0.1    |
| Radiation Screen (as needed)  |         |
| Lab Signature/Initials        | J.H.    |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |           |
|------------------------|-----------|
| Date                   | 11/16/22  |
| Receiving ID#          | I11/62203 |
| Manifest #             | Line      |
| Land Ban Cert included | Yes No    |
| EGT Approval #         |           |
| Generator              |           |
| Client                 |           |
| Transporter            |           |
| Time in                |           |
| Time out               |           |
| Received by            |           |
| Sampled by             | AW        |

| LAB INFORMATION               |         |
|-------------------------------|---------|
| Compatible? (RT# )            |         |
| PCBs (ppm) (Oily Waste Only)? |         |
| TOC ppm (CC Waste Only)?      |         |
| Flash Point (F)               | 2140    |
| pH (S.U.)                     | 6.74    |
| Cyanides? (mg/L)              |         |
| Sulfides? (ppm)?              |         |
| Specific Gravity              | 1.02    |
| Physical Description          |         |
| Stream Consistency            | Yes No  |
| Oil in Sample?                | Yes No  |
| Temperature (F)               | 68.9    |
| Conductivity                  | 35.3 mS |
| % Solids                      | 1.87    |
| Turbidity                     | Yes No  |
| Color                         |         |
| TSS (%)                       | <0.1    |
| Radiation Screen (as needed)  |         |
| Lab Signature/Initials        | J.N.    |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION         |              |
|-------------------------------|--------------|
| Date                          | 11 / 17 / 22 |
| Receiving ID#                 | 11172201     |
| Manifest #                    | Line         |
| Land Ban Cert included        | Yes No       |
| EGT Approval #                |              |
| Generator                     |              |
| Client                        |              |
| Transporter                   |              |
| Time in                       |              |
| Time out                      |              |
| Received by                   |              |
| Sampled by                    | J. J.        |
|                               |              |
| LAB INFORMATION               |              |
| Compatible? (RT# )            |              |
| PCBs (ppm) (Oily Waste Only)? |              |
| TOC ppm (CC Waste Only)?      |              |
| Flash Point (F)               | > 240        |
| pH (S.U.)                     | 6.89         |
| Cyanides? (mg/L)              |              |
| Sulfides? (ppm)?              |              |
| Specific Gravity              | 1.01         |
| Physical Description          |              |
| Stream Consistency            | Yes No       |
| Oil in Sample?                | Yes No       |
| Temperature (F)               | 64.7         |
| Conductivity                  | 33.5         |
| % Solids                      | 1.92         |
| Turbidity                     | Yes No       |
| Color                         |              |
| TSS (%)                       | 40.1         |
| Radiation Screen (as needed)  |              |
| Lab Signature/Initials        | J. J.        |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |              |
|------------------------|--------------|
| Date                   | 11 / 17 / 22 |
| Receiving ID#          | 11172202     |
| Manifest #             | Line         |
| Land Ban Cert included | Yes No       |
| EGT Approval #         |              |
| Generator              |              |
| Client                 |              |
| Transporter            |              |
| Time in                |              |
| Time out               |              |
| Received by            | J. J.        |
| Sampled by             | J. J.        |

| LAB INFORMATION               |         |
|-------------------------------|---------|
| Compatible? (RT# )            |         |
| PCBs (ppm) (Oily Waste Only)? |         |
| TOC ppm (CC Waste Only)?      |         |
| Flash Point (F)               | > 140   |
| pH (S.U.)                     | 6.62    |
| Cyanides? (mg/L)              |         |
| Sulfides? (ppm)?              |         |
| Specific Gravity              | 1.02    |
| Physical Description          |         |
| Stream Consistency            | Yes No  |
| Oil in Sample?                | Yes No  |
| Temperature (F)               | 58.9    |
| Conductivity                  | 32.1 nS |
| % Solids                      | 1.78    |
| Turbidity                     | Yes No  |
| Color                         | Brown   |
| TSS (%)                       | 20.1    |
| Radiation Screen (as needed)  |         |
| Lab Signature/Initials        | J. J.   |



## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |           |
|------------------------|-----------|
| Date                   | 11/17/22  |
| Receiving ID#          | I11172203 |
| Manifest #             | Line      |
| Land Ban Cert included | Yes No    |
| EGT Approval #         |           |
| Generator              |           |
| Client                 |           |
| Transporter            |           |
| Time in                |           |
| Time out               |           |
| Received by            | J.T.      |
| Sampled by             | AW        |

| LAB INFORMATION               |         |
|-------------------------------|---------|
| Compatible? (RT# )            |         |
| PCBs (ppm) (Oily Waste Only)? |         |
| TOC ppm (CC Waste Only)?      |         |
| Flash Point (F)               | >140    |
| pH (S.U.)                     | 6.32    |
| Cyanides? (mg/L)              |         |
| Sulfides? (ppm)?              |         |
| Specific Gravity              | 1.02    |
| Physical Description          |         |
| Stream Consistency            | Yes No  |
| Oil in Sample?                | Yes No  |
| Temperature (F)               | 66.1    |
| Conductivity                  | 35.1 mS |
| % Solids                      | 0.19    |
| Turbidity                     | Yes No  |
| Color                         |         |
| TSS (%)                       | <0.1    |
| Radiation Screen (as needed)  |         |
| Lab Signature/Initials        | J.T.    |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |           |
|------------------------|-----------|
| Date                   | 11/18/22  |
| Receiving ID#          | 111182201 |
| Manifest #             | Line      |
| Land Ban Cert included | Yes No    |
| EGT Approval #         |           |
| Generator              |           |
| Client                 |           |
| Transporter            |           |
| Time in                |           |
| Time out               |           |
| Received by            | J.A.      |
| Sampled by             | OS        |

| LAB INFORMATION               |         |
|-------------------------------|---------|
| Compatible? (RT# )            |         |
| PCBs (ppm) (Oily Waste Only)? |         |
| TOC ppm (CC Waste Only)?      |         |
| Flash Point (F)               | > 140   |
| pH (S.U.)                     | 6.65    |
| Cyanides? (mg/L)              |         |
| Sulfides? (ppm)?              |         |
| Specific Gravity              | 1.01    |
| Physical Description          |         |
| Stream Consistency            | Yes No  |
| Oil in Sample?                | Yes No  |
| Temperature (F)               | 62.7    |
| Conductivity                  | 33.3 mS |
| % Solids                      | 1.76    |
| Turbidity                     | Yes No  |
| Color                         |         |
| TSS (%)                       | < 0.4   |
| Radiation Screen (as needed)  |         |
| Lab Signature/Initials        | J.A.    |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |           |
|------------------------|-----------|
| Date                   | 11/18/22  |
| Receiving ID#          | 111182202 |
| Manifest #             | Line      |
| Land Ban Cert included | Yes No    |
| EGT Approval #         |           |
| Generator              |           |
| Client                 |           |
| Transporter            |           |
| Time in                |           |
| Time out               |           |
| Received by            | J.F.      |
| Sampled by             | J.F.      |

| LAB INFORMATION               |         |
|-------------------------------|---------|
| Compatible? (RT# )            |         |
| PCBs (ppm) (Oily Waste Only)? |         |
| TOC ppm (CC Waste Only)?      |         |
| Flash Point (F)               | 2148    |
| pH (S.U.)                     | 6.77    |
| Cyanides? (mg/L)              |         |
| Sulfides? (ppm)?              |         |
| Specific Gravity              | 1.01    |
| Physical Description          |         |
| Stream Consistency            | Yes No  |
| Oil in Sample?                | Yes No  |
| Temperature (F)               | 73.5    |
| Conductivity                  | 25.6 mS |
| % Solids                      | 1.08    |
| Turbidity                     | Yes No  |
| Color                         |         |
| TSS (%)                       | <0.1    |
| Radiation Screen (as needed)  |         |
| Lab Signature/Initials        | J.F.    |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |          |
|------------------------|----------|
| Date                   | 11/18/22 |
| Receiving ID#          | I1182203 |
| Manifest #             | Line     |
| Land Ban Cert included | Yes No   |
| EGT Approval #         |          |
| Generator              |          |
| Client                 |          |
| Transporter            |          |
| Time in                |          |
| Time out               |          |
| Received by            |          |
| Sampled by             | AW       |

| LAB INFORMATION               |        |
|-------------------------------|--------|
| Compatible? (RT# )            |        |
| PCBs (ppm) (Oily Waste Only)? |        |
| TOC ppm (CC Waste Only)?      |        |
| Flash Point (F)               | 7140°  |
| pH (S.U.)                     | 6.51   |
| Cyanides? (mg/L)              |        |
| Sulfides? (ppm)?              |        |
| Specific Gravity              | 1.01   |
| Physical Description          |        |
| Stream Consistency            | Yes No |
| Oil in Sample?                | Yes No |
| Temperature (F)               | 61°    |
| Conductivity                  | 35.4   |
| % Solids                      | 0.693  |
| Turbidity                     | Yes No |
| Color                         |        |
| TSS (%)                       | <0.1   |
| Radiation Screen (as needed)  |        |
| Lab Signature/Initials        | AW     |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |              |
|------------------------|--------------|
| Date                   | 11 / 21 / 22 |
| Receiving ID#          | 211212203    |
| Manifest #             | Line         |
| Land Ban Cert included | Yes No       |
| EGT Approval #         |              |
| Generator              |              |
| Client                 |              |
| Transporter            |              |
| Time in                |              |
| Time out               |              |
| Received by            | J.H.         |
| Sampled by             | RW           |

| LAB INFORMATION               |                   |
|-------------------------------|-------------------|
| Compatible? (RT# )            |                   |
| PCBs (ppm) (Oily Waste Only)? |                   |
| TOC ppm (CC Waste Only)?      |                   |
| Flash Point (F)               | > 140°            |
| pH (S.U.)                     | 6.90              |
| Cyanides? (mg/L)              |                   |
| Sulfides? (ppm)?              |                   |
| Specific Gravity              | 1.01              |
| Physical Description          |                   |
| Stream Consistency            | Yes No            |
| Oil in Sample?                | Yes No            |
| Temperature (F)               | 61.2              |
| Conductivity                  | 33.2              |
| % Solids                      | 1.11              |
| Turbidity                     | Yes <del>No</del> |
| Color                         |                   |
| TSS (%)                       | < 0.1             |
| Radiation Screen (as needed)  | Yes               |
| Lab Signature/Initials        | RW                |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |           |
|------------------------|-----------|
| Date                   | 11/22/22  |
| Receiving ID#          | 211222201 |
| Manifest #             | Line      |
| Land Ban Cert included | Yes No    |
| EGT Approval #         |           |
| Generator              |           |
| Client                 |           |
| Transporter            |           |
| Time in                |           |
| Time out               |           |
| Received by            | J.H       |
| Sampled by             | NE        |

| LAB INFORMATION               |        |
|-------------------------------|--------|
| Compatible? (RT# )            |        |
| PCBs (ppm) (Oily Waste Only)? |        |
| TOC ppm (CC Waste Only)?      |        |
| Flash Point (F)               | >140   |
| pH (S.U.)                     | 6.61   |
| Cyanides? (mg/L)              |        |
| Sulfides? (ppm)?              |        |
| Specific Gravity              | 1.000  |
| Physical Description          |        |
| Stream Consistency            | Yes No |
| Oil in Sample?                | Yes No |
| Temperature (F)               | 59     |
| Conductivity                  | 35     |
| % Solids                      | .81%   |
| Turbidity                     | Yes No |
| Color                         |        |
| TSS (%)                       | <0.1   |
| Radiation Screen (as needed)  |        |
| Lab Signature/Initials        | NE     |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |              |
|------------------------|--------------|
| Date                   | 11 / 22 / 22 |
| Receiving ID#          | I11222202    |
| Manifest #             | Line         |
| Land Ban Cert included | Yes No       |
| EGT Approval #         |              |
| Generator              |              |
| Client                 |              |
| Transporter            |              |
| Time in                |              |
| Time out               |              |
| Received by            | NE           |
| Sampled by             | NE           |

| LAB INFORMATION               |        |
|-------------------------------|--------|
| Compatible? (RT# )            |        |
| PCBs (ppm) (Oily Waste Only)? |        |
| TOC ppm (CC Waste Only)?      |        |
| Flash Point (F)               | > 140  |
| pH (S.U.)                     | 6.46   |
| Cyanides? (mg/L)              |        |
| Sulfides? (ppm)?              |        |
| Specific Gravity              | 1.01   |
| Physical Description          |        |
| Stream Consistency            | Yes No |
| Oil in Sample?                | Yes No |
| Temperature (F)               | 60°    |
| Conductivity                  | 36.3   |
| % Solids                      | 1.96%  |
| Turbidity                     | Yes No |
| Color                         |        |
| TSS (%)                       | < 0.1  |
| Radiation Screen (as needed)  |        |
| Lab Signature/Initials        | J.H.   |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |           |
|------------------------|-----------|
| Date                   | 11/22/22  |
| Receiving ID#          | I11222204 |
| Manifest #             | Line      |
| Land Ban Cert included | Yes No    |
| EGT Approval #         |           |
| Generator              |           |
| Client                 |           |
| Transporter            |           |
| Time in                |           |
| Time out               |           |
| Received by            | J.H.      |
| Sampled by             | BB        |

| LAB INFORMATION               |         |
|-------------------------------|---------|
| Compatible? (RT# )            |         |
| PCBs (ppm) (Oily Waste Only)? |         |
| TOC ppm (CC Waste Only)?      |         |
| Flash Point (F)               |         |
| pH (S.U.)                     | 6.71    |
| Cyanides? (mg/L)              |         |
| Sulfides? (ppm)?              |         |
| Specific Gravity              | 1.01    |
| Physical Description          |         |
| Stream Consistency            | Yes No  |
| Oil in Sample?                | Yes No  |
| Temperature (F)               | 69.5    |
| Conductivity                  | 36.7 nS |
| % Solids                      | 1.96    |
| Turbidity                     | Yes No  |
| Color                         |         |
| TSS (%)                       | <0.1    |
| Radiation Screen (as needed)  |         |
| Lab Signature/Initials        | J.H.    |



## FINGERPRINT FORM

REPUBLIC INDUSTRIAL AND ENERGY SOLUTIONS, LLC

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |           |
|------------------------|-----------|
| Date                   | 11/23/22  |
| Receiving ID#          | FI1232201 |
| Manifest #             | Line      |
| Land Ban Cert included | Yes No    |
| EGT Approval #         |           |
| Generator              |           |
| Client                 |           |
| Transporter            |           |
| Time in                |           |
| Time out               |           |
| Received by            | J.A.      |
| Sampled by             | J.F.      |

| LAB INFORMATION               |         |
|-------------------------------|---------|
| Compatible? (RT# )            |         |
| PCBs (ppm) (Oily Waste Only)? |         |
| TOC ppm (CC Waste Only)?      |         |
| Flash Point (F)               |         |
| pH (S.U.)                     | 6.72    |
| Cyanides? (mg/L)              |         |
| Sulfides? (ppm)?              |         |
| Specific Gravity              | 1.01    |
| Physical Description          |         |
| Stream Consistency            | Yes No  |
| Oil in Sample?                | Yes No  |
| Temperature (F)               | 68.4    |
| Conductivity                  | 36.2 mS |
| % Solids                      | 1.92    |
| Turbidity                     | Yes No  |
| Color                         |         |
| TSS (%)                       | <0.1    |
| Radiation Screen (as needed)  |         |
| Lab Signature/Initials        | J.A.    |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |           |
|------------------------|-----------|
| Date                   | 11/23/22  |
| Receiving ID#          | 241232202 |
| Manifest #             | Line      |
| Land Ban Cert included | Yes No    |
| EGT Approval #         |           |
| Generator              |           |
| Client                 |           |
| Transporter            |           |
| Time in                |           |
| Time out               |           |
| Received by            | J.A.      |
| Sampled by             | DM        |

| LAB INFORMATION               |        |
|-------------------------------|--------|
| Compatible? (RT# )            |        |
| PCBs (ppm) (Oily Waste Only)? |        |
| TOC ppm (CC Waste Only)?      |        |
| Flash Point (F)               |        |
| pH (S.U.)                     | 6.72   |
| Cyanides? (mg/L)              |        |
| Sulfides? (ppm)?              |        |
| Specific Gravity              | 1.01   |
| Physical Description          |        |
| Stream Consistency            | Yes No |
| Oil in Sample?                | Yes No |
| Temperature (F)               | 67.2   |
| Conductivity                  | 349ms  |
| % Solids                      | 1.68   |
| Turbidity                     | Yes No |
| Color                         |        |
| TSS (%)                       | 0.1    |
| Radiation Screen (as needed)  |        |
| Lab Signature/Initials        | J.A.   |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |           |
|------------------------|-----------|
| Date                   | 11/23/22  |
| Receiving ID#          | Z11232203 |
| Manifest #             | Line      |
| Land Ban Cert included | Yes No    |
| EGT Approval #         |           |
| Generator              |           |
| Client                 |           |
| Transporter            |           |
| Time in                |           |
| Time out               |           |
| Received by            | J.H.      |
| Sampled by             | AV        |

| LAB INFORMATION               |         |
|-------------------------------|---------|
| Compatible? (RT# )            |         |
| PCBs (ppm) (Oily Waste Only)? |         |
| TOC ppm (CC Waste Only)?      |         |
| Flash Point (F)               |         |
| pH (S.U.)                     | 6.60    |
| Cyanides? (mg/L)              |         |
| Sulfides? (ppm)?              |         |
| Specific Gravity              | 1.01    |
| Physical Description          |         |
| Stream Consistency            | Yes No  |
| Oil in Sample?                | Yes No  |
| Temperature (F)               | 67.1    |
| Conductivity                  | 36.1 mS |
| % Solids                      | 1.79    |
| Turbidity                     | Yes No  |
| Color                         |         |
| TSS (%)                       | 20.1    |
| Radiation Screen (as needed)  |         |
| Lab Signature/Initials        | J.H.    |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |              |
|------------------------|--------------|
| Date                   | 11 / 28 / 22 |
| Receiving ID#          | 211282201    |
| Manifest #             | Line         |
| Land Ban Cert included | Yes No       |
| EGT Approval #         |              |
| Generator              |              |
| Client                 |              |
| Transporter            |              |
| Time in                |              |
| Time out               |              |
| Received by            | NE           |
| Sampled by             | NE           |

| LAB INFORMATION               |        |
|-------------------------------|--------|
| Compatible? (RT# )            |        |
| PCBs (ppm) (Oily Waste Only)? |        |
| TOC ppm (CC Waste Only)?      |        |
| Flash Point (F)               | >140   |
| pH (S.U.)                     | 6.70   |
| Cyanides? (mg/L)              |        |
| Sulfides? (ppm)?              |        |
| Specific Gravity              | 1.01   |
| Physical Description          |        |
| Stream Consistency            | Yes No |
| Oil in Sample?                | Yes No |
| Temperature (F)               | 58     |
| Conductivity                  | 34.9   |
| % Solids                      | 1.61   |
| Turbidity                     | Yes No |
| Color                         |        |
| TSS (%)                       | 4.01   |
| Radiation Screen (as needed)  |        |
| Lab Signature/Initials        | J. J.  |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |           |
|------------------------|-----------|
| Date                   | 11/28/22  |
| Receiving ID#          | I11282202 |
| Manifest #             | Line      |
| Land Ban Cert included | Yes No    |
| EGT Approval #         |           |
| Generator              |           |
| Client                 |           |
| Transporter            |           |
| Time in                |           |
| Time out               |           |
| Received by            | J.H.      |
| Sampled by             | N.H.      |

| LAB INFORMATION               |          |
|-------------------------------|----------|
| Compatible? (RT# )            |          |
| PCBs (ppm) (Oily Waste Only)? |          |
| TOC ppm (CC Waste Only)?      |          |
| Flash Point (F)               |          |
| pH (S.U.)                     | 7.63     |
| Cyanides? (mg/L)              |          |
| Sulfides? (ppm)?              |          |
| Specific Gravity              | 1.06     |
| Physical Description          |          |
| Stream Consistency            | Yes No   |
| Oil in Sample?                | Yes No   |
| Temperature (F)               | 65.7     |
| Conductivity                  | 15.33 us |
| % Solids                      | 0.65     |
| Turbidity                     | Yes No   |
| Color                         |          |
| TSS (%)                       | <0.1     |
| Radiation Screen (as needed)  |          |
| Lab Signature/Initials        | J.H.     |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |          |
|------------------------|----------|
| Date                   | 11/28/22 |
| Receiving ID#          | 11282203 |
| Manifest #             | Line     |
| Land Ban Cert included | Yes No   |
| EGT Approval #         |          |
| Generator              |          |
| Client                 |          |
| Transporter            |          |
| Time in                |          |
| Time out               |          |
| Received by            | J.H.     |
| Sampled by             | bb       |

| LAB INFORMATION               |        |
|-------------------------------|--------|
| Compatible? (RT# )            | Y      |
| PCBs (ppm) (Oily Waste Only)? |        |
| TOC ppm (CC Waste Only)?      |        |
| Flash Point (F)               |        |
| pH (S.U.)                     | 6.52   |
| Cyanides? (mg/L)              |        |
| Sulfides? (ppm)?              |        |
| Specific Gravity              | 1.00   |
| Physical Description          |        |
| Stream Consistency            | Yes No |
| Oil in Sample?                | Yes No |
| Temperature (F)               | 73.8   |
| Conductivity                  | 10.1   |
| % Solids                      | <0.1   |
| Turbidity                     | Yes No |
| Color                         |        |
| TSS (%)                       | <0.1   |
| Radiation Screen (as needed)  |        |
| Lab Signature/Initials        | J.H.   |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |              |
|------------------------|--------------|
| Date                   | 11 / 29 / 22 |
| Receiving ID#          | T11292201    |
| Manifest #             | Line         |
| Land Ban Cert included | Yes No       |
| EGT Approval #         |              |
| Generator              |              |
| Client                 |              |
| Transporter            |              |
| Time in                |              |
| Time out               |              |
| Received by            | NE           |
| Sampled by             | NE           |

| LAB INFORMATION               |        |
|-------------------------------|--------|
| Compatible? (RT# )            |        |
| PCBs (ppm) (Oily Waste Only)? |        |
| TOC ppm (CC Waste Only)?      |        |
| Flash Point (F)               | >140   |
| pH (S.U.)                     | 6.50   |
| Cyanides? (mg/L)              |        |
| Sulfides? (ppm)?              |        |
| Specific Gravity              | 1.000  |
| Physical Description          |        |
| Stream Consistency            | Yes No |
| Oil in Sample?                | Yes No |
| Temperature (F)               | 53°    |
| Conductivity                  | 11     |
| % Solids                      | .45%   |
| Turbidity                     | Yes No |
| Color                         |        |
| TSS (%)                       |        |
| Radiation Screen (as needed)  |        |
| Lab Signature/Initials        | J. H.  |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |                 |
|------------------------|-----------------|
| Date                   | 11/29/22        |
| Receiving ID#          | 211292202 95T-1 |
| Manifest #             | Line            |
| Land Ban Cert included | Yes No          |
| EGT Approval #         |                 |
| Generator              |                 |
| Client                 |                 |
| Transporter            |                 |
| Time in                |                 |
| Time out               |                 |
| Received by            | J.H.            |
| Sampled by             | T.              |

| LAB INFORMATION               |         |
|-------------------------------|---------|
| Compatible? (RT# )            |         |
| PCBs (ppm) (Oily Waste Only)? |         |
| TOC ppm (CC Waste Only)?      |         |
| Flash Point (F)               | > 240   |
| pH (S.U.)                     | 7.18    |
| Cyanides? (mg/L)              |         |
| Sulfides? (ppm)?              |         |
| Specific Gravity              | 1.01    |
| Physical Description:         |         |
| Stream Consistency            | Yes No  |
| Oil in Sample?                | Yes No  |
| Temperature (F)               | 62.3    |
| Conductivity                  | 26.3 mS |
| % Solids                      | 1.41    |
| Turbidity                     | Yes No  |
| Color                         |         |
| TSS (%)                       | < 0.1   |
| Radiation Screen (as needed)  |         |
| Lab Signature/Initials        | J.H.    |



## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |            |
|------------------------|------------|
| Date                   | 11/29-2012 |
| Receiving ID#          | 211292203  |
| Manifest #             | Line       |
| Land Ban Cert included | Yes No     |
| EGT Approval #         |            |
| Generator              |            |
| Client                 |            |
| Transporter            |            |
| Time in                |            |
| Time out               |            |
| Received by            | J. J.      |
| Sampled by             | BB         |

| LAB INFORMATION               |         |
|-------------------------------|---------|
| Compatible? (RT# )            |         |
| PCBs (ppm) (Oily Waste Only)? |         |
| TOC ppm (CC Waste Only)?      |         |
| Flash Point (F)               | > 140   |
| pH (S.U.)                     | 6.72    |
| Cyanides? (mg/L)              |         |
| Sulfides? (ppm)?              |         |
| Specific Gravity              | 1.01    |
| Physical Description          |         |
| Stream Consistency            | Yes No  |
| Oil in Sample?                | Yes No  |
| Temperature (F)               | 74.2    |
| Conductivity                  | 31.4 mS |
| % Solids                      | 1.99    |
| Turbidity                     | Yes No  |
| Color                         |         |
| TSS (%)                       | < 0.1   |
| Radiation Screen (as needed)  |         |
| Lab Signature/Initials        | J. J.   |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |              |
|------------------------|--------------|
| Date                   | 11 / 30 / 22 |
| Receiving ID#          | 111302201    |
| Manifest #             | Line         |
| Land Ban Cert included | Yes No       |
| EGT Approval #         |              |
| Generator              |              |
| Client                 |              |
| Transporter            |              |
| Time in                |              |
| Time out               |              |
| Received by            | NE           |
| Sampled by             | NE           |

| LAB INFORMATION               |        |
|-------------------------------|--------|
| Compatible? (RT# )            |        |
| PCBs (ppm) (Oily Waste Only)? |        |
| TOC ppm (CC Waste Only)?      |        |
| Flash Point (F)               | 140    |
| pH (S.U.)                     | 6.19   |
| Cyanides? (mg/L)              |        |
| Sulfides? (ppm)?              |        |
| Specific Gravity              | 1.000  |
| Physical Description          |        |
| Stream Consistency            | Yes No |
| Oil in Sample?                | Yes No |
| Temperature (F)               | 64°    |
| Conductivity                  | 33     |
| % Solids                      | 1.6%   |
| Turbidity                     | Yes No |
| Color                         |        |
| TSS (%)                       | < 0.1  |
| Radiation Screen (as needed)  |        |
| Lab Signature/Initials        | NE     |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |              |
|------------------------|--------------|
| Date                   | 11 / 30 / 22 |
| Receiving ID#          | I11302202    |
| Manifest #             | Line         |
| Land Ban Cert included | Yes .. No    |
| EGT Approval #         |              |
| Generator              |              |
| Client                 |              |
| Transporter            |              |
| Time in                |              |
| Time out               |              |
| Received by            | NE           |
| Sampled by             | NE           |

| LAB INFORMATION               |        |
|-------------------------------|--------|
| Compatible? (RT# )            |        |
| PCBs (ppm) (Oily Waste Only)? |        |
| TOC ppm (CC Waste Only)?      |        |
| Flash Point (F)               | >140   |
| pH (S.U.)                     | 6.67   |
| Cyanides? (mg/L)              |        |
| Sulfides? (ppm)?              |        |
| Specific Gravity              | 1.000  |
| Physical Description          |        |
| Stream Consistency            | Yes No |
| Oil in Sample?                | Yes No |
| Temperature (F)               | 62°    |
| Conductivity                  | 33.9   |
| % Solids                      | 1.87%  |
| Turbidity                     | Yes No |
| Color                         |        |
| TSS (%)                       |        |
| Radiation Screen (as needed)  |        |
| Lab Signature/Initials        | NE     |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |           |
|------------------------|-----------|
| Date                   | 11/30/22  |
| Receiving ID#          | DI1302203 |
| Manifest #             | Line      |
| Land Ban Cert included | Yes No    |
| EGT Approval #         |           |
| Generator              |           |
| Client                 |           |
| Transporter            |           |
| Time in                |           |
| Time out               |           |
| Received by            | J.H.      |
| Sampled by             | A.W.      |

| LAB INFORMATION               |         |
|-------------------------------|---------|
| Compatible? (RT# )            |         |
| PCBs (ppm) (Oily Waste Only)? |         |
| TOC ppm (CC Waste Only)?      |         |
| Flash Point (F)               | > 140   |
| pH (S.U.)                     | 7.54    |
| Cyanides? (mg/L)              |         |
| Sulfides? (ppm)?              |         |
| Specific Gravity              | 1.01    |
| Physical Description          |         |
| Stream Consistency            | Yes No  |
| Oil in Sample?                | Yes No  |
| Temperature (F)               | 71.8    |
| Conductivity                  | 28.3 mS |
| % Solids                      | 1.06    |
| Turbidity                     | Yes No  |
| Color                         |         |
| TSS (%)                       | 40.1    |
| Radiation Screen (as needed)  |         |
| Lab Signature/Initials        | J.H.    |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |           |
|------------------------|-----------|
| Date                   | 11/30/22  |
| Receiving ID#          | 211302204 |
| Manifest #             | Line      |
| Land Ban Cert included | Yes No    |
| EGT Approval #         |           |
| Generator              |           |
| Client                 |           |
| Transporter            |           |
| Time in                |           |
| Time out               |           |
| Received by            | J.H.      |
| Sampled by             | BH        |

| LAB INFORMATION               |        |
|-------------------------------|--------|
| Compatible? (RT# )            | Y      |
| PCBs (ppm) (Oily Waste Only)? | Y      |
| TOC ppm (CC Waste Only)?      |        |
| Flash Point (F)               | > 140  |
| pH (S.U.)                     | 5.28   |
| Cyanides? (mg/L)              |        |
| Sulfides? (ppm)?              |        |
| Specific Gravity              | 1.00   |
| Physical Description          |        |
| Stream Consistency            | Yes No |
| Oil in Sample?                | Yes No |
| Temperature (F)               | 72.8   |
| Conductivity                  | 9.89ms |
| % Solids                      | 0.36   |
| Turbidity                     | Yes No |
| Color                         |        |
| TSS (%)                       | < 0.1  |
| Radiation Screen (as needed)  |        |
| Lab Signature/Initials        | J.H.   |

## **WASTE PROFILES**



# Republic Services

18500 N. Allied Way, Phoenix, AZ 85054

## SPECIAL WASTE DEPARTMENT DECISION

Waste Profile #  
64402215272

Expiration Date  
10/25/2023

### I. Decision Request:

☒ Initial ☐ Recertification ☐ Change

Disposal Facility: 6440 - Detroit Ind Well

Generator Name: WOODARD

Generator Site Address: 210 S. DELANEY RD

City: OWOSSO

County:

State: MI

Zip:

Name of Waste: HEAT EXCHANGER CLEANING RINSE WATER

Estimated Annual Volume: 4000 Gallons

### II. Special Waste Department Decision:

☒ Approved ☐ Rejected

Management Method(s): ☐ Landfill ☐ Solidification ☐ Bioremediation ☒ Deep Well ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☒ No

If yes, which one?

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☒ Not Applicable

### Precautions, Conditions or Limitations on Approval

The site must ensure that all pre-acceptance and verification analytical is performed in accordance with the site's permit requirements prior to acceptance and disposal of the profiled waste.

Special Waste Analyst Signature:

Name (Printed): Stephen Brown

Date: 11/3/2022

### III. Facility Decision:

☒ Approved ☐ Rejected

### Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee:

Name (Printed):

JOHN FROST

Date: ~~11-8-22~~

11-8-22  
JKF

**Republic Industrial and Energy Solutions, LLC**

28470 Citrin Dr, Romulus, MI 48174. Telephone 734 946 1000. Fax 734 946 1002

**GENERATOR WASTE PROFILE**

64402215272

Profile #

**GENERATOR INFORMATION**

Name: Woodard USEPA ID # MIR000014373  
Facility Address: 210 S. Delaney Rd SIC/NAICS Code: 337110  
City: Owosso State: MI Zip Code: 48867  
Contact: Steve Inhulsen Title: \_\_\_\_\_ Phone: ( 734 ) 725-4452 Fax (        ) \_\_\_\_\_

**BILLING INFORMATION**☐ SAME AS ABOVE

Company Name: ERG Environmental Services  
Address: 13040 Memman Road  
City: Livonia State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Attention: Accounts Payable Title: \_\_\_\_\_ Phone: ( 734 ) 437-9650 Fax ( 734 ) 437-7651

**WASTE INFORMATION**

Name of Waste/Common Chemical Name:  
Heat Exchanger Cleaning Rinse Water

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

Rinse Water generated from the cleaning of a zinc phosphating heat exchanger.

**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: \_\_\_\_\_

**PHYSICAL CHARACTERISTICS OF WASTE**

|   |   |   |  |  |
|---|---|---|--|--|
| <b>Color:</b><br><input checked="" type="checkbox"/> White/Clear<br><input type="checkbox"/> Black/Brown<br><input checked="" type="checkbox"/> Other | <b>Suspended Solids</b><br><input type="checkbox"/> 0-1 % <input type="checkbox"/> 3-5 %<br><input checked="" type="checkbox"/> 1-3 % <input type="checkbox"/> > 5% | <b>Layers:</b><br><input type="checkbox"/> Multi layered<br><input type="checkbox"/> Bi-Layered<br><input checked="" type="checkbox"/> Single Phase | <b>Specific Gravity:</b><br><input type="checkbox"/> <0.8 <input checked="" type="checkbox"/> 1.0 — 1.2<br><input type="checkbox"/> 0.8 — 1.0 <input type="checkbox"/> 1.3 — 1.4<br>Exact / Other <input type="text"/> |  |
|---|---|---|--|--|

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

Heat Exchanger Acid Cleaner1 2 %Bonderite Zinc Phosphate1 5 %Water93 98 %



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               | <input checked="" type="checkbox"/> | ppm           | Aromatic Amine | <input checked="" type="checkbox"/> | ppm | Arsenic (As)  | D004 | <input checked="" type="checkbox"/> | <5 ppm   |
| Dioxins           | <input checked="" type="checkbox"/> | ppm           | Pesticides     | <input checked="" type="checkbox"/> | ppm | Barium (Ba)   | D005 | <input checked="" type="checkbox"/> | <100 ppm |
| Cyanides Reactive | <input checked="" type="checkbox"/> | ppm           | Rodenticides   | <input checked="" type="checkbox"/> | ppm | Cadmium (Cd)  | D006 | <input checked="" type="checkbox"/> | <1 ppm   |
| Cyanides Total    | <input checked="" type="checkbox"/> | ppm           | Fungicides     | <input checked="" type="checkbox"/> | ppm | Chromium (Cr) | D007 | <input checked="" type="checkbox"/> | <5 ppm   |
| Sulfides Reactive | <input checked="" type="checkbox"/> | ppm           |                |                                     |     | Lead (Pb)     | D008 | <input checked="" type="checkbox"/> | <5 ppm   |
| Sulfides Total    | <input checked="" type="checkbox"/> | ppm           |                |                                     |     | Mercury (Hg)  | D009 | <input checked="" type="checkbox"/> | <0.2 ppm |
|                   |                                     |               |                |                                     |     | Selenium (Se) | D010 | <input checked="" type="checkbox"/> | <1 ppm   |
|                   |                                     |               |                |                                     |     | Silver (Ag)   | D011 | <input checked="" type="checkbox"/> | <5 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-DOT, Non-RCRA Regulated 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 3 - 4,000 gal 6. Anticipated Volume / Units per Year: 3-4,000 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: Steve Inghosen Title: Production Manager

Generator's Signature: Steve Inghosen Date: 10-25-22

**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. Grab 2. Tank  
 SAMPLING METHOD COLLECTION POINT

3. Chas Petersen  
 SAMPLE COLLECTOR'S NAME, TITLE, EMPLOYER

4. Sample No. 1 - Zinc stages descale 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:<br>(Signature) | Date | Time | Received by:<br>(Signature) | Date | Time |
|---------------------------------|------|------|-----------------------------|------|------|
|                                 |      |      |                             |      |      |

Sample ID: 1 - Zinc Stages Descale  
 SDSs: Bonderite Zinc Phosphate  
 Heat Exchanger Acid Cleaner

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |                  |
|------------------------|------------------|
| Date                   | 10/21/22         |
| Receiving ID#          | Heat Ex Cleaning |
| Manifest #             | Line             |
| Land Ban Cert included | Yes No           |
| EGT Approval #         |                  |
| Generator              | Woodard          |
| Client                 |                  |
| Transporter            |                  |
| Time in                |                  |
| Time out               |                  |
| Received by            | J.H.             |
| Sampled by             | Client           |

Rinse Water

| LAB INFORMATION               |           |
|-------------------------------|-----------|
| Compatible? (RT# )            | Y         |
| PCBs (ppm) (Oily Waste Only)? | N/A       |
| TOC ppm (CC Waste Only)?      |           |
| Flash Point (F)               | >140      |
| pH (S.U.)                     | 2.20      |
| Cyanides? (mg/L)              | <30       |
| Sulfides? (ppm)?              | <200      |
| Specific Gravity              | 1.04      |
| Physical Description          | liquid    |
| Stream Consistency            | Yes No    |
| Oil in Sample?                | Yes No    |
| Temperature (F)               | 72.7      |
| Conductivity                  | 33.9 mS   |
| % Solids                      | 3.16      |
| Turbidity                     | Yes No    |
| Color                         | Colorless |
| TSS (%)                       | <0.1      |
| Radiation Screen (as needed)  | Neg       |
| Lab Signature/Initials        | J.H.      |



# Republic Services

18500 N. Allied Way, Phoenix, AZ 85054

## SPECIAL WASTE DEPARTMENT DECISION

Waste Profile #  
64402215323

Expiration Date  
10/19/2023

### I. Decision Request:

☒ Initial ☐ Recertification ☐ Change

Disposal Facility: 6440 - Detroit Ind Well

Generator Name: ENVIRONMENTAL ENTERPRISES INC

Generator Site Address: 4650 SPRING GROVE AVENUE

City: CINCINNATI

County:

State: OH

Zip:

Name of Waste: SCRUBBING BUBBLES DISINFECTANT ROOM CLEANER LIQUID

Estimated Annual Volume: 20,000 Gallons

### II. Special Waste Department Decision:

☒ Approved ☐ Rejected

Management Method(s): ☐ Landfill ☐ Solidification ☐ Bioremediation ☒ Deep Well ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☒ No

If yes, which one?

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☒ Not Applicable

### Precautions, Conditions or Limitations on Approval

The site must ensure that all pre-acceptance and verification analytical is performed in accordance with the site's permit requirements prior to acceptance and disposal of the profiled waste.

Special Waste Analyst Signature: KEITH DIAMANTI

Date: 11/4/2022

Name (Printed): KEITH DIAMANTI

### III. Facility Decision:

☐ Approved ☐ Rejected

### Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: \_\_\_\_\_

Name (Printed): \_\_\_\_\_

Date: 11/4/2022

**Republic Industrial and Energy Solutions, LLC**

28470 Citrin Dr, Romulus, MI 48174. Telephone 734 946 1000. Fax 734 946 1002

**GENERATOR WASTE PROFILE**

Profile # 64402215323

**GENERATOR INFORMATION**

Name: Environmental Enterprises Inc USEPA ID # OHD083377010  
Facility Address: 4650 Spring Grove Avenue SIC/NAICS Code: 9511/56-2211  
City: Cincinnati State: OH Zip Code: 45232  
Contact: Chelsea Sabelhaus/Warren Taylor Title: Approvals Chemist Phone: ( 513 ) 8533589 Fax: ( 513 ) 541-1638

**BILLING INFORMATION**☒ SAME AS ABOVE

Company Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Attention: \_\_\_\_\_ Title: \_\_\_\_\_ Phone: ( ) \_\_\_\_\_ Fax: ( ) \_\_\_\_\_

**WASTE INFORMATION**

Name of Waste/Common Chemical Name:  
Scrubbing Bubbles Disinfectant Room Cleaner Liquid

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

Bulking of liquids collected from crushing of aerosol cans

**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

**PHYSICAL CHARACTERISTICS OF WASTE**

|   |   |   |  |  |
|---|---|---|--|--|
| <b>Color:</b><br><input checked="" type="checkbox"/> White/Clear<br><input checked="" type="checkbox"/> Black/Brown<br><input type="checkbox"/> Other | <b>Suspended Solids</b><br><input checked="" type="checkbox"/> 0-1 % <input type="checkbox"/> 3-5 %<br><input type="checkbox"/> 1-3 % <input type="checkbox"/> > 5% | <b>Layers:</b><br><input type="checkbox"/> Multi layered<br><input type="checkbox"/> Bi-Layered<br><input checked="" type="checkbox"/> Single Phase | <b>Specific Gravity:</b><br><input type="checkbox"/> <0.8 <input checked="" type="checkbox"/> 1.0 — 1.2<br><input type="checkbox"/> 0.8 — 1.0 <input type="checkbox"/> 1.3 — 1.4<br>Exact / Other <input type="text"/> |  |
|---|---|---|--|--|

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 - <0.2 ppm 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  |
|--------------------------------------|--------|------|----------------------------------|--------|------|
| alkyldimethylbenzylammonium chloride | 0.0001 | 0.10 | didecyldimethylammonium chloride | 0.0001 | 0.10 |
| decyldimethyloctylammonium chloride  | 0.0001 | 0.10 | Water                            | 99     | 100  |
| dimethyldioctylammonium chloride     | 0.0001 | 0.10 |                                  |        |      |

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               | <input checked="" type="checkbox"/> | ppm           | Aromatic Amine | <input checked="" type="checkbox"/> | ppm | Arsenic (As)  | D004 | <input checked="" type="checkbox"/> | <5 ppm   |
| Dioxins           | <input checked="" type="checkbox"/> | ppm           | Pesticides     | <input checked="" type="checkbox"/> | ppm | Barium (Ba)   | D005 | <input checked="" type="checkbox"/> | <100 ppm |
| Cyanides Reactive | <input checked="" type="checkbox"/> | ppm           | Rodenticides   | <input checked="" type="checkbox"/> | ppm | Cadmium (Cd)  | D006 | <input checked="" type="checkbox"/> | <1 ppm   |
| Cyanides Total    | <input checked="" type="checkbox"/> | ppm           | Fungicides     | <input checked="" type="checkbox"/> | ppm | Chromium (Cr) | D007 | <input checked="" type="checkbox"/> | <5 ppm   |
| Sulfides Reactive | <input checked="" type="checkbox"/> | ppm           |                |                                     |     | Lead (Pb)     | D008 | <input checked="" type="checkbox"/> | <5 ppm   |
| Sulfides Total    | <input checked="" type="checkbox"/> | ppm           |                |                                     |     | Mercury (Hg)  | D009 | <input checked="" type="checkbox"/> | <0.2 ppm |
|                   |                                     |               |                |                                     |     | Selenium (Se) | D010 | <input checked="" type="checkbox"/> | <1 ppm   |
|                   |                                     |               |                |                                     |     | Silver (Ag)   | D011 | <input checked="" type="checkbox"/> | <5 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 ☐ NESHA 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-regulated Hazard Class \_\_\_\_\_ UN/NA \_\_\_\_\_  
 PG \_\_\_\_\_ ERG \_\_\_\_\_ Hazardous Constituents for "n.o.s." (alkydimethylbenzylammonium chloride)  
 4. Method of Shipment: ☒ Bulk Tanker ☐ Vac truck ☐ Rail Car ☐ Drums ☐ Totes  
 5. Number of Units to Ship Now 5000 gallons 6. Anticipated Volume / Units per Year: 20,000 gallons estimated 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 Republic Industrial & Energy Solutions not to correct any inconsistencies. Any corrections Republic Industrial & Energy Solutions makes will be consistent with the results of the sample characterization and/or regulatory requirements.

Printed Name: Chelsea Sabelhaus Title: Approvals Chemist - For EEI

Generator's Signature: Chelsea Sabelhaus Date: 10/19/2022

**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 Republic Industrial & Energy Solutions representative.

1. drum thief 2. totes of liquid in TSDF  
 SAMPLING METHOD COLLECTION POINT

3. Warren Taylor, QA Director, EEI  
 SAMPLE COLLECTOR'S NAME, TITLE, EMPLOYER

4. Sample No. 137536 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:<br>(Signature) | Date | Time | Received by:<br>(Signature) | Date | Time |
|---------------------------------|------|------|-----------------------------|------|------|
|                                 |      |      |                             |      |      |

## RECEIVING &amp; APPROVAL FORM

| RECEIVING INFORMATION  |                           |
|------------------------|---------------------------|
| Date                   | 10 / 24 / 22              |
| Receiving ID#          | Scrubbing Bubbles         |
| Manifest #             | Line                      |
| Land Ban Cert included | Yes No                    |
| EGT Approval #         |                           |
| Generator              | Environmental Enterprises |
| Client                 |                           |
| Transporter            |                           |
| Time in                |                           |
| Time out               |                           |
| Received by            | J.H.                      |
| Sampled by             | Chen                      |

| LAB INFORMATION               |          |
|-------------------------------|----------|
| Compatible? (RT# )            | ✓        |
| PCBs (ppm) (Oily Waste Only)? | N/A      |
| TOC ppm (CC Waste Only)?      |          |
| Flash Point (F)               | > 140    |
| pH (S.U.)                     | 10.79    |
| Cyanides? (mg/L)              | < 30     |
| Sulfides? (ppm)?              | < 200    |
| Specific Gravity              | 1.02     |
| Physical Description          | 1.90.0   |
| Stream Consistency            | Yes No   |
| Oil in Sample?                | Yes No   |
| Temperature (F)               | 74.3     |
| Conductivity                  | 19.68    |
| % Solids                      | 3.75     |
| Turbidity                     | Yes No   |
| Color                         | H. Brown |
| TSS (%)                       | < 0.1    |
| Radiation Screen (as needed)  | Neg.     |
| Lab Signature/Initials        | J.H.     |

(See Attached) to notes

## **F039 Analysis**



06-Jan-2023

Rick Sauve  
Republic Industrial and Energy Solutions, LLC  
28470 Cintrin Dr.  
Romulus, MI 48174

Re: **F039 Leachate analysis 12.02.22**

Work Order: **22120348**

Dear Rick,

ALS Environmental received 1 sample on 02-Dec-2022 11:00 AM for the analyses presented in the following report.

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

Sample results are compliant with industry accepted practices and Quality Control 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 44.

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

ADDRESS: 3352 128th Avenue, Holland, MI, USA  
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

*Chelsey Cook*

Electronically approved by: Les Arnold

Chelsey Cook  
Project Manager

### Report of Laboratory Analysis

Certificate No: FL E871106

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company



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**Client:** Republic Industrial and Energy Solutions, LLC  
**Project:** F039 Leachate analysis 12.02.22  
**Work Order:** 22120348

**Work Order Sample Summary**

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| <u>Lab Samp ID</u> | <u>Client Sample ID</u>       | <u>Matrix</u> | <u>Tag Number</u> | <u>Collection Date</u> | <u>Date Received</u> | <u>Hold</u>              |
|--------------------|-------------------------------|---------------|-------------------|------------------------|----------------------|--------------------------|
| 22120348-01        | November 2022 F039 Analytical | Liquid        |                   | 12/1/2022              | 12/5/2022            | <input type="checkbox"/> |

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**Client:** Republic Industrial and Energy Solutions, LLC  
**Project:** F039 Leachate analysis 12.02.22  
**Work Order:** 22120348

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**Case Narrative**

The attached "Sample Receipt Checklist" documents the date of receipt, status of custody seals, container integrity, preservation, and temperature compliance.

Dioxin/Furans were analyzed by ALS Houston. The subcontract report is appended in its entirety.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. A copy of the laboratory's scope of accreditation is available upon request.

Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting.

Any flags on MS/MSD samples not addressed in this narrative are unrelated to samples in this report.

With the following exceptions, all sample analyses achieved analytical criteria.

**ALS Group, USA****Date:** 06-Jan-2023**Client:** Republic Industrial and Energy Solutions, LLC**Project:** F039 Leachate analysis 12.02.22**Work Order:** 22120348**Sample ID:** November 2022 F039 Analytical**Lab ID:** 22120348-01**Collection Date:** 12/1/2022**Matrix:** LIQUID

| Analyses                               | Result       | Qual | Report<br>Limit    | Units | Dilution<br>Factor         | Date Analyzed       |
|--|--------------|------|--------------------|-------|----------------------------|---------------------|
| <b>PESTICIDES</b>                      |              |      | <b>SW8081B</b>     |       | Prep: SW3511 12/7/22 15:16 | Analyst: <b>MMO</b> |
| Aldrin                                 | ND           |      | 0.90               | µg/L  | 100                        | 12/7/2022 09:44 PM  |
| <b>SEMI-VOLATILE ORGANIC COMPOUNDS</b> |              |      | <b>SW846 8270D</b> |       | Prep: SW3510 12/8/22 16:53 | Analyst: <b>EE</b>  |
| N-Nitrosodimethylamine                 | ND           |      | 1,400              | µg/L  | 100                        | 12/13/2022 08:55 AM |
| <b>SUBCONTRACTED ANALYSES</b>          |              |      | <b>SUBCONTRACT</b> |       |                            | Analyst: <b>ALS</b> |
| Subcontracted Analyses                 | See attached |      | as noted           |       | 1                          | 1/5/2023            |

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

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**Client:** Republic Industrial and Energy Solutions, LLC  
**Project:** F039 Leachate analysis 12.02.22  
**WorkOrder:** 22120348

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**QUALIFIERS,  
ACRONYMS, UNITS**

| <u>Qualifier</u> | <u>Description</u>  |
|------------------|---|
| *                | Value exceeds Regulatory Limit  |
| **               | Estimated Value   |
| a                | Analyte is non-accredited   |
| B                | Analyte detected in the associated Method Blank above the Reporting Limit   |
| E                | Value above quantitation range  |
| H                | Analyzed outside of Holding Time  |
| Hr               | BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.  |
| J                | Analyte is present at an estimated concentration between the MDL and Report Limit   |
| n                | Analyte accreditation is not offered  |
| 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 Reporting Limit, sample results may exhibit background or reagent contamination at the observed level. |

| <u>Acronym</u> | <u>Description</u>                  |
|----------------|-------------------------------------|
| 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                   |

| <u>Units Reported</u> | <u>Description</u>   |
|-----------------------|----------------------|
| µg/L                  | Micrograms per Liter |
| as noted              |                      |

# ALS Group, USA

Date: 06-Jan-23

**Client:** Republic Industrial and Energy Solutions, LLC  
**Work Order:** 22120348  
**Project:** F039 Leachate analysis 12.02.22

## QC BATCH REPORT

Batch ID: **207851** Instrument ID **GC12** Method: **SW8081B**

| <b>MBLK</b>                | Sample ID: <b>PBLKW1-207851-207851</b> |       |         | Units: <b>µg/L</b>    |      |               | Analysis Date: <b>12/7/2022 07:25 PM</b> |      |              |      |
|----------------------------|--|-------|---------|-----------------------|------|---------------|--|------|--------------|------|
| Client ID:                 | Run ID: <b>GC12_221207A</b>            |       |         | SeqNo: <b>9088655</b> |      |               | Prep Date: <b>12/7/2022</b>              |      | DF: <b>1</b> |      |
| Analyte                    | Result                                 | PQL   | SPK Val | SPK Ref Value         | %REC | Control Limit | RPD Ref Value                            | %RPD | RPD Limit    | Qual |
| Aldrin                     | ND                                     | 0.010 | 0       | 0                     | 0    | 0-0           | 0  |      |              |      |
| Surr: Decachlorobiphenyl   | 0.2968                                 | 0     | 0.25    | 0                     | 119  | 42-148        | 0  |      |              |      |
| Surr: Tetrachloro-m-xylene | 0.2158                                 | 0     | 0.25    | 0                     | 86.3 | 57-141        | 0  |      |              |      |

| <b>LCS</b>                 | Sample ID: <b>PLCSW1-207851-207851</b> |       |         | Units: <b>µg/L</b>    |      |               | Analysis Date: <b>12/7/2022 07:53 PM</b> |      |              |      |
|----------------------------|--|-------|---------|-----------------------|------|---------------|--|------|--------------|------|
| Client ID:                 | Run ID: <b>GC12_221207A</b>            |       |         | SeqNo: <b>9088663</b> |      |               | Prep Date: <b>12/7/2022</b>              |      | DF: <b>1</b> |      |
| Analyte                    | Result                                 | PQL   | SPK Val | SPK Ref Value         | %REC | Control Limit | RPD Ref Value                            | %RPD | RPD Limit    | Qual |
| Aldrin                     | 0.1808                                 | 0.010 | 0.2     | 0                     | 90.4 | 51-164        | 0  |      |              |      |
| Surr: Decachlorobiphenyl   | 0.3016                                 | 0     | 0.25    | 0                     | 121  | 42-148        | 0  |      |              |      |
| Surr: Tetrachloro-m-xylene | 0.252                                  | 0     | 0.25    | 0                     | 101  | 57-141        | 0  |      |              |      |

| <b>LCSD</b>                | Sample ID: <b>PLCSDW1-207851-207851</b> |       |         | Units: <b>µg/L</b>    |      |               | Analysis Date: <b>12/7/2022 08:07 PM</b> |      |              |      |
|----------------------------|---|-------|---------|-----------------------|------|---------------|--|------|--------------|------|
| Client ID:                 | Run ID: <b>GC12_221207A</b>             |       |         | SeqNo: <b>9088666</b> |      |               | Prep Date: <b>12/7/2022</b>              |      | DF: <b>1</b> |      |
| Analyte                    | Result                                  | PQL   | SPK Val | SPK Ref Value         | %REC | Control Limit | RPD Ref Value                            | %RPD | RPD Limit    | Qual |
| Aldrin                     | 0.1998                                  | 0.010 | 0.2     | 0                     | 99.9 | 51-164        | 0  | 0    | 20           |      |
| Surr: Decachlorobiphenyl   | 0.319                                   | 0     | 0.25    | 0                     | 128  | 42-148        | 0  | 0    | 20           |      |
| Surr: Tetrachloro-m-xylene | 0.2774                                  | 0     | 0.25    | 0                     | 111  | 57-141        | 0  | 0    | 20           |      |

The following samples were analyzed in this batch:

22120348-01A

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

**Client:** Republic Industrial and Energy Solutions, LLC  
**Work Order:** 22120348  
**Project:** F039 Leachate analysis 12.02.22

## QC BATCH REPORT

Batch ID: **207932**      Instrument ID **SVMS8**      Method: **SW846 8270D**

| <b>MBLK</b>                |        | Sample ID: <b>SBLKW1-207932-207932</b> |         |               |      | Units: <b>µg/L</b>    |               | Analysis Date: <b>12/10/2022 06:22 PM</b> |           |              |
|----------------------------|--------|--|---------|---------------|------|-----------------------|---------------|---|-----------|--------------|
| Client ID:                 |        | Run ID: <b>SVMS8_221210A</b>           |         |               |      | SeqNo: <b>9097745</b> |               | Prep Date: <b>12/8/2022</b>               |           | DF: <b>1</b> |
| Analyte                    | Result | PQL                                    | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                      | RPD Limit | Qual         |
| N-Nitrosodimethylamine     | ND     | 5.0                                    | 0       | 0             | 0    | 0-0                   |               | 0   |           |              |
| Surr: 2,4,6-Tribromophenol | 28.67  | 0                                      | 50      | 0             | 57.3 | 47-103                |               | 0   |           |              |
| Surr: 2-Fluorobiphenyl     | 30.87  | 0                                      | 50      | 0             | 61.7 | 41-96                 |               | 0   |           |              |
| Surr: 2-Fluorophenol       | 24.38  | 0                                      | 50      | 0             | 48.8 | 28-66                 |               | 0   |           |              |
| Surr: 4-Terphenyl-d14      | 38.71  | 0                                      | 50      | 0             | 77.4 | 49-107                |               | 0   |           |              |
| Surr: Nitrobenzene-d5      | 30.12  | 0                                      | 50      | 0             | 60.2 | 41-95                 |               | 0   |           |              |
| Surr: Phenol-d6            | 17.19  | 0                                      | 50      | 0             | 34.4 | 18-44                 |               | 0   |           |              |

| <b>LCS</b>                 |        | Sample ID: <b>SLCSW1-207932-207932</b> |         |               |      | Units: <b>µg/L</b>    |               | Analysis Date: <b>12/10/2022 06:42 PM</b> |           |              |
|----------------------------|--------|--|---------|---------------|------|-----------------------|---------------|---|-----------|--------------|
| Client ID:                 |        | Run ID: <b>SVMS8_221210A</b>           |         |               |      | SeqNo: <b>9097746</b> |               | Prep Date: <b>12/8/2022</b>               |           | DF: <b>1</b> |
| Analyte                    | Result | PQL                                    | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                      | RPD Limit | Qual         |
| N-Nitrosodimethylamine     | 10.42  | 5.0                                    | 20      | 0             | 52.1 | 26-74                 |               | 0   |           |              |
| Surr: 2,4,6-Tribromophenol | 39.24  | 0                                      | 50      | 0             | 78.5 | 47-103                |               | 0   |           |              |
| Surr: 2-Fluorobiphenyl     | 34.29  | 0                                      | 50      | 0             | 68.6 | 41-96                 |               | 0   |           |              |
| Surr: 2-Fluorophenol       | 24.62  | 0                                      | 50      | 0             | 49.2 | 28-66                 |               | 0   |           |              |
| Surr: 4-Terphenyl-d14      | 38.14  | 0                                      | 50      | 0             | 76.3 | 49-107                |               | 0   |           |              |
| Surr: Nitrobenzene-d5      | 32.36  | 0                                      | 50      | 0             | 64.7 | 41-95                 |               | 0   |           |              |
| Surr: Phenol-d6            | 17.2   | 0                                      | 50      | 0             | 34.4 | 18-44                 |               | 0   |           |              |

| <b>MS</b>                  |        | Sample ID: <b>22120246-01A MS</b> |         |               |      | Units: <b>µg/L</b>    |               | Analysis Date: <b>12/10/2022 07:03 PM</b> |           |              |
|----------------------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|---|-----------|--------------|
| Client ID:                 |        | Run ID: <b>SVMS8_221210A</b>      |         |               |      | SeqNo: <b>9097747</b> |               | Prep Date: <b>12/8/2022</b>               |           | DF: <b>1</b> |
| Analyte                    | Result | PQL                               | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                      | RPD Limit | Qual         |
| N-Nitrosodimethylamine     | 265.8  | 100                               | 400     | 0             | 66.4 | 26-74                 |               | 0   |           |              |
| Surr: 2,4,6-Tribromophenol | 832.8  | 0                                 | 1000    | 0             | 83.3 | 47-103                |               | 0   |           |              |
| Surr: 2-Fluorobiphenyl     | 791.2  | 0                                 | 1000    | 0             | 79.1 | 41-96                 |               | 0   |           |              |
| Surr: 2-Fluorophenol       | 634.2  | 0                                 | 1000    | 0             | 63.4 | 28-66                 |               | 0   |           |              |
| Surr: 4-Terphenyl-d14      | 815    | 0                                 | 1000    | 0             | 81.5 | 49-107                |               | 0   |           |              |
| Surr: Nitrobenzene-d5      | 779    | 0                                 | 1000    | 0             | 77.9 | 41-95                 |               | 0   |           |              |
| Surr: Phenol-d6            | 473.6  | 0                                 | 1000    | 0             | 47.4 | 18-44                 |               | 0   |           | S            |

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

**Client:** Republic Industrial and Energy Solutions, LLC  
**Work Order:** 22120348  
**Project:** F039 Leachate analysis 12.02.22

## QC BATCH REPORT

Batch ID: **207932**      Instrument ID **SVMS8**      Method: **SW846 8270D**

|                            |                             |     |         |               |                |               |                      |                                    |           |      |
|----------------------------|-----------------------------|-----|---------|---------------|----------------|---------------|----------------------|------------------------------------|-----------|------|
| MSD                        | Sample ID: 22120246-01A MSD |     |         |               |                | Units: µg/L   |                      | Analysis Date: 12/10/2022 07:24 PM |           |      |
| Client ID:                 | Run ID: SVMS8_221210A       |     |         |               | SeqNo: 9097748 |               | Prep Date: 12/8/2022 |                                    | DF: 1     |      |
| Analyte                    | Result                      | PQL | SPK Val | SPK Ref Value | %REC           | Control Limit | RPD Ref Value        | %RPD                               | RPD Limit | Qual |
| N-Nitrosodimethylamine     | 182.8                       | 100 | 400     | 0             | 45.7           | 26-74         | 265.8                | 37                                 | 30        | R    |
| Surr: 2,4,6-Tribromophenol | 687.2                       | 0   | 1000    | 0             | 68.7           | 47-103        | 832.8                | 19.2                               | 40        |      |
| Surr: 2-Fluorobiphenyl     | 578.6                       | 0   | 1000    | 0             | 57.9           | 41-96         | 791.2                | 31                                 | 40        |      |
| Surr: 2-Fluorophenol       | 438.6                       | 0   | 1000    | 0             | 43.9           | 28-66         | 634.2                | 36.5                               | 40        |      |
| Surr: 4-Terphenyl-d14      | 708.6                       | 0   | 1000    | 0             | 70.9           | 49-107        | 815                  | 14                                 | 40        |      |
| Surr: Nitrobenzene-d5      | 539.2                       | 0   | 1000    | 0             | 53.9           | 41-95         | 779                  | 36.4                               | 40        |      |
| Surr: Phenol-d6            | 321.4                       | 0   | 1000    | 0             | 32.1           | 18-44         | 473.6                | 38.3                               | 40        |      |

The following samples were analyzed in this batch: 22120348-01A


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





ALS Environmental  
3352 128th Avenue  
Holland, Michigan 49424  
(Tel) 616.399.6070  
(Fax) 616.399.6185

Page 1 of 1

| Customer Information  |                    |                                |      | Project Information       |                   |   |   | ALS Project Manager:             |   | ALS Work Order #:   |   |                   |   |   |   |   |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|--------------------|--------------------------------|------|---------------------------|-------------------|---|---|----------------------------------|---|---|---|-------------------|---|---|---|---|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Purchase Order  |                    | Project Name                   |      | Project Number            |                   | A Aldrin                                      |   |                                  |   |   |   |                   |   |   |   |   |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Work Order  |                    | Project Number                 |      | Project Number            |                   | B Hexachlorodibenzo-p-dioxins                 |   |                                  |   |   |   |                   |   |   |   |   |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Company Name  |                    | Republic Industrial and Energy |      | Bill To Company           |                   | C Nitrosodimethylamine                        |   |                                  |   |   |   |                   |   |   |   |   |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Send Report To  |                    | Rick Sauve                     |      | Invoice Attn.             |                   | D 1,2,3,4,6,7,8,9-Octachlor-dibenzofuran      |   |                                  |   |   |   |                   |   |   |   |   |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Address   |                    | 28470 Cintrin Dr.              |      | Address                   |                   | E 1,2,3,4,6,7,8,9-Octachloro-dibenzo-p-dioxin |   |                                  |   |   |   |                   |   |   |   |   |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| City/State/Zip  |                    | Romulus, MI 48174              |      | City/State/Zip            |                   | F Tetrachlorodibenzo-p-dioxins                |   |                                  |   |   |   |                   |   |   |   |   |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Phone   |                    | 734-784-2708                   |      | Phone                     |                   | G   |   |                                  |   |   |   |                   |   |   |   |   |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Fax   |                    |                                |      | Fax                       |                   | H   |   |                                  |   |   |   |                   |   |   |   |   |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| e-Mail Address: RSauve@republicservices.com   |                    |                                |      |                           |                   | I   |   |                                  |   |   |   |                   |   |   |   |   |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No.   | Sample Description | Date                           | Time | Matrix                    | Pres. Key Numbers | # Bottles                                     | A | B                                | C | D   | E | F                 | G | H   | I | J   | Hold |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1   | November 2022 F039 | 12/1/2022                      |      | L                         |                   | 3   | X | X                                | X | X   | X | X                 |   |   |   |   |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <div>22120348</div> <div>REPUBLIC INDUSTRIAL ROMULUS, MI 48174<br/>Project: (REIS) F039 Leachables analysis 11.1.2022</div> <div></div> |                    |                                |      |                           |                   |   |   |                                  |   |   |   |                   |   |   |   |   |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   |                    |                                |      |                           |                   |   |   |                                  |   |   |   |                   |   |   |   |   |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   |                    |                                |      |                           |                   |   |   |                                  |   |   |   |                   |   |   |   |   |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   |                    |                                |      |                           |                   |   |   |                                  |   |   |   |                   |   |   |   |   |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   |                    |                                |      |                           |                   |   |   |                                  |   |   |   |                   |   |   |   |   |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sampler(s): Please Print & Sign   |                    |                                |      | Shipment Method:          |                   |   |   | Turnaround Time: (Business Days) |   |   |   | Results Due Date: |   |   |   |   |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Rick Sauve  |                    | 408-1-Sauve                    |      |                           |                   |   |   |                                  |   | <input type="checkbox"/> 10 BD <input checked="" type="checkbox"/> 5 BD <input type="checkbox"/> 3 BD <input type="checkbox"/> 1 BD |   |                   |   |   |   |   |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Relinquished by:  |                    |                                |      | Received by:              |                   |   |   | Date:                            |   |   |   | Time:             |   |   |   | Notes:  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Rick Sauve  |                    | 12/2/2022                      |      | 12:55                     |                   | 3:30 PM                                       |   | 12/2/22                          |   | 12:15   |   | 12:15             |   | Sub D/L to Boston   |   |   |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Relinquished by:  |                    |                                |      | Received by (Laboratory): |                   |   |   | Date:                            |   |   |   | Time:             |   |   |   | QC Package: (Check Box Below)                             |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Rick Sauve  |                    | 12/2/22                        |      | 17:00                     |                   | Q5  |   | 12/2/22                          |   | 17:00   |   | 17:00             |   | Cooler Temp   |   | Cooler ID   |      | Level II: Standard QC <input type="checkbox"/> Level III: Raw Data <input type="checkbox"/> TRRP LRC <input type="checkbox"/> TRRP Level IV <input type="checkbox"/> Other: <input type="checkbox"/> |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Logged by (Laboratory):   |                    |                                |      | Checked by (Laboratory):  |                   |   |   | Date:                            |   |   |   | Time:             |   |   |   | Level IV: SW846 Methods/CLP like <input type="checkbox"/> |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Rick Sauve  |                    | 12/2/22                        |      | 14:00                     |                   | 14:00   |   | 12/2/22                          |   | 14:00   |   | 14:00             |   | Level IV: SW846 Methods/CLP like <input type="checkbox"/> |   |   |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.**

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**Revision 2 - Effective 11/9/2016**

Sample Receipt Checklist

Client Name: **REPULICINDUSTRIAL - ROMULU**

Date/Time Received: **02-Dec-22 11:00**

Work Order: **22120348**

Received by: **LA**

Checklist completed by **Keith Wierenga**

05-Dec-22

Reviewed by: **Les Arnold**

05-Dec-22

eSignature

Date

eSignature

Date

Matrices: water

Carrier name: City Transfer

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):

3.5

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage:

12/5/22 13:00

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:

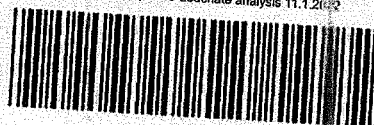
Contacted By:

Regarding:

Comments:

CorrectiveAction:

22120348

 REPUBLIC INDUSTRIAL ROMANIA S.R.L. Republic Industrial and Energy Services, LLC  
 Project: (REIS) F039 Leachate analysis 11.1.2002


MI-163-1W-C010

Page A-3 of 3

# ations and Reporting

| <u>RCRA<br/>CODE(S)</u>   | <u>NAME</u>                                      | <u>LIMIT<br/>(mg/ml)</u> | <u>MINIMUM<sup>5</sup><br/>MONITORING<br/>FREQUENCY</u> | <u>MINIMUM<br/>REPORTING<br/>FREQUENCY</u> |
|---|--|--------------------------|---|--|
| F039, P004  | Aldrin   | 200                      | monthly/per load  | monthly                                    |
| U021  | Benzidine  | 200                      | monthly/per load  | monthly                                    |
| P016, K017  | sym-Dichloromethyl ether                         | 160                      | monthly/per load  | monthly                                    |
| F020, F021,<br>F022, F026,<br>F027, F028,<br>F032, F039,<br>F032, K043,<br>K099 | Hexachlorodibenzo-p-dioxins                      | 6                        | monthly/per load  | monthly                                    |
| K174, K178  | Hexachlorodibenzo-p-dioxins,<br>all              | 6                        | monthly/per load  | monthly                                    |
| F039, P082  | Nitrosodimethylamine                             | 200                      | monthly/per load  | monthly                                    |
| F039, K174,<br>K178   | 1,2,3,4,6,7,8,9- Octachloro-<br>dibenzofuran     | 6                        | monthly/per load  | monthly                                    |
| F039, K174,<br>K178   | 1,2,3,4,6,7,8,9- Octachloro-<br>dibenzo-p-dioxin | 6                        | monthly/per load  | monthly                                    |
| F020, F021,<br>F022, F026,<br>F027, F028,<br>F032, F039,<br>F032, K043          | Tetrachlorodibenzo-p-dioxins<br>(TCDD)           | 30                       | monthly/per load  | monthly                                    |
| K174, K178  | Tetrachlorodibenzo-p-dioxins<br>(TCDD)           | 30                       | monthly/per load  | monthly                                    |
| P110  | Tetraethyl lead                                  | 100                      | monthly/per load  | monthly                                    |

<sup>5</sup>The monthly chemical analyses for the specific chemicals and waste codes required by this table apply to post-treatment "source" material for injection. A "per load" fingerprint analysis is required for each incoming waste shipment received and for each batch of post-treatment source material as specified in Part III(E) to confirm the general characteristics of the materials. The fingerprint analysis of the general characteristics of the source is not specific to these individual waste codes.



January 06, 2023

Service Request No:E2201159

Les Arnold  
ALS - Holland  
3352 128th Avenue  
Holland, MI 49424

**Laboratory Results for: 22120348**

Dear Les,

Enclosed are the results of the sample(s) submitted to our laboratory December 06, 2022  
For your reference, these analyses have been assigned our service request number **E2201159**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at [James.Guin@alsglobal.com](mailto:James.Guin@alsglobal.com).

Respectfully submitted,

**ALS Group USA, Corp. dba ALS Environmental**

James Guin

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099  
PHONE +1 281 530 5656 | FAX +1 281 530 5887  
ALS Group USA, Corp.  
dba ALS Environmental



# Certificate of Analysis

**ALS Environmental - Houston HRMS**  
10450 Stancliff Rd, Suite 210, Houston TX 77099  
Phone (713)266-1599 Fax (713)266-0130  
[www.alsglobal.com](http://www.alsglobal.com)

## ALS Environmental

|                       |                                  |                             |          |
|-----------------------|----------------------------------|-----------------------------|----------|
| <b>Client:</b>        | ALS Environmental – Holland (MI) | <b>Service Request No.:</b> | E221159  |
| <b>Project:</b>       | 22120348                         | <b>Date Received:</b>       | 12/06/22 |
| <b>Sample Matrix:</b> | Water                            |                             |          |

## CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

### Sample Receipt

One sample was received for analysis at ALS Environmental in Houston on 12/06/22.

The sample was received in good condition and is consistent with the accompanying chain of custody form. The sample was stored in a refrigerator at 4°C upon receipt at the laboratory.

### Data Validation Notes and Discussion

#### Precision and Accuracy:

EQ2300005: Laboratory Control Spike (LCS) sample was analyzed and reported in lieu of a MS/MSD for this extraction batch.

The batch precision (MS/DMS) measurements were determined on another order in the extraction batch. The MS/DMS results are not included in this report.

#### B flags – Method Blanks

The Method Blank EQ2300005-01 contained low levels of target compounds below the Method Reporting Limit (MRL). The associated compounds in the samples are flagged with 'B' flags where the sample result is less than ten times the level detected in the method blank.

#### 2378-TCDF

Samples analyzed on the DB-5MSUI column were analyzed under conditions where sufficient separation between 2,3,7,8-TCDF and its closest eluter was achieved. Confirmation of this result was not required.

#### Y flags – Cleanup Standard

The recoveries for the cleanup standard, 37Cl-2,3,7,8-TCDD are below control limits. The sample results are not affected since this labeled standard is provided as a means of demonstrating that both the sample extraction and subsequent cleanup steps performed as expected and is not used in quantitation of target analytes.

#### Y flags – Labeled Standards

Quantification of the native 2,3,7,8-substituted congeners is based on isotopic dilution, which automatically corrects for variation in extraction efficiency and provides accurate values even with poor recovery. Samples that had recoveries of labeled standards outside the acceptance limits are qualified with 'Y' flags on the Labeled Compound summary pages. In all cases, the signal-to-noise ratios are greater than 10:1 and detection limits were below the Method Reporting Limits.

### **Dilutions**

The sample E2201159-001 had elevated levels of target analytes and required a dilution. The undiluted and diluted results were combined into one Total TEQ summary report for each sample. This reports a 'Total' result that includes the most appropriate concentration found for the associated target analyte.

### **K flags**

EMPC - When the ion abundance ratios associated with a particular compound are outside the QC limits, samples are flagged with a 'K' flag. A 'K' flag indicates an estimated maximum possible concentration for the associated compound.

### **Detection Limits**

Detection limits are calculated for each analyte in each sample by measuring the height of the noise level for each quantitation ion for the associated labeled standard. The concentration equivalent to 2.5 times the height of the noise is then calculated using the appropriate response factor and the weight of the sample. The calculated concentration equals the detection limit.

### **The TEQ Summary results for each sample have been calculated by ALS/Houston to include:**

- WHO-2005 TEFs, The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds (M. Van den Berg et al., Toxicological Sciences 93(2):223-241, 2006)
- Non-detected compounds are not included in the 'Total'

*The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.*

*Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.*

**Client:** ALS Environmental - Holland (MI)  
**Project:** 22120348

**Service Request:**E2201159

**SAMPLE CROSS-REFERENCE**

| <u>SAMPLE #</u> | <u>CLIENT SAMPLE ID</u>      | <u>DATE</u> | <u>TIME</u> |
|-----------------|------------------------------|-------------|-------------|
| E2201159-001    | October 2022 F039 Analytical | 12/1/2022   | 0000        |



## Service Request Summary

1 500 mL-Glass Bottle NM AMBER Teflon Liner Unpreserved  
Location: EHRMS-WIC 1A  
Pressure Gas:

**Folder #:** E2201159  
**Client Name:** ALS Environmental - Holland (MI)  
**Project Name:** 22120348  
**Project Number:**  
**Report To:** Les Arnold  
ALS - Holland  
3352 128th Avenue  
Holland, MI 49424  
USA  
Phone Number: 616-738-7307  
Cell Number: 616-836-2964  
Fax Number: 616-399-6185  
E-mail: les.arnold@alsglobal.com

**Project Chemist:** James Guin  
**Originating Lab:** HOUSTON  
**Logged By:** CGRANDITS  
**Date Received:** 12/06/22  
**Internal Due Date:** 12/23/2022  
**QAP:** LAB QAP  
**Qualifier Set:** HRMS Qualifier Set  
**Formset:** Lab Standard  
**Merged?:** Y  
**Report to MDL?:** Y  
**P.O. Number:** 22120348  
**EDD:** BASIC\_WQC\_CASNo

|              |                              |        |               |
|--------------|------------------------------|--------|---------------|
| HOUSTON      | Dioxins Furans/1613B         |        |               |
|              | II                           |        |               |
| Lab Samp No. | Client Samp No               | Matrix | Collected     |
| E2201159-001 | October 2022 F039 Analytical | Water  | 12/01/22 0000 |

**Folder #:** E2201159  
**Client Name:** ALS Environmental - Holland (MI)  
**Project Name:** 22120348  
**Project Number:**  
**Report To:** Les Arnold  
ALS - Holland  
3352 128th Avenue  
Holland, MI 49424  
USA  
**Phone Number:** 616-738-7307  
**Cell Number:** 616-836-2964  
**Fax Number:** 616-399-6185  
**E-mail:** les.arnold@alsglobal.com

## **Service Request Summary**

**Project Chemist:** James Guin  
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**P.O. Number:** 22120348  
**EDD:** BASIC\_WQC\_CASNo

1 500 mL-Glass Bottle NM AMBER Teflon Liner Unpreserved  
**Location:** EHRMS-WIC 1A  
**Pressure Gas:**

## Data Qualifiers

### HRMS Qualifier Set

- B Indicates the associated analyte was found in the method blank at >1/10th the reported value.
- E Estimated value. The reported concentration is above the calibration range of the instrument.
- H Sample extracted and/or analyzed out of suggested holding time.
- J Estimated value. The reported concentration is below the MRL.
- K The ion abundance ratio between the primary and secondary ions were outside of theoretical acceptance limits. The concentration of this analyte should be considered as an estimate.
- P Chlorodiphenyl ether interference was present at the retention time of the target analyte. Reported result should be considered an estimate.
- Q Monitored lock-mass indicates matrix-interference. Reported result is estimated.
- S Signal saturated detector. Result reported from dilution.
- U Compound was analyzed for, but was not detected (ND).
- X See Case Narrative.
- Y Isotopically Labeled Standard recovery outside of acceptance limits. In all cases, the signal-to-noise ratios are greater than 10:1, making the recoveries acceptable.
- i The MDL/MRL have been elevated due to a matrix interference.

## ALS Laboratory Group

---

### Acronyms

|           |  |
|-----------|--|
| Cal       | Calibration  |
| Conc      | CONCetration   |
| Dioxin(s) | Polychlorinated dibenzo-p-dioxin(s)                      |
| EDL       | Estimated Detection Limit                                |
| EMPC      | Estimated Maximum Possible Concentration                 |
| Flags     | Data qualifiers  |
| Furan(s)  | Polychlorinated dibenzofuran(s)                          |
| g         | Grams  |
| ICAL      | Initial CALibration                                      |
| ID        | IDentifier   |
| Ions      | Masses monitored for the analyte during data acquisition |
| L         | Liter (s)  |
| LCS       | Laboratory Control Sample                                |
| DLCS      | Duplicate Laboratory Control Sample                      |
| MB        | Method Blank   |
| MCL       | Method Calibration Limit                                 |
| MDL       | Method Detection Limit                                   |
| mL        | Milliliters  |
| MS        | Matrix Spiked sample                                     |
| DMS       | Duplicate Matrix Spiked sample                           |
| NO        | Number of peaks meeting all identification criteria      |
| PCDD(s)   | Polychlorinated dibenzo-p-dioxin(s)                      |
| PCDF(s)   | Polychlorinated dibenzofuran(s)                          |
| ppb       | Parts per billion  |
| ppm       | Parts per million  |
| ppq       | Parts per quadrillion                                    |
| ppt       | Parts per trillion                                       |
| QA        | Quality Assurance  |
| QC        | Quality Control  |
| Ratio     | Ratio of areas from monitored ions for an analyte        |
| % Rec.    | Percent recovery   |
| RPD       | Relative Percent Difference                              |
| RRF       | Relative Response Factor                                 |
| RT        | Retention Time   |
| SDG       | Sample Delivery Group                                    |
| S/N       | Signal-to-noise ratio                                    |
| TEF       | Toxicity Equivalence Factor                              |
| TEQ       | Toxicity Equivalence Quotient                            |

### State Certifications, Accreditations, and Licenses

| Agency   | Number            | Expire Date |
|--|-------------------|-------------|
| Arizona Department of Health Services                            | AZ0793            | 5/27/2023   |
| Arkansas Department of Environmental Quality                     | 22-041-0          | 3/27/2023   |
| California Department of Health Services                         | 2919-2023         | 4/30/2023   |
| Department of Defense  | L22-90            | 3/31/2024   |
| Florida Department of Health                                     | E87611-36         | 6/30/2023   |
| Florida Department of Health                                     | E87611-36         | 6/30/2023   |
| Florida Department of Health                                     | E87611-36         | 6/30/2023   |
| Florida Department of Health                                     | E87611-36         | 6/30/2023   |
| Hawaii Department of Health                                      | 2022              | 4/30/2023   |
| Illinois Environmental Protection Agency                         | 2000322022-9      | 5/9/2023    |
| Kansas Department of Health and Environment                      | E-10352 2022-2023 | 7/31/2023   |
| Louisiana Department of Environmental Quality                    | 03087-2022        | 6/30/2023   |
| Louisiana Department of Health and Hospitals                     | LA028-2023        | 12/31/2023  |
| Maine Department of Health and Human Services                    | 2022017           | 6/5/2024    |
| Maryland Department of the Environment                           | 343               | 6/30/2023   |
| Michigan Department of Environmental Quality                     | 9971-2022         | 4/30/2023   |
| Minnesota Department of Health                                   | 2368363           | 12/31/2023  |
| Nebraska Department of Health and Human Services                 | NE-OS-25-13       | 4/30/2023   |
| Nevada Department of Conservation and Natural Resources          | TX026932023-1     | 7/31/2023   |
| New Hampshire Environmental Laboratory Accreditation Program     | 209422            | 4/24/2023   |
| New Jersey Department of Environmental Protection                | TX008-2023        | 6/30/2023   |
| New York Department of Health                                    | 11707             | 3/31/2023   |
| Oklahoma Department of Environmental Quality                     | 2022-141          | 8/31/2023   |
| Oregon Environmental Laboratory Accreditation Program            | TX200002          | 5/15/2023   |
| Pennsylvania Department of Environmental Protection              | 68-03441-016      | 6/30/2023   |
| Perry Johnson Laboratory Accreditation                           | L22-91            | 3/31/2024   |
| Tennessee Department of Environment and Conservation             | 04016-2022        | 4/30/2023   |
| Texas Commission on Environmental Quality                        | T104704231-22-29  | 4/30/2023   |
| Utah Department of Health Environmental Laboratory Certification | TX026932022-13    | 7/31/2023   |
| Washington Department of Ecology                                 | C819-22           | 11/14/2023  |

ALS ENVIRONMENTAL – Houston  
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID

E2201159

DB-5MSUI

SPB-Octyl

**First Level - Data Processing - to be filled by person generating the forms**

|          |          |          |
|----------|----------|----------|
| Date:    | Analyst: | Samples: |
| 01/06/23 | LKL      | 001      |

**Second Level - Data Review – to be filled by person doing peer review**

|          |          |          |
|----------|----------|----------|
| Date:    | Analyst: | Samples: |
| 01/06/23 | SL       | 001      |

ALS ENVIRONMENTAL – Houston  
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID

E2201159

DB-5MSUI

SPB-Octyl

**First Level - Data Processing - to be filled by person generating the forms**

Date:

Analyst:

Samples:

01/06/23

LKL

001 PL

**Second Level - Data Review – to be filled by person doing peer review**

Date:

Analyst:

Samples:

01/06/23

SJL

001 PL



## Chain of Custody

**ALS Environmental - Houston HRMS**  
10450 Stancliff Rd, Suite 210, Houston TX 77099  
Phone (713)266-1599 Fax (713)266-0130  
[www.alsglobal.com](http://www.alsglobal.com)





Subcontractor:  
ALS Environmental  
10450 Standcliff Rd  
Suite 210  
Houston, TX 77099

TEL: (281) 530-5556  
FAX: (281) 530-5887  
Acct #:

# CHAIN-OF-CUSTODY RECORD

Date: 05-Dec-22  
COC ID: 21640  
Due Date: 23-Dec-22

Page 1 of 1


| Customer Information |             | ALSIN Account       |                | Project Information |            | Parameter/Method Request for Analysis |                         |                |                |                          |                   |        |                      |                |   |   |   |   |   |   |   |   |   |   |  |  |  |  |
|----------------------|-------------|---------------------|----------------|---------------------|------------|---------------------------------------|-------------------------|----------------|----------------|--------------------------|-------------------|--------|----------------------|----------------|---|---|---|---|---|---|---|---|---|---|--|--|--|--|
| Purchase Order       | Work Order  | Project Name        | Project Number | Bill To Company     | Inv Attn   | Address                               | City/State/Zip          | Phone          | Fax            | eMail Address            | Client Sample ID  | Matrix | Collection Date 24hr | Bottle         | A | B | C | D | E | F | G | H | I | J |  |  |  |  |
| 22120348-01B         | 42-22120348 | ALS Group USA, Corp | 22120348       | ALS Group USA, Corp | Les Arnold | 3352 128th Ave                        | Holland, Michigan 49424 | (616) 399-6070 | (616) 399-6185 | les.arnold@alsglobal.com | October 2022 F039 | Liquid | 1/Dec/2022           | (1) 250AMGNEAT | X |   |   |   |   |   |   |   |   |   |  |  |  |  |
| Analytical           |             |                     |                |                     |            |                                       |                         |                |                |                          |                   |        |                      |                |   |   |   |   |   |   |   |   |   |   |  |  |  |  |

Subcontracted Analyses (SUBCONTRACT)

Client List D/F

Comments:

3100  
Bios: 2-10-21  
c (11-05)

Received by:  Date/Time: 12/6/22 15:10

Date/Time

Received by:

Date/Time

Relinquished by:

Date/Time

Received by:

Date/Time

Cooler IDs

Report/QC Level

Std



# Cooler Receipt Form

Project Chemist JG

Client/Project AS1 J

Thermometer ID IRA1

Date/Time Received: 12-6-22

Initials: CH

Date/Time Logged in: 12-6-22

Initials CH

1. Method of delivery: ☐ US Mail ☐ Fed Ex ☐ UPS ☐ DHL ☐ Courier ☐ Client

2. Samples received in: ☐ Cooler ☐ Box ☐ Envelope ☐ Other

3. Were custody seals on coolers? ☐ Yes ☐ No

Were they intact? ☐ Yes ☐ No ☐ N/A

Were they signed and dated? ☐ Yes ☐ No ☐ N/A

If yes, how many  
and where?

4. Packing Material: ☐ Inserts ☐ Baggies ☐ Bubble Wrap ☐ Gel Packs ☐ Wet Ice ☐ Sleeves ☐ Other

5. Foreign or Regulated Soil?

☐ Yes ☐ No

Location of Sampling:

| Cooler Tracking Number | COC ID | Date Opened | Time Opened | Opened By | Temp. °C | Temp Blank?              |
|------------------------|--------|-------------|-------------|-----------|----------|--------------------------|
| 5551 4489              |        | 12-6-22     | 0930        | CH        | 1.6      | <input type="checkbox"/> |
|                        |        |             |             |           |          | <input type="checkbox"/> |
|                        |        |             |             |           |          | <input type="checkbox"/> |
|                        |        |             |             |           |          | <input type="checkbox"/> |

6. Were custody papers properly filled out (ink, signed, dated, etc)?

☒ Yes ☐ No

7. Did all bottles arrive in good condition (not broken, no signs of leakage)?

☒ Yes ☐ No

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)?

☒ Yes ☐ No

9. Were appropriate bottles/containers and volumes received for the requested tests?

☒ Yes ☐ No

10. Did sample labels and tags agree with custody documents?

☒ Yes ☐ No

Notes, Discrepancies, & Resolutions:

Service request Label:

HS-HRMSCoolerReceipt R1.0

ALS Environmental - Houston HRMS



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Houston, TX 77099  
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## SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

### **Cooler Custody Seals (desirable, mandatory if specified in SAP):**

- ✓ Intact on outside of cooler, signed and dated

### **Chain-of-Custody (COC) documentation (mandatory):**

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sample. The COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

### **Sample Integrity (mandatory):**

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

### **Temperature Requirement (varies by sample matrix):**

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6°C.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10°C.
- ✓ Air samples are shipped and stored cold, at 0 to 6°C
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report



## Preparation Information Benchsheets

**ALS Environmental - Houston HRMS**  
10450 Stancliff Rd., Suite 210, Houston, TX 77099  
Phone (713)266-1599 Fax (713)266-0130  
[www.alsglobal.com](http://www.alsglobal.com)

# Preparation Information Benchsheet

Prep Run#: 412500  
Team: Semivoa GCMS/NBIDJONGO

Prep WorkFlow: OrgExtAq(365)  
Prep Method: Method Sep Funnel/Jar

Status: Prepped  
Prep Date/Time: 1/4/23 09:00

| #  | Lab Code       | Client ID                    | B#  | Method /Test         | pH | CI | Matrix         | Amt. Ext. | Sample Description |
|----|----------------|------------------------------|-----|----------------------|----|----|----------------|-----------|--------------------|
| 1  | E2201118-001RE | 22-315-0009                  | .01 | 1613B/Dioxins Furans |    |    | Water          | 1000mL    |                    |
| 2  | E2201136-001   | 1R-GW-MW6A-007               | .01 | 1613B/Dioxins Furans |    |    | Water          | 1000mL    |                    |
| 3  | E2201136-002   | 1R-GW-MW7-008                | .01 | 1613B/Dioxins Furans |    |    | Water          | 1000mL    |                    |
| 4  | E2201136-003   | 1R-GW-MW6-007                | .01 | 1613B/Dioxins Furans |    |    | Water          | 1000mL    |                    |
| 5  | E2201136-004   | 1R-GW-MW6-008                | .01 | 1613B/Dioxins Furans |    |    | Water          | 1000mL    |                    |
| 6  | E2201136-005   | 1R-GW-MW8-007                | .01 | 1613B/Dioxins Furans |    |    | Water          | 1000mL    |                    |
| 7  | E2201138-008   | BH-EB-092622                 | .01 | 1613B/Dioxins Furans |    |    | Water          | 1000mL    |                    |
| 8  | E2201142-001   | 2145018                      | .01 | 1613B/Dioxins Furans |    |    | Water          | 1000mL    | yellow Clear       |
| 9  | E2201159-001   | October 2022 F039 Analytical | .01 | 1613B/Dioxins Furans |    |    | Water          | 490mL     | green cloudy       |
| 10 | E2201177-003RE | GP-BE-12-05-22               | .01 | 1613B/Dioxins Furans |    |    | Water          | 997mL     | orange cloudy      |
| 11 | E2201180-001   | PZB-9R                       | .01 | 1613B/Dioxins Furans |    |    | Ground Water   | 1000mL    |                    |
| 12 | E2201180-002   | PZB-13                       | .01 | 1613B/Dioxins Furans |    |    | Ground Water   | 1000mL    |                    |
| 13 | E2201180-003   | PZP-11                       | .01 | 1613B/Dioxins Furans |    |    | Ground Water   | 1000mL    |                    |
| 14 | E2201217-001   | EP 101 (3278887001)          | .01 | 1613B/Dioxins Furans |    |    | Drinking Water | 1060mL    | clear              |
| 15 | EQ2300005-01   | MB                           |     | 1613B/Dioxins Furans |    |    | Liquid         | 1000mL    |                    |
| 16 | EQ2300005-02   | LCS                          |     | 1613B/Dioxins Furans |    |    | Liquid         | 1000mL    |                    |
| 17 | EQ2300005-03   | PZB-13 MS                    | .01 | 1613B/Dioxins Furans |    |    | Liquid         | 1000mL    |                    |
| 18 | EQ2300005-04   | PZB-13 DMS                   | .01 | 1613B/Dioxins Furans |    |    | Liquid         | 1000mL    |                    |
| 19 | EQ2300005-05   | MB                           |     | 1613B/Dioxins Furans |    |    | Drinking Water | 1000mL    |                    |
| 20 | EQ2300005-06   | LCS                          |     | 1613B/Dioxins Furans |    |    | Drinking Water | 1000mL    |                    |

## Spiking Solutions

|       |                                     |              |        |              |                    |             |            |
|-------|-------------------------------------|--------------|--------|--------------|--------------------|-------------|------------|
| Name: | 8290/1613B Cleanup Working Standard | Inventory ID | 226288 | Logbook Ref. | bf 11/28/22 226288 | Expires On: | 02/28/2023 |
|-------|-------------------------------------|--------------|--------|--------------|--------------------|-------------|------------|

|              |          |              |          |              |          |                |          |              |          |              |          |
|--------------|----------|--------------|----------|--------------|----------|----------------|----------|--------------|----------|--------------|----------|
| E2201118-001 | 100.00µL | E2201136-001 | 100.00µL | E2201136-002 | 100.00µL | E2201136-003   | 100.00µL | E2201136-004 | 100.00µL | E2201136-005 | 100.00µL |
| E2201138-008 | 100.00µL | E2201142-001 | 100.00µL | E2201159-001 | 100.00µL | E2201159-001.F | 100.00µL | E2201177-003 | 100.00µL | E2201180-001 | 100.00µL |
| E2201180-002 | 100.00µL | E2201180-003 | 100.00µL | E2201217-001 | 100.00µL | EQ2300005-01   | 100.00µL | EQ2300005-02 | 100.00µL | EQ2300005-03 | 100.00µL |
| EQ2300005-04 | 100.00µL | EQ2300005-05 | 100.00µL | EQ2300005-06 | 100.00µL |                |          |              |          |              |          |

|       |                               |              |        |              |                    |             |            |
|-------|-------------------------------|--------------|--------|--------------|--------------------|-------------|------------|
| Name: | 1613B Matrix Working Standard | Inventory ID | 226782 | Logbook Ref. | tw 226782 12/28/22 | Expires On: | 06/26/2023 |
|-------|-------------------------------|--------------|--------|--------------|--------------------|-------------|------------|

|              |          |              |          |              |          |                |          |              |          |              |          |
|--------------|----------|--------------|----------|--------------|----------|----------------|----------|--------------|----------|--------------|----------|
| E2201118-001 | 100.00µL | E2201136-001 | 100.00µL | E2201136-002 | 100.00µL | E2201136-003   | 100.00µL | E2201136-004 | 100.00µL | E2201136-005 | 100.00µL |
| E2201138-008 | 100.00µL | E2201142-001 | 100.00µL | E2201159-001 | 100.00µL | E2201159-001.F | 100.00µL | E2201177-003 | 100.00µL | E2201180-001 | 100.00µL |
| E2201180-002 | 100.00µL | E2201180-003 | 100.00µL | E2201217-001 | 100.00µL | EQ2300005-01   | 100.00µL | EQ2300005-02 | 100.00µL | EQ2300005-03 | 100.00µL |
| EQ2300005-04 | 100.00µL | EQ2300005-05 | 100.00µL | EQ2300005-06 | 100.00µL |                |          |              |          |              |          |

# Preparation Information Benchsheet

Prep Run#: 412500  
Team: Semivoa GCMS/NBIDJONGO

Prep WorkFlow: OrgExtAq(365)  
Prep Method: Method Sep Funnel/Jar

Status: Prepped  
Prep Date/Time: 1/4/23 09:00

| Name:        | 1613B Labeled Working Standard | Inventory ID | 226945     | Logbook Ref:   | NB 01/05/2023 | Expires On:  | 04/10/2023 |
|--------------|--------------------------------|--------------|------------|----------------|---------------|--------------|------------|
| E2201118-001 | 1,000.00µL                     | E2201136-001 | 1,000.00µL | E2201136-003   | 1,000.00µL    | E2201136-005 | 1,000.00µL |
| E2201138-008 | 1,000.00µL                     | E2201142-001 | 1,000.00µL | E2201159-001.R | 1,000.00µL    | E2201180-001 | 1,000.00µL |
| E2201180-002 | 1,000.00µL                     | E2201180-003 | 1,000.00µL | E2201217-001   | 1,000.00µL    | E2201177-003 | 1,000.00µL |
| EQ2300005-04 | 1,000.00µL                     | EQ2300005-05 | 1,000.00µL | EQ2300005-06   | 1,000.00µL    | EQ2300005-02 | 1,000.00µL |
|              |                                |              |            |                |               | EQ2300005-03 | 1,000.00µL |

## Preparation Steps

| Step:     | Extraction   | Step:     | Acid Clean   | Step:     | Silica Gel Clean | Step:     | Final Volume |
|-----------|--------------|-----------|--------------|-----------|------------------|-----------|--------------|
| Started:  | 1/4/23 09:00 | Started:  | 1/4/23 09:00 | Started:  | 1/5/23 09:00     | Started:  | 1/5/23 13:00 |
| Finished: | 1/4/23 17:11 | Finished: | 1/4/23 10:00 | Finished: | 1/5/23 13:00     | Finished: | 1/5/23 17:00 |
| By:       | NBIDJONGO    | By:       | NBIDJONGO    | By:       | NBIDJONGO        | By:       | NBIDJONGO    |
| Comments  | Comments     | Comments  | Comments     | Comments  | Comments         | Comments  | Comments     |

Comments:

Reviewed By:

Date:

Chain of Custody

Relinquished By:

Date:

Received By:

Date:

Extracts Examined

Yes

No

19 of 32

Printed 1/6/23 13:33

Preparation Information Benchsheet

Page 2



## Analytical Results

**ALS Environmental - Houston HRMS**  
10450 Stancliff Rd., Suite 210, Houston, TX 77099  
Phone (713)266-1599 Fax (713)266-0130  
[www.alsglobal.com](http://www.alsglobal.com)

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

**Client:** ALS Environmental - Holland (MI)  
**Project:** 22120348  
**Sample Matrix:** Water

**Service Request:** E2201159  
**Date Collected:** 12/01/22 00:00  
**Date Received:** 12/06/22 15:10

**Sample Name:** October 2022 F039 Analytical  
**Lab Code:** E2201159-001

**Units:** pg/L  
**Basis:** NA

**Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS**

**Analysis Method:** 1613B  
**Prep Method:** Method Sep Funnel/Jar  
**Sample Amount:** 490mL

**Date Analyzed:** 01/05/23 15:24  
**Date Extracted:** 1/4/23  
**Instrument Name:** E-HRMS-07  
**GC Column:** DB-5MSUI  
**Blank File Name:** P540589  
**Cal Ver. File Name:** P540581

**Data File Name:** P540590  
**ICAL Date:** 01/18/22

**Native Analyte Results**

| Analyte Name        | Result | Q | EDL  | MRL  | Ion Ratio | RRT   | Dilution Factor |
|---------------------|--------|---|------|------|-----------|-------|-----------------|
| 2,3,7,8-TCDD        | 192    |   | 6.47 | 10.2 | 0.79      | 1.001 | 1               |
| 1,2,3,7,8-PeCDD     | 320    |   | 6.78 | 51.0 | 1.44      | 1.000 | 1               |
| 1,2,3,4,7,8-HxCDD   | 211    |   | 10.7 | 51.0 | 1.27      | 1.000 | 1               |
| 1,2,3,6,7,8-HxCDD   | 653    |   | 10.4 | 51.0 | 1.28      | 1.001 | 1               |
| 1,2,3,7,8,9-HxCDD   | 274    |   | 10.6 | 51.0 | 1.27      | 1.007 | 1               |
| 1,2,3,4,6,7,8-HpCDD | 7030   |   | 31.2 | 51.0 | 1.05      | 1.000 | 1               |
| OCDD                | 49800  |   | 57.4 | 102  | 0.88      | 1.000 | 1               |
| 2,3,7,8-TCDF        | 2260   |   | 17.9 | 17.9 | 0.70      | 1.001 | 1               |
| 1,2,3,7,8-PeCDF     | 11100  |   | 109  | 109  | 1.49      | 1.000 | 1               |
| 2,3,4,7,8-PeCDF     | 11300  |   | 109  | 109  | 1.47      | 1.001 | 1               |
| 1,2,3,4,7,8-HxCDF   | 97500  |   | 585  | 2550 | 1.17      | 1.001 | 50              |
| 1,2,3,6,7,8-HxCDF   | 30100  |   | 25.2 | 51.0 | 1.17      | 1.001 | 1               |
| 1,2,3,7,8,9-HxCDF   | 3610   |   | 22.6 | 51.0 | 1.14      | 1.001 | 1               |
| 2,3,4,6,7,8-HxCDF   | 6610   |   | 19.3 | 51.0 | 1.17      | 1.000 | 1               |
| 1,2,3,4,6,7,8-HpCDF | 558000 |   | 1090 | 2550 | 0.96      | 1.000 | 50              |
| 1,2,3,4,7,8,9-HpCDF | 16000  |   | 139  | 139  | 1.02      | 1.000 | 1               |
| OCDF                | 745000 |   | 3020 | 5100 | 0.81      | 1.004 | 50              |



**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

**Client:** ALS Environmental - Holland (MI)  
**Project:** 22120348  
**Sample Matrix:** Water

**Service Request:** E2201159  
**Date Collected:** 12/01/22 00:00  
**Date Received:** 12/06/22 15:10

**Sample Name:** October 2022 F039 Analytical  
**Lab Code:** E2201159-001

**Units:** pg/L  
**Basis:** NA

**Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS**

**Analysis Method:** 1613B  
**Prep Method:** Method Sep Funnel/Jar  
**Sample Amount:** 490mL

**Date Analyzed:** 01/05/23 15:24  
**Date Extracted:** 1/4/23  
**Instrument Name:** E-HRMS-07  
**GC Column:** DB-5MSUI  
**Blank File Name:** P540589  
**Cal Ver. File Name:** P540581

**Data File Name:** P540590  
**ICAL Date:** 01/18/22

**Native Analyte Results**

| <b>Analyte Name</b> | <b>Result</b> | <b>Q</b> | <b>EDL</b> | <b>MRL</b> | <b>Ion Ratio</b> | <b>RRT</b> | <b>Dilution Factor</b> |
|---------------------|---------------|----------|------------|------------|------------------|------------|------------------------|
| Total Tetra-Dioxins | 3700          |          | 6.47       | 10.2       | 0.73             |            | 1                      |
| Total Penta-Dioxins | 4190          |          | 6.78       | 51.0       | 1.53             |            | 1                      |
| Total Hexa-Dioxins  | 7490          |          | 10.6       | 51.0       | 1.29             |            | 1                      |
| Total Hepta-Dioxins | 15700         |          | 31.2       | 51.0       | 1.04             |            | 1                      |
| Total Tetra-Furans  | 107000        |          | 17.9       | 17.9       | 0.70             |            | 1                      |
| Total Penta-Furans  | 150000        |          | 1.28       | 51.0       | 1.47             |            | 1                      |
| Total Hexa-Furans   | 252000        |          | 21.5       | 51.0       | 1.18             |            | 1                      |
| Total Hepta-Furans  | 558000        |          | 139        | 139        | 1.02             |            | 1                      |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

**Client:** ALS Environmental - Holland (MI)  
**Project:** 22120348  
**Sample Matrix:** Water

**Service Request:** E2201159  
**Date Collected:** 12/01/22 00:00  
**Date Received:** 12/06/22 15:10

**Sample Name:** October 2022 F039 Analytical  
**Lab Code:** E2201159-001

**Units:** Percent  
**Basis:** NA

**Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS**

**Analysis Method:** 1613B  
**Prep Method:** Method Sep Funnel/Jar  
**Sample Amount:** 490mL

**Date Analyzed:** 01/05/23 15:24  
**Date Extracted:** 1/4/23  
**Instrument Name:** E-HRMS-07  
**GC Column:** DB-5MSUI  
**Blank File Name:** P540589  
**Cal Ver. File Name:** P540581

**Data File Name:** P540590  
**ICAL Date:** 01/18/22

**Labeled Standard Results**

| Labeled Compounds       | Spike Conc.(pg) | Conc. Found (pg) | % Rec | Q | Control Limits | Ion Ratio | RRT   |
|-------------------------|-----------------|------------------|-------|---|----------------|-----------|-------|
| 13C-2,3,7,8-TCDD        | 2000            | 992.192          | 50    |   | 25-164         | 0.78      | 1.026 |
| 13C-1,2,3,7,8-PeCDD     | 2000            | 993.288          | 50    |   | 25-181         | 1.59      | 1.222 |
| 13C-1,2,3,4,7,8-HxCDD   | 2000            | 675.677          | 34    |   | 32-141         | 1.25      | 0.990 |
| 13C-1,2,3,6,7,8-HxCDD   | 2000            | 715.167          | 36    |   | 28-130         | 1.26      | 0.993 |
| 13C-1,2,3,4,6,7,8-HpCDD | 2000            | 711.711          | 36    |   | 23-140         | 1.04      | 1.069 |
| 13C-OCDD                | 4000            | 965.908          | 24    |   | 17-157         | 0.89      | 1.140 |
| 13C-2,3,7,8-TCDF        | 2000            | 801.010          | 40    |   | 24-169         | 0.77      | 0.990 |
| 13C-1,2,3,7,8-PeCDF     | 2000            | 924.322          | 46    |   | 24-185         | 1.60      | 1.173 |
| 13C-2,3,4,7,8-PeCDF     | 2000            | 936.244          | 47    |   | 21-178         | 1.62      | 1.211 |
| 13C-1,2,3,4,7,8-HxCDF   | 2000            | 748.482          | 37    |   | 26-152         | 0.51      | 0.968 |
| 13C-1,2,3,6,7,8-HxCDF   | 2000            | 594.953          | 30    |   | 26-123         | 0.51      | 0.972 |
| 13C-1,2,3,7,8,9-HxCDF   | 2000            | 747.287          | 37    |   | 29-147         | 0.51      | 1.008 |
| 13C-2,3,4,6,7,8-HxCDF   | 2000            | 813.945          | 41    |   | 28-136         | 0.50      | 0.987 |
| 13C-1,2,3,4,6,7,8-HpCDF | 2000            | 575.595          | 29    |   | 28-143         | 0.44      | 1.044 |
| 13C-1,2,3,4,7,8,9-HpCDF | 2000            | 702.242          | 35    |   | 26-138         | 0.44      | 1.081 |
| 37Cl-2,3,7,8-TCDD       | 800             | 441.339          | 55    |   | 35-197         | NA        | 1.027 |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

**Client:** ALS Environmental - Holland (MI)  
**Project:** 22120348  
**Sample Matrix:** Water

**Service Request:** E2201159  
**Date Collected:** 12/01/22 00:00  
**Date Received:** 12/06/22 15:10

**Sample Name:** October 2022 F039 Analytical  
**Lab Code:** E2201159-001

**Units:** pg/L  
**Basis:** NA

**Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS**

**Analysis Method:** 1613B  
**Prep Method:** Method Sep Funnel/Jar

**Toxicity Equivalency Quotient**

| Analyte Name        | Result | DL   | MRL  | Dilution Factor | TEF    | TEF - Adjusted Concentration |
|---------------------|--------|------|------|-----------------|--------|------------------------------|
| 2,3,7,8-TCDD        | 192    | 6.47 | 10.2 | 1               | 1      | 192                          |
| 1,2,3,7,8-PeCDD     | 320    | 6.78 | 51.0 | 1               | 1      | 320                          |
| 1,2,3,4,7,8-HxCDD   | 211    | 10.7 | 51.0 | 1               | 0.1    | 21.1                         |
| 1,2,3,6,7,8-HxCDD   | 653    | 10.4 | 51.0 | 1               | 0.1    | 65.3                         |
| 1,2,3,7,8,9-HxCDD   | 274    | 10.6 | 51.0 | 1               | 0.1    | 27.4                         |
| 1,2,3,4,6,7,8-HpCDD | 7030   | 31.2 | 51.0 | 1               | 0.01   | 70.3                         |
| OCDD                | 49800  | 57.4 | 102  | 1               | 0.0003 | 14.9                         |
| 2,3,7,8-TCDF        | 2260   | 17.9 | 17.9 | 1               | 0.1    | 226                          |
| 1,2,3,7,8-PeCDF     | 11100  | 109  | 109  | 1               | 0.03   | 333                          |
| 2,3,4,7,8-PeCDF     | 11300  | 109  | 109  | 1               | 0.3    | 3390                         |
| 1,2,3,4,7,8-HxCDF   | 97500  | 585  | 2550 | 50              | 0.1    | 9750                         |
| 1,2,3,6,7,8-HxCDF   | 30100  | 25.2 | 51.0 | 1               | 0.1    | 3010                         |
| 1,2,3,7,8,9-HxCDF   | 3610   | 22.6 | 51.0 | 1               | 0.1    | 361                          |
| 2,3,4,6,7,8-HxCDF   | 6610   | 19.3 | 51.0 | 1               | 0.1    | 661                          |
| 1,2,3,4,6,7,8-HpCDF | 558000 | 1090 | 2550 | 50              | 0.01   | 5580                         |
| 1,2,3,4,7,8,9-HpCDF | 16000  | 139  | 139  | 1               | 0.01   | 160                          |
| OCDF                | 745000 | 3020 | 5100 | 50              | 0.0003 | 224                          |
| Total TEQ           |        |      |      |                 |        | 24400                        |

2005 WHO TEFs, ND = 0

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

**Client:** ALS Environmental - Holland (MI)  
**Project:** 22120348  
**Sample Matrix:** Water

**Service Request:** E2201159  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** EQ2300005-01

**Units:** pg/L  
**Basis:** NA

**Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS**

**Analysis Method:** 1613B  
**Prep Method:** Method Sep Funnel/Jar  
**Sample Amount:** 1000mL

**Date Analyzed:** 01/05/23 14:36  
**Date Extracted:** 1/4/23  
**Instrument Name:** E-HRMS-07  
**GC Column:** DB-5MSUI  
**Blank File Name:** P540589  
**Cal Ver. File Name:** P540581

**Data File Name:** P540589  
**ICAL Date:** 01/18/22

**Native Analyte Results**

| Analyte Name        | Result  | Q | EDL   | MRL  | Ion Ratio | RRT   | Dilution Factor |
|---------------------|---------|---|-------|------|-----------|-------|-----------------|
| 2,3,7,8-TCDD        | ND      | U | 1.51  | 5.00 |           |       | 1               |
| 1,2,3,7,8-PeCDD     | ND      | U | 0.552 | 25.0 |           |       | 1               |
| 1,2,3,4,7,8-HxCDD   | 1.31JK  |   | 0.482 | 25.0 | 0.99      | 1.000 | 1               |
| 1,2,3,6,7,8-HxCDD   | ND      | U | 0.455 | 25.0 |           |       | 1               |
| 1,2,3,7,8,9-HxCDD   | ND      | U | 0.469 | 25.0 |           |       | 1               |
| 1,2,3,4,6,7,8-HpCDD | 3.63JK  |   | 0.675 | 25.0 | 1.25      | 1.000 | 1               |
| OCDD                | 11.8J   |   | 0.899 | 50.0 | 0.90      | 1.000 | 1               |
| 2,3,7,8-TCDF        | ND      | U | 1.50  | 5.00 |           |       | 1               |
| 1,2,3,7,8-PeCDF     | ND      | U | 0.588 | 25.0 |           |       | 1               |
| 2,3,4,7,8-PeCDF     | ND      | U | 0.606 | 25.0 |           |       | 1               |
| 1,2,3,4,7,8-HxCDF   | ND      | U | 0.271 | 25.0 |           |       | 1               |
| 1,2,3,6,7,8-HxCDF   | ND      | U | 0.307 | 25.0 |           |       | 1               |
| 1,2,3,7,8,9-HxCDF   | 0.391J  |   | 0.366 | 25.0 | 1.09      | 1.001 | 1               |
| 2,3,4,6,7,8-HxCDF   | ND      | U | 0.251 | 25.0 |           |       | 1               |
| 1,2,3,4,6,7,8-HpCDF | 0.406JK |   | 0.272 | 25.0 | 1.56      | 1.000 | 1               |
| 1,2,3,4,7,8,9-HpCDF | ND      | U | 0.295 | 25.0 |           |       | 1               |
| OCDF                | ND      | U | 0.874 | 50.0 |           |       | 1               |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

**Client:** ALS Environmental - Holland (MI)  
**Project:** 22120348  
**Sample Matrix:** Water

**Service Request:** E2201159  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** EQ2300005-01

**Units:** pg/L  
**Basis:** NA

**Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS**

**Analysis Method:** 1613B  
**Prep Method:** Method Sep Funnel/Jar  
**Sample Amount:** 1000mL

**Date Analyzed:** 01/05/23 14:36  
**Date Extracted:** 1/4/23  
**Instrument Name:** E-HRMS-07  
**GC Column:** DB-5MSUI  
**Blank File Name:** P540589  
**Cal Ver. File Name:** P540581

**Data File Name:** P540589  
**ICAL Date:** 01/18/22

**Native Analyte Results**

| <b>Analyte Name</b> | <b>Result</b> | <b>Q</b> | <b>EDL</b> | <b>MRL</b> | <b>Ion Ratio</b> | <b>RRT</b> | <b>Dilution Factor</b> |
|---------------------|---------------|----------|------------|------------|------------------|------------|------------------------|
| Total Tetra-Dioxins | ND            | U        | 1.51       | 5.00       |                  |            | 1                      |
| Total Penta-Dioxins | ND            | U        | 0.552      | 25.0       |                  |            | 1                      |
| Total Hexa-Dioxins  | 1.88J         |          | 0.468      | 25.0       | 1.37             |            | 1                      |
| Total Hepta-Dioxins | ND            | U        | 0.675      | 25.0       |                  |            | 1                      |
| Total Tetra-Furans  | ND            | U        | 1.50       | 5.00       |                  |            | 1                      |
| Total Penta-Furans  | ND            | U        | 0.597      | 25.0       |                  |            | 1                      |
| Total Hexa-Furans   | 0.391J        |          | 0.294      | 25.0       | 1.09             |            | 1                      |
| Total Hepta-Furans  | 1.12J         |          | 0.283      | 25.0       | 0.89             |            | 1                      |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

**Client:** ALS Environmental - Holland (MI)  
**Project:** 22120348  
**Sample Matrix:** Water  
  
**Sample Name:** Method Blank  
**Lab Code:** EQ2300005-01

**Service Request:** E2201159  
**Date Collected:** NA  
**Date Received:** NA  
  
**Units:** Percent  
**Basis:** NA

**Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS**

**Analysis Method:** 1613B  
**Prep Method:** Method Sep Funnel/Jar  
**Sample Amount:** 1000mL  
  
**Data File Name:** P540589  
**ICAL Date:** 01/18/22

**Date Analyzed:** 01/05/23 14:36  
**Date Extracted:** 1/4/23  
**Instrument Name:** E-HRMS-07  
**GC Column:** DB-5MSUI  
**Blank File Name:** P540589  
**Cal Ver. File Name:** P540581

**Labeled Standard Results**

| Labeled Compounds       | Spike Conc.(pg) | Conc. Found (pg) | % Rec | Q | Control Limits | Ion Ratio | RRT   |
|-------------------------|-----------------|------------------|-------|---|----------------|-----------|-------|
| 13C-2,3,7,8-TCDD        | 2000            | 1630.241         | 82    |   | 25-164         | 0.78      | 1.026 |
| 13C-1,2,3,7,8-PeCDD     | 2000            | 1654.990         | 83    |   | 25-181         | 1.58      | 1.223 |
| 13C-1,2,3,4,7,8-HxCDD   | 2000            | 1478.861         | 74    |   | 32-141         | 1.27      | 0.991 |
| 13C-1,2,3,6,7,8-HxCDD   | 2000            | 1671.480         | 84    |   | 28-130         | 1.26      | 0.993 |
| 13C-1,2,3,4,6,7,8-HpCDD | 2000            | 1885.470         | 94    |   | 23-140         | 1.06      | 1.069 |
| 13C-OCDD                | 4000            | 3535.905         | 88    |   | 17-157         | 0.89      | 1.140 |
| 13C-2,3,7,8-TCDF        | 2000            | 1230.185         | 62    |   | 24-169         | 0.77      | 0.991 |
| 13C-1,2,3,7,8-PeCDF     | 2000            | 1612.205         | 81    |   | 24-185         | 1.57      | 1.174 |
| 13C-2,3,4,7,8-PeCDF     | 2000            | 1519.835         | 76    |   | 21-178         | 1.61      | 1.212 |
| 13C-1,2,3,4,7,8-HxCDF   | 2000            | 1672.746         | 84    |   | 26-152         | 0.53      | 0.969 |
| 13C-1,2,3,6,7,8-HxCDF   | 2000            | 1424.801         | 71    |   | 26-123         | 0.52      | 0.972 |
| 13C-1,2,3,7,8,9-HxCDF   | 2000            | 1502.845         | 75    |   | 29-147         | 0.50      | 1.008 |
| 13C-2,3,4,6,7,8-HxCDF   | 2000            | 1830.091         | 92    |   | 28-136         | 0.52      | 0.987 |
| 13C-1,2,3,4,6,7,8-HpCDF | 2000            | 1509.812         | 75    |   | 28-143         | 0.44      | 1.044 |
| 13C-1,2,3,4,7,8,9-HpCDF | 2000            | 1752.643         | 88    |   | 26-138         | 0.44      | 1.081 |
| 37Cl-2,3,7,8-TCDD       | 800             | 501.230          | 63    |   | 35-197         | NA        | 1.027 |



## Accuracy & Precision

**ALS Environmental - Houston HRMS**  
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[www.alsglobal.com](http://www.alsglobal.com)

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** ALS Environmental - Holland (MI)  
**Project:** 22120348  
**Sample Matrix:** Water

**Service Request:** E2201159  
**Date Analyzed:** 01/05/23  
**Date Extracted:** 01/04/23

Lab Control Sample Summary

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

**Analysis Method:** 1613B  
**Prep Method:** Method Sep Funnel/Jar

**Units:** pg/L  
**Basis:** NA  
**Analysis Lot:** 790691

Lab Control Sample  
EQ2300005-02

| Analyte Name        | Result | Spike Amount | % Rec | % Rec Limits |
|---------------------|--------|--------------|-------|--------------|
| 1,2,3,4,6,7,8-HpCDD | 896    | 1000         | 90    | 70-140       |
| 1,2,3,4,7,8-HxCDD   | 959    | 1000         | 96    | 70-164       |
| 1,2,3,6,7,8-HxCDD   | 902    | 1000         | 90    | 76-134       |
| 1,2,3,7,8,9-HxCDD   | 994    | 1000         | 99    | 64-162       |
| 1,2,3,7,8-PeCDD     | 938    | 1000         | 94    | 70-142       |
| 2,3,7,8-TCDD        | 155    | 200          | 77    | 67-158       |
| OCDD                | 1910   | 2000         | 96    | 78-144       |
| 1,2,3,4,6,7,8-HpCDF | 1000   | 1000         | 100   | 82-122       |
| 1,2,3,4,7,8,9-HpCDF | 904    | 1000         | 90    | 78-138       |
| 1,2,3,4,7,8-HxCDF   | 915    | 1000         | 91    | 72-134       |
| 1,2,3,6,7,8-HxCDF   | 1020   | 1000         | 102   | 84-130       |
| 1,2,3,7,8,9-HxCDF   | 1000   | 1000         | 100   | 78-130       |
| 1,2,3,7,8-PeCDF     | 964    | 1000         | 96    | 80-134       |
| 2,3,4,6,7,8-HxCDF   | 847    | 1000         | 85    | 70-156       |
| 2,3,4,7,8-PeCDF     | 1040   | 1000         | 104   | 68-160       |
| 2,3,7,8-TCDF        | 196    | 200          | 98    | 75-158       |
| OCDF                | 1910   | 2000         | 96    | 63-170       |



**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

**Client:** ALS Environmental - Holland (MI)  
**Project:** 22120348  
**Sample Matrix:** Water

**Service Request:** E2201159  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Lab Control Sample  
**Lab Code:** EQ2300005-02

**Units:** pg/L  
**Basis:** NA

**Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS**

**Analysis Method:** 1613B  
**Prep Method:** Method Sep Funnel/Jar  
**Sample Amount:** 1000mL

**Date Analyzed:** 01/05/23 17:49  
**Date Extracted:** 1/4/23  
**Instrument Name:** E-HRMS-07  
**GC Column:** DB-5MSUI  
**Blank File Name:** P540589  
**Cal Ver. File Name:** P540581

**Data File Name:** P540593  
**ICAL Date:** 01/18/22

**Native Analyte Results**

| Analyte Name        | Result | Q | EDL   | MRL  | Ion Ratio | RRT   | Dilution Factor |
|---------------------|--------|---|-------|------|-----------|-------|-----------------|
| 2,3,7,8-TCDD        | 155    |   | 1.96  | 5.00 | 0.77      | 1.001 | 1               |
| 1,2,3,7,8-PeCDD     | 938    |   | 0.696 | 25.0 | 1.61      | 1.001 | 1               |
| 1,2,3,4,7,8-HxCDD   | 959    |   | 0.635 | 25.0 | 1.28      | 1.000 | 1               |
| 1,2,3,6,7,8-HxCDD   | 902    |   | 0.593 | 25.0 | 1.26      | 1.000 | 1               |
| 1,2,3,7,8,9-HxCDD   | 994    |   | 0.614 | 25.0 | 1.24      | 1.007 | 1               |
| 1,2,3,4,6,7,8-HpCDD | 896    |   | 0.724 | 25.0 | 1.07      | 1.001 | 1               |
| OCDD                | 1910   |   | 3.66  | 50.0 | 0.89      | 1.000 | 1               |
| 2,3,7,8-TCDF        | 196    |   | 2.53  | 5.00 | 0.75      | 1.001 | 1               |
| 1,2,3,7,8-PeCDF     | 964    |   | 1.48  | 25.0 | 1.50      | 1.000 | 1               |
| 2,3,4,7,8-PeCDF     | 1040   |   | 1.47  | 25.0 | 1.49      | 1.000 | 1               |
| 1,2,3,4,7,8-HxCDF   | 915    |   | 0.292 | 25.0 | 1.22      | 1.000 | 1               |
| 1,2,3,6,7,8-HxCDF   | 1020   |   | 0.347 | 25.0 | 1.18      | 1.000 | 1               |
| 1,2,3,7,8,9-HxCDF   | 1000   |   | 0.410 | 25.0 | 1.20      | 1.000 | 1               |
| 2,3,4,6,7,8-HxCDF   | 847    |   | 0.284 | 25.0 | 1.19      | 1.000 | 1               |
| 1,2,3,4,6,7,8-HpCDF | 1000   |   | 2.32  | 25.0 | 0.99      | 1.000 | 1               |
| 1,2,3,4,7,8,9-HpCDF | 904    |   | 2.57  | 25.0 | 0.97      | 1.000 | 1               |
| OCDF                | 1910   |   | 5.63  | 50.0 | 0.87      | 1.004 | 1               |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

**Client:** ALS Environmental - Holland (MI)  
**Project:** 22120348  
**Sample Matrix:** Water

**Service Request:** E2201159  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Lab Control Sample  
**Lab Code:** EQ2300005-02

**Units:** pg/L  
**Basis:** NA

**Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS**

**Analysis Method:** 1613B  
**Prep Method:** Method Sep Funnel/Jar  
**Sample Amount:** 1000mL

**Date Analyzed:** 01/05/23 17:49  
**Date Extracted:** 1/4/23  
**Instrument Name:** E-HRMS-07  
**GC Column:** DB-5MSUI  
**Blank File Name:** P540589  
**Cal Ver. File Name:** P540581

**Data File Name:** P540593  
**ICAL Date:** 01/18/22

**Native Analyte Results**

| <b>Analyte Name</b> | <b>Result</b> | <b>Q</b> | <b>EDL</b> | <b>MRL</b> | <b>Ion Ratio</b> | <b>RRT</b> | <b>Dilution Factor</b> |
|---------------------|---------------|----------|------------|------------|------------------|------------|------------------------|
| Total Tetra-Dioxins | 155           |          | 1.96       | 5.00       | 0.77             |            | 1                      |
| Total Penta-Dioxins | 938           |          | 0.696      | 25.0       | 1.61             |            | 1                      |
| Total Hexa-Dioxins  | 2850          |          | 0.614      | 25.0       | 1.28             |            | 1                      |
| Total Hepta-Dioxins | 896           |          | 0.724      | 25.0       | 1.07             |            | 1                      |
| Total Tetra-Furans  | 196           |          | 2.53       | 5.00       | 0.75             |            | 1                      |
| Total Penta-Furans  | 2010          |          | 1.48       | 25.0       | 1.50             |            | 1                      |
| Total Hexa-Furans   | 3780          |          | 0.328      | 25.0       | 1.22             |            | 1                      |
| Total Hepta-Furans  | 1910          |          | 2.44       | 25.0       | 0.99             |            | 1                      |

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

**Client:** ALS Environmental - Holland (MI)  
**Project:** 22120348  
**Sample Matrix:** Water

**Service Request:** E2201159  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Lab Control Sample  
**Lab Code:** EQ2300005-02

**Units:** Percent  
**Basis:** NA

**Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS**

**Analysis Method:** 1613B  
**Prep Method:** Method Sep Funnel/Jar  
**Sample Amount:** 1000mL

**Date Analyzed:** 01/05/23 17:49  
**Date Extracted:** 1/4/23  
**Instrument Name:** E-HRMS-07  
**GC Column:** DB-5MSUI  
**Blank File Name:** P540589  
**Cal Ver. File Name:** P540581

**Data File Name:** P540593  
**ICAL Date:** 01/18/22

**Labeled Standard Results**

| Labeled Compounds       | Spike Conc.(pg) | Conc. Found (pg) | % Rec | Q | Control Limits | Ion Ratio | RRT   |
|-------------------------|-----------------|------------------|-------|---|----------------|-----------|-------|
| 13C-2,3,7,8-TCDD        | 2000            | 1727.908         | 86    |   | 25-164         | 0.79      | 1.026 |
| 13C-1,2,3,7,8-PeCDD     | 2000            | 1800.309         | 90    |   | 25-181         | 1.59      | 1.223 |
| 13C-1,2,3,4,7,8-HxCDD   | 2000            | 1647.535         | 82    |   | 32-141         | 1.29      | 0.991 |
| 13C-1,2,3,6,7,8-HxCDD   | 2000            | 1757.895         | 88    |   | 28-130         | 1.24      | 0.993 |
| 13C-1,2,3,4,6,7,8-HpCDD | 2000            | 2058.153         | 103   |   | 23-140         | 1.06      | 1.069 |
| 13C-OCDD                | 4000            | 3821.249         | 96    |   | 17-157         | 0.89      | 1.140 |
| 13C-2,3,7,8-TCDF        | 2000            | 1315.431         | 66    |   | 24-169         | 0.77      | 0.991 |
| 13C-1,2,3,7,8-PeCDF     | 2000            | 1736.556         | 87    |   | 24-185         | 1.59      | 1.173 |
| 13C-2,3,4,7,8-PeCDF     | 2000            | 1656.685         | 83    |   | 21-178         | 1.61      | 1.211 |
| 13C-1,2,3,4,7,8-HxCDF   | 2000            | 1827.357         | 91    |   | 26-152         | 0.51      | 0.969 |
| 13C-1,2,3,6,7,8-HxCDF   | 2000            | 1524.280         | 76    |   | 26-123         | 0.52      | 0.972 |
| 13C-1,2,3,7,8,9-HxCDF   | 2000            | 1665.641         | 83    |   | 29-147         | 0.51      | 1.008 |
| 13C-2,3,4,6,7,8-HxCDF   | 2000            | 1971.422         | 99    |   | 28-136         | 0.52      | 0.987 |
| 13C-1,2,3,4,6,7,8-HpCDF | 2000            | 1650.532         | 83    |   | 28-143         | 0.43      | 1.044 |
| 13C-1,2,3,4,7,8,9-HpCDF | 2000            | 1894.990         | 95    |   | 26-138         | 0.44      | 1.081 |
| 37Cl-2,3,7,8-TCDD       | 800             | 490.314          | 61    |   | 35-197         | NA        | 1.027 |