April 10, 2024

Tauren Beggs
Wisconsin Department of Natural Resources
2984 Shawano Ave
Green Bay, WI 54313

Subject: **Remedial Progress and Results Report**
First Quarter of 2024
Jagemann Plating Company, Inc.
1324 South 26th Street
Manitowoc, Wisconsin
BRRTS# 02-36-555544
EnviroForensics Project #200032

Dear Mr. Beggs:

EnviroForensics, LLC (EnviroForensics) is providing this *Remedial Progress and Results Report* which presents a description of recent site investigations and the results of laboratory analyses. This report also presents the progress of *in-situ* groundwater remedial efforts aimed at reducing the concentrations of trichloroethene (TCE) released to the environment from past industrial degreasing operations. This report provides data regarding the following recent investigative activities:

1. Sampling of select groundwater monitoring wells for concentrations of TCE and the degradations products of TCE per the post-remedial monitoring plan;
2. Sampling of VOCs in indoor air by passive sorbent vapor samplers;
3. The installation of three (3) additional sub-slab vapor ports to further define the extent of methane gas in sub-surface vapor; and
4. Measurements of methane gas in sub-slab vapor ports.

Continued Post-remedial Groundwater Sampling

EnviroForensics has recently completed the fifth of eight planned rounds of post-remedial groundwater sampling. The sampling was performed in accordance with the performance monitoring plan[1] and included chlorinated volatile organic compounds (CVOCs), ethane, ethene, methane, and total organic carbon. The monitoring wells sampled included MW-1, MW-3, MW-8, MW-14, MW-15, TW-20, TW-21, TW-22, TW-23, TW-24, and Sump 1 and Sump 2. **Figure 1** shows the location of Site groundwater monitoring wells and sumps, as well as groundwater CVOCs analytical results. **Table 1** provides a history of post-remedial groundwater

[1] EnviroForensics, *Remedial Action Implementation Report*, January 4, 2023, Section 3.

monitoring results, and the associated laboratory report for the February 2024 groundwater monitoring event is attached.

As indicated in **Table 1** and depicted on **Figure 1**, the concentrations of TCE from the 10 sampled wells are beginning to flux in response to the December 2022 injection event. TCE concentrations were reported from not exceeding method detection limits (0.38 micrograms per liter [µg/l]) to 311,000 µg/l during the February 2024 sampling event. TCE concentrations in eight (8) of the wells (MW-1, MW-3, MW-8, MW-14, MW-15, TW-21, TW-22, TW-23) appear to be either stable or continuing to decline. These wells are located around the edges of the plume and include the suspected exterior surface release area near MW-14. Two (2) of the wells (TW-20 and TW-24) have demonstrated a rebound in detected TCE concentrations. Increased concentrations of TCE appear to be persistent around well TW-20, which is located inside the facility near the degreasing machines that formerly contained TCE. At TW-20, the TCE concentrations from January 2023 (251,000 µg/l) and April 2023 (210,000 µg/l) were reduced to 104,000 µg/l in July 2023. However, concentrations from October 2023 (182,000 µg/l) through February 2024 (311,000 µg/l) documented a rebound to concentrations exceeding pre-injection levels. The rebound at well TW-24 has not demonstrated a trend based on the variability of concentration over the last few quarters and will continue to be monitored.

The TCE analytical results from the two (2) sump pits (SUMP-1 and SUMP-2) appeared to remain relatively consistent with prior sampling events, with no discernible trend at this time.

While the daughter products cis-1,2-dichloroethene, trans-1,2-dichloroethene, and vinyl chloride are present and continuing to degrade in the wells at the Site, the dechlorination end products ethane and ethene have decreased in concentration during this quarter. Dechlorination of the daughter products should increase the concentrations of ethane and ethene in reducing environments. The decrease in production of ethane and ethene is a potential indicator that the reducing environment is beginning to change to less optimal conditions.

The persistence of TCE in well TW-20 may indicate that greater concentrations of TCE may exist in an area directly beneath the former TCE degreasing machine that was inaccessible to remedial injections. Additional, targeted, remedial efforts may be warranted to address residual contamination at the Site. Plume conditions and degradation will continue to be monitored quarterly through 2024. The next groundwater monitoring event is scheduled for April 2024.

Indoor Air Sampling

EnviroForensics conducted indoor air vapor sampling by passive sorbent vapor samplers over a sixteen (16) day period from February 12, 2024, to February 28, 2024. The passive sorbent samplers were suspended within the breathing space, approximately five (5) feet above floor level, at locations IA-7, IA-8, IA-10, IA-11, and IA-14. A passive, ambient air sample was

collected from location OA-1, to the southwest of the Site building. Passive samplers were installed at locations IA-2 and IA-15 as well, though it was elected not to analyze the sampler at IA-2 due to erroneous sample location placement. The sampler at IA-15 was missing when staff retrieved the tubes at the conclusion of the sampling timeframe. Vapor sample locations are depicted on **Figure 2** and analytical results are included in **Table 2**, along with a history of vapor sample results.

TCE vapor concentrations were reported from not exceeding the reporting limits to 2.73 micrograms per cubic meter (µg/m³) during this sampling event. All sample results were less than the Wisconsin Department of Natural Resources (WDNR) Large Commercial Vapor Action Level. The next indoor air sampling event will be scheduled during the summer months of 2024.

Installation of Sub-slab Vapor Ports

EnviroForensics recently installed three (3) additional vapor sampling ports within the facility to better define the extent of sub-surface methane vapor impacts in the vicinity of monitoring wells MW-8 and MW-14. These monitoring wells exhibited higher than average methane headspace results during the Fourth Quarter of 2023 sampling event. An evaluation of methane concentrations in the sub-slab vapor was needed to verify if conditions under the slab were exhibiting the same higher than average concentrations as was identified in the headspace of monitoring wells MW-8 and MW-14. These ports are labeled SSV-16, SSV-17, and SSV-18 and are depicted on **Figure 2**.

Sampling of Methane Gas in Sub-surface Vapor

As detailed in the previous quarterly report[2], the generation of methane gas in the sub-surface vapor due to contaminant degradation is an anticipated remedial effect. EnviroForensics measured methane concentrations in several sub-slab sampling ports during the First Quarter of 2024 sampling event to evaluate if the anticipated methane gas generation has the potential to build up beneath the building foundation at concentrations that could pose an explosion hazard. The locations of sub-slab vapor sampling ports are depicted on **Figure 2**. The table below provides a summary of the screening results.

Methane Measurements			
Location	**% of LEL**	**Location**	**% of LEL**
SS-2	0%	SSV-12	0%
SSV-1	0%	SSV-13	0%
SSV-2	0%	SSV-14	0%
SSV-3	0%	SSV-15	0%

[2] EnviroForensics, *Remediation Progress and Results Report*, December 14, 2023

Methane Measurements			
Location	**% of LEL**	**Location**	**% of LEL**
SSV-4	Over the LEL	SSV-16	27%
SSV-5	0%	SSV-17	43%
SSV-10	0%	SSV-18	0%
SSV-11	0%	EP-1	0%

As indicated in the above table, elevated concentrations of methane were detected in three (3) of the sub-slab vapor ports, with concentration exceeding the lower-explosive limit (LEL) in SSV-4. No methane was detected in the ambient air inside the building.

EnviroForensics will continue to monitor methane concentrations during Site visits to sample groundwater and will measure methane concentrations at several sub-slab locations throughout the facility along with the SSDS exhaust. The next monitoring event will occur in April 2024.

As discussed in the previous quarterly report, we currently do not feel that there is a threat of methane ignition due to the following:

1. We consulted with the owner, Mr. Mike Jagemann regarding the locations of electrical utility lines and he stated that all electrical lines are above ground. This would eliminate the possibility of ignition below the building foundation slab.
2. The heating, ventilation, and air conditioning (HVAC) system along with mechanical systems that purify indoor air are continuously operated and maintained allowing adequate ventilation of both chlorinated volatile organic compounds and methane that would be released from beneath the slab.
3. The SSDS fan and electrical connections are located outside the building and not enclosed. If future measurements of methane in the SSDS exhaust are significant, then we may need to switch the blower to one that is intrinsically safe.

If you have any questions regarding the information presented above, please contact the undersigned at your convenience.

Sincerely,
EnviroForensics, LLC

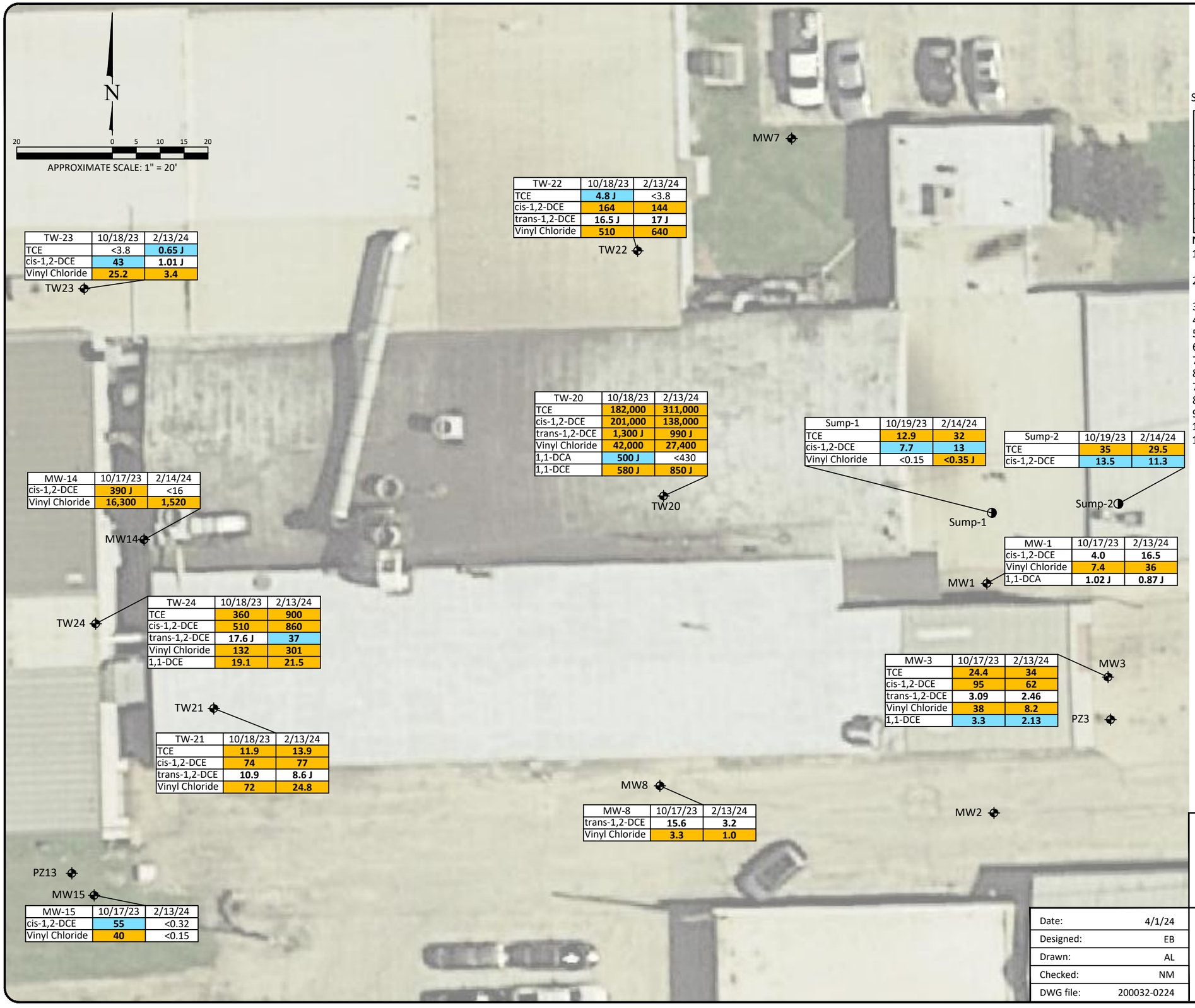
R. Scott Powell, PE, LPG
Regional Director
rspowell@enviroforensics.com
317-608-2706

Nicolette Morris
Project Manager
nmorris@enviroforensics.com
317-556-1984

Copy: Mike Jagemann, Jagemann Plating Company, Inc.

Attachments:

Figure 1: Groundwater Monitoring Locations and CVOCs Analytical Results
Figure 2: Vapor Monitoring Point Locations
Table 1: Post-remedial Groundwater Sampling Results
Table 2: Vapor Intrusion Sampling Results
Synergy Groundwater Analytical Laboratory Report
Beacon Environmental Passive Indoor Air Vapor Analytical Laboratory Report



Legend

MW1 Monitoring well
TW21 Temporary monitoring well
PZ3 Piezometer
Sump-1 Basement sump

Analyte	Public Health Preventive Action Limit	Public Health Enforcement Standard
TCE	0.5	5
cis-1,2-DCE	7	70
trans-1,2-DCE	20	100
Vinyl Chloride	0.02	0.2
1,1-DCA	20	100
1,1-DCE	0.5	5

Note:

1. Bolded and orange shaded values exceed the Public Health Enforcement Standard
2. Bolded and blue shaded values exceed the Public Health Preventive Action Limit
3. Bolded values are above detection limits
4. J = Analyte concentration less that laboratory detection limits
5. Samples analyzed using EPA SW-846 Method 8260
6. All results reported in units of micrograms per liter (µg/L)
7. PCE = Tetrachloroethene
8. TCE = Trichloroethene
7. cis-1,2-DCE = cis-1,2-Dichloroethene
8. trans-1,2-DCE = trans-1,2-Dichloroethene
9. 1,1-DCA = 1,1-Dichloroethane
10. 1,1-DCE = 1,1-Dichloroethene
11. ND = Not detected

MONITORING WELL CVOCs ANALYTICAL RESULTS

Jagemann Plating Company
1324 South 26th Street
Manitowoc, Wisconsin

Date:	4/1/24
Designed:	EB
Drawn:	AL
Checked:	NM
DWG file:	200032-0224

ENVIRO forensics
825 North Capitol Avenue • Indianapolis, IN 46204
EnviroForensics.com

Figure 1

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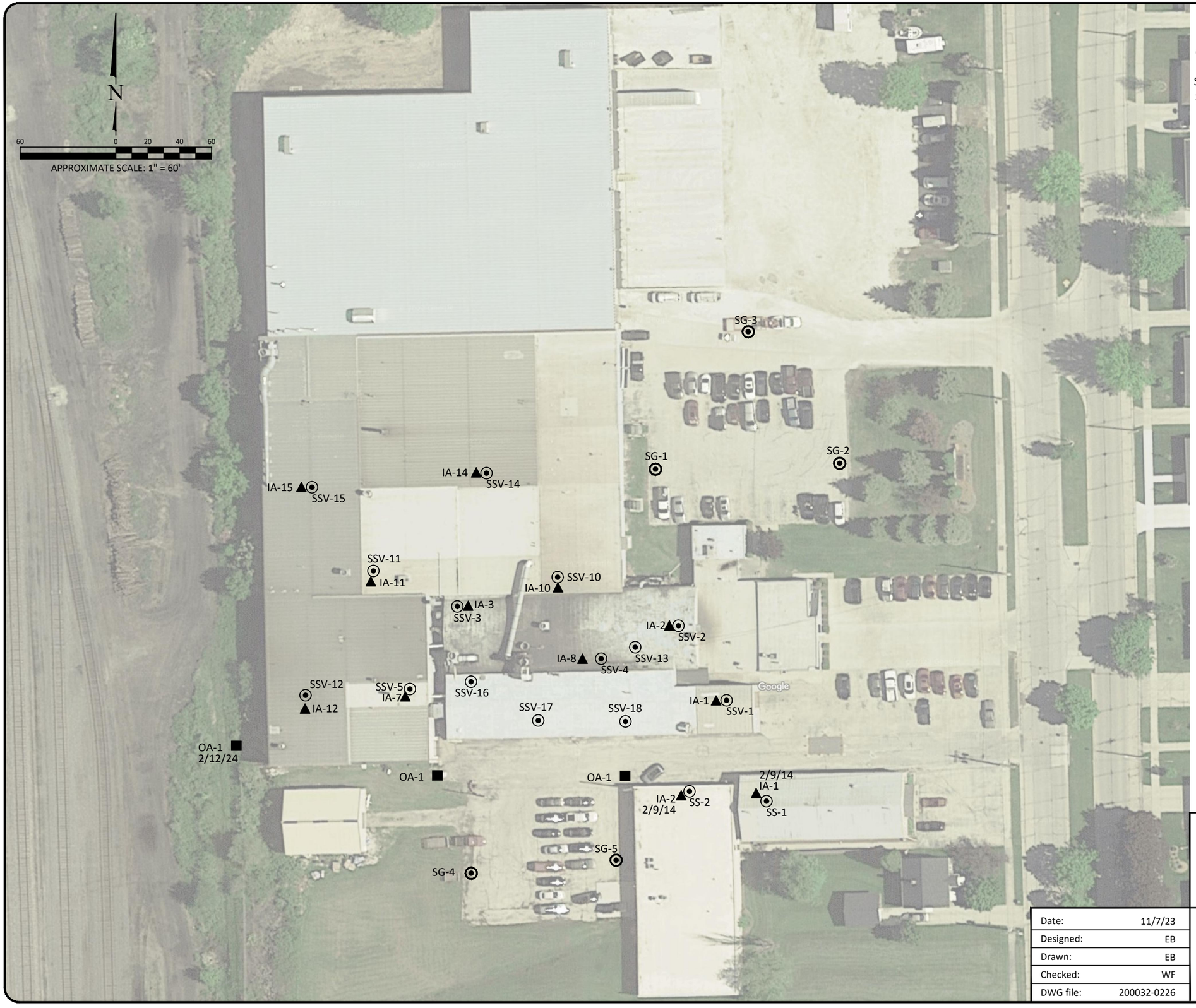

Legend

OA-1 ■ Outdoor air sample
IA-1 ▲ Indoor air sample
SSV-13 ⦿ Sub-slab vapor sample
SG-1 ⦿ Soil Gas sample

IA-1 ▲ Indoor air sample

LOCATION OF VAPOR MONITORING POINTS

Jagemann Plating Company
1324 South 26th Street
Manitowoc, Wisconsin

Date:	11/7/23
Designed:	EB
Drawn:	EB
Checked:	WF
DWG file:	200032-0226

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EnviroForensics.com

Figure
2

Project
200032

Table 1
Groundwater Sampling Results
Jagemann Plating

Monitoring Well Sample ID	Date Sampled	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl chloride	1,1-Dichloroethane	1,1-Dichloroethene	Ethane	Ethene	Methane	Total Organic Carbon (mg/L	Chromium, Hexavalent	Chromium, Total
Enforcement Standard		**5**	**70**	**100**	**0.2**	**850**	**7**	**NL**	**NL**	**NL**	**NL**	**70**	**100**
Preventative Action Limit		**0.5**	**7**	**20**	**0.02**	**85**	**0.7**	**NL**	**NL**	**NL**	**NL**	**7**	**10**
MW-1	12/30/2016 Pre	**390**	**148**	**9.00 J**	**125**	<11.0	<6.50	NA	NA	NA	NA	NA	**7.40**
	3/28/2019 Pre	**703**	**252**	**23.6**	**430**	**3.70 J**	**17.5**	NA	NA	NA	NA	NA	**33.7**
	6/20/2019 Pre	**895**	**316**	**24.6**	**410**	**3.90 J**	**16.1**	NA	NA	NA	NA	NA	<2.50
	6/24/2021 Pre	**946**	**400**	**33.5**	**697**	**3.50 J**	**20.1**	NA	NA	NA	NA	NA	NA
	6/16/2022 Pre	**902**	**442**	**41.6**	**750**	**4.90 J**	**24.8**	NA	NA	NA	NA	<7.30	**3.30 J**
	7/18/2022 Pilot	NA	NA	NA	NA	NA	NA	**90.6**	**26.9**	**1,090**	**30.0**	NA	NA
	8/22/2022 Pilot	<3.80	**2,140**	**47.0**	**390**	<4.30	**7.10 J**	**37.8**	**9.58**	**428**	**1,380**	NA	NA
	10/6/2022 Pilot	**0.400**	**46.0**	**99.0**	**41.0**	**10.9**	<0.430	**191**	**3.38**	**112**	**406**	NA	NA
	1/31/2023 Post	<0.320	**1.10**	**3.20**	**3.30**	**8.20**	<0.290	**33.3**	**1,170**	**1,760**	**514**	NA	NA
	1/31/2023 DUP	<0.320	**0.530 J**	**1.60**	**2.10**	**8.30**	<0.580	NA	NA	NA	NA	NA	NA
	4/20/2023	<0.190	**3.08**	**1.69**	**2.85**	**6.77**	<0.188	**44.8**	**1,280**	**7,690**	**345**	NA	NA
	4/20/2023 DUP	**0.395 J**	**3.03**	**1.71**	**3.27**	**7.14**	<0.188	NA	NA	NA	NA	NA	NA
	7/25/2023	<0.380	<0.320	<0.500	**0.570 J**	**6.77**	<0.430	**50.2**	<5.00	**4,865**	**99.1**	NA	NA
	7/25/2023 DUP	<0.380	**0.430 J**	**0.520 J**	**1.22**	**1.27 J**	<0.430	NA	NA	NA	NA	NA	NA
	10/17/2023	<0.380	**4.00**	<0.500	**7.40**	**1.02 J**	<0.430	**51.4**	<5.00	**6,202**	**36.4**	NA	NA
	10/17/2023 DUP	**0.530 J**	**6.10**	**1.39 J**	**4.50**	**0.750 J**	<0.430	NA	NA	NA	NA	NA	NA
	2/13/2024	<0.380	**16.5**	<0.500	**36.0**	**0.870 J**	<0.430	**73.7**	<0.500	**6,408**	**37.0**	NA	NA
	2/13/2024 DUP	<0.380	**16.9**	**0.590 J**	**36.0**	**1.23 J**	<0.430	NA	NA	NA	NA	NA	NA
MW-3	12/30/2016 Pre	**75.0**	**73.0**	**3.20**	**3.50**	<1.10	**1.22 J**	NA	NA	NA	NA	NA	<0.700
	3/28/2019 Pre	**36.9**	**49.0**	**1.60 J**	**0.49 J**	<0.270	**1.00**	NA	NA	NA	NA	NA	<2.50
	6/20/2019 Pre	**56.1**	**53.8**	**1.70 J**	**1.60**	<0.270	**1.30**	NA	NA	NA	NA	NA	<2.50
	6/24/2021 Pre	**67.3**	**54.7**	**1.20**	**3.60**	<0.300	**1.90**	NA	NA	NA	NA	NA	NA
	1/31/2023 Post	**39.8**	**63.7**	**2.20**	**5.20**	<0.300	**1.60**	<0.390	<0.250	**2.30 J**	NA	NA	NA
	4/20/2023	**34.1**	**53.5**	**1.82**	**5.65**	<0.100	**1.47**	<4.07	<4.26	**62.4**	NA	NA	NA
	7/25/2023	**29.6**	**58.0**	**3.50**	**12.8**	<0.430	**1.35 J**	<0.500	<0.500	<1.00	NA	NA	NA
	10/17/2023	**24.4**	**95.0**	**3.09**	**38.0**	<0.430	**3.30**	<0.500	<0.500	**380**	NA	NA	NA
	2/13/2024	**34.0**	**62.0**	**2.46**	**8.20**	<0.430	**2.13**	<0.500	<0.500	**42.1**	NA	NA	NA
MW-8	12/30/2016 Pre	**153**	**490**	**49.0**	**60.0**	<11.0	**7.30 J**	NA	NA	NA	NA	NA	<1.40
	3/28/2019 Pre	**57.7**	**431**	**78.4**	**56.1**	<2.70	**5.5 J**	NA	NA	NA	NA	NA	<2.50
	6/20/2019 Pre	**73.4**	**425**	**49.2**	**63.4**	<1.10	**5.80**	NA	NA	NA	NA	NA	<2.50
	6/24/2021 Pre	**61.2**	**586**	**59.3**	**111**	<3.00	<5.80	NA	NA	NA	NA	NA	NA
	1/31/2023 Post	**23.1**	**377**	**57.6**	**98.3**	<1.50	<2.90	**3.40 J**	**2.20 J**	**42.2**	NA	NA	NA
	4/20/2023	**1.15**	**16.7**	**0.149 J**	**13.7**	<0.100	**1.87**	<4.07	<4.26	**524**	NA	NA	NA
	7/25/2023	**1.97**	**22.2**	<0.500	**14.4**	<0.430	**2.18**	<0.500	<0.500	<1.00	NA	NA	NA
	10/17/2023	<0.380	<0.320	**15.6**	**3.30**	<0.430	<0.430	**85.6**	<5.00	**4,869**	NA	NA	NA
	2/13/2024	<0.380	<0.320	**3.20**	**1.00**	<0.430	<0.430	**34.1**	<0.500	**6,756**	NA	NA	NA
MW-14	12/30/2016 Pre	**36,000**	**31,400**	**870**	**5,900**	<220	<130	NA	NA	NA	NA	NA	<0.700
	3/28/2019 Pre	**12,800**	**14,000**	**669**	**5,150**	<68.1	**181 J**	NA	NA	NA	NA	NA	<2.50
	6/20/2019 Pre	**15,000**	**16,500**	**824**	**5,540**	<68.1	**253**	NA	NA	NA	NA	NA	<2.50
	6/24/2021 Pre	**16,200**	**17,600**	**861**	**6,410**	<73.9	**146**	NA	NA	NA	NA	NA	NA
	6/16/2022 Pre	**28,100**	**32,200**	**2,530**	**8,300**	<73.9	**150 J**	NA	NA	NA	NA	<18.0	<2.50
	7/18/2022 Pilot	NA	NA	NA	NA	NA	NA	**5,190**	**283**	**2,720**	**8.98**	NA	NA
	8/22/2022 Pilot	**4,800**	**40,000**	**810**	**17,000**	**140 J**	**430**	**3,400**	**249**	**1,400**	**1,770**	NA	NA
	10/6/2022 Pilot	<190	**11,500**	**880**	**62,000**	<215	<215	**3,260**	**103**	**391**	**799**	NA	NA
	1/31/2023 Post	**58.5 J**	**9,760**	**513**	**41,500**	<37.0	<72.8	**145**	**5,520**	**957**	**2,600**	NA	NA
	1/31/2023 DUP	**276**	**11,900**	**501**	**48,200**	<37.0	<72.8	NA	NA	NA	NA	NA	NA
	4/20/2023	**17.1**	**22,600**	**544**	**32,500**	<2.50	**16.4**	**430**	**14,600**	**5,660**	**1,550**	NA	NA
	4/20/2023 DUP	<190	**9,830**	**601**	**46,100**	<2.50	**20.6**	NA	NA	NA	NA	NA	NA
	7/25/2023	<76.0	**2,650**	**244 J**	**17,700**	<86.0	<86.0	**1,167**	<0.500	**362**	**3,070**	NA	NA
	7/25/2023 DUP	<380	**3,200**	<500	**20,100**	<43.0	<43.0	NA	NA	NA	NA	NA	NA
	10/17/2023	<380	**390 J**	<500	**16,300**	<43.0	<43.0	**13,303**	<5.00	**4,573**	**1,020**	NA	NA
	10/17/2023 DUP	<380	**710**	**180 J**	**19,300**	<43.0	<43.0	NA	NA	NA	NA	NA	NA
	2/14/2024	<19.0	<16.0	<25.0	**1,520**	<21.5	<21.5	**7,520**	<0.500	**3,607**	**979**	NA	NA
	2/14/2024 DUP	<19.0	<16.0	<25.0	**1,480**	<21.5	<21.5	NA	NA	NA	NA	NA	NA
MW-15	12/30/2016 Pre	**1,660**	**390**	**37.0**	**191**	<11.0	**82.0**	NA	NA	NA	NA	NA	<0.700
	3/28/2019 Pre	**350**	**176**	**5.20 J**	**234**	<0.550	**42.7**	NA	NA	NA	NA	NA	<2.50
	6/20/2019 Pre	**820**	**190**	**11.7**	**167**	<0.550	**67.8**	NA	NA	NA	NA	NA	<2.50
	6/24/2021 Pre	**370**	**162**	**4.70**	**233**	<0.590	**73.0**	NA	NA	NA	NA	NA	NA
	1/31/2023 Post	**17.3**	**520**	**3.90 J**	**59.7**	<1.50	**11.6**	**29.1**	**31.3**	**554**	NA	NA	NA
	4/20/2023	<0.190	**0.571**	<0.149	**0.979**	<0.100	<0.188	<4.07	<4.26	<2.91	NA	NA	NA
	7/25/2023	<7.60	**600**	**23.0 J**	**212**	<8.60	<8.60	<0.500	<0.500	**69.4**	NA	NA	NA
	10/17/2023	<7.60	**55.0**	<10.0	**40.0**	<8.60	<8.60	**65.3**	<5.00	**4,632**	NA	NA	NA
	2/13/2024	<0.380	<0.320	<0.500	<0.150	<0.430	<0.430	<0.500	<0.500	**3.10**	NA	NA	NA
TW-20	2/2/2022 Pre	**78,300**	**183,000**	**2,660**	**47,800**	**542 J**	**867**	NA	NA	NA	NA	NA	<12.7
	6/16/2022 Pre	**69,200**	**160,000**	**2,050**	**40,100**	**542 J**	**687.0**	NA	NA	NA	NA	<73.0	**4.50 J**
	1/31/2023 Post	**251,000**	**82,100**	**482**	**9,360**	<118	**838**	**182**	**919**	**126**	**1,600**	NA	NA
	4/21/2023	**210,000**	**42,900**	**367**	**11,300**	**73.7 J**	**865**	**154**	**1,720**	**95.2**	**315**	NA	NA
	7/25/2023	**104,000**	**128,000**	**3,150**	**14,800**	**171**	**196**	**232**	**17.2**	**163**	**224**	NA	NA
	10/18/2023	**182,000**	**201,000**	**1,300 J**	**42,000**	**500 J**	**580 J**	**1,612**	**20.8**	**109**	**233**	NA	NA
	2/13/2024	**311,000**	**138,000**	**990 J**	**27,400**	<430	**850 J**	**44.5**	<0.500	**11.1**	**215**	NA	NA
TW-21	2/2/2022 Pre	**345**	**842**	**129**	**166**	<3.00	**14.8**	NA	NA	NA	NA	NA	**3.70 J**
	1/31/2023 Post	<0.320	**421**	**45.9**	**104**	<0.300	<0.580	**19.5**	**97.2**	**1,390**	**983**	NA	NA
	4/21/2023	**0.505 J**	**17.2**	**4.81**	**17.0**	<0.100	<0.188	**52.7**	**683**	**12,700**	**1,080**	NA	NA
	7/25/2023	**16.7**	**36.0**	**6.90 J**	**46.0**	<2.15	<2.15	**143**	<5.00	**2,423**	**269**	NA	NA
	10/18/2023	**11.9**	**74.0**	**10.9**	**72.0**	<2.15	<2.15	**207**	<5.00	**4,475**	**93.0**	NA	NA
	2/13/2024	**13.9**	**77.0**	**8.60 J**	**24.8**	<2.15	<2.15	**182**	<0.500	**4,664**	**1,250**	NA	NA
TW-22	2/2/2022 Pre	**8.10**	**126**	**9.90**	**166**	**0.940 J**	<1.20	NA	NA	NA	NA	NA	<2.50
	1/31/2023 Post	**3.10**	**150**	**15.2**	**550**	**0.610 J**	<1.20	**2.80 J**	**6.8**	**40.1**	NA	NA	NA
	4/20/2023	**1.08**	**73.3**	**9.30**	**656**	**0.165 J**	<0.188	<4.07	<4.26	**74.5**	NA	NA	NA
	7/25/2023	**7.40 J**	**96.0**	**5.30 J**	**220**	<4.30	<4.30	<0.500	<0.500	**10.8**	NA	NA	NA
	10/18/2023	**4.80 J**	**164**	**16.5 J**	**510**	<4.30	<4.30	**4.08**	<0.500	**40.1**	NA	NA	NA
	2/13/2024	<3.80	**144**	**17.0 J**	**640**	<4.30	<4.30	<0.500	<0.500	**35.0**	NA	NA	NA
TW-23	2/2/2022 Pre	**109**	**163**	**1.30 J**	**19.9**	<0.590	**10.9**	NA	NA	NA	NA	NA	**3.10 J**
	1/31/2023 Post	**72.9**	**197**	**0.820 J**	**10.9**	<0.300	**13.4**	**1.70 J**	**0.560 J**	**25.0**	NA	NA	NA
	4/20/2023	**36.7**	**260**	**1.72**	**34.9**	<0.100	**17.5**	<4.07	<4.26	**305**	NA	NA	NA
	7/25/2023	**6.70 J**	**73.0**	<5.00	**11.4**	<4.30	<4.30	**15.6**	<0.500	**842**	NA	NA	NA
	10/18/2023	<3.80	**43.0**	<5.00	**25.2**	<4.30	<4.30	<5.00	<5.00	**3,973**	NA	NA	NA
	2/13/2024	**0.650 J**	**1.01 J**	<0.500	**3.40**	<0.430	<0.430	<0.500	<0.500	**5,102**	NA	NA	NA
TW-24	2/2/2022 Pre	**125**	**84.1**	**4.20**	**409**	<0.300	**34.3**	NA	NA	NA	NA	NA	**33.0**
	1/31/2023 Post	**1,380**	**1,750**	**66.9**	**692**	<7.40	**76.7**	**9.50**	**158**	**38.6**	NA	NA	NA
	4/20/2023	<0.190	**1,760**	**93.3**	**527**	**0.128 J**	**110**	**59.3**	**1,030**	**138**	NA	NA	NA
	7/25/2023	**420**	**630**	**37.0**	**114**	<4.30	**13.4 J**	**186**	<0.500	**19.1**	NA	NA	NA
	10/18/2023	**360**	**510**	**17.6 J**	**132**	<4.30	**19.1**	**523**	<0.500	**164**	NA	NA	NA
	2/13/2024	**900**	**860**	**37.0**	**301**	<4.30	**21.5**	**893**	<0.500	**439**	NA	NA	NA
SUMP-1	6/14/2022 Pre	**23.9**	**26.2**	**0.880 J**	**2.50**	<0.300	<0.580	NA	NA	NA	NA	NA	**186**
	1/31/2023 Post	**16.5**	**8.20**	<0.530	**0.490 J**	<0.300	<0.580	NA	NA	NA	NA	NA	NA
	4/21/2023	**53.9**	**212**	**6.24**	**288**	**1.10**	**1.87**	NA	NA	NA	NA	NA	NA
	7/26/2023	**136**	**117**	<5.00	**5.20 J**	<4.30	<4.30	NA	NA	NA	NA	**132**	**407**
	10/19/2023	**12.9**	**7.70**	<0.500	<0.150	<0.430	<0.430	NA	NA	NA	NA	NA	NA
	2/14/2024	**32.0**	**13.0**	<0.500	**<0.35 J**	<0.430	<0.430	NA	NA	NA	NA	NA	NA
SUMP-2	6/15/2011 Pre	**72.0**	**45.3**	**2.00**	**0.310 J**	<0.750	<0.570	NA	NA	NA	NA	NA	**520**
	1/31/2023 Post	**31.6**	**17.5**	<0.530	<0.170	<0.300	<0.580	NA	NA	NA	NA	NA	NA
	4/21/2023	**17.0**	**13.6**	**0.468 J**	<0.234	**0.117 J**	<0.188	NA	NA	NA	NA	NA	NA
	7/26/2023	**61.0**	**22.6**	**0.560 J**	**0.340 J**	<0.430	<0.430	NA	NA	NA	NA	**159**	**304**
	10/19/2023	**35.0**	**13.5**	<0.500	<0.150	<0.430	<0.430	NA	NA	NA	NA	NA	NA
	2/14/2024	**29.5**	**11.3**	<0.500	<0.150	<0.430	<0.430	NA	NA	NA	NA	NA	NA

All results are in micrograms per liter µg/l, except TOC reported in mg/l
Pre: the most recent concentrations prior to the start of any remedial injections
Pilot: concentrations in select wells following remedial pilot study injections
Post: concentrations following full-scale remedial injections
Bold font indicates that the analyte was detected.
Blue Coloring: Concentration exceeds the groundwater preventative action limit (PAL)
Orange Coloring: Concentration exceeds the groundwater enforcement standard (ES)
Blue Coloring: Concentration exceeds the groundwater preventative action limit (PAL)
"J" Flag: Analyte was detected at a concentration above the detection limits but was below the laboratory limits of quantification
NA: Not Analyzed
NL: Not Listed

Table 2
Vapor Inrusion Analytical Results
Jagemann Plating
Manitowoc, Wisconsin
EnviroForensics Project No. 200032

Sample Idetification	Sample Location	Sample Type	Mitigation?	Date Sampled	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethlyene	Vinyl Chloride	Dichlorodifluoromethane
INDOOR/ OUTDOOR AIR											
Large Commercial Vapor Action Level					**180**	**8.8**	**NL**	**180**	**880**	**28**	**NL**
IA-1	Former Waste Water Treatment Plant Room	SUMMA	No	2/9/2014	NA	**0.89**	ND	ND	ND	**0.39**	ND
			Yes	1/10/2022	<0.44	<0.30	<0.30	<0.26	<0.21	<0.13	ND
		Passive 8 Hour		1/10/2022	<9.59	<8.12	<7.54	<7.54	<11.7	<9.42	ND
		Passive 5 Day		1/14/2022	<0.803	<0.680	<0.631	<0.631	<0.982	<0.789	ND
IA-2	East Side Chromium Dip Line Area	SUMMA	No	2/9/2014	NA	**1.7**	ND	ND	ND	ND	ND
			Yes	1/10/2022	<0.45	<0.30	<0.30	<0.26	<0.21	<0.13	ND
		Passive 8 Hour		1/10/2022	<9.42	<7.97	<7.40	<7.40	<11.5	<9.25	ND
		Passive 5 Day		1/14/2022	**1.53 J**	<0.679	<0.630	<0.630	<0.981	<0.788	ND
IA-3	West Side Chromium Dip Line and Pickling Line Area	SUMMA	No	2/9/2014	NA	ND	ND	ND	ND	ND	ND
			Yes	1/10/2022	<0.46	<0.31	<0.31	<0.27	<0.22	<0.14	ND
		Passive 8 Hour		1/10/2022	<9.59	<8.12	<7.54	<7.54	<11.7	<9.42	ND
		Passive 5 Day		1/14/2022	**2.94**	<0.680	<0.632	<0.632	<0.983	<0.790	ND
IA-4	First Floor Office Area	SUMMA	No	2/9/2014	NA	**9.2**	**5.2**	ND	ND	ND	ND
			Yes	3/27/2021	NA	0.56 J	<0.22	<0.26	<0.20	<0.13	ND
				1/10/2022	<0.43	**1.2**	<0.28	<0.25	<0.20	<0.13	ND
		Passive 8 Hour		1/10/2022	<9.46	<8.00	<7.43	<7.43	<11.6	<9.29	ND
		Passive 5 Day		1/14/2022	<0.799	**0.714**	<0.628	<0.628	<0.977	<0.785	ND
IA-5	Basement Storage Area Adjacent to Mecanical Room	SUMMA	No	2/9/2014	NA	**14.4**	**9.0**	ND	ND	ND	ND
			Yes	3/27/2021	NA	<0.32	<0.21	<0.25	<0.19	<0.13	ND
				1/10/2022	<0.42	**0.74 J**	<0.28	<0.24	<0.20	<0.12	ND
		Passive 8 Hour		1/10/2022	<9.55	<8.08	<7.51	<7.51	<11.7	<9.38	ND
		Passive 5 Day		1/14/2022	<0.800	<0.677	<0.628	<0.628	<0.977	<0.785	ND
IA-6	Basement Office Area	SUMMA	No	2/9/2014	NA	**13.9**	**8.3**	ND	ND	ND	ND
			Yes	3/27/2021	NA	<0.32	<0.21	<0.25	<0.19	<0.13	ND
				1/10/2022	<0.43	**0.79 J**	<0.28	<0.25	<0.20	<0.13	ND
		Passive 8 Hour		1/10/2022	<9.48	<8.02	<7.45	<7.45	<11.6	<9.31	ND
		Passive 5 Day		1/14/2022	<0.800	<0.677	<0.628	<0.628	<0.978	<0.786	ND
IA-6/8	Central Portion of South Manufacturing Area	SUMMA	Yes	5/19/2021	NA	**3.5**	**0.56 J**	<0.26	<0.21	<0.13	ND
IA-7	West Portion of South Manufacturing Area	SUMMA	Yes	5/19/2021	NA	**0.46 J**	**0.35 J**	<0.27	<0.22	**0.43**	ND
				1/10/2022	<0.46	<0.31	<0.31	<0.27	<0.22	<0.14	ND
		Passive 8 Hour		1/10/2022	<10.2	<8.60	<7.99	<7.99	<12.4	<9.98	ND
		Passive 5 Day		1/14/2022	**0.810 J**	<0.680	<0.631	<0.631	<0.982	<0.789	ND
		Passive 16 Day		2/12/2024	**0.183**	**0.166**	<0.0313 U	<0.0313 U	NA	<0.0391 U	NA
IA-8	North of the H Q Zinc Line	SUMMA	Yes	1/10/2022	<0.43	**2.4**	**0.39 J**	<0.25	<0.20	<0.13	ND
		Passive 8 Hour		1/10/2022	<10.0	<8.49	<7.88	<7.88	<12.3	<9.85	ND
		Passive 5 Day		1/14/2022	**1.71**	**1.39**	<0.631	<0.631	<0.981	<0.789	ND
		Passive 16 Day		2/12/2024	**0.145**	**2.73**	**0.880**	**0.0331 J**	NA	**0.251**	NA
IA-9	Break Room	SUMMA	Yes	1/10/2022	<0.41	<0.27	<0.27	<0.23	<0.19	<0.12	ND
		Passive 8 Hour		1/10/2022	<9.48	<8.02	<7.45	<7.45	<11.6	<9.31	ND
		Passive 5 Day		1/14/2022	<0.797	<0.674	<0.626	<0.626	<0.974	<0.783	ND
IA-10	South of Auto Barrel	SUMMA	Yes	1/10/2022	<0.44	<0.30	<0.30	<0.26	<0.21	<0.13	ND
		Passive 8 Hour		1/10/2022	<9.80	<8.29	<7.70	<7.70	<12.0	<9.62	ND
		Passive 5 Day		1/14/2022	**4.31**	<0.680	<0.631	<0.631	<0.982	<0.789	ND
		Passive 16 Day		2/12/2024	**0.157**	<0.0336 U	<0.0312 U	<0.0312 U	NA	<0.0390 U	NA
IA-11	North of Brite Dip	SUMMA	Yes	1/10/2022	<0.45	<0.30	<0.30	<0.26	<0.21	<0.13	ND
		Passive 8 Hour		1/10/2022	<9.84	<8.33	<7.73	<7.73	<12.0	<9.66	ND
		Passive 5 Day		1/14/2022	**2.32**	<0.681	<0.633	<0.633	<0.984	<0.791	ND
		Passive 16 Day		2/12/2024	**0.157**	**0.164**	**0.0638**	<0.0313 U	NA	<0.0391 U	NA
IA-12	Between Papa Joe Zinc Line and Nickel Barrel	SUMMA	Yes	1/10/2022	<0.44	<0.30	<0.30	<0.26	<0.21	**4.5**	ND
		Passive 8 Hour		1/10/2022	<9.72	<8.22	<7.63	<7.63	<11.9	<9.54	ND
		Passive 5 Day		1/14/2022	**0.841**	<0.682	<0.633	<0.633	<0.985	**<0.791**	ND
IA-14	Directly north of the Production Area	Passive 16 Day	Yes	2/12/2024	**0.152**	**0.0437 J**	<0.0312 U	<0.0312 U	NA	<0.0391 U	NA
OA-1	Southwest of Chromuin Dip Line Building (upwind)	SUMMA	No	2/9/2014	ND	ND	ND	ND	ND	ND	ND
		Passive 16 Day	No	2/12/2024	<0.0396 U	<0.0335 U	<0.0311 U	<0.0311 U	NA	<0.0389 U	NA

Table 2
Vapor Inrusion Analytical Results
Jagemann Plating
Manitowoc, Wisconsin
EnviroForensics Project No. 200032

Sample Idetification	Sample Location	Sample Type	Mitigation?	Date Sampled	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethlyene	Vinyl Chloride	Dichlorodifluoromethane
SUB SLAB VAPOR											
Large Commercial Vapor Risk Screening Level					**18,000**	**880**	**NL**	**18,000**	**88,000**	**2,800**	**NL**
SSV-1	Former Waste Water Treatment Plant Room	SUMMA	No	2/9/2014	NA	**1,530**	**540**	**57.5**	**26.9**	**86.7**	ND
			Yes	3/27/2021	NA	**461**	**1,100**	**68.3**	**9.9 J**	**7.2 J**	ND
				1/14/2022	**4.6**	**212**	**111**	**29.2**	**8.3**	**118**	ND
SSV-2	East Side Chromium Dip Line Area	SUMMA	No	2/9/2014	NA	**2,920**	**965**	**39.3**	**14.9 J**	**4.6 J**	ND
			Yes	3/27/2021	NA	**6,080**	**1,050**	**67.8**	ND	**17.8**	ND
				1/14/2022	**4.5**	**635**	**95,000**	**25.9**	**11.9**	**2.0**	ND
SSV-3	West Side Chromium Dip Line and Pickling Line Area	SUMMA	No	2/9/2014	NA	**57.7**	**25.3**	ND	ND	**21.1**	ND
			Yes	3/27/2021	NA	**8.4**	**8.6**	<0.24	<0.19	<0.12	ND
				1/14/2022	<2,100	**1,520,000**	**95,000**	**1,290 J**	<991	<623	ND
SSV-4	Central Portion of South Manufacturing Area	SUMMA	Yes	3/27/2021	NA	**15,300,000**	**3,210,000**	**65,400**	**23,900**	**8,880**	ND
				5/19/2021	NA	**31,700,000**	**6,330,000**	**162,000**	**94,100**	**117,000**	ND
				1/14/2022	<2,100	**5,150,000**	**1,370,000**	**23,500**	**18,300**	**8,760**	ND
SSV-5	West Portion of South Manufacturing Area	SUMMA	Yes	3/27/2021	NA	**9,870**	**1,290**	**344**	**478**	**1,070**	ND
				5/19/2021	NA	**5,850**	**1,060**	**294**	**522**	**1,450**	ND
				1/14/2022	<1,050	**509,000**	**29,900**	**<603**	**586 J**	**2,380**	ND
SSV-11	North of Brite Dip	SUMMA	Yes	1/14/2022	**30.7 J**	**65,100**	**1,960**	**27.2 J**	**60.3**	**44.9**	ND
SSV-12	Between Papa Joe Zinc Line and Nickel Barrel	SUMMA	Yes	1/14/2022	**74.6**	**91,200**	**5,160**	**47.5**	**21.7J J**	**9.6 J**	ND
SSV-13	Eastern Portion of the Southern Production Area	SUMMA	Yes	1/30/2023	**56.3**	**227,000**	**63,700**	**10,200**	NA	**124,000**	NA
SSV-14	Directly north of the Production Area	SUMMA	Yes	10/19/2023	<31.9	**294**	<198	<396	<1,980	<12.8	**619**
SSV-15	Between Rack Hoist and New	SUMMA	Yes	10/19/2023	<31.9	<10.7	<198	<396	<1,980	<12.8	<495
SSDS Effluent											
EP-1	SSDS Effluent	SUMMA	Yes	1/26/2022	**4.9**	**36.9**	**19.3**	**1.1 J**	**0.27 J**	NA	NA
Soil Gas VAPOR											
Large Commercial Soil Gas Risk Screening Level					**180,000**	**8,800**	**NL**	**180,000**	**880,000**	**28,000**	**NL**
SG-1	~ 40 ft north of MW-7	Passive 15 Day		11/1/2023	<1.22	<1.52	<0.94	<1.14	<1.52	<0.62	<0.62
SG-1 DUP		Passive 15 Day		11/1/2023	<1.22	<1.52	<0.94	<1.14	<1.52	<0.62	<0.62
SG-2	~ 40 ft west of MW-6	Passive 15 Day		11/1/2023	<1.22	<1.52	<0.94	<1.14	<1.52	<0.62	<0.62
SG-3	~ 80 ft northeast of SG-1	Passive 15 Day		11/1/2023	<1.22	<1.52	<0.94	<1.14	<1.52	<0.62	<0.62
SG-4	~ 5 ft east of MW-19	Passive 15 Day		11/1/2023	<1.22	<1.52	<0.94	<1.14	<1.52	<0.62	<0.62
SG-5	~ 10 ft southwest of MW-17	Passive 15 Day		11/1/2023	<1.22	<1.52	<0.94	<1.14	<1.52	<0.62	<0.62

Notes:

Results reported in micrograms per cubic meter (µg/m^3)
Summa samples analyzed according to EPA Method TO-15
Passive samples analyzed according to EPA Method TO-17
The Vapor Risk Screeing/Action Levels are calculated in accordance with WDNR Publication RR-800 and subsequent guidance documents.
IA = Indoor Air
OA = Outdoor Air
SSV= Sub-slab vapor
Bolded values are above detection limits
Bolded and Orange shaded concentration exceed the Large Commercial Vapor Action Level
ND = Not detected over laboratory detection limits
NA = Not Analyzed
NL = No Screening Level Established
U = Analyte was not detected and is reported as less than the limit of detection (LOD) The LOD has been adjusted for any dilution or concentration of the sample.
J = Analyte concentration detected between the laboratory Reporting Limit and the laboratory Method Detection Limit

Synergy Environmental Lab, LLC.

1990 Prospect Ct., Appleton, WI 54914 *P 920-830-2455 * F 920-733-0631

WAYNE FASSBENDER
ENVIROFORENSICS
825 N. CAPITOL AVENUE
INDIANAPOLIS, IN 46204

Report Date *27-Feb-24*

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558A
Sample ID 200032-MW-1
Sample Matrix Water
Sample Date 2/13/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
GASES										
Ethane	73.7	ug/l	0.5	1.5	1	8015		2/16/2024	ZJW	1
Ethene	< 0.5	ug/l	0.5	1.5	1	8015		2/16/2024	ZJW	1
Methane	6408	ug/l	100	300	100	8015		2/16/2024	ZJW	1
VOC's										
Benzene	< 0.3	ug/l	0.3	1.25	1	8260b		2/19/2024	CJR	1
Bromobenzene	< 0.34	ug/l	0.34	1.4	1	8260b		2/19/2024	CJR	1
Bromodichloromethane	< 0.36	ug/l	0.36	1.47	1	8260b		2/19/2024	CJR	1
Bromoform	< 0.42	ug/l	0.42	1.72	1	8260b		2/19/2024	CJR	1
tert-Butylbenzene	< 0.37	ug/l	0.37	1.49	1	8260b		2/19/2024	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1.34	1	8260b		2/19/2024	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.9	1	8260b		2/19/2024	CJR	1
Carbon Tetrachloride	< 0.34	ug/l	0.34	1.39	1	8260b		2/19/2024	CJR	1
Chlorobenzene	< 0.29	ug/l	0.29	1.19	1	8260b		2/19/2024	CJR	1
Chloroethane	< 0.62	ug/l	0.62	2.54	1	8260b		2/19/2024	CJR	1
Chloroform	< 0.33	ug/l	0.33	1.33	1	8260b		2/19/2024	CJR	1
Chloromethane	< 0.74	ug/l	0.74	3.03	1	8260b		2/19/2024	CJR	1
2-Chlorotoluene	< 0.34	ug/l	0.34	1.37	1	8260b		2/19/2024	CJR	1
4-Chlorotoluene	< 0.4	ug/l	0.4	1.63	1	8260b		2/19/2024	CJR	1
1,2-Dibromo-3-chloropropane	< 0.74	ug/l	0.74	3.01	1	8260b		2/19/2024	CJR	1
Dibromochloromethane	< 0.36	ug/l	0.36	1.46	1	8260b		2/19/2024	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	2.01	1	8260b		2/19/2024	CJR	1
1,3-Dichlorobenzene	< 0.35	ug/l	0.35	1.44	1	8260b		2/19/2024	CJR	1
1,2-Dichlorobenzene	< 0.4	ug/l	0.4	1.65	1	8260b		2/19/2024	CJR	1
Dichlorodifluoromethane	< 0.3	ug/l	0.3	1.23	1	8260b		2/19/2024	CJR	1
1,2-Dichloroethane	< 0.43	ug/l	0.43	1.75	1	8260b		2/19/2024	CJR	1
1,1-Dichloroethane	0.87 "J"	ug/l	0.43	1.74	1	8260b		2/19/2024	CJR	1
1,1-Dichloroethene	< 0.43	ug/l	0.43	1.76	1	8260b		2/19/2024	CJR	1
cis-1,2-Dichloroethene	16.5	ug/l	0.32	1.29	1	8260b		2/19/2024	CJR	1

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558A
Sample ID 200032-MW-1
Sample Matrix Water
Sample Date 2/13/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
trans-1,2-Dichloroethene	< 0.5	ug/l	0.5	2.02	1	8260b		2/19/2024	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.58	1	8260b		2/19/2024	CJR	1
1,3-Dichloropropane	< 0.38	ug/l	0.38	1.55	1	8260b		2/19/2024	CJR	1
trans-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260b		2/19/2024	CJR	1
cis-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260b		2/19/2024	CJR	1
Di-isopropyl ether	< 0.48	ug/l	0.48	1.96	1	8260b		2/19/2024	CJR	1
EDB (1,2-Dibromoethane)	< 0.39	ug/l	0.39	1.59	1	8260b		2/19/2024	CJR	1
Ethylbenzene	< 0.33	ug/l	0.33	1.37	1	8260b		2/19/2024	CJR	1
Hexachlorobutadiene	< 0.81	ug/l	0.81	3.44	1	8260b		2/19/2024	CJR	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.38	1	8260b		2/19/2024	CJR	1
p-Isopropyltoluene	< 0.47	ug/l	0.47	1.91	1	8260b		2/19/2024	CJR	1
Methylene chloride	< 0.79	ug/l	0.79	3.23	1	8260b		2/19/2024	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.47	ug/l	0.47	1.91	1	8260b		2/19/2024	CJR	1
Naphthalene	< 1.4	ug/l	1.4	5.56	1	8260b		2/19/2024	CJR	1
n-Propylbenzene	< 0.39	ug/l	0.39	1.6	1	8260b		2/19/2024	CJR	1
1,1,2,2-Tetrachloroethane	< 0.43	ug/l	0.43	1.77	1	8260b		2/19/2024	CJR	1
1,1,1,2-Tetrachloroethane	< 0.55	ug/l	0.55	2.25	1	8260b		2/19/2024	CJR	1
Tetrachloroethene	< 0.47	ug/l	0.47	1.91	1	8260b		2/19/2024	CJR	1
Toluene	< 0.33	ug/l	0.33	1.35	1	8260b		2/19/2024	CJR	1
1,2,4-Trichlorobenzene	< 0.63	ug/l	0.63	2.57	1	8260b		2/19/2024	CJR	1
1,2,3-Trichlorobenzene	< 1.4	ug/l	1.4	5.94	1	8260b		2/19/2024	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.34	1	8260b		2/19/2024	CJR	1
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.72	1	8260b		2/19/2024	CJR	1
Trichloroethene (TCE)	< 0.38	ug/l	0.38	1.55	1	8260b		2/19/2024	CJR	1
Trichlorofluoromethane	< 0.33	ug/l	0.33	1.35	1	8260b		2/19/2024	CJR	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.44	1	8260b		2/19/2024	CJR	1
1,3,5-Trimethylbenzene	< 0.41	ug/l	0.41	1.66	1	8260b		2/19/2024	CJR	1
Vinyl Chloride	36	ug/l	0.15	0.61	1	8260b		2/19/2024	CJR	1
m&p-Xylene	< 0.64	ug/l	0.64	2.63	1	8260b		2/19/2024	CJR	1
o-Xylene	< 0.37	ug/l	0.37	1.51	1	8260b		2/19/2024	CJR	1
SUR - 1,2-Dichloroethane-d4	105	REC %			1	8260b		2/19/2024	CJR	1
SUR - 4-Bromofluorobenzene	103	REC %			1	8260b		2/19/2024	CJR	1
SUR - Dibromofluoromethane	99	REC %			1	8260b		2/19/2024	CJR	1
SUR - Toluene-d8	98	REC %			1	8260b		2/19/2024	CJR	1
Wet Chemistry										
General										
Total Organic Carbon	37	mg/l	0.28	0.94	1	SM 5310B		2/22/2024	SL	1

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558B
Sample ID 200032-MW-3
Sample Matrix Water
Sample Date 2/13/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
GASES										
Ethane	< 0.5	ug/l	0.5	1.5	1	8015		2/15/2024	ZJW	1
Ethene	< 0.5	ug/l	0.5	1.5	1	8015		2/15/2024	ZJW	1
Methane	42.1	ug/l	1	3	1	8015		2/15/2024	ZJW	1
VOC's										
Benzene	< 0.3	ug/l	0.3	1.25	1	8260b		2/19/2024	CJR	1
Bromobenzene	< 0.34	ug/l	0.34	1.4	1	8260b		2/19/2024	CJR	1
Bromodichloromethane	< 0.36	ug/l	0.36	1.47	1	8260b		2/19/2024	CJR	1
Bromoform	< 0.42	ug/l	0.42	1.72	1	8260b		2/19/2024	CJR	1
tert-Butylbenzene	< 0.37	ug/l	0.37	1.49	1	8260b		2/19/2024	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1.34	1	8260b		2/19/2024	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.9	1	8260b		2/19/2024	CJR	1
Carbon Tetrachloride	< 0.34	ug/l	0.34	1.39	1	8260b		2/19/2024	CJR	1
Chlorobenzene	< 0.29	ug/l	0.29	1.19	1	8260b		2/19/2024	CJR	1
Chloroethane	< 0.62	ug/l	0.62	2.54	1	8260b		2/19/2024	CJR	1
Chloroform	< 0.33	ug/l	0.33	1.33	1	8260b		2/19/2024	CJR	1
Chloromethane	< 0.74	ug/l	0.74	3.03	1	8260b		2/19/2024	CJR	1
2-Chlorotoluene	< 0.34	ug/l	0.34	1.37	1	8260b		2/19/2024	CJR	1
4-Chlorotoluene	< 0.4	ug/l	0.4	1.63	1	8260b		2/19/2024	CJR	1
1,2-Dibromo-3-chloropropane	< 0.74	ug/l	0.74	3.01	1	8260b		2/19/2024	CJR	1
Dibromochloromethane	< 0.36	ug/l	0.36	1.46	1	8260b		2/19/2024	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	2.01	1	8260b		2/19/2024	CJR	1
1,3-Dichlorobenzene	< 0.35	ug/l	0.35	1.44	1	8260b		2/19/2024	CJR	1
1,2-Dichlorobenzene	< 0.4	ug/l	0.4	1.65	1	8260b		2/19/2024	CJR	1
Dichlorodifluoromethane	7.1	ug/l	0.3	1.23	1	8260b		2/19/2024	CJR	1
1,2-Dichloroethane	< 0.43	ug/l	0.43	1.75	1	8260b		2/19/2024	CJR	1
1,1-Dichloroethane	< 0.43	ug/l	0.43	1.74	1	8260b		2/19/2024	CJR	1
1,1-Dichloroethene	2.13	ug/l	0.43	1.76	1	8260b		2/19/2024	CJR	1
cis-1,2-Dichloroethene	62	ug/l	0.32	1.29	1	8260b		2/19/2024	CJR	1
trans-1,2-Dichloroethene	2.46	ug/l	0.5	2.02	1	8260b		2/19/2024	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.58	1	8260b		2/19/2024	CJR	1
1,3-Dichloropropane	< 0.38	ug/l	0.38	1.55	1	8260b		2/19/2024	CJR	1
trans-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260b		2/19/2024	CJR	1
cis-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260b		2/19/2024	CJR	1
Di-isopropyl ether	< 0.48	ug/l	0.48	1.96	1	8260b		2/19/2024	CJR	1
EDB (1,2-Dibromoethane)	< 0.39	ug/l	0.39	1.59	1	8260b		2/19/2024	CJR	1
Ethylbenzene	< 0.33	ug/l	0.33	1.37	1	8260b		2/19/2024	CJR	1
Hexachlorobutadiene	< 0.81	ug/l	0.81	3.44	1	8260b		2/19/2024	CJR	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.38	1	8260b		2/19/2024	CJR	1
p-Isopropyltoluene	< 0.47	ug/l	0.47	1.91	1	8260b		2/19/2024	CJR	1
Methylene chloride	< 0.79	ug/l	0.79	3.23	1	8260b		2/19/2024	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.47	ug/l	0.47	1.91	1	8260b		2/19/2024	CJR	1
Naphthalene	< 1.4	ug/l	1.4	5.56	1	8260b		2/19/2024	CJR	1
n-Propylbenzene	< 0.39	ug/l	0.39	1.6	1	8260b		2/19/2024	CJR	1
1,1,2,2-Tetrachloroethane	< 0.43	ug/l	0.43	1.77	1	8260b		2/19/2024	CJR	1
1,1,1,2-Tetrachloroethane	< 0.55	ug/l	0.55	2.25	1	8260b		2/19/2024	CJR	1
Tetrachloroethene	< 0.47	ug/l	0.47	1.91	1	8260b		2/19/2024	CJR	1
Toluene	< 0.33	ug/l	0.33	1.35	1	8260b		2/19/2024	CJR	1
1,2,4-Trichlorobenzene	< 0.63	ug/l	0.63	2.57	1	8260b		2/19/2024	CJR	1
1,2,3-Trichlorobenzene	< 1.4	ug/l	1.4	5.94	1	8260b		2/19/2024	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.34	1	8260b		2/19/2024	CJR	1

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558B
Sample ID 200032-MW-3
Sample Matrix Water
Sample Date 2/13/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.72	1	8260b		2/19/2024	CJR	1
Trichloroethene (TCE)	34	ug/l	0.38	1.55	1	8260b		2/19/2024	CJR	1
Trichlorofluoromethane	< 0.33	ug/l	0.33	1.35	1	8260b		2/19/2024	CJR	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.44	1	8260b		2/19/2024	CJR	1
1,3,5-Trimethylbenzene	< 0.41	ug/l	0.41	1.66	1	8260b		2/19/2024	CJR	1
Vinyl Chloride	8.2	ug/l	0.15	0.61	1	8260b		2/19/2024	CJR	1
m&p-Xylene	< 0.64	ug/l	0.64	2.63	1	8260b		2/19/2024	CJR	1
o-Xylene	< 0.37	ug/l	0.37	1.51	1	8260b		2/19/2024	CJR	1
SUR - 1,2-Dichloroethane-d4	101	REC %			1	8260b		2/19/2024	CJR	1
SUR - 4-Bromofluorobenzene	108	REC %			1	8260b		2/19/2024	CJR	1
SUR - Dibromofluoromethane	100	REC %			1	8260b		2/19/2024	CJR	1
SUR - Toluene-d8	99	REC %			1	8260b		2/19/2024	CJR	1

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558C
Sample ID 200032-MW-8
Sample Matrix Water
Sample Date 2/13/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
GASES										
Ethane	34.1	ug/l	0.5	1.5	1	8015		2/15/2024	ZJW	1
Ethene	< 0.5	ug/l	0.5	1.5	1	8015		2/15/2024	ZJW	1
Methane	6756	ug/l	10	30	10	8015		2/15/2024	ZJW	1
VOC's										
Benzene	< 0.3	ug/l	0.3	1.25	1	8260b		2/19/2024	CJR	12
Bromobenzene	< 0.34	ug/l	0.34	1.4	1	8260b		2/19/2024	CJR	12
Bromodichloromethane	< 0.36	ug/l	0.36	1.47	1	8260b		2/19/2024	CJR	12
Bromoform	< 0.42	ug/l	0.42	1.72	1	8260b		2/19/2024	CJR	12
tert-Butylbenzene	< 0.37	ug/l	0.37	1.49	1	8260b		2/19/2024	CJR	12
sec-Butylbenzene	< 0.33	ug/l	0.33	1.34	1	8260b		2/19/2024	CJR	12
n-Butylbenzene	< 0.71	ug/l	0.71	2.9	1	8260b		2/19/2024	CJR	12
Carbon Tetrachloride	< 0.34	ug/l	0.34	1.39	1	8260b		2/19/2024	CJR	12
Chlorobenzene	< 0.29	ug/l	0.29	1.19	1	8260b		2/19/2024	CJR	12
Chloroethane	< 0.62	ug/l	0.62	2.54	1	8260b		2/19/2024	CJR	12
Chloroform	< 0.33	ug/l	0.33	1.33	1	8260b		2/19/2024	CJR	12
Chloromethane	< 0.74	ug/l	0.74	3.03	1	8260b		2/19/2024	CJR	12
2-Chlorotoluene	< 0.34	ug/l	0.34	1.37	1	8260b		2/19/2024	CJR	12
4-Chlorotoluene	< 0.4	ug/l	0.4	1.63	1	8260b		2/19/2024	CJR	12
1,2-Dibromo-3-chloropropane	< 0.74	ug/l	0.74	3.01	1	8260b		2/19/2024	CJR	12
Dibromochloromethane	< 0.36	ug/l	0.36	1.46	1	8260b		2/19/2024	CJR	12
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	2.01	1	8260b		2/19/2024	CJR	12
1,3-Dichlorobenzene	< 0.35	ug/l	0.35	1.44	1	8260b		2/19/2024	CJR	12
1,2-Dichlorobenzene	< 0.4	ug/l	0.4	1.65	1	8260b		2/19/2024	CJR	12
Dichlorodifluoromethane	< 0.3	ug/l	0.3	1.23	1	8260b		2/19/2024	CJR	12
1,2-Dichloroethane	< 0.43	ug/l	0.43	1.75	1	8260b		2/19/2024	CJR	12
1,1-Dichloroethane	< 0.43	ug/l	0.43	1.74	1	8260b		2/19/2024	CJR	12
1,1-Dichloroethene	< 0.43	ug/l	0.43	1.76	1	8260b		2/19/2024	CJR	12
cis-1,2-Dichloroethene	< 0.32	ug/l	0.32	1.29	1	8260b		2/19/2024	CJR	12
trans-1,2-Dichloroethene	3.2	ug/l	0.5	2.02	1	8260b		2/19/2024	CJR	12
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.58	1	8260b		2/19/2024	CJR	12
1,3-Dichloropropane	< 0.38	ug/l	0.38	1.55	1	8260b		2/19/2024	CJR	12
trans-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260b		2/19/2024	CJR	12
cis-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260b		2/19/2024	CJR	12
Di-isopropyl ether	< 0.48	ug/l	0.48	1.96	1	8260b		2/19/2024	CJR	12
EDB (1,2-Dibromoethane)	< 0.39	ug/l	0.39	1.59	1	8260b		2/19/2024	CJR	12
Ethylbenzene	< 0.33	ug/l	0.33	1.37	1	8260b		2/19/2024	CJR	12
Hexachlorobutadiene	< 0.81	ug/l	0.81	3.44	1	8260b		2/19/2024	CJR	12
Isopropylbenzene	< 0.34	ug/l	0.34	1.38	1	8260b		2/19/2024	CJR	12
p-Isopropyltoluene	< 0.47	ug/l	0.47	1.91	1	8260b		2/19/2024	CJR	12
Methylene chloride	< 0.79	ug/l	0.79	3.23	1	8260b		2/19/2024	CJR	12
Methyl tert-butyl ether (MTBE)	< 0.47	ug/l	0.47	1.91	1	8260b		2/19/2024	CJR	12
Naphthalene	< 1.4	ug/l	1.4	5.56	1	8260b		2/19/2024	CJR	12
n-Propylbenzene	< 0.39	ug/l	0.39	1.6	1	8260b		2/19/2024	CJR	12
1,1,2,2-Tetrachloroethane	< 0.43	ug/l	0.43	1.77	1	8260b		2/19/2024	CJR	12
1,1,1,2-Tetrachloroethane	< 0.55	ug/l	0.55	2.25	1	8260b		2/19/2024	CJR	12
Tetrachloroethene	< 0.47	ug/l	0.47	1.91	1	8260b		2/19/2024	CJR	12
Toluene	< 0.33	ug/l	0.33	1.35	1	8260b		2/19/2024	CJR	12
1,2,4-Trichlorobenzene	< 0.63	ug/l	0.63	2.57	1	8260b		2/19/2024	CJR	12
1,2,3-Trichlorobenzene	< 1.4	ug/l	1.4	5.94	1	8260b		2/19/2024	CJR	12
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.34	1	8260b		2/19/2024	CJR	12

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558C
Sample ID 200032-MW-8
Sample Matrix Water
Sample Date 2/13/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.72	1	8260b		2/19/2024	CJR	12
Trichloroethene (TCE)	< 0.38	ug/l	0.38	1.55	1	8260b		2/19/2024	CJR	12
Trichlorofluoromethane	< 0.33	ug/l	0.33	1.35	1	8260b		2/19/2024	CJR	12
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.44	1	8260b		2/19/2024	CJR	12
1,3,5-Trimethylbenzene	< 0.41	ug/l	0.41	1.66	1	8260b		2/19/2024	CJR	12
Vinyl Chloride	1.0	ug/l	0.15	0.61	1	8260b		2/19/2024	CJR	12
m&p-Xylene	< 0.64	ug/l	0.64	2.63	1	8260b		2/19/2024	CJR	12
o-Xylene	< 0.37	ug/l	0.37	1.51	1	8260b		2/19/2024	CJR	12
SUR - Dibromofluoromethane	100	REC %			1	8260b		2/19/2024	CJR	12
SUR - Toluene-d8	100	REC %			1	8260b		2/19/2024	CJR	12
SUR - 4-Bromofluorobenzene	102	REC %			1	8260b		2/19/2024	CJR	12
SUR - 1,2-Dichloroethane-d4	103	REC %			1	8260b		2/19/2024	CJR	12

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558D
Sample ID 200032-MW-14
Sample Matrix Water
Sample Date 2/13/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
GASES										
Ethane	7520	ug/l	5	15	10	8015		2/15/2024	ZJW	1
Ethene	< 0.5	ug/l	0.5	1.5	1	8015		2/15/2024	ZJW	1
Methane	3607	ug/l	10	30	10	8015		2/15/2024	ZJW	1
VOC's										
Benzene	< 15	ug/l	15	62.5	50	8260b		2/20/2024	CJR	1
Bromobenzene	< 17	ug/l	17	70	50	8260b		2/20/2024	CJR	1
Bromodichloromethane	< 18	ug/l	18	73.5	50	8260b		2/20/2024	CJR	1
Bromoform	< 21	ug/l	21	86	50	8260b		2/20/2024	CJR	1
tert-Butylbenzene	< 18.5	ug/l	18.5	74.5	50	8260b		2/20/2024	CJR	1
sec-Butylbenzene	< 16.5	ug/l	16.5	67	50	8260b		2/20/2024	CJR	1
n-Butylbenzene	< 35.5	ug/l	35.5	145	50	8260b		2/20/2024	CJR	1
Carbon Tetrachloride	< 17	ug/l	17	69.5	50	8260b		2/20/2024	CJR	1
Chlorobenzene	< 14.5	ug/l	14.5	59.5	50	8260b		2/20/2024	CJR	1
Chloroethane	< 31	ug/l	31	127	50	8260b		2/20/2024	CJR	1
Chloroform	< 16.5	ug/l	16.5	66.5	50	8260b		2/20/2024	CJR	1
Chloromethane	< 37	ug/l	37	151.5	50	8260b		2/20/2024	CJR	1
2-Chlorotoluene	< 17	ug/l	17	68.5	50	8260b		2/20/2024	CJR	1
4-Chlorotoluene	< 20	ug/l	20	81.5	50	8260b		2/20/2024	CJR	1
1,2-Dibromo-3-chloropropane	< 37	ug/l	37	150.5	50	8260b		2/20/2024	CJR	1
Dibromochloromethane	< 18	ug/l	18	73	50	8260b		2/20/2024	CJR	1
1,4-Dichlorobenzene	< 24.5	ug/l	24.5	100.5	50	8260b		2/20/2024	CJR	1
1,3-Dichlorobenzene	< 17.5	ug/l	17.5	72	50	8260b		2/20/2024	CJR	1
1,2-Dichlorobenzene	< 20	ug/l	20	82.5	50	8260b		2/20/2024	CJR	1
Dichlorodifluoromethane	< 15	ug/l	15	61.5	50	8260b		2/20/2024	CJR	1
1,2-Dichloroethane	< 21.5	ug/l	21.5	87.5	50	8260b		2/20/2024	CJR	1
1,1-Dichloroethane	< 21.5	ug/l	21.5	87	50	8260b		2/20/2024	CJR	1
1,1-Dichloroethene	< 21.5	ug/l	21.5	88	50	8260b		2/20/2024	CJR	1
cis-1,2-Dichloroethene	< 16	ug/l	16	64.5	50	8260b		2/20/2024	CJR	1
trans-1,2-Dichloroethene	< 25	ug/l	25	101	50	8260b		2/20/2024	CJR	1
1,2-Dichloropropane	< 19.5	ug/l	19.5	79	50	8260b		2/20/2024	CJR	1
1,3-Dichloropropane	< 19	ug/l	19	77.5	50	8260b		2/20/2024	CJR	1
trans-1,3-Dichloropropene	< 20.5	ug/l	20.5	83.5	50	8260b		2/20/2024	CJR	1
cis-1,3-Dichloropropene	< 20.5	ug/l	20.5	83.5	50	8260b		2/20/2024	CJR	1
Di-isopropyl ether	< 24	ug/l	24	98	50	8260b		2/20/2024	CJR	1
EDB (1,2-Dibromoethane)	< 19.5	ug/l	19.5	79.5	50	8260b		2/20/2024	CJR	1
Ethylbenzene	< 16.5	ug/l	16.5	68.5	50	8260b		2/20/2024	CJR	1
Hexachlorobutadiene	< 40.5	ug/l	40.5	172	50	8260b		2/20/2024	CJR	1
Isopropylbenzene	< 17	ug/l	17	69	50	8260b		2/20/2024	CJR	1
p-Isopropyltoluene	< 23.5	ug/l	23.5	95.5	50	8260b		2/20/2024	CJR	1
Methylene chloride	< 39.5	ug/l	39.5	161.5	50	8260b		2/20/2024	CJR	1
Methyl tert-butyl ether (MTBE)	< 23.5	ug/l	23.5	95.5	50	8260b		2/20/2024	CJR	1
Naphthalene	< 70	ug/l	70	278	50	8260b		2/20/2024	CJR	1
n-Propylbenzene	< 19.5	ug/l	19.5	80	50	8260b		2/20/2024	CJR	1
1,1,2,2-Tetrachloroethane	< 21.5	ug/l	21.5	88.5	50	8260b		2/20/2024	CJR	1
1,1,1,2-Tetrachloroethane	< 27.5	ug/l	27.5	112.5	50	8260b		2/20/2024	CJR	1
Tetrachloroethene	< 23.5	ug/l	23.5	95.5	50	8260b		2/20/2024	CJR	1
Toluene	< 16.5	ug/l	16.5	67.5	50	8260b		2/20/2024	CJR	1
1,2,4-Trichlorobenzene	< 31.5	ug/l	31.5	128.5	50	8260b		2/20/2024	CJR	1
1,2,3-Trichlorobenzene	< 70	ug/l	70	297	50	8260b		2/20/2024	CJR	1
1,1,1-Trichloroethane	< 16.5	ug/l	16.5	67	50	8260b		2/20/2024	CJR	1

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558D
Sample ID 200032-MW-14
Sample Matrix Water
Sample Date 2/13/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 21	ug/l	21	86	50	8260b		2/20/2024	CJR	1
Trichloroethene (TCE)	< 19	ug/l	19	77.5	50	8260b		2/20/2024	CJR	1
Trichlorofluoromethane	< 16.5	ug/l	16.5	67.5	50	8260b		2/20/2024	CJR	1
1,2,4-Trimethylbenzene	< 17.5	ug/l	17.5	72	50	8260b		2/20/2024	CJR	1
1,3,5-Trimethylbenzene	< 20.5	ug/l	20.5	83	50	8260b		2/20/2024	CJR	1
Vinyl Chloride	1520	ug/l	7.5	30.5	50	8260b		2/20/2024	CJR	1
m&p-Xylene	< 32	ug/l	32	131.5	50	8260b		2/20/2024	CJR	1
o-Xylene	< 18.5	ug/l	18.5	75.5	50	8260b		2/20/2024	CJR	1
SUR - 1,2-Dichloroethane-d4	99	REC %			50	8260b		2/20/2024	CJR	1
SUR - 4-Bromofluorobenzene	104	REC %			50	8260b		2/20/2024	CJR	1
SUR - Dibromofluoromethane	98	REC %			50	8260b		2/20/2024	CJR	1
SUR - Toluene-d8	101	REC %			50	8260b		2/20/2024	CJR	1
Wet Chemistry										
General										
Total Organic Carbon	979	mg/l	28	94	100	SM 5310B		2/22/2024	SL	1

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558E
Sample ID 200032-MW-15
Sample Matrix Water
Sample Date 2/13/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
GASES										
Ethane	< 0.5	ug/l	0.5	1.5	1	8015		2/15/2024	ZJW	1
Ethene	< 0.5	ug/l	0.5	1.5	1	8015		2/15/2024	ZJW	1
Methane	3.10	ug/l	1	3	1	8015		2/15/2024	ZJW	1
VOC's										
Benzene	< 0.3	ug/l	0.3	1.25	1	8260b		2/20/2024	CJR	1
Bromobenzene	< 0.34	ug/l	0.34	1.4	1	8260b		2/20/2024	CJR	1
Bromodichloromethane	< 0.36	ug/l	0.36	1.47	1	8260b		2/20/2024	CJR	1
Bromoform	< 0.42	ug/l	0.42	1.72	1	8260b		2/20/2024	CJR	1
tert-Butylbenzene	< 0.37	ug/l	0.37	1.49	1	8260b		2/20/2024	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1.34	1	8260b		2/20/2024	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.9	1	8260b		2/20/2024	CJR	1
Carbon Tetrachloride	< 0.34	ug/l	0.34	1.39	1	8260b		2/20/2024	CJR	1
Chlorobenzene	< 0.29	ug/l	0.29	1.19	1	8260b		2/20/2024	CJR	1
Chloroethane	< 0.62	ug/l	0.62	2.54	1	8260b		2/20/2024	CJR	1
Chloroform	< 0.33	ug/l	0.33	1.33	1	8260b		2/20/2024	CJR	1
Chloromethane	< 0.74	ug/l	0.74	3.03	1	8260b		2/20/2024	CJR	1
2-Chlorotoluene	< 0.34	ug/l	0.34	1.37	1	8260b		2/20/2024	CJR	1
4-Chlorotoluene	< 0.4	ug/l	0.4	1.63	1	8260b		2/20/2024	CJR	1
1,2-Dibromo-3-chloropropane	< 0.74	ug/l	0.74	3.01	1	8260b		2/20/2024	CJR	1
Dibromochloromethane	< 0.36	ug/l	0.36	1.46	1	8260b		2/20/2024	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	2.01	1	8260b		2/20/2024	CJR	1
1,3-Dichlorobenzene	< 0.35	ug/l	0.35	1.44	1	8260b		2/20/2024	CJR	1
1,2-Dichlorobenzene	< 0.4	ug/l	0.4	1.65	1	8260b		2/20/2024	CJR	1
Dichlorodifluoromethane	< 0.3	ug/l	0.3	1.23	1	8260b		2/20/2024	CJR	1
1,2-Dichloroethane	< 0.43	ug/l	0.43	1.75	1	8260b		2/20/2024	CJR	1
1,1-Dichloroethane	< 0.43	ug/l	0.43	1.74	1	8260b		2/20/2024	CJR	1
1,1-Dichloroethene	< 0.43	ug/l	0.43	1.76	1	8260b		2/20/2024	CJR	1
cis-1,2-Dichloroethene	< 0.32	ug/l	0.32	1.29	1	8260b		2/20/2024	CJR	1
trans-1,2-Dichloroethene	< 0.5	ug/l	0.5	2.02	1	8260b		2/20/2024	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.58	1	8260b		2/20/2024	CJR	1
1,3-Dichloropropane	< 0.38	ug/l	0.38	1.55	1	8260b		2/20/2024	CJR	1
trans-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260b		2/20/2024	CJR	1
cis-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260b		2/20/2024	CJR	1
Di-isopropyl ether	< 0.48	ug/l	0.48	1.96	1	8260b		2/20/2024	CJR	1
EDB (1,2-Dibromoethane)	< 0.39	ug/l	0.39	1.59	1	8260b		2/20/2024	CJR	1
Ethylbenzene	< 0.33	ug/l	0.33	1.37	1	8260b		2/20/2024	CJR	1
Hexachlorobutadiene	< 0.81	ug/l	0.81	3.44	1	8260b		2/20/2024	CJR	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.38	1	8260b		2/20/2024	CJR	1
p-Isopropyltoluene	< 0.47	ug/l	0.47	1.91	1	8260b		2/20/2024	CJR	1
Methylene chloride	< 0.79	ug/l	0.79	3.23	1	8260b		2/20/2024	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.47	ug/l	0.47	1.91	1	8260b		2/20/2024	CJR	1
Naphthalene	< 1.4	ug/l	1.4	5.56	1	8260b		2/20/2024	CJR	1
n-Propylbenzene	< 0.39	ug/l	0.39	1.6	1	8260b		2/20/2024	CJR	1
1,1,2,2-Tetrachloroethane	< 0.43	ug/l	0.43	1.77	1	8260b		2/20/2024	CJR	1
1,1,1,2-Tetrachloroethane	< 0.55	ug/l	0.55	2.25	1	8260b		2/20/2024	CJR	1
Tetrachloroethene	< 0.47	ug/l	0.47	1.91	1	8260b		2/20/2024	CJR	1
Toluene	< 0.33	ug/l	0.33	1.35	1	8260b		2/20/2024	CJR	1
1,2,4-Trichlorobenzene	< 0.63	ug/l	0.63	2.57	1	8260b		2/20/2024	CJR	1
1,2,3-Trichlorobenzene	< 1.4	ug/l	1.4	5.94	1	8260b		2/20/2024	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.34	1	8260b		2/20/2024	CJR	1

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558E
Sample ID 200032-MW-15
Sample Matrix Water
Sample Date 2/13/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.72	1	8260b		2/20/2024	CJR	1
Trichloroethene (TCE)	< 0.38	ug/l	0.38	1.55	1	8260b		2/20/2024	CJR	1
Trichlorofluoromethane	< 0.33	ug/l	0.33	1.35	1	8260b		2/20/2024	CJR	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.44	1	8260b		2/20/2024	CJR	1
1,3,5-Trimethylbenzene	< 0.41	ug/l	0.41	1.66	1	8260b		2/20/2024	CJR	1
Vinyl Chloride	< 0.15	ug/l	0.15	0.61	1	8260b		2/20/2024	CJR	1
m&p-Xylene	< 0.64	ug/l	0.64	2.63	1	8260b		2/20/2024	CJR	1
o-Xylene	< 0.37	ug/l	0.37	1.51	1	8260b		2/20/2024	CJR	1
SUR - 1,2-Dichloroethane-d4	99	REC %			1	8260b		2/20/2024	CJR	1
SUR - 4-Bromofluorobenzene	105	REC %			1	8260b		2/20/2024	CJR	1
SUR - Dibromofluoromethane	98	REC %			1	8260b		2/20/2024	CJR	1
SUR - Toluene-d8	99	REC %			1	8260b		2/20/2024	CJR	1

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558F
Sample ID 200032-TW-20
Sample Matrix Water
Sample Date 2/13/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
GASES										
Ethane	44.5	ug/l	0.5	1.5	1	8015		2/15/2024	ZJW	1
Ethene	< 0.5	ug/l	0.5	1.5	1	8015		2/15/2024	ZJW	1
Methane	11.1	ug/l	1	3	1	8015		2/15/2024	ZJW	1
VOC's										
Benzene	< 300	ug/l	300	1250	1000	8260b		2/20/2024	CJR	1
Bromobenzene	< 340	ug/l	340	1400	1000	8260b		2/20/2024	CJR	1
Bromodichloromethane	< 360	ug/l	360	1470	1000	8260b		2/20/2024	CJR	1
Bromoform	< 420	ug/l	420	1720	1000	8260b		2/20/2024	CJR	1
tert-Butylbenzene	< 370	ug/l	370	1490	1000	8260b		2/20/2024	CJR	1
sec-Butylbenzene	< 330	ug/l	330	1340	1000	8260b		2/20/2024	CJR	1
n-Butylbenzene	< 710	ug/l	710	2900	1000	8260b		2/20/2024	CJR	1
Carbon Tetrachloride	< 340	ug/l	340	1390	1000	8260b		2/20/2024	CJR	1
Chlorobenzene	< 290	ug/l	290	1190	1000	8260b		2/20/2024	CJR	1
Chloroethane	< 620	ug/l	620	2540	1000	8260b		2/20/2024	CJR	1
Chloroform	< 330	ug/l	330	1330	1000	8260b		2/20/2024	CJR	1
Chloromethane	< 740	ug/l	740	3030	1000	8260b		2/20/2024	CJR	1
2-Chlorotoluene	< 340	ug/l	340	1370	1000	8260b		2/20/2024	CJR	1
4-Chlorotoluene	< 400	ug/l	400	1630	1000	8260b		2/20/2024	CJR	1
1,2-Dibromo-3-chloropropane	< 740	ug/l	740	3010	1000	8260b		2/20/2024	CJR	1
Dibromochloromethane	< 360	ug/l	360	1460	1000	8260b		2/20/2024	CJR	1
1,4-Dichlorobenzene	< 490	ug/l	490	2010	1000	8260b		2/20/2024	CJR	1
1,3-Dichlorobenzene	< 350	ug/l	350	1440	1000	8260b		2/20/2024	CJR	1
1,2-Dichlorobenzene	< 400	ug/l	400	1650	1000	8260b		2/20/2024	CJR	1
Dichlorodifluoromethane	< 300	ug/l	300	1230	1000	8260b		2/20/2024	CJR	1
1,2-Dichloroethane	< 430	ug/l	430	1750	1000	8260b		2/20/2024	CJR	1
1,1-Dichloroethane	< 430	ug/l	430	1740	1000	8260b		2/20/2024	CJR	1
1,1-Dichloroethene	850 "J"	ug/l	430	1760	1000	8260b		2/20/2024	CJR	1
cis-1,2-Dichloroethene	138000	ug/l	320	1290	1000	8260b		2/20/2024	CJR	1
trans-1,2-Dichloroethene	990 "J"	ug/l	500	2020	1000	8260b		2/20/2024	CJR	1
1,2-Dichloropropane	< 390	ug/l	390	1580	1000	8260b		2/20/2024	CJR	1
1,3-Dichloropropane	< 380	ug/l	380	1550	1000	8260b		2/20/2024	CJR	1
trans-1,3-Dichloropropene	< 410	ug/l	410	1670	1000	8260b		2/20/2024	CJR	1
cis-1,3-Dichloropropene	< 410	ug/l	410	1670	1000	8260b		2/20/2024	CJR	1
Di-isopropyl ether	< 480	ug/l	480	1960	1000	8260b		2/20/2024	CJR	1
EDB (1,2-Dibromoethane)	< 390	ug/l	390	1590	1000	8260b		2/20/2024	CJR	1
Ethylbenzene	< 330	ug/l	330	1370	1000	8260b		2/20/2024	CJR	1
Hexachlorobutadiene	< 810	ug/l	810	3440	1000	8260b		2/20/2024	CJR	1
Isopropylbenzene	< 340	ug/l	340	1380	1000	8260b		2/20/2024	CJR	1
p-Isopropyltoluene	< 470	ug/l	470	1910	1000	8260b		2/20/2024	CJR	1
Methylene chloride	< 790	ug/l	790	3230	1000	8260b		2/20/2024	CJR	1
Methyl tert-butyl ether (MTBE)	< 470	ug/l	470	1910	1000	8260b		2/20/2024	CJR	1
Naphthalene	< 1400	ug/l	1400	5560	1000	8260b		2/20/2024	CJR	1
n-Propylbenzene	< 390	ug/l	390	1600	1000	8260b		2/20/2024	CJR	1
1,1,2,2-Tetrachloroethane	< 430	ug/l	430	1770	1000	8260b		2/20/2024	CJR	1
1,1,1,2-Tetrachloroethane	< 550	ug/l	550	2250	1000	8260b		2/20/2024	CJR	1
Tetrachloroethene	< 470	ug/l	470	1910	1000	8260b		2/20/2024	CJR	1
Toluene	< 330	ug/l	330	1350	1000	8260b		2/20/2024	CJR	1
1,2,4-Trichlorobenzene	< 630	ug/l	630	2570	1000	8260b		2/20/2024	CJR	1
1,2,3-Trichlorobenzene	< 1400	ug/l	1400	5940	1000	8260b		2/20/2024	CJR	1
1,1,1-Trichloroethane	< 330	ug/l	330	1340	1000	8260b		2/20/2024	CJR	1

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558F
Sample ID 200032-TW-20
Sample Matrix Water
Sample Date 2/13/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 420	ug/l	420	1720	1000	8260b		2/20/2024	CJR	1
Trichloroethene (TCE)	311000	ug/l	1900	7750	5000	8260b		2/21/2024	CJR	1
Trichlorofluoromethane	< 330	ug/l	330	1350	1000	8260b		2/20/2024	CJR	1
1,2,4-Trimethylbenzene	< 350	ug/l	350	1440	1000	8260b		2/20/2024	CJR	1
1,3,5-Trimethylbenzene	< 410	ug/l	410	1660	1000	8260b		2/20/2024	CJR	1
Vinyl Chloride	27400	ug/l	150	610	1000	8260b		2/20/2024	CJR	1
m&p-Xylene	< 640	ug/l	640	2630	1000	8260b		2/20/2024	CJR	1
o-Xylene	< 370	ug/l	370	1510	1000	8260b		2/20/2024	CJR	1
SUR - 4-Bromofluorobenzene	99	REC %			1000	8260b		2/20/2024	CJR	1
SUR - Dibromofluoromethane	99	REC %			1000	8260b		2/20/2024	CJR	1
SUR - 1,2-Dichloroethane-d4	108	REC %			1000	8260b		2/20/2024	CJR	1
SUR - Toluene-d8	99	REC %			1000	8260b		2/20/2024	CJR	1
Wet Chemistry										
General										
Total Organic Carbon	215	mg/l	5.6	18.8	20	SM 5310B		2/22/2024	SL	1

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558G
Sample ID 200032-TW-21
Sample Matrix Water
Sample Date 2/13/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
GASES										
Ethane	182	ug/l	0.5	1.5	1	8015		2/16/2024	ZJW	1
Ethene	< 0.5	ug/l	0.5	1.5	1	8015		2/16/2024	ZJW	1
Methane	4664	ug/l	10	30	10	8015		2/16/2024	ZJW	1
VOC's										
Benzene	< 1.5	ug/l	1.5	6.25	5	8260b		2/19/2024	CJR	1
Bromobenzene	< 1.7	ug/l	1.7	7	5	8260b		2/19/2024	CJR	1
Bromodichloromethane	< 1.8	ug/l	1.8	7.35	5	8260b		2/19/2024	CJR	1
Bromoform	< 2.1	ug/l	2.1	8.6	5	8260b		2/19/2024	CJR	1
tert-Butylbenzene	< 1.85	ug/l	1.85	7.45	5	8260b		2/19/2024	CJR	1
sec-Butylbenzene	< 1.65	ug/l	1.65	6.7	5	8260b		2/19/2024	CJR	1
n-Butylbenzene	< 3.55	ug/l	3.55	14.5	5	8260b		2/19/2024	CJR	1
Carbon Tetrachloride	< 1.7	ug/l	1.7	6.95	5	8260b		2/19/2024	CJR	1
Chlorobenzene	< 1.45	ug/l	1.45	5.95	5	8260b		2/19/2024	CJR	1
Chloroethane	< 3.1	ug/l	3.1	12.7	5	8260b		2/19/2024	CJR	1
Chloroform	< 1.65	ug/l	1.65	6.65	5	8260b		2/19/2024	CJR	1
Chloromethane	< 3.7	ug/l	3.7	15.15	5	8260b		2/19/2024	CJR	1
2-Chlorotoluene	< 1.7	ug/l	1.7	6.85	5	8260b		2/19/2024	CJR	1
4-Chlorotoluene	< 2	ug/l	2	8.15	5	8260b		2/19/2024	CJR	1
1,2-Dibromo-3-chloropropane	< 3.7	ug/l	3.7	15.05	5	8260b		2/19/2024	CJR	1
Dibromochloromethane	< 1.8	ug/l	1.8	7.3	5	8260b		2/19/2024	CJR	1
1,4-Dichlorobenzene	< 2.45	ug/l	2.45	10.05	5	8260b		2/19/2024	CJR	1
1,3-Dichlorobenzene	< 1.75	ug/l	1.75	7.2	5	8260b		2/19/2024	CJR	1
1,2-Dichlorobenzene	< 2	ug/l	2	8.25	5	8260b		2/19/2024	CJR	1
Dichlorodifluoromethane	< 1.5	ug/l	1.5	6.15	5	8260b		2/19/2024	CJR	1
1,2-Dichloroethane	< 2.15	ug/l	2.15	8.75	5	8260b		2/19/2024	CJR	1
1,1-Dichloroethane	< 2.15	ug/l	2.15	8.7	5	8260b		2/19/2024	CJR	1
1,1-Dichloroethene	< 2.15	ug/l	2.15	8.8	5	8260b		2/19/2024	CJR	1
cis-1,2-Dichloroethene	77	ug/l	1.6	6.45	5	8260b		2/19/2024	CJR	1
trans-1,2-Dichloroethene	8.6 "J"	ug/l	2.5	10.1	5	8260b		2/19/2024	CJR	1
1,2-Dichloropropane	< 1.95	ug/l	1.95	7.9	5	8260b		2/19/2024	CJR	1
1,3-Dichloropropane	< 1.9	ug/l	1.9	7.75	5	8260b		2/19/2024	CJR	1
trans-1,3-Dichloropropene	< 2.05	ug/l	2.05	8.35	5	8260b		2/19/2024	CJR	1
cis-1,3-Dichloropropene	< 2.05	ug/l	2.05	8.35	5	8260b		2/19/2024	CJR	1
Di-isopropyl ether	< 2.4	ug/l	2.4	9.8	5	8260b		2/19/2024	CJR	1
EDB (1,2-Dibromoethane)	< 1.95	ug/l	1.95	7.95	5	8260b		2/19/2024	CJR	1
Ethylbenzene	< 1.65	ug/l	1.65	6.85	5	8260b		2/19/2024	CJR	1
Hexachlorobutadiene	< 4.05	ug/l	4.05	17.2	5	8260b		2/19/2024	CJR	1
Isopropylbenzene	< 1.7	ug/l	1.7	6.9	5	8260b		2/19/2024	CJR	1
p-Isopropyltoluene	< 2.35	ug/l	2.35	9.55	5	8260b		2/19/2024	CJR	1
Methylene chloride	< 3.95	ug/l	3.95	16.15	5	8260b		2/19/2024	CJR	1
Methyl tert-butyl ether (MTBE)	< 2.35	ug/l	2.35	9.55	5	8260b		2/19/2024	CJR	1
Naphthalene	< 7	ug/l	7	27.8	5	8260b		2/19/2024	CJR	1
n-Propylbenzene	< 1.95	ug/l	1.95	8	5	8260b		2/19/2024	CJR	1
1,1,2,2-Tetrachloroethane	< 2.15	ug/l	2.15	8.85	5	8260b		2/19/2024	CJR	1
1,1,1,2-Tetrachloroethane	< 2.75	ug/l	2.75	11.25	5	8260b		2/19/2024	CJR	1
Tetrachloroethene	< 2.35	ug/l	2.35	9.55	5	8260b		2/19/2024	CJR	1
Toluene	2.5 "J"	ug/l	1.65	6.75	5	8260b		2/19/2024	CJR	1
1,2,4-Trichlorobenzene	< 3.15	ug/l	3.15	12.85	5	8260b		2/19/2024	CJR	1
1,2,3-Trichlorobenzene	< 7	ug/l	7	29.7	5	8260b		2/19/2024	CJR	1
1,1,1-Trichloroethane	< 1.65	ug/l	1.65	6.7	5	8260b		2/19/2024	CJR	1

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558G
Sample ID 200032-TW-21
Sample Matrix Water
Sample Date 2/13/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 2.1	ug/l	2.1	8.6	5	8260b		2/19/2024	CJR	1
Trichloroethene (TCE)	13.9	ug/l	1.9	7.75	5	8260b		2/19/2024	CJR	1
Trichlorofluoromethane	< 1.65	ug/l	1.65	6.75	5	8260b		2/19/2024	CJR	1
1,2,4-Trimethylbenzene	< 1.75	ug/l	1.75	7.2	5	8260b		2/19/2024	CJR	1
1,3,5-Trimethylbenzene	< 2.05	ug/l	2.05	8.3	5	8260b		2/19/2024	CJR	1
Vinyl Chloride	24.8	ug/l	0.75	3.05	5	8260b		2/19/2024	CJR	1
m&p-Xylene	< 3.2	ug/l	3.2	13.15	5	8260b		2/19/2024	CJR	1
o-Xylene	< 1.85	ug/l	1.85	7.55	5	8260b		2/19/2024	CJR	1
SUR - 1,2-Dichloroethane-d4	96	REC %			5	8260b		2/19/2024	CJR	1
SUR - 4-Bromofluorobenzene	107	REC %			5	8260b		2/19/2024	CJR	1
SUR - Dibromofluoromethane	97	REC %			5	8260b		2/19/2024	CJR	1
SUR - Toluene-d8	99	REC %			5	8260b		2/19/2024	CJR	1
Wet Chemistry										
General										
Dissolved Organic Carbon	1250	mg/l	140	500	500	SM 5310B		2/23/2024	SL	1 96

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558H
Sample ID 200032-TW-22
Sample Matrix Water
Sample Date 2/13/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
GASES										
Ethane	< 0.5	ug/l	0.5	1.5	1	8015		2/15/2024	ZJW	1
Ethene	< 0.5	ug/l	0.5	1.5	1	8015		2/15/2024	ZJW	1
Methane	35.0	ug/l	1	3	1	8015		2/15/2024	ZJW	1
VOC's										
Benzene	< 3	ug/l	3	12.5	10	8260b		2/19/2024	CJR	1
Bromobenzene	< 3.4	ug/l	3.4	14	10	8260b		2/19/2024	CJR	1
Bromodichloromethane	< 3.6	ug/l	3.6	14.7	10	8260b		2/19/2024	CJR	1
Bromoform	< 4.2	ug/l	4.2	17.2	10	8260b		2/19/2024	CJR	1
tert-Butylbenzene	< 3.7	ug/l	3.7	14.9	10	8260b		2/19/2024	CJR	1
sec-Butylbenzene	< 3.3	ug/l	3.3	13.4	10	8260b		2/19/2024	CJR	1
n-Butylbenzene	< 7.1	ug/l	7.1	29	10	8260b		2/19/2024	CJR	1
Carbon Tetrachloride	< 3.4	ug/l	3.4	13.9	10	8260b		2/19/2024	CJR	1
Chlorobenzene	< 2.9	ug/l	2.9	11.9	10	8260b		2/19/2024	CJR	1
Chloroethane	< 6.2	ug/l	6.2	25.4	10	8260b		2/19/2024	CJR	1
Chloroform	< 3.3	ug/l	3.3	13.3	10	8260b		2/19/2024	CJR	1
Chloromethane	< 7.4	ug/l	7.4	30.3	10	8260b		2/19/2024	CJR	1
2-Chlorotoluene	< 3.4	ug/l	3.4	13.7	10	8260b		2/19/2024	CJR	1
4-Chlorotoluene	< 4	ug/l	4	16.3	10	8260b		2/19/2024	CJR	1
1,2-Dibromo-3-chloropropane	< 7.4	ug/l	7.4	30.1	10	8260b		2/19/2024	CJR	1
Dibromochloromethane	< 3.6	ug/l	3.6	14.6	10	8260b		2/19/2024	CJR	1
1,4-Dichlorobenzene	< 4.9	ug/l	4.9	20.1	10	8260b		2/19/2024	CJR	1
1,3-Dichlorobenzene	< 3.5	ug/l	3.5	14.4	10	8260b		2/19/2024	CJR	1
1,2-Dichlorobenzene	< 4	ug/l	4	16.5	10	8260b		2/19/2024	CJR	1
Dichlorodifluoromethane	< 3	ug/l	3	12.3	10	8260b		2/19/2024	CJR	1
1,2-Dichloroethane	< 4.3	ug/l	4.3	17.5	10	8260b		2/19/2024	CJR	1
1,1-Dichloroethane	< 4.3	ug/l	4.3	17.4	10	8260b		2/19/2024	CJR	1
1,1-Dichloroethene	< 4.3	ug/l	4.3	17.6	10	8260b		2/19/2024	CJR	1
cis-1,2-Dichloroethene	144	ug/l	3.2	12.9	10	8260b		2/19/2024	CJR	1
trans-1,2-Dichloroethene	17 "J"	ug/l	5	20.2	10	8260b		2/19/2024	CJR	1
1,2-Dichloropropane	< 3.9	ug/l	3.9	15.8	10	8260b		2/19/2024	CJR	1
1,3-Dichloropropane	< 3.8	ug/l	3.8	15.5	10	8260b		2/19/2024	CJR	1
trans-1,3-Dichloropropene	< 4.1	ug/l	4.1	16.7	10	8260b		2/19/2024	CJR	1
cis-1,3-Dichloropropene	< 4.1	ug/l	4.1	16.7	10	8260b		2/19/2024	CJR	1
Di-isopropyl ether	< 4.8	ug/l	4.8	19.6	10	8260b		2/19/2024	CJR	1
EDB (1,2-Dibromoethane)	< 3.9	ug/l	3.9	15.9	10	8260b		2/19/2024	CJR	1
Ethylbenzene	< 3.3	ug/l	3.3	13.7	10	8260b		2/19/2024	CJR	1
Hexachlorobutadiene	< 8.1	ug/l	8.1	34.4	10	8260b		2/19/2024	CJR	1
Isopropylbenzene	< 3.4	ug/l	3.4	13.8	10	8260b		2/19/2024	CJR	1
p-Isopropyltoluene	< 4.7	ug/l	4.7	19.1	10	8260b		2/19/2024	CJR	1
Methylene chloride	< 7.9	ug/l	7.9	32.3	10	8260b		2/19/2024	CJR	1
Methyl tert-butyl ether (MTBE)	< 4.7	ug/l	4.7	19.1	10	8260b		2/19/2024	CJR	1
Naphthalene	< 14	ug/l	14	55.6	10	8260b		2/19/2024	CJR	1
n-Propylbenzene	< 3.9	ug/l	3.9	16	10	8260b		2/19/2024	CJR	1
1,1,2,2-Tetrachloroethane	< 4.3	ug/l	4.3	17.7	10	8260b		2/19/2024	CJR	1
1,1,1,2-Tetrachloroethane	< 5.5	ug/l	5.5	22.5	10	8260b		2/19/2024	CJR	1
Tetrachloroethene	< 4.7	ug/l	4.7	19.1	10	8260b		2/19/2024	CJR	1
Toluene	< 3.3	ug/l	3.3	13.5	10	8260b		2/19/2024	CJR	1
1,2,4-Trichlorobenzene	< 6.3	ug/l	6.3	25.7	10	8260b		2/19/2024	CJR	1
1,2,3-Trichlorobenzene	< 14	ug/l	14	59.4	10	8260b		2/19/2024	CJR	1
1,1,1-Trichloroethane	< 3.3	ug/l	3.3	13.4	10	8260b		2/19/2024	CJR	1

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558H
Sample ID 200032-TW-22
Sample Matrix Water
Sample Date 2/13/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 4.2	ug/l	4.2	17.2	10	8260b		2/19/2024	CJR	1
Trichloroethene (TCE)	< 3.8	ug/l	3.8	15.5	10	8260b		2/19/2024	CJR	1
Trichlorofluoromethane	< 3.3	ug/l	3.3	13.5	10	8260b		2/19/2024	CJR	1
1,2,4-Trimethylbenzene	< 3.5	ug/l	3.5	14.4	10	8260b		2/19/2024	CJR	1
1,3,5-Trimethylbenzene	< 4.1	ug/l	4.1	16.6	10	8260b		2/19/2024	CJR	1
Vinyl Chloride	640	ug/l	1.5	6.1	10	8260b		2/19/2024	CJR	1
m&p-Xylene	< 6.4	ug/l	6.4	26.3	10	8260b		2/19/2024	CJR	1
o-Xylene	< 3.7	ug/l	3.7	15.1	10	8260b		2/19/2024	CJR	1
SUR - 1,2-Dichloroethane-d4	108	REC %			10	8260b		2/19/2024	CJR	1
SUR - 4-Bromofluorobenzene	101	REC %			10	8260b		2/19/2024	CJR	1
SUR - Dibromofluoromethane	98	REC %			10	8260b		2/19/2024	CJR	1
SUR - Toluene-d8	100	REC %			10	8260b		2/19/2024	CJR	1

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558I
Sample ID 200032-TW-23
Sample Matrix Water
Sample Date 2/13/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
GASES										
Ethane	< 0.5	ug/l	0.5	1.5	1	8015		2/16/2024	ZJW	1
Ethene	< 0.5	ug/l	0.5	1.5	1	8015		2/16/2024	ZJW	1
Methane	5102	ug/l	10	30	10	8015		2/16/2024	ZJW	1
VOC's										
Benzene	< 0.3	ug/l	0.3	1.25	1	8260b		2/20/2024	CJR	1
Bromobenzene	< 0.34	ug/l	0.34	1.4	1	8260b		2/20/2024	CJR	1
Bromodichloromethane	< 0.36	ug/l	0.36	1.47	1	8260b		2/20/2024	CJR	1
Bromoform	< 0.42	ug/l	0.42	1.72	1	8260b		2/20/2024	CJR	1
tert-Butylbenzene	< 0.37	ug/l	0.37	1.49	1	8260b		2/20/2024	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1.34	1	8260b		2/20/2024	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.9	1	8260b		2/20/2024	CJR	1
Carbon Tetrachloride	< 0.34	ug/l	0.34	1.39	1	8260b		2/20/2024	CJR	1
Chlorobenzene	< 0.29	ug/l	0.29	1.19	1	8260b		2/20/2024	CJR	1
Chloroethane	< 0.62	ug/l	0.62	2.54	1	8260b		2/20/2024	CJR	1
Chloroform	< 0.33	ug/l	0.33	1.33	1	8260b		2/20/2024	CJR	1
Chloromethane	< 0.74	ug/l	0.74	3.03	1	8260b		2/20/2024	CJR	1
2-Chlorotoluene	< 0.34	ug/l	0.34	1.37	1	8260b		2/20/2024	CJR	1
4-Chlorotoluene	< 0.4	ug/l	0.4	1.63	1	8260b		2/20/2024	CJR	1
1,2-Dibromo-3-chloropropane	< 0.74	ug/l	0.74	3.01	1	8260b		2/20/2024	CJR	1
Dibromochloromethane	< 0.36	ug/l	0.36	1.46	1	8260b		2/20/2024	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	2.01	1	8260b		2/20/2024	CJR	1
1,3-Dichlorobenzene	< 0.35	ug/l	0.35	1.44	1	8260b		2/20/2024	CJR	1
1,2-Dichlorobenzene	< 0.4	ug/l	0.4	1.65	1	8260b		2/20/2024	CJR	1
Dichlorodifluoromethane	1.46	ug/l	0.3	1.23	1	8260b		2/20/2024	CJR	1
1,2-Dichloroethane	< 0.43	ug/l	0.43	1.75	1	8260b		2/20/2024	CJR	1
1,1-Dichloroethane	< 0.43	ug/l	0.43	1.74	1	8260b		2/20/2024	CJR	1
1,1-Dichloroethene	< 0.43	ug/l	0.43	1.76	1	8260b		2/20/2024	CJR	1
cis-1,2-Dichloroethene	1.01 "J"	ug/l	0.32	1.29	1	8260b		2/20/2024	CJR	1
trans-1,2-Dichloroethene	< 0.5	ug/l	0.5	2.02	1	8260b		2/20/2024	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.58	1	8260b		2/20/2024	CJR	1
1,3-Dichloropropane	< 0.38	ug/l	0.38	1.55	1	8260b		2/20/2024	CJR	1
trans-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260b		2/20/2024	CJR	1
cis-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260b		2/20/2024	CJR	1
Di-isopropyl ether	< 0.48	ug/l	0.48	1.96	1	8260b		2/20/2024	CJR	1
EDB (1,2-Dibromoethane)	< 0.39	ug/l	0.39	1.59	1	8260b		2/20/2024	CJR	1
Ethylbenzene	< 0.33	ug/l	0.33	1.37	1	8260b		2/20/2024	CJR	1
Hexachlorobutadiene	< 0.81	ug/l	0.81	3.44	1	8260b		2/20/2024	CJR	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.38	1	8260b		2/20/2024	CJR	1
p-Isopropyltoluene	< 0.47	ug/l	0.47	1.91	1	8260b		2/20/2024	CJR	1
Methylene chloride	< 0.79	ug/l	0.79	3.23	1	8260b		2/20/2024	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.47	ug/l	0.47	1.91	1	8260b		2/20/2024	CJR	1
Naphthalene	< 1.4	ug/l	1.4	5.56	1	8260b		2/20/2024	CJR	1
n-Propylbenzene	< 0.39	ug/l	0.39	1.6	1	8260b		2/20/2024	CJR	1
1,1,2,2-Tetrachloroethane	< 0.43	ug/l	0.43	1.77	1	8260b		2/20/2024	CJR	1
1,1,1,2-Tetrachloroethane	< 0.55	ug/l	0.55	2.25	1	8260b		2/20/2024	CJR	1
Tetrachloroethene	< 0.47	ug/l	0.47	1.91	1	8260b		2/20/2024	CJR	1
Toluene	< 0.33	ug/l	0.33	1.35	1	8260b		2/20/2024	CJR	1
1,2,4-Trichlorobenzene	< 0.63	ug/l	0.63	2.57	1	8260b		2/20/2024	CJR	1
1,2,3-Trichlorobenzene	< 1.4	ug/l	1.4	5.94	1	8260b		2/20/2024	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.34	1	8260b		2/20/2024	CJR	1

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558I
Sample ID 200032-TW-23
Sample Matrix Water
Sample Date 2/13/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.72	1	8260b		2/20/2024	CJR	1
Trichloroethene (TCE)	0.65 "J"	ug/l	0.38	1.55	1	8260b		2/20/2024	CJR	1
Trichlorofluoromethane	< 0.33	ug/l	0.33	1.35	1	8260b		2/20/2024	CJR	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.44	1	8260b		2/20/2024	CJR	1
1,3,5-Trimethylbenzene	< 0.41	ug/l	0.41	1.66	1	8260b		2/20/2024	CJR	1
Vinyl Chloride	3.4	ug/l	0.15	0.61	1	8260b		2/20/2024	CJR	1
m&p-Xylene	< 0.64	ug/l	0.64	2.63	1	8260b		2/20/2024	CJR	1
o-Xylene	< 0.37	ug/l	0.37	1.51	1	8260b		2/20/2024	CJR	1
SUR - 1,2-Dichloroethane-d4	110	REC %			1	8260b		2/20/2024	CJR	1
SUR - Toluene-d8	99	REC %			1	8260b		2/20/2024	CJR	1
SUR - 4-Bromofluorobenzene	104	REC %			1	8260b		2/20/2024	CJR	1
SUR - Dibromofluoromethane	99	REC %			1	8260b		2/20/2024	CJR	1

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558J
Sample ID 200032-TW-24
Sample Matrix Water
Sample Date 2/13/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
GASES										
Ethane	893	ug/l	0.5	1.5	1	8015		2/15/2024	ZJW	1
Ethene	< 0.5	ug/l	0.5	1.5	1	8015		2/15/2024	ZJW	1
Methane	439	ug/l	1	3	1	8015		2/15/2024	ZJW	1
VOC's										
Benzene	< 3	ug/l	3	12.5	10	8260b		2/20/2024	CJR	1
Bromobenzene	< 3.4	ug/l	3.4	14	10	8260b		2/20/2024	CJR	1
Bromodichloromethane	< 3.6	ug/l	3.6	14.7	10	8260b		2/20/2024	CJR	1
Bromoform	< 4.2	ug/l	4.2	17.2	10	8260b		2/20/2024	CJR	1
tert-Butylbenzene	< 3.7	ug/l	3.7	14.9	10	8260b		2/20/2024	CJR	1
sec-Butylbenzene	< 3.3	ug/l	3.3	13.4	10	8260b		2/20/2024	CJR	1
n-Butylbenzene	< 7.1	ug/l	7.1	29	10	8260b		2/20/2024	CJR	1
Carbon Tetrachloride	< 3.4	ug/l	3.4	13.9	10	8260b		2/20/2024	CJR	1
Chlorobenzene	< 2.9	ug/l	2.9	11.9	10	8260b		2/20/2024	CJR	1
Chloroethane	< 6.2	ug/l	6.2	25.4	10	8260b		2/20/2024	CJR	1
Chloroform	8.9 "J"	ug/l	3.3	13.3	10	8260b		2/20/2024	CJR	1
Chloromethane	< 7.4	ug/l	7.4	30.3	10	8260b		2/20/2024	CJR	1
2-Chlorotoluene	< 3.4	ug/l	3.4	13.7	10	8260b		2/20/2024	CJR	1
4-Chlorotoluene	< 4	ug/l	4	16.3	10	8260b		2/20/2024	CJR	1
1,2-Dibromo-3-chloropropane	< 7.4	ug/l	7.4	30.1	10	8260b		2/20/2024	CJR	1
Dibromochloromethane	< 3.6	ug/l	3.6	14.6	10	8260b		2/20/2024	CJR	1
1,4-Dichlorobenzene	< 4.9	ug/l	4.9	20.1	10	8260b		2/20/2024	CJR	1
1,3-Dichlorobenzene	< 3.5	ug/l	3.5	14.4	10	8260b		2/20/2024	CJR	1
1,2-Dichlorobenzene	< 4	ug/l	4	16.5	10	8260b		2/20/2024	CJR	1
Dichlorodifluoromethane	39	ug/l	3	12.3	10	8260b		2/20/2024	CJR	1
1,2-Dichloroethane	8.3 "J"	ug/l	4.3	17.5	10	8260b		2/20/2024	CJR	1
1,1-Dichloroethane	< 4.3	ug/l	4.3	17.4	10	8260b		2/20/2024	CJR	1
1,1-Dichloroethene	21.5	ug/l	4.3	17.6	10	8260b		2/20/2024	CJR	1
cis-1,2-Dichloroethene	860	ug/l	3.2	12.9	10	8260b		2/20/2024	CJR	1
trans-1,2-Dichloroethene	37	ug/l	5	20.2	10	8260b		2/20/2024	CJR	1
1,2-Dichloropropane	< 3.9	ug/l	3.9	15.8	10	8260b		2/20/2024	CJR	1
1,3-Dichloropropane	< 3.8	ug/l	3.8	15.5	10	8260b		2/20/2024	CJR	1
trans-1,3-Dichloropropene	< 4.1	ug/l	4.1	16.7	10	8260b		2/20/2024	CJR	1
cis-1,3-Dichloropropene	< 4.1	ug/l	4.1	16.7	10	8260b		2/20/2024	CJR	1
Di-isopropyl ether	< 4.8	ug/l	4.8	19.6	10	8260b		2/20/2024	CJR	1
EDB (1,2-Dibromoethane)	< 3.9	ug/l	3.9	15.9	10	8260b		2/20/2024	CJR	1
Ethylbenzene	< 3.3	ug/l	3.3	13.7	10	8260b		2/20/2024	CJR	1
Hexachlorobutadiene	< 8.1	ug/l	8.1	34.4	10	8260b		2/20/2024	CJR	1
Isopropylbenzene	< 3.4	ug/l	3.4	13.8	10	8260b		2/20/2024	CJR	1
p-Isopropyltoluene	< 4.7	ug/l	4.7	19.1	10	8260b		2/20/2024	CJR	1
Methylene chloride	< 7.9	ug/l	7.9	32.3	10	8260b		2/20/2024	CJR	1
Methyl tert-butyl ether (MTBE)	< 4.7	ug/l	4.7	19.1	10	8260b		2/20/2024	CJR	1
Naphthalene	< 14	ug/l	14	55.6	10	8260b		2/20/2024	CJR	1
n-Propylbenzene	< 3.9	ug/l	3.9	16	10	8260b		2/20/2024	CJR	1
1,1,2,2-Tetrachloroethane	< 4.3	ug/l	4.3	17.7	10	8260b		2/20/2024	CJR	1
1,1,1,2-Tetrachloroethane	< 5.5	ug/l	5.5	22.5	10	8260b		2/20/2024	CJR	1
Tetrachloroethene	< 4.7	ug/l	4.7	19.1	10	8260b		2/20/2024	CJR	1
Toluene	< 3.3	ug/l	3.3	13.5	10	8260b		2/20/2024	CJR	1
1,2,4-Trichlorobenzene	< 6.3	ug/l	6.3	25.7	10	8260b		2/20/2024	CJR	1
1,2,3-Trichlorobenzene	< 14	ug/l	14	59.4	10	8260b		2/20/2024	CJR	1
1,1,1-Trichloroethane	< 3.3	ug/l	3.3	13.4	10	8260b		2/20/2024	CJR	1

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558J
Sample ID 200032-TW-24
Sample Matrix Water
Sample Date 2/13/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 4.2	ug/l	4.2	17.2	10	8260b		2/20/2024	CJR	1
Trichloroethene (TCE)	900	ug/l	3.8	15.5	10	8260b		2/20/2024	CJR	1
Trichlorofluoromethane	< 3.3	ug/l	3.3	13.5	10	8260b		2/20/2024	CJR	1
1,2,4-Trimethylbenzene	< 3.5	ug/l	3.5	14.4	10	8260b		2/20/2024	CJR	1
1,3,5-Trimethylbenzene	< 4.1	ug/l	4.1	16.6	10	8260b		2/20/2024	CJR	1
Vinyl Chloride	301	ug/l	1.5	6.1	10	8260b		2/20/2024	CJR	1
m&p-Xylene	< 6.4	ug/l	6.4	26.3	10	8260b		2/20/2024	CJR	1
o-Xylene	< 3.7	ug/l	3.7	15.1	10	8260b		2/20/2024	CJR	1
SUR - 1,2-Dichloroethane-d4	98	REC %			10	8260b		2/20/2024	CJR	1
SUR - 4-Bromofluorobenzene	104	REC %			10	8260b		2/20/2024	CJR	1
SUR - Dibromofluoromethane	94	REC %			10	8260b		2/20/2024	CJR	1
SUR - Toluene-d8	97	REC %			10	8260b		2/20/2024	CJR	1

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558K
Sample ID 200032-SUMP-1
Sample Matrix Water
Sample Date 2/14/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.3	ug/l	0.3	1.25	1	8260b		2/20/2024	CJR	1
Bromobenzene	< 0.34	ug/l	0.34	1.4	1	8260b		2/20/2024	CJR	1
Bromodichloromethane	< 0.36	ug/l	0.36	1.47	1	8260b		2/20/2024	CJR	1
Bromoform	< 0.42	ug/l	0.42	1.72	1	8260b		2/20/2024	CJR	1
tert-Butylbenzene	< 0.37	ug/l	0.37	1.49	1	8260b		2/20/2024	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1.34	1	8260b		2/20/2024	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.9	1	8260b		2/20/2024	CJR	1
Carbon Tetrachloride	< 0.34	ug/l	0.34	1.39	1	8260b		2/20/2024	CJR	1
Chlorobenzene	< 0.29	ug/l	0.29	1.19	1	8260b		2/20/2024	CJR	1
Chloroethane	< 0.62	ug/l	0.62	2.54	1	8260b		2/20/2024	CJR	1
Chloroform	< 0.33	ug/l	0.33	1.33	1	8260b		2/20/2024	CJR	1
Chloromethane	< 0.74	ug/l	0.74	3.03	1	8260b		2/20/2024	CJR	1
2-Chlorotoluene	< 0.34	ug/l	0.34	1.37	1	8260b		2/20/2024	CJR	1
4-Chlorotoluene	< 0.4	ug/l	0.4	1.63	1	8260b		2/20/2024	CJR	1
1,2-Dibromo-3-chloropropane	< 0.74	ug/l	0.74	3.01	1	8260b		2/20/2024	CJR	1
Dibromochloromethane	< 0.36	ug/l	0.36	1.46	1	8260b		2/20/2024	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	2.01	1	8260b		2/20/2024	CJR	1
1,3-Dichlorobenzene	< 0.35	ug/l	0.35	1.44	1	8260b		2/20/2024	CJR	1
1,2-Dichlorobenzene	< 0.4	ug/l	0.4	1.65	1	8260b		2/20/2024	CJR	1
Dichlorodifluoromethane	< 0.3	ug/l	0.3	1.23	1	8260b		2/20/2024	CJR	1
1,2-Dichloroethane	< 0.43	ug/l	0.43	1.75	1	8260b		2/20/2024	CJR	1
1,1-Dichloroethane	< 0.43	ug/l	0.43	1.74	1	8260b		2/20/2024	CJR	1
1,1-Dichloroethene	< 0.43	ug/l	0.43	1.76	1	8260b		2/20/2024	CJR	1
cis-1,2-Dichloroethene	13	ug/l	0.32	1.29	1	8260b		2/20/2024	CJR	1
trans-1,2-Dichloroethene	< 0.5	ug/l	0.5	2.02	1	8260b		2/20/2024	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.58	1	8260b		2/20/2024	CJR	1
1,3-Dichloropropane	< 0.38	ug/l	0.38	1.55	1	8260b		2/20/2024	CJR	1
trans-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260b		2/20/2024	CJR	1
cis-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260b		2/20/2024	CJR	1
Di-isopropyl ether	< 0.48	ug/l	0.48	1.96	1	8260b		2/20/2024	CJR	1
EDB (1,2-Dibromoethane)	< 0.39	ug/l	0.39	1.59	1	8260b		2/20/2024	CJR	1
Ethylbenzene	< 0.33	ug/l	0.33	1.37	1	8260b		2/20/2024	CJR	1
Hexachlorobutadiene	< 0.81	ug/l	0.81	3.44	1	8260b		2/20/2024	CJR	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.38	1	8260b		2/20/2024	CJR	1
p-Isopropyltoluene	< 0.47	ug/l	0.47	1.91	1	8260b		2/20/2024	CJR	1
Methylene chloride	< 0.79	ug/l	0.79	3.23	1	8260b		2/20/2024	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.47	ug/l	0.47	1.91	1	8260b		2/20/2024	CJR	1
Naphthalene	< 1.4	ug/l	1.4	5.56	1	8260b		2/20/2024	CJR	1
n-Propylbenzene	< 0.39	ug/l	0.39	1.6	1	8260b		2/20/2024	CJR	1
1,1,2,2-Tetrachloroethane	< 0.43	ug/l	0.43	1.77	1	8260b		2/20/2024	CJR	1
1,1,1,2-Tetrachloroethane	< 0.55	ug/l	0.55	2.25	1	8260b		2/20/2024	CJR	1
Tetrachloroethene	< 0.47	ug/l	0.47	1.91	1	8260b		2/20/2024	CJR	1
Toluene	< 0.33	ug/l	0.33	1.35	1	8260b		2/20/2024	CJR	1
1,2,4-Trichlorobenzene	< 0.63	ug/l	0.63	2.57	1	8260b		2/20/2024	CJR	1
1,2,3-Trichlorobenzene	< 1.4	ug/l	1.4	5.94	1	8260b		2/20/2024	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.34	1	8260b		2/20/2024	CJR	1
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.72	1	8260b		2/20/2024	CJR	1
Trichloroethene (TCE)	32	ug/l	0.38	1.55	1	8260b		2/20/2024	CJR	1
Trichlorofluoromethane	< 0.33	ug/l	0.33	1.35	1	8260b		2/20/2024	CJR	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.44	1	8260b		2/20/2024	CJR	1

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558K
Sample ID 200032-SUMP-1
Sample Matrix Water
Sample Date 2/14/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.41	ug/l	0.41	1.66	1	8260b		2/20/2024	CJR	1
Vinyl Chloride	0.35 "J"	ug/l	0.15	0.61	1	8260b		2/20/2024	CJR	1
m&p-Xylene	< 0.64	ug/l	0.64	2.63	1	8260b		2/20/2024	CJR	1
o-Xylene	< 0.37	ug/l	0.37	1.51	1	8260b		2/20/2024	CJR	1
SUR - 1,2-Dichloroethane-d4	96	REC %			1	8260b		2/20/2024	CJR	1
SUR - 4-Bromofluorobenzene	102	REC %			1	8260b		2/20/2024	CJR	1
SUR - Dibromofluoromethane	98	REC %			1	8260b		2/20/2024	CJR	1
SUR - Toluene-d8	101	REC %			1	8260b		2/20/2024	CJR	1

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558L
Sample ID 200032-SUMP-2
Sample Matrix Water
Sample Date 2/14/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.3	ug/l	0.3	1.25	1	8260b		2/19/2024	CJR	1
Bromobenzene	< 0.34	ug/l	0.34	1.4	1	8260b		2/19/2024	CJR	1
Bromodichloromethane	< 0.36	ug/l	0.36	1.47	1	8260b		2/19/2024	CJR	1
Bromoform	< 0.42	ug/l	0.42	1.72	1	8260b		2/19/2024	CJR	1
tert-Butylbenzene	< 0.37	ug/l	0.37	1.49	1	8260b		2/19/2024	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1.34	1	8260b		2/19/2024	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.9	1	8260b		2/19/2024	CJR	1
Carbon Tetrachloride	< 0.34	ug/l	0.34	1.39	1	8260b		2/19/2024	CJR	1
Chlorobenzene	< 0.29	ug/l	0.29	1.19	1	8260b		2/19/2024	CJR	1
Chloroethane	< 0.62	ug/l	0.62	2.54	1	8260b		2/19/2024	CJR	1
Chloroform	< 0.33	ug/l	0.33	1.33	1	8260b		2/19/2024	CJR	1
Chloromethane	< 0.74	ug/l	0.74	3.03	1	8260b		2/19/2024	CJR	1
2-Chlorotoluene	< 0.34	ug/l	0.34	1.37	1	8260b		2/19/2024	CJR	1
4-Chlorotoluene	< 0.4	ug/l	0.4	1.63	1	8260b		2/19/2024	CJR	1
1,2-Dibromo-3-chloropropane	< 0.74	ug/l	0.74	3.01	1	8260b		2/19/2024	CJR	1
Dibromochloromethane	< 0.36	ug/l	0.36	1.46	1	8260b		2/19/2024	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	2.01	1	8260b		2/19/2024	CJR	1
1,3-Dichlorobenzene	< 0.35	ug/l	0.35	1.44	1	8260b		2/19/2024	CJR	1
1,2-Dichlorobenzene	< 0.4	ug/l	0.4	1.65	1	8260b		2/19/2024	CJR	1
Dichlorodifluoromethane	< 0.3	ug/l	0.3	1.23	1	8260b		2/19/2024	CJR	1
1,2-Dichloroethane	< 0.43	ug/l	0.43	1.75	1	8260b		2/19/2024	CJR	1
1,1-Dichloroethane	< 0.43	ug/l	0.43	1.74	1	8260b		2/19/2024	CJR	1
1,1-Dichloroethene	< 0.43	ug/l	0.43	1.76	1	8260b		2/19/2024	CJR	1
cis-1,2-Dichloroethene	11.3	ug/l	0.32	1.29	1	8260b		2/19/2024	CJR	1
trans-1,2-Dichloroethene	< 0.5	ug/l	0.5	2.02	1	8260b		2/19/2024	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.58	1	8260b		2/19/2024	CJR	1
1,3-Dichloropropane	< 0.38	ug/l	0.38	1.55	1	8260b		2/19/2024	CJR	1
trans-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260b		2/19/2024	CJR	1
cis-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260b		2/19/2024	CJR	1
Di-isopropyl ether	< 0.48	ug/l	0.48	1.96	1	8260b		2/19/2024	CJR	1
EDB (1,2-Dibromoethane)	< 0.39	ug/l	0.39	1.59	1	8260b		2/19/2024	CJR	1
Ethylbenzene	< 0.33	ug/l	0.33	1.37	1	8260b		2/19/2024	CJR	1
Hexachlorobutadiene	< 0.81	ug/l	0.81	3.44	1	8260b		2/19/2024	CJR	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.38	1	8260b		2/19/2024	CJR	1
p-Isopropyltoluene	< 0.47	ug/l	0.47	1.91	1	8260b		2/19/2024	CJR	1
Methylene chloride	< 0.79	ug/l	0.79	3.23	1	8260b		2/19/2024	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.47	ug/l	0.47	1.91	1	8260b		2/19/2024	CJR	1
Naphthalene	< 1.4	ug/l	1.4	5.56	1	8260b		2/19/2024	CJR	1
n-Propylbenzene	< 0.39	ug/l	0.39	1.6	1	8260b		2/19/2024	CJR	1
1,1,2,2-Tetrachloroethane	< 0.43	ug/l	0.43	1.77	1	8260b		2/19/2024	CJR	1
1,1,1,2-Tetrachloroethane	< 0.55	ug/l	0.55	2.25	1	8260b		2/19/2024	CJR	1
Tetrachloroethene	< 0.47	ug/l	0.47	1.91	1	8260b		2/19/2024	CJR	1
Toluene	< 0.33	ug/l	0.33	1.35	1	8260b		2/19/2024	CJR	1
1,2,4-Trichlorobenzene	< 0.63	ug/l	0.63	2.57	1	8260b		2/19/2024	CJR	1
1,2,3-Trichlorobenzene	< 1.4	ug/l	1.4	5.94	1	8260b		2/19/2024	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.34	1	8260b		2/19/2024	CJR	1
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.72	1	8260b		2/19/2024	CJR	1
Trichloroethene (TCE)	29.5	ug/l	0.38	1.55	1	8260b		2/19/2024	CJR	1
Trichlorofluoromethane	< 0.33	ug/l	0.33	1.35	1	8260b		2/19/2024	CJR	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.44	1	8260b		2/19/2024	CJR	1

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558L
Sample ID 200032-SUMP-2
Sample Matrix Water
Sample Date 2/14/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.41	ug/l	0.41	1.66	1	8260b		2/19/2024	CJR	1
Vinyl Chloride	< 0.15	ug/l	0.15	0.61	1	8260b		2/19/2024	CJR	1
m&p-Xylene	< 0.64	ug/l	0.64	2.63	1	8260b		2/19/2024	CJR	1
o-Xylene	< 0.37	ug/l	0.37	1.51	1	8260b		2/19/2024	CJR	1
SUR - 1,2-Dichloroethane-d4	103	REC %			1	8260b		2/19/2024	CJR	1
SUR - 4-Bromofluorobenzene	103	REC %			1	8260b		2/19/2024	CJR	1
SUR - Dibromofluoromethane	94	REC %			1	8260b		2/19/2024	CJR	1
SUR - Toluene-d8	101	REC %			1	8260b		2/19/2024	CJR	1

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558M
Sample ID 200032-DUP-1
Sample Matrix Water
Sample Date 2/13/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.3	ug/l	0.3	1.25	1	8260b		2/19/2024	CJR	1
Bromobenzene	< 0.34	ug/l	0.34	1.4	1	8260b		2/19/2024	CJR	1
Bromodichloromethane	< 0.36	ug/l	0.36	1.47	1	8260b		2/19/2024	CJR	1
Bromoform	< 0.42	ug/l	0.42	1.72	1	8260b		2/19/2024	CJR	1
tert-Butylbenzene	< 0.37	ug/l	0.37	1.49	1	8260b		2/19/2024	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1.34	1	8260b		2/19/2024	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.9	1	8260b		2/19/2024	CJR	1
Carbon Tetrachloride	< 0.34	ug/l	0.34	1.39	1	8260b		2/19/2024	CJR	1
Chlorobenzene	< 0.29	ug/l	0.29	1.19	1	8260b		2/19/2024	CJR	1
Chloroethane	< 0.62	ug/l	0.62	2.54	1	8260b		2/19/2024	CJR	1
Chloroform	< 0.33	ug/l	0.33	1.33	1	8260b		2/19/2024	CJR	1
Chloromethane	< 0.74	ug/l	0.74	3.03	1	8260b		2/19/2024	CJR	1
2-Chlorotoluene	< 0.34	ug/l	0.34	1.37	1	8260b		2/19/2024	CJR	1
4-Chlorotoluene	< 0.4	ug/l	0.4	1.63	1	8260b		2/19/2024	CJR	1
1,2-Dibromo-3-chloropropane	< 0.74	ug/l	0.74	3.01	1	8260b		2/19/2024	CJR	1
Dibromochloromethane	< 0.36	ug/l	0.36	1.46	1	8260b		2/19/2024	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	2.01	1	8260b		2/19/2024	CJR	1
1,3-Dichlorobenzene	< 0.35	ug/l	0.35	1.44	1	8260b		2/19/2024	CJR	1
1,2-Dichlorobenzene	< 0.4	ug/l	0.4	1.65	1	8260b		2/19/2024	CJR	1
Dichlorodifluoromethane	< 0.3	ug/l	0.3	1.23	1	8260b		2/19/2024	CJR	1
1,2-Dichloroethane	< 0.43	ug/l	0.43	1.75	1	8260b		2/19/2024	CJR	1
1,1-Dichloroethane	1.23 "J"	ug/l	0.43	1.74	1	8260b		2/19/2024	CJR	1
1,1-Dichloroethene	< 0.43	ug/l	0.43	1.76	1	8260b		2/19/2024	CJR	1
cis-1,2-Dichloroethene	16.9	ug/l	0.32	1.29	1	8260b		2/19/2024	CJR	1
trans-1,2-Dichloroethene	0.59 "J"	ug/l	0.5	2.02	1	8260b		2/19/2024	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.58	1	8260b		2/19/2024	CJR	1
1,3-Dichloropropane	< 0.38	ug/l	0.38	1.55	1	8260b		2/19/2024	CJR	1
trans-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260b		2/19/2024	CJR	1
cis-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260b		2/19/2024	CJR	1
Di-isopropyl ether	< 0.48	ug/l	0.48	1.96	1	8260b		2/19/2024	CJR	1
EDB (1,2-Dibromoethane)	< 0.39	ug/l	0.39	1.59	1	8260b		2/19/2024	CJR	1
Ethylbenzene	< 0.33	ug/l	0.33	1.37	1	8260b		2/19/2024	CJR	1
Hexachlorobutadiene	< 0.81	ug/l	0.81	3.44	1	8260b		2/19/2024	CJR	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.38	1	8260b		2/19/2024	CJR	1
p-Isopropyltoluene	< 0.47	ug/l	0.47	1.91	1	8260b		2/19/2024	CJR	1
Methylene chloride	< 0.79	ug/l	0.79	3.23	1	8260b		2/19/2024	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.47	ug/l	0.47	1.91	1	8260b		2/19/2024	CJR	1
Naphthalene	< 1.4	ug/l	1.4	5.56	1	8260b		2/19/2024	CJR	1
n-Propylbenzene	< 0.39	ug/l	0.39	1.6	1	8260b		2/19/2024	CJR	1
1,1,2,2-Tetrachloroethane	< 0.43	ug/l	0.43	1.77	1	8260b		2/19/2024	CJR	1
1,1,1,2-Tetrachloroethane	< 0.55	ug/l	0.55	2.25	1	8260b		2/19/2024	CJR	1
Tetrachloroethene	< 0.47	ug/l	0.47	1.91	1	8260b		2/19/2024	CJR	1
Toluene	< 0.33	ug/l	0.33	1.35	1	8260b		2/19/2024	CJR	1
1,2,4-Trichlorobenzene	< 0.63	ug/l	0.63	2.57	1	8260b		2/19/2024	CJR	1
1,2,3-Trichlorobenzene	< 1.4	ug/l	1.4	5.94	1	8260b		2/19/2024	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.34	1	8260b		2/19/2024	CJR	1
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.72	1	8260b		2/19/2024	CJR	1
Trichloroethene (TCE)	< 0.38	ug/l	0.38	1.55	1	8260b		2/19/2024	CJR	1
Trichlorofluoromethane	< 0.33	ug/l	0.33	1.35	1	8260b		2/19/2024	CJR	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.44	1	8260b		2/19/2024	CJR	1

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558M
Sample ID 200032-DUP-1
Sample Matrix Water
Sample Date 2/13/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.41	ug/l	0.41	1.66	1	8260b		2/19/2024	CJR	1
Vinyl Chloride	36	ug/l	0.15	0.61	1	8260b		2/19/2024	CJR	1
m&p-Xylene	< 0.64	ug/l	0.64	2.63	1	8260b		2/19/2024	CJR	1
o-Xylene	< 0.37	ug/l	0.37	1.51	1	8260b		2/19/2024	CJR	1
SUR - 1,2-Dichloroethane-d4	109	REC %			1	8260b		2/19/2024	CJR	1
SUR - 4-Bromofluorobenzene	105	REC %			1	8260b		2/19/2024	CJR	1
SUR - Dibromofluoromethane	103	REC %			1	8260b		2/19/2024	CJR	1
SUR - Toluene-d8	100	REC %			1	8260b		2/19/2024	CJR	1

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558N
Sample ID 200032-DUP-2
Sample Matrix Water
Sample Date 2/14/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 15	ug/l	15	62.5	50	8260b		2/21/2024	CJR	1
Bromobenzene	< 17	ug/l	17	70	50	8260b		2/21/2024	CJR	1
Bromodichloromethane	< 18	ug/l	18	73.5	50	8260b		2/21/2024	CJR	1
Bromoform	< 21	ug/l	21	86	50	8260b		2/21/2024	CJR	1
tert-Butylbenzene	< 18.5	ug/l	18.5	74.5	50	8260b		2/21/2024	CJR	1
sec-Butylbenzene	< 16.5	ug/l	16.5	67	50	8260b		2/21/2024	CJR	1
n-Butylbenzene	< 35.5	ug/l	35.5	145	50	8260b		2/21/2024	CJR	1
Carbon Tetrachloride	< 17	ug/l	17	69.5	50	8260b		2/21/2024	CJR	1
Chlorobenzene	< 14.5	ug/l	14.5	59.5	50	8260b		2/21/2024	CJR	1
Chloroethane	< 31	ug/l	31	127	50	8260b		2/21/2024	CJR	1
Chloroform	< 16.5	ug/l	16.5	66.5	50	8260b		2/21/2024	CJR	1
Chloromethane	< 37	ug/l	37	151.5	50	8260b		2/21/2024	CJR	1
2-Chlorotoluene	< 17	ug/l	17	68.5	50	8260b		2/21/2024	CJR	1
4-Chlorotoluene	< 20	ug/l	20	81.5	50	8260b		2/21/2024	CJR	1
1,2-Dibromo-3-chloropropane	< 37	ug/l	37	150.5	50	8260b		2/21/2024	CJR	1
Dibromochloromethane	< 18	ug/l	18	73	50	8260b		2/21/2024	CJR	1
1,4-Dichlorobenzene	< 24.5	ug/l	24.5	100.5	50	8260b		2/21/2024	CJR	1
1,3-Dichlorobenzene	< 17.5	ug/l	17.5	72	50	8260b		2/21/2024	CJR	1
1,2-Dichlorobenzene	< 20	ug/l	20	82.5	50	8260b		2/21/2024	CJR	1
Dichlorodifluoromethane	< 15	ug/l	15	61.5	50	8260b		2/21/2024	CJR	1
1,2-Dichloroethane	< 21.5	ug/l	21.5	87.5	50	8260b		2/21/2024	CJR	1
1,1-Dichloroethane	< 21.5	ug/l	21.5	87	50	8260b		2/21/2024	CJR	1
1,1-Dichloroethene	< 21.5	ug/l	21.5	88	50	8260b		2/21/2024	CJR	1
cis-1,2-Dichloroethene	< 16	ug/l	16	64.5	50	8260b		2/21/2024	CJR	1
trans-1,2-Dichloroethene	< 25	ug/l	25	101	50	8260b		2/21/2024	CJR	1
1,2-Dichloropropane	< 19.5	ug/l	19.5	79	50	8260b		2/21/2024	CJR	1
1,3-Dichloropropane	< 19	ug/l	19	77.5	50	8260b		2/21/2024	CJR	1
trans-1,3-Dichloropropene	< 20.5	ug/l	20.5	83.5	50	8260b		2/21/2024	CJR	1
cis-1,3-Dichloropropene	< 20.5	ug/l	20.5	83.5	50	8260b		2/21/2024	CJR	1
Di-isopropyl ether	< 24	ug/l	24	98	50	8260b		2/21/2024	CJR	1
EDB (1,2-Dibromoethane)	< 19.5	ug/l	19.5	79.5	50	8260b		2/21/2024	CJR	1
Ethylbenzene	< 16.5	ug/l	16.5	68.5	50	8260b		2/21/2024	CJR	1
Hexachlorobutadiene	< 40.5	ug/l	40.5	172	50	8260b		2/21/2024	CJR	1
Isopropylbenzene	< 17	ug/l	17	69	50	8260b		2/21/2024	CJR	1
p-Isopropyltoluene	< 23.5	ug/l	23.5	95.5	50	8260b		2/21/2024	CJR	1
Methylene chloride	< 39.5	ug/l	39.5	161.5	50	8260b		2/21/2024	CJR	1
Methyl tert-butyl ether (MTBE)	< 23.5	ug/l	23.5	95.5	50	8260b		2/21/2024	CJR	1
Naphthalene	< 70	ug/l	70	278	50	8260b		2/21/2024	CJR	1
n-Propylbenzene	< 19.5	ug/l	19.5	80	50	8260b		2/21/2024	CJR	1
1,1,2,2-Tetrachloroethane	< 21.5	ug/l	21.5	88.5	50	8260b		2/21/2024	CJR	1
1,1,1,2-Tetrachloroethane	< 27.5	ug/l	27.5	112.5	50	8260b		2/21/2024	CJR	1
Tetrachloroethene	< 23.5	ug/l	23.5	95.5	50	8260b		2/21/2024	CJR	1
Toluene	< 16.5	ug/l	16.5	67.5	50	8260b		2/21/2024	CJR	1
1,2,4-Trichlorobenzene	< 31.5	ug/l	31.5	128.5	50	8260b		2/21/2024	CJR	1
1,2,3-Trichlorobenzene	< 70	ug/l	70	297	50	8260b		2/21/2024	CJR	1
1,1,1-Trichloroethane	< 16.5	ug/l	16.5	67	50	8260b		2/21/2024	CJR	1
1,1,2-Trichloroethane	< 21	ug/l	21	86	50	8260b		2/21/2024	CJR	1
Trichloroethene (TCE)	< 19	ug/l	19	77.5	50	8260b		2/21/2024	CJR	1
Trichlorofluoromethane	< 16.5	ug/l	16.5	67.5	50	8260b		2/21/2024	CJR	1
1,2,4-Trimethylbenzene	< 17.5	ug/l	17.5	72	50	8260b		2/21/2024	CJR	1

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558N
Sample ID 200032-DUP-2
Sample Matrix Water
Sample Date 2/14/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 20.5	ug/l	20.5	83	50	8260b		2/21/2024	CJR	1
Vinyl Chloride	1480	ug/l	7.5	30.5	50	8260b		2/21/2024	CJR	1
m&p-Xylene	< 32	ug/l	32	131.5	50	8260b		2/21/2024	CJR	1
o-Xylene	< 18.5	ug/l	18.5	75.5	50	8260b		2/21/2024	CJR	1
SUR - 1,2-Dichloroethane-d4	106	REC %			50	8260b		2/21/2024	CJR	1
SUR - 4-Bromofluorobenzene	102	REC %			50	8260b		2/21/2024	CJR	1
SUR - Dibromofluoromethane	96	REC %			50	8260b		2/21/2024	CJR	1
SUR - Toluene-d8	103	REC %			50	8260b		2/21/2024	CJR	1

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558O
Sample ID TRIP BLANK
Sample Matrix Water
Sample Date 2/14/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.3	ug/l	0.3	1.25	1	8260b		2/19/2024	CJR	1
Bromobenzene	< 0.34	ug/l	0.34	1.4	1	8260b		2/19/2024	CJR	1
Bromodichloromethane	< 0.36	ug/l	0.36	1.47	1	8260b		2/19/2024	CJR	1
Bromoform	< 0.42	ug/l	0.42	1.72	1	8260b		2/19/2024	CJR	1
tert-Butylbenzene	< 0.37	ug/l	0.37	1.49	1	8260b		2/19/2024	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1.34	1	8260b		2/19/2024	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.9	1	8260b		2/19/2024	CJR	1
Carbon Tetrachloride	< 0.34	ug/l	0.34	1.39	1	8260b		2/19/2024	CJR	1
Chlorobenzene	< 0.29	ug/l	0.29	1.19	1	8260b		2/19/2024	CJR	1
Chloroethane	< 0.62	ug/l	0.62	2.54	1	8260b		2/19/2024	CJR	1
Chloroform	< 0.33	ug/l	0.33	1.33	1	8260b		2/19/2024	CJR	1
Chloromethane	< 0.74	ug/l	0.74	3.03	1	8260b		2/19/2024	CJR	1
2-Chlorotoluene	< 0.34	ug/l	0.34	1.37	1	8260b		2/19/2024	CJR	1
4-Chlorotoluene	< 0.4	ug/l	0.4	1.63	1	8260b		2/19/2024	CJR	1
1,2-Dibromo-3-chloropropane	< 0.74	ug/l	0.74	3.01	1	8260b		2/19/2024	CJR	1
Dibromochloromethane	< 0.36	ug/l	0.36	1.46	1	8260b		2/19/2024	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	2.01	1	8260b		2/19/2024	CJR	1
1,3-Dichlorobenzene	< 0.35	ug/l	0.35	1.44	1	8260b		2/19/2024	CJR	1
1,2-Dichlorobenzene	< 0.4	ug/l	0.4	1.65	1	8260b		2/19/2024	CJR	1
Dichlorodifluoromethane	< 0.3	ug/l	0.3	1.23	1	8260b		2/19/2024	CJR	1
1,2-Dichloroethane	< 0.43	ug/l	0.43	1.75	1	8260b		2/19/2024	CJR	1
1,1-Dichloroethane	< 0.43	ug/l	0.43	1.74	1	8260b		2/19/2024	CJR	1
1,1-Dichloroethene	< 0.43	ug/l	0.43	1.76	1	8260b		2/19/2024	CJR	1
cis-1,2-Dichloroethene	< 0.32	ug/l	0.32	1.29	1	8260b		2/19/2024	CJR	1
trans-1,2-Dichloroethene	< 0.5	ug/l	0.5	2.02	1	8260b		2/19/2024	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.58	1	8260b		2/19/2024	CJR	1
1,3-Dichloropropane	< 0.38	ug/l	0.38	1.55	1	8260b		2/19/2024	CJR	1
trans-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260b		2/19/2024	CJR	1
cis-1,3-Dichloropropene	< 0.41	ug/l	0.41	1.67	1	8260b		2/19/2024	CJR	1
Di-isopropyl ether	< 0.48	ug/l	0.48	1.96	1	8260b		2/19/2024	CJR	1
EDB (1,2-Dibromoethane)	< 0.39	ug/l	0.39	1.59	1	8260b		2/19/2024	CJR	1
Ethylbenzene	< 0.33	ug/l	0.33	1.37	1	8260b		2/19/2024	CJR	1
Hexachlorobutadiene	< 0.81	ug/l	0.81	3.44	1	8260b		2/19/2024	CJR	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.38	1	8260b		2/19/2024	CJR	1
p-Isopropyltoluene	< 0.47	ug/l	0.47	1.91	1	8260b		2/19/2024	CJR	1
Methylene chloride	< 0.79	ug/l	0.79	3.23	1	8260b		2/19/2024	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.47	ug/l	0.47	1.91	1	8260b		2/19/2024	CJR	1
Naphthalene	< 1.4	ug/l	1.4	5.56	1	8260b		2/19/2024	CJR	1
n-Propylbenzene	< 0.39	ug/l	0.39	1.6	1	8260b		2/19/2024	CJR	1
1,1,2,2-Tetrachloroethane	< 0.43	ug/l	0.43	1.77	1	8260b		2/19/2024	CJR	1
1,1,1,2-Tetrachloroethane	< 0.55	ug/l	0.55	2.25	1	8260b		2/19/2024	CJR	1
Tetrachloroethene	< 0.47	ug/l	0.47	1.91	1	8260b		2/19/2024	CJR	1
Toluene	< 0.33	ug/l	0.33	1.35	1	8260b		2/19/2024	CJR	1
1,2,4-Trichlorobenzene	< 0.63	ug/l	0.63	2.57	1	8260b		2/19/2024	CJR	1
1,2,3-Trichlorobenzene	< 1.4	ug/l	1.4	5.94	1	8260b		2/19/2024	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.34	1	8260b		2/19/2024	CJR	1
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.72	1	8260b		2/19/2024	CJR	1
Trichloroethene (TCE)	< 0.38	ug/l	0.38	1.55	1	8260b		2/19/2024	CJR	1
Trichlorofluoromethane	< 0.33	ug/l	0.33	1.35	1	8260b		2/19/2024	CJR	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.44	1	8260b		2/19/2024	CJR	1

Project Name JAGEMANN PLATING **Invoice #** E43558
Project # 200032

Lab Code 5043558O
Sample ID TRIP BLANK
Sample Matrix Water
Sample Date 2/14/2024

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.41	ug/l	0.41	1.66	1	8260b		2/19/2024	CJR	1
Vinyl Chloride	< 0.15	ug/l	0.15	0.61	1	8260b		2/19/2024	CJR	1
m&p-Xylene	< 0.64	ug/l	0.64	2.63	1	8260b		2/19/2024	CJR	1
o-Xylene	< 0.37	ug/l	0.37	1.51	1	8260b		2/19/2024	CJR	1
SUR - Toluene-d8	99	REC %			1	8260b		2/19/2024	CJR	1
SUR - 1,2-Dichloroethane-d4	101	REC %			1	8260b		2/19/2024	CJR	1
SUR - 4-Bromofluorobenzene	104	REC %			1	8260b		2/19/2024	CJR	1
SUR - Dibromofluoromethane	96	REC %			1	8260b		2/19/2024	CJR	1

"J" Flag: Analyte detected between LOD and LOQ LOD Limit of Detection LOQ Limit of Quantitation

Code	*Comment*
1	Laboratory QC within limits.
12	pH greater than 2.
96	Due to matrix interference, the sample was filtered after preservation.

SL denotes sub contract lab - Certification #399089350

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

Authorized Signature

CHAIN OF STODY RECORD

Synergy Environmental Lab, LLC

www.synergy-lab.net
1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • mrsynergy@wi.twcbc.com

Chain # 52807
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Sample Handling Request
____Rush Analysis Date Required: _____
(Rushes accepted only with prior authorization)
____Normal Turn Around

Lab I.D. #
QUOTE #: 2024-0017
Project #: 200032
Sampler: (signature)

Project (Name / Location): Jagemann Plating

Reports To: N. Morris / W. Fassbender	Invoice To: ~~Account~~ Same
Company EnviroForensics	Company
Address 825 N. Capitol Ave	Address
City State Zip Indianapolis, IN 46204	City State Zip
Phone 866-888-7911	Phone
Email NMorris@enviroforensics.com	Email Accountspayable@enviroforensics.com

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation
50435588A	200032-MW-1	2/13/24	12:01	N	6	WT	HCl
B	200032-MW-3	2/13/24	14:43	N	5	WT	HCl
C	200032-MW-8	2/13/24	13:23	N	5	WT	HCl
D	200032-MW-14	2/14/24	08:04	N	6	WT	HCl
E	200032-MW-15	2/13/24	16:05	N	5	WT	HCl
F	200032-TW-20	2/14/24	08:47	N	6	WT	HCl
G	200032-TW-21	2/13/24	13:58	N	6	WT	HCl
H	200032-TW-22	2/13/24	15:29	N	5	WT	HCl
I	200032-TW-23	2/13/24	12:44	N	5	WT	HCl
J	200032-TW-24	2/13/24	16:39	N	5	WT	HCl
K	200032-Sump-1	2/14/24	9:36	N	3	WT	HCl
L	200032-Sump-2	2/14/24	9:01	N	3	WT	HCl

Analysis Requested / **Other Analysis**

DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 524.2)	VOC (EPA 8260)	VOC AIR (TO - 15)	8-RCRA METALS	MEE	TOC	PID/ FID
												X			X	X	
												X			X		
												X			X		
												X			X	X	
												X			X		
												X			X	X	
												X			X	X	
												X			X		
												X			X		
												X			X		
												X					

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge, etc.)
200032-MW-8, Sample HCl preservative for VOCs dumped due to reactivity with GW

Sample Integrity - To be completed by receiving lab.
Method of Shipment: Club
Temp. of Temp. Blank: _____ °C On Ice: Ice
Cooler seal intact upon receipt: ✓ Yes ____ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
	12:12	2/14/2024			

Received in Laboratory By: Time: 12:12 Date: 2/14/24

CHAIN OF CUSTODY RECORD

Synergy Environmental Lab, LLC

www.synergy-lab.net
1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • mrsynergy@wi.twcbc.com

Chain # 52808
Page 2 of 2

Sample Handling Request
____ Rush Analysis Date Required: _____
(Rushes accepted only with prior authorization)
X Normal Turn Around

Lab I.D. #
QUOTE # : 2024-0017
Project #: 200032
Sampler: (signature)

Project (Name / Location): Jagemann Plating / Manitowoc, WI

Reports To: N. Morris / W. Fassbender	Invoice To: Same
Company EnviroForensics	Company
Address 825 N Capitol Ave	Address
City State Zip Indianapolis, IN	City State Zip
Phone 860-888-7911	Phone
Email ~~N. Mor~~ NMorris@enviroforensics.com	Email Accountspayable@enviroforensics.com

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 524.2)	VOC (EPA 8260)	VOC AIR (TO - 15)	8-RCRA METALS	PID/ FID
5043558 M	200032-DUP-1	2/13/24	—	N	3	WT	HCl													X			
N	200032-DUP-2	2/14/24	—	N	3	WT	HCl													X			
O	Trip Blank	Lab	Provided		3	WT	HCl													X			

Analysis Requested / Other Analysis

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge, etc.)

Sample Integrity - To be completed by receiving lab.
Method of Shipment:
Temp. of Temp. Blank: _____ °C On Ice: ∅
Cooler seal intact upon receipt: X Yes ___ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
	12:12	2/14/2024			

Received in Laboratory By: Time: 12:12 Date: 2/14/24

Beacon Environmental
526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Beacon Proposal No.: 240207R01

Laboratory Work Order: 0007569

Project Description:
Jagemann Plating
Manitowoc, WI

Client PO No.: 2024-0014

Prepared for:
Wayne Fassbender
EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Ryan W. Schneider
Senior Project Manager

March 14, 2024

All data meet requirements as specified in the Beacon Environmental Quality Assurance Project Plan and the results relate only to the samples reported. The work performed was in accordance with ISO/IEC 17025:2017. This report shall not be reproduced, except in full, without written approval of the laboratory. Release of the data contained in this data package has been authorized by the Laboratory Director or his signee, as verified by the following signatures:

Steven C. Thornley
Laboratory Director

Peter B. Kelly
Quality Manager

Table of Contents

BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Sample Summary

Lab Sample ID	Client Sample ID	Received	Analysis	Matrix
0007569-01	200032-IA-7	02/29/2024	TO-17 (Passive)	Indoor Air
Sampler Type:	Sorbent Tube			
0007569-02	200032-IA-8	02/29/2024	TO-17 (Passive)	Indoor Air
Sampler Type:	Sorbent Tube			
0007569-03	200032-IA-10	02/29/2024	TO-17 (Passive)	Indoor Air
Sampler Type:	Sorbent Tube			
0007569-04	200032-IA-11	02/29/2024	TO-17 (Passive)	Indoor Air
Sampler Type:	Sorbent Tube			
0007569-05	200032-IA-14	02/29/2024	TO-17 (Passive)	Indoor Air
Sampler Type:	Sorbent Tube			
0007569-06	200032-OA-1	02/29/2024	TO-17 (Passive)	Ambient Air
Sampler Type:	Sorbent Tube			

Project Completeness

Samples Received: 6
Samples Analyzed: 6

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EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Case Narrative

Beacon Environmental provided thermally conditioned ChloroSorbers for sampling, with analyses following U.S. EPA Method TO-17, with analytical results reported in µg/m3. Beacon calculated concentration results using the exposure period, target analyte mass, and the following procedures detailed in ISO 16017-2, *Indoor, ambient and workplace air-Sampling and analysis of volatile organic compounds by sorbent tube/thermal desorption/capillary gas chromatography-Part 2: Diffusive sampling.*

Beacon reports results and reporting limits to three significant digits.

Reporting Limits (RLs) for EPA Method TO-17
The RLs represent a baseline above which results meet laboratory-determined limits of precision and accuracy. Beacon performed dilution analysis when results exceeded the upper calibration limit, bringing all reported results within the calibration range. The project method quantitation limit (MQL) is the limit of detection (LOD) as noted in the data tables.

Calibration Verification
All continuing calibration verification (CCV) values are within ±30% of the true values as defined by the initial calibration and met the requirements specified in BEACON's Quality Manual.

Internal Standards and Surrogates
Internal standards and surrogates are spiked on all blanks (ICB, BLK), field samples and laboratory control samples (ICV/CALV, BS, ICV and CCV). Acceptance criteria for internal standards are 60 to 140 percent and surrogate recoveries are 70 to 130 percent; all internal standards and surrogates are within the acceptance criteria unless noted in the **Case Narrative**.

Blank Contamination
No targeted compounds above the limit of detection (LOD) for each compound were observed in the Laboratory Method Blanks unless noted in the **Case Narrative**.

Laboratory Control Samples
Acceptance criteria for surrogate and analytes recoveries are 70 to 130 percent; all recoveries are within the acceptance criteria unless noted in the **Case Narrative**.

Discussion
Samples were received in proper condition and laboratory control parameters were met unless otherwise noted below. The work performed was in accordance with ISO/IEC 17025:2017.

End of Case Narrative

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EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Analytical Results

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EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Summary of Compound Detections- Concentration

Lab Sample ID: 0007569-01 — **200032-IA-7** — Indoor Air — Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m³)	Q	RT	LOQ (µg/m³)	LOD (µg/m³)	File ID
Trichloroethene	79-01-6	**0.166**		5.986	0.0674	0.0337	Ab24022905.D
Tetrachloroethene	127-18-4	**0.183**		8.208	0.0796	0.0398	Ab24022905.D

Lab Sample ID: 0007569-02 — **200032-IA-8** — Indoor Air — Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m³)	Q	RT	LOQ (µg/m³)	LOD (µg/m³)	File ID
Vinyl Chloride	75-01-4	**0.251**		1.609	0.0782	0.0391	Ab24022906.D
trans-1,2-Dichloroethene	156-60-5	**0.0331**	J	2.742	0.0625	0.0313	Ab24022906.D
cis-1,2-Dichloroethene	156-59-2	**0.880**		3.662	0.0625	0.0313	Ab24022906.D
Trichloroethene	79-01-6	**2.73**		5.989	0.0674	0.0337	Ab24022906.D
Tetrachloroethene	127-18-4	**0.145**		8.208	0.0796	0.0398	Ab24022906.D

Lab Sample ID: 0007569-03 — **200032-IA-10** — Indoor Air — Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m³)	Q	RT	LOQ (µg/m³)	LOD (µg/m³)	File ID
Tetrachloroethene	127-18-4	**0.157**		8.208	0.0795	0.0397	Ab24022907.D

Lab Sample ID: 0007569-04 — **200032-IA-11** — Indoor Air — Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m³)	Q	RT	LOQ (µg/m³)	LOD (µg/m³)	File ID
cis-1,2-Dichloroethene	156-59-2	**0.0638**		3.662	0.0626	0.0313	Ab24022908.D
Trichloroethene	79-01-6	**0.164**		5.986	0.0674	0.0337	Ab24022908.D
Tetrachloroethene	127-18-4	**0.157**		8.208	0.0796	0.0398	Ab24022908.D

BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Summary of Compound Detections- Concentration

Lab Sample ID: 0007569-05

200032-IA-14
Indoor Air

Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m³)	Q	RT	LOQ (µg/m³)	LOD (µg/m³)	File ID
Trichloroethene	79-01-6	**0.0437**	J	5.983	0.0673	0.0336	Ab24022909.D
Tetrachloroethene	127-18-4	**0.152**		8.208	0.0795	0.0398	Ab24022909.D

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EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Data Summary Table- Concentration

Compound	Frequency	LOD (µg/m³)	Max Value (µg/m³)
Vinyl Chloride	1	0.039	0.251
trans-1,2-Dichloroethene	1	0.031	0.033
cis-1,2-Dichloroethene	2	0.031	0.880
Trichloroethene	4	0.034	2.73
Tetrachloroethene	5	0.040	0.183

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EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Detailed Analytical Results

BEACON ENVIRONMENTAL

526 Underwood Lane
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CERTIFICATE OF ANALYSIS

EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Lab Sample ID: 0007569-01

200032-IA-7

Indoor Air

Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m³)	Q	LOD (µg/m³)	LOQ (µg/m³)	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.0391	U	0.0391	0.0782	02/29/2024 17:57	Ab24022905.D
trans-1,2-Dichloroethene	156-60-5	<0.0313	U	0.0313	0.0626	02/29/2024 17:57	Ab24022905.D
cis-1,2-Dichloroethene	156-59-2	<0.0313	U	0.0313	0.0626	02/29/2024 17:57	Ab24022905.D
Trichloroethene	79-01-6	**0.166**		0.0337	0.0674	02/29/2024 17:57	Ab24022905.D
Tetrachloroethene	127-18-4	**0.183**		0.0398	0.0796	02/29/2024 17:57	Ab24022905.D

Analyte	*CAS#*	*% Recovery*	*Recovery Limits*	*Q*	*Analyzed*	*File ID*
Surrogate: 1,2-DCA-d4	17060-07-0	*102%*	*70-130*		*02/29/2024 17:57*	*Ab24022905.D*
Surrogate: Toluene-d8	2037-26-5	*88.4%*	*70-130*		*02/29/2024 17:57*	*Ab24022905.D*

BEACON ENVIRONMENTAL

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CERTIFICATE OF ANALYSIS

EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Lab Sample ID: 0007569-02

200032-IA-8

Indoor Air

Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m³)	Q	LOD (µg/m³)	LOQ (µg/m³)	Analyzed	File ID
Vinyl Chloride	75-01-4	**0.251**		0.0391	0.0782	02/29/2024 18:27	Ab24022906.D
trans-1,2-Dichloroethene	156-60-5	**0.0331**	J	0.0313	0.0625	02/29/2024 18:27	Ab24022906.D
cis-1,2-Dichloroethene	156-59-2	**0.880**		0.0313	0.0625	02/29/2024 18:27	Ab24022906.D
Trichloroethene	79-01-6	**2.73**		0.0337	0.0674	02/29/2024 18:27	Ab24022906.D
Tetrachloroethene	127-18-4	**0.145**		0.0398	0.0796	02/29/2024 18:27	Ab24022906.D

Analyte	*CAS#*	*% Recovery*	*Recovery Limits*	*Q*	*Analyzed*	*File ID*
Surrogate: 1,2-DCA-d4	17060-07-0	*109%*	*70-130*		*02/29/2024 18:27*	*Ab24022906.D*
Surrogate: Toluene-d8	2037-26-5	*86.0%*	*70-130*		*02/29/2024 18:27*	*Ab24022906.D*

BEACON ENVIRONMENTAL

526 Underwood Lane
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CERTIFICATE OF ANALYSIS

EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Lab Sample ID: 0007569-03

200032-IA-10

Indoor Air

Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m³)	Q	LOD (µg/m³)	LOQ (µg/m³)	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.0390	U	0.0390	0.0780	02/29/2024 18:57	Ab24022907.D
trans-1,2-Dichloroethene	156-60-5	<0.0312	U	0.0312	0.0624	02/29/2024 18:57	Ab24022907.D
cis-1,2-Dichloroethene	156-59-2	<0.0312	U	0.0312	0.0624	02/29/2024 18:57	Ab24022907.D
Trichloroethene	79-01-6	<0.0336	U	0.0336	0.0672	02/29/2024 18:57	Ab24022907.D
Tetrachloroethene	127-18-4	**0.157**		0.0397	0.0795	02/29/2024 18:57	Ab24022907.D

Analyte	*CAS#*	*% Recovery*	*Recovery Limits*	*Q*	*Analyzed*	*File ID*
Surrogate: 1,2-DCA-d4	17060-07-0	*106%*	*70-130*		*02/29/2024 18:57*	*Ab24022907.D*
Surrogate: Toluene-d8	2037-26-5	*85.7%*	*70-130*		*02/29/2024 18:57*	*Ab24022907.D*

BEACON ENVIRONMENTAL

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CERTIFICATE OF ANALYSIS

EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Lab Sample ID: 0007569-04

200032-IA-11

Indoor Air

Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m³)	Q	LOD (µg/m³)	LOQ (µg/m³)	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.0391	U	0.0391	0.0782	02/29/2024 19:26	Ab24022908.D
trans-1,2-Dichloroethene	156-60-5	<0.0313	U	0.0313	0.0626	02/29/2024 19:26	Ab24022908.D
cis-1,2-Dichloroethene	156-59-2	**0.0638**		0.0313	0.0626	02/29/2024 19:26	Ab24022908.D
Trichloroethene	79-01-6	**0.164**		0.0337	0.0674	02/29/2024 19:26	Ab24022908.D
Tetrachloroethene	127-18-4	**0.157**		0.0398	0.0796	02/29/2024 19:26	Ab24022908.D

Analyte	*CAS#*	*% Recovery*	*Recovery Limits*	*Q*	*Analyzed*	*File ID*
Surrogate: 1,2-DCA-d4	17060-07-0	*103%*	*70-130*		*02/29/2024 19:26*	*Ab24022908.D*
Surrogate: Toluene-d8	2037-26-5	*84.1%*	*70-130*		*02/29/2024 19:26*	*Ab24022908.D*

BEACON ENVIRONMENTAL

526 Underwood Lane
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CERTIFICATE OF ANALYSIS

EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Lab Sample ID: 0007569-05

200032-IA-14

Indoor Air

Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m³)	Q	LOD (µg/m³)	LOQ (µg/m³)	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.0391	U	0.0391	0.0781	02/29/2024 19:56	Ab24022909.D
trans-1,2-Dichloroethene	156-60-5	<0.0312	U	0.0312	0.0625	02/29/2024 19:56	Ab24022909.D
cis-1,2-Dichloroethene	156-59-2	<0.0312	U	0.0312	0.0625	02/29/2024 19:56	Ab24022909.D
Trichloroethene	79-01-6	**0.0437**	J	0.0336	0.0673	02/29/2024 19:56	Ab24022909.D
Tetrachloroethene	127-18-4	**0.152**		0.0398	0.0795	02/29/2024 19:56	Ab24022909.D

Analyte	*CAS#*	*% Recovery*	*Recovery Limits*	*Q*	*Analyzed*	*File ID*
Surrogate: 1,2-DCA-d4	17060-07-0	*104%*	*70-130*		*02/29/2024 19:56*	*Ab24022909.D*
Surrogate: Toluene-d8	2037-26-5	*84.2%*	*70-130*		*02/29/2024 19:56*	*Ab24022909.D*

BEACON ENVIRONMENTAL

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CERTIFICATE OF ANALYSIS

EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Lab Sample ID: 0007569-06

200032-OA-1

Ambient Air

Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m³)	Q	LOD (µg/m³)	LOQ (µg/m³)	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.0389	U	0.0389	0.0779	02/29/2024 20:26	Ab24022910.D
trans-1,2-Dichloroethene	156-60-5	<0.0311	U	0.0311	0.0623	02/29/2024 20:26	Ab24022910.D
cis-1,2-Dichloroethene	156-59-2	<0.0311	U	0.0311	0.0623	02/29/2024 20:26	Ab24022910.D
Trichloroethene	79-01-6	<0.0335	U	0.0335	0.0671	02/29/2024 20:26	Ab24022910.D
Tetrachloroethene	127-18-4	<0.0396	U	0.0396	0.0793	02/29/2024 20:26	Ab24022910.D

Analyte	*CAS#*	*% Recovery*	*Recovery Limits*	*Q*	*Analyzed*	*File ID*
Surrogate: 1,2-DCA-d4	17060-07-0	*70.6%*	*70-130*		*02/29/2024 20:26*	*Ab24022910.D*
Surrogate: Toluene-d8	2037-26-5	*74.6%*	*70-130*		*02/29/2024 20:26*	*Ab24022910.D*

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EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

QC Information/Summary

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CERTIFICATE OF ANALYSIS

EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Trace Organics in Air by EPA TO-17 Using Beacon ChloroSorber Tube - Quality Control Summary

Sequence: B24B040 - Instrument: A System - File ID: Ab24021414.D

B24B040-ICV1 (LCSD/Second Source Verification/CALV)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	9.27	1	0.5	ng	10.0		92.7	70-130			
trans-1,2-Dichloroethene	10.8	1	0.5	ng	10.0		108	70-130			
cis-1,2-Dichloroethene	10.3	1	0.5	ng	10.0		103	70-130			
Trichloroethene	11.1	1	0.5	ng	10.0		111	70-130			
Tetrachloroethene	12.0	1	0.5	ng	10.0		120	70-130			
Surrogate: 1,2-DCA-d4	*10.2*			*ng*	10.0		*102*	*70-130*			
Surrogate: Toluene-d8	*9.92*			*ng*	10.0		*99.2*	*70-130*			

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CERTIFICATE OF ANALYSIS

EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Trace Organics in Air by EPA TO-17 Using Beacon ChloroSorber Tube - Quality Control Summary

Sequence: B24B040 - Instrument: A System - File ID: Ab24021416.D

B24B040-ICB1 (Lab Blank/Initial Calibration Blank)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<0.5	1	0.5	ng							U
trans-1,2-Dichloroethene	<0.5	1	0.5	ng							U
cis-1,2-Dichloroethene	<0.5	1	0.5	ng							U
Trichloroethene	<0.5	1	0.5	ng							U
Tetrachloroethene	<0.5	1	0.5	ng							U
Surrogate: 1,2-DCA-d4	*20.3*			*ng*	20.0		*102*	*70-130*			
Surrogate: Toluene-d8	*19.0*			*ng*	20.0		*95.0*	*70-130*			

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EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Trace Organics in Air by EPA TO-17 Using Beacon ChloroSorber Tube - Quality Control Summary

Sequence: B24B080 - Batch: 24B0066 - Instrument: A System - File ID: Ab24022902.D

24B0066-BS1 (LCS, Calibration Source Verification)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	9.01	1	0.5	ng	10.0		90.1	70-130			
trans-1,2-Dichloroethene	10.8	1	0.5	ng	10.0		108	70-130			
cis-1,2-Dichloroethene	9.95	1	0.5	ng	10.0		99.5	70-130			
Trichloroethene	11.0	1	0.5	ng	10.0		110	70-130			
Tetrachloroethene	12.6	1	0.5	ng	10.0		126	70-130			
Surrogate: 1,2-DCA-d4	*11.5*			*ng*	10.0		*115*	*70-130*			
Surrogate: Toluene-d8	*10.1*			*ng*	10.0		*101*	*70-130*			

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EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Trace Organics in Air by EPA TO-17 Using Beacon ChloroSorber Tube - Quality Control Summary

Sequence: B24B080 - Batch: 24B0066 - Instrument: A System - File ID: Ab24022903.D

24B0066-BLK1 (Lab Blank)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<0.039	0.078	0.039	µg/m³							U
trans-1,2-Dichloroethene	<0.031	0.062	0.031	µg/m³							U
cis-1,2-Dichloroethene	<0.031	0.062	0.031	µg/m³							U
Trichloroethene	<0.034	0.067	0.034	µg/m³							U
Tetrachloroethene	<0.040	0.079	0.040	µg/m³							U
Surrogate: 1,2-DCA-d4	*20.2*			*ng*	20.0		*101*	*70-130*			
Surrogate: Toluene-d8	*18.5*			*ng*	20.0		*92.3*	*70-130*			

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EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Trace Organics in Air by EPA TO-17 Using Beacon ChloroSorber Tube - Quality Control Summary

Sequence: B24B080 - Instrument: A System - File ID: Ab24022904.D

B24B080-ICV1 (LCSD/Second Source Verification/CALV)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	9.10	1	0.5	ng	10.0		91.0	70-130			
trans-1,2-Dichloroethene	11.0	1	0.5	ng	10.0		110	70-130			
cis-1,2-Dichloroethene	10.2	1	0.5	ng	10.0		102	70-130			
Trichloroethene	11.1	1	0.5	ng	10.0		111	70-130			
Tetrachloroethene	12.4	1	0.5	ng	10.0		124	70-130			
Surrogate: 1,2-DCA-d4	*11.0*			*ng*	10.0		*110*	*70-130*			
Surrogate: Toluene-d8	*9.89*			*ng*	10.0		*98.9*	*70-130*			

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EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Trace Organics in Air by EPA TO-17 Using Beacon ChloroSorber Tube - Quality Control Summary

Sequence: B24B080 - Instrument: A System - File ID: Ab24022911.D

B24B080-CCV1 (LCS, Closing Calibration Verification)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	8.28	1	0.5	ng	10.0		82.8	70-130			
trans-1,2-Dichloroethene	10.8	1	0.5	ng	10.0		108	70-130			
cis-1,2-Dichloroethene	10.1	1	0.5	ng	10.0		101	70-130			
Trichloroethene	11.0	1	0.5	ng	10.0		110	70-130			
Tetrachloroethene	12.2	1	0.5	ng	10.0		122	70-130			
Surrogate: 1,2-DCA-d4	*10.7*			*ng*	10.0		*107*	*70-130*			
Surrogate: Toluene-d8	*10.1*			*ng*	10.0		*101*	*70-130*			

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EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Trace Organics in Air by EPA TO-17 Using Beacon ChloroSorber Tube - Quality Control Summary

Sequence: B24B080 - Instrument: A System - File ID: Ab24022912.D

B24B080-CCB1 (Lab Blank)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<0.5	1	0.5	ng							U
trans-1,2-Dichloroethene	<0.5	1	0.5	ng							U
cis-1,2-Dichloroethene	<0.5	1	0.5	ng							U
Trichloroethene	<0.5	1	0.5	ng							U
Tetrachloroethene	<0.5	1	0.5	ng							U
Surrogate: 1,2-DCA-d4	*20.2*			*ng*	20.0		*101*	*70-130*			
Surrogate: Toluene-d8	*18.3*			*ng*	20.0		*91.4*	*70-130*			

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EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

TO-17 (Passive) - LCS/LCSD RPD Quality Control Summary

LCS: 24B0066-BS1 ***File ID: Ab24022902.D*** Analyzed: 2/29/24 17:27

LCSD: B24B080-ICV1 ***File ID: Ab24022904.D*** Analyzed: 2/29/24 16:34

Analyte	CAS#	LCS Result (ng)	%REC	Q	Spike Level (ng)	LCSD Result (ng)	%REC	%REC Limits	RPD	RPD Limit	Q
Vinyl Chloride	75-01-4	9.01	90.1		10	9.1	91.00	70-130	0.99	30	
trans-1,2-Dichloroethene	156-60-5	10.83	108.3		10	11.03	110.00	70-130	1.83	30	
cis-1,2-Dichloroethene	156-59-2	9.95	99.5		10	10.18	102.00	70-130	2.29	30	
Trichloroethene	79-01-6	11.03	110.3		10	11.12	111.00	70-130	0.81	30	
Tetrachloroethene	127-18-4	12.64	126.4		10	12.42	124.00	70-130	1.76	30	

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EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Additional QC Information

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EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Sample Result Calculation Summary (Concentration)

TO-17 (Passive)

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial Result ng	C Calculated Result µg/m³	File ID
Lab ID: 0007569-01 **Sample Name:** 200032-IA-7						
Vinyl Chloride	22,837	1.00	0.560	U	U	Ab24022905.D
trans-1,2-Dichloroethene	22,837	1.00	0.700	U	U	Ab24022905.D
cis-1,2-Dichloroethene	22,837	1.00	0.700	U	U	Ab24022905.D
Trichloroethene	22,837	1.00	0.650	2.47	0.166	Ab24022905.D
Tetrachloroethene	22,837	1.00	0.550	2.30	0.183	Ab24022905.D
Lab ID: 0007569-02 **Sample Name:** 200032-IA-8						
Vinyl Chloride	22,840	1.00	0.560	3.21	0.251	Ab24022906.D
trans-1,2-Dichloroethene	22,840	1.00	0.700	0.53	0.0331	Ab24022906.D
cis-1,2-Dichloroethene	22,840	1.00	0.700	14.07	0.880	Ab24022906.D
Trichloroethene	22,840	1.00	0.650	40.50	2.73	Ab24022906.D
Tetrachloroethene	22,840	1.00	0.550	1.82	0.145	Ab24022906.D
Lab ID: 0007569-03 **Sample Name:** 200032-IA-10						
Vinyl Chloride	22,880	1.00	0.560	U	U	Ab24022907.D
trans-1,2-Dichloroethene	22,880	1.00	0.700	U	U	Ab24022907.D
cis-1,2-Dichloroethene	22,880	1.00	0.700	U	U	Ab24022907.D
Trichloroethene	22,880	1.00	0.650	U	U	Ab24022907.D
Tetrachloroethene	22,880	1.00	0.550	1.98	0.157	Ab24022907.D
Lab ID: 0007569-04 **Sample Name:** 200032-IA-11						
Vinyl Chloride	22,835	1.00	0.560	U	U	Ab24022908.D
trans-1,2-Dichloroethene	22,835	1.00	0.700	U	U	Ab24022908.D
cis-1,2-Dichloroethene	22,835	1.00	0.700	1.02	0.0638	Ab24022908.D
Trichloroethene	22,835	1.00	0.650	2.44	0.164	Ab24022908.D
Tetrachloroethene	22,835	1.00	0.550	1.97	0.157	Ab24022908.D
Lab ID: 0007569-05 **Sample Name:** 200032-IA-14						
Vinyl Chloride	22,864	1.00	0.560	U	U	Ab24022909.D
trans-1,2-Dichloroethene	22,864	1.00	0.700	U	U	Ab24022909.D
cis-1,2-Dichloroethene	22,864	1.00	0.700	U	U	Ab24022909.D
Trichloroethene	22,864	1.00	0.650	0.65	0.0437	Ab24022909.D
Tetrachloroethene	22,864	1.00	0.550	1.91	0.152	Ab24022909.D

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EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Sample Result Calculation Summary (Concentration)

TO-17 (Passive)

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial Result ng	C Calculated Result µg/m³	File ID
Lab ID: 0007569-06 **Sample Name:** 200032-OA-1						
Vinyl Chloride	22,933	1.00	0.560	U	U	Ab24022910.D
trans-1,2-Dichloroethene	22,933	1.00	0.700	U	U	Ab24022910.D
cis-1,2-Dichloroethene	22,933	1.00	0.700	U	U	Ab24022910.D
Trichloroethene	22,933	1.00	0.650	U	U	Ab24022910.D
Tetrachloroethene	22,933	1.00	0.550	U	U	Ab24022910.D

Calculations:

$$C = \frac{1000 \times M \times DF}{Uc \times t}$$

$$Uc = U * \left(\left(\frac{Ts + 273.15}{Tu + 273.15}\right)^{1/2}\right)$$

where: C = concentration (µg/m^3)
M = mass (ng)
DF = dilution factor
Uc = uptake rate (ml/min), corrected
t = sampling time (minutes)
U = compound specific uptake rate
Tu = uptake rate study temperature
Ts = sample average temperature

Note: Tu is 16.65°C

Reference: Federal Register/Vol. 79, No. 125/June 30, 2014

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EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Method Detection and Reporting Limit Calculations (Concentration)

TO-17 (Passive)

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial (ng) LOQ	M Initial (ng) LOD	C Calculated (µg/m³) LOQ	C Calculated (µg/m³) LOD
Lab ID: 0007569-01	**Sample Name:** 200032-IA-7						
Vinyl Chloride	22,837	1.00	0.560	1.00	0.50	0.0782	0.0391
trans-1,2-Dichloroethene	22,837	1.00	0.700	1.00	0.50	0.0626	0.0313
cis-1,2-Dichloroethene	22,837	1.00	0.700	1.00	0.50	0.0626	0.0313
Trichloroethene	22,837	1.00	0.650	1.00	0.50	0.0674	0.0337
Tetrachloroethene	22,837	1.00	0.550	1.00	0.50	0.0796	0.0398
Lab ID: 0007569-02	**Sample Name:** 200032-IA-8						
Vinyl Chloride	22,840	1.00	0.560	1.00	0.50	0.0782	0.0391
trans-1,2-Dichloroethene	22,840	1.00	0.700	1.00	0.50	0.0625	0.0313
cis-1,2-Dichloroethene	22,840	1.00	0.700	1.00	0.50	0.0625	0.0313
Trichloroethene	22,840	1.00	0.650	1.00	0.50	0.0674	0.0337
Tetrachloroethene	22,840	1.00	0.550	1.00	0.50	0.0796	0.0398
Lab ID: 0007569-03	**Sample Name:** 200032-IA-10						
Vinyl Chloride	22,880	1.00	0.560	1.00	0.50	0.0780	0.0390
trans-1,2-Dichloroethene	22,880	1.00	0.700	1.00	0.50	0.0624	0.0312
cis-1,2-Dichloroethene	22,880	1.00	0.700	1.00	0.50	0.0624	0.0312
Trichloroethene	22,880	1.00	0.650	1.00	0.50	0.0672	0.0336
Tetrachloroethene	22,880	1.00	0.550	1.00	0.50	0.0795	0.0397
Lab ID: 0007569-04	**Sample Name:** 200032-IA-11						
Vinyl Chloride	22,835	1.00	0.560	1.00	0.50	0.0782	0.0391
trans-1,2-Dichloroethene	22,835	1.00	0.700	1.00	0.50	0.0626	0.0313
cis-1,2-Dichloroethene	22,835	1.00	0.700	1.00	0.50	0.0626	0.0313
Trichloroethene	22,835	1.00	0.650	1.00	0.50	0.0674	0.0337
Tetrachloroethene	22,835	1.00	0.550	1.00	0.50	0.0796	0.0398
Lab ID: 0007569-05	**Sample Name:** 200032-IA-14						
Vinyl Chloride	22,864	1.00	0.560	1.00	0.50	0.0781	0.0391
trans-1,2-Dichloroethene	22,864	1.00	0.700	1.00	0.50	0.0625	0.0312
cis-1,2-Dichloroethene	22,864	1.00	0.700	1.00	0.50	0.0625	0.0312
Trichloroethene	22,864	1.00	0.650	1.00	0.50	0.0673	0.0336
Tetrachloroethene	22,864	1.00	0.550	1.00	0.50	0.0795	0.0398

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Bel Air, MD 21014 USA
1.410.838.8780

EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Method Detection and Reporting Limit Calculations (Concentration)

TO-17 (Passive)

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial (ng) LOQ	M Initial (ng) LOD	C Calculated (µg/m³) LOQ	C Calculated (µg/m³) LOD
Lab ID: 0007569-06	**Sample Name:** 200032-OA-1						
Vinyl Chloride	22,933	1.00	0.560	1.00	0.50	0.0779	0.0389
trans-1,2-Dichloroethene	22,933	1.00	0.700	1.00	0.50	0.0623	0.0311
cis-1,2-Dichloroethene	22,933	1.00	0.700	1.00	0.50	0.0623	0.0311
Trichloroethene	22,933	1.00	0.650	1.00	0.50	0.0671	0.0335
Tetrachloroethene	22,933	1.00	0.550	1.00	0.50	0.0793	0.0396

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EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Laboratory Certification List

Certification ID	Certification No.	Description	Expires	Project Required
Alaska CS-LAP	19-002	Alaska Department of Environmental Conservation	12/30/2024	
DoD-ELAP	72690/L22-563	United States Department of Defense Environmental Laboratory Accreditation	11/30/2024	
ISO/IEC 17025:2017	72690/L22-563	General Requirements for the Competence of Testing and Calibration Laboratories	11/30/2024	
NEFAP	72690/L22-564	TNI National Environmental Field Activities Program (NEFAP)	11/30/2024	
NY-NELAC	12097	New York Department of Health	04/01/2024	
Utah-NELAC	MD010912023-14	Utah Department of Health	12/31/2024	

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EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Qualifiers/Notes and Definitions

General Definitions:

DF	Dilution Factor
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
NA	Not Applicable
Q	Qualifier
RPD	Relative Percent Difference
RT	Retention Times in Minutes
RRT	Evaluation of Relative Retention Times in RRT Units (qualified if outside $\pm$0.06 control limits)
3σ	Uncertainty
∉	Compound not on scope of accreditation
+	values are outside method/contract required QC limits
∅	Compound not on scope of accreditation and analyzed with a one-point calibration

Sample/Sample Receipt Qualifiers and Notes:

J	Value reported below limit of quantitation (LOQ).
U	Analyte was not detected and is reported as less than the limit of detection (LOD). The LOD has been adjusted for any dilution or concentration of the sample.

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EnviroForensics	**Site Name:** Jagemann Plating	**Beacon Proposal:** 240207R01
N16W23390 Stone Ridge Dr, Suite G	**Site Location:** Manitowoc, WI	**Lab Work Order:** 0007569
Waukesha, WI 53188	**Project Manager:** Wayne Fassbender	**Reported:** 03/14/2024

Sample Management Records

BEACON ENVIRONMENTAL
526 Underwood Lane
Bel Air, Maryland 21014, USA
1-410-838-8780
800-878-5510 Toll Free

PASSIVE AIR SAMPLING – SORBENT TUBE | CHAIN-OF-CUSTODY

Client Information			
Company: Enviroforensics	Project Manager: N. Morris / W. Fassbender	Client PO:	
Address: 825 N. Capitol Ave	Project Name: Jagemann Plating 200032	Turn around time (check one): [X] Normal [ ] Rush (specify) ____ days	
City / State / Zip: Indianapolis, IN 46204	Location:	Analysis: [X] Method TO-17 [ ] Method 325	
Phone:	Submitted by:		
	Email: nmorris@enviroforensics.com		

Location ID	Tube ID	Start Date	Start Time	Stop Date	Stop Time	Aver Temp (C)	Target Compounds	INDOOR AIR	AMBIENT AIR	CRAWL SPACE	SEWER GAS
~~200032-IA-2~~	CS0493	~~02/12/2024~~	15:00	~~2/28/24~~				~~X~~			
200032-IA-7	CS0526	02/12/2024	14:45	2/28/24	11:22		CVOCs	X			
200032-IA-8	CS1002	02/12/2024	14:05	2/29/24	10:45		CVOCs	X			
200032-IA-10	CS0776	02/12/2024	14:17	2/28/24	11:37		"	X			
200032-IA-11	CS0675	02/12/2024	14:38	2/28/24	11:13		"	X			
200032-IA-14	1181157	02/12/2024	14:24	2/28/24	11:28		"	X			
~~200032-IA-15~~	CS0910	~~02/12/2024~~	14:31	~~2/28/24~~			~~"~~	~~X~~			
200032-OA-1	CS0435	02/12/2024	13:40	2/28/24	11:53		"		X		

Special Notes / Instructions:
IA-2 was mis-labeled. IA-15 was missing.

Relinquished by (signature): Wayne Fassbender	Date / Time: 2/28/24 15:00	Received by (signature):	Date / Time: 2-29-24 1200
Relinquished by (signature):	Date / Time:	Received by (signature):	Date / Time:
For Lab Use Only	Beacon Job No: 7569	Beacon Proposal: 240207R01	
Courier Name: Fedex	Shipment Condition: good	Custody Seal Intact: [ ] Yes [ ] No [-] n/a	Custody Seal No: —

Pg 1 of 1