FTS Field & Technical Services
200 Third Avenue ◆ Carnegie, PA 15106 ◆ Phone: 412-429-2694 ◆ Fax: 412-279-4512

June 19, 2023

Mr. John Sager
Wisconsin Department of Natural Resources
1701 N. 4th Street
Superior, WI 54880

RE: First Semi-Annual 2023 RCRA Groundwater Monitoring Results
Former Koppers Inc. Superior, Wisconsin Facility
WID 006 179 493

Dear Mr. Sager:

On behalf of Beazer East, Inc. (Beazer), Field & Technical Services, LLC (FTS) is submitting to the Wisconsin Department of Natural Resources (WDNR) the First Semi-Annual 2023 Resource Conservation and Recovery Act (RCRA) Groundwater Monitoring Results for the referenced facility. Appendix A includes one copy of the groundwater monitoring data certification for the subject groundwater monitoring event.

BACKGROUND

Monitoring wells in the vicinity of the closed surface impoundments were sampled and analyzed in accordance with the following documents:

- The Conditional Closure and Long-Term Care Plan Approval (WDNR, October 1, 1987);
- Long-Term Care Plan Approval Modification (October 29, 2002);
- Groundwater Monitoring Sampling and Analysis Plan (April 2002); and
- Wisconsin Administrative Code Chapter NR 664 subchapter (F) formerly NR 635).

The wells that comprise the currently approved RCRA monitoring well network for the closed surface impoundments are as follows:

W-04AR2	W-06A	W-06C	W-10AR2	W-12A
W-12CR	W-28C	W-30A	W-30C	

Groundwater samples were collected and analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and dioxins and furans from monitoring wells W-04AR2, W-06A, W-06C, W-10AR2, W-12A, W-12CR, W-28C, W-30A, and W-30C during the first semi-annual 2023 event.

In addition to these wells, a groundwater sample was collected and analyzed for SVOCs from monitoring well W-18D in conjunction with this monitoring event. Well W-18D is not a required component of the approved monitoring program, but was sampled at Beazer's discretion above and beyond the requirements of the program.

The locations of the wells included in the groundwater monitoring program are shown on Figure B-1, provided in Appendix B. The subject sampling event was conducted from April 25, 2023 through April 27, 2023. The sampling effort was led by Ms. Marie Ferrick, FTS Field Technician.

In accordance with the documents listed above, the following items are included in this report:

- One signed copy of the Groundwater Monitoring Data Certification Statement (Appendix A);
- Well location map (Appendix B);
- Summary of detected constituents and Preventive Action Limit (PAL), and Enforcement Standard (ES) exceedances (Table C-1 of Appendix C);
- Summary of analytical data (Table C-2 of Appendix C);
- Data Evaluation Summary (Appendix D);
- An electronic version of the laboratory analytical data, including trip blank, equipment blank, and field duplicate results (Appendix E); and
- An electronic version of the ASCII formatted data (Appendix F).

SUMMARY OF ANALYTICAL RESULTS

The detected constituents are summarized and compared to the PALs and ESs in Table C-1 of Appendix C. Table C-2 in Appendix C summarizes all laboratory analytical data. As indicated in Table C-1, exceedances of the PALs and ESs were noted for the following parameters and wells:

Parameter	Regulatory Standard (ug/L)	Wells
ES Exceedance		
Benzene	5	W-10AR2
Chrysene	0.2	W-04AR2
PAL Exceedance		
Benzene	0.5	W-10AR2
Benzo(a)pyrene	0.02	W-04AR2
Benzo(b)fluoranthene	0.02	W-04AR2
Chrysene	0.02	W-04AR2
2,3,7,8-TCDD TEQ*	3.00E-06	W-30A

* At the request of WDNR, 2,3,7,8-TCDD TEQ values are compared to the congener-specific PAL and ES for 2,3,7,8-TCDD.

Based on these results, three wells (W-04AR2, W-10AR2, and W-30A) had concentrations of one or more constituents above a regulatory standard. The Groundwater Monitoring Data Certification form, provided as Appendix A, indicates that some of the data associated with the first semi-annual 2023 sampling event exceeded the Wisconsin PALs and ESs.

The data evaluation performed by FTS for the first semi-annual 2023 sampling event (Appendix D) indicated that certain data required qualification. However, the overall data quality was found to be acceptable.

In general, the groundwater standard exceedances should continue to be viewed in light of the ongoing Site-wide RCRA corrective action program and the approved natural attenuation remedy for groundwater. Therefore, in reviewing the second semi-annual 2022 data in reference to NR 140.24 and NR 140.26, no additional action beyond continued monitoring is necessary.

If you should have any questions regarding this correspondence, please do not hesitate to contact Ms. Jane Patarcity of Beazer at 412-208-8813 or Ms. Angela Gatchie of FTS at 412-428-9411.

Sincerely,

Field & Technical Services LLC

Angela Gatchie
Project Scientist

Attachments (Original Report and electronic copy)

cc: J. Patarcity, Beazer (electronic copy only)
B. Tatsch, Koppers (electronic copy only)
D. Bessingpas, ARCADIS (.pdf transmittal)
D. Coenen, WDNR
GEMS Database, WDNR
T. Peterson, TRP Properties, LLC

APPENDIX A

GROUNDWATER MONITORING DATA CERTIFICATION

State of Wisconsin
Department of Natural Resources

Environmental Monitoring Data Certification

Form 4400-231(R 1/04)

Notice: Personally identifiable information collected will be used for program administration and enforcement purposes. The Department may also provide this information to requesters as required under Wisconsin's Open Records law, ss. 19.31 to 19.39, Wis. Stats.
When submitting monitoring data, the owner or operator of the facility, practice or activity is required to notify the Department in writing that a groundwater standard or an explosive gas level has been attained or exceeded, as specified in ss. NR 140.24(1)(a); NR 140.26(1)(a); NR 507.30NR 635.14(9)(a); NR 635.18(20) and NR 507.30, Wis. Adm. Code. Failure to report may result in fines, forfeitures or other penalties resulting from enforcement under ss. 289.97, 291.97 or 299.95, Wis. Stats.

Instructions:

- **Prepare one form for each license or monitoring ID.**
- **Please type or print legibly.**
- Attach a notification of any values that attain or exceed groundwater standards (that is, preventive action limits, enforcement standards or alternative concentration limits). The notification must include a preliminary analysis of the cause and significance of each value.
- Attach a notification of any gas values that attain or exceed explosive gas levels.
- Send the original signed form, any notification, and Electronic Data Deliverable [EDD] to: GEMS Data Submittal Contact - WA/5
  Bureau of Waste Management
  Wisconsin Department of Natural Resources
  101 South Webster Street
  Madison WI 53707-7921

Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

Field & Technical Services, LLC

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Angela Gatchie Phone: (412) 428-9411

E-mail: agatchie.2006@f-ts.com

Facility name:	License # / Monitoring ID	Facility ID [FID]	Actual sampling dates (e.g., July 2-6, 2003)
Former Koppers, Inc. Facility	03046		April 25 - April 27, 2023

The enclosed results are for sampling required in the month(s) of: (e.g., June 2003) April 2023

Type of Data Submitted (Check all that apply)

- [x] Groundwater monitoring data from monitoring wells
- [ ] Groundwater monitoring data from private water supply wells
- [ ] Leachate monitoring data
- [ ] Gas monitoring data
- [ ] Air monitoring data
- [ ] Other (specify)

Notification attached?

- [ ] No. No groundwater standards or explosive gas limits were exceeded.
- [x] Yes, a notification of values exceeding a groundwater standard is attached. It includes a list of monitoring points, dates, sample values, groundwater standard and preliminary analysis of the cause and significance of any concentration.
- [ ] Yes, a notification of values exceeding an explosive gas limit is attached. It includes the monitoring points, dates, sample values and explosive gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards.

Jane Patarcity	Manager, Environmental Svcs.	(412) 208-8813
Facility Representative Name (Print)	Title	(Area Code) Telephone No.

Signature

June 16, 2023
Date

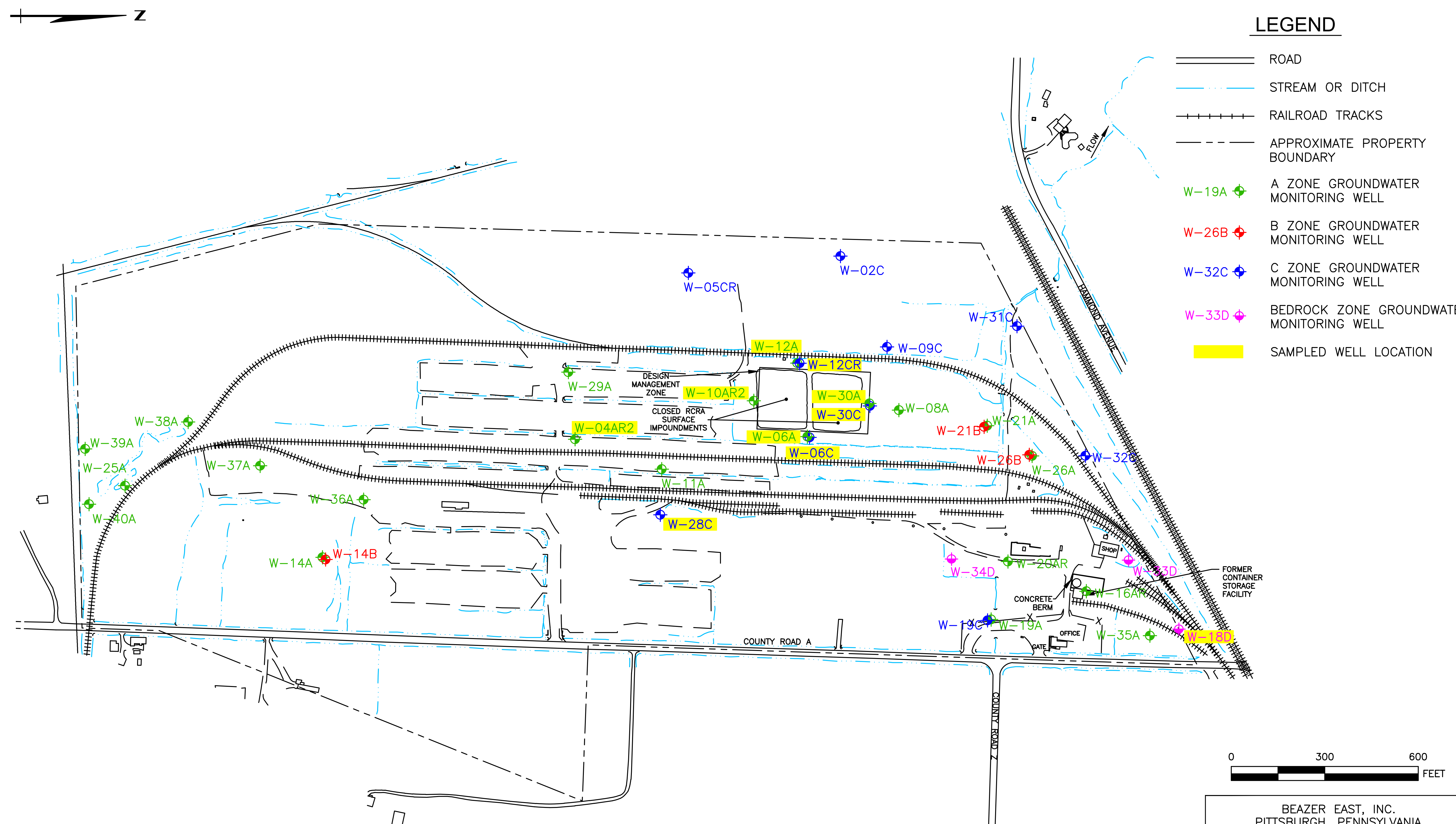
FOR DNR USE ONLY. Check action taken, and record date and your initials. Describe on back side if necessary.

- [ ] **Found uploading problems on** _____ **Initials**
- [ ] **Notified contact of problems on** _____ **Uploaded data successfully on** _____

EDD format(s): [ ] **Diskette** [ ] **CD (initial submittal and follow-up)** [ ] **E-mail (follow-up only)** [ ] **Other**

APPENDIX B

WELL LOCATION MAP



BEAZER EAST, INC.
PITTSBURGH, PENNSYLVANIA

DRWN: KLC	DATE: 06/01/23	FIELD & TECHNICAL SERVICES, LLC 200 THIRD AVENUE CARNEGIE, PA 15106
CHKD: AMG	DATE: 06/01/23	
APPD: JSZ	DATE: 06/20/23	
SCALE: AS SHOWN		
ISSUE DATE:		

FTS

FORMER KOPPERS INC. FACILITY
SUPERIOR, WISCONSIN

WELL LOCATIONS

PROJECT NO: OM055623
DRAWING NUMBER
FIGURE B-1

REFERENCE: WISCONSIN STATE PLANE COORDINATE SYSTEM.

REV #	DATE	DESCRIPTION	APPD
△			
△			
△1			

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APPENDIX C

TABLES

Table C-1
Summary of Detected Constituents
First Semi-Annual 2023 Sampling Event
Superior Facility
Superior, Wisconsin

Location	Parameter	Results ug/L	PAL ug/L	ES ug/L
8270D LL / 8270E LL				
W-30A	1,2-Dichlorobenzene	0.11 J	60	600
W-04AR2	1-Methylnaphthalene	0.059 J	NA	NA
W-04AR2 DUP	1-Methylnaphthalene	0.072 J	NA	NA
W-10AR2	1-Methylnaphthalene	7.3	NA	NA
W-28C	1-Methylnaphthalene	0.088 J	NA	NA
W-04AR2	2-Methylnaphthalene	0.099 J	NA	NA
W-04AR2 DUP	2-Methylnaphthalene	0.12 J	NA	NA
W-28C	2-Methylnaphthalene	0.091 J	NA	NA
W-04AR2	Acenaphthene	0.24	NA	NA
W-04AR2 DUP	Acenaphthene	0.26	NA	NA
W-10AR2	Acenaphthene	36	NA	NA
W-12A	Acenaphthene	0.059 J	NA	NA
W-28C	Acenaphthene	0.062 J	NA	NA
W-30A	Acenaphthene	0.074 J	NA	NA
W-10AR2	Acenaphthylene	0.86	NA	NA
W-04AR2	Anthracene	1.1	600	3000
W-04AR2 DUP	Anthracene	1	600	3000
W-10AR2	Anthracene	0.32	600	3000
W-12A	Anthracene	0.064 J	600	3000
W-30A	Anthracene	0.39	600	3000
W-04AR2	Benzo(a)anthracene	0.17	NA	NA
W-04AR2 DUP	Benzo(a)anthracene	0.13 J	NA	NA
W-04AR2	Benzo(a)pyrene	0.076 J	0.02	0.2
W-04AR2	Benzo(b)fluoranthene	0.17 J	0.02	0.2
W-04AR2 DUP	Benzo(b)fluoranthene	0.089 J	0.02	0.2
W-04AR2	Benzo(k)fluoranthene	0.081 J	NA	NA
W-04AR2	Butyl benzyl phthalate	0.84 J+	NA	NA
W-04AR2	Chrysene	0.24 J	0.02	0.2
W-04AR2 DUP	Chrysene	0.13 J	0.02	0.2
W-04AR2	Dibenzofuran	0.2 J	NA	NA
W-04AR2 DUP	Dibenzofuran	0.21 J	NA	NA
W-10AR2	Dibenzofuran	8.7	NA	NA
W-04AR2	Fluoranthene	0.71 J	80	400
W-04AR2 DUP	Fluoranthene	0.5 J	80	400
W-06A	Fluoranthene	0.16 J	80	400
W-06C	Fluoranthene	0.092 J	80	400
W-10AR2	Fluoranthene	0.78	80	400
W-12A	Fluoranthene	0.087 J	80	400
W-12CR	Fluoranthene	0.053 J	80	400
W-30A	Fluoranthene	0.053 J	80	400
W-04AR2	Fluorene	0.23	80	400
W-04AR2 DUP	Fluorene	0.24	80	400
W-10AR2	Fluorene	8.5	80	400
W-04AR2	Phenanthrene	0.73 J+	NA	NA
W-04AR2 DUP	Phenanthrene	0.76 J+	NA	NA
W-06A	Phenanthrene	0.22 J+	NA	NA
W-10AR2	Phenanthrene	1.2 J+	NA	NA
W-04AR2	Pyrene	0.55	50	250
W-04AR2 DUP	Pyrene	0.44	50	250
W-06A	Pyrene	0.084 J	50	250
W-06C	Pyrene	0.066 J	50	250
W-10AR2	Pyrene	0.53	50	250
W-12A	Pyrene	0.054 J	50	250
W-30A	Pyrene	0.05 J	50	250
8260C				
W-10AR2	1,2,4-Trimethylbenzene	6.9	96*	480*
W-10AR2	Benzene	15	0.5	5
W-10AR2	Ethylbenzene	25	140	700
W-04AR2	Naphthalene	0.72 J	10	100
W-04AR2 DUP	Naphthalene	0.94 J	10	100
W-10AR2	Naphthalene	1.5	10	100
W-30A	Naphthalene	2	10	100
W-10AR2	Toluene	1.7	160	800
W-10AR2	Xylene, Meta & Para	2.4	400**	2000**
W-10AR2	Xylene, Ortho	12	400**	2000**

Table C-1
Summary of Detected Constituents
First Semi-Annual 2023 Sampling Event
Superior Facility
Superior, Wisconsin

Location	Parameter	Results ug/L	PAL ug/L	ES ug/L
8290A				
W-04AR2 DUP	1,2,3,4,6,7,8-HPCDD	0.000054 J	NA	NA
W-12A	1,2,3,4,6,7,8-HPCDD	0.000069	NA	NA
W-30A	1,2,3,4,6,7,8-HPCDD	0.00013	NA	NA
W-04AR2	1,2,3,4,7,8-HXCDF	0.00000055 J	NA	NA
W-04AR2 DUP	1,2,3,4,7,8-HXCDF	0.0000013 JI	NA	NA
W-06A	1,2,3,4,7,8-HXCDF	0.0000009 JI	NA	NA
W-10AR2	1,2,3,4,7,8-HXCDF	0.0000011 JI	NA	NA
W-12A	1,2,3,4,7,8-HXCDF	0.0000051 J	NA	NA
W-12CR	1,2,3,4,7,8-HXCDF	0.00000082 JI	NA	NA
W-28C	1,2,3,4,7,8-HXCDF	0.0000019 J	NA	NA
W-28C DUP	1,2,3,4,7,8-HXCDF	0.0000014 J	NA	NA
W-30A	1,2,3,4,7,8-HXCDF	0.0000078 J	NA	NA
W-04AR2 DUP	1,2,3,6,7,8-HXCDF	0.0000017 JI	NA	NA
W-06A	1,2,3,6,7,8-HXCDF	0.00000088 JI	NA	NA
W-06C	1,2,3,6,7,8-HXCDF	0.0000011 JI	NA	NA
W-10AR2	1,2,3,6,7,8-HXCDF	0.0000017 JI	NA	NA
W-12A	1,2,3,6,7,8-HXCDF	0.0000064 JI	NA	NA
W-12CR	1,2,3,6,7,8-HXCDF	0.00000087 JI	NA	NA
W-28C	1,2,3,6,7,8-HXCDF	0.0000011 J	NA	NA
W-28C DUP	1,2,3,6,7,8-HXCDF	0.0000011 JI	NA	NA
W-30A	1,2,3,6,7,8-HXCDF	0.000015 J	NA	NA
W-04AR2	1,2,3,7,8,9-HXCDD	0.000001 JI	NA	NA
W-04AR2 DUP	1,2,3,7,8,9-HXCDD	0.0000021 J	NA	NA
W-06A	1,2,3,7,8,9-HXCDD	0.00000054 JI	NA	NA
W-10AR2	1,2,3,7,8,9-HXCDD	0.00000053 JI	NA	NA
W-12A	1,2,3,7,8,9-HXCDD	0.0000017 JI	NA	NA
W-12CR	1,2,3,7,8,9-HXCDD	0.00000035 JI	NA	NA
W-28C	1,2,3,7,8,9-HXCDD	0.00000054 J	NA	NA
W-28C DUP	1,2,3,7,8,9-HXCDD	0.00000063 JI	NA	NA
W-30A	1,2,3,7,8,9-HXCDD	0.0000024 J	NA	NA
W-30C	1,2,3,7,8,9-HXCDD	0.00000044 J	NA	NA
W-06A	1,2,3,7,8,9-HXCDF	0.0000004 JI	NA	NA
W-04AR2	2,3,4,6,7,8-HXCDF	0.00000066 JI	NA	NA
W-06A	2,3,4,6,7,8-HXCDF	0.00000055 JI	NA	NA
W-06C	2,3,4,6,7,8-HXCDF	0.00000096 JI	NA	NA
W-10AR2	2,3,4,6,7,8-HXCDF	0.00000086 JI	NA	NA
W-12A	2,3,4,6,7,8-HXCDF	0.0000012 JI	NA	NA
W-30A	2,3,4,6,7,8-HXCDF	0.0000022 JI	NA	NA
W-06A	2,3,7,8-TCDD	0.00000021 JI	NA	NA
W-12CR	2,3,7,8-TCDD	0.00000026 J	NA	NA
W-30C	2,3,7,8-TCDD	0.0000002 JI	NA	NA
W-04AR2	OCDD	0.00013 J	NA	NA
W-04AR2 DUP	OCDD	0.00054 J	NA	NA
W-06A	OCDD	0.00011	NA	NA
W-10AR2	OCDD	0.00021	NA	NA
W-12A	OCDD	0.00057	NA	NA
W-30A	OCDD	0.0016	NA	NA
W-30A	OCDF	0.00011	NA	NA
W-04AR2	Total HPCDD	0.000086 JI	NA	NA
W-04AR2 DUP	Total HPCDD	0.00046 J	NA	NA
W-12A	Total HPCDD	0.00013	NA	NA
W-30A	Total HPCDD	0.00029	NA	NA
W-12A	Total HPCDF	0.000063 I	NA	NA
W-30A	Total HPCDF	0.00015	NA	NA
W-04AR2	Total HXCDF	0.0000081 JI	NA	NA
W-04AR2 DUP	Total HXCDF	0.000021 JI	NA	NA
W-06A	Total HXCDF	0.000011 JI	NA	NA
W-06C	Total HXCDF	0.0000038 JI	NA	NA
W-10AR2	Total HXCDF	0.000028 JI	NA	NA
W-12A	Total HXCDF	0.000068 I	NA	NA
W-12CR	Total HXCDF	0.0000017 JI	NA	NA
W-28C	Total HXCDF	0.0000046 JI	NA	NA
W-28C DUP	Total HXCDF	0.0000034 JI	NA	NA
W-30A	Total HXCDF	0.00017 I	NA	NA
W-30C	Total HXCDF	0.0000058 JI	NA	NA
W-12A	Total PECDF	0.000052 I	NA	NA
W-30A	Total PECDF	0.00017 I	NA	NA
W-12A	Total TCDF	0.000024 J+I	NA	NA
W-30A	Total TCDF	0.000033 J+	NA	NA
W-30C	Total TCDF	0.000011 J+I	NA	NA
W-04AR2	2,3,7,8-TCDD TEQ	**2.60E-07**	0.000003	0.00003
W-04AR2 DUP	2,3,7,8-TCDD TEQ	**1.21E-06**	0.000003	0.00003

Table C-1
Summary of Detected Constituents
First Semi-Annual 2023 Sampling Event
Superior Facility
Superior, Wisconsin

Location	Parameter	Results ug/L	PAL ug/L	ES ug/L
W-06A	2,3,7,8-TCDD TEQ	**5.70E-07**	0.000003	0.00003
W-06C	2,3,7,8-TCDD TEQ	**2.06E-07**	0.000003	0.00003
W-10AR2	2,3,7,8-TCDD TEQ	**4.82E-07**	0.000003	0.00003
W-12A	2,3,7,8-TCDD TEQ	**2.30E-06**	0.000003	0.00003
W-12CR	2,3,7,8-TCDD TEQ	**4.64E-07**	0.000003	0.00003
W-28C	2,3,7,8-TCDD TEQ	**3.54E-07**	0.000003	0.00003
W-28C DUP	2,3,7,8-TCDD TEQ	**3.13E-07**	0.000003	0.00003
W-30A	2,3,7,8-TCDD TEQ	**4.55E-06**	0.000003	0.00003
W-30C	2,3,7,8-TCDD TEQ	**2.44E-07**	0.000003	0.00003

Notes:

- Indicates the detected value exceeds one or more specified standards.

PAL - Preventative Action Limit
MCL - Maximum Contaminant Levels for drinking water
ES - Enforcement Standard
NA - Not available
J - Estimated
J+ - Estimated biased high
I - Value is estimated maximum possible concentration.
* - Total trimethylbenzene standard
** - Total xylene standard
At the request of WDNR, 2,3,7,8-TCDD TEQ values are compared to the congener-specific PAL and ES for 2,3,7,8-TCDD

Table C-2
Analytical Summary - First Semi-Annual 2023 Groundwater Data
First Semi-Annual 2023 Sampling Event
Superior Facility
Superior, Wisconsin

ANALYTE NAME	UNITS	W-04AR2 4/27/2023	W-04AR2 DUP 4/27/2023	W-06A 4/26/2023	W-06C 4/26/2023	W-10AR2 4/27/2023	W-12A 4/27/2023	W-12CR 4/26/2023	W-18D 4/26/2023	W-28C 4/26/2023	W-28C-DUP 4/26/2023	W-30A 4/27/2023	W-30C 4/26/2023	Equipment Blank 4/26/2023	Equipment Blank 4/27/2023
8260C															
1,1,1-TRICHLOROETHANE	UG/L	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	NA	0.82 U	0.82 U	1.6 U	0.82 U	0.82 U	0.82 U
1,2,4-TRIMETHYLBENZENE	UG/L	0.75 U	0.75 U	0.75 U	0.75 U	**6.9**	0.75 U	0.75 U	NA	0.75 U	0.75 U	1.5 U	0.75 U	0.75 U	0.75 U
1,3,5-TRIMETHYLBENZENE	UG/L	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	NA	0.77 U	0.77 U	1.5 U	0.77 U	0.77 U	0.77 U
BENZENE	UG/L	0.41 U	0.41 U	0.41 U	0.41 U	**15**	0.41 U	0.41 U	NA	0.41 U	0.41 U	0.82 U	0.41 U	0.41 U	0.41 U
CHLOROMETHANE	UG/L	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	NA	0.35 U	0.35 U	0.7 U	0.35 U	0.35 U	0.35 U
ETHYLBENZENE	UG/L	0.74 U	0.74 U	0.74 U	0.74 U	**25**	0.74 U	0.74 U	NA	0.74 U	0.74 U	1.5 U	0.74 U	0.74 U	0.74 U
METHYL(TERT)BUTYL ETHER	UG/L	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.32 U	0.16 U	0.16 U	0.16 U
NAPHTHALENE	UG/L	**0.72 J**	**0.94 J**	0.43 U	0.43 U	**1.5**	0.43 U	0.43 U	NA	0.43 U	0.43 U	**2**	0.43 U	0.43 U	0.43 U
N-BUTYLBENZENE	UG/L	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	NA	0.64 U	0.64 U	1.3 U	0.64 U	0.64 U	0.64 U
N-PROPYLBENZENE	UG/L	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	NA	0.69 U	0.69 U	1.4 U	0.69 U	0.69 U	0.69 U
STYRENE	UG/L	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	NA	0.73 U	0.73 U	1.5 U	0.73 U	0.73 U	0.73 U
TOLUENE	UG/L	0.51 U	0.51 U	0.51 U	0.51 U	**1.7**	0.51 U	0.51 U	NA	0.51 U	0.51 U	1 U	0.51 U	0.51 U	0.51 U
XYLENE, META & PARA	UG/L	0.66 U	0.66 U	0.66 U	0.66 U	**2.4**	0.66 U	0.66 U	NA	0.66 U	0.66 U	1.3 U	0.66 U	0.66 U	0.66 U
O-XYLENE	UG/L	0.76 U	0.76 U	0.76 U	0.76 U	**12**	0.76 U	0.76 U	NA	0.76 U	0.76 U	1.5 U	0.76 U	0.76 U	0.76 U
8270D LL / 8270E LL															
1,2,4-TRICHLOROBENZENE	UG/L	0.11 U	0.11 U	0.12 U	0.1 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
1,2-DICHLOROBENZENE	UG/L	0.079 U	0.082 U	0.088 U	0.074 U	0.082 U	0.082 U	0.082 U	0.079 U	0.077 U	0.077 U	**0.11 J**	0.077 U	0.077 U	0.079 U
1,3-DICHLOROBENZENE	UG/L	0.083 U	0.085 U	0.092 U	0.077 U	0.085 U	0.085 U	0.085 U	0.083 U	0.08 U	0.08 U	0.083 U	0.08 U	0.08 U	0.083 U
1,4-DICHLOROBENZENE	UG/L	0.051 U	0.053 U	0.056 U	0.048 U	0.053 U	0.053 U	0.053 U	0.051 U	0.049 U	0.049 U	0.051 U	0.049 U	0.049 U	0.051 U
1-METHYLNAPHTHALENE	UG/L	**0.059 J**	**0.072 J**	0.052 U	0.044 U	**7.3**	0.048 U	0.048 U	0.047 U	**0.088 J**	0.045 U	0.047 U	0.045 U	0.045 U	0.047 U
2,3,4,6-TETRACHLOROPHENOL	UG/L	0.27 U	0.28 U	0.3 U	0.25 U	0.28 U	0.28 U	0.28 U	0.27 U	0.26 U	0.26 U	0.27 U	0.26 U	0.26 U	0.27 U
2,3,5,6-TETRACHLOROPHENOL	UG/L	0.42 U	0.44 U	0.47 U	0.4 U	0.44 U	0.44 U	0.44 U	0.42 U	0.41 U	0.41 U	0.42 U	0.41 U	0.41 U	0.42 U
2,4,5-TRICHLOROPHENOL	UG/L	0.21 U	0.22 U	0.23 U	0.2 U	0.22 U	0.22 U	0.22 U	0.21 U	0.2 U	0.2 U	0.21 U	0.2 U	0.2 U	0.21 U
2,4,6-TRICHLOROPHENOL	UG/L	0.19 U	0.19 U	0.21 U	0.18 U	0.19 U	0.19 U	0.19 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.19 U
2,4-DICHLOROPHENOL	UG/L	0.043 U	0.044 U	0.047 U	0.04 U	0.044 U	0.044 U	0.044 U	0.043 U	0.041 U	0.041 U	0.043 U	0.041 U	0.041 U	0.043 U
2,4-DIMETHYLPHENOL	UG/L	0.14 U	0.14 U	0.15 U	0.13 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.13 U	0.14 U	0.13 U	0.13 U	0.14 U
2,4-DINITROPHENOL	UG/L	1.3 U	1.3 U	1.4 U	1.2 U	1.3 U	1.3 U	1.3 U	1.3 U	1.2 U	1.2 U	1.3 U	1.2 U	1.2 U	1.3 U
2,4-DINITROTOLUENE	UG/L	0.29 U	0.3 U	0.33 U	0.28 U	0.3 U	0.3 U	0.3 U	0.29 U	0.28 U	0.28 U	0.29 U	0.28 U	0.28 U	0.29 U
2,6-DINITROTOLUENE	UG/L	0.14 U	0.15 U	0.16 U	0.14 U	0.15 U	0.15 U	0.15 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
2-CHLORONAPHTHALENE	UG/L	0.049 U	0.051 U	0.055 U	0.046 U	0.051 U	0.051 U	0.051 U	0.049 U	0.048 U	0.048 U	0.049 U	0.048 U	0.048 U	0.049 U
2-CHLOROPHENOL	UG/L	0.11 U	0.11 U	0.12 U	0.1 U	0.11 U	0.11 U	0.11 U	0.11 U	0.1 U	0.1 U	0.11 U	0.1 U	0.1 U	0.11 U
2-METHYLNAPHTHALENE	UG/L	**0.099 J**	**0.12 J**	0.057 U	0.048 U	0.053 U	0.053 U	0.053 U	0.052 U	**0.091 J**	0.05 U	0.052 U	0.05 U	0.05 U	0.052 U
2-METHYLPHENOL	UG/L	0.25 U	0.26 U	0.28 U	0.23 U	0.26 U	0.26 U	0.26 U	0.25 U	0.24 U	0.24 U	0.25 U	0.24 U	0.24 U	0.25 U
2-NITROANILINE	UG/L	0.46 U	0.47 U	0.51 U	0.43 U	0.47 U	0.47 U	0.47 U	0.46 U	0.44 U	0.44 U	0.46 U	0.44 U	0.44 U	0.46 U
2-NITROPHENOL	UG/L	0.16 U	0.17 U	0.18 U	0.15 U	0.17 U	0.17 U	0.17 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
3,3'-DICHLOROBENZIDINE	UG/L	0.49 U	0.5 U	0.54 U	0.46 U	0.5 U	0.5 U	0.5 U	0.49 U	0.47 U	0.47 U	0.49 U	0.47 U	0.47 U	0.49 U
3-NITROANILINE	UG/L	0.36 U	0.38 U	0.4 U	0.34 U	0.38 U	0.38 U	0.38 U	0.36 U	0.35 U	0.35 U	0.36 U	0.35 U	0.35 U	0.36 U
4,6-DINITRO-2-METHYLPHENOL	UG/L	1.2 U	1.3 U	1.4 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
4-BROMOPHENYL PHENYLETHER	UG/L	0.27 U	0.28 U	0.3 U	0.25 U	0.28 U	0.28 U	0.28 U	0.27 U	0.26 U	0.26 U	0.27 U	0.26 U	0.26 U	0.27 U

Table C-2
Analytical Summary - First Semi-Annual 2023 Groundwater Data
First Semi-Annual 2023 Sampling Event
Superior Facility
Superior, Wisconsin

ANALYTE NAME	UNITS	W-04AR2 4/27/2023	W-04AR2 DUP 4/27/2023	W-06A 4/26/2023	W-06C 4/26/2023	W-10AR2 4/27/2023	W-12A 4/27/2023	W-12CR 4/26/2023	W-18D 4/26/2023	W-28C 4/26/2023	W-28C-DUP 4/26/2023	W-30A 4/27/2023	W-30C 4/26/2023	Equipment Blank 4/26/2023	Equipment Blank 4/27/2023
4-CHLORO-3-METHYLPHENOL	UG/L	0.23 U	0.24 U	0.26 U	0.22 U	0.24 U	0.24 U	0.24 U	0.23 U	0.22 U	0.22 U	0.23 U	0.22 U	0.22 U	0.23 U
4-CHLOROANILINE	UG/L	0.31 U	0.32 U	0.35 U	0.29 U	0.32 U	0.32 U	0.32 U	0.31 U	0.3 U	0.3 U	0.31 U	0.3 U	0.3 U	0.31 U
4-CHLOROPHENYLPHENYL-ETHER	UG/L	0.18 U	0.19 U	0.2 U	0.17 U	0.19 U	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
4-METHYLPHENOL	UG/L	0.31 U	0.32 U	0.34 U	0.29 U	0.32 U	0.32 U	0.32 U	0.31 U	0.3 U	0.3 U	0.31 U	0.3 U	0.3 U	0.31 U
4-NITROANILINE	UG/L	0.3 U	0.31 U	0.34 U	0.28 U	0.31 U	0.31 U	0.31 U	0.3 U	0.29 U	0.29 U	0.3 U	0.29 U	0.29 U	0.3 U
4-NITROPHENOL	UG/L	0.78 U	0.81 U	0.87 U	0.73 U	0.81 U	0.81 U	0.81 U	0.78 U	0.76 U	0.76 U	0.78 U	0.76 U	0.76 U	0.78 U
ACENAPHTHENE	UG/L	**0.24**	**0.26**	0.06 U	0.051 U	**36**	**0.059 J**	0.056 U	0.054 U	**0.062 J**	0.052 U	**0.074 J**	0.052 U	0.052 U	0.054 U
ACENAPHTHYLENE	UG/L	0.054 U	0.056 U	0.06 U	0.051 U	**0.86**	0.056 U	0.056 U	0.054 U	0.052 U	0.052 U	0.054 U	0.052 U	0.052 U	0.054 U
ANTHRACENE	UG/L	**1.1**	**1**	0.045 U	0.038 U	**0.32**	**0.064 J**	0.042 U	0.041 U	0.04 U	0.04 U	**0.39**	0.04 U	0.04 U	0.041 U
BENZO (A) ANTHRACENE	UG/L	**0.17**	**0.13 J**	0.069 U	0.059 U	0.065 U	0.065 U	0.065 U	0.063 U	0.06 U	0.06 U	0.063 U	0.06 U	0.06 U	0.063 U
BENZO (A) PYRENE	UG/L	**0.076 J**	0.046 U	0.049 U	0.041 U	0.046 U	0.046 U	0.046 U	0.044 U	0.043 U	0.043 U	0.044 U	0.043 U	0.043 U	0.044 U
BENZO (B) FLUORANTHENE	UG/L	**0.17 J**	**0.089 J**	0.09 U	0.076 U	0.084 U	0.084 U	0.084 U	0.081 U	0.078 U	0.078 U	0.081 U	0.078 U	0.078 U	0.081 U
BENZO (G,H,I) PERYLENE	UG/L	0.058 U	0.059 U	0.064 U	0.054 U	0.059 U	0.059 U	0.059 U	0.058 U	0.056 U	0.056 U	0.058 U	0.056 U	0.056 U	0.058 U
BENZO (K) FLUORANTHENE	UG/L	**0.081 J**	0.076 U	0.081 U	0.069 U	0.076 U	0.076 U	0.076 U	0.073 U	0.071 U	0.071 U	0.073 U	0.071 U	0.071 U	0.073 U
BENZOIC ACID	UG/L	4.2 U	5.1 U	4.6 U	3.9 U	0.8 U	4.3 U	4.3 U	0.77 U	4 U	4.4 U	4.2 U	4 U	**11**	**10**
BENZYL ALCOHOL	UG/L	0.14 U	0.14 U	0.15 U	0.13 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.13 U	0.14 U	0.13 U	**0.58 J**	**0.56 J**
BIS (2-CHLOROETHOXY)- METHANE	UG/L	0.13 U	0.13 U	0.14 U	0.12 U	0.13 U	0.13 U	0.13 U	0.13 U	0.12 U	0.12 U	0.13 U	0.12 U	0.12 U	0.13 U
BIS (2-CHLOROETHYL) ETHER	UG/L	0.033 U	0.034 U	0.037 U	0.031 U	0.034 U	0.034 U	0.034 U	0.033 U	0.032 U	0.032 U	0.033 U	0.032 U	0.032 U	0.033 U
BIS (2-CHLOROISOPROPYL)-ETHER	UG/L	0.048 U	0.05 U	0.054 U	0.045 U	0.05 U	0.05 U	0.05 U	0.048 U	0.047 U	0.047 U	0.048 U	0.047 U	0.047 U	0.048 U
BIS (2-ETHYLHEXYL)- PHTHALATE	UG/L	5.2 U	5.4 U	5.8 U	4.9 U	5.4 U	5.4 U	5.4 U	5.2 U	5 U	5 U	5.2 U	5 U	5 U	5.2 U
BUTYL BENZYL PHTHALATE	UG/L	**0.84 J+**	0.4 U	0.93 U	0.78 U	0.4 U	0.86 U	0.86 U	0.39 U	0.37 U	0.37 U	0.39 U	0.81 U	**0.62 J**	**0.79 J**
CHRYSENE	UG/L	**0.24 J**	**0.13 J**	0.075 U	0.063 U	0.07 U	0.07 U	0.07 U	0.068 U	0.065 U	0.065 U	0.068 U	0.065 U	0.065 U	0.068 U
DIBENZO (A,H) ANTHRACENE	UG/L	0.06 U	0.062 U	0.067 U	0.056 U	0.062 U	0.062 U	0.062 U	0.06 U	0.058 U	0.058 U	0.06 U	0.058 U	0.058 U	0.06 U
DIBENZOFURAN	UG/L	**0.2 J**	**0.21 J**	0.18 U	0.15 U	**8.7**	0.16 U	0.16 U	0.16 U	0.15 U	0.15 U	0.16 U	0.15 U	0.15 U	0.16 U
DIETHYLPHTHALATE	UG/L	0.47 U	0.49 U	0.53 U	0.44 U	0.49 U	0.49 U	0.49 U	0.47 U	0.46 U	0.46 U	0.47 U	0.46 U	0.46 U	0.47 U
DIMETHYLPHTHALATE	UG/L	0.17 U	0.17 U	0.19 U	0.16 U	0.17 U	0.17 U	0.17 U	0.17 U	0.16 U	0.16 U	0.17 U	0.16 U	0.16 U	0.17 U
DI-N-BUTYLPHTHALATE	UG/L	0.62 U	0.64 U	1.7 U	1.1 U	0.64 U	0.86 U	1.2 U	1.6 U	1.2 U	1.4 U	0.83 U	1.4 U	**1.9**	**0.78 J**
DI-N-OCTYLPHTHALATE	UG/L	0.57 U	0.59 U	0.63 U	0.54 U	0.59 U	0.59 U	0.59 U	0.57 U	0.55 U	0.55 U	0.57 U	0.55 U	0.55 U	0.57 U
FLUORANTHENE	UG/L	**0.71 J**	**0.5 J**	**0.16 J**	**0.092 J**	**0.78**	**0.087 J**	**0.053 J**	0.05 U	0.048 U	0.048 U	**0.053 J**	0.048 U	0.048 U	0.05 U
FLUORENE	UG/L	**0.23**	**0.24**	0.064 U	0.054 U	**8.5**	0.059 U	0.059 U	0.058 U	0.056 U	0.056 U	0.058 U	0.056 U	0.056 U	0.058 U
HEXACHLOROBENZENE	UG/L	0.047 U	0.048 U	0.052 U	0.044 U	0.048 U	0.048 U	0.048 U	0.047 U	0.045 U	0.045 U	0.047 U	0.045 U	0.045 U	0.047 U
HEXACHLOROBUTADIENE	UG/L	0.058 U	0.059 U	0.064 U	0.054 U	0.059 U	0.059 U	0.059 U	0.058 U	0.056 U	0.056 U	0.058 U	0.056 U	0.056 U	0.058 U
HEXACHLOROCYCLOPENTADIENE	UG/L	0.41 U	0.43 U	0.46 U	0.39 U	0.43 U	0.43 U	0.43 U	0.41 U	0.4 U	0.4 U	0.41 U	0.4 U	0.4 U	0.41 U
HEXACHLOROETHANE	UG/L	0.11 U	0.11 U	0.12 U	0.1 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
INDENO (1,2,3-CD) PYRENE	UG/L	0.071 U	0.073 U	0.079 U	0.066 U	0.073 U	0.073 U	0.073 U	0.071 U	0.069 U	0.069 U	0.071 U	0.069 U	0.069 U	0.071 U
ISOPHORONE	UG/L	0.16 U	0.16 U	0.17 U	0.15 U	0.16 U	0.16 U	0.16 U	0.16 U	0.15 U	0.15 U	0.16 U	0.15 U	0.15 U	0.16 U
NAPHTHALENE	UG/L	NA	NA	NA	NA	NA	NA	NA	0.049 U	NA	NA	NA	NA	NA	NA
NITROBENZENE	UG/L	0.42 U	0.43 U	0.46 U	0.39 U	0.43 U	0.43 U	0.43 U	0.42 U	0.4 U	0.4 U	0.42 U	0.4 U	0.4 U	0.42 U
N-NITROSODI-N-PROPYLAMINE	UG/L	0.059 U	0.061 U	0.066 U	0.055 U	0.061 U	0.061 U	0.061 U	0.059 U	0.057 U	0.057 U	0.059 U	0.057 U	0.057 U	0.059 U
N-NITROSO-DI-PHENYLAMINE	UG/L	0.099 U	0.1 U	0.11 U	0.093 U	0.1 U	0.1 U	0.1 U	0.099 U	0.096 U	0.096 U	0.099 U	0.096 U	0.096 U	0.099 U
PENTACHLOROPHENOL	UG/L	1.6 U	0.35 U	0.35 U	0.32 U	1.8 U	0.35 U	0.36 U	0.32 U	0.32 U	0.32 U	3.6 U	0.32 U	0.32 U	0.32 U
PHENANTHRENE	UG/L	**0.73 J+**	**0.76 J+**	**0.22 J+**	0.15 U	**1.2 J+**	0.16 U	0.16 U	0.046 U	0.15 U	0.15 U	0.16 U	0.044 U	**0.074 J**	**0.079 J**
PHENOL	UG/L	0.41 U	0.42 U	0.45 U	0.38 U	0.42 U	0.42 U	0.42 U	0.41 U	0.39 U	0.39 U	0.41 U	0.39 U	0.39 U	0.41 U
PYRENE	UG/L	**0.55**	**0.44**	**0.084 J**	**0.066 J**	**0.53**	**0.054 J**	0.047 U	0.045 U	0.044 U	0.044 U	**0.05 J**	0.044 U	0.044 U	0.045 U

Table C-2
Analytical Summary - First Semi-Annual 2023 Groundwater Data
First Semi-Annual 2023 Sampling Event
Superior Facility
Superior, Wisconsin

ANALYTE NAME	UNITS	W-04AR2 4/27/2023	W-04AR2 DUP 4/27/2023	W-06A 4/26/2023	W-06C 4/26/2023	W-10AR2 4/27/2023	W-12A 4/27/2023	W-12CR 4/26/2023	W-18D 4/26/2023	W-28C 4/26/2023	W-28C-DUP 4/26/2023	W-30A 4/27/2023	W-30C 4/26/2023	Equipment Blank 4/26/2023	Equipment Blank 4/27/2023
8290A															
1,2,3,4,6,7,8-HPCDD (TEF = 0.01)	UG/L	0.00005 U	**0.000054 J**	0.000051 U	0.000048 U	0.000054 U	**0.000069**	0.00000024 U	NA	0.000048 U	0.000049 U	**0.00013**	0.000048 U	0.00000067 U	NA
1,2,3,4,6,7,8-HPCDF (TEF = 0.01)	UG/L	0.00005 U	0.000051 U	0.000051 U	0.000048 U	0.000054 U	0.000052 U	0.000053 U	NA	0.000048 U	0.000049 U	0.000051 U	0.000048 U	**0.00000036 JI**	NA
1,2,3,4,7,8,9-HPCDF (TEF = 0.01)	UG/L	0.00005 U	0.000051 U	0.000051 U	0.00000022 U	0.000054 U	0.000052 U	0.000053 U	NA	0.000048 U	0.000049 U	0.000051 U	0.000048 U	0.00000022 U	NA
1,2,3,4,7,8-HXCDD (TEF = 0.1)	UG/L	0.00005 U	0.000051 U	0.000051 U	0.000048 U	0.000054 U	0.000052 U	0.000053 U	NA	0.000048 U	0.000049 U	0.000051 U	0.000048 U	**0.000001 J**	NA
1,2,3,4,7,8-HXCDF (TEF = 0.1)	UG/L	**0.00000055 J**	**0.0000013 JI**	**0.0000009 JI**	0.00000031 U	**0.0000011 JI**	**0.0000051 J**	**0.00000082 JI**	NA	**0.0000019 J**	**0.0000014 J**	**0.0000078 J**	0.00000041 U	0.00000015 U	NA
1,2,3,6,7,8-HXCDD (TEF = 0.1)	UG/L	0.00005 U	0.000051 U	0.000051 U	0.000048 U	0.000054 U	0.000052 U	0.00000017 U	NA	0.00000014 U	0.00000022 U	0.000051 U	0.000048 U	**0.00000026 JI**	NA
1,2,3,6,7,8-HXCDF (TEF = 0.1)	UG/L	0.00000021 U	**0.0000017 JI**	**0.00000088 JI**	**0.0000011 JI**	**0.0000017 JI**	**0.0000064 JI**	**0.00000087 JI**	NA	**0.0000011 J**	**0.0000011 JI**	**0.000015 J**	0.00000044 U	0.00000016 U	NA
1,2,3,7,8,9-HXCDD (TEF = 0.1)	UG/L	**0.000001 JI**	**0.0000021 J**	**0.00000054 JI**	0.00000015 U	**0.00000053 JI**	**0.0000017 JI**	**0.00000035 JI**	NA	**0.00000054 J**	**0.00000063 JI**	**0.0000024 J**	**0.00000044 J**	0.00000016 U	NA
1,2,3,7,8,9-HXCDF (TEF = 0.1)	UG/L	0.00000027 U	0.00000029 U	**0.0000004 JI**	0.00000042 U	0.00000036 U	0.000001 U	0.00000017 U	NA	0.00000037 U	0.0000003 U	0.0000012 U	0.00000055 U	0.0000002 U	NA
1,2,3,7,8-PECDD (TEF = 1)	UG/L	0.00000015 U	0.000051 U	0.000051 U	0.000048 U	0.00000018 U	0.000052 U	0.000053 U	NA	0.000048 U	0.000049 U	0.00000035 U	0.00000025 U	**0.00000042 J**	NA
1,2,3,7,8-PECDF (TEF = 0.03)	UG/L	0.00005 U	0.000051 U	0.00000022 U	0.000048 U	0.000054 U	0.000052 U	0.000053 U	NA	0.000048 U	0.000049 U	0.00000068 U	0.000048 U	**0.00000024 JI**	NA
2,3,4,6,7,8-HXCDF (TEF = 0.1)	UG/L	**0.00000066 JI**	0.00000024 U	**0.00000055 JI**	**0.00000096 JI**	**0.00000086 JI**	**0.0000012 JI**	0.00000014 U	NA	0.00000031 U	0.00000026 U	**0.0000022 JI**	0.00000047 U	0.00000017 U	NA
2,3,4,7,8-PECDF (TEF = 0.3)	UG/L	0.00005 U	0.000051 U	0.000051 U	0.000048 U	0.000054 U	0.000052 U	0.00000013 U	NA	0.000048 U	0.000049 U	0.000051 U	0.000048 U	0.00000012 U	NA
2,3,7,8-TCDD (TEF = 1)	UG/L	0.00000018 U	0.00000027 U	**0.00000021 JI**	0.00000017 U	0.00000011 U	0.000000095 U	**0.00000026 J**	NA	0.00000019 U	0.00000015 U	0.00000019 U	**0.0000002 JI**	0.00000015 U	NA
2,3,7,8-TCDF (TEF = 0.1)	UG/L	0.00000015 U	0.00001 U	0.00001 U	0.00000013 U	0.000000092 U	0.00001 U	0.000011 U	NA	0.0000097 U	0.0000097 U	0.00000012 U	0.00000012 U	0.000000079 U	NA
OCDD (TEF = 0.0003)	UG/L	**0.00013 J**	**0.00054 J**	**0.00011**	0.000097 U	**0.00021**	**0.00057**	0.00011 U	NA	0.000097 U	0.000097 U	**0.0016**	0.000095 U	**0.0000029 JI**	NA
OCDF (TEF = 0.0003)	UG/L	0.000099 U	0.0001 U	0.0001 U	0.000097 U	0.00011 U	0.0001 U	0.00011 U	NA	0.000097 U	0.000097 U	**0.00011**	0.000095 U	**0.00000033 JI**	NA
TOTAL HPCDD	UG/L	**0.000086 JI**	**0.00046 J**	0.000051 U	0.000048 U	0.000054 U	**0.00013**	0.000053 U	NA	0.000048 U	0.000049 U	**0.00029**	0.000048 U	0.00000067 U	NA
TOTAL HPCDF	UG/L	0.00005 U	0.000051 U	0.000051 U	0.000048 U	0.000054 U	**0.000063 I**	0.000053 U	NA	0.000048 U	0.000049 U	**0.00015**	0.000048 U	**0.00000056 JI**	NA
TOTAL HXCDD	UG/L	0.00005 U	0.000051 U	0.000051 U	0.000048 U	0.000054 U	0.000052 U	0.000053 U	NA	0.000048 U	0.000049 U	0.000051 U	0.000048 U	**0.0000013 JI**	NA
TOTAL HXCDF	UG/L	**0.0000081 JI**	**0.000021 JI**	**0.000011 JI**	**0.0000038 JI**	**0.000028 JI**	**0.000068 I**	**0.0000017 JI**	NA	**0.0000046 JI**	**0.0000034 JI**	**0.00017 I**	**0.0000058 JI**	0.0000002 U	NA
TOTAL PECDD	UG/L	0.00000015 U	0.000051 U	0.000051 U	0.000048 U	0.000054 U	0.000052 U	0.000053 U	NA	0.000048 U	0.000049 U	0.00000035 U	0.00000025 U	**0.00000042 J**	NA
TOTAL PECDF	UG/L	0.00005 U	0.000051 U	0.000051 U	0.000048 U	0.000054 U	**0.000052 I**	0.000053 U	NA	0.000048 U	0.000049 U	**0.00017 I**	0.000048 U	**0.00000024 JI**	NA
TOTAL TCDD	UG/L	0.00000018 U	0.00001 U	0.00001 U	0.00000017 U	0.00000011 U	0.00001 U	0.000011 U	NA	0.00000019 U	0.00000015 U	0.00001 U	0.0000095 U	**0.00000048 JI**	NA
TOTAL TCDF	UG/L	0.0000099 U	0.00001 U	0.00001 U	0.0000097 U	0.000011 U	**0.000024 J+I**	0.000011 U	NA	0.0000097 U	0.0000097 U	**0.000033 J+**	**0.000011 J+I**	**0.00000029 JI**	NA
2,3,7,8-TCDD TEQ - ND = 0	UG/L	**2.60E-07**	**1.21E-06**	**5.70E-07**	**2.06E-07**	**4.82E-07**	**2.30E-06**	**4.64E-07**	NA	**3.54E-07**	**3.13E-07**	**4.55E-06**	**2.44E-07**	**5.58E-07**	NA

Notes:
TEF = Toxicity Equivalent Factor (World Health Organization, 2005)
TEQ = Toxicity Equivalent Quotient
Bold values represent detections.
DUP indicates duplicate sample.
U indicates compound was not detected.
J indicates an estimated value.
J+ indicates an estimated value biased high.
I indicates value is estimated maximum possible concentration.
NA indicates not analyzed.
Laboratory results that were U-qualified were assigned a value of 0 for 2,3,7,8-TCDD TEQ calculation.

APPENDIX D

DATA EVALUATION SUMMARY

FTS, LLC

DATE: May 22, 2023

FROM: Kendra Chintella

SUBJECT: Superior Groundwater

SAMPLE DELIVERY GROUP (SDG): 180-155743-1

SAMPLES: SUPE-W-99A-042623 (W-28C), SUPE-W-28C-042623, SUPE-W-06C-042623, SUPE-W-30C-042623, SUPE-W-18D-042623, SUPE-W-06A-042623, SUPE-W-12CR-042623, SUPE-EB-01-042623

ANALYSES: Method 8260C (VOCs), 8270E LL (SVOCs), 8270D LL (Pentachlorophenol)

LABORATORY: Eurofins Laboratories, Buffalo, Pittsburgh

The data contained in this SDG were evaluated with regard to the following parameters:

□ Data Completeness
Noncompliance: None

□ Holding Times
Noncompliance: None

□ Laboratory Blank Contamination
Noncompliance: None

□ Field Blank Contamination
Noncompliance: Benzoic acid (11 ug/l) was detected above the QL in the equipment blank and the result in sample W-99A was qualified not detected. The benzoic acid results in samples W-28C, W-06C, W-30C, W-06A, and W-12CR were qualified not detected at the QL. Benzyl alcohol (0.58 J ug/l) was detected below the QL in the equipment blank and no data qualification was necessary as sample results were not detected. Butyl benzyl phthalate (0.62 J ug/l) was detected below the QL in the equipment blank and the results in samples W-06C, W-30C, W-06A, and W-12CR were qualified not detected at the QL. Di-n-butyl phthalate (1.9 ug/l) was detected above the QL in the equipment blank and the results in samples W-99A, W-28C, W-06C, W-30C, W-18D, W-06A, and W-12CR were qualified not detected. Phenanthrene (0.074 J ug/l) was detected below the QL in the equipment blank and the results in samples W-99A, W-28C, W-06C, and W-12CR were qualified not detected at the QL. The phenanthrene result in sample W-06A was qualified “J+”.

□ Field Duplicate Precision
Noncompliance: See attached page for details.

□ Surrogate Recoveries
Noncompliance: None

□ Laboratory Control Sample
Noncompliance: None

□ Matrix Spike/Matrix Spike Duplicate Sample
Noncompliance: None

Field Duplicate Precision:

FIELD DUPLICATE PRECISION					
ANALYTE	W-28C	QUAL	W-99A	QUAL	RPD
1-Methylnaphthalene	0.088	J	0.045	U	NC
2-Methylnaphthalene	0.091	J	0.05	U	NC
Acenaphthene	0.062	J	0.052	U	NC
Benzoic acid	3.1	J	4.4		34.67*
Di-n-butyl phthalate	1.2		1.4		15.38
Phenanthrene	0.073	J	0.066	J	10.07

NC – not calculated due to nondetect result
* - RPD is greater than 30%, associated samples are qualified as estimated, “J,” due to laboratory or field sampling imprecision unless qualified as not detected due to blank contamination.

FTS, LLC

DATE: June 9, 2023

FROM: Emily Vargo

SUBJECT: Superior Groundwater

SAMPLE DELIVERY GROUP (SDG): 180-155743-2

SAMPLES: SUPE-W-99A-042623 (W-28C), SUPE-W-28C-042623, SUPE-W-06C-042623, SUPE-W-30C-042623, SUPE-W-06A-042623, SUPE-W-12CR-042623, SUPE-EB-01-042623

ANALYSES: Method 8290A (Dioxins and Furans)

LABORATORY: Eurofins Laboratories, Knoxville

The data contained in this SDG were evaluated with regard to the following parameters:

□ Data Completeness
Noncompliance: None

□ Holding Times
Noncompliance: None

□ Laboratory Blank Contamination
Noncompliance: Total TCDD (0.171 JI pg/L) was detected below the QL in the method blank and results in samples W-30C, W-06A, and W-12CR were qualified not detected at the QL. 1,2,3,7,8-PeCDD (0.661 J pg/L) was detected below the QL in the method blank and results in samples W-99A, W-28C, W-06C, W-06A, and W-12CR were qualified not detected at the QL. Total PeCDD (0.661 J pg/L) was detected below the QL in the method blank and results in samples W-99A, W-28C, W-06C, W-06A, and W-12CR were qualified not detected at the QL. 1,2,3,4,7,8-HxCDD (1.55 JI pg/L) was detected below the QL in the method blank and results in samples W-99A, W-28C, W-06C, W-30C, W-06A, and W-12CR were qualified not detected at the QL. 1,2,3,6,7,8-HxCDD (0.362 J pg/L) was detected below the QL in the method blank and results in samples W-06C, W-30C, and W-06A were qualified not detected at the QL. Total HxCDD (2.36 JI pg/L) was detected below the QL in the method blank and results in samples W-99A, W-28C, W-06C, W-30C, W-06A, and W-12CR were qualified not detected at the QL. 1,2,3,4,6,7,8-HpCDD (2 JI pg/L) was detected below the QL in the method blank and results in samples W-99A, W-28C, W-06C, W-30C, and W-06A were qualified not detected at the QL. Total HpCDD (2 JI pg/L) was detected below the QL in the method blank and results in samples W-99A, W-28C, W-06C, W-30C, W-06A, and W-12CR were qualified not detected at the QL. OCDD (3.23 J pg/L) was detected below the QL in the method blank and results in samples W-99A, W-28C, W-06C, W-30C, and W-12CR were qualified not detected at the QL. 2,3,7,8-TCDF (0.255 JI pg/L) was detected below the QL in the method blank and results in samples W-99A, W-28C, W-06A and W-12CR were qualified not detected at the QL. Total TCDF (3.72 JI pg/L) was detected below the QL in the method blank and results in samples W-99A, W-28C, W-06C, W-06A, and W-12CR were qualified not detected at the QL. The TCDF result in sample W-30C was qualified "J+". 1,2,3,7,8-PeCDF (0.92 JI pg/L) was detected below the QL in the method blank and results in samples W-99A, W-28C, W-06C, W-30C, and W-12CR were qualified not detected at the QL. 2,3,4,7,8-PeCDF (1.13 J pg/L) was detected below the QL in the method blank and results in samples W-99A, W-28C, W-06C, W-30C, and W-06A were qualified not detected at the QL. Total PeCDF (3.32 JI pg/L) was detected below the QL in the method blank and results in samples W-99A, W-28C, W-06C, W-30C, W-06A, and W-12CR were qualified not detected at the QL. 1,2,3,4,6,7,8-HpCDF

(0.866 JI pg/L) was detected below the QL in the method blank and results in samples W-99A, W-28C, W-06C, W-30C, W-06A, and W-12CR were qualified not detected at the QL. 1,2,3,4,7,8,9-HpCDF (0.635 JI pg/L) was detected below the QL in the method blank and results in samples W-99A, W-28C, W-30C, W-06A, and W-12CR were qualified not detected at the QL. Total HpCDF (1.96 JI pg/L) was detected below the QL in the method blank and results in samples W-99A, W-28C, W-06C, W-30C, W-06A, and W-12CR were qualified not detected at the QL. OCDF (1.5 JI pg/L) was detected below the QL in the method blank and results in samples W-99A, W-28C, W-06C, W-30C, W-06A, and W-12CR were qualified not detected at the QL.

□ Field Blank Contamination
Noncompliance: Total TCDD (0.48 JI pg/L) was detected below the QL in the equipment blank, SUPE-EB-01-042623, and results in samples W-30C, W-06A, and W-12CR were qualified not detected at the QL. 1,2,3,7,8-PeCDD (0.42 J pg/L) was detected below the QL in the equipment blank, SUPE-EB-01-042623, and results in samples W-99A, W-28C, W-06C, W-06A, and W-12CR were qualified not detected at the QL. Total PeCDD (0.42 J pg/L) was detected below the QL in the equipment blank, SUPE-EB-01-042623, and results in samples W-99A, W-28C, W-06C, W-06A, and W-12CR were qualified not detected at the QL. 1,2,3,4,7,8-HxCDD (1 J pg/L) was detected below the QL in the equipment blank, SUPE-EB-01-042623, and results in samples W-99A, W-28C, W-06C, W-30C, W-06A, and W-12CR were qualified not detected at the QL. 1,2,3,6,7,8-HxCDD (0.26 JI pg/L) was detected below the QL in the equipment blank, SUPE-EB-01-042623, and results in samples W-06C, W-30C, and W-06A were qualified not detected at the QL. Total HxCDD (1.3 JI pg/L) was detected below the QL in the equipment blank, SUPE-EB-01-042623, and results in samples W-99A, W-28C, W-06C, W-30C, W-06A, and W-12CR were qualified not detected at the QL. OCDD (2.9 JI pg/L) was detected below the QL in the equipment blank and results in samples W-99A, W-28C, W-06C, W-30C, and W-12CR were qualified not detected at the QL. Total TCDF (0.29 JI pg/L) was detected below the QL in the equipment blank, SUPE-EB-01-042623, and results in samples W-99A, W-28C, W-06C, W-06A, and W-12CR were qualified not detected at the QL. 1,2,3,7,8-PeCDF (0.24 JI pg/L) was detected below the QL in the equipment blank, SUPE-EB-01-042623, and results in samples W-99A, W-28C, W-06C, W-30C, and W-12CR were qualified not detected at the QL. Total PeCDF (0.24 JI pg/L) was detected below the QL in the equipment blank, SUPE-EB-01-042623, and results in samples W-99A, W-28C, W-06C, W-30C, W-06A, and W-12CR were qualified not detected at the QL. 1,2,3,4,6,7,8-HpCDF (0.36 JI pg/L) was detected below the QL in the equipment blank, SUPE-EB-01-042623, and results in samples W-99A, W-28C, W-06C, W-30C, W-06A, and W-12CR were qualified not detected at the QL. Total HpCDF (0.56 JI pg/L) was detected below the QL in the equipment blank, SUPE-EB-01-042623, and results in samples W-99A, W-28C, W-06C, W-30C, W-06A, and W-12CR were qualified not detected at the QL. OCDF (0.33 JI pg/L) was detected below the QL in the equipment blank, SUPE-EB-01-042623, and results in samples W-99A, W-28C, W-06C, W-30C, W-06A, and W-12CR were qualified not detected at the QL.

□ Field Duplicate Precision
Noncompliance: See attached page for details.

□ Surrogate Recoveries
Noncompliance: None

□ Laboratory Control Sample
Noncompliance: None

Field Duplicate Precision:

FIELD DUPLICATE PRECISION					
ANALYTE	W-28C	QUAL	W-99A	QUAL	RPD
1,2,3,4,6,7,8-HpCDD	4.8	JI	3.3	J	37.04*
1,2,3,4,6,7,8-HpCDF	4.8	JI	4.3	J	10.99
1,2,3,4,7,8,9-HpCDF	0.57	JI	0.69	J	19.05
1,2,3,4,7,8-HxCDD	1.4	J	1.4	JI	0.00
1,2,3,4,7,8-HxCDF	1.9	J	1.4	J	30.30*
1,2,3,6,7,8-HxCDF	1.1	J	1.1	JI	0.00
1,2,3,7,8,9-HxCDD	0.54	J	0.63	JI	15.38
1,2,3,7,8-PeCDD	0.7	JI	0.61	J	13.74
1,2,3,7,8-PeCDF	1.2	JI	0.87	J	31.88*
2,3,4,7,8-PeCDF	0.96	J	0.18	JI	136.84*
2,3,7,8-TCDF	0.45	JI	0.4	JI	11.76
OCDD	29	J	22	J	27.45
OCDF	11	J	10	J	9.52
Total HpCDD	17	JI	13	J	26.67
Total HpCDF	6.6	JI	5.9	JI	11.20
Total HxCDD	3.5	JI	2.4	JI	37.29*
Total HxCDF	4.6	JI	3.4	JI	30.00
Total PeCDD	0.7	JI	0.61	J	13.74
Total PeCDF	2.1	JI	2	JI	4.88
Total TCDF	1.6	JI	1.4	JI	13.33

* - RPD is greater than 30%, associated samples are qualified as estimated, “J,” due to laboratory or field sampling imprecision.

FTS, LLC

DATE: May 22, 2023

FROM: Kendra Chintella

SUBJECT: Superior Groundwater

SAMPLE DELIVERY GROUP (SDG): 180-155744-1

SAMPLES: SUPE-W-04AR2-042723, SUPE-W-99B-042723 (W-04AR2), SUPE-W-12A-042723, SUPE-EB-02-042723, SUPE-W-30A-042723, SUPE-W-10AR2-042723

ANALYSES: Method 8260C (VOCs), 8270E LL (SVOCs), 8270D LL (Pentachlorophenol)

LABORATORY: Eurofins Laboratories, Buffalo, Pittsburgh

The data contained in this SDG were evaluated with regard to the following parameters:

□ Data Completeness
Noncompliance: None

□ Holding Times
Noncompliance: None

□ Laboratory Blank Contamination
Noncompliance: None

□ Field Blank Contamination
Noncompliance: Benzoic acid (10 ug/l) was detected above the QL in the equipment blank and the results in samples W-04AR2 and W-99B were qualified not detected. The benzoic acid results in samples W-12A and W-30A were qualified not detected at the QL. Benzyl alcohol (0.56 J ug/l) was detected below the QL in the equipment blank and no data qualification was necessary as sample results were not detected. Butyl benzyl phthalate (0.79 J ug/l) was detected below the QL in the equipment blank and the result in sample W-12A was qualified not detected at the QL. The butyl benzyl phthalate results in sample W-04AR2 was qualified “J+”. Di-n-butyl phthalate (0.78 J ug/l) was detected below the QL in the equipment blank and the results in samples W-12A and W-30A were qualified not detected at the QL. Phenanthrene (0.079 J ug/l) was detected below the QL in the equipment blank and the results in samples W-12A and W-30A were qualified not detected at the QL. The phenanthrene results in samples W-04AR2, W-99B, and W-10AR2 were qualified “J+”.

□ Field Duplicate Precision
Noncompliance: See attached page for details.

□ Surrogate Recoveries
Noncompliance: None

□ Laboratory Control Sample
Noncompliance: The LCS recovery of di-n-octyl phthalate was above the recovery limits. No action was taken on this basis.

Field Duplicate Precision:

FIELD DUPLICATE PRECISION					
ANALYTE	W-04AR2	QUAL	W-99B	QUAL	RPD
1-Methylnaphthalene	0.059	J	0.072	J	19.85
2-Methylnaphthalene	0.099	J	0.12	J	19.18
Acenaphthene	0.24		0.26		8.00
Anthracene	1.1		1		9.52
Benzo(a)anthracene	0.17		0.13	J	26.67
Benzo(a)pyrene	0.076	J	0.046	U	NC
Benzo(b)fluoranthene	0.17		0.089	J	62.55*
Benzo(k)fluoranthene	0.081	J	0.076	U	NC
Benzoic acid	4.2		5.1		19.35
Butyl benzyl phthalate	0.84		0.4	U	NC
Chrysene	0.24		0.13	J	59.46*
Dibenzofuran	0.2	J	0.21	J	4.88
Fluoranthene	0.71		0.5		34.71*
Fluorene	0.23		0.24		4.26
Naphthalene	0.72	J	0.94	J	26.51
Phenanthrene	0.73		0.76		4.03
Pyrene	0.55		0.44		22.22

NC – not calculated due to nondetect result
* - RPD is greater than 30%, associated samples are qualified as estimated, “J,” due to laboratory or field sampling imprecision.

FTS, LLC

DATE: June 12, 2023

FROM: Emily Vargo

SUBJECT: Superior Groundwater

SAMPLE DELIVERY GROUP (SDG): 180-155744-2

SAMPLES: SUPE-W-04AR2-042723, SUPE-W-99B-042723 (W-04AR2), SUPE-W-12A-042723, SUPE-W-30A-042723, SUPE-W-10AR2-042723

ANALYSES: Method 8290A (Dioxins and Furans)

LABORATORY: Eurofins Laboratories, Knoxville

The data contained in this SDG were evaluated with regard to the following parameters:

□ Data Completeness
Noncompliance: Bottles were not received for 8290A analysis for the equipment blank. FTS was not notified by the laboratory and bottles were not submitted for analysis.

□ Holding Times
Noncompliance: None

□ Laboratory Blank Contamination
Noncompliance: Total TCDD (0.171 JI pg/L) was detected below the QL in the method blank and results in samples W-99B, W-12A, and W-30A were qualified not detected at the QL. 1,2,3,7,8-PeCDD (0.661 J pg/L) was detected below the QL in the method blank and results in samples W-99B and W-12A were qualified not detected at the QL. Total PeCDD (0.661 J pg/L) was detected below the QL in the method blank and results in samples W-99B, W-12A, and W-10AR2 were qualified not detected at the QL. 1,2,3,4,7,8-HxCDD (1.55 JI pg/L) was detected below the QL in the method blank and results in samples W-04AR2, W-99B, W-12A, W-30A, and W-10AR2 were qualified not detected at the QL. 1,2,3,6,7,8-HxCDD (0.362 J pg/L) was detected below the QL in the method blank and results in samples W-04AR2, W-99B, W-12A, W-30A, and W-10AR2 were qualified not detected at the QL. Total HxCDD (2.36 JI pg/L) was detected below the QL in the method blank and results in W-04AR2, W-99B, W-12A, W-30A, and W-10AR2 were qualified not detected at the QL. 1,2,3,4,6,7,8-HpCDD (2 JI pg/L) was detected below the QL in the method blank and results in samples W-04AR2 and W-10AR2 were qualified not detected at the QL. Total HpCDD (2 JI pg/L) was detected below the QL in the method blank the result in sample W-10AR2 was qualified not detected at the QL. OCDD (3.23 J pg/L) was detected below the QL in the method blank and no data qualification was necessary. 2,3,7,8-TCDF (0.255 JI pg/L) was detected below the QL and results in samples W-99B and W-12A were qualified not detected at the QL. Total TCDF (3.72 JI pg/L) was detected below the QL in the method blank and results in samples W-04AR2, W-99B, and W-10AR2 were qualified not detected at the QL. The total TCDF results in samples W-12A and W-30A were qualified “J+”. 1,2,3,7,8-PeCDF (0.92 JI pg/L) was detected below the QL in the method blank and results in samples W-04AR2, W-99B, W-12A, and W-10AR2 were qualified not detected at the QL. 2,3,4,7,8-PeCDF (1.13 J pg/L) was detected below the QL in the method blank and results in samples W-04AR2, W-99B, W-12A, W-30A, and W-10AR2 were qualified not detected at the QL. Total PeCDF (3.32 JI pg/L) was detected in the method blank and results in samples W-04AR2, W-99B, and W-10AR2 were qualified not detected at the QL. 1,2,3,4,6,7,8-HpCDF (0.866 JI pg/L) was detected below the QL in the method blank and results in samples W-04AR2, W-99B, W-12A, W-30A, and W-

10AR2 were qualified not detected at the QL. 1,2,3,4,7,8,9-HpCDF (0.635 JI pg/L) was detected below the QL in the method blank and results in samples W-04AR2, W-99B, W-12A, W-30A, and W-10AR2 were qualified not detected at the QL. Total HpCDF (1.96 JI pg/L) was detected below the QL in the method blank and results in samples W-04AR2, W-99B, and W-10AR2 were qualified not detected at the QL. OCDF (1.5 JI pg/L) was detected below the QL in the method blank and results in samples W-04AR2, W-99B, W-12A, and W-10AR2 were qualified not detected at the QL.

□ Field Duplicate Precision
Noncompliance: See attached page for details.

□ Surrogate Recoveries
Noncompliance: None

□ Laboratory Control Sample
Noncompliance: None

Field Duplicate Precision:

FIELD DUPLICATE PRECISION					
ANALYTE	W-04AR2	QUAL	W-99B	QUAL	RPD
1,2,3,4,6,7,8-HpCDD	12	JI	54		127.27*
1,2,3,4,6,7,8-HpCDF	2	JI	4.7	JI	80.60*
1,2,3,4,7,8,9-HpCDF	0.78	JI	1.2	J	42.42*
1,2,3,4,7,8-HxCDD	1	JI	1.5	JI	40.00*
1,2,3,4,7,8-HxCDF	0.55	J	1.3	JI	81.08*
1,2,3,6,7,8-HxCDD	0.53	J	1.5	J	95.57*
1,2,3,6,7,8-HxCDF	0.21	U	1.7	JI	ND
1,2,3,7,8,9-HxCDD	1	JI	2.1	J	70.97*
1,2,3,7,8-PeCDD	0.15	U	0.58	JI	ND
1,2,3,7,8-PeCDF	0.52	J	0.69	JI	28.10
2,3,4,6,7,8-HxCDF	0.66	JI	0.24	U	ND
2,3,4,7,8-PeCDF	0.8	JI	0.44	JI	58.06*
2,3,7,8-TCDF	0.15	U	0.13	JI	ND
OCDD	130		540		122.39*
OCDF	5.6	JI	19	J	108.94*
TOTAL HpCDD	86	I	460		137.00*
TOTAL HpCDF	6.7	JI	15	JI	76.50*
TOTAL HxCDD	10	JI	33	JI	106.98*
TOTAL HxCDF	8.1	JI	21	JI	88.66*
TOTAL PeCDD	0.15	U	0.91	JI	ND
TOTAL PeCDF	4.1	JI	12	JI	98.14*
TOTAL TCDD	0.18	U	1.1	JI	ND
TOTAL TCDF	1.8	JI	7.2	JI	120.00*

* - RPD is greater than 30%, associated samples are qualified as estimated, “J,” due to laboratory or field sampling imprecision.
NC – not calculated due to non-detect result

APPENDIX E

LABORATORY ANALYTICAL DATA

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Angie Gatchie
Field & Technical Services LLC
200 Third Avenue
Carnegie, Pennsylvania 15106

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JOB DESCRIPTION

Superior, WI Semiannual Groundwater

JOB NUMBER

180-155743-1

Eurofins Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh PA 15238

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

PA Lab ID: 02-00416

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Pittsburgh Project Manager.

Authorization

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Authorized for release by
Shali Brown, Project Manager II
Shali.Brown@et.eurofinsus.com
(615)301-5031

Table of Contents

Case Narrative

Client: Field & Technical Services LLC
Job ID: 180-155743-1
Project/Site: Superior, WI Semiannual Groundwater

Job ID: 180-155743-1

Laboratory: Eurofins Pittsburgh

Narrative

Job Narrative
180-155743-1

Receipt
The samples were received on 4/28/2023 9:10 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 3.1°C, 3.3°C and 3.8°C

GC/MS VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270E_LL: Received limited quantity, insufficient amount for MSD.(180-155743-G-1 MS)

Method 8270E_LL: The continuing calibration verification (CCV) associated with batch 180-434215 recovered above the upper control limit for 2,3,5,6-Tetrachlorophenol, 2-Nitroaniline and Bis(2-chloroethoxy)methane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCVIS 180-434215/3).

Method 8270E_LL: An incorrect volume of surrogate spiking solution was inadvertently added the following samples: SUPE-W-06C-042623 (180-155743-3), SUPE-W-18D-042623 (180-155743-5), SUPE-W-12CR-042623 (180-155743-7) and SUPE-EB-01-042623 (180-155743-8). Percent recoveries are based on the amount spiked.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Definitions/Glossary

Client: Field & Technical Services LLC
Job ID: 180-155743-1
Project/Site: Superior, WI Semiannual Groundwater

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Field & Technical Services LLC
Job ID: 180-155743-1
Project/Site: Superior, WI Semiannual Groundwater

Laboratory: Eurofins Pittsburgh

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	998027800	08-31-23

Laboratory: Eurofins Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	998310390	08-31-23

Sample Summary

Client: Field & Technical Services LLC
Job ID: 180-155743-1
Project/Site: Superior, WI Semiannual Groundwater

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-155743-1	SUPE-W-99A-042623	Water	04/26/23 08:30	04/28/23 09:10
180-155743-2	SUPE-W-28C-042623	Water	04/26/23 10:38	04/28/23 09:10
180-155743-3	SUPE-W-06C-042623	Water	04/26/23 12:35	04/28/23 09:10
180-155743-4	SUPE-W-30C-042623	Water	04/26/23 14:42	04/28/23 09:10
180-155743-5	SUPE-W-18D-042623	Water	04/26/23 16:15	04/28/23 09:10
180-155743-6	SUPE-W-06A-042623	Water	04/26/23 11:25	04/28/23 09:10
180-155743-7	SUPE-W-12CR-042623	Water	04/26/23 15:15	04/28/23 09:10
180-155743-8	SUPE-EB-01-042623	Water	04/26/23 15:40	04/28/23 09:10

Method Summary

Client: Field & Technical Services LLC
Job ID: 180-155743-1
Project/Site: Superior, WI Semiannual Groundwater

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET BUF
EPA 8270E LL	Semivolatile Organic Compounds (GC/MS)	SW846	EET PIT
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET BUF
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PIT
5030C	Purge and Trap	SW846	EET BUF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

Client: Field & Technical Services LLC
Project/Site: Superior, WI Semiannual Groundwater

Job ID: 180-155743-1

Client Sample ID: SUPE-W-99A-042623

Lab Sample ID: 180-155743-1
Date Collected: 04/26/23 08:30
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	667627	05/01/23 14:02	CDC	EET BUF
	Instrument ID: HP5977K									
Total/NA	Prep	3510C			1050 mL	1 mL	667743	05/02/23 09:25	JMP	EET BUF
Total/NA	Analysis	8270D LL		1	1 mL	1 mL	668191	05/04/23 16:04	JMM	EET BUF
	Instrument ID: HP5973W									
Total/NA	Prep	3520C			310 mL	250 uL	434029	05/02/23 12:33	BJT	EET PIT
Total/NA	Analysis	EPA 8270E LL		1	1 mL	1 mL	434215	05/04/23 16:49	VVP	EET PIT
	Instrument ID: CH71									

Client Sample ID: SUPE-W-28C-042623

Lab Sample ID: 180-155743-2
Date Collected: 04/26/23 10:38
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	667627	05/01/23 14:25	CDC	EET BUF
	Instrument ID: HP5977K									
Total/NA	Prep	3510C			1050 mL	1 mL	667743	05/02/23 09:25	JMP	EET BUF
Total/NA	Analysis	8270D LL		1	1 mL	1 mL	668191	05/04/23 16:32	JMM	EET BUF
	Instrument ID: HP5973W									
Total/NA	Prep	3520C			310 mL	250 uL	434029	05/02/23 12:33	BJT	EET PIT
Total/NA	Analysis	EPA 8270E LL		1	1 mL	1 mL	434215	05/04/23 17:32	VVP	EET PIT
	Instrument ID: CH71									

Client Sample ID: SUPE-W-06C-042623

Lab Sample ID: 180-155743-3
Date Collected: 04/26/23 12:35
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	667627	05/01/23 14:47	CDC	EET BUF
	Instrument ID: HP5977K									
Total/NA	Prep	3510C			1050 mL	1 mL	667743	05/02/23 09:25	JMP	EET BUF
Total/NA	Analysis	8270D LL		1	1 mL	1 mL	668191	05/04/23 17:00	JMM	EET BUF
	Instrument ID: HP5973W									
Total/NA	Prep	3520C			320 mL	250 uL	434029	05/02/23 12:33	BJT	EET PIT
Total/NA	Analysis	EPA 8270E LL		1	1 mL	1 mL	434215	05/04/23 17:54	VVP	EET PIT
	Instrument ID: CH71									

Client Sample ID: SUPE-W-30C-042623

Lab Sample ID: 180-155743-4
Date Collected: 04/26/23 14:42
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	667627	05/01/23 15:09	CDC	EET BUF
	Instrument ID: HP5977K									

Client Sample ID: SUPE-W-30C-042623
Lab Sample ID: 180-155743-4
Date Collected: 04/26/23 14:42
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1050 mL	1 mL	667743	05/02/23 09:25	JMP	EET BUF
Total/NA	Analysis	8270D LL		1	1 mL	1 mL	668191	05/04/23 17:28	JMM	EET BUF
	Instrument ID: HP5973W									
Total/NA	Prep	3520C			310 mL	250 uL	434029	05/02/23 12:33	BJT	EET PIT
Total/NA	Analysis	EPA 8270E LL		1	1 mL	1 mL	434215	05/04/23 18:16	VVP	EET PIT
	Instrument ID: CH71									

Client Sample ID: SUPE-W-18D-042623
Lab Sample ID: 180-155743-5
Date Collected: 04/26/23 16:15
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1050 mL	1 mL	667743	05/02/23 09:25	JMP	EET BUF
Total/NA	Analysis	8270D LL		1	1 mL	1 mL	668191	05/04/23 17:55	JMM	EET BUF
	Instrument ID: HP5973W									
Total/NA	Prep	3520C			300 mL	250 uL	434029	05/02/23 12:33	BJT	EET PIT
Total/NA	Analysis	EPA 8270E LL		1	1 mL	1 mL	434215	05/04/23 18:38	VVP	EET PIT
	Instrument ID: CH71									

Client Sample ID: SUPE-W-06A-042623
Lab Sample ID: 180-155743-6
Date Collected: 04/26/23 11:25
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	667627	05/01/23 15:31	CDC	EET BUF
	Instrument ID: HP5977K									
Total/NA	Prep	3510C			960 mL	1 mL	667743	05/02/23 09:25	JMP	EET BUF
Total/NA	Analysis	8270D LL		1	1 mL	1 mL	668191	05/04/23 18:23	JMM	EET BUF
	Instrument ID: HP5973W									
Total/NA	Prep	3520C			270 mL	250 uL	434029	05/02/23 12:33	BJT	EET PIT
Total/NA	Analysis	EPA 8270E LL		1	1 mL	1 mL	434215	05/04/23 19:00	VVP	EET PIT
	Instrument ID: CH71									

Client Sample ID: SUPE-W-12CR-042623
Lab Sample ID: 180-155743-7
Date Collected: 04/26/23 15:15
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	667627	05/01/23 15:54	CDC	EET BUF
	Instrument ID: HP5977K									
Total/NA	Prep	3510C			950 mL	1 mL	667743	05/02/23 09:25	JMP	EET BUF
Total/NA	Analysis	8270D LL		1	1 mL	1 mL	668191	05/04/23 18:51	JMM	EET BUF
	Instrument ID: HP5973W									
Total/NA	Prep	3520C			290 mL	250 uL	434029	05/02/23 12:33	BJT	EET PIT
Total/NA	Analysis	EPA 8270E LL		1	1 mL	1 mL	434215	05/04/23 19:22	VVP	EET PIT
	Instrument ID: CH71									

Lab Chronicle

Client: Field & Technical Services LLC
Job ID: 180-155743-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-EB-01-042623
Lab Sample ID: 180-155743-8

Date Collected: 04/26/23 15:40
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	667627	05/01/23 16:16	CDC	EET BUF
	Instrument ID: HP5977K									
Total/NA	Prep	3510C			1050 mL	1 mL	667743	05/02/23 09:25	JMP	EET BUF
Total/NA	Analysis	8270D LL		1	1 mL	1 mL	668191	05/04/23 19:19	JMM	EET BUF
	Instrument ID: HP5973W									
Total/NA	Prep	3520C			310 mL	250 uL	434029	05/02/23 12:33	BJT	EET PIT
Total/NA	Analysis	EPA 8270E LL		1	1 mL	1 mL	434215	05/04/23 19:43	VVP	EET PIT
	Instrument ID: CH71									

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: EET BUF
- Batch Type: Prep
  - JMP = Jacob Pollock
- Batch Type: Analysis
  - CDC = Charles Cwiklinski
  - JMM = Joseph Marshall

Lab: EET PIT
- Batch Type: Prep
  - BJT = Bill Trout
- Batch Type: Analysis
  - VVP = Vincent Piccolino

Client: Field & Technical Services LLC
Job ID: 180-155743-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-99A-042623
Lab Sample ID: 180-155743-1
Date Collected: 04/26/23 08:30
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/01/23 14:02	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/01/23 14:02	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/01/23 14:02	1
Benzene	ND		1.0	0.41	ug/L			05/01/23 14:02	1
Chloromethane	ND		1.0	0.35	ug/L			05/01/23 14:02	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/01/23 14:02	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/01/23 14:02	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/01/23 14:02	1
Naphthalene	ND		1.0	0.43	ug/L			05/01/23 14:02	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/01/23 14:02	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/01/23 14:02	1
o-Xylene	ND		1.0	0.76	ug/L			05/01/23 14:02	1
Styrene	ND		1.0	0.73	ug/L			05/01/23 14:02	1
Toluene	ND		1.0	0.51	ug/L			05/01/23 14:02	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/01/23 14:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*05/01/23 14:02*	*1*
4-Bromofluorobenzene (Surr)	*94*		*73 - 120*		*05/01/23 14:02*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 123*		*05/01/23 14:02*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/01/23 14:02*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		0.95	0.32	ug/L		05/02/23 09:25	05/04/23 16:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*91*		*24 - 146*	*05/02/23 09:25*	*05/04/23 16:04*	*1*
2-Fluorobiphenyl	*97*		*37 - 120*	*05/02/23 09:25*	*05/04/23 16:04*	*1*
2-Fluorophenol (Surr)	*50*		*10 - 120*	*05/02/23 09:25*	*05/04/23 16:04*	*1*
Nitrobenzene-d5 (Surr)	*77*		*26 - 120*	*05/02/23 09:25*	*05/04/23 16:04*	*1*
Phenol-d5 (Surr)	*33*		*11 - 120*	*05/02/23 09:25*	*05/04/23 16:04*	*1*
p-Terphenyl-d14	*97*		*64 - 127*	*05/02/23 09:25*	*05/04/23 16:04*	*1*

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.81	0.11	ug/L		05/02/23 12:33	05/04/23 16:49	1
1,2-Dichlorobenzene	ND		0.81	0.077	ug/L		05/02/23 12:33	05/04/23 16:49	1
1,3-Dichlorobenzene	ND		0.81	0.080	ug/L		05/02/23 12:33	05/04/23 16:49	1
1,4-Dichlorobenzene	ND		0.81	0.049	ug/L		05/02/23 12:33	05/04/23 16:49	1
1-Methylnaphthalene	ND		0.15	0.045	ug/L		05/02/23 12:33	05/04/23 16:49	1
2,3,4,6-Tetrachlorophenol	ND		0.81	0.26	ug/L		05/02/23 12:33	05/04/23 16:49	1
2,3,5,6-Tetrachlorophenol	ND		0.81	0.41	ug/L		05/02/23 12:33	05/04/23 16:49	1
2,4,5-Trichlorophenol	ND		0.81	0.20	ug/L		05/02/23 12:33	05/04/23 16:49	1
2,4,6-Trichlorophenol	ND		0.81	0.18	ug/L		05/02/23 12:33	05/04/23 16:49	1
2,4-Dichlorophenol	ND		0.15	0.041	ug/L		05/02/23 12:33	05/04/23 16:49	1
2,4-Dimethylphenol	ND		0.81	0.13	ug/L		05/02/23 12:33	05/04/23 16:49	1
2,4-Dinitrophenol	ND		8.1	1.2	ug/L		05/02/23 12:33	05/04/23 16:49	1
2,4-Dinitrotoluene	ND		0.81	0.28	ug/L		05/02/23 12:33	05/04/23 16:49	1
2,6-Dinitrotoluene	ND		0.81	0.14	ug/L		05/02/23 12:33	05/04/23 16:49	1

Client: Field & Technical Services LLC
Project/Site: Superior, WI Semiannual Groundwater

Job ID: 180-155743-1

Client Sample ID: SUPE-W-99A-042623
Date Collected: 04/26/23 08:30
Date Received: 04/28/23 09:10

Lab Sample ID: 180-155743-1
Matrix: Water

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	ND		0.15	0.048	ug/L		05/02/23 12:33	05/04/23 16:49	1
2-Chlorophenol	ND		0.81	0.10	ug/L		05/02/23 12:33	05/04/23 16:49	1
2-Methylnaphthalene	ND		0.15	0.050	ug/L		05/02/23 12:33	05/04/23 16:49	1
2-Methylphenol	ND		0.81	0.24	ug/L		05/02/23 12:33	05/04/23 16:49	1
2-Nitroaniline	ND		4.0	0.44	ug/L		05/02/23 12:33	05/04/23 16:49	1
2-Nitrophenol	ND		0.81	0.16	ug/L		05/02/23 12:33	05/04/23 16:49	1
3,3'-Dichlorobenzidine	ND		0.81	0.47	ug/L		05/02/23 12:33	05/04/23 16:49	1
3-Nitroaniline	ND		4.0	0.35	ug/L		05/02/23 12:33	05/04/23 16:49	1
4,6-Dinitro-2-methylphenol	ND		4.0	1.2	ug/L		05/02/23 12:33	05/04/23 16:49	1
4-Bromophenyl phenyl ether	ND		0.81	0.26	ug/L		05/02/23 12:33	05/04/23 16:49	1
4-Chloro-3-methylphenol	ND		0.81	0.22	ug/L		05/02/23 12:33	05/04/23 16:49	1
4-Chloroaniline	ND		0.81	0.30	ug/L		05/02/23 12:33	05/04/23 16:49	1
4-Chlorophenyl phenyl ether	ND		0.81	0.18	ug/L		05/02/23 12:33	05/04/23 16:49	1
4-Nitroaniline	ND		4.0	0.29	ug/L		05/02/23 12:33	05/04/23 16:49	1
4-Nitrophenol	ND		4.0	0.76	ug/L		05/02/23 12:33	05/04/23 16:49	1
Acenaphthene	ND		0.15	0.052	ug/L		05/02/23 12:33	05/04/23 16:49	1
Acenaphthylene	ND		0.15	0.052	ug/L		05/02/23 12:33	05/04/23 16:49	1
Anthracene	ND		0.15	0.040	ug/L		05/02/23 12:33	05/04/23 16:49	1
Benzo[a]anthracene	ND		0.15	0.060	ug/L		05/02/23 12:33	05/04/23 16:49	1
Benzo[a]pyrene	ND		0.15	0.043	ug/L		05/02/23 12:33	05/04/23 16:49	1
Benzo[b]fluoranthene	ND		0.15	0.078	ug/L		05/02/23 12:33	05/04/23 16:49	1
Benzo[g,h,i]perylene	ND		0.15	0.056	ug/L		05/02/23 12:33	05/04/23 16:49	1
Benzo[k]fluoranthene	ND		0.15	0.071	ug/L		05/02/23 12:33	05/04/23 16:49	1
Benzoic acid	**4.4**		4.0	0.74	ug/L		05/02/23 12:33	05/04/23 16:49	1
Benzyl alcohol	ND		0.81	0.13	ug/L		05/02/23 12:33	05/04/23 16:49	1
Bis(2-chloroethoxy)methane	ND		0.81	0.12	ug/L		05/02/23 12:33	05/04/23 16:49	1
Bis(2-chloroethyl)ether	ND		0.15	0.032	ug/L		05/02/23 12:33	05/04/23 16:49	1
Bis(2-ethylhexyl) phthalate	ND		8.1	5.0	ug/L		05/02/23 12:33	05/04/23 16:49	1
bis(chloroisopropyl) ether	ND		0.15	0.047	ug/L		05/02/23 12:33	05/04/23 16:49	1
Butyl benzyl phthalate	ND		0.81	0.37	ug/L		05/02/23 12:33	05/04/23 16:49	1
Chrysene	ND		0.15	0.065	ug/L		05/02/23 12:33	05/04/23 16:49	1
Dibenz(a,h)anthracene	ND		0.15	0.058	ug/L		05/02/23 12:33	05/04/23 16:49	1
Dibenzofuran	ND		0.81	0.15	ug/L		05/02/23 12:33	05/04/23 16:49	1
Diethyl phthalate	ND		0.81	0.46	ug/L		05/02/23 12:33	05/04/23 16:49	1
Dimethyl phthalate	ND		0.81	0.16	ug/L		05/02/23 12:33	05/04/23 16:49	1
Di-n-butyl phthalate	**1.4**		0.81	0.60	ug/L		05/02/23 12:33	05/04/23 16:49	1
Di-n-octyl phthalate	ND		0.81	0.55	ug/L		05/02/23 12:33	05/04/23 16:49	1
Fluoranthene	ND		0.15	0.048	ug/L		05/02/23 12:33	05/04/23 16:49	1
Fluorene	ND		0.15	0.056	ug/L		05/02/23 12:33	05/04/23 16:49	1
Hexachlorobenzene	ND		0.15	0.045	ug/L		05/02/23 12:33	05/04/23 16:49	1
Hexachlorobutadiene	ND		0.15	0.056	ug/L		05/02/23 12:33	05/04/23 16:49	1
Hexachlorocyclopentadiene	ND		0.81	0.40	ug/L		05/02/23 12:33	05/04/23 16:49	1
Hexachloroethane	ND		0.81	0.11	ug/L		05/02/23 12:33	05/04/23 16:49	1
Indeno[1,2,3-cd]pyrene	ND		0.15	0.069	ug/L		05/02/23 12:33	05/04/23 16:49	1
Isophorone	ND		0.81	0.15	ug/L		05/02/23 12:33	05/04/23 16:49	1
Methylphenol, 3 & 4	ND		0.81	0.30	ug/L		05/02/23 12:33	05/04/23 16:49	1
Nitrobenzene	ND		1.6	0.40	ug/L		05/02/23 12:33	05/04/23 16:49	1
N-Nitrosodi-n-propylamine	ND		0.15	0.057	ug/L		05/02/23 12:33	05/04/23 16:49	1
N-Nitrosodiphenylamine	ND		0.81	0.096	ug/L		05/02/23 12:33	05/04/23 16:49	1

Client Sample ID: SUPE-W-99A-042623
Lab Sample ID: 180-155743-1
Date Collected: 04/26/23 08:30
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	**0.066**	**J**	0.15	0.044	ug/L		05/02/23 12:33	05/04/23 16:49	1
Phenol	ND		0.81	0.39	ug/L		05/02/23 12:33	05/04/23 16:49	1
Pyrene	ND		0.15	0.044	ug/L		05/02/23 12:33	05/04/23 16:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*75*		*23 - 128*	*05/02/23 12:33*	*05/04/23 16:49*	*1*
2-Fluorobiphenyl	*63*		*20 - 105*	*05/02/23 12:33*	*05/04/23 16:49*	*1*
2-Fluorophenol (Surr)	*74*		*20 - 105*	*05/02/23 12:33*	*05/04/23 16:49*	*1*
Nitrobenzene-d5 (Surr)	*78*		*20 - 107*	*05/02/23 12:33*	*05/04/23 16:49*	*1*
Phenol-d5 (Surr)	*73*		*20 - 106*	*05/02/23 12:33*	*05/04/23 16:49*	*1*
Terphenyl-d14 (Surr)	*70*		*22 - 120*	*05/02/23 12:33*	*05/04/23 16:49*	*1*

Client Sample ID: SUPE-W-28C-042623
Lab Sample ID: 180-155743-2
Date Collected: 04/26/23 10:38
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/01/23 14:25	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/01/23 14:25	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/01/23 14:25	1
Benzene	ND		1.0	0.41	ug/L			05/01/23 14:25	1
Chloromethane	ND		1.0	0.35	ug/L			05/01/23 14:25	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/01/23 14:25	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/01/23 14:25	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/01/23 14:25	1
Naphthalene	ND		1.0	0.43	ug/L			05/01/23 14:25	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/01/23 14:25	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/01/23 14:25	1
o-Xylene	ND		1.0	0.76	ug/L			05/01/23 14:25	1
Styrene	ND		1.0	0.73	ug/L			05/01/23 14:25	1
Toluene	ND		1.0	0.51	ug/L			05/01/23 14:25	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/01/23 14:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*05/01/23 14:25*	*1*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*05/01/23 14:25*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*05/01/23 14:25*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*05/01/23 14:25*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		0.95	0.32	ug/L		05/02/23 09:25	05/04/23 16:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*85*		*24 - 146*	*05/02/23 09:25*	*05/04/23 16:32*	*1*
2-Fluorobiphenyl	*99*		*37 - 120*	*05/02/23 09:25*	*05/04/23 16:32*	*1*
2-Fluorophenol (Surr)	*51*		*10 - 120*	*05/02/23 09:25*	*05/04/23 16:32*	*1*
Nitrobenzene-d5 (Surr)	*79*		*26 - 120*	*05/02/23 09:25*	*05/04/23 16:32*	*1*
Phenol-d5 (Surr)	*33*		*11 - 120*	*05/02/23 09:25*	*05/04/23 16:32*	*1*
p-Terphenyl-d14	*95*		*64 - 127*	*05/02/23 09:25*	*05/04/23 16:32*	*1*

Client: Field & Technical Services LLC
Job ID: 180-155743-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-28C-042623
Lab Sample ID: 180-155743-2
Date Collected: 04/26/23 10:38
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.81	0.11	ug/L		05/02/23 12:33	05/04/23 17:32	1
1,2-Dichlorobenzene	ND		0.81	0.077	ug/L		05/02/23 12:33	05/04/23 17:32	1
1,3-Dichlorobenzene	ND		0.81	0.080	ug/L		05/02/23 12:33	05/04/23 17:32	1
1,4-Dichlorobenzene	ND		0.81	0.049	ug/L		05/02/23 12:33	05/04/23 17:32	1
1-Methylnaphthalene	**0.088**	**J**	0.15	0.045	ug/L		05/02/23 12:33	05/04/23 17:32	1
2,3,4,6-Tetrachlorophenol	ND		0.81	0.26	ug/L		05/02/23 12:33	05/04/23 17:32	1
2,3,5,6-Tetrachlorophenol	ND		0.81	0.41	ug/L		05/02/23 12:33	05/04/23 17:32	1
2,4,5-Trichlorophenol	ND		0.81	0.20	ug/L		05/02/23 12:33	05/04/23 17:32	1
2,4,6-Trichlorophenol	ND		0.81	0.18	ug/L		05/02/23 12:33	05/04/23 17:32	1
2,4-Dichlorophenol	ND		0.15	0.041	ug/L		05/02/23 12:33	05/04/23 17:32	1
2,4-Dimethylphenol	ND		0.81	0.13	ug/L		05/02/23 12:33	05/04/23 17:32	1
2,4-Dinitrophenol	ND		8.1	1.2	ug/L		05/02/23 12:33	05/04/23 17:32	1
2,4-Dinitrotoluene	ND		0.81	0.28	ug/L		05/02/23 12:33	05/04/23 17:32	1
2,6-Dinitrotoluene	ND		0.81	0.14	ug/L		05/02/23 12:33	05/04/23 17:32	1
2-Chloronaphthalene	ND		0.15	0.048	ug/L		05/02/23 12:33	05/04/23 17:32	1
2-Chlorophenol	ND		0.81	0.10	ug/L		05/02/23 12:33	05/04/23 17:32	1
2-Methylnaphthalene	**0.091**	**J**	0.15	0.050	ug/L		05/02/23 12:33	05/04/23 17:32	1
2-Methylphenol	ND		0.81	0.24	ug/L		05/02/23 12:33	05/04/23 17:32	1
2-Nitroaniline	ND		4.0	0.44	ug/L		05/02/23 12:33	05/04/23 17:32	1
2-Nitrophenol	ND		0.81	0.16	ug/L		05/02/23 12:33	05/04/23 17:32	1
3,3'-Dichlorobenzidine	ND		0.81	0.47	ug/L		05/02/23 12:33	05/04/23 17:32	1
3-Nitroaniline	ND		4.0	0.35	ug/L		05/02/23 12:33	05/04/23 17:32	1
4,6-Dinitro-2-methylphenol	ND		4.0	1.2	ug/L		05/02/23 12:33	05/04/23 17:32	1
4-Bromophenyl phenyl ether	ND		0.81	0.26	ug/L		05/02/23 12:33	05/04/23 17:32	1
4-Chloro-3-methylphenol	ND		0.81	0.22	ug/L		05/02/23 12:33	05/04/23 17:32	1
4-Chloroaniline	ND		0.81	0.30	ug/L		05/02/23 12:33	05/04/23 17:32	1
4-Chlorophenyl phenyl ether	ND		0.81	0.18	ug/L		05/02/23 12:33	05/04/23 17:32	1
4-Nitroaniline	ND		4.0	0.29	ug/L		05/02/23 12:33	05/04/23 17:32	1
4-Nitrophenol	ND		4.0	0.76	ug/L		05/02/23 12:33	05/04/23 17:32	1
Acenaphthene	**0.062**	**J**	0.15	0.052	ug/L		05/02/23 12:33	05/04/23 17:32	1
Acenaphthylene	ND		0.15	0.052	ug/L		05/02/23 12:33	05/04/23 17:32	1
Anthracene	ND		0.15	0.040	ug/L		05/02/23 12:33	05/04/23 17:32	1
Benzo[a]anthracene	ND		0.15	0.060	ug/L		05/02/23 12:33	05/04/23 17:32	1
Benzo[a]pyrene	ND		0.15	0.043	ug/L		05/02/23 12:33	05/04/23 17:32	1
Benzo[b]fluoranthene	ND		0.15	0.078	ug/L		05/02/23 12:33	05/04/23 17:32	1
Benzo[g,h,i]perylene	ND		0.15	0.056	ug/L		05/02/23 12:33	05/04/23 17:32	1
Benzo[k]fluoranthene	ND		0.15	0.071	ug/L		05/02/23 12:33	05/04/23 17:32	1
Benzoic acid	**3.1**	**J**	4.0	0.74	ug/L		05/02/23 12:33	05/04/23 17:32	1
Benzyl alcohol	ND		0.81	0.13	ug/L		05/02/23 12:33	05/04/23 17:32	1
Bis(2-chloroethoxy)methane	ND		0.81	0.12	ug/L		05/02/23 12:33	05/04/23 17:32	1
Bis(2-chloroethyl)ether	ND		0.15	0.032	ug/L		05/02/23 12:33	05/04/23 17:32	1
Bis(2-ethylhexyl) phthalate	ND		8.1	5.0	ug/L		05/02/23 12:33	05/04/23 17:32	1
bis(chloroisopropyl) ether	ND		0.15	0.047	ug/L		05/02/23 12:33	05/04/23 17:32	1
Butyl benzyl phthalate	ND		0.81	0.37	ug/L		05/02/23 12:33	05/04/23 17:32	1
Chrysene	ND		0.15	0.065	ug/L		05/02/23 12:33	05/04/23 17:32	1
Dibenz(a,h)anthracene	ND		0.15	0.058	ug/L		05/02/23 12:33	05/04/23 17:32	1
Dibenzofuran	ND		0.81	0.15	ug/L		05/02/23 12:33	05/04/23 17:32	1
Diethyl phthalate	ND		0.81	0.46	ug/L		05/02/23 12:33	05/04/23 17:32	1
Dimethyl phthalate	ND		0.81	0.16	ug/L		05/02/23 12:33	05/04/23 17:32	1

Client Sample ID: SUPE-W-28C-042623
Lab Sample ID: 180-155743-2
Date Collected: 04/26/23 10:38
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	**1.2**		0.81	0.60	ug/L		05/02/23 12:33	05/04/23 17:32	1
Di-n-octyl phthalate	ND		0.81	0.55	ug/L		05/02/23 12:33	05/04/23 17:32	1
Fluoranthene	ND		0.15	0.048	ug/L		05/02/23 12:33	05/04/23 17:32	1
Fluorene	ND		0.15	0.056	ug/L		05/02/23 12:33	05/04/23 17:32	1
Hexachlorobenzene	ND		0.15	0.045	ug/L		05/02/23 12:33	05/04/23 17:32	1
Hexachlorobutadiene	ND		0.15	0.056	ug/L		05/02/23 12:33	05/04/23 17:32	1
Hexachlorocyclopentadiene	ND		0.81	0.40	ug/L		05/02/23 12:33	05/04/23 17:32	1
Hexachloroethane	ND		0.81	0.11	ug/L		05/02/23 12:33	05/04/23 17:32	1
Indeno[1,2,3-cd]pyrene	ND		0.15	0.069	ug/L		05/02/23 12:33	05/04/23 17:32	1
Isophorone	ND		0.81	0.15	ug/L		05/02/23 12:33	05/04/23 17:32	1
Methylphenol, 3 & 4	ND		0.81	0.30	ug/L		05/02/23 12:33	05/04/23 17:32	1
Nitrobenzene	ND		1.6	0.40	ug/L		05/02/23 12:33	05/04/23 17:32	1
N-Nitrosodi-n-propylamine	ND		0.15	0.057	ug/L		05/02/23 12:33	05/04/23 17:32	1
N-Nitrosodiphenylamine	ND		0.81	0.096	ug/L		05/02/23 12:33	05/04/23 17:32	1
Phenanthrene	**0.073**	**J**	0.15	0.044	ug/L		05/02/23 12:33	05/04/23 17:32	1
Phenol	ND		0.81	0.39	ug/L		05/02/23 12:33	05/04/23 17:32	1
Pyrene	ND		0.15	0.044	ug/L		05/02/23 12:33	05/04/23 17:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*72*		*23 - 128*	*05/02/23 12:33*	*05/04/23 17:32*	*1*
2-Fluorobiphenyl	*65*		*20 - 105*	*05/02/23 12:33*	*05/04/23 17:32*	*1*
2-Fluorophenol (Surr)	*73*		*20 - 105*	*05/02/23 12:33*	*05/04/23 17:32*	*1*
Nitrobenzene-d5 (Surr)	*70*		*20 - 107*	*05/02/23 12:33*	*05/04/23 17:32*	*1*
Phenol-d5 (Surr)	*74*		*20 - 106*	*05/02/23 12:33*	*05/04/23 17:32*	*1*
Terphenyl-d14 (Surr)	*77*		*22 - 120*	*05/02/23 12:33*	*05/04/23 17:32*	*1*

Client Sample ID: SUPE-W-06C-042623
Lab Sample ID: 180-155743-3
Date Collected: 04/26/23 12:35
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/01/23 14:47	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/01/23 14:47	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/01/23 14:47	1
Benzene	ND		1.0	0.41	ug/L			05/01/23 14:47	1
Chloromethane	ND		1.0	0.35	ug/L			05/01/23 14:47	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/01/23 14:47	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/01/23 14:47	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/01/23 14:47	1
Naphthalene	ND		1.0	0.43	ug/L			05/01/23 14:47	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/01/23 14:47	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/01/23 14:47	1
o-Xylene	ND		1.0	0.76	ug/L			05/01/23 14:47	1
Styrene	ND		1.0	0.73	ug/L			05/01/23 14:47	1
Toluene	ND		1.0	0.51	ug/L			05/01/23 14:47	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/01/23 14:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*77 - 120*		*05/01/23 14:47*	*1*

Client Sample ID: SUPE-W-06C-042623
Lab Sample ID: 180-155743-3

Date Collected: 04/26/23 12:35
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*05/01/23 14:47*	*1*
Dibromofluoromethane (Surr)	*97*		*75 - 123*		*05/01/23 14:47*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*05/01/23 14:47*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		0.95	0.32	ug/L		05/02/23 09:25	05/04/23 17:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*85*		*24 - 146*	*05/02/23 09:25*	*05/04/23 17:00*	*1*
2-Fluorobiphenyl	*97*		*37 - 120*	*05/02/23 09:25*	*05/04/23 17:00*	*1*
2-Fluorophenol (Surr)	*50*		*10 - 120*	*05/02/23 09:25*	*05/04/23 17:00*	*1*
Nitrobenzene-d5 (Surr)	*75*		*26 - 120*	*05/02/23 09:25*	*05/04/23 17:00*	*1*
Phenol-d5 (Surr)	*33*		*11 - 120*	*05/02/23 09:25*	*05/04/23 17:00*	*1*
p-Terphenyl-d14	*80*		*64 - 127*	*05/02/23 09:25*	*05/04/23 17:00*	*1*

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.78	0.10	ug/L		05/02/23 12:33	05/04/23 17:54	1
1,2-Dichlorobenzene	ND		0.78	0.074	ug/L		05/02/23 12:33	05/04/23 17:54	1
1,3-Dichlorobenzene	ND		0.78	0.077	ug/L		05/02/23 12:33	05/04/23 17:54	1
1,4-Dichlorobenzene	ND		0.78	0.048	ug/L		05/02/23 12:33	05/04/23 17:54	1
1-Methylnaphthalene	ND		0.15	0.044	ug/L		05/02/23 12:33	05/04/23 17:54	1
2,3,4,6-Tetrachlorophenol	ND		0.78	0.25	ug/L		05/02/23 12:33	05/04/23 17:54	1
2,3,5,6-Tetrachlorophenol	ND		0.78	0.40	ug/L		05/02/23 12:33	05/04/23 17:54	1
2,4,5-Trichlorophenol	ND		0.78	0.20	ug/L		05/02/23 12:33	05/04/23 17:54	1
2,4,6-Trichlorophenol	ND		0.78	0.18	ug/L		05/02/23 12:33	05/04/23 17:54	1
2,4-Dichlorophenol	ND		0.15	0.040	ug/L		05/02/23 12:33	05/04/23 17:54	1
2,4-Dimethylphenol	ND		0.78	0.13	ug/L		05/02/23 12:33	05/04/23 17:54	1
2,4-Dinitrophenol	ND		7.8	1.2	ug/L		05/02/23 12:33	05/04/23 17:54	1
2,4-Dinitrotoluene	ND		0.78	0.28	ug/L		05/02/23 12:33	05/04/23 17:54	1
2,6-Dinitrotoluene	ND		0.78	0.14	ug/L		05/02/23 12:33	05/04/23 17:54	1
2-Chloronaphthalene	ND		0.15	0.046	ug/L		05/02/23 12:33	05/04/23 17:54	1
2-Chlorophenol	ND		0.78	0.10	ug/L		05/02/23 12:33	05/04/23 17:54	1
2-Methylnaphthalene	ND		0.15	0.048	ug/L		05/02/23 12:33	05/04/23 17:54	1
2-Methylphenol	ND		0.78	0.23	ug/L		05/02/23 12:33	05/04/23 17:54	1
2-Nitroaniline	ND		3.9	0.43	ug/L		05/02/23 12:33	05/04/23 17:54	1
2-Nitrophenol	ND		0.78	0.15	ug/L		05/02/23 12:33	05/04/23 17:54	1
3,3'-Dichlorobenzidine	ND		0.78	0.46	ug/L		05/02/23 12:33	05/04/23 17:54	1
3-Nitroaniline	ND		3.9	0.34	ug/L		05/02/23 12:33	05/04/23 17:54	1
4,6-Dinitro-2-methylphenol	ND		3.9	1.1	ug/L		05/02/23 12:33	05/04/23 17:54	1
4-Bromophenyl phenyl ether	ND		0.78	0.25	ug/L		05/02/23 12:33	05/04/23 17:54	1
4-Chloro-3-methylphenol	ND		0.78	0.22	ug/L		05/02/23 12:33	05/04/23 17:54	1
4-Chloroaniline	ND		0.78	0.29	ug/L		05/02/23 12:33	05/04/23 17:54	1
4-Chlorophenyl phenyl ether	ND		0.78	0.17	ug/L		05/02/23 12:33	05/04/23 17:54	1
4-Nitroaniline	ND		3.9	0.28	ug/L		05/02/23 12:33	05/04/23 17:54	1
4-Nitrophenol	ND		3.9	0.73	ug/L		05/02/23 12:33	05/04/23 17:54	1
Acenaphthene	ND		0.15	0.051	ug/L		05/02/23 12:33	05/04/23 17:54	1
Acenaphthylene	ND		0.15	0.051	ug/L		05/02/23 12:33	05/04/23 17:54	1
Anthracene	ND		0.15	0.038	ug/L		05/02/23 12:33	05/04/23 17:54	1

Client Sample ID: SUPE-W-06C-042623
Lab Sample ID: 180-155743-3

Date Collected: 04/26/23 12:35
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.15	0.059	ug/L		05/02/23 12:33	05/04/23 17:54	1
Benzo[a]pyrene	ND		0.15	0.041	ug/L		05/02/23 12:33	05/04/23 17:54	1
Benzo[b]fluoranthene	ND		0.15	0.076	ug/L		05/02/23 12:33	05/04/23 17:54	1
Benzo[g,h,i]perylene	ND		0.15	0.054	ug/L		05/02/23 12:33	05/04/23 17:54	1
Benzo[k]fluoranthene	ND		0.15	0.069	ug/L		05/02/23 12:33	05/04/23 17:54	1
Benzoic acid	**1.5**	**J**	3.9	0.72	ug/L		05/02/23 12:33	05/04/23 17:54	1
Benzyl alcohol	ND		0.78	0.13	ug/L		05/02/23 12:33	05/04/23 17:54	1
Bis(2-chloroethoxy)methane	ND		0.78	0.12	ug/L		05/02/23 12:33	05/04/23 17:54	1
Bis(2-chloroethyl)ether	ND		0.15	0.031	ug/L		05/02/23 12:33	05/04/23 17:54	1
Bis(2-ethylhexyl) phthalate	ND		7.8	4.9	ug/L		05/02/23 12:33	05/04/23 17:54	1
bis(chloroisopropyl) ether	ND		0.15	0.045	ug/L		05/02/23 12:33	05/04/23 17:54	1
Butyl benzyl phthalate	**0.61**	**J**	0.78	0.36	ug/L		05/02/23 12:33	05/04/23 17:54	1
Chrysene	ND		0.15	0.063	ug/L		05/02/23 12:33	05/04/23 17:54	1
Dibenz(a,h)anthracene	ND		0.15	0.056	ug/L		05/02/23 12:33	05/04/23 17:54	1
Dibenzofuran	ND		0.78	0.15	ug/L		05/02/23 12:33	05/04/23 17:54	1
Diethyl phthalate	ND		0.78	0.44	ug/L		05/02/23 12:33	05/04/23 17:54	1
Dimethyl phthalate	ND		0.78	0.16	ug/L		05/02/23 12:33	05/04/23 17:54	1
Di-n-butyl phthalate	**1.1**		0.78	0.58	ug/L		05/02/23 12:33	05/04/23 17:54	1
Di-n-octyl phthalate	ND		0.78	0.54	ug/L		05/02/23 12:33	05/04/23 17:54	1
Fluoranthene	**0.092**	**J**	0.15	0.047	ug/L		05/02/23 12:33	05/04/23 17:54	1
Fluorene	ND		0.15	0.054	ug/L		05/02/23 12:33	05/04/23 17:54	1
Hexachlorobenzene	ND		0.15	0.044	ug/L		05/02/23 12:33	05/04/23 17:54	1
Hexachlorobutadiene	ND		0.15	0.054	ug/L		05/02/23 12:33	05/04/23 17:54	1
Hexachlorocyclopentadiene	ND		0.78	0.39	ug/L		05/02/23 12:33	05/04/23 17:54	1
Hexachloroethane	ND		0.78	0.10	ug/L		05/02/23 12:33	05/04/23 17:54	1
Indeno[1,2,3-cd]pyrene	ND		0.15	0.066	ug/L		05/02/23 12:33	05/04/23 17:54	1
Isophorone	ND		0.78	0.15	ug/L		05/02/23 12:33	05/04/23 17:54	1
Methylphenol, 3 & 4	ND		0.78	0.29	ug/L		05/02/23 12:33	05/04/23 17:54	1
Nitrobenzene	ND		1.6	0.39	ug/L		05/02/23 12:33	05/04/23 17:54	1
N-Nitrosodi-n-propylamine	ND		0.15	0.055	ug/L		05/02/23 12:33	05/04/23 17:54	1
N-Nitrosodiphenylamine	ND		0.78	0.093	ug/L		05/02/23 12:33	05/04/23 17:54	1
Phenanthrene	**0.065**	**J**	0.15	0.043	ug/L		05/02/23 12:33	05/04/23 17:54	1
Phenol	ND		0.78	0.38	ug/L		05/02/23 12:33	05/04/23 17:54	1
Pyrene	**0.066**	**J**	0.15	0.042	ug/L		05/02/23 12:33	05/04/23 17:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*50*		*23 - 128*	*05/02/23 12:33*	*05/04/23 17:54*	*1*
2-Fluorobiphenyl	*44*		*20 - 105*	*05/02/23 12:33*	*05/04/23 17:54*	*1*
2-Fluorophenol (Surr)	*51*		*20 - 105*	*05/02/23 12:33*	*05/04/23 17:54*	*1*
Nitrobenzene-d5 (Surr)	*54*		*20 - 107*	*05/02/23 12:33*	*05/04/23 17:54*	*1*
Phenol-d5 (Surr)	*54*		*20 - 106*	*05/02/23 12:33*	*05/04/23 17:54*	*1*
Terphenyl-d14 (Surr)	*45*		*22 - 120*	*05/02/23 12:33*	*05/04/23 17:54*	*1*

Client Sample ID: SUPE-W-30C-042623
Lab Sample ID: 180-155743-4

Date Collected: 04/26/23 14:42
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/01/23 15:09	1

Client: Field & Technical Services LLC
Job ID: 180-155743-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-30C-042623
Lab Sample ID: 180-155743-4
Date Collected: 04/26/23 14:42
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/01/23 15:09	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/01/23 15:09	1
Benzene	ND		1.0	0.41	ug/L			05/01/23 15:09	1
Chloromethane	ND		1.0	0.35	ug/L			05/01/23 15:09	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/01/23 15:09	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/01/23 15:09	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/01/23 15:09	1
Naphthalene	ND		1.0	0.43	ug/L			05/01/23 15:09	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/01/23 15:09	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/01/23 15:09	1
o-Xylene	ND		1.0	0.76	ug/L			05/01/23 15:09	1
Styrene	ND		1.0	0.73	ug/L			05/01/23 15:09	1
Toluene	ND		1.0	0.51	ug/L			05/01/23 15:09	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/01/23 15:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*05/01/23 15:09*	*1*
4-Bromofluorobenzene (Surr)	*94*		*73 - 120*		*05/01/23 15:09*	*1*
Dibromofluoromethane (Surr)	*97*		*75 - 123*		*05/01/23 15:09*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/01/23 15:09*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		0.95	0.32	ug/L		05/02/23 09:25	05/04/23 17:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*98*		*24 - 146*	*05/02/23 09:25*	*05/04/23 17:28*	*1*
2-Fluorobiphenyl	*112*		*37 - 120*	*05/02/23 09:25*	*05/04/23 17:28*	*1*
2-Fluorophenol (Surr)	*57*		*10 - 120*	*05/02/23 09:25*	*05/04/23 17:28*	*1*
Nitrobenzene-d5 (Surr)	*92*		*26 - 120*	*05/02/23 09:25*	*05/04/23 17:28*	*1*
Phenol-d5 (Surr)	*39*		*11 - 120*	*05/02/23 09:25*	*05/04/23 17:28*	*1*
p-Terphenyl-d14	*99*		*64 - 127*	*05/02/23 09:25*	*05/04/23 17:28*	*1*

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.81	0.11	ug/L		05/02/23 12:33	05/04/23 18:16	1
1,2-Dichlorobenzene	ND		0.81	0.077	ug/L		05/02/23 12:33	05/04/23 18:16	1
1,3-Dichlorobenzene	ND		0.81	0.080	ug/L		05/02/23 12:33	05/04/23 18:16	1
1,4-Dichlorobenzene	ND		0.81	0.049	ug/L		05/02/23 12:33	05/04/23 18:16	1
1-Methylnaphthalene	ND		0.15	0.045	ug/L		05/02/23 12:33	05/04/23 18:16	1
2,3,4,6-Tetrachlorophenol	ND		0.81	0.26	ug/L		05/02/23 12:33	05/04/23 18:16	1
2,3,5,6-Tetrachlorophenol	ND		0.81	0.41	ug/L		05/02/23 12:33	05/04/23 18:16	1
2,4,5-Trichlorophenol	ND		0.81	0.20	ug/L		05/02/23 12:33	05/04/23 18:16	1
2,4,6-Trichlorophenol	ND		0.81	0.18	ug/L		05/02/23 12:33	05/04/23 18:16	1
2,4-Dichlorophenol	ND		0.15	0.041	ug/L		05/02/23 12:33	05/04/23 18:16	1
2,4-Dimethylphenol	ND		0.81	0.13	ug/L		05/02/23 12:33	05/04/23 18:16	1
2,4-Dinitrophenol	ND		8.1	1.2	ug/L		05/02/23 12:33	05/04/23 18:16	1
2,4-Dinitrotoluene	ND		0.81	0.28	ug/L		05/02/23 12:33	05/04/23 18:16	1
2,6-Dinitrotoluene	ND		0.81	0.14	ug/L		05/02/23 12:33	05/04/23 18:16	1
2-Chloronaphthalene	ND		0.15	0.048	ug/L		05/02/23 12:33	05/04/23 18:16	1

Client: Field & Technical Services LLC
Project/Site: Superior, WI Semiannual Groundwater

Job ID: 180-155743-1

Client Sample ID: SUPE-W-30C-042623
Date Collected: 04/26/23 14:42
Date Received: 04/28/23 09:10

Lab Sample ID: 180-155743-4
Matrix: Water

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorophenol	ND		0.81	0.10	ug/L		05/02/23 12:33	05/04/23 18:16	1
2-Methylnaphthalene	ND		0.15	0.050	ug/L		05/02/23 12:33	05/04/23 18:16	1
2-Methylphenol	ND		0.81	0.24	ug/L		05/02/23 12:33	05/04/23 18:16	1
2-Nitroaniline	ND		4.0	0.44	ug/L		05/02/23 12:33	05/04/23 18:16	1
2-Nitrophenol	ND		0.81	0.16	ug/L		05/02/23 12:33	05/04/23 18:16	1
3,3'-Dichlorobenzidine	ND		0.81	0.47	ug/L		05/02/23 12:33	05/04/23 18:16	1
3-Nitroaniline	ND		4.0	0.35	ug/L		05/02/23 12:33	05/04/23 18:16	1
4,6-Dinitro-2-methylphenol	ND		4.0	1.2	ug/L		05/02/23 12:33	05/04/23 18:16	1
4-Bromophenyl phenyl ether	ND		0.81	0.26	ug/L		05/02/23 12:33	05/04/23 18:16	1
4-Chloro-3-methylphenol	ND		0.81	0.22	ug/L		05/02/23 12:33	05/04/23 18:16	1
4-Chloroaniline	ND		0.81	0.30	ug/L		05/02/23 12:33	05/04/23 18:16	1
4-Chlorophenyl phenyl ether	ND		0.81	0.18	ug/L		05/02/23 12:33	05/04/23 18:16	1
4-Nitroaniline	ND		4.0	0.29	ug/L		05/02/23 12:33	05/04/23 18:16	1
4-Nitrophenol	ND		4.0	0.76	ug/L		05/02/23 12:33	05/04/23 18:16	1
Acenaphthene	ND		0.15	0.052	ug/L		05/02/23 12:33	05/04/23 18:16	1
Acenaphthylene	ND		0.15	0.052	ug/L		05/02/23 12:33	05/04/23 18:16	1
Anthracene	ND		0.15	0.040	ug/L		05/02/23 12:33	05/04/23 18:16	1
Benzo[a]anthracene	ND		0.15	0.060	ug/L		05/02/23 12:33	05/04/23 18:16	1
Benzo[a]pyrene	ND		0.15	0.043	ug/L		05/02/23 12:33	05/04/23 18:16	1
Benzo[b]fluoranthene	ND		0.15	0.078	ug/L		05/02/23 12:33	05/04/23 18:16	1
Benzo[g,h,i]perylene	ND		0.15	0.056	ug/L		05/02/23 12:33	05/04/23 18:16	1
Benzo[k]fluoranthene	ND		0.15	0.071	ug/L		05/02/23 12:33	05/04/23 18:16	1
Benzoic acid	**1.5**	**J**	4.0	0.74	ug/L		05/02/23 12:33	05/04/23 18:16	1
Benzyl alcohol	ND		0.81	0.13	ug/L		05/02/23 12:33	05/04/23 18:16	1
Bis(2-chloroethoxy)methane	ND		0.81	0.12	ug/L		05/02/23 12:33	05/04/23 18:16	1
Bis(2-chloroethyl)ether	ND		0.15	0.032	ug/L		05/02/23 12:33	05/04/23 18:16	1
Bis(2-ethylhexyl) phthalate	ND		8.1	5.0	ug/L		05/02/23 12:33	05/04/23 18:16	1
bis(chloroisopropyl) ether	ND		0.15	0.047	ug/L		05/02/23 12:33	05/04/23 18:16	1
Butyl benzyl phthalate	**0.53**	**J**	0.81	0.37	ug/L		05/02/23 12:33	05/04/23 18:16	1
Chrysene	ND		0.15	0.065	ug/L		05/02/23 12:33	05/04/23 18:16	1
Dibenz(a,h)anthracene	ND		0.15	0.058	ug/L		05/02/23 12:33	05/04/23 18:16	1
Dibenzofuran	ND		0.81	0.15	ug/L		05/02/23 12:33	05/04/23 18:16	1
Diethyl phthalate	ND		0.81	0.46	ug/L		05/02/23 12:33	05/04/23 18:16	1
Dimethyl phthalate	ND		0.81	0.16	ug/L		05/02/23 12:33	05/04/23 18:16	1
Di-n-butyl phthalate	**1.4**		0.81	0.60	ug/L		05/02/23 12:33	05/04/23 18:16	1
Di-n-octyl phthalate	ND		0.81	0.55	ug/L		05/02/23 12:33	05/04/23 18:16	1
Fluoranthene	ND		0.15	0.048	ug/L		05/02/23 12:33	05/04/23 18:16	1
Fluorene	ND		0.15	0.056	ug/L		05/02/23 12:33	05/04/23 18:16	1
Hexachlorobenzene	ND		0.15	0.045	ug/L		05/02/23 12:33	05/04/23 18:16	1
Hexachlorobutadiene	ND		0.15	0.056	ug/L		05/02/23 12:33	05/04/23 18:16	1
Hexachlorocyclopentadiene	ND		0.81	0.40	ug/L		05/02/23 12:33	05/04/23 18:16	1
Hexachloroethane	ND		0.81	0.11	ug/L		05/02/23 12:33	05/04/23 18:16	1
Indeno[1,2,3-cd]pyrene	ND		0.15	0.069	ug/L		05/02/23 12:33	05/04/23 18:16	1
Isophorone	ND		0.81	0.15	ug/L		05/02/23 12:33	05/04/23 18:16	1
Methylphenol, 3 & 4	ND		0.81	0.30	ug/L		05/02/23 12:33	05/04/23 18:16	1
Nitrobenzene	ND		1.6	0.40	ug/L		05/02/23 12:33	05/04/23 18:16	1
N-Nitrosodi-n-propylamine	ND		0.15	0.057	ug/L		05/02/23 12:33	05/04/23 18:16	1
N-Nitrosodiphenylamine	ND		0.81	0.096	ug/L		05/02/23 12:33	05/04/23 18:16	1
Phenanthrene	ND		0.15	0.044	ug/L		05/02/23 12:33	05/04/23 18:16	1

Client Sample ID: SUPE-W-30C-042623
Lab Sample ID: 180-155743-4
Date Collected: 04/26/23 14:42
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		0.81	0.39	ug/L		05/02/23 12:33	05/04/23 18:16	1
Pyrene	ND		0.15	0.044	ug/L		05/02/23 12:33	05/04/23 18:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*63*		*23 - 128*	*05/02/23 12:33*	*05/04/23 18:16*	*1*
2-Fluorobiphenyl	*52*		*20 - 105*	*05/02/23 12:33*	*05/04/23 18:16*	*1*
2-Fluorophenol (Surr)	*61*		*20 - 105*	*05/02/23 12:33*	*05/04/23 18:16*	*1*
Nitrobenzene-d5 (Surr)	*58*		*20 - 107*	*05/02/23 12:33*	*05/04/23 18:16*	*1*
Phenol-d5 (Surr)	*60*		*20 - 106*	*05/02/23 12:33*	*05/04/23 18:16*	*1*
Terphenyl-d14 (Surr)	*54*		*22 - 120*	*05/02/23 12:33*	*05/04/23 18:16*	*1*

Client Sample ID: SUPE-W-18D-042623
Lab Sample ID: 180-155743-5
Date Collected: 04/26/23 16:15
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		0.95	0.32	ug/L		05/02/23 09:25	05/04/23 17:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*100*		*24 - 146*	*05/02/23 09:25*	*05/04/23 17:55*	*1*
2-Fluorobiphenyl	*99*		*37 - 120*	*05/02/23 09:25*	*05/04/23 17:55*	*1*
2-Fluorophenol (Surr)	*49*		*10 - 120*	*05/02/23 09:25*	*05/04/23 17:55*	*1*
Nitrobenzene-d5 (Surr)	*79*		*26 - 120*	*05/02/23 09:25*	*05/04/23 17:55*	*1*
Phenol-d5 (Surr)	*33*		*11 - 120*	*05/02/23 09:25*	*05/04/23 17:55*	*1*
p-Terphenyl-d14	*97*		*64 - 127*	*05/02/23 09:25*	*05/04/23 17:55*	*1*

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.83	0.11	ug/L		05/02/23 12:33	05/04/23 18:38	1
1,2-Dichlorobenzene	ND		0.83	0.079	ug/L		05/02/23 12:33	05/04/23 18:38	1
1,3-Dichlorobenzene	ND		0.83	0.083	ug/L		05/02/23 12:33	05/04/23 18:38	1
1,4-Dichlorobenzene	ND		0.83	0.051	ug/L		05/02/23 12:33	05/04/23 18:38	1
1-Methylnaphthalene	ND		0.16	0.047	ug/L		05/02/23 12:33	05/04/23 18:38	1
2,3,4,6-Tetrachlorophenol	ND		0.83	0.27	ug/L		05/02/23 12:33	05/04/23 18:38	1
2,3,5,6-Tetrachlorophenol	ND		0.83	0.42	ug/L		05/02/23 12:33	05/04/23 18:38	1
2,4,5-Trichlorophenol	ND		0.83	0.21	ug/L		05/02/23 12:33	05/04/23 18:38	1
2,4,6-Trichlorophenol	ND		0.83	0.19	ug/L		05/02/23 12:33	05/04/23 18:38	1
2,4-Dichlorophenol	ND		0.16	0.043	ug/L		05/02/23 12:33	05/04/23 18:38	1
2,4-Dimethylphenol	ND		0.83	0.14	ug/L		05/02/23 12:33	05/04/23 18:38	1
2,4-Dinitrophenol	ND		8.3	1.3	ug/L		05/02/23 12:33	05/04/23 18:38	1
2,4-Dinitrotoluene	ND		0.83	0.29	ug/L		05/02/23 12:33	05/04/23 18:38	1
2,6-Dinitrotoluene	ND		0.83	0.14	ug/L		05/02/23 12:33	05/04/23 18:38	1
2-Chloronaphthalene	ND		0.16	0.049	ug/L		05/02/23 12:33	05/04/23 18:38	1
2-Chlorophenol	ND		0.83	0.11	ug/L		05/02/23 12:33	05/04/23 18:38	1
2-Methylnaphthalene	ND		0.16	0.052	ug/L		05/02/23 12:33	05/04/23 18:38	1
2-Methylphenol	ND		0.83	0.25	ug/L		05/02/23 12:33	05/04/23 18:38	1
2-Nitroaniline	ND		4.2	0.46	ug/L		05/02/23 12:33	05/04/23 18:38	1
2-Nitrophenol	ND		0.83	0.16	ug/L		05/02/23 12:33	05/04/23 18:38	1
3,3'-Dichlorobenzidine	ND		0.83	0.49	ug/L		05/02/23 12:33	05/04/23 18:38	1
3-Nitroaniline	ND		4.2	0.36	ug/L		05/02/23 12:33	05/04/23 18:38	1

Client Sample ID: SUPE-W-18D-042623
Lab Sample ID: 180-155743-5
Date Collected: 04/26/23 16:15
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	ND		4.2	1.2	ug/L		05/02/23 12:33	05/04/23 18:38	1
4-Bromophenyl phenyl ether	ND		0.83	0.27	ug/L		05/02/23 12:33	05/04/23 18:38	1
4-Chloro-3-methylphenol	ND		0.83	0.23	ug/L		05/02/23 12:33	05/04/23 18:38	1
4-Chloroaniline	ND		0.83	0.31	ug/L		05/02/23 12:33	05/04/23 18:38	1
4-Chlorophenyl phenyl ether	ND		0.83	0.18	ug/L		05/02/23 12:33	05/04/23 18:38	1
4-Nitroaniline	ND		4.2	0.30	ug/L		05/02/23 12:33	05/04/23 18:38	1
4-Nitrophenol	ND		4.2	0.78	ug/L		05/02/23 12:33	05/04/23 18:38	1
Acenaphthene	ND		0.16	0.054	ug/L		05/02/23 12:33	05/04/23 18:38	1
Acenaphthylene	ND		0.16	0.054	ug/L		05/02/23 12:33	05/04/23 18:38	1
Anthracene	ND		0.16	0.041	ug/L		05/02/23 12:33	05/04/23 18:38	1
Benzo[a]anthracene	ND		0.16	0.063	ug/L		05/02/23 12:33	05/04/23 18:38	1
Benzo[a]pyrene	ND		0.16	0.044	ug/L		05/02/23 12:33	05/04/23 18:38	1
Benzo[b]fluoranthene	ND		0.16	0.081	ug/L		05/02/23 12:33	05/04/23 18:38	1
Benzo[g,h,i]perylene	ND		0.16	0.058	ug/L		05/02/23 12:33	05/04/23 18:38	1
Benzo[k]fluoranthene	ND		0.16	0.073	ug/L		05/02/23 12:33	05/04/23 18:38	1
Benzoic acid	ND		4.2	0.77	ug/L		05/02/23 12:33	05/04/23 18:38	1
Benzyl alcohol	ND		0.83	0.14	ug/L		05/02/23 12:33	05/04/23 18:38	1
Bis(2-chloroethoxy)methane	ND		0.83	0.13	ug/L		05/02/23 12:33	05/04/23 18:38	1
Bis(2-chloroethyl)ether	ND		0.16	0.033	ug/L		05/02/23 12:33	05/04/23 18:38	1
Bis(2-ethylhexyl) phthalate	ND		8.3	5.2	ug/L		05/02/23 12:33	05/04/23 18:38	1
bis(chloroisopropyl) ether	ND		0.16	0.048	ug/L		05/02/23 12:33	05/04/23 18:38	1
Butyl benzyl phthalate	ND		0.83	0.39	ug/L		05/02/23 12:33	05/04/23 18:38	1
Chrysene	ND		0.16	0.068	ug/L		05/02/23 12:33	05/04/23 18:38	1
Dibenz(a,h)anthracene	ND		0.16	0.060	ug/L		05/02/23 12:33	05/04/23 18:38	1
Dibenzofuran	ND		0.83	0.16	ug/L		05/02/23 12:33	05/04/23 18:38	1
Diethyl phthalate	ND		0.83	0.47	ug/L		05/02/23 12:33	05/04/23 18:38	1
Dimethyl phthalate	ND		0.83	0.17	ug/L		05/02/23 12:33	05/04/23 18:38	1
Di-n-butyl phthalate	**1.6**		0.83	0.62	ug/L		05/02/23 12:33	05/04/23 18:38	1
Di-n-octyl phthalate	ND		0.83	0.57	ug/L		05/02/23 12:33	05/04/23 18:38	1
Fluoranthene	ND		0.16	0.050	ug/L		05/02/23 12:33	05/04/23 18:38	1
Fluorene	ND		0.16	0.058	ug/L		05/02/23 12:33	05/04/23 18:38	1
Hexachlorobenzene	ND		0.16	0.047	ug/L		05/02/23 12:33	05/04/23 18:38	1
Hexachlorobutadiene	ND		0.16	0.058	ug/L		05/02/23 12:33	05/04/23 18:38	1
Hexachlorocyclopentadiene	ND		0.83	0.41	ug/L		05/02/23 12:33	05/04/23 18:38	1
Hexachloroethane	ND		0.83	0.11	ug/L		05/02/23 12:33	05/04/23 18:38	1
Indeno[1,2,3-cd]pyrene	ND		0.16	0.071	ug/L		05/02/23 12:33	05/04/23 18:38	1
Isophorone	ND		0.83	0.16	ug/L		05/02/23 12:33	05/04/23 18:38	1
Methylphenol, 3 & 4	ND		0.83	0.31	ug/L		05/02/23 12:33	05/04/23 18:38	1
Naphthalene	ND		0.16	0.049	ug/L		05/02/23 12:33	05/04/23 18:38	1
Nitrobenzene	ND		1.7	0.42	ug/L		05/02/23 12:33	05/04/23 18:38	1
N-Nitrosodi-n-propylamine	ND		0.16	0.059	ug/L		05/02/23 12:33	05/04/23 18:38	1
N-Nitrosodiphenylamine	ND		0.83	0.099	ug/L		05/02/23 12:33	05/04/23 18:38	1
Phenanthrene	ND		0.16	0.046	ug/L		05/02/23 12:33	05/04/23 18:38	1
Phenol	ND		0.83	0.41	ug/L		05/02/23 12:33	05/04/23 18:38	1
Pyrene	ND		0.16	0.045	ug/L		05/02/23 12:33	05/04/23 18:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*77*		*23 - 128*	*05/02/23 12:33*	*05/04/23 18:38*	*1*
2-Fluorobiphenyl	*103*		*20 - 105*	*05/02/23 12:33*	*05/04/23 18:38*	*1*
2-Fluorophenol (Surr)	*91*		*20 - 105*	*05/02/23 12:33*	*05/04/23 18:38*	*1*

Client Sample ID: SUPE-W-18D-042623
Lab Sample ID: 180-155743-5
Date Collected: 04/26/23 16:15
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*81*		*20 - 107*	*05/02/23 12:33*	*05/04/23 18:38*	*1*
Phenol-d5 (Surr)	*88*		*20 - 106*	*05/02/23 12:33*	*05/04/23 18:38*	*1*
Terphenyl-d14 (Surr)	*112*		*22 - 120*	*05/02/23 12:33*	*05/04/23 18:38*	*1*

Client Sample ID: SUPE-W-06A-042623
Lab Sample ID: 180-155743-6
Date Collected: 04/26/23 11:25
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/01/23 15:31	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/01/23 15:31	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/01/23 15:31	1
Benzene	ND		1.0	0.41	ug/L			05/01/23 15:31	1
Chloromethane	ND		1.0	0.35	ug/L			05/01/23 15:31	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/01/23 15:31	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/01/23 15:31	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/01/23 15:31	1
Naphthalene	ND		1.0	0.43	ug/L			05/01/23 15:31	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/01/23 15:31	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/01/23 15:31	1
o-Xylene	ND		1.0	0.76	ug/L			05/01/23 15:31	1
Styrene	ND		1.0	0.73	ug/L			05/01/23 15:31	1
Toluene	ND		1.0	0.51	ug/L			05/01/23 15:31	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/01/23 15:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*05/01/23 15:31*	*1*
4-Bromofluorobenzene (Surr)	*94*		*73 - 120*		*05/01/23 15:31*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*05/01/23 15:31*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/01/23 15:31*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		1.0	0.35	ug/L		05/02/23 09:25	05/04/23 18:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*91*		*24 - 146*	*05/02/23 09:25*	*05/04/23 18:23*	*1*
2-Fluorobiphenyl	*99*		*37 - 120*	*05/02/23 09:25*	*05/04/23 18:23*	*1*
2-Fluorophenol (Surr)	*49*		*10 - 120*	*05/02/23 09:25*	*05/04/23 18:23*	*1*
Nitrobenzene-d5 (Surr)	*79*		*26 - 120*	*05/02/23 09:25*	*05/04/23 18:23*	*1*
Phenol-d5 (Surr)	*34*		*11 - 120*	*05/02/23 09:25*	*05/04/23 18:23*	*1*
p-Terphenyl-d14	*104*		*64 - 127*	*05/02/23 09:25*	*05/04/23 18:23*	*1*

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.93	0.12	ug/L		05/02/23 12:33	05/04/23 19:00	1
1,2-Dichlorobenzene	ND		0.93	0.088	ug/L		05/02/23 12:33	05/04/23 19:00	1
1,3-Dichlorobenzene	ND		0.93	0.092	ug/L		05/02/23 12:33	05/04/23 19:00	1
1,4-Dichlorobenzene	ND		0.93	0.056	ug/L		05/02/23 12:33	05/04/23 19:00	1

Client: Field & Technical Services LLC
Project/Site: Superior, WI Semiannual Groundwater

Job ID: 180-155743-1

Client Sample ID: SUPE-W-06A-042623
Date Collected: 04/26/23 11:25
Date Received: 04/28/23 09:10

Lab Sample ID: 180-155743-6
Matrix: Water

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.18	0.052	ug/L		05/02/23 12:33	05/04/23 19:00	1
2,3,4,6-Tetrachlorophenol	ND		0.93	0.30	ug/L		05/02/23 12:33	05/04/23 19:00	1
2,3,5,6-Tetrachlorophenol	ND		0.93	0.47	ug/L		05/02/23 12:33	05/04/23 19:00	1
2,4,5-Trichlorophenol	ND		0.93	0.23	ug/L		05/02/23 12:33	05/04/23 19:00	1
2,4,6-Trichlorophenol	ND		0.93	0.21	ug/L		05/02/23 12:33	05/04/23 19:00	1
2,4-Dichlorophenol	ND		0.18	0.047	ug/L		05/02/23 12:33	05/04/23 19:00	1
2,4-Dimethylphenol	ND		0.93	0.15	ug/L		05/02/23 12:33	05/04/23 19:00	1
2,4-Dinitrophenol	ND		9.3	1.4	ug/L		05/02/23 12:33	05/04/23 19:00	1
2,4-Dinitrotoluene	ND		0.93	0.33	ug/L		05/02/23 12:33	05/04/23 19:00	1
2,6-Dinitrotoluene	ND		0.93	0.16	ug/L		05/02/23 12:33	05/04/23 19:00	1
2-Chloronaphthalene	ND		0.18	0.055	ug/L		05/02/23 12:33	05/04/23 19:00	1
2-Chlorophenol	ND		0.93	0.12	ug/L		05/02/23 12:33	05/04/23 19:00	1
2-Methylnaphthalene	ND		0.18	0.057	ug/L		05/02/23 12:33	05/04/23 19:00	1
2-Methylphenol	ND		0.93	0.28	ug/L		05/02/23 12:33	05/04/23 19:00	1
2-Nitroaniline	ND		4.6	0.51	ug/L		05/02/23 12:33	05/04/23 19:00	1
2-Nitrophenol	ND		0.93	0.18	ug/L		05/02/23 12:33	05/04/23 19:00	1
3,3'-Dichlorobenzidine	ND		0.93	0.54	ug/L		05/02/23 12:33	05/04/23 19:00	1
3-Nitroaniline	ND		4.6	0.40	ug/L		05/02/23 12:33	05/04/23 19:00	1
4,6-Dinitro-2-methylphenol	ND		4.6	1.4	ug/L		05/02/23 12:33	05/04/23 19:00	1
4-Bromophenyl phenyl ether	ND		0.93	0.30	ug/L		05/02/23 12:33	05/04/23 19:00	1
4-Chloro-3-methylphenol	ND		0.93	0.26	ug/L		05/02/23 12:33	05/04/23 19:00	1
4-Chloroaniline	ND		0.93	0.35	ug/L		05/02/23 12:33	05/04/23 19:00	1
4-Chlorophenyl phenyl ether	ND		0.93	0.20	ug/L		05/02/23 12:33	05/04/23 19:00	1
4-Nitroaniline	ND		4.6	0.34	ug/L		05/02/23 12:33	05/04/23 19:00	1
4-Nitrophenol	ND		4.6	0.87	ug/L		05/02/23 12:33	05/04/23 19:00	1
Acenaphthene	ND		0.18	0.060	ug/L		05/02/23 12:33	05/04/23 19:00	1
Acenaphthylene	ND		0.18	0.060	ug/L		05/02/23 12:33	05/04/23 19:00	1
Anthracene	ND		0.18	0.045	ug/L		05/02/23 12:33	05/04/23 19:00	1
Benzo[a]anthracene	ND		0.18	0.069	ug/L		05/02/23 12:33	05/04/23 19:00	1
Benzo[a]pyrene	ND		0.18	0.049	ug/L		05/02/23 12:33	05/04/23 19:00	1
Benzo[b]fluoranthene	ND		0.18	0.090	ug/L		05/02/23 12:33	05/04/23 19:00	1
Benzo[g,h,i]perylene	ND		0.18	0.064	ug/L		05/02/23 12:33	05/04/23 19:00	1
Benzo[k]fluoranthene	ND		0.18	0.081	ug/L		05/02/23 12:33	05/04/23 19:00	1
Benzoic acid	**1.8**	**J**	4.6	0.85	ug/L		05/02/23 12:33	05/04/23 19:00	1
Benzyl alcohol	ND		0.93	0.15	ug/L		05/02/23 12:33	05/04/23 19:00	1
Bis(2-chloroethoxy)methane	ND		0.93	0.14	ug/L		05/02/23 12:33	05/04/23 19:00	1
Bis(2-chloroethyl)ether	ND		0.18	0.037	ug/L		05/02/23 12:33	05/04/23 19:00	1
Bis(2-ethylhexyl) phthalate	ND		9.3	5.8	ug/L		05/02/23 12:33	05/04/23 19:00	1
bis(chloroisopropyl) ether	ND		0.18	0.054	ug/L		05/02/23 12:33	05/04/23 19:00	1
Butyl benzyl phthalate	**0.65**	**J**	0.93	0.43	ug/L		05/02/23 12:33	05/04/23 19:00	1
Chrysene	ND		0.18	0.075	ug/L		05/02/23 12:33	05/04/23 19:00	1
Dibenz(a,h)anthracene	ND		0.18	0.067	ug/L		05/02/23 12:33	05/04/23 19:00	1
Dibenzofuran	ND		0.93	0.18	ug/L		05/02/23 12:33	05/04/23 19:00	1
Diethyl phthalate	ND		0.93	0.53	ug/L		05/02/23 12:33	05/04/23 19:00	1
Dimethyl phthalate	ND		0.93	0.19	ug/L		05/02/23 12:33	05/04/23 19:00	1
Di-n-butyl phthalate	**1.7**		0.93	0.69	ug/L		05/02/23 12:33	05/04/23 19:00	1
Di-n-octyl phthalate	ND		0.93	0.63	ug/L		05/02/23 12:33	05/04/23 19:00	1
Fluoranthene	**0.16**	**J**	0.18	0.056	ug/L		05/02/23 12:33	05/04/23 19:00	1
Fluorene	ND		0.18	0.064	ug/L		05/02/23 12:33	05/04/23 19:00	1

Client Sample ID: SUPE-W-06A-042623
Lab Sample ID: 180-155743-6

Date Collected: 04/26/23 11:25
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	ND		0.18	0.052	ug/L		05/02/23 12:33	05/04/23 19:00	1
Hexachlorobutadiene	ND		0.18	0.064	ug/L		05/02/23 12:33	05/04/23 19:00	1
Hexachlorocyclopentadiene	ND		0.93	0.46	ug/L		05/02/23 12:33	05/04/23 19:00	1
Hexachloroethane	ND		0.93	0.12	ug/L		05/02/23 12:33	05/04/23 19:00	1
Indeno[1,2,3-cd]pyrene	ND		0.18	0.079	ug/L		05/02/23 12:33	05/04/23 19:00	1
Isophorone	ND		0.93	0.17	ug/L		05/02/23 12:33	05/04/23 19:00	1
Methylphenol, 3 & 4	ND		0.93	0.34	ug/L		05/02/23 12:33	05/04/23 19:00	1
Nitrobenzene	ND		1.9	0.46	ug/L		05/02/23 12:33	05/04/23 19:00	1
N-Nitrosodi-n-propylamine	ND		0.18	0.066	ug/L		05/02/23 12:33	05/04/23 19:00	1
N-Nitrosodiphenylamine	ND		0.93	0.11	ug/L		05/02/23 12:33	05/04/23 19:00	1
Phenanthrene	**0.22**		0.18	0.051	ug/L		05/02/23 12:33	05/04/23 19:00	1
Phenol	ND		0.93	0.45	ug/L		05/02/23 12:33	05/04/23 19:00	1
Pyrene	**0.084**	**J**	0.18	0.050	ug/L		05/02/23 12:33	05/04/23 19:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*73*		*23 - 128*	*05/02/23 12:33*	*05/04/23 19:00*	*1*
2-Fluorobiphenyl	*61*		*20 - 105*	*05/02/23 12:33*	*05/04/23 19:00*	*1*
2-Fluorophenol (Surr)	*68*		*20 - 105*	*05/02/23 12:33*	*05/04/23 19:00*	*1*
Nitrobenzene-d5 (Surr)	*71*		*20 - 107*	*05/02/23 12:33*	*05/04/23 19:00*	*1*
Phenol-d5 (Surr)	*72*		*20 - 106*	*05/02/23 12:33*	*05/04/23 19:00*	*1*
Terphenyl-d14 (Surr)	*68*		*22 - 120*	*05/02/23 12:33*	*05/04/23 19:00*	*1*

Client Sample ID: SUPE-W-12CR-042623
Lab Sample ID: 180-155743-7

Date Collected: 04/26/23 15:15
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/01/23 15:54	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/01/23 15:54	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/01/23 15:54	1
Benzene	ND		1.0	0.41	ug/L			05/01/23 15:54	1
Chloromethane	ND		1.0	0.35	ug/L			05/01/23 15:54	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/01/23 15:54	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/01/23 15:54	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/01/23 15:54	1
Naphthalene	ND		1.0	0.43	ug/L			05/01/23 15:54	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/01/23 15:54	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/01/23 15:54	1
o-Xylene	ND		1.0	0.76	ug/L			05/01/23 15:54	1
Styrene	ND		1.0	0.73	ug/L			05/01/23 15:54	1
Toluene	ND		1.0	0.51	ug/L			05/01/23 15:54	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/01/23 15:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*05/01/23 15:54*	*1*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*05/01/23 15:54*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*05/01/23 15:54*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/01/23 15:54*	*1*

Client: Field & Technical Services LLC
Project/Site: Superior, WI Semiannual Groundwater

Job ID: 180-155743-1

Client Sample ID: SUPE-W-12CR-042623

Date Collected: 04/26/23 15:15
Date Received: 04/28/23 09:10

Lab Sample ID: 180-155743-7

Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		1.1	0.36	ug/L		05/02/23 09:25	05/04/23 18:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*97*		*24 - 146*	*05/02/23 09:25*	*05/04/23 18:51*	*1*
2-Fluorobiphenyl	*96*		*37 - 120*	*05/02/23 09:25*	*05/04/23 18:51*	*1*
2-Fluorophenol (Surr)	*51*		*10 - 120*	*05/02/23 09:25*	*05/04/23 18:51*	*1*
Nitrobenzene-d5 (Surr)	*78*		*26 - 120*	*05/02/23 09:25*	*05/04/23 18:51*	*1*
Phenol-d5 (Surr)	*35*		*11 - 120*	*05/02/23 09:25*	*05/04/23 18:51*	*1*
p-Terphenyl-d14	*101*		*64 - 127*	*05/02/23 09:25*	*05/04/23 18:51*	*1*

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.86	0.11	ug/L		05/02/23 12:33	05/04/23 19:22	1
1,2-Dichlorobenzene	ND		0.86	0.082	ug/L		05/02/23 12:33	05/04/23 19:22	1
1,3-Dichlorobenzene	ND		0.86	0.085	ug/L		05/02/23 12:33	05/04/23 19:22	1
1,4-Dichlorobenzene	ND		0.86	0.053	ug/L		05/02/23 12:33	05/04/23 19:22	1
1-Methylnaphthalene	ND		0.16	0.048	ug/L		05/02/23 12:33	05/04/23 19:22	1
2,3,4,6-Tetrachlorophenol	ND		0.86	0.28	ug/L		05/02/23 12:33	05/04/23 19:22	1
2,3,5,6-Tetrachlorophenol	ND		0.86	0.44	ug/L		05/02/23 12:33	05/04/23 19:22	1
2,4,5-Trichlorophenol	ND		0.86	0.22	ug/L		05/02/23 12:33	05/04/23 19:22	1
2,4,6-Trichlorophenol	ND		0.86	0.19	ug/L		05/02/23 12:33	05/04/23 19:22	1
2,4-Dichlorophenol	ND		0.16	0.044	ug/L		05/02/23 12:33	05/04/23 19:22	1
2,4-Dimethylphenol	ND		0.86	0.14	ug/L		05/02/23 12:33	05/04/23 19:22	1
2,4-Dinitrophenol	ND		8.6	1.3	ug/L		05/02/23 12:33	05/04/23 19:22	1
2,4-Dinitrotoluene	ND		0.86	0.30	ug/L		05/02/23 12:33	05/04/23 19:22	1
2,6-Dinitrotoluene	ND		0.86	0.15	ug/L		05/02/23 12:33	05/04/23 19:22	1
2-Chloronaphthalene	ND		0.16	0.051	ug/L		05/02/23 12:33	05/04/23 19:22	1
2-Chlorophenol	ND		0.86	0.11	ug/L		05/02/23 12:33	05/04/23 19:22	1
2-Methylnaphthalene	ND		0.16	0.053	ug/L		05/02/23 12:33	05/04/23 19:22	1
2-Methylphenol	ND		0.86	0.26	ug/L		05/02/23 12:33	05/04/23 19:22	1
2-Nitroaniline	ND		4.3	0.47	ug/L		05/02/23 12:33	05/04/23 19:22	1
2-Nitrophenol	ND		0.86	0.17	ug/L		05/02/23 12:33	05/04/23 19:22	1
3,3'-Dichlorobenzidine	ND		0.86	0.50	ug/L		05/02/23 12:33	05/04/23 19:22	1
3-Nitroaniline	ND		4.3	0.38	ug/L		05/02/23 12:33	05/04/23 19:22	1
4,6-Dinitro-2-methylphenol	ND		4.3	1.3	ug/L		05/02/23 12:33	05/04/23 19:22	1
4-Bromophenyl phenyl ether	ND		0.86	0.28	ug/L		05/02/23 12:33	05/04/23 19:22	1
4-Chloro-3-methylphenol	ND		0.86	0.24	ug/L		05/02/23 12:33	05/04/23 19:22	1
4-Chloroaniline	ND		0.86	0.32	ug/L		05/02/23 12:33	05/04/23 19:22	1
4-Chlorophenyl phenyl ether	ND		0.86	0.19	ug/L		05/02/23 12:33	05/04/23 19:22	1
4-Nitroaniline	ND		4.3	0.31	ug/L		05/02/23 12:33	05/04/23 19:22	1
4-Nitrophenol	ND		4.3	0.81	ug/L		05/02/23 12:33	05/04/23 19:22	1
Acenaphthene	ND		0.16	0.056	ug/L		05/02/23 12:33	05/04/23 19:22	1
Acenaphthylene	ND		0.16	0.056	ug/L		05/02/23 12:33	05/04/23 19:22	1
Anthracene	ND		0.16	0.042	ug/L		05/02/23 12:33	05/04/23 19:22	1
Benzo[a]anthracene	ND		0.16	0.065	ug/L		05/02/23 12:33	05/04/23 19:22	1
Benzo[a]pyrene	ND		0.16	0.046	ug/L		05/02/23 12:33	05/04/23 19:22	1
Benzo[b]fluoranthene	ND		0.16	0.084	ug/L		05/02/23 12:33	05/04/23 19:22	1
Benzo[g,h,i]perylene	ND		0.16	0.059	ug/L		05/02/23 12:33	05/04/23 19:22	1
Benzo[k]fluoranthene	ND		0.16	0.076	ug/L		05/02/23 12:33	05/04/23 19:22	1
Benzoic acid	**2.7**	**J**	4.3	0.80	ug/L		05/02/23 12:33	05/04/23 19:22	1

Client Sample ID: SUPE-W-12CR-042623
Lab Sample ID: 180-155743-7
Date Collected: 04/26/23 15:15
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzyl alcohol	ND		0.86	0.14	ug/L		05/02/23 12:33	05/04/23 19:22	1
Bis(2-chloroethoxy)methane	ND		0.86	0.13	ug/L		05/02/23 12:33	05/04/23 19:22	1
Bis(2-chloroethyl)ether	ND		0.16	0.034	ug/L		05/02/23 12:33	05/04/23 19:22	1
Bis(2-ethylhexyl) phthalate	ND		8.6	5.4	ug/L		05/02/23 12:33	05/04/23 19:22	1
bis(chloroisopropyl) ether	ND		0.16	0.050	ug/L		05/02/23 12:33	05/04/23 19:22	1
Butyl benzyl phthalate	**0.57**	**J**	0.86	0.40	ug/L		05/02/23 12:33	05/04/23 19:22	1
Chrysene	ND		0.16	0.070	ug/L		05/02/23 12:33	05/04/23 19:22	1
Dibenz(a,h)anthracene	ND		0.16	0.062	ug/L		05/02/23 12:33	05/04/23 19:22	1
Dibenzofuran	ND		0.86	0.16	ug/L		05/02/23 12:33	05/04/23 19:22	1
Diethyl phthalate	ND		0.86	0.49	ug/L		05/02/23 12:33	05/04/23 19:22	1
Dimethyl phthalate	ND		0.86	0.17	ug/L		05/02/23 12:33	05/04/23 19:22	1
Di-n-butyl phthalate	**1.2**		0.86	0.64	ug/L		05/02/23 12:33	05/04/23 19:22	1
Di-n-octyl phthalate	ND		0.86	0.59	ug/L		05/02/23 12:33	05/04/23 19:22	1
Fluoranthene	**0.053**	**J**	0.16	0.052	ug/L		05/02/23 12:33	05/04/23 19:22	1
Fluorene	ND		0.16	0.059	ug/L		05/02/23 12:33	05/04/23 19:22	1
Hexachlorobenzene	ND		0.16	0.048	ug/L		05/02/23 12:33	05/04/23 19:22	1
Hexachlorobutadiene	ND		0.16	0.059	ug/L		05/02/23 12:33	05/04/23 19:22	1
Hexachlorocyclopentadiene	ND		0.86	0.43	ug/L		05/02/23 12:33	05/04/23 19:22	1
Hexachloroethane	ND		0.86	0.11	ug/L		05/02/23 12:33	05/04/23 19:22	1
Indeno[1,2,3-cd]pyrene	ND		0.16	0.073	ug/L		05/02/23 12:33	05/04/23 19:22	1
Isophorone	ND		0.86	0.16	ug/L		05/02/23 12:33	05/04/23 19:22	1
Methylphenol, 3 & 4	ND		0.86	0.32	ug/L		05/02/23 12:33	05/04/23 19:22	1
Nitrobenzene	ND		1.7	0.43	ug/L		05/02/23 12:33	05/04/23 19:22	1
N-Nitrosodi-n-propylamine	ND		0.16	0.061	ug/L		05/02/23 12:33	05/04/23 19:22	1
N-Nitrosodiphenylamine	ND		0.86	0.10	ug/L		05/02/23 12:33	05/04/23 19:22	1
Phenanthrene	**0.071**	**J**	0.16	0.047	ug/L		05/02/23 12:33	05/04/23 19:22	1
Phenol	ND		0.86	0.42	ug/L		05/02/23 12:33	05/04/23 19:22	1
Pyrene	ND		0.16	0.047	ug/L		05/02/23 12:33	05/04/23 19:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*52*		*23 - 128*	*05/02/23 12:33*	*05/04/23 19:22*	*1*
2-Fluorobiphenyl	*42*		*20 - 105*	*05/02/23 12:33*	*05/04/23 19:22*	*1*
2-Fluorophenol (Surr)	*56*		*20 - 105*	*05/02/23 12:33*	*05/04/23 19:22*	*1*
Nitrobenzene-d5 (Surr)	*54*		*20 - 107*	*05/02/23 12:33*	*05/04/23 19:22*	*1*
Phenol-d5 (Surr)	*58*		*20 - 106*	*05/02/23 12:33*	*05/04/23 19:22*	*1*
Terphenyl-d14 (Surr)	*48*		*22 - 120*	*05/02/23 12:33*	*05/04/23 19:22*	*1*

Client Sample ID: SUPE-EB-01-042623
Lab Sample ID: 180-155743-8
Date Collected: 04/26/23 15:40
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/01/23 16:16	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/01/23 16:16	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/01/23 16:16	1
Benzene	ND		1.0	0.41	ug/L			05/01/23 16:16	1
Chloromethane	ND		1.0	0.35	ug/L			05/01/23 16:16	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/01/23 16:16	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/01/23 16:16	1

Client: Field & Technical Services LLC
Job ID: 180-155743-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-EB-01-042623
Lab Sample ID: 180-155743-8
Date Collected: 04/26/23 15:40
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/01/23 16:16	1
Naphthalene	ND		1.0	0.43	ug/L			05/01/23 16:16	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/01/23 16:16	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/01/23 16:16	1
o-Xylene	ND		1.0	0.76	ug/L			05/01/23 16:16	1
Styrene	ND		1.0	0.73	ug/L			05/01/23 16:16	1
Toluene	ND		1.0	0.51	ug/L			05/01/23 16:16	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/01/23 16:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*05/01/23 16:16*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*05/01/23 16:16*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*05/01/23 16:16*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/01/23 16:16*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		0.95	0.32	ug/L		05/02/23 09:25	05/04/23 19:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*83*		*24 - 146*	*05/02/23 09:25*	*05/04/23 19:19*	*1*
2-Fluorobiphenyl	*111*		*37 - 120*	*05/02/23 09:25*	*05/04/23 19:19*	*1*
2-Fluorophenol (Surr)	*57*		*10 - 120*	*05/02/23 09:25*	*05/04/23 19:19*	*1*
Nitrobenzene-d5 (Surr)	*91*		*26 - 120*	*05/02/23 09:25*	*05/04/23 19:19*	*1*
Phenol-d5 (Surr)	*38*		*11 - 120*	*05/02/23 09:25*	*05/04/23 19:19*	*1*
p-Terphenyl-d14	*120*		*64 - 127*	*05/02/23 09:25*	*05/04/23 19:19*	*1*

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.81	0.11	ug/L		05/02/23 12:33	05/04/23 19:43	1
1,2-Dichlorobenzene	ND		0.81	0.077	ug/L		05/02/23 12:33	05/04/23 19:43	1
1,3-Dichlorobenzene	ND		0.81	0.080	ug/L		05/02/23 12:33	05/04/23 19:43	1
1,4-Dichlorobenzene	ND		0.81	0.049	ug/L		05/02/23 12:33	05/04/23 19:43	1
1-Methylnaphthalene	ND		0.15	0.045	ug/L		05/02/23 12:33	05/04/23 19:43	1
2,3,4,6-Tetrachlorophenol	ND		0.81	0.26	ug/L		05/02/23 12:33	05/04/23 19:43	1
2,3,5,6-Tetrachlorophenol	ND		0.81	0.41	ug/L		05/02/23 12:33	05/04/23 19:43	1
2,4,5-Trichlorophenol	ND		0.81	0.20	ug/L		05/02/23 12:33	05/04/23 19:43	1
2,4,6-Trichlorophenol	ND		0.81	0.18	ug/L		05/02/23 12:33	05/04/23 19:43	1
2,4-Dichlorophenol	ND		0.15	0.041	ug/L		05/02/23 12:33	05/04/23 19:43	1
2,4-Dimethylphenol	ND		0.81	0.13	ug/L		05/02/23 12:33	05/04/23 19:43	1
2,4-Dinitrophenol	ND		8.1	1.2	ug/L		05/02/23 12:33	05/04/23 19:43	1
2,4-Dinitrotoluene	ND		0.81	0.28	ug/L		05/02/23 12:33	05/04/23 19:43	1
2,6-Dinitrotoluene	ND		0.81	0.14	ug/L		05/02/23 12:33	05/04/23 19:43	1
2-Chloronaphthalene	ND		0.15	0.048	ug/L		05/02/23 12:33	05/04/23 19:43	1
2-Chlorophenol	ND		0.81	0.10	ug/L		05/02/23 12:33	05/04/23 19:43	1
2-Methylnaphthalene	ND		0.15	0.050	ug/L		05/02/23 12:33	05/04/23 19:43	1
2-Methylphenol	ND		0.81	0.24	ug/L		05/02/23 12:33	05/04/23 19:43	1
2-Nitroaniline	ND		4.0	0.44	ug/L		05/02/23 12:33	05/04/23 19:43	1
2-Nitrophenol	ND		0.81	0.16	ug/L		05/02/23 12:33	05/04/23 19:43	1
3,3'-Dichlorobenzidine	ND		0.81	0.47	ug/L		05/02/23 12:33	05/04/23 19:43	1

Client Sample ID: SUPE-EB-01-042623
Lab Sample ID: 180-155743-8
Date Collected: 04/26/23 15:40
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Nitroaniline	ND		4.0	0.35	ug/L		05/02/23 12:33	05/04/23 19:43	1
4,6-Dinitro-2-methylphenol	ND		4.0	1.2	ug/L		05/02/23 12:33	05/04/23 19:43	1
4-Bromophenyl phenyl ether	ND		0.81	0.26	ug/L		05/02/23 12:33	05/04/23 19:43	1
4-Chloro-3-methylphenol	ND		0.81	0.22	ug/L		05/02/23 12:33	05/04/23 19:43	1
4-Chloroaniline	ND		0.81	0.30	ug/L		05/02/23 12:33	05/04/23 19:43	1
4-Chlorophenyl phenyl ether	ND		0.81	0.18	ug/L		05/02/23 12:33	05/04/23 19:43	1
4-Nitroaniline	ND		4.0	0.29	ug/L		05/02/23 12:33	05/04/23 19:43	1
4-Nitrophenol	ND		4.0	0.76	ug/L		05/02/23 12:33	05/04/23 19:43	1
Acenaphthene	ND		0.15	0.052	ug/L		05/02/23 12:33	05/04/23 19:43	1
Acenaphthylene	ND		0.15	0.052	ug/L		05/02/23 12:33	05/04/23 19:43	1
Anthracene	ND		0.15	0.040	ug/L		05/02/23 12:33	05/04/23 19:43	1
Benzo[a]anthracene	ND		0.15	0.060	ug/L		05/02/23 12:33	05/04/23 19:43	1
Benzo[a]pyrene	ND		0.15	0.043	ug/L		05/02/23 12:33	05/04/23 19:43	1
Benzo[b]fluoranthene	ND		0.15	0.078	ug/L		05/02/23 12:33	05/04/23 19:43	1
Benzo[g,h,i]perylene	ND		0.15	0.056	ug/L		05/02/23 12:33	05/04/23 19:43	1
Benzo[k]fluoranthene	ND		0.15	0.071	ug/L		05/02/23 12:33	05/04/23 19:43	1
Benzoic acid	**11**		4.0	0.74	ug/L		05/02/23 12:33	05/04/23 19:43	1
Benzyl alcohol	**0.58**	**J**	0.81	0.13	ug/L		05/02/23 12:33	05/04/23 19:43	1
Bis(2-chloroethoxy)methane	ND		0.81	0.12	ug/L		05/02/23 12:33	05/04/23 19:43	1
Bis(2-chloroethyl)ether	ND		0.15	0.032	ug/L		05/02/23 12:33	05/04/23 19:43	1
Bis(2-ethylhexyl) phthalate	ND		8.1	5.0	ug/L		05/02/23 12:33	05/04/23 19:43	1
bis(chloroisopropyl) ether	ND		0.15	0.047	ug/L		05/02/23 12:33	05/04/23 19:43	1
Butyl benzyl phthalate	**0.62**	**J**	0.81	0.37	ug/L		05/02/23 12:33	05/04/23 19:43	1
Chrysene	ND		0.15	0.065	ug/L		05/02/23 12:33	05/04/23 19:43	1
Dibenz(a,h)anthracene	ND		0.15	0.058	ug/L		05/02/23 12:33	05/04/23 19:43	1
Dibenzofuran	ND		0.81	0.15	ug/L		05/02/23 12:33	05/04/23 19:43	1
Diethyl phthalate	ND		0.81	0.46	ug/L		05/02/23 12:33	05/04/23 19:43	1
Dimethyl phthalate	ND		0.81	0.16	ug/L		05/02/23 12:33	05/04/23 19:43	1
Di-n-butyl phthalate	**1.9**		0.81	0.60	ug/L		05/02/23 12:33	05/04/23 19:43	1
Di-n-octyl phthalate	ND		0.81	0.55	ug/L		05/02/23 12:33	05/04/23 19:43	1
Fluoranthene	ND		0.15	0.048	ug/L		05/02/23 12:33	05/04/23 19:43	1
Fluorene	ND		0.15	0.056	ug/L		05/02/23 12:33	05/04/23 19:43	1
Hexachlorobenzene	ND		0.15	0.045	ug/L		05/02/23 12:33	05/04/23 19:43	1
Hexachlorobutadiene	ND		0.15	0.056	ug/L		05/02/23 12:33	05/04/23 19:43	1
Hexachlorocyclopentadiene	ND		0.81	0.40	ug/L		05/02/23 12:33	05/04/23 19:43	1
Hexachloroethane	ND		0.81	0.11	ug/L		05/02/23 12:33	05/04/23 19:43	1
Indeno[1,2,3-cd]pyrene	ND		0.15	0.069	ug/L		05/02/23 12:33	05/04/23 19:43	1
Isophorone	ND		0.81	0.15	ug/L		05/02/23 12:33	05/04/23 19:43	1
Methylphenol, 3 & 4	ND		0.81	0.30	ug/L		05/02/23 12:33	05/04/23 19:43	1
Nitrobenzene	ND		1.6	0.40	ug/L		05/02/23 12:33	05/04/23 19:43	1
N-Nitrosodi-n-propylamine	ND		0.15	0.057	ug/L		05/02/23 12:33	05/04/23 19:43	1
N-Nitrosodiphenylamine	ND		0.81	0.096	ug/L		05/02/23 12:33	05/04/23 19:43	1
Phenanthrene	**0.074**	**J**	0.15	0.044	ug/L		05/02/23 12:33	05/04/23 19:43	1
Phenol	ND		0.81	0.39	ug/L		05/02/23 12:33	05/04/23 19:43	1
Pyrene	ND		0.15	0.044	ug/L		05/02/23 12:33	05/04/23 19:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*57*		*23 - 128*	*05/02/23 12:33*	*05/04/23 19:43*	*1*
2-Fluorobiphenyl	*48*		*20 - 105*	*05/02/23 12:33*	*05/04/23 19:43*	*1*
2-Fluorophenol (Surr)	*57*		*20 - 105*	*05/02/23 12:33*	*05/04/23 19:43*	*1*

Client: Field & Technical Services LLC
Job ID: 180-155743-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-EB-01-042623
Lab Sample ID: 180-155743-8
Date Collected: 04/26/23 15:40
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	56		20 - 107	05/02/23 12:33	05/04/23 19:43	1
Phenol-d5 (Surr)	56		20 - 106	05/02/23 12:33	05/04/23 19:43	1
Terphenyl-d14 (Surr)	54		22 - 120	05/02/23 12:33	05/04/23 19:43	1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-667627/8
Matrix: Water
Analysis Batch: 667627

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/01/23 13:40	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/01/23 13:40	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/01/23 13:40	1
Benzene	ND		1.0	0.41	ug/L			05/01/23 13:40	1
Chloromethane	ND		1.0	0.35	ug/L			05/01/23 13:40	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/01/23 13:40	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/01/23 13:40	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/01/23 13:40	1
Naphthalene	ND		1.0	0.43	ug/L			05/01/23 13:40	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/01/23 13:40	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/01/23 13:40	1
o-Xylene	ND		1.0	0.76	ug/L			05/01/23 13:40	1
Styrene	ND		1.0	0.73	ug/L			05/01/23 13:40	1
Toluene	ND		1.0	0.51	ug/L			05/01/23 13:40	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/01/23 13:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*77 - 120*		*05/01/23 13:40*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*05/01/23 13:40*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*05/01/23 13:40*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/01/23 13:40*	*1*

Lab Sample ID: LCS 480-667627/6
Matrix: Water
Analysis Batch: 667627

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	25.0	21.7		ug/L		87	73 - 126
1,2,4-Trimethylbenzene	25.0	21.7		ug/L		87	76 - 121
1,3,5-Trimethylbenzene	25.0	21.7		ug/L		87	77 - 121
Benzene	25.0	21.9		ug/L		88	71 - 124
Chloromethane	25.0	19.3		ug/L		77	68 - 124
Ethylbenzene	25.0	21.5		ug/L		86	77 - 123
Methyl tert-butyl ether	25.0	20.6		ug/L		83	77 - 120
m-Xylene & p-Xylene	25.0	22.3		ug/L		89	76 - 122
Naphthalene	25.0	21.7		ug/L		87	66 - 125
n-Butylbenzene	25.0	22.8		ug/L		91	71 - 128
N-Propylbenzene	25.0	21.8		ug/L		87	75 - 127
o-Xylene	25.0	22.5		ug/L		90	76 - 122
Styrene	25.0	22.1		ug/L		88	80 - 120
Toluene	25.0	21.6		ug/L		86	80 - 122
Xylenes, Total	50.0	44.8		ug/L		90	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*
Dibromofluoromethane (Surr)	*100*		*75 - 123*
Toluene-d8 (Surr)	*98*		*80 - 120*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 480-667743/1-A
Matrix: Water
Analysis Batch: 668191

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 667743

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		1.0	0.34	ug/L		05/02/23 09:25	05/04/23 14:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*53*		*24 - 146*	*05/02/23 09:25*	*05/04/23 14:13*	*1*
2-Fluorobiphenyl	*104*		*37 - 120*	*05/02/23 09:25*	*05/04/23 14:13*	*1*
2-Fluorophenol (Surr)	*51*		*10 - 120*	*05/02/23 09:25*	*05/04/23 14:13*	*1*
Nitrobenzene-d5 (Surr)	*87*		*26 - 120*	*05/02/23 09:25*	*05/04/23 14:13*	*1*
Phenol-d5 (Surr)	*38*		*11 - 120*	*05/02/23 09:25*	*05/04/23 14:13*	*1*
p-Terphenyl-d14	*111*		*64 - 127*	*05/02/23 09:25*	*05/04/23 14:13*	*1*

Lab Sample ID: LCS 480-667743/2-A
Matrix: Water
Analysis Batch: 668191

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667743

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Pentachlorophenol			16.0	13.8		ug/L		86	10 - 131		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*99*		*24 - 146*
2-Fluorobiphenyl	*93*		*37 - 120*
2-Fluorophenol (Surr)	*53*		*10 - 120*
Nitrobenzene-d5 (Surr)	*82*		*26 - 120*
Phenol-d5 (Surr)	*37*		*11 - 120*
p-Terphenyl-d14	*99*		*64 - 127*

Lab Sample ID: 180-155743-1 MS
Matrix: Water
Analysis Batch: 668191

Client Sample ID: SUPE-W-99A-042623
Prep Type: Total/NA
Prep Batch: 667743

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Pentachlorophenol	ND		15.2	13.8		ug/L		90	23 - 149		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*100*		*24 - 146*
2-Fluorobiphenyl	*96*		*37 - 120*
2-Fluorophenol (Surr)	*51*		*10 - 120*
Nitrobenzene-d5 (Surr)	*83*		*26 - 120*
Phenol-d5 (Surr)	*35*		*11 - 120*
p-Terphenyl-d14	*86*		*64 - 127*

Lab Sample ID: 180-155743-1 MSD
Matrix: Water
Analysis Batch: 668191

Client Sample ID: SUPE-W-99A-042623
Prep Type: Total/NA
Prep Batch: 667743

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Pentachlorophenol	ND		15.4	12.9		ug/L		84	23 - 149	7	37

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: 180-155743-1 MSD
Matrix: Water
Analysis Batch: 668191

Client Sample ID: SUPE-W-99A-042623
Prep Type: Total/NA
Prep Batch: 667743

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*93*		*24 - 146*
2-Fluorobiphenyl	*90*		*37 - 120*
2-Fluorophenol (Surr)	*51*		*10 - 120*
Nitrobenzene-d5 (Surr)	*79*		*26 - 120*
Phenol-d5 (Surr)	*36*		*11 - 120*
p-Terphenyl-d14	*82*		*64 - 127*

Method: EPA 8270E LL - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 180-434029/1-A
Matrix: Water
Analysis Batch: 434215

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 434029

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.0	0.13	ug/L		05/02/23 12:33	05/04/23 10:37	1
1,2-Dichlorobenzene	ND		1.0	0.095	ug/L		05/02/23 12:33	05/04/23 10:37	1
1,3-Dichlorobenzene	ND		1.0	0.099	ug/L		05/02/23 12:33	05/04/23 10:37	1
1,4-Dichlorobenzene	ND		1.0	0.061	ug/L		05/02/23 12:33	05/04/23 10:37	1
1-Methylnaphthalene	ND		0.19	0.056	ug/L		05/02/23 12:33	05/04/23 10:37	1
2,3,4,6-Tetrachlorophenol	ND		1.0	0.33	ug/L		05/02/23 12:33	05/04/23 10:37	1
2,3,5,6-Tetrachlorophenol	ND		1.0	0.51	ug/L		05/02/23 12:33	05/04/23 10:37	1
2,4,5-Trichlorophenol	ND		1.0	0.25	ug/L		05/02/23 12:33	05/04/23 10:37	1
2,4,6-Trichlorophenol	ND		1.0	0.22	ug/L		05/02/23 12:33	05/04/23 10:37	1
2,4-Dichlorophenol	ND		0.19	0.051	ug/L		05/02/23 12:33	05/04/23 10:37	1
2,4-Dimethylphenol	ND		1.0	0.17	ug/L		05/02/23 12:33	05/04/23 10:37	1
2,4-Dinitrophenol	ND		10	1.5	ug/L		05/02/23 12:33	05/04/23 10:37	1
2,4-Dinitrotoluene	ND		1.0	0.35	ug/L		05/02/23 12:33	05/04/23 10:37	1
2,6-Dinitrotoluene	ND		1.0	0.17	ug/L		05/02/23 12:33	05/04/23 10:37	1
2-Chloronaphthalene	ND		0.19	0.059	ug/L		05/02/23 12:33	05/04/23 10:37	1
2-Chlorophenol	ND		1.0	0.13	ug/L		05/02/23 12:33	05/04/23 10:37	1
2-Methylnaphthalene	ND		0.19	0.062	ug/L		05/02/23 12:33	05/04/23 10:37	1
2-Methylphenol	ND		1.0	0.30	ug/L		05/02/23 12:33	05/04/23 10:37	1
2-Nitroaniline	ND		5.0	0.55	ug/L		05/02/23 12:33	05/04/23 10:37	1
2-Nitrophenol	ND		1.0	0.19	ug/L		05/02/23 12:33	05/04/23 10:37	1
3,3'-Dichlorobenzidine	ND		1.0	0.58	ug/L		05/02/23 12:33	05/04/23 10:37	1
3-Nitroaniline	ND		5.0	0.44	ug/L		05/02/23 12:33	05/04/23 10:37	1
4,6-Dinitro-2-methylphenol	ND		5.0	1.5	ug/L		05/02/23 12:33	05/04/23 10:37	1
4-Bromophenyl phenyl ether	ND		1.0	0.32	ug/L		05/02/23 12:33	05/04/23 10:37	1
4-Chloro-3-methylphenol	ND		1.0	0.28	ug/L		05/02/23 12:33	05/04/23 10:37	1
4-Chloroaniline	ND		1.0	0.38	ug/L		05/02/23 12:33	05/04/23 10:37	1
4-Chlorophenyl phenyl ether	ND		1.0	0.22	ug/L		05/02/23 12:33	05/04/23 10:37	1
4-Nitroaniline	ND		5.0	0.36	ug/L		05/02/23 12:33	05/04/23 10:37	1
4-Nitrophenol	ND		5.0	0.94	ug/L		05/02/23 12:33	05/04/23 10:37	1
Acenaphthene	ND		0.19	0.065	ug/L		05/02/23 12:33	05/04/23 10:37	1
Acenaphthylene	ND		0.19	0.065	ug/L		05/02/23 12:33	05/04/23 10:37	1
Anthracene	ND		0.19	0.049	ug/L		05/02/23 12:33	05/04/23 10:37	1
Benzo[a]anthracene	ND		0.19	0.075	ug/L		05/02/23 12:33	05/04/23 10:37	1
Benzo[a]pyrene	ND		0.19	0.053	ug/L		05/02/23 12:33	05/04/23 10:37	1
Benzo[b]fluoranthene	ND		0.19	0.097	ug/L		05/02/23 12:33	05/04/23 10:37	1

Method: EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 180-434029/1-A
Matrix: Water
Analysis Batch: 434215

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 434029

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	ND		0.19	0.069	ug/L		05/02/23 12:33	05/04/23 10:37	1
Benzo[k]fluoranthene	ND		0.19	0.088	ug/L		05/02/23 12:33	05/04/23 10:37	1
Benzoic acid	ND		5.0	0.92	ug/L		05/02/23 12:33	05/04/23 10:37	1
Benzyl alcohol	ND		1.0	0.16	ug/L		05/02/23 12:33	05/04/23 10:37	1
Bis(2-chloroethoxy)methane	ND		1.0	0.15	ug/L		05/02/23 12:33	05/04/23 10:37	1
Bis(2-chloroethyl)ether	ND		0.19	0.040	ug/L		05/02/23 12:33	05/04/23 10:37	1
Bis(2-ethylhexyl) phthalate	ND		10	6.2	ug/L		05/02/23 12:33	05/04/23 10:37	1
bis(chloroisopropyl) ether	ND		0.19	0.058	ug/L		05/02/23 12:33	05/04/23 10:37	1
Butyl benzyl phthalate	ND		1.0	0.46	ug/L		05/02/23 12:33	05/04/23 10:37	1
Chrysene	ND		0.19	0.081	ug/L		05/02/23 12:33	05/04/23 10:37	1
Dibenz(a,h)anthracene	ND		0.19	0.072	ug/L		05/02/23 12:33	05/04/23 10:37	1
Dibenzofuran	ND		1.0	0.19	ug/L		05/02/23 12:33	05/04/23 10:37	1
Diethyl phthalate	ND		1.0	0.57	ug/L		05/02/23 12:33	05/04/23 10:37	1
Dimethyl phthalate	ND		1.0	0.20	ug/L		05/02/23 12:33	05/04/23 10:37	1
Di-n-butyl phthalate	ND		1.0	0.74	ug/L		05/02/23 12:33	05/04/23 10:37	1
Di-n-octyl phthalate	ND		1.0	0.69	ug/L		05/02/23 12:33	05/04/23 10:37	1
Fluoranthene	ND		0.19	0.060	ug/L		05/02/23 12:33	05/04/23 10:37	1
Fluorene	ND		0.19	0.069	ug/L		05/02/23 12:33	05/04/23 10:37	1
Hexachlorobenzene	ND		0.19	0.056	ug/L		05/02/23 12:33	05/04/23 10:37	1
Hexachlorobutadiene	ND		0.19	0.069	ug/L		05/02/23 12:33	05/04/23 10:37	1
Hexachlorocyclopentadiene	ND		1.0	0.50	ug/L		05/02/23 12:33	05/04/23 10:37	1
Hexachloroethane	ND		1.0	0.13	ug/L		05/02/23 12:33	05/04/23 10:37	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.085	ug/L		05/02/23 12:33	05/04/23 10:37	1
Isophorone	ND		1.0	0.19	ug/L		05/02/23 12:33	05/04/23 10:37	1
Methylphenol, 3 & 4	ND		1.0	0.37	ug/L		05/02/23 12:33	05/04/23 10:37	1
Naphthalene	ND		0.19	0.059	ug/L		05/02/23 12:33	05/04/23 10:37	1
Nitrobenzene	ND		2.0	0.50	ug/L		05/02/23 12:33	05/04/23 10:37	1
N-Nitrosodi-n-propylamine	ND		0.19	0.071	ug/L		05/02/23 12:33	05/04/23 10:37	1
N-Nitrosodiphenylamine	ND		1.0	0.12	ug/L		05/02/23 12:33	05/04/23 10:37	1
Phenanthrene	ND		0.19	0.055	ug/L		05/02/23 12:33	05/04/23 10:37	1
Phenol	ND		1.0	0.49	ug/L		05/02/23 12:33	05/04/23 10:37	1
Pyrene	ND		0.19	0.054	ug/L		05/02/23 12:33	05/04/23 10:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*74*		*23 - 128*	*05/02/23 12:33*	*05/04/23 10:37*	*1*
2-Fluorobiphenyl	*69*		*20 - 105*	*05/02/23 12:33*	*05/04/23 10:37*	*1*
2-Fluorophenol (Surr)	*84*		*20 - 105*	*05/02/23 12:33*	*05/04/23 10:37*	*1*
Nitrobenzene-d5 (Surr)	*70*		*20 - 107*	*05/02/23 12:33*	*05/04/23 10:37*	*1*
Phenol-d5 (Surr)	*76*		*20 - 106*	*05/02/23 12:33*	*05/04/23 10:37*	*1*
Terphenyl-d14 (Surr)	*76*		*22 - 120*	*05/02/23 12:33*	*05/04/23 10:37*	*1*

Lab Sample ID: LCS 180-434029/2-A
Matrix: Water
Analysis Batch: 434215

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 434029

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trichlorobenzene	20.0	14.4		ug/L		72	51 - 100
1,2-Dichlorobenzene	20.0	13.8		ug/L		69	51 - 100

Method: EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 180-434029/2-A
Matrix: Water
Analysis Batch: 434215

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 434029

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3-Dichlorobenzene	20.0	13.6		ug/L		68	51 - 100
1,4-Dichlorobenzene	20.0	13.5		ug/L		67	52 - 100
1-Methylnaphthalene	20.0	14.3		ug/L		71	53 - 100
2,3,4,6-Tetrachlorophenol	20.0	15.2		ug/L		76	50 - 100
2,4,5-Trichlorophenol	20.0	16.1		ug/L		80	55 - 100
2,4,6-Trichlorophenol	20.0	15.6		ug/L		78	54 - 100
2,4-Dichlorophenol	20.0	15.7		ug/L		79	55 - 100
2,4-Dimethylphenol	20.0	15.1		ug/L		76	51 - 100
2,4-Dinitrophenol	40.0	26.5		ug/L		66	32 - 100
2,4-Dinitrotoluene	20.0	15.3		ug/L		77	56 - 100
2,6-Dinitrotoluene	20.0	15.6		ug/L		78	56 - 101
2-Chloronaphthalene	20.0	14.5		ug/L		72	52 - 100
2-Chlorophenol	20.0	15.0		ug/L		75	53 - 100
2-Methylnaphthalene	20.0	14.5		ug/L		72	53 - 100
2-Methylphenol	20.0	15.7		ug/L		79	51 - 100
2-Nitroaniline	20.0	16.7		ug/L		83	47 - 104
2-Nitrophenol	20.0	16.0		ug/L		80	56 - 100
3,3'-Dichlorobenzidine	20.0	12.8		ug/L		64	42 - 100
3-Nitroaniline	20.0	16.4		ug/L		82	54 - 100
4,6-Dinitro-2-methylphenol	40.0	27.3		ug/L		68	48 - 100
4-Bromophenyl phenyl ether	20.0	14.6		ug/L		73	50 - 100
4-Chloro-3-methylphenol	20.0	16.7		ug/L		84	47 - 105
4-Chloroaniline	20.0	14.5		ug/L		73	48 - 100
4-Chlorophenyl phenyl ether	20.0	14.3		ug/L		72	52 - 100
4-Nitroaniline	20.0	15.9		ug/L		79	54 - 100
4-Nitrophenol	40.0	32.9		ug/L		82	37 - 120
Acenaphthene	20.0	14.1		ug/L		70	51 - 100
Acenaphthylene	20.0	15.5		ug/L		78	54 - 100
Anthracene	20.0	15.3		ug/L		76	54 - 100
Benzo[a]anthracene	20.0	14.7		ug/L		74	52 - 100
Benzo[a]pyrene	20.0	14.3		ug/L		72	52 - 100
Benzo[b]fluoranthene	20.0	12.6		ug/L		63	50 - 100
Benzo[g,h,i]perylene	20.0	13.5		ug/L		68	53 - 100
Benzo[k]fluoranthene	20.0	14.4		ug/L		72	49 - 100
Benzoic acid	20.0	16.9		ug/L		85	31 - 122
Benzyl alcohol	20.0	15.2		ug/L		76	33 - 107
Bis(2-chloroethoxy)methane	20.0	14.4		ug/L		72	49 - 100
Bis(2-chloroethyl)ether	20.0	14.4		ug/L		72	46 - 100
Bis(2-ethylhexyl) phthalate	20.0	14.1		ug/L		70	52 - 101
bis(chloroisopropyl) ether	20.0	14.7		ug/L		73	29 - 102
Butyl benzyl phthalate	20.0	14.6		ug/L		73	52 - 100
Chrysene	20.0	13.6		ug/L		68	51 - 100
Dibenz(a,h)anthracene	20.0	13.5		ug/L		68	52 - 101
Dibenzofuran	20.0	14.1		ug/L		71	53 - 100
Diethyl phthalate	20.0	15.3		ug/L		76	52 - 100
Dimethyl phthalate	20.0	15.2		ug/L		76	55 - 100
Di-n-butyl phthalate	20.0	15.8		ug/L		79	57 - 100
Di-n-octyl phthalate	20.0	15.4		ug/L		77	41 - 100
Fluoranthene	20.0	14.5		ug/L		73	56 - 100

Method: EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 180-434029/2-A
Matrix: Water
Analysis Batch: 434215

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 434029

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluorene	20.0	14.8		ug/L		74	53 - 100
Hexachlorobenzene	20.0	14.7		ug/L		74	46 - 100
Hexachlorobutadiene	20.0	14.1		ug/L		70	42 - 101
Hexachlorocyclopentadiene	20.0	13.8		ug/L		69	38 - 102
Hexachloroethane	20.0	14.2		ug/L		71	46 - 100
Indeno[1,2,3-cd]pyrene	20.0	13.9		ug/L		70	54 - 100
Isophorone	20.0	16.2		ug/L		81	50 - 100
Methylphenol, 3 & 4	20.0	14.9		ug/L		75	51 - 100
Naphthalene	20.0	14.0		ug/L		70	53 - 100
Nitrobenzene	20.0	14.9		ug/L		74	47 - 100
N-Nitrosodi-n-propylamine	20.0	15.3		ug/L		76	43 - 103
N-Nitrosodiphenylamine	20.0	14.5		ug/L		73	53 - 100
Phenanthrene	20.0	14.0		ug/L		70	53 - 100
Phenol	20.0	14.7		ug/L		74	49 - 100
Pyrene	20.0	13.8		ug/L		69	53 - 100

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*78*		*23 - 128*
2-Fluorobiphenyl	*67*		*20 - 105*
2-Fluorophenol (Surr)	*76*		*20 - 105*
Nitrobenzene-d5 (Surr)	*75*		*20 - 107*
Phenol-d5 (Surr)	*74*		*20 - 106*
Terphenyl-d14 (Surr)	*63*		*22 - 120*

Lab Sample ID: 180-155743-1 MS
Matrix: Water
Analysis Batch: 434215

Client Sample ID: SUPE-W-99A-042623
Prep Type: Total/NA
Prep Batch: 434029

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trichlorobenzene	ND		16.1	9.27		ug/L		57	51 - 100
1,2-Dichlorobenzene	ND		16.1	9.15		ug/L		57	51 - 100
1,3-Dichlorobenzene	ND		16.1	8.97		ug/L		56	51 - 100
1,4-Dichlorobenzene	ND		16.1	8.97		ug/L		56	52 - 100
1-Methylnaphthalene	ND		16.1	10.1		ug/L		63	53 - 100
2,3,4,6-Tetrachlorophenol	ND		16.1	11.0		ug/L		68	50 - 100
2,4,5-Trichlorophenol	ND		16.1	11.8		ug/L		73	55 - 100
2,4,6-Trichlorophenol	ND		16.1	11.1		ug/L		69	54 - 100
2,4-Dichlorophenol	ND		16.1	11.2		ug/L		69	55 - 100
2,4-Dimethylphenol	ND		16.1	10.4		ug/L		65	51 - 100
2,4-Dinitrophenol	ND		32.3	19.8		ug/L		61	32 - 100
2,4-Dinitrotoluene	ND		16.1	11.1		ug/L		69	56 - 100
2,6-Dinitrotoluene	ND		16.1	11.3		ug/L		70	56 - 101
2-Chloronaphthalene	ND		16.1	9.90		ug/L		61	52 - 100
2-Chlorophenol	ND		16.1	11.0		ug/L		68	53 - 100
2-Methylnaphthalene	ND		16.1	10.1		ug/L		63	53 - 100
2-Methylphenol	ND		16.1	11.4		ug/L		71	51 - 100
2-Nitroaniline	ND		16.1	12.3		ug/L		76	47 - 104
2-Nitrophenol	ND		16.1	11.6		ug/L		72	56 - 100

Method: EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 180-155743-1 MS
Matrix: Water
Analysis Batch: 434215

Client Sample ID: SUPE-W-99A-042623
Prep Type: Total/NA
Prep Batch: 434029

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
3,3'-Dichlorobenzidine	ND		16.1	10.3		ug/L		64	42 - 100
3-Nitroaniline	ND		16.1	11.5		ug/L		71	54 - 100
4,6-Dinitro-2-methylphenol	ND		32.3	21.4		ug/L		66	48 - 100
4-Bromophenyl phenyl ether	ND		16.1	10.3		ug/L		64	50 - 100
4-Chloro-3-methylphenol	ND		16.1	11.6		ug/L		72	47 - 105
4-Chloroaniline	ND		16.1	10.4		ug/L		64	48 - 100
4-Chlorophenyl phenyl ether	ND		16.1	10.6		ug/L		66	52 - 100
4-Nitroaniline	ND		16.1	11.4		ug/L		71	54 - 100
4-Nitrophenol	ND		32.3	24.0		ug/L		74	37 - 120
Acenaphthene	ND		16.1	10.1		ug/L		63	51 - 100
Acenaphthylene	ND		16.1	10.8		ug/L		67	54 - 100
Anthracene	ND		16.1	11.1		ug/L		69	54 - 100
Benzo[a]anthracene	ND		16.1	11.2		ug/L		69	52 - 100
Benzo[a]pyrene	ND		16.1	10.8		ug/L		67	52 - 100
Benzo[b]fluoranthene	ND		16.1	10.1		ug/L		63	50 - 100
Benzo[g,h,i]perylene	ND		16.1	12.3		ug/L		76	53 - 100
Benzo[k]fluoranthene	ND		16.1	10.3		ug/L		64	49 - 100
Benzoic acid	4.4		16.1	14.0		ug/L		60	31 - 122
Benzyl alcohol	ND		16.1	11.3		ug/L		70	33 - 107
Bis(2-chloroethoxy)methane	ND		16.1	10.4		ug/L		65	49 - 100
Bis(2-chloroethyl)ether	ND		16.1	10.4		ug/L		65	46 - 100
Bis(2-ethylhexyl) phthalate	ND		16.1	12.2		ug/L		76	52 - 101
bis(chloroisopropyl) ether	ND		16.1	10.2		ug/L		63	29 - 102
Butyl benzyl phthalate	ND		16.1	12.5		ug/L		77	52 - 100
Chrysene	ND		16.1	10.6		ug/L		66	51 - 100
Dibenz(a,h)anthracene	ND		16.1	12.3		ug/L		76	52 - 101
Dibenzofuran	ND		16.1	10.1		ug/L		63	53 - 100
Diethyl phthalate	ND		16.1	11.2		ug/L		69	52 - 100
Dimethyl phthalate	ND		16.1	11.0		ug/L		68	55 - 100
Di-n-butyl phthalate	1.4		16.1	12.6		ug/L		69	57 - 100
Di-n-octyl phthalate	ND		16.1	12.9		ug/L		80	41 - 100
Fluoranthene	ND		16.1	11.0		ug/L		68	56 - 100
Fluorene	ND		16.1	10.5		ug/L		65	53 - 100
Hexachlorobenzene	ND		16.1	10.3		ug/L		64	46 - 100
Hexachlorobutadiene	ND		16.1	9.02		ug/L		56	42 - 101
Hexachlorocyclopentadiene	ND		16.1	7.62		ug/L		47	38 - 102
Hexachloroethane	ND		16.1	8.87		ug/L		55	46 - 100
Indeno[1,2,3-cd]pyrene	ND		16.1	12.8		ug/L		79	54 - 100
Isophorone	ND		16.1	11.4		ug/L		71	50 - 100
Methylphenol, 3 & 4	ND		16.1	11.5		ug/L		71	51 - 100
Naphthalene	ND		16.1	9.48		ug/L		59	53 - 100
Nitrobenzene	ND		16.1	10.6		ug/L		66	47 - 100
N-Nitrosodi-n-propylamine	ND		16.1	11.4		ug/L		71	43 - 103
N-Nitrosodiphenylamine	ND		16.1	10.5		ug/L		65	53 - 100
Phenanthrene	0.066	J	16.1	10.7		ug/L		66	53 - 100
Phenol	ND		16.1	10.6		ug/L		66	49 - 100
Pyrene	ND		16.1	11.4		ug/L		71	53 - 100

Method: EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 180-155743-1 MS
Matrix: Water
Analysis Batch: 434215

Client Sample ID: SUPE-W-99A-042623
Prep Type: Total/NA
Prep Batch: 434029

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	70		23 - 128
2-Fluorobiphenyl	59		20 - 105
2-Fluorophenol (Surr)	68		20 - 105
Nitrobenzene-d5 (Surr)	67		20 - 107
Phenol-d5 (Surr)	69		20 - 106
Terphenyl-d14 (Surr)	66		22 - 120

GC/MS VOA

Analysis Batch: 667627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-155743-1	SUPE-W-99A-042623	Total/NA	Water	8260C	
180-155743-2	SUPE-W-28C-042623	Total/NA	Water	8260C	
180-155743-3	SUPE-W-06C-042623	Total/NA	Water	8260C	
180-155743-4	SUPE-W-30C-042623	Total/NA	Water	8260C	
180-155743-6	SUPE-W-06A-042623	Total/NA	Water	8260C	
180-155743-7	SUPE-W-12CR-042623	Total/NA	Water	8260C	
180-155743-8	SUPE-EB-01-042623	Total/NA	Water	8260C	
MB 480-667627/8	Method Blank	Total/NA	Water	8260C	
LCS 480-667627/6	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 434029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-155743-1	SUPE-W-99A-042623	Total/NA	Water	3520C	
180-155743-2	SUPE-W-28C-042623	Total/NA	Water	3520C	
180-155743-3	SUPE-W-06C-042623	Total/NA	Water	3520C	
180-155743-4	SUPE-W-30C-042623	Total/NA	Water	3520C	
180-155743-5	SUPE-W-18D-042623	Total/NA	Water	3520C	
180-155743-6	SUPE-W-06A-042623	Total/NA	Water	3520C	
180-155743-7	SUPE-W-12CR-042623	Total/NA	Water	3520C	
180-155743-8	SUPE-EB-01-042623	Total/NA	Water	3520C	
MB 180-434029/1-A	Method Blank	Total/NA	Water	3520C	
LCS 180-434029/2-A	Lab Control Sample	Total/NA	Water	3520C	
180-155743-1 MS	SUPE-W-99A-042623	Total/NA	Water	3520C	

Analysis Batch: 434215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-155743-1	SUPE-W-99A-042623	Total/NA	Water	EPA 8270E LL	434029
180-155743-2	SUPE-W-28C-042623	Total/NA	Water	EPA 8270E LL	434029
180-155743-3	SUPE-W-06C-042623	Total/NA	Water	EPA 8270E LL	434029
180-155743-4	SUPE-W-30C-042623	Total/NA	Water	EPA 8270E LL	434029
180-155743-5	SUPE-W-18D-042623	Total/NA	Water	EPA 8270E LL	434029
180-155743-6	SUPE-W-06A-042623	Total/NA	Water	EPA 8270E LL	434029
180-155743-7	SUPE-W-12CR-042623	Total/NA	Water	EPA 8270E LL	434029
180-155743-8	SUPE-EB-01-042623	Total/NA	Water	EPA 8270E LL	434029
MB 180-434029/1-A	Method Blank	Total/NA	Water	EPA 8270E LL	434029
LCS 180-434029/2-A	Lab Control Sample	Total/NA	Water	EPA 8270E LL	434029
180-155743-1 MS	SUPE-W-99A-042623	Total/NA	Water	EPA 8270E LL	434029

Prep Batch: 667743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-155743-1	SUPE-W-99A-042623	Total/NA	Water	3510C	
180-155743-2	SUPE-W-28C-042623	Total/NA	Water	3510C	
180-155743-3	SUPE-W-06C-042623	Total/NA	Water	3510C	
180-155743-4	SUPE-W-30C-042623	Total/NA	Water	3510C	
180-155743-5	SUPE-W-18D-042623	Total/NA	Water	3510C	
180-155743-6	SUPE-W-06A-042623	Total/NA	Water	3510C	
180-155743-7	SUPE-W-12CR-042623	Total/NA	Water	3510C	
180-155743-8	SUPE-EB-01-042623	Total/NA	Water	3510C	
MB 480-667743/1-A	Method Blank	Total/NA	Water	3510C	

GC/MS Semi VOA (Continued)

Prep Batch: 667743 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-667743/2-A	Lab Control Sample	Total/NA	Water	3510C	
180-155743-1 MS	SUPE-W-99A-042623	Total/NA	Water	3510C	
180-155743-1 MSD	SUPE-W-99A-042623	Total/NA	Water	3510C	

Analysis Batch: 668191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-155743-1	SUPE-W-99A-042623	Total/NA	Water	8270D LL	667743
180-155743-2	SUPE-W-28C-042623	Total/NA	Water	8270D LL	667743
180-155743-3	SUPE-W-06C-042623	Total/NA	Water	8270D LL	667743
180-155743-4	SUPE-W-30C-042623	Total/NA	Water	8270D LL	667743
180-155743-5	SUPE-W-18D-042623	Total/NA	Water	8270D LL	667743
180-155743-6	SUPE-W-06A-042623	Total/NA	Water	8270D LL	667743
180-155743-7	SUPE-W-12CR-042623	Total/NA	Water	8270D LL	667743
180-155743-8	SUPE-EB-01-042623	Total/NA	Water	8270D LL	667743
MB 480-667743/1-A	Method Blank	Total/NA	Water	8270D LL	667743
LCS 480-667743/2-A	Lab Control Sample	Total/NA	Water	8270D LL	667743
180-155743-1 MS	SUPE-W-99A-042623	Total/NA	Water	8270D LL	667743
180-155743-1 MSD	SUPE-W-99A-042623	Total/NA	Water	8270D LL	667743

FTS
Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 502071

[redacted]

Project Name: Superior, WI - 2023 OM&M Program
Project Number: OM-0556-23
Laboratory: TACHI
Shipment Method FEDEX
Program: Superior 2023 1SA Sampling_001

Company: Field & Technical Services
Address: 200 Third Avenue
Carnegie, PA 15106
(412) 279-3363

Client: Beazer East, Inc.
Contact:
mferrick.2006@f-ts.com

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8270D_SVOC (less naphtha) (Chicago)															Notes:
				Preservative	None															
				Total Bottle Count																
04/26/2023	1125	GW	SUPE-W-06A-042623	2	2															
04/26/2023	1515	GW	SUPE-W-12CR-042623	2	2															
04/26/2023	1540	GW	SUPE-EB-01-042623	2	2															

180-155743 Chain of Custody

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: Mary Ferrick	Signature: Keenya Rucker	Signature:	Signature:	☐ Rush
Printed Name: Marie Ferrick	Printed Name: Keenya Rucker	Printed Name:	Printed Name:	
Firm: FTS	Firm: ETHNE	Firm	Firm	☒ Standard
Date/Time: 04/26/2023 1704	Date/Time: 4-28-23 0910	Date/Time:	Date/Time:	

Page 1 of 1

5/19/2023

FTS Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 502073 [redacted]

Project Name: Superior, WI - 2023 OM&M Program
Project Number: OM-0556-23
Laboratory: TAKNOX
Shipment Method FEDEX
Program: Superior 2023 1SA Sampling_001

Company: Field & Technical Services
Address: 200 Third Avenue
Carnegie, PA 15106
(412) 279-3363

Client: Beazer East, Inc.
Contact:
mferrick.2006@f-ts.com

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8290_Dioxins/Furans (Knoxville) (1L)															Notes:
				Preservative	None															
				Total Bottle Count																
04/26/2023	1125	GW	SUPE-W-06A-042623	2	2															
04/26/2023	1515	GW	SUPE-W-12CR-042623	2	2															
04/26/2023	1540	GW	SUPE-EB-01-042623	2	2															

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: Mary Ferrick	Signature: [signature]	Signature:	Signature:	☐ Rush
Printed Name: Marie Ferrick	Printed Name: Keenya Rucker	Printed Name:	Printed Name:	
Firm: FTS	Firm: EA Eng	Firm	Firm	☒ Standard
Date/Time: 04/26/2023 1704	Date/Time: 4-27-23 0910	Date/Time:	Date/Time:	

FTS Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 502078 [redacted]

Project Name: Superior, WI - 2023 OM&M Program
Project Number: OM-0556-23
Laboratory: TACHI
Shipment Method FEDEX
Program: Superior 2023 1SA Sampling_001

Company: Field & Technical Services
Address: 200 Third Avenue
Carnegie, PA 15106
(412) 279-3363

Client: Beazer East, Inc.
Contact:
slindquist.2006@f-ts.com

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8270D_SVOC (less naphtha) (Chicago)	8270D_SVOC+naphtha (Chicago) (250ml)													Notes:
				Preservative	None	None													
				Total Bottle Count															
04/26/2023	0830	GW	SUPE-W-99A-042623	2	2	0													
04/26/2023	1038	GW	SUPE-W-28C-042623	2	2	0													
04/26/2023	1235	GW	SUPE-W-06C-042623	2	2	0													
04/26/2023	1442	GW	SUPE-W-30C-042623	2	2	0													
04/26/2023	1615	GW	SUPE-W-18D-042623	2	0	2													

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: [signature]	Signature: [signature]	Signature:	Signature:	[ ] Rush
Printed Name: Shane Lindquist	Printed Name: [illegible]	Printed Name:	Printed Name:	
Firm: FTS	Firm: [illegible]	Firm	Firm	[X] Standard
Date/Time: 04/26/2023 1700	Date/Time: 4-28-23 0910	Date/Time:	Date/Time:	

FTS Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 502080 [redacted]

Project Name: Superior, WI - 2023 OM&M Program
Project Number: OM-0556-23
Laboratory: TAKNOX
Shipment Method FEDEX
Program: Superior 2023 1SA Sampling_001

Company: Field & Technical Services
Address: 200 Third Avenue
Carnegie, PA 15106
(412) 279-3363

Client: Beazer East, Inc.
Contact: slindquist.2006@f-ts.com

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8290_Dioxins/Furans (Knoxville) (1L)	Notes
				Preservative	None	
				Total Bottle Count		Notes:
04/26/2023	0830	GW	SUPE-W-99A-042623	2	2	
04/26/2023	1038	GW	SUPE-W-28C-042623	2	2	
04/26/2023	1235	GW	SUPE-W-06C-042623	2	2	
04/26/2023	1442	GW	SUPE-W-30C-042623	2	2	

Relinquished by:	Received by:	Relinquished by:	Received by:
Signature: [signature]	Signature: [signature]	Signature:	Signature:
Printed Name: Shane Lindquist	Printed Name: Keegan Ruche	Printed Name:	Printed Name:
Firm: FTS	Firm: E.P. Attwate	Firm:	Firm:
Date/Time: 04/26/2023 1701	Date/Time: 4-28-23 0910	Date/Time:	Date/Time:

Turnaround Requirements
- [ ] Rush
- [x] Standard

Page 1 of 1

5/19/2023

FTS Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 502072 [redacted]

Project Name: Superior, WI - 2023 OM&M Program
Project Number: OM-0556-23
Laboratory: TABUF
Shipment Method FEDEX
Program: Superior 2023 1SA Sampling_001

Company: Field & Technical Services
Address: 200 Third Avenue
Carnegie, PA 15106
(412) 279-3363

Client: Beazer East, Inc.
Contact:
mferrick.2006@f-ts.com

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8260C_VOA+naphtha (Buffalo)	8270D LL_PCP (Buffalo) (1L)														Notes:
				Preservative	HCL	None														
				Total Bottle Count	[redacted]															
04/26/2023	1125	GW	SUPE-W-06A-042623	6	3	3														
04/26/2023	1515	GW	SUPE-W-12CR-042623	6	3	3														
04/26/2023	1540	GW	SUPE-EB-01-042623	6	3	3														

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: Marie Ferrick	Signature: [signature]	Signature:	Signature:	☐ Rush
Printed Name: Marie Ferrick	Printed Name: Keenya Rucker	Printed Name:	Printed Name:	
Firm FTS	Firm FTS/FTW	Firm	Firm	☒ Standard
Date/Time: 04/26/2023 1704	Date/Time: 4-27-23 0910	Date/Time:	Date/Time:	

FTS Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 502079 [redacted]

Project Name: Superior, WI - 2023 OM&M Program
Project Number: OM-0556-23
Laboratory: TABUF
Shipment Method FEDEX
Program: Superior 2023 1SA Sampling_001

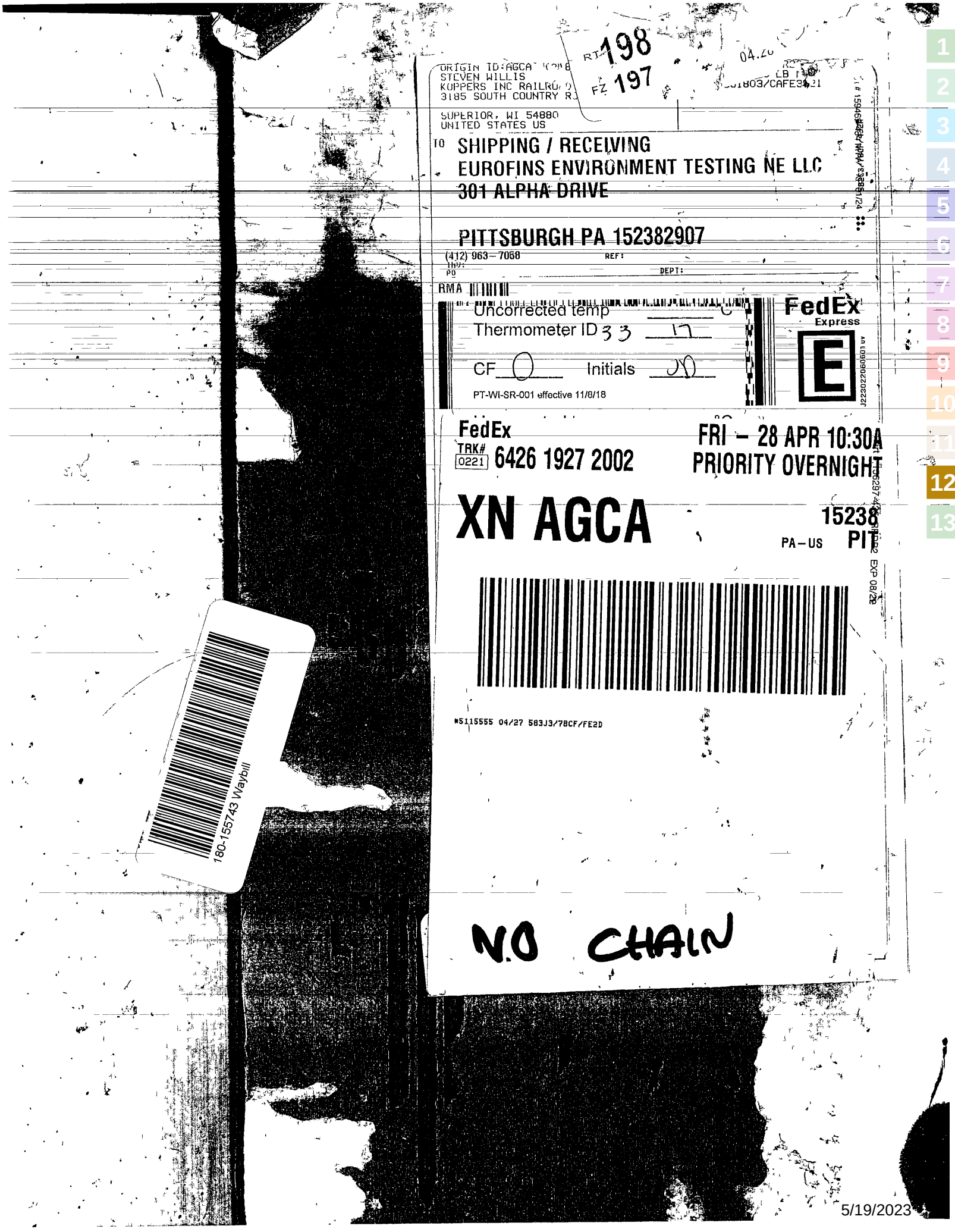
Company: Field & Technical Services
Address: 200 Third Avenue
Carnegie, PA 15106
(412) 279-3363

Client: Beazer East, Inc.
Contact:
slindquist.2006@f-ts.com

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8260C_VOA+naphtha (Buffalo)	8270D LL_PCP (Buffalo) (1L)														Notes:
				Preservative	HCL	None														
				Total Bottle Count																
04/26/2023	0830	GW	SUPE-W-99A-042623	6	3	3														
04/26/2023	1038	GW	SUPE-W-28C-042623	6	3	3														
04/26/2023	1235	GW	SUPE-W-06C-042623	6	3	3														
04/26/2023	1442	GW	SUPE-W-30C-042623	6	3	3														
04/26/2023	1615	GW	SUPE-W-18D-042623	3	0	3														

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: [signature]	Signature: [signature]	Signature:	Signature:	☐ Rush
Printed Name: Shane Lindquist	Printed Name: Keenya Rucker	Printed Name:	Printed Name:	
Firm FTS	Firm EPI/TRNE	Firm	Firm	☒ Standard
Date/Time: 04/26/2023 1701	Date/Time: 4-28-23 0901	Date/Time:	Date/Time:	

5/19/2023


ORIGIN ID:AGCA
STEVEN WILLIS
KUPPERS INC RAILRO
3185 SOUTH COUNTRY R
SUPERIOR, WI 54880
UNITED STATES US
TO SHIPPING / RECEIVING
EUROFINS ENVIRONMENT TESTING NE LLC
301 ALPHA DRIVE
PITTSBURGH PA 152382907
(412) 963-7058
REF:
PO
DEPT:
RMA
Uncorrected temp
Thermometer ID 33
CF 0
Initials
PT-WI-SR-001 effective 11/8/18
FedEx
Express
FedEx
TRK# 0221 6426 1927 2002
FRI - 28 APR 10:30A
PRIORITY OVERNIGHT
XN AGCA
15238
PA-US
PIT
180-155743 Waybill
N.O CHAIN

ORIGIN ID:AGCA (218) 591-0409
STEVEN WILLIS
KOPPERS INC RAILROAD PRODUCTS & SER
3185 SOUTH COUNTRY ROAD A

SUPERIOR, WI 54880
UNITED STATES US

SHIP DATE: 15APR23
ACTWGT: 30.00 LB MAN
CAD: 0551803/CAFE3621

TO **SHIPPING / RECEIVING**
EUROFINS ENVIRONMENT TESTING NE LLC
301 ALPHA DRIVE

PITTSBURGH PA 152382907
(412) 963-7058 REF:
INV:
PO: DEPT:

RM

Uncorrected temp
Thermometer ID 3.1 17
CF 0 Initials JD
PT-WI-SR-001 effective 11/8/18

FedEx Express

E

FedEx
TRK# 0221 **6426 1927 2013**

FRI - 28 APR 10:30A
PRIORITY OVERNIGHT

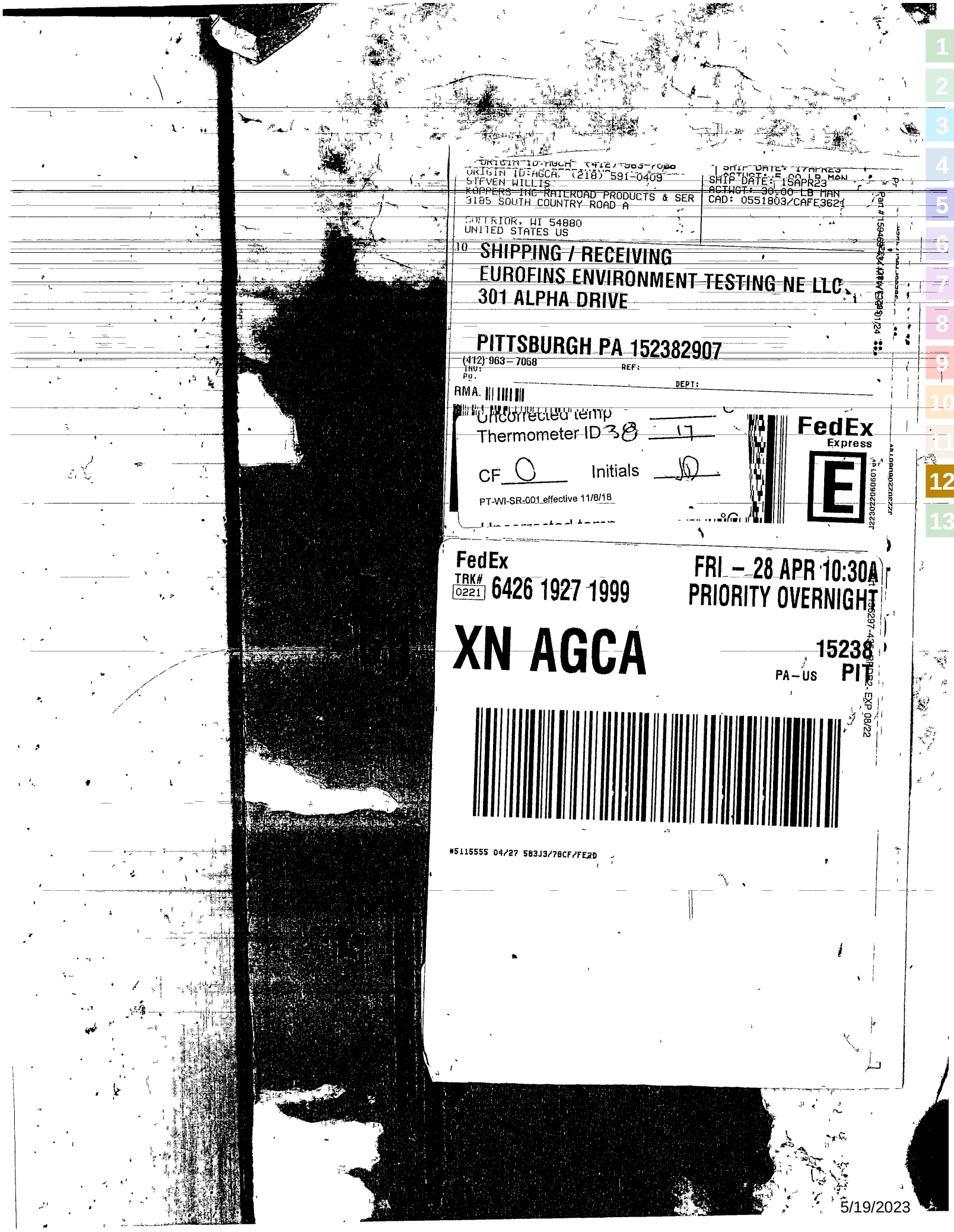
XN AGCA

15238
PA-US **PIT**

#5115555 04/27 583J3/78CF/FE2D

J223022060601uv

5/19/2023



ORIGIN ID:AGCA (218) 591-0409
STEVEN WILLIS
KOPPERS INC-RAILROAD PRODUCTS & SER
3185 SOUTH COUNTRY ROAD A

SUPERIOR, WI 54880
UNITED STATES US

SHIP DATE: 15APR23
ACTWGT: 30.00 LB MAN
CAD: 0551803/CAFE3621

TO SHIPPING / RECEIVING
EUROFINS ENVIRONMENT TESTING NE LLC
301 ALPHA DRIVE

PITTSBURGH PA 152382907
(412) 963-7058
INV:
PO:
REF:
DEPT:

RMA.

Uncorrected temp
Thermometer ID 38 17

CF 0 Initials

PT-WI-SR-001 effective 11/8/18

FedEx Express

FedEx
TRK# 0221 6426 1927 1999

FRI - 28 APR 10:30A
PRIORITY OVERNIGHT

XN AGCA

15238
PA-US PIT

#5115555 04/27 583J3/78CF/FE2D

5/19/2023

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-485917.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Shali.Brown@et.eurofinsus.com	State of Origin: Wisconsin	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - Wisconsin; State Program - Wisconsin		Job #: 180-155743-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 5/18/2023			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: Superior, WI Semiannual Groundwater	Project #: 18015916			
Site:	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8290A/8290_P_Sep 17 Isomers + Totals	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SUPE-W-99A-042623 (180-155743-1)	4/26/23	08:30 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-28C-042623 (180-155743-2)	4/26/23	10:38 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-06C-042623 (180-155743-3)	4/26/23	12:35 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-30C-042623 (180-155743-4)	4/26/23	14:42 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-06A-042623 (180-155743-6)	4/26/23	11:25 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-12CR-042623 (180-155743-7)	4/26/23	15:15 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-EB-01-042623 (180-155743-8)	4/26/23	15:40 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

Note: Since laboratory accreditations are subject to change, Eurofins Pittsburgh places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Pittsburgh laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Pittsburgh attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Pittsburgh.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	5-1-23 17:00	ETHAE	[signature]	5/2/23 9:45	ETA KNX
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:		Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Ot

180-155743 Chain of Custody

Rev: 06/08/2021

5/19/2023

Loc: 180
155743

EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Log In Number:

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	✓			☐ Containers, Broken
2. Were ambient air containers received intact?			✓	☐ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	✓			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID : SC7S Correction factor: -0.2°C	✓			☐ Cooler Out of Temp, Client Contacted, Proceed/Cancel ☐ Cooler Out of Temp, Same Day Receipt
5. Were all of the sample containers received intact?	✓			☐ Containers, Broken
6. Were samples received in appropriate containers?	✓			☐ Containers, Improper; Client Contacted; Proceed/Cancel
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ COC & Samples Do Not Match ☐ COC Incorrect/Incomplete ☐ COC Not Received
8. Were all of the samples listed on the COC received?	✓			☐ Sample Received, Not on COC ☐ Sample on COC, Not Received
9. Is the date/time of sample collection noted?	✓			☐ COC; No Date/Time; Client Contacted
10. Was the sampler identified on the COC? DH 5/2/23	✓		✓	☐ Sampler Not Listed on COC
11. Is the client and project name/# identified?	✓			☐ COC Incorrect/Incomplete
12. Are tests/parameters listed for each sample?	✓			☐ COC No tests on COC
13. Is the matrix of the samples noted?	✓			☐ COC Incorrect/Incomplete
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ COC Incorrect/Incomplete
15. Were samples received within holding time?	✓			☐ Holding Time - Receipt
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ pH Adjusted, pH Included (See box 16A) ☐ Incorrect Preservative
17. Were VOA samples received without headspace?			✓	☐ Headspace (VOA only)
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:			✓	☐ Residual Chlorine
19. For 1613B water samples is pH<9?			✓	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?			✓	☐ Project missing info

Comments/Actions Taken

Custody Seals Intact
Received at RT: 0.7 / CT: 0.5°C
RT: 0.3 / CT: 0.1°C
RT: 0.4 / CT: 0.2°C
DH 5/2/23
3 Coolers FedEx 6426 1927 7107 M PD

Labeling Verified by: **Date:**

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: 18015916 PM Instructions:

Sample Receiving Associate: Dean Hicks Date: 5/2/23

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5/19/2023

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-485917.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Shali.Brown@et.eurofinsus.com	State of Origin: Wisconsin	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - Wisconsin; State Program - Wisconsin		Job #: 180-155743-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 5/18/2023			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: Superior, WI Semiannual Groundwater	Project #: 18015916			
Site:	SSOW#:			

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8290A/8290_P_Sep 17 Isomers + Totals	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SUPE-W-99A-042623 (180-155743-1)	4/26/23	08:30 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-28C-042623 (180-155743-2)	4/26/23	10:38 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-06C-042623 (180-155743-3)	4/26/23	12:35 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-30C-042623 (180-155743-4)	4/26/23	14:42 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-06A-042623 (180-155743-6)	4/26/23	11:25 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-12CR-042623 (180-155743-7)	4/26/23	15:15 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-EB-01-042623 (180-155743-8)	4/26/23	15:40 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol

Note: Since laboratory accreditations are subject to change, Eurofins Pittsburgh places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Pittsburgh laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Pittsburgh attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Pittsburgh.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ______ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	5-1-23 17:00	EMTHE	[signature]	5/2/23 9:45	ETA KNX
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Ot

180-155743 Chain of Custody

er: 06/08/2021

Loc: 180
155743

EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Log In Number:

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	✓			☐ Containers, Broken
2. Were ambient air containers received intact?			✓	☐ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	✓			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID : SC75 Correction factor: -0.2°C	✓			☐ Cooler Out of Temp, Client Contacted, Proceed/Cancel ☐ Cooler Out of Temp, Same Day Receipt
5. Were all of the sample containers received intact?	✓			☐ Containers, Broken
6. Were samples received in appropriate containers?	✓			☐ Containers, Improper; Client Contacted; Proceed/Cancel
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ COC & Samples Do Not Match ☐ COC Incorrect/Incomplete ☐ COC Not Received
8. Were all of the samples listed on the COC received?	✓			☐ Sample Received, Not on COC ☐ Sample on COC, Not Received
9. Is the date/time of sample collection noted?	✓			☐ COC; No Date/Time; Client Contacted
10. Was the sampler identified on the COC? DH 5/2123	✓		✓	☐ Sampler Not Listed on COC
11. Is the client and project name/# identified?	✓			☐ COC Incorrect/Incomplete
12. Are tests/parameters listed for each sample?	✓			☐ COC No tests on COC
13. Is the matrix of the samples noted?	✓			☐ COC Incorrect/Incomplete
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ COC Incorrect/Incomplete
15. Were samples received within holding time?	✓			☐ Holding Time - Receipt
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ pH Adjusted, pH Included (See box 16A) ☐ Incorrect Preservative
17. Were VOA samples received without headspace?			✓	☐ Headspace (VOA only)
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:			✓	☐ Residual Chlorine
19. For 1613B water samples is pH<9?			✓	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?			✓	☐ Project missing info

Comments/Actions Taken

Custody Seals Intact
Received at RT: 0.7 / CT: 0.5°C
RT: 0.3 / CT: 0.1°C
RT: 0.4 / CT: 0.2°C
DH 5/2123
3 Coolers FedEx 6426 1927 7107 M PD

Labeling Verified by: **Date:**

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: 18015916 PM Instructions:

Sample Receiving Associate: Dean Hitch Date: 5/2123

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5/19/2023

Login Sample Receipt Checklist

Client: Field & Technical Services LLC

Job Number: 180-155743-1

Login Number: 155743
List Number: 1
Creator: Abernathy, Eric L

List Source: Eurofins Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Field & Technical Services LLC

Job Number: 180-155743-1

Login Number: 155743
List Number: 2
Creator: Kolb, Chris M

List Source: Eurofins Buffalo
List Creation: 05/01/23 09:25 AM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.6 2.8 2.1 3.0 1.9 1.7 ir gun #1 ice
COC is present.	False	
COC is filled out in ink and legible.	N/A	
COC is filled out with all pertinent information.	False	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Angie Gatchie
Field & Technical Services LLC
200 Third Avenue
Carnegie, Pennsylvania 15106

Generated 6/8/2023 12:13:18 PM

JOB DESCRIPTION

Superior, WI Semiannual Groundwater

JOB NUMBER

180-155743-2

Eurofins Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh PA 15238

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

PA Lab ID: 02-00416

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Pittsburgh Project Manager.

Authorization

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Authorized for release by
Shali Brown, Project Manager II
Shali.Brown@et.eurofinsus.com
(615)301-5031

Table of Contents

Job ID: 180-155743-2

Laboratory: Eurofins Pittsburgh

Narrative

Job Narrative
180-155743-2

Comments
No additional comments.

Receipt
The samples were received on 4/28/2023 9:10 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 3.1º C, 3.3º C and 3.8º C

Receipt Exceptions
The following samples were listed on the Chain of Custody (COC); however, no sample was received: SUPE-W-18D-042623 (180-155743-5)

Dioxin
Methods 0010/1668A, 1613B, 1668A, 1668C, 23, 8290A, Split, TO-9A: The identification of samples and analytes for which manual integrations were necessary is listed in the manual integration summary.

Method 8290A: The bracketing continuing calibration verification (CCV) associated with batch 140-74060 has analytes with perc difference values that are between the method criteria of 30% to 35% deviation from the initial calibration curve. Per method guidelines, an average relative response factor (RRF) is calculated from the bracketing CCV and is used to quantitate the Isotop Dilution Analyte (IDA) recovery in the associated samples.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Methods 1668_Sep_2L, 3540C, 8290, Combined Prep, HRMS-Sepf, HRMS-Sox, HRMS-waste, Split: The following samples we through Gel-Permeation Cleanup procedure, based on EPA method 3640A: .SUPE-W-99A-042623 (180-155743-1), SUPE-W-28C-042623 (180-155743-2), SUPE-W-06C-042623 (180-155743-3), SUPE-W-30C-042623 (180-155743-4), SUPE-W-06A-042623 (180-155743-6), SUPE-W-12CR-042623 (180-155743-7) and SUPE-EB-01-042623 (180-155743-8)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: Field & Technical Services LLC
Job ID: 180-155743-2
Project/Site: Superior, WI Semiannual Groundwater

Qualifiers

Dioxin

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Field & Technical Services LLC
Job ID: 180-155743-2
Project/Site: Superior, WI Semiannual Groundwater

Laboratory: Eurofins Knoxville

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	998044300	08-31-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8290A	8290	Water	Total HpCDD
8290A	8290	Water	Total HpCDF
8290A	8290	Water	Total HxCDD
8290A	8290	Water	Total HxCDF
8290A	8290	Water	Total PeCDD
8290A	8290	Water	Total PeCDF
8290A	8290	Water	Total TCDD
8290A	8290	Water	Total TCDF

Sample Summary

Client: Field & Technical Services LLC
Job ID: 180-155743-2
Project/Site: Superior, WI Semiannual Groundwater

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-155743-1	SUPE-W-99A-042623	Water	04/26/23 08:30	04/28/23 09:10
180-155743-2	SUPE-W-28C-042623	Water	04/26/23 10:38	04/28/23 09:10
180-155743-3	SUPE-W-06C-042623	Water	04/26/23 12:35	04/28/23 09:10
180-155743-4	SUPE-W-30C-042623	Water	04/26/23 14:42	04/28/23 09:10
180-155743-6	SUPE-W-06A-042623	Water	04/26/23 11:25	04/28/23 09:10
180-155743-7	SUPE-W-12CR-042623	Water	04/26/23 15:15	04/28/23 09:10
180-155743-8	SUPE-EB-01-042623	Water	04/26/23 15:40	04/28/23 09:10

Method Summary

Client: Field & Technical Services LLC
Project/Site: Superior, WI Semiannual Groundwater

Job ID: 180-155743-2

Method	Method Description	Protocol	Laboratory
8290A	Dioxins and Furans (HRGC/HRMS)	SW846	EET KNX
8290	Separatory Funnel (Liquid-Liquid) Extraction of Dioxins and Furans	SW846	EET KNX

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET KNX = Eurofins Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Lab Chronicle

Client: Field & Technical Services LLC
Project/Site: Superior, WI Semiannual Groundwater

Job ID: 180-155743-2

Client Sample ID: SUPE-W-99A-042623
Lab Sample ID: 180-155743-1
Date Collected: 04/26/23 08:30
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8290			1030.8 mL	20 uL	73375	05/18/23 08:49	DAC	EET KNX
Total/NA	Analysis	8290A		1			74060	06/07/23 12:22	BKK	EET KNX
	Instrument ID: D4A									

Client Sample ID: SUPE-W-28C-042623
Lab Sample ID: 180-155743-2
Date Collected: 04/26/23 10:38
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8290			1035.8 mL	20 uL	73375	05/18/23 08:49	DAC	EET KNX
Total/NA	Analysis	8290A		1			74060	06/07/23 13:22	BKK	EET KNX
	Instrument ID: D4A									

Client Sample ID: SUPE-W-06C-042623
Lab Sample ID: 180-155743-3
Date Collected: 04/26/23 12:35
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8290			1032.1 mL	20 uL	73375	05/18/23 08:49	DAC	EET KNX
Total/NA	Analysis	8290A		1			74060	06/07/23 14:22	BKK	EET KNX
	Instrument ID: D4A									

Client Sample ID: SUPE-W-30C-042623
Lab Sample ID: 180-155743-4
Date Collected: 04/26/23 14:42
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8290			1051 mL	20 uL	73375	05/18/23 08:49	DAC	EET KNX
Total/NA	Analysis	8290A		1			74060	06/07/23 15:21	BKK	EET KNX
	Instrument ID: D4A									

Client Sample ID: SUPE-W-06A-042623
Lab Sample ID: 180-155743-6
Date Collected: 04/26/23 11:25
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8290			977.6 mL	20 uL	73375	05/18/23 08:49	DAC	EET KNX
Total/NA	Analysis	8290A		1			74060	06/07/23 16:21	BKK	EET KNX
	Instrument ID: D4A									

Lab Chronicle

Client: Field & Technical Services LLC
Job ID: 180-155743-2
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-12CR-042623
Lab Sample ID: 180-155743-7
Date Collected: 04/26/23 15:15
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8290			948.3 mL	20 uL	73375	05/18/23 08:49	DAC	EET KNX
Total/NA	Analysis	8290A		1			74060	06/07/23 17:21	BKK	EET KNX
	Instrument ID: D4A									

Client Sample ID: SUPE-EB-01-042623
Lab Sample ID: 180-155743-8
Date Collected: 04/26/23 15:40
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8290			1037.5 mL	20 uL	73375	05/18/23 08:49	DAC	EET KNX
Total/NA	Analysis	8290A		1			74060	06/07/23 18:21	BKK	EET KNX
	Instrument ID: D4A									

Laboratory References:
EET KNX = Eurofins Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Analyst References:
Lab: EET KNX
Batch Type: Prep
DAC = Drew Costanzo
Batch Type: Analysis
BKK = Benjamin Knight

Client: Field & Technical Services LLC
Job ID: 180-155743-2
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-99A-042623
Lab Sample ID: 180-155743-1
Date Collected: 04/26/23 08:30
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		9.7	0.15	pg/L		05/18/23 08:49	06/07/23 12:22	1
Total TCDD	ND		9.7	0.15	pg/L		05/18/23 08:49	06/07/23 12:22	1
1,2,3,7,8-PeCDD	**0.61**	**J B**	49	0.26	pg/L		05/18/23 08:49	06/07/23 12:22	1
Total PeCDD	**0.61**	**J B**	49	0.26	pg/L		05/18/23 08:49	06/07/23 12:22	1
1,2,3,4,7,8-HxCDD	**1.4**	**J I B**	49	0.23	pg/L		05/18/23 08:49	06/07/23 12:22	1
1,2,3,6,7,8-HxCDD	ND		49	0.22	pg/L		05/18/23 08:49	06/07/23 12:22	1
1,2,3,7,8,9-HxCDD	**0.63**	**J I**	49	0.21	pg/L		05/18/23 08:49	06/07/23 12:22	1
Total HxCDD	**2.4**	**J I B**	49	0.22	pg/L		05/18/23 08:49	06/07/23 12:22	1
1,2,3,4,6,7,8-HpCDD	**3.3**	**J B**	49	0.53	pg/L		05/18/23 08:49	06/07/23 12:22	1
Total HpCDD	**13**	**J B**	49	0.53	pg/L		05/18/23 08:49	06/07/23 12:22	1
OCDD	**22**	**J B**	97	0.28	pg/L		05/18/23 08:49	06/07/23 12:22	1
2,3,7,8-TCDF	**0.40**	**J I B**	9.7	0.085	pg/L		05/18/23 08:49	06/07/23 12:22	1
Total TCDF	**1.4**	**J I B**	9.7	0.085	pg/L		05/18/23 08:49	06/07/23 12:22	1
1,2,3,7,8-PeCDF	**0.87**	**J B**	49	0.18	pg/L		05/18/23 08:49	06/07/23 12:22	1
2,3,4,7,8-PeCDF	**0.18**	**J I B**	49	0.16	pg/L		05/18/23 08:49	06/07/23 12:22	1
Total PeCDF	**2.0**	**J I B**	49	0.17	pg/L		05/18/23 08:49	06/07/23 12:22	1
1,2,3,4,7,8-HxCDF	**1.4**	**J**	49	0.21	pg/L		05/18/23 08:49	06/07/23 12:22	1
1,2,3,6,7,8-HxCDF	**1.1**	**J I**	49	0.23	pg/L		05/18/23 08:49	06/07/23 12:22	1
2,3,4,6,7,8-HxCDF	ND		49	0.26	pg/L		05/18/23 08:49	06/07/23 12:22	1
1,2,3,7,8,9-HxCDF	ND		49	0.30	pg/L		05/18/23 08:49	06/07/23 12:22	1
Total HxCDF	**3.4**	**J I**	49	0.25	pg/L		05/18/23 08:49	06/07/23 12:22	1
1,2,3,4,6,7,8-HpCDF	**4.3**	**J B**	49	0.022	pg/L		05/18/23 08:49	06/07/23 12:22	1
1,2,3,4,7,8,9-HpCDF	**0.69**	**J B**	49	0.033	pg/L		05/18/23 08:49	06/07/23 12:22	1
Total HpCDF	**5.9**	**J I B**	49	0.028	pg/L		05/18/23 08:49	06/07/23 12:22	1
OCDF	**10**	**J B**	97	0.27	pg/L		05/18/23 08:49	06/07/23 12:22	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*72*		*40 - 135*	*05/18/23 08:49*	*06/07/23 12:22*	*1*
13C-1,2,3,7,8-PeCDD	*67*		*40 - 135*	*05/18/23 08:49*	*06/07/23 12:22*	*1*
13C-1,2,3,4,7,8-HxCDD	*74*		*40 - 135*	*05/18/23 08:49*	*06/07/23 12:22*	*1*
13C-1,2,3,6,7,8-HxCDD	*82*		*40 - 135*	*05/18/23 08:49*	*06/07/23 12:22*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*80*		*40 - 135*	*05/18/23 08:49*	*06/07/23 12:22*	*1*
13C-OCDD	*80*		*40 - 135*	*05/18/23 08:49*	*06/07/23 12:22*	*1*
13C-2,3,7,8-TCDF	*78*		*40 - 135*	*05/18/23 08:49*	*06/07/23 12:22*	*1*
13C-1,2,3,7,8-PeCDF	*70*		*40 - 135*	*05/18/23 08:49*	*06/07/23 12:22*	*1*
13C-2,3,4,7,8-PeCDF	*71*		*40 - 135*	*05/18/23 08:49*	*06/07/23 12:22*	*1*
13C-1,2,3,4,7,8-HxCDF	*83*		*40 - 135*	*05/18/23 08:49*	*06/07/23 12:22*	*1*
13C-1,2,3,6,7,8-HxCDF	*78*		*40 - 135*	*05/18/23 08:49*	*06/07/23 12:22*	*1*
13C-2,3,4,6,7,8-HxCDF	*79*		*40 - 135*	*05/18/23 08:49*	*06/07/23 12:22*	*1*
13C-1,2,3,7,8,9-HxCDF	*78*		*40 - 135*	*05/18/23 08:49*	*06/07/23 12:22*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*83*		*40 - 135*	*05/18/23 08:49*	*06/07/23 12:22*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*73*		*40 - 135*	*05/18/23 08:49*	*06/07/23 12:22*	*1*
13C-OCDF	*59*		*40 - 135*	*05/18/23 08:49*	*06/07/23 12:22*	*1*

Client Sample ID: SUPE-W-28C-042623
Lab Sample ID: 180-155743-2
Date Collected: 04/26/23 10:38
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		9.7	0.19	pg/L		05/18/23 08:49	06/07/23 13:22	1

Client Sample ID: SUPE-W-28C-042623
Lab Sample ID: 180-155743-2
Date Collected: 04/26/23 10:38
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TCDD	ND		9.7	0.19	pg/L		05/18/23 08:49	06/07/23 13:22	1
1,2,3,7,8-PeCDD	**0.70**	**J I B**	48	0.23	pg/L		05/18/23 08:49	06/07/23 13:22	1
Total PeCDD	**0.70**	**J I B**	48	0.23	pg/L		05/18/23 08:49	06/07/23 13:22	1
1,2,3,4,7,8-HxCDD	**1.4**	**J B**	48	0.16	pg/L		05/18/23 08:49	06/07/23 13:22	1
1,2,3,6,7,8-HxCDD	ND		48	0.14	pg/L		05/18/23 08:49	06/07/23 13:22	1
1,2,3,7,8,9-HxCDD	**0.54**	**J**	48	0.14	pg/L		05/18/23 08:49	06/07/23 13:22	1
Total HxCDD	**3.5**	**J I B**	48	0.15	pg/L		05/18/23 08:49	06/07/23 13:22	1
1,2,3,4,6,7,8-HpCDD	**4.8**	**J I B**	48	0.65	pg/L		05/18/23 08:49	06/07/23 13:22	1
Total HpCDD	**17**	**J I B**	48	0.65	pg/L		05/18/23 08:49	06/07/23 13:22	1
OCDD	**29**	**J B**	97	0.17	pg/L		05/18/23 08:49	06/07/23 13:22	1
2,3,7,8-TCDF	**0.45**	**J I B**	9.7	0.081	pg/L		05/18/23 08:49	06/07/23 13:22	1
Total TCDF	**1.6**	**J I B**	9.7	0.081	pg/L		05/18/23 08:49	06/07/23 13:22	1
1,2,3,7,8-PeCDF	**1.2**	**J I B**	48	0.31	pg/L		05/18/23 08:49	06/07/23 13:22	1
2,3,4,7,8-PeCDF	**0.96**	**J B**	48	0.28	pg/L		05/18/23 08:49	06/07/23 13:22	1
Total PeCDF	**2.1**	**J I B**	48	0.29	pg/L		05/18/23 08:49	06/07/23 13:22	1
1,2,3,4,7,8-HxCDF	**1.9**	**J**	48	0.26	pg/L		05/18/23 08:49	06/07/23 13:22	1
1,2,3,6,7,8-HxCDF	**1.1**	**J**	48	0.29	pg/L		05/18/23 08:49	06/07/23 13:22	1
2,3,4,6,7,8-HxCDF	ND		48	0.31	pg/L		05/18/23 08:49	06/07/23 13:22	1
1,2,3,7,8,9-HxCDF	ND		48	0.37	pg/L		05/18/23 08:49	06/07/23 13:22	1
Total HxCDF	**4.6**	**J I**	48	0.31	pg/L		05/18/23 08:49	06/07/23 13:22	1
1,2,3,4,6,7,8-HpCDF	**4.8**	**J I B**	48	0.022	pg/L		05/18/23 08:49	06/07/23 13:22	1
1,2,3,4,7,8,9-HpCDF	**0.57**	**J I B**	48	0.029	pg/L		05/18/23 08:49	06/07/23 13:22	1
Total HpCDF	**6.6**	**J I B**	48	0.025	pg/L		05/18/23 08:49	06/07/23 13:22	1
OCDF	**11**	**J B**	97	0.11	pg/L		05/18/23 08:49	06/07/23 13:22	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*72*		*40 - 135*	*05/18/23 08:49*	*06/07/23 13:22*	*1*
13C-1,2,3,7,8-PeCDD	*66*		*40 - 135*	*05/18/23 08:49*	*06/07/23 13:22*	*1*
13C-1,2,3,4,7,8-HxCDD	*71*		*40 - 135*	*05/18/23 08:49*	*06/07/23 13:22*	*1*
13C-1,2,3,6,7,8-HxCDD	*84*		*40 - 135*	*05/18/23 08:49*	*06/07/23 13:22*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*79*		*40 - 135*	*05/18/23 08:49*	*06/07/23 13:22*	*1*
13C-OCDD	*80*		*40 - 135*	*05/18/23 08:49*	*06/07/23 13:22*	*1*
13C-2,3,7,8-TCDF	*77*		*40 - 135*	*05/18/23 08:49*	*06/07/23 13:22*	*1*
13C-1,2,3,7,8-PeCDF	*68*		*40 - 135*	*05/18/23 08:49*	*06/07/23 13:22*	*1*
13C-2,3,4,7,8-PeCDF	*70*		*40 - 135*	*05/18/23 08:49*	*06/07/23 13:22*	*1*
13C-1,2,3,4,7,8-HxCDF	*83*		*40 - 135*	*05/18/23 08:49*	*06/07/23 13:22*	*1*
13C-1,2,3,6,7,8-HxCDF	*80*		*40 - 135*	*05/18/23 08:49*	*06/07/23 13:22*	*1*
13C-2,3,4,6,7,8-HxCDF	*80*		*40 - 135*	*05/18/23 08:49*	*06/07/23 13:22*	*1*
13C-1,2,3,7,8,9-HxCDF	*79*		*40 - 135*	*05/18/23 08:49*	*06/07/23 13:22*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*82*		*40 - 135*	*05/18/23 08:49*	*06/07/23 13:22*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*80*		*40 - 135*	*05/18/23 08:49*	*06/07/23 13:22*	*1*
13C-OCDF	*62*		*40 - 135*	*05/18/23 08:49*	*06/07/23 13:22*	*1*

Client Sample ID: SUPE-W-06C-042623
Lab Sample ID: 180-155743-3
Date Collected: 04/26/23 12:35
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		9.7	0.17	pg/L		05/18/23 08:49	06/07/23 14:22	1
Total TCDD	ND		9.7	0.17	pg/L		05/18/23 08:49	06/07/23 14:22	1

Client Sample ID: SUPE-W-06C-042623
Lab Sample ID: 180-155743-3
Date Collected: 04/26/23 12:35
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,7,8-PeCDD	0.43	J I B	48	0.27	pg/L		05/18/23 08:49	06/07/23 14:22	1
Total PeCDD	0.43	J I B	48	0.27	pg/L		05/18/23 08:49	06/07/23 14:22	1
1,2,3,4,7,8-HxCDD	1.3	J I B	48	0.16	pg/L		05/18/23 08:49	06/07/23 14:22	1
1,2,3,6,7,8-HxCDD	0.92	J I B	48	0.15	pg/L		05/18/23 08:49	06/07/23 14:22	1
1,2,3,7,8,9-HxCDD	ND		48	0.15	pg/L		05/18/23 08:49	06/07/23 14:22	1
Total HxCDD	6.0	J I B	48	0.15	pg/L		05/18/23 08:49	06/07/23 14:22	1
1,2,3,4,6,7,8-HpCDD	8.3	J B	48	0.98	pg/L		05/18/23 08:49	06/07/23 14:22	1
Total HpCDD	42	J B	48	0.98	pg/L		05/18/23 08:49	06/07/23 14:22	1
OCDD	85	J B	97	0.32	pg/L		05/18/23 08:49	06/07/23 14:22	1
2,3,7,8-TCDF	ND		9.7	0.13	pg/L		05/18/23 08:49	06/07/23 14:22	1
Total TCDF	1.0	J I B	9.7	0.13	pg/L		05/18/23 08:49	06/07/23 14:22	1
1,2,3,7,8-PeCDF	1.1	J B	48	0.24	pg/L		05/18/23 08:49	06/07/23 14:22	1
2,3,4,7,8-PeCDF	0.77	J I B	48	0.22	pg/L		05/18/23 08:49	06/07/23 14:22	1
Total PeCDF	2.4	J I B	48	0.23	pg/L		05/18/23 08:49	06/07/23 14:22	1
1,2,3,4,7,8-HxCDF	ND		48	0.31	pg/L		05/18/23 08:49	06/07/23 14:22	1
1,2,3,6,7,8-HxCDF	1.1	J I	48	0.33	pg/L		05/18/23 08:49	06/07/23 14:22	1
2,3,4,6,7,8-HxCDF	0.96	J I	48	0.33	pg/L		05/18/23 08:49	06/07/23 14:22	1
1,2,3,7,8,9-HxCDF	ND		48	0.42	pg/L		05/18/23 08:49	06/07/23 14:22	1
Total HxCDF	3.8	J I	48	0.35	pg/L		05/18/23 08:49	06/07/23 14:22	1
1,2,3,4,6,7,8-HpCDF	1.4	J I B	48	0.16	pg/L		05/18/23 08:49	06/07/23 14:22	1
1,2,3,4,7,8,9-HpCDF	ND		48	0.22	pg/L		05/18/23 08:49	06/07/23 14:22	1
Total HpCDF	3.7	J I B	48	0.19	pg/L		05/18/23 08:49	06/07/23 14:22	1
OCDF	4.2	J B	97	0.32	pg/L		05/18/23 08:49	06/07/23 14:22	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*55*		*40 - 135*	*05/18/23 08:49*	*06/07/23 14:22*	*1*
13C-1,2,3,7,8-PeCDD	*51*		*40 - 135*	*05/18/23 08:49*	*06/07/23 14:22*	*1*
13C-1,2,3,4,7,8-HxCDD	*53*		*40 - 135*	*05/18/23 08:49*	*06/07/23 14:22*	*1*
13C-1,2,3,6,7,8-HxCDD	*62*		*40 - 135*	*05/18/23 08:49*	*06/07/23 14:22*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*61*		*40 - 135*	*05/18/23 08:49*	*06/07/23 14:22*	*1*
13C-OCDD	*62*		*40 - 135*	*05/18/23 08:49*	*06/07/23 14:22*	*1*
13C-2,3,7,8-TCDF	*57*		*40 - 135*	*05/18/23 08:49*	*06/07/23 14:22*	*1*
13C-1,2,3,7,8-PeCDF	*53*		*40 - 135*	*05/18/23 08:49*	*06/07/23 14:22*	*1*
13C-2,3,4,7,8-PeCDF	*54*		*40 - 135*	*05/18/23 08:49*	*06/07/23 14:22*	*1*
13C-1,2,3,4,7,8-HxCDF	*62*		*40 - 135*	*05/18/23 08:49*	*06/07/23 14:22*	*1*
13C-1,2,3,6,7,8-HxCDF	*58*		*40 - 135*	*05/18/23 08:49*	*06/07/23 14:22*	*1*
13C-2,3,4,6,7,8-HxCDF	*61*		*40 - 135*	*05/18/23 08:49*	*06/07/23 14:22*	*1*
13C-1,2,3,7,8,9-HxCDF	*59*		*40 - 135*	*05/18/23 08:49*	*06/07/23 14:22*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*65*		*40 - 135*	*05/18/23 08:49*	*06/07/23 14:22*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*60*		*40 - 135*	*05/18/23 08:49*	*06/07/23 14:22*	*1*
13C-OCDF	*48*		*40 - 135*	*05/18/23 08:49*	*06/07/23 14:22*	*1*

Client Sample ID: SUPE-W-30C-042623
Lab Sample ID: 180-155743-4
Date Collected: 04/26/23 14:42
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.20	J I	9.5	0.091	pg/L		05/18/23 08:49	06/07/23 15:21	1
Total TCDD	0.60	J I B	9.5	0.091	pg/L		05/18/23 08:49	06/07/23 15:21	1
1,2,3,7,8-PeCDD	ND		48	0.25	pg/L		05/18/23 08:49	06/07/23 15:21	1

Client Sample ID: SUPE-W-30C-042623
Lab Sample ID: 180-155743-4
Date Collected: 04/26/23 14:42
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Total PeCDD	ND		48	0.25	pg/L		05/18/23 08:49	06/07/23 15:21	1
1,2,3,4,7,8-HxCDD	**1.4**	**J B**	48	0.13	pg/L		05/18/23 08:49	06/07/23 15:21	1
1,2,3,6,7,8-HxCDD	**0.58**	**J I B**	48	0.12	pg/L		05/18/23 08:49	06/07/23 15:21	1
1,2,3,7,8,9-HxCDD	**0.44**	**J**	48	0.12	pg/L		05/18/23 08:49	06/07/23 15:21	1
Total HxCDD	**5.4**	**J I B**	48	0.12	pg/L		05/18/23 08:49	06/07/23 15:21	1
1,2,3,4,6,7,8-HpCDD	**12**	**J I B**	48	0.30	pg/L		05/18/23 08:49	06/07/23 15:21	1
Total HpCDD	**25**	**J I B**	48	0.30	pg/L		05/18/23 08:49	06/07/23 15:21	1
OCDD	**62**	**J B**	95	0.14	pg/L		05/18/23 08:49	06/07/23 15:21	1
2,3,7,8-TCDF	ND		9.5	0.12	pg/L		05/18/23 08:49	06/07/23 15:21	1
Total TCDF	**11**	**I B**	9.5	0.12	pg/L		05/18/23 08:49	06/07/23 15:21	1
1,2,3,7,8-PeCDF	**0.64**	**J I B**	48	0.18	pg/L		05/18/23 08:49	06/07/23 15:21	1
2,3,4,7,8-PeCDF	**0.63**	**J I B**	48	0.16	pg/L		05/18/23 08:49	06/07/23 15:21	1
Total PeCDF	**4.3**	**J I B**	48	0.17	pg/L		05/18/23 08:49	06/07/23 15:21	1
1,2,3,4,7,8-HxCDF	ND		48	0.41	pg/L		05/18/23 08:49	06/07/23 15:21	1
1,2,3,6,7,8-HxCDF	ND		48	0.44	pg/L		05/18/23 08:49	06/07/23 15:21	1
2,3,4,6,7,8-HxCDF	ND		48	0.47	pg/L		05/18/23 08:49	06/07/23 15:21	1
1,2,3,7,8,9-HxCDF	ND		48	0.55	pg/L		05/18/23 08:49	06/07/23 15:21	1
Total HxCDF	**5.8**	**J I**	48	0.47	pg/L		05/18/23 08:49	06/07/23 15:21	1
1,2,3,4,6,7,8-HpCDF	**2.5**	**J I B**	48	0.093	pg/L		05/18/23 08:49	06/07/23 15:21	1
1,2,3,4,7,8,9-HpCDF	**1.1**	**J I B**	48	0.13	pg/L		05/18/23 08:49	06/07/23 15:21	1
Total HpCDF	**9.2**	**J I B**	48	0.11	pg/L		05/18/23 08:49	06/07/23 15:21	1
OCDF	**6.2**	**J I B**	95	0.70	pg/L		05/18/23 08:49	06/07/23 15:21	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*66*		*40 - 135*	*05/18/23 08:49*	*06/07/23 15:21*	*1*
13C-1,2,3,7,8-PeCDD	*61*		*40 - 135*	*05/18/23 08:49*	*06/07/23 15:21*	*1*
13C-1,2,3,4,7,8-HxCDD	*63*		*40 - 135*	*05/18/23 08:49*	*06/07/23 15:21*	*1*
13C-1,2,3,6,7,8-HxCDD	*78*		*40 - 135*	*05/18/23 08:49*	*06/07/23 15:21*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*76*		*40 - 135*	*05/18/23 08:49*	*06/07/23 15:21*	*1*
13C-OCDD	*76*		*40 - 135*	*05/18/23 08:49*	*06/07/23 15:21*	*1*
13C-2,3,7,8-TCDF	*71*		*40 - 135*	*05/18/23 08:49*	*06/07/23 15:21*	*1*
13C-1,2,3,7,8-PeCDF	*66*		*40 - 135*	*05/18/23 08:49*	*06/07/23 15:21*	*1*
13C-2,3,4,7,8-PeCDF	*65*		*40 - 135*	*05/18/23 08:49*	*06/07/23 15:21*	*1*
13C-1,2,3,4,7,8-HxCDF	*76*		*40 - 135*	*05/18/23 08:49*	*06/07/23 15:21*	*1*
13C-1,2,3,6,7,8-HxCDF	*72*		*40 - 135*	*05/18/23 08:49*	*06/07/23 15:21*	*1*
13C-2,3,4,6,7,8-HxCDF	*74*		*40 - 135*	*05/18/23 08:49*	*06/07/23 15:21*	*1*
13C-1,2,3,7,8,9-HxCDF	*73*		*40 - 135*	*05/18/23 08:49*	*06/07/23 15:21*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*79*		*40 - 135*	*05/18/23 08:49*	*06/07/23 15:21*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*73*		*40 - 135*	*05/18/23 08:49*	*06/07/23 15:21*	*1*
13C-OCDF	*60*		*40 - 135*	*05/18/23 08:49*	*06/07/23 15:21*	*1*

Client Sample ID: SUPE-W-06A-042623
Lab Sample ID: 180-155743-6
Date Collected: 04/26/23 11:25
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	**0.21**	**J I**	10	0.15	pg/L		05/18/23 08:49	06/07/23 16:21	1
Total TCDD	**0.21**	**J I B**	10	0.15	pg/L		05/18/23 08:49	06/07/23 16:21	1
1,2,3,7,8-PeCDD	**0.50**	**J I B**	51	0.082	pg/L		05/18/23 08:49	06/07/23 16:21	1
Total PeCDD	**0.50**	**J I B**	51	0.082	pg/L		05/18/23 08:49	06/07/23 16:21	1

Client Sample ID: SUPE-W-06A-042623
Lab Sample ID: 180-155743-6

Date Collected: 04/26/23 11:25
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,7,8-HxCDD	1.4	J B	51	0.19	pg/L		05/18/23 08:49	06/07/23 16:21	1
1,2,3,6,7,8-HxCDD	0.76	J I B	51	0.16	pg/L		05/18/23 08:49	06/07/23 16:21	1
1,2,3,7,8,9-HxCDD	0.54	J I	51	0.17	pg/L		05/18/23 08:49	06/07/23 16:21	1
Total HxCDD	6.5	J I B	51	0.17	pg/L		05/18/23 08:49	06/07/23 16:21	1
1,2,3,4,6,7,8-HpCDD	13	J B	51	0.43	pg/L		05/18/23 08:49	06/07/23 16:21	1
Total HpCDD	38	J B	51	0.43	pg/L		05/18/23 08:49	06/07/23 16:21	1
OCDD	110	B	100	0.14	pg/L		05/18/23 08:49	06/07/23 16:21	1
2,3,7,8-TCDF	0.19	J I B	10	0.12	pg/L		05/18/23 08:49	06/07/23 16:21	1
Total TCDF	0.75	J I B	10	0.12	pg/L		05/18/23 08:49	06/07/23 16:21	1
1,2,3,7,8-PeCDF	ND		51	0.22	pg/L		05/18/23 08:49	06/07/23 16:21	1
2,3,4,7,8-PeCDF	0.51	J I B	51	0.20	pg/L		05/18/23 08:49	06/07/23 16:21	1
Total PeCDF	2.3	J I B	51	0.21	pg/L		05/18/23 08:49	06/07/23 16:21	1
1,2,3,4,7,8-HxCDF	0.90	J I	51	0.29	pg/L		05/18/23 08:49	06/07/23 16:21	1
1,2,3,6,7,8-HxCDF	0.88	J I	51	0.30	pg/L		05/18/23 08:49	06/07/23 16:21	1
2,3,4,6,7,8-HxCDF	0.55	J I	51	0.31	pg/L		05/18/23 08:49	06/07/23 16:21	1
1,2,3,7,8,9-HxCDF	0.40	J I	51	0.38	pg/L		05/18/23 08:49	06/07/23 16:21	1
Total HxCDF	11	J I	51	0.32	pg/L		05/18/23 08:49	06/07/23 16:21	1
1,2,3,4,6,7,8-HpCDF	3.1	J B	51	0.21	pg/L		05/18/23 08:49	06/07/23 16:21	1
1,2,3,4,7,8,9-HpCDF	0.60	J I B	51	0.28	pg/L		05/18/23 08:49	06/07/23 16:21	1
Total HpCDF	8.4	J I B	51	0.25	pg/L		05/18/23 08:49	06/07/23 16:21	1
OCDF	8.4	J I B	100	0.14	pg/L		05/18/23 08:49	06/07/23 16:21	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*69*		*40 - 135*	*05/18/23 08:49*	*06/07/23 16:21*	*1*
13C-1,2,3,7,8-PeCDD	*63*		*40 - 135*	*05/18/23 08:49*	*06/07/23 16:21*	*1*
13C-1,2,3,4,7,8-HxCDD	*67*		*40 - 135*	*05/18/23 08:49*	*06/07/23 16:21*	*1*
13C-1,2,3,6,7,8-HxCDD	*80*		*40 - 135*	*05/18/23 08:49*	*06/07/23 16:21*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*77*		*40 - 135*	*05/18/23 08:49*	*06/07/23 16:21*	*1*
13C-OCDD	*78*		*40 - 135*	*05/18/23 08:49*	*06/07/23 16:21*	*1*
13C-2,3,7,8-TCDF	*73*		*40 - 135*	*05/18/23 08:49*	*06/07/23 16:21*	*1*
13C-1,2,3,7,8-PeCDF	*68*		*40 - 135*	*05/18/23 08:49*	*06/07/23 16:21*	*1*
13C-2,3,4,7,8-PeCDF	*69*		*40 - 135*	*05/18/23 08:49*	*06/07/23 16:21*	*1*
13C-1,2,3,4,7,8-HxCDF	*76*		*40 - 135*	*05/18/23 08:49*	*06/07/23 16:21*	*1*
13C-1,2,3,6,7,8-HxCDF	*76*		*40 - 135*	*05/18/23 08:49*	*06/07/23 16:21*	*1*
13C-2,3,4,6,7,8-HxCDF	*76*		*40 - 135*	*05/18/23 08:49*	*06/07/23 16:21*	*1*
13C-1,2,3,7,8,9-HxCDF	*76*		*40 - 135*	*05/18/23 08:49*	*06/07/23 16:21*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*80*		*40 - 135*	*05/18/23 08:49*	*06/07/23 16:21*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*76*		*40 - 135*	*05/18/23 08:49*	*06/07/23 16:21*	*1*
13C-OCDF	*60*		*40 - 135*	*05/18/23 08:49*	*06/07/23 16:21*	*1*

Client Sample ID: SUPE-W-12CR-042623
Lab Sample ID: 180-155743-7

Date Collected: 04/26/23 15:15
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.26	J	11	0.13	pg/L		05/18/23 08:49	06/07/23 17:21	1
Total TCDD	0.26	J B	11	0.13	pg/L		05/18/23 08:49	06/07/23 17:21	1
1,2,3,7,8-PeCDD	0.37	J I B	53	0.13	pg/L		05/18/23 08:49	06/07/23 17:21	1
Total PeCDD	0.37	J I B	53	0.13	pg/L		05/18/23 08:49	06/07/23 17:21	1
1,2,3,4,7,8-HxCDD	0.98	J I B	53	0.19	pg/L		05/18/23 08:49	06/07/23 17:21	1

Client Sample ID: SUPE-W-12CR-042623
Lab Sample ID: 180-155743-7
Date Collected: 04/26/23 15:15
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,6,7,8-HxCDD	ND		53	0.17	pg/L		05/18/23 08:49	06/07/23 17:21	1
1,2,3,7,8,9-HxCDD	**0.35**	**J I**	53	0.17	pg/L		05/18/23 08:49	06/07/23 17:21	1
Total HxCDD	**2.6**	**J I B**	53	0.18	pg/L		05/18/23 08:49	06/07/23 17:21	1
1,2,3,4,6,7,8-HpCDD	ND		53	0.24	pg/L		05/18/23 08:49	06/07/23 17:21	1
Total HpCDD	**4.0**	**J I B**	53	0.24	pg/L		05/18/23 08:49	06/07/23 17:21	1
OCDD	**12**	**J B**	110	0.16	pg/L		05/18/23 08:49	06/07/23 17:21	1
2,3,7,8-TCDF	**0.20**	**J I B**	11	0.12	pg/L		05/18/23 08:49	06/07/23 17:21	1
Total TCDF	**0.80**	**J I B**	11	0.12	pg/L		05/18/23 08:49	06/07/23 17:21	1
1,2,3,7,8-PeCDF	**0.55**	**J I B**	53	0.15	pg/L		05/18/23 08:49	06/07/23 17:21	1
2,3,4,7,8-PeCDF	ND		53	0.13	pg/L		05/18/23 08:49	06/07/23 17:21	1
Total PeCDF	**0.55**	**J I B**	53	0.14	pg/L		05/18/23 08:49	06/07/23 17:21	1
1,2,3,4,7,8-HxCDF	**0.82**	**J I**	53	0.12	pg/L		05/18/23 08:49	06/07/23 17:21	1
1,2,3,6,7,8-HxCDF	**0.87**	**J I**	53	0.13	pg/L		05/18/23 08:49	06/07/23 17:21	1
2,3,4,6,7,8-HxCDF	ND		53	0.14	pg/L		05/18/23 08:49	06/07/23 17:21	1
1,2,3,7,8,9-HxCDF	ND		53	0.17	pg/L		05/18/23 08:49	06/07/23 17:21	1
Total HxCDF	**1.7**	**J I**	53	0.14	pg/L		05/18/23 08:49	06/07/23 17:21	1
1,2,3,4,6,7,8-HpCDF	**0.70**	**J I B**	53	0.19	pg/L		05/18/23 08:49	06/07/23 17:21	1
1,2,3,4,7,8,9-HpCDF	**0.28**	**J I B**	53	0.26	pg/L		05/18/23 08:49	06/07/23 17:21	1
Total HpCDF	**0.98**	**J I B**	53	0.23	pg/L		05/18/23 08:49	06/07/23 17:21	1
OCDF	**1.2**	**J B**	110	0.11	pg/L		05/18/23 08:49	06/07/23 17:21	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*72*		*40 - 135*	*05/18/23 08:49*	*06/07/23 17:21*	*1*
13C-1,2,3,7,8-PeCDD	*68*		*40 - 135*	*05/18/23 08:49*	*06/07/23 17:21*	*1*
13C-1,2,3,4,7,8-HxCDD	*74*		*40 - 135*	*05/18/23 08:49*	*06/07/23 17:21*	*1*
13C-1,2,3,6,7,8-HxCDD	*85*		*40 - 135*	*05/18/23 08:49*	*06/07/23 17:21*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*83*		*40 - 135*	*05/18/23 08:49*	*06/07/23 17:21*	*1*
13C-OCDD	*84*		*40 - 135*	*05/18/23 08:49*	*06/07/23 17:21*	*1*
13C-2,3,7,8-TCDF	*74*		*40 - 135*	*05/18/23 08:49*	*06/07/23 17:21*	*1*
13C-1,2,3,7,8-PeCDF	*70*		*40 - 135*	*05/18/23 08:49*	*06/07/23 17:21*	*1*
13C-2,3,4,7,8-PeCDF	*71*		*40 - 135*	*05/18/23 08:49*	*06/07/23 17:21*	*1*
13C-1,2,3,4,7,8-HxCDF	*85*		*40 - 135*	*05/18/23 08:49*	*06/07/23 17:21*	*1*
13C-1,2,3,6,7,8-HxCDF	*81*		*40 - 135*	*05/18/23 08:49*	*06/07/23 17:21*	*1*
13C-2,3,4,6,7,8-HxCDF	*81*		*40 - 135*	*05/18/23 08:49*	*06/07/23 17:21*	*1*
13C-1,2,3,7,8,9-HxCDF	*81*		*40 - 135*	*05/18/23 08:49*	*06/07/23 17:21*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*86*		*40 - 135*	*05/18/23 08:49*	*06/07/23 17:21*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*82*		*40 - 135*	*05/18/23 08:49*	*06/07/23 17:21*	*1*
13C-OCDF	*65*		*40 - 135*	*05/18/23 08:49*	*06/07/23 17:21*	*1*

Client Sample ID: SUPE-EB-01-042623
Lab Sample ID: 180-155743-8
Date Collected: 04/26/23 15:40
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		9.6	0.15	pg/L		05/18/23 08:49	06/07/23 18:21	1
Total TCDD	**0.48**	**J I B**	9.6	0.15	pg/L		05/18/23 08:49	06/07/23 18:21	1
1,2,3,7,8-PeCDD	**0.42**	**J B**	48	0.12	pg/L		05/18/23 08:49	06/07/23 18:21	1
Total PeCDD	**0.42**	**J B**	48	0.12	pg/L		05/18/23 08:49	06/07/23 18:21	1
1,2,3,4,7,8-HxCDD	**1.0**	**J B**	48	0.17	pg/L		05/18/23 08:49	06/07/23 18:21	1
1,2,3,6,7,8-HxCDD	**0.26**	**J I B**	48	0.17	pg/L		05/18/23 08:49	06/07/23 18:21	1

Client: Field & Technical Services LLC
Job ID: 180-155743-2
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-EB-01-042623
Lab Sample ID: 180-155743-8
Date Collected: 04/26/23 15:40
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,7,8,9-HxCDD	ND		48	0.16	pg/L		05/18/23 08:49	06/07/23 18:21	1
Total HxCDD	**1.3**	**J I B**	48	0.17	pg/L		05/18/23 08:49	06/07/23 18:21	1
1,2,3,4,6,7,8-HpCDD	ND		48	0.67	pg/L		05/18/23 08:49	06/07/23 18:21	1
Total HpCDD	ND		48	0.67	pg/L		05/18/23 08:49	06/07/23 18:21	1
OCDD	**2.9**	**J I B**	96	0.19	pg/L		05/18/23 08:49	06/07/23 18:21	1
2,3,7,8-TCDF	ND		9.6	0.079	pg/L		05/18/23 08:49	06/07/23 18:21	1
Total TCDF	**0.29**	**J I B**	9.6	0.079	pg/L		05/18/23 08:49	06/07/23 18:21	1
1,2,3,7,8-PeCDF	**0.24**	**J I B**	48	0.14	pg/L		05/18/23 08:49	06/07/23 18:21	1
2,3,4,7,8-PeCDF	ND		48	0.12	pg/L		05/18/23 08:49	06/07/23 18:21	1
Total PeCDF	**0.24**	**J I B**	48	0.13	pg/L		05/18/23 08:49	06/07/23 18:21	1
1,2,3,4,7,8-HxCDF	ND		48	0.15	pg/L		05/18/23 08:49	06/07/23 18:21	1
1,2,3,6,7,8-HxCDF	ND		48	0.16	pg/L		05/18/23 08:49	06/07/23 18:21	1
2,3,4,6,7,8-HxCDF	ND		48	0.17	pg/L		05/18/23 08:49	06/07/23 18:21	1
1,2,3,7,8,9-HxCDF	ND		48	0.20	pg/L		05/18/23 08:49	06/07/23 18:21	1
Total HxCDF	ND		48	0.20	pg/L		05/18/23 08:49	06/07/23 18:21	1
1,2,3,4,6,7,8-HpCDF	**0.36**	**J I B**	48	0.17	pg/L		05/18/23 08:49	06/07/23 18:21	1
1,2,3,4,7,8,9-HpCDF	ND		48	0.22	pg/L		05/18/23 08:49	06/07/23 18:21	1
Total HpCDF	**0.56**	**J I B**	48	0.20	pg/L		05/18/23 08:49	06/07/23 18:21	1
OCDF	**0.33**	**J I B**	96	0.22	pg/L		05/18/23 08:49	06/07/23 18:21	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*72*		*40 - 135*	*05/18/23 08:49*	*06/07/23 18:21*	*1*
13C-1,2,3,7,8-PeCDD	*67*		*40 - 135*	*05/18/23 08:49*	*06/07/23 18:21*	*1*
13C-1,2,3,4,7,8-HxCDD	*70*		*40 - 135*	*05/18/23 08:49*	*06/07/23 18:21*	*1*
13C-1,2,3,6,7,8-HxCDD	*83*		*40 - 135*	*05/18/23 08:49*	*06/07/23 18:21*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*80*		*40 - 135*	*05/18/23 08:49*	*06/07/23 18:21*	*1*
13C-OCDD	*81*		*40 - 135*	*05/18/23 08:49*	*06/07/23 18:21*	*1*
13C-2,3,7,8-TCDF	*73*		*40 - 135*	*05/18/23 08:49*	*06/07/23 18:21*	*1*
13C-1,2,3,7,8-PeCDF	*69*		*40 - 135*	*05/18/23 08:49*	*06/07/23 18:21*	*1*
13C-2,3,4,7,8-PeCDF	*72*		*40 - 135*	*05/18/23 08:49*	*06/07/23 18:21*	*1*
13C-1,2,3,4,7,8-HxCDF	*80*		*40 - 135*	*05/18/23 08:49*	*06/07/23 18:21*	*1*
13C-1,2,3,6,7,8-HxCDF	*80*		*40 - 135*	*05/18/23 08:49*	*06/07/23 18:21*	*1*
13C-2,3,4,6,7,8-HxCDF	*79*		*40 - 135*	*05/18/23 08:49*	*06/07/23 18:21*	*1*
13C-1,2,3,7,8,9-HxCDF	*80*		*40 - 135*	*05/18/23 08:49*	*06/07/23 18:21*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*80*		*40 - 135*	*05/18/23 08:49*	*06/07/23 18:21*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*78*		*40 - 135*	*05/18/23 08:49*	*06/07/23 18:21*	*1*
13C-OCDF	*62*		*40 - 135*	*05/18/23 08:49*	*06/07/23 18:21*	*1*

Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Lab Sample ID: MB 140-73375/19-A
Matrix: Water
Analysis Batch: 74037

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73375

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		10	0.13	pg/L		05/19/23 08:35	06/07/23 06:14	1
Total TCDD	0.171	J I	10	0.13	pg/L		05/19/23 08:35	06/07/23 06:14	1
1,2,3,7,8-PeCDD	0.661	J	50	0.13	pg/L		05/19/23 08:35	06/07/23 06:14	1
Total PeCDD	0.661	J	50	0.13	pg/L		05/19/23 08:35	06/07/23 06:14	1
1,2,3,4,7,8-HxCDD	1.55	J I	50	0.23	pg/L		05/19/23 08:35	06/07/23 06:14	1
1,2,3,6,7,8-HxCDD	0.362	J	50	0.21	pg/L		05/19/23 08:35	06/07/23 06:14	1
1,2,3,7,8,9-HxCDD	ND		50	0.21	pg/L		05/19/23 08:35	06/07/23 06:14	1
Total HxCDD	2.36	J I	50	0.22	pg/L		05/19/23 08:35	06/07/23 06:14	1
1,2,3,4,6,7,8-HpCDD	2.00	J I	50	0.47	pg/L		05/19/23 08:35	06/07/23 06:14	1
Total HpCDD	2.00	J I	50	0.47	pg/L		05/19/23 08:35	06/07/23 06:14	1
OCDD	3.23	J	100	0.23	pg/L		05/19/23 08:35	06/07/23 06:14	1
2,3,7,8-TCDF	0.255	J I	10	0.12	pg/L		05/19/23 08:35	06/07/23 06:14	1
Total TCDF	3.72	J I	10	0.12	pg/L		05/19/23 08:35	06/07/23 06:14	1
1,2,3,7,8-PeCDF	0.920	J I	50	0.13	pg/L		05/19/23 08:35	06/07/23 06:14	1
2,3,4,7,8-PeCDF	1.13	J	50	0.12	pg/L		05/19/23 08:35	06/07/23 06:14	1
Total PeCDF	3.32	J I	50	0.12	pg/L		05/19/23 08:35	06/07/23 06:14	1
1,2,3,4,7,8-HxCDF	ND		50	0.23	pg/L		05/19/23 08:35	06/07/23 06:14	1
1,2,3,6,7,8-HxCDF	ND		50	0.25	pg/L		05/19/23 08:35	06/07/23 06:14	1
2,3,4,6,7,8-HxCDF	ND		50	0.26	pg/L		05/19/23 08:35	06/07/23 06:14	1
1,2,3,7,8,9-HxCDF	ND		50	0.33	pg/L		05/19/23 08:35	06/07/23 06:14	1
Total HxCDF	ND		50	0.33	pg/L		05/19/23 08:35	06/07/23 06:14	1
1,2,3,4,6,7,8-HpCDF	0.866	J I	50	0.18	pg/L		05/19/23 08:35	06/07/23 06:14	1
1,2,3,4,7,8,9-HpCDF	0.635	J I	50	0.23	pg/L		05/19/23 08:35	06/07/23 06:14	1
Total HpCDF	1.96	J I	50	0.21	pg/L		05/19/23 08:35	06/07/23 06:14	1
OCDF	1.50	J I	100	0.19	pg/L		05/19/23 08:35	06/07/23 06:14	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*65*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-1,2,3,7,8-PeCDD	*62*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-1,2,3,4,7,8-HxCDD	*71*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-1,2,3,6,7,8-HxCDD	*82*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*81*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-OCDD	*83*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-2,3,7,8-TCDF	*66*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-1,2,3,7,8-PeCDF	*64*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-2,3,4,7,8-PeCDF	*66*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-1,2,3,4,7,8-HxCDF	*81*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-1,2,3,6,7,8-HxCDF	*78*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-2,3,4,6,7,8-HxCDF	*79*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-1,2,3,7,8,9-HxCDF	*76*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*82*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*79*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-OCDF	*74*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*

Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 140-73375/18-A
Matrix: Water
Analysis Batch: 74037

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73375

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
2,3,7,8-TCDD			200	187		pg/L		93	77 - 127		
1,2,3,7,8-PeCDD			1000	1010		pg/L		101	78 - 128		
1,2,3,4,7,8-HxCDD			1000	1000		pg/L		100	73 - 123		
1,2,3,6,7,8-HxCDD			1000	935		pg/L		93	72 - 127		
1,2,3,7,8,9-HxCDD			1000	1010		pg/L		101	76 - 126		
1,2,3,4,6,7,8-HpCDD			1000	964		pg/L		96	73 - 123		
OCDD			2000	1930		pg/L		97	75 - 125		
2,3,7,8-TCDF			200	190		pg/L		95	74 - 124		
1,2,3,7,8-PeCDF			1000	1020		pg/L		102	74 - 124		
2,3,4,7,8-PeCDF			1000	1020		pg/L		102	74 - 124		
1,2,3,4,7,8-HxCDF			1000	865		pg/L		87	75 - 125		
1,2,3,6,7,8-HxCDF			1000	932		pg/L		93	75 - 125		
2,3,4,6,7,8-HxCDF			1000	949		pg/L		95	76 - 126		
1,2,3,7,8,9-HxCDF			1000	929		pg/L		93	76 - 126		
1,2,3,4,6,7,8-HpCDF			1000	920		pg/L		92	71 - 121		
1,2,3,4,7,8,9-HpCDF			1000	972		pg/L		97	73 - 123		
OCDF			2000	1940		pg/L		97	68 - 132		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C-2,3,7,8-TCDD	*64*		*40 - 135*
13C-1,2,3,7,8-PeCDD	*65*		*40 - 135*
13C-1,2,3,4,7,8-HxCDD	*71*		*40 - 135*
13C-1,2,3,6,7,8-HxCDD	*76*		*40 - 135*
13C-1,2,3,4,6,7,8-HpCDD	*81*		*40 - 135*
13C-OCDD	*85*		*40 - 135*
13C-2,3,7,8-TCDF	*65*		*40 - 135*
13C-1,2,3,7,8-PeCDF	*63*		*40 - 135*
13C-2,3,4,7,8-PeCDF	*67*		*40 - 135*
13C-1,2,3,4,7,8-HxCDF	*79*		*40 - 135*
13C-1,2,3,6,7,8-HxCDF	*73*		*40 - 135*
13C-2,3,4,6,7,8-HxCDF	*76*		*40 - 135*
13C-1,2,3,7,8,9-HxCDF	*75*		*40 - 135*
13C-1,2,3,4,6,7,8-HpCDF	*82*		*40 - 135*
13C-1,2,3,4,7,8,9-HpCDF	*81*		*40 - 135*
13C-OCDF	*80*		*40 - 135*

QC Association Summary

Client: Field & Technical Services LLC
Job ID: 180-155743-2
Project/Site: Superior, WI Semiannual Groundwater

Specialty Organics

Prep Batch: 73375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-155743-1	SUPE-W-99A-042623	Total/NA	Water	8290	
180-155743-2	SUPE-W-28C-042623	Total/NA	Water	8290	
180-155743-3	SUPE-W-06C-042623	Total/NA	Water	8290	
180-155743-4	SUPE-W-30C-042623	Total/NA	Water	8290	
180-155743-6	SUPE-W-06A-042623	Total/NA	Water	8290	
180-155743-7	SUPE-W-12CR-042623	Total/NA	Water	8290	
180-155743-8	SUPE-EB-01-042623	Total/NA	Water	8290	
MB 140-73375/19-A	Method Blank	Total/NA	Water	8290	
LCS 140-73375/18-A	Lab Control Sample	Total/NA	Water	8290	

Analysis Batch: 74037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 140-73375/19-A	Method Blank	Total/NA	Water	8290A	73375
LCS 140-73375/18-A	Lab Control Sample	Total/NA	Water	8290A	73375

Analysis Batch: 74060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-155743-1	SUPE-W-99A-042623	Total/NA	Water	8290A	73375
180-155743-2	SUPE-W-28C-042623	Total/NA	Water	8290A	73375
180-155743-3	SUPE-W-06C-042623	Total/NA	Water	8290A	73375
180-155743-4	SUPE-W-30C-042623	Total/NA	Water	8290A	73375
180-155743-6	SUPE-W-06A-042623	Total/NA	Water	8290A	73375
180-155743-7	SUPE-W-12CR-042623	Total/NA	Water	8290A	73375
180-155743-8	SUPE-EB-01-042623	Total/NA	Water	8290A	73375

FTS
Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 502071 [redacted]

Project Name: Superior, WI - 2023 OM&M Program
Project Number: OM-0556-23
Laboratory: TACHI
Shipment Method FEDEX
Program: Superior 2023 1SA Sampling_001

Company: Field & Technical Services
Address: 200 Third Avenue
Carnegie, PA 15106
(412) 279-3363

Client: Beazer East, Inc.
Contact:
mferrick.2006@f-ts.com

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8270D_SVOC (less naphtha) (Chicago)															Notes:
				Preservative	None															
				Total Bottle Count	[redacted]															
04/26/2023	1125	GW	SUPE-W-06A-042623	2	2															
04/26/2023	1515	GW	SUPE-W-12CR-042623	2	2															
04/26/2023	1540	GW	SUPE-EB-01-042623	2	2															

180-155743 Chain of Custody

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: Mary Ferrick	Signature: [redacted]	Signature:	Signature:	☐ Rush
Printed Name: Marie Ferrick	Printed Name: Keenya Rucker	Printed Name:	Printed Name:	
Firm: FTS	Firm: FTS/TAKE	Firm	Firm	☒ Standard
Date/Time: 04/26/2023 1704	Date/Time: 4-28-23 0910	Date/Time:	Date/Time:	

Page 1 of 1

FTS Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 502073 [redacted]

Project Name: Superior, WI - 2023 OM&M Program
Project Number: OM-0556-23
Laboratory: TAKNOX
Shipment Method FEDEX
Program: Superior 2023 1SA Sampling_001

Company: Field & Technical Services
Address: 200 Third Avenue
Carnegie, PA 15106
(412) 279-3363

Client: Beazer East, Inc.
Contact:
mferrick.2006@f-ts.com

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8290_Dioxins/Furans (Knoxville) (1L)															Notes:
				Preservative	None															
				Total Bottle Count																
04/26/2023	1125	GW	SUPE-W-06A-042623	2	2															
04/26/2023	1515	GW	SUPE-W-12CR-042623	2	2															
04/26/2023	1540	GW	SUPE-EB-01-042623	2	2															

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: Mary Ferrick	Signature: [signature]	Signature:	Signature:	[ ] Rush
Printed Name: Marie Ferrick	Printed Name: Keenya Rucker	Printed Name:	Printed Name:	
Firm: FTS	Firm: EA Eng	Firm	Firm	[X] Standard
Date/Time: 04/26/2023 1704	Date/Time: 4-27-23 0910	Date/Time:	Date/Time:	

FTS Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 502078 [redacted]

Project Name: Superior, WI - 2023 OM&M Program
Project Number: OM-0556-23
Laboratory: TACHI
Shipment Method FEDEX
Program: Superior 2023 1SA Sampling_001

Company: Field & Technical Services
Address: 200 Third Avenue
Carnegie, PA 15106
(412) 279-3363

Client: Beazer East, Inc.
Contact:
slindquist.2006@f-ts.com

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8270D_SVOC (less naphtha) (Chicago)	8270D_SVOC+naphtha (Chicago) (250ml)														Notes:
				Preservative	None	None														
				Total Bottle Count																
04/26/2023	0830	GW	SUPE-W-99A-042623	2	2	0														
04/26/2023	1038	GW	SUPE-W-28C-042623	2	2	0														
04/26/2023	1235	GW	SUPE-W-06C-042623	2	2	0														
04/26/2023	1442	GW	SUPE-W-30C-042623	2	2	0														
04/26/2023	1615	GW	SUPE-W-18D-042623	2	0	2														

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: [signature]	Signature: [signature]	Signature:	Signature:	☐ Rush
Printed Name: Shane Lindquist	Printed Name: [illegible]	Printed Name:	Printed Name:	
Firm FTS	Firm [illegible]	Firm	Firm	☒ Standard
Date/Time: 04/26/2023 1700	Date/Time: 4-28-23 0910	Date/Time:	Date/Time:	

FTS
Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 502080 [redacted]

Project Name: Superior, WI - 2023 OM&M Program
Project Number: OM-0556-23
Laboratory: TAKNOX
Shipment Method FEDEX
Program: Superior 2023 1SA Sampling_001

Company: Field & Technical Services
Address: 200 Third Avenue
Carnegie, PA 15106
(412) 279-3363

Client: Beazer East, Inc.
Contact:
slindquist.2006@f-ts.com

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8290_Dioxins/Furans (Knoxville) (1L)															Notes:
				Preservative	None															
				Total Bottle Count	[redacted]															
04/26/2023	0830	GW	SUPE-W-99A-042623	2	2															
04/26/2023	1038	GW	SUPE-W-28C-042623	2	2															
04/26/2023	1235	GW	SUPE-W-06C-042623	2	2															
04/26/2023	1442	GW	SUPE-W-30C-042623	2	2															

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: [signature]	Signature: [signature]	Signature:	Signature:	[ ] Rush
Printed Name: Shane Lindquist	Printed Name: Neerja Rucha	Printed Name:	Printed Name:	
Firm: FTS	Firm: E.P. Hunt	Firm	Firm	[X] Standard
Date/Time: 04/26/2023 1701	Date/Time: 4-28-23 0910	Date/Time:	Date/Time:	

FTS Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 502072 [redacted]

Project Name: Superior, WI - 2023 OM&M Program
Project Number: OM-0556-23
Laboratory: TABUF
Shipment Method FEDEX
Program: Superior 2023 1SA Sampling_001

Company: Field & Technical Services
Address: 200 Third Avenue
Carnegie, PA 15106
(412) 279-3363

Client: Beazer East, Inc.
Contact:
mferrick.2006@f-ts.com

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8260C_VOA+naphtha (Buffalo)	8270D LL_PCP (Buffalo) (1L)														Notes:
				Preservative	HCL	None														
				Total Bottle Count	[redacted]															
04/26/2023	1125	GW	SUPE-W-06A-042623	6	3	3														
04/26/2023	1515	GW	SUPE-W-12CR-042623	6	3	3														
04/26/2023	1540	GW	SUPE-EB-01-042623	6	3	3														

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: [signature]	Signature: [signature]	Signature:	Signature:	☐ Rush
Printed Name: Marie Ferrick	Printed Name: [signature]	Printed Name:	Printed Name:	
Firm FTS	Firm FTS	Firm	Firm	☒ Standard
Date/Time: 04/26/2023 1704	Date/Time: 4-27-23 0910	Date/Time:	Date/Time:	

FTS Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 502079

[redacted]

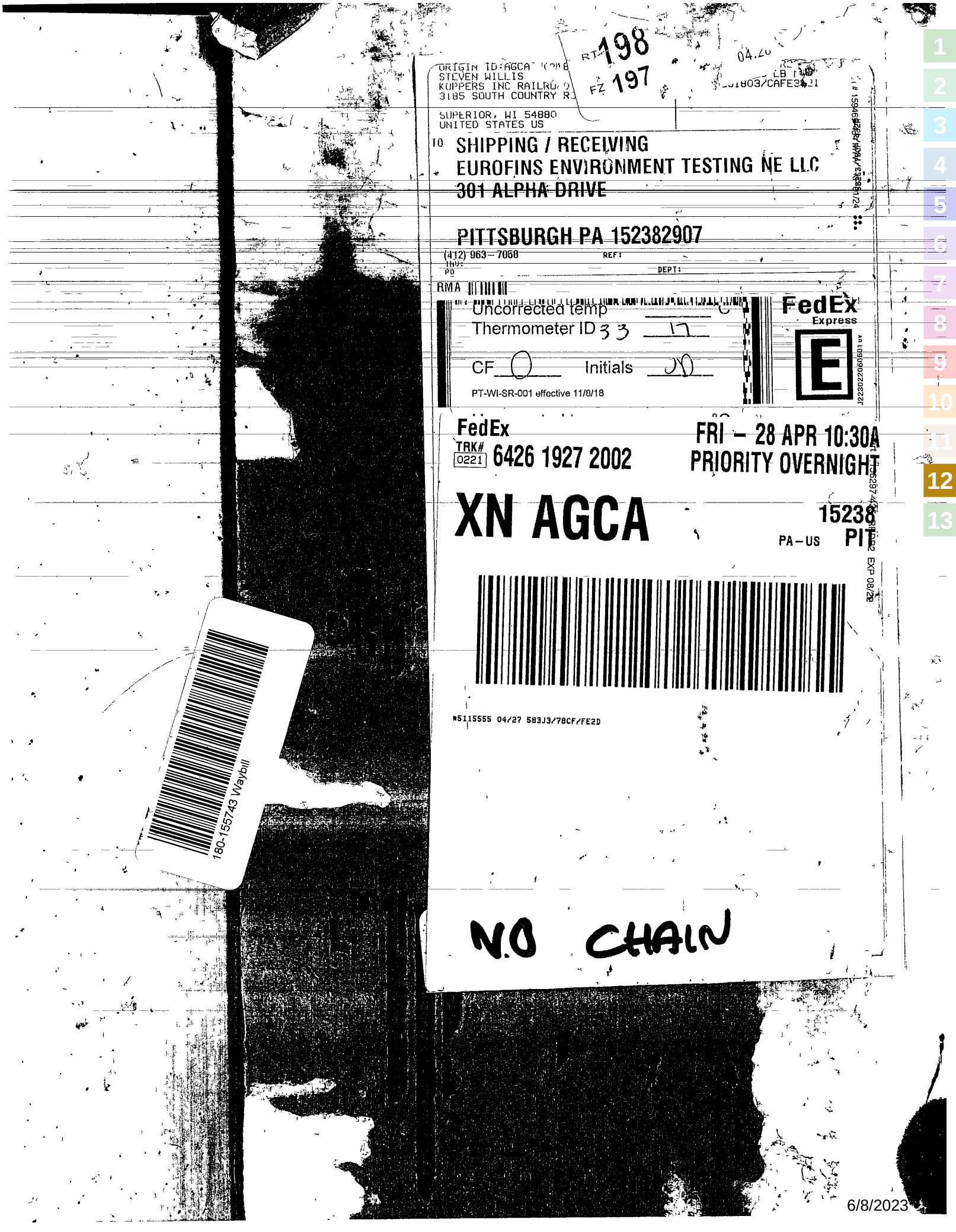
Project Name: Superior, WI - 2023 OM&M Program
Project Number: OM-0556-23
Laboratory: TABUF
Shipment Method FEDEX
Program: Superior 2023 1SA Sampling_001

Company: Field & Technical Services
Address: 200 Third Avenue
Carnegie, PA 15106
(412) 279-3363

Client: Beazer East, Inc.
Contact:
slindquist.2006@f-ts.com

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8260C_VOA+naphtha (Buffalo)	8270D LL_PCP (Buffalo) (1L)														Notes:
				Preservative	HCL	None														
				Total Bottle Count																
04/26/2023	0830	GW	SUPE-W-99A-042623	6	3	3														
04/26/2023	1038	GW	SUPE-W-28C-042623	6	3	3														
04/26/2023	1235	GW	SUPE-W-06C-042623	6	3	3														
04/26/2023	1442	GW	SUPE-W-30C-042623	6	3	3														
04/26/2023	1615	GW	SUPE-W-18D-042623	3	0	3														

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: [signature]	Signature: [signature]	Signature:	Signature:	☐ Rush
Printed Name: Shane Lindquist	Printed Name: Keenya Rucker	Printed Name:	Printed Name:	
Firm FTS	Firm EPI/TRNE	Firm	Firm	☒ Standard
Date/Time: 04/26/2023 1701	Date/Time: 4-28-23 0901	Date/Time:	Date/Time:	


ORIGIN ID:AGCA
STEVEN WILLIS
KUPPERS INC RAILRO
3185 SOUTH COUNTRY R
SUPERIOR, WI 54880
UNITED STATES US
TO SHIPPING / RECEIVING
EUROFINS ENVIRONMENT TESTING NE LLC
301 ALPHA DRIVE
PITTSBURGH PA 152382907
(412) 963-7058
REF:
PO
DEPT:
RMA
Uncorrected temp
Thermometer ID 33
CF 0
Initials
PT-WI-SR-001 effective 11/8/18
FedEx
Express
FedEx
TRK# 0221 6426 1927 2002
FRI - 28 APR 10:30A
PRIORITY OVERNIGHT
XN AGCA
15238
PA-US
PIT
#5115555 04/27 583J3/78CF/FE2D
180-155743 Waybill
N.O CHAIN

ORIGIN ID:AGCA (218) 591-0409
STEVEN WILLIS
KOPPERS INC RAILROAD PRODUCTS & SER
3185 SOUTH COUNTRY ROAD A

SUPERIOR, WI 54880
UNITED STATES US

SHIP DATE: 15APR23
ACTWGT: 30.00 LB MAN
CAD: 0551803/CAFE3621

TO **SHIPPING / RECEIVING**
EUROFINS ENVIRONMENT TESTING NE LLC
301 ALPHA DRIVE

PITTSBURGH PA 152382907
(412) 963-7058 REF:
INV:
PO: DEPT:

Uncorrected temp
Thermometer ID 3.1 17
CF 0 Initials JD
PT-WI-SR-001 effective 11/8/18

FedEx Express
E

FedEx
TRK# 0221 **6426 1927 2013**

FRI - 28 APR 10:30A
PRIORITY OVERNIGHT

XN AGCA

15238
PA-US **PIT**

#5115555 04/27 583J3/78CF/FE2D

6/8/2023

ORIGIN ID:AGCA (218) 591-0409
STEVEN WILLIS
KOPPERS INC RAILROAD PRODUCTS & SER
3185 SOUTH COUNTRY ROAD A

SUPERIOR, WI 54880
UNITED STATES US

SHIP DATE: 15APR23
ACTWGT: 30.00 LB MAN
CAD: 0551803/CAFE3621

TO SHIPPING / RECEIVING
EUROFINS ENVIRONMENT TESTING NE LLC
301 ALPHA DRIVE

PITTSBURGH PA 152382907
(412) 963-7058
INV:
PO:
REF:
DEPT:
RMA.

Uncorrected temp
Thermometer ID 38 17
CF 0 Initials JD
PT-WI-SR-001 effective 11/8/18

FedEx Express
E

FedEx
TRK# 0221 6426 1927 1999

FRI - 28 APR 10:30A
PRIORITY OVERNIGHT

XN AGCA

15238
PA-US PIT

#5115555 04/27 583J3/78CF/FE2D

6/8/2023

Login Sample Receipt Checklist

Client: Field & Technical Services LLC

Job Number: 180-155743-2

Login Number: 155743
List Number: 1
Creator: Abernathy, Eric L

List Source: Eurofins Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Angie Gatchie
Field & Technical Services LLC
200 Third Avenue
Carnegie, Pennsylvania 15106

Generated 5/19/2023 3:38:29 PM

JOB DESCRIPTION

Superior, WI Semiannual Groundwater

JOB NUMBER

180-155744-1

Eurofins Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh PA 15238

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

PA Lab ID: 02-00416

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Pittsburgh Project Manager.

Authorization

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5/19/2023 3:38:29 PM

Authorized for release by
Shali Brown, Project Manager II
Shali.Brown@et.eurofinsus.com
(615)301-5031

Table of Contents

Job ID: 180-155744-1

Laboratory: Eurofins Pittsburgh

Narrative

Job Narrative
180-155744-1

Receipt
The samples were received on 4/28/2023 9:10 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.1°C and 4.6°C

GC/MS VOA
Method 8260C: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: SUPE-W-30A-042723 (180-155744-5). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270E_LL: The continuing calibration verification (CCV) associated with batch 180-434343 recovered above the upper control limit for 2,3,5,6-Tetrachlorophenol, Bis(2-chloroethoxy)methane and Pentachlorophenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCVIS 180-434343/3).

Method 8270E_LL: The laboratory control sample (LCS) for preparation batch 180-434154 and analytical batch 180-434343 recovered outside control limits for the following analyte: Di-n-octyl phthalate. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8270E_LL: The continuing calibration verification (CCV) associated with batch 180-434450 recovered above the upper control limit for 2,3,5,6-Tetrachlorophenol, 2-Nitroaniline and Bis(2-chloroethoxy)methane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCVIS 180-434450/3).

Method 8270E_LL: An incorrect volume of surrogate spiking solution was inadvertently added the following samples: SUPE-EB-02-042723 (180-155744-4). Percent recoveries are based on the amount spiked.

Method 8270E_LL: The following sample was diluted to bring the concentration of target analytes within the calibration range: SUPE-W-10AR2-042723 (180-155744-6). Elevated reporting limits (RLs) are provided.

Method 8270D_LL: The following sample was diluted due to color, appearance, and viscosity: SUPE-W-04AR2-042723 (180-155744-1). Elevated reporting limits (RL) are provided.

Method 8270D_LL: The following samples were diluted due to color, appearance, and viscosity: SUPE-W-30A-042723 (180-155744-5) and SUPE-W-10AR2-042723 (180-155744-6). Elevated reporting limits (RL) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Definitions/Glossary

Client: Field & Technical Services LLC
Job ID: 180-155744-1
Project/Site: Superior, WI Semiannual Groundwater

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Field & Technical Services LLC
Job ID: 180-155744-1
Project/Site: Superior, WI Semiannual Groundwater

Laboratory: Eurofins Pittsburgh

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	998027800	08-31-23

Laboratory: Eurofins Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	998310390	08-31-23

Sample Summary

Client: Field & Technical Services LLC
Job ID: 180-155744-1
Project/Site: Superior, WI Semiannual Groundwater

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-155744-1	SUPE-W-04AR2-042723	Water	04/27/23 08:55	04/28/23 09:10
180-155744-2	SUPE-W-99B-042723	Water	04/27/23 10:30	04/28/23 09:10
180-155744-3	SUPE-W-12A-042723	Water	04/27/23 08:44	04/28/23 09:10
180-155744-4	SUPE-EB-02-042723	Water	04/27/23 11:00	04/28/23 09:10
180-155744-5	SUPE-W-30A-042723	Water	04/27/23 11:29	04/28/23 09:10
180-155744-6	SUPE-W-10AR2-042723	Water	04/27/23 14:33	04/28/23 09:10

Method Summary

Client: Field & Technical Services LLC
Job ID: 180-155744-1
Project/Site: Superior, WI Semiannual Groundwater

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET BUF
EPA 8270E LL	Semivolatile Organic Compounds (GC/MS)	SW846	EET PIT
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET BUF
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PIT
5030C	Purge and Trap	SW846	EET BUF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

Client: Field & Technical Services LLC
Job ID: 180-155744-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-04AR2-042723
Lab Sample ID: 180-155744-1
Date Collected: 04/27/23 08:55
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	667627	05/01/23 16:38	CDC	EET BUF
	Instrument ID: HP5977K									
Total/NA	Prep	3510C			1050 mL	1 mL	667743	05/02/23 09:25	JMP	EET BUF
Total/NA	Analysis	8270D LL		5	1 mL	1 mL	668191	05/04/23 19:47	JMM	EET BUF
	Instrument ID: HP5973W									
Total/NA	Prep	3520C			300 mL	250 uL	434154	05/03/23 14:11	BJT	EET PIT
Total/NA	Analysis	EPA 8270E LL		1	1 mL	1 mL	434343	05/05/23 19:00	VVP	EET PIT
	Instrument ID: CH71									

Client Sample ID: SUPE-W-99B-042723
Lab Sample ID: 180-155744-2
Date Collected: 04/27/23 10:30
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	667627	05/01/23 17:00	CDC	EET BUF
	Instrument ID: HP5977K									
Total/NA	Prep	3510C			970 mL	1 mL	667743	05/02/23 09:25	JMP	EET BUF
Total/NA	Analysis	8270D LL		1	1 mL	1 mL	668191	05/04/23 20:15	JMM	EET BUF
	Instrument ID: HP5973W									
Total/NA	Prep	3520C			290 mL	250 uL	434154	05/03/23 14:11	BJT	EET PIT
Total/NA	Analysis	EPA 8270E LL		1	1 mL	1 mL	434343	05/05/23 19:22	VVP	EET PIT
	Instrument ID: CH71									

Client Sample ID: SUPE-W-12A-042723
Lab Sample ID: 180-155744-3
Date Collected: 04/27/23 08:44
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	667627	05/01/23 17:22	CDC	EET BUF
	Instrument ID: HP5977K									
Total/NA	Prep	3510C			970 mL	1 mL	667743	05/02/23 09:25	JMP	EET BUF
Total/NA	Analysis	8270D LL		1	1 mL	1 mL	668191	05/04/23 20:43	JMM	EET BUF
	Instrument ID: HP5973W									
Total/NA	Prep	3520C			290 mL	250 uL	434154	05/03/23 14:11	BJT	EET PIT
Total/NA	Analysis	EPA 8270E LL		1	1 mL	1 mL	434450	05/06/23 19:42	VVP	EET PIT
	Instrument ID: CH71									

Client Sample ID: SUPE-EB-02-042723
Lab Sample ID: 180-155744-4
Date Collected: 04/27/23 11:00
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	667627	05/01/23 17:45	CDC	EET BUF
	Instrument ID: HP5977K									

Lab Chronicle

Client: Field & Technical Services LLC
Project/Site: Superior, WI Semiannual Groundwater

Job ID: 180-155744-1

Client Sample ID: SUPE-EB-02-042723

Lab Sample ID: 180-155744-4
Date Collected: 04/27/23 11:00
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			1050 mL	1 mL	667743	05/02/23 09:25	JMP	EET BUF
Total/NA	Analysis	8270D LL		1	1 mL	1 mL	668191	05/04/23 21:10	JMM	EET BUF
	Instrument ID: HP5973W									
Total/NA	Prep	3520C			300 mL	250 uL	434154	05/03/23 14:11	BJT	EET PIT
Total/NA	Analysis	EPA 8270E LL		1	1 mL	1 mL	434450	05/06/23 20:04	VVP	EET PIT
	Instrument ID: CH71									

Client Sample ID: SUPE-W-30A-042723

Lab Sample ID: 180-155744-5
Date Collected: 04/27/23 11:29
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	5 mL	5 mL	667627	05/01/23 18:07	CDC	EET BUF
	Instrument ID: HP5977K									
Total/NA	Prep	3510C			940 mL	1 mL	667743	05/02/23 09:25	JMP	EET BUF
Total/NA	Analysis	8270D LL		10	1 mL	1 mL	668304	05/05/23 12:26	JMM	EET BUF
	Instrument ID: HP5973W									
Total/NA	Prep	3520C			300 mL	250 uL	434154	05/03/23 14:11	BJT	EET PIT
Total/NA	Analysis	EPA 8270E LL		1	1 mL	1 mL	434450	05/06/23 20:26	VVP	EET PIT
	Instrument ID: CH71									

Client Sample ID: SUPE-W-10AR2-042723

Lab Sample ID: 180-155744-6
Date Collected: 04/27/23 14:33
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	667627	05/01/23 18:29	CDC	EET BUF
	Instrument ID: HP5977K									
Total/NA	Prep	3510C			950 mL	1 mL	667743	05/02/23 09:25	JMP	EET BUF
Total/NA	Analysis	8270D LL		5	1 mL	1 mL	668304	05/05/23 12:53	JMM	EET BUF
	Instrument ID: HP5973W									
Total/NA	Prep	3520C			290 mL	250 uL	434154	05/03/23 14:11	BJT	EET PIT
Total/NA	Analysis	EPA 8270E LL		1	1 mL	1 mL	434450	05/06/23 20:48	VVP	EET PIT
	Instrument ID: CH71									
Total/NA	Prep	3520C	DL		290 mL	250 uL	434154	05/03/23 14:11	BJT	EET PIT
Total/NA	Analysis	EPA 8270E LL	DL	4	1 mL	1 mL	434715	05/10/23 09:51	VVP	EET PIT
	Instrument ID: CH733									

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

Client: Field & Technical Services LLC
Job ID: 180-155744-1
Project/Site: Superior, WI Semiannual Groundwater

Analyst References:

Lab: EET BUF
- Batch Type: Prep
  - JMP = Jacob Pollock
- Batch Type: Analysis
  - CDC = Charles Cwiklinski
  - JMM = Joseph Marshall

Lab: EET PIT
- Batch Type: Prep
  - BJT = Bill Trout
- Batch Type: Analysis
  - VVP = Vincent Piccolino

Client Sample ID: SUPE-W-04AR2-042723
Lab Sample ID: 180-155744-1

Date Collected: 04/27/23 08:55
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/01/23 16:38	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/01/23 16:38	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/01/23 16:38	1
Benzene	ND		1.0	0.41	ug/L			05/01/23 16:38	1
Chloromethane	ND		1.0	0.35	ug/L			05/01/23 16:38	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/01/23 16:38	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/01/23 16:38	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/01/23 16:38	1
Naphthalene	**0.72**	**J**	1.0	0.43	ug/L			05/01/23 16:38	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/01/23 16:38	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/01/23 16:38	1
o-Xylene	ND		1.0	0.76	ug/L			05/01/23 16:38	1
Styrene	ND		1.0	0.73	ug/L			05/01/23 16:38	1
Toluene	ND		1.0	0.51	ug/L			05/01/23 16:38	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/01/23 16:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*77 - 120*		*05/01/23 16:38*	*1*
4-Bromofluorobenzene (Surr)	*94*		*73 - 120*		*05/01/23 16:38*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 123*		*05/01/23 16:38*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/01/23 16:38*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		4.8	1.6	ug/L		05/02/23 09:25	05/04/23 19:47	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*94*		*24 - 146*	*05/02/23 09:25*	*05/04/23 19:47*	*5*
2-Fluorobiphenyl	*91*		*37 - 120*	*05/02/23 09:25*	*05/04/23 19:47*	*5*
2-Fluorophenol (Surr)	*41*		*10 - 120*	*05/02/23 09:25*	*05/04/23 19:47*	*5*
Nitrobenzene-d5 (Surr)	*64*		*26 - 120*	*05/02/23 09:25*	*05/04/23 19:47*	*5*
Phenol-d5 (Surr)	*28*		*11 - 120*	*05/02/23 09:25*	*05/04/23 19:47*	*5*
p-Terphenyl-d14	*87*		*64 - 127*	*05/02/23 09:25*	*05/04/23 19:47*	*5*

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.83	0.11	ug/L		05/03/23 14:11	05/05/23 19:00	1
1,2-Dichlorobenzene	ND		0.83	0.079	ug/L		05/03/23 14:11	05/05/23 19:00	1
1,3-Dichlorobenzene	ND		0.83	0.083	ug/L		05/03/23 14:11	05/05/23 19:00	1
1,4-Dichlorobenzene	ND		0.83	0.051	ug/L		05/03/23 14:11	05/05/23 19:00	1
1-Methylnaphthalene	**0.059**	**J**	0.16	0.047	ug/L		05/03/23 14:11	05/05/23 19:00	1
2,3,4,6-Tetrachlorophenol	ND		0.83	0.27	ug/L		05/03/23 14:11	05/05/23 19:00	1
2,3,5,6-Tetrachlorophenol	ND		0.83	0.42	ug/L		05/03/23 14:11	05/05/23 19:00	1
2,4,5-Trichlorophenol	ND		0.83	0.21	ug/L		05/03/23 14:11	05/05/23 19:00	1
2,4,6-Trichlorophenol	ND		0.83	0.19	ug/L		05/03/23 14:11	05/05/23 19:00	1
2,4-Dichlorophenol	ND		0.16	0.043	ug/L		05/03/23 14:11	05/05/23 19:00	1
2,4-Dimethylphenol	ND		0.83	0.14	ug/L		05/03/23 14:11	05/05/23 19:00	1
2,4-Dinitrophenol	ND		8.3	1.3	ug/L		05/03/23 14:11	05/05/23 19:00	1
2,4-Dinitrotoluene	ND		0.83	0.29	ug/L		05/03/23 14:11	05/05/23 19:00	1
2,6-Dinitrotoluene	ND		0.83	0.14	ug/L		05/03/23 14:11	05/05/23 19:00	1

Client: Field & Technical Services LLC
Project/Site: Superior, WI Semiannual Groundwater

Job ID: 180-155744-1

Client Sample ID: SUPE-W-04AR2-042723
Date Collected: 04/27/23 08:55
Date Received: 04/28/23 09:10

Lab Sample ID: 180-155744-1
Matrix: Water

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	ND		0.16	0.049	ug/L		05/03/23 14:11	05/05/23 19:00	1
2-Chlorophenol	ND		0.83	0.11	ug/L		05/03/23 14:11	05/05/23 19:00	1
2-Methylnaphthalene	**0.099**	**J**	0.16	0.052	ug/L		05/03/23 14:11	05/05/23 19:00	1
2-Methylphenol	ND		0.83	0.25	ug/L		05/03/23 14:11	05/05/23 19:00	1
2-Nitroaniline	ND		4.2	0.46	ug/L		05/03/23 14:11	05/05/23 19:00	1
2-Nitrophenol	ND		0.83	0.16	ug/L		05/03/23 14:11	05/05/23 19:00	1
3,3'-Dichlorobenzidine	ND		0.83	0.49	ug/L		05/03/23 14:11	05/05/23 19:00	1
3-Nitroaniline	ND		4.2	0.36	ug/L		05/03/23 14:11	05/05/23 19:00	1
4,6-Dinitro-2-methylphenol	ND		4.2	1.2	ug/L		05/03/23 14:11	05/05/23 19:00	1
4-Bromophenyl phenyl ether	ND		0.83	0.27	ug/L		05/03/23 14:11	05/05/23 19:00	1
4-Chloro-3-methylphenol	ND		0.83	0.23	ug/L		05/03/23 14:11	05/05/23 19:00	1
4-Chloroaniline	ND		0.83	0.31	ug/L		05/03/23 14:11	05/05/23 19:00	1
4-Chlorophenyl phenyl ether	ND		0.83	0.18	ug/L		05/03/23 14:11	05/05/23 19:00	1
4-Nitroaniline	ND		4.2	0.30	ug/L		05/03/23 14:11	05/05/23 19:00	1
4-Nitrophenol	ND		4.2	0.78	ug/L		05/03/23 14:11	05/05/23 19:00	1
Acenaphthene	**0.24**		0.16	0.054	ug/L		05/03/23 14:11	05/05/23 19:00	1
Acenaphthylene	ND		0.16	0.054	ug/L		05/03/23 14:11	05/05/23 19:00	1
Anthracene	**1.1**		0.16	0.041	ug/L		05/03/23 14:11	05/05/23 19:00	1
Benzo[a]anthracene	**0.17**		0.16	0.063	ug/L		05/03/23 14:11	05/05/23 19:00	1
Benzo[a]pyrene	**0.076**	**J**	0.16	0.044	ug/L		05/03/23 14:11	05/05/23 19:00	1
Benzo[b]fluoranthene	**0.17**		0.16	0.081	ug/L		05/03/23 14:11	05/05/23 19:00	1
Benzo[g,h,i]perylene	ND		0.16	0.058	ug/L		05/03/23 14:11	05/05/23 19:00	1
Benzo[k]fluoranthene	**0.081**	**J**	0.16	0.073	ug/L		05/03/23 14:11	05/05/23 19:00	1
Benzoic acid	**4.2**		4.2	0.77	ug/L		05/03/23 14:11	05/05/23 19:00	1
Benzyl alcohol	ND		0.83	0.14	ug/L		05/03/23 14:11	05/05/23 19:00	1
Bis(2-chloroethoxy)methane	ND		0.83	0.13	ug/L		05/03/23 14:11	05/05/23 19:00	1
Bis(2-chloroethyl)ether	ND		0.16	0.033	ug/L		05/03/23 14:11	05/05/23 19:00	1
Bis(2-ethylhexyl) phthalate	ND		8.3	5.2	ug/L		05/03/23 14:11	05/05/23 19:00	1
bis(chloroisopropyl) ether	ND		0.16	0.048	ug/L		05/03/23 14:11	05/05/23 19:00	1
Butyl benzyl phthalate	**0.84**		0.83	0.39	ug/L		05/03/23 14:11	05/05/23 19:00	1
Chrysene	**0.24**		0.16	0.068	ug/L		05/03/23 14:11	05/05/23 19:00	1
Dibenz(a,h)anthracene	ND		0.16	0.060	ug/L		05/03/23 14:11	05/05/23 19:00	1
Dibenzofuran	**0.20**	**J**	0.83	0.16	ug/L		05/03/23 14:11	05/05/23 19:00	1
Diethyl phthalate	ND		0.83	0.47	ug/L		05/03/23 14:11	05/05/23 19:00	1
Dimethyl phthalate	ND		0.83	0.17	ug/L		05/03/23 14:11	05/05/23 19:00	1
Di-n-butyl phthalate	ND		0.83	0.62	ug/L		05/03/23 14:11	05/05/23 19:00	1
Di-n-octyl phthalate	ND	*+	0.83	0.57	ug/L		05/03/23 14:11	05/05/23 19:00	1
Fluoranthene	**0.71**		0.16	0.050	ug/L		05/03/23 14:11	05/05/23 19:00	1
Fluorene	**0.23**		0.16	0.058	ug/L		05/03/23 14:11	05/05/23 19:00	1
Hexachlorobenzene	ND		0.16	0.047	ug/L		05/03/23 14:11	05/05/23 19:00	1
Hexachlorobutadiene	ND		0.16	0.058	ug/L		05/03/23 14:11	05/05/23 19:00	1
Hexachlorocyclopentadiene	ND		0.83	0.41	ug/L		05/03/23 14:11	05/05/23 19:00	1
Hexachloroethane	ND		0.83	0.11	ug/L		05/03/23 14:11	05/05/23 19:00	1
Indeno[1,2,3-cd]pyrene	ND		0.16	0.071	ug/L		05/03/23 14:11	05/05/23 19:00	1
Isophorone	ND		0.83	0.16	ug/L		05/03/23 14:11	05/05/23 19:00	1
Methylphenol, 3 & 4	ND		0.83	0.31	ug/L		05/03/23 14:11	05/05/23 19:00	1
Nitrobenzene	ND		1.7	0.42	ug/L		05/03/23 14:11	05/05/23 19:00	1
N-Nitrosodi-n-propylamine	ND		0.16	0.059	ug/L		05/03/23 14:11	05/05/23 19:00	1
N-Nitrosodiphenylamine	ND		0.83	0.099	ug/L		05/03/23 14:11	05/05/23 19:00	1

Client Sample ID: SUPE-W-04AR2-042723
Lab Sample ID: 180-155744-1
Date Collected: 04/27/23 08:55
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	**0.73**		0.16	0.046	ug/L		05/03/23 14:11	05/05/23 19:00	1
Phenol	ND		0.83	0.41	ug/L		05/03/23 14:11	05/05/23 19:00	1
Pyrene	**0.55**		0.16	0.045	ug/L		05/03/23 14:11	05/05/23 19:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*69*		*23 - 128*	*05/03/23 14:11*	*05/05/23 19:00*	*1*
2-Fluorobiphenyl	*63*		*20 - 105*	*05/03/23 14:11*	*05/05/23 19:00*	*1*
2-Fluorophenol (Surr)	*72*		*20 - 105*	*05/03/23 14:11*	*05/05/23 19:00*	*1*
Nitrobenzene-d5 (Surr)	*74*		*20 - 107*	*05/03/23 14:11*	*05/05/23 19:00*	*1*
Phenol-d5 (Surr)	*67*		*20 - 106*	*05/03/23 14:11*	*05/05/23 19:00*	*1*
Terphenyl-d14 (Surr)	*68*		*22 - 120*	*05/03/23 14:11*	*05/05/23 19:00*	*1*

Client Sample ID: SUPE-W-99B-042723
Lab Sample ID: 180-155744-2
Date Collected: 04/27/23 10:30
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/01/23 17:00	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/01/23 17:00	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/01/23 17:00	1
Benzene	ND		1.0	0.41	ug/L			05/01/23 17:00	1
Chloromethane	ND		1.0	0.35	ug/L			05/01/23 17:00	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/01/23 17:00	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/01/23 17:00	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/01/23 17:00	1
Naphthalene	**0.94**	**J**	1.0	0.43	ug/L			05/01/23 17:00	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/01/23 17:00	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/01/23 17:00	1
o-Xylene	ND		1.0	0.76	ug/L			05/01/23 17:00	1
Styrene	ND		1.0	0.73	ug/L			05/01/23 17:00	1
Toluene	ND		1.0	0.51	ug/L			05/01/23 17:00	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/01/23 17:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*05/01/23 17:00*	*1*
4-Bromofluorobenzene (Surr)	*93*		*73 - 120*		*05/01/23 17:00*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 123*		*05/01/23 17:00*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/01/23 17:00*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		1.0	0.35	ug/L		05/02/23 09:25	05/04/23 20:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*102*		*24 - 146*	*05/02/23 09:25*	*05/04/23 20:15*	*1*
2-Fluorobiphenyl	*104*		*37 - 120*	*05/02/23 09:25*	*05/04/23 20:15*	*1*
2-Fluorophenol (Surr)	*53*		*10 - 120*	*05/02/23 09:25*	*05/04/23 20:15*	*1*
Nitrobenzene-d5 (Surr)	*80*		*26 - 120*	*05/02/23 09:25*	*05/04/23 20:15*	*1*
Phenol-d5 (Surr)	*35*		*11 - 120*	*05/02/23 09:25*	*05/04/23 20:15*	*1*
p-Terphenyl-d14	*87*		*64 - 127*	*05/02/23 09:25*	*05/04/23 20:15*	*1*

Client: Field & Technical Services LLC
Project/Site: Superior, WI Semiannual Groundwater

Job ID: 180-155744-1

Client Sample ID: SUPE-W-99B-042723
Date Collected: 04/27/23 10:30
Date Received: 04/28/23 09:10

Lab Sample ID: 180-155744-2
Matrix: Water

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.86	0.11	ug/L		05/03/23 14:11	05/05/23 19:22	1
1,2-Dichlorobenzene	ND		0.86	0.082	ug/L		05/03/23 14:11	05/05/23 19:22	1
1,3-Dichlorobenzene	ND		0.86	0.085	ug/L		05/03/23 14:11	05/05/23 19:22	1
1,4-Dichlorobenzene	ND		0.86	0.053	ug/L		05/03/23 14:11	05/05/23 19:22	1
1-Methylnaphthalene	**0.072**	**J**	0.16	0.048	ug/L		05/03/23 14:11	05/05/23 19:22	1
2,3,4,6-Tetrachlorophenol	ND		0.86	0.28	ug/L		05/03/23 14:11	05/05/23 19:22	1
2,3,5,6-Tetrachlorophenol	ND		0.86	0.44	ug/L		05/03/23 14:11	05/05/23 19:22	1
2,4,5-Trichlorophenol	ND		0.86	0.22	ug/L		05/03/23 14:11	05/05/23 19:22	1
2,4,6-Trichlorophenol	ND		0.86	0.19	ug/L		05/03/23 14:11	05/05/23 19:22	1
2,4-Dichlorophenol	ND		0.16	0.044	ug/L		05/03/23 14:11	05/05/23 19:22	1
2,4-Dimethylphenol	ND		0.86	0.14	ug/L		05/03/23 14:11	05/05/23 19:22	1
2,4-Dinitrophenol	ND		8.6	1.3	ug/L		05/03/23 14:11	05/05/23 19:22	1
2,4-Dinitrotoluene	ND		0.86	0.30	ug/L		05/03/23 14:11	05/05/23 19:22	1
2,6-Dinitrotoluene	ND		0.86	0.15	ug/L		05/03/23 14:11	05/05/23 19:22	1
2-Chloronaphthalene	ND		0.16	0.051	ug/L		05/03/23 14:11	05/05/23 19:22	1
2-Chlorophenol	ND		0.86	0.11	ug/L		05/03/23 14:11	05/05/23 19:22	1
2-Methylnaphthalene	**0.12**	**J**	0.16	0.053	ug/L		05/03/23 14:11	05/05/23 19:22	1
2-Methylphenol	ND		0.86	0.26	ug/L		05/03/23 14:11	05/05/23 19:22	1
2-Nitroaniline	ND		4.3	0.47	ug/L		05/03/23 14:11	05/05/23 19:22	1
2-Nitrophenol	ND		0.86	0.17	ug/L		05/03/23 14:11	05/05/23 19:22	1
3,3'-Dichlorobenzidine	ND		0.86	0.50	ug/L		05/03/23 14:11	05/05/23 19:22	1
3-Nitroaniline	ND		4.3	0.38	ug/L		05/03/23 14:11	05/05/23 19:22	1
4,6-Dinitro-2-methylphenol	ND		4.3	1.3	ug/L		05/03/23 14:11	05/05/23 19:22	1
4-Bromophenyl phenyl ether	ND		0.86	0.28	ug/L		05/03/23 14:11	05/05/23 19:22	1
4-Chloro-3-methylphenol	ND		0.86	0.24	ug/L		05/03/23 14:11	05/05/23 19:22	1
4-Chloroaniline	ND		0.86	0.32	ug/L		05/03/23 14:11	05/05/23 19:22	1
4-Chlorophenyl phenyl ether	ND		0.86	0.19	ug/L		05/03/23 14:11	05/05/23 19:22	1
4-Nitroaniline	ND		4.3	0.31	ug/L		05/03/23 14:11	05/05/23 19:22	1
4-Nitrophenol	ND		4.3	0.81	ug/L		05/03/23 14:11	05/05/23 19:22	1
Acenaphthene	**0.26**		0.16	0.056	ug/L		05/03/23 14:11	05/05/23 19:22	1
Acenaphthylene	ND		0.16	0.056	ug/L		05/03/23 14:11	05/05/23 19:22	1
Anthracene	**1.0**		0.16	0.042	ug/L		05/03/23 14:11	05/05/23 19:22	1
Benzo[a]anthracene	**0.13**	**J**	0.16	0.065	ug/L		05/03/23 14:11	05/05/23 19:22	1
Benzo[a]pyrene	ND		0.16	0.046	ug/L		05/03/23 14:11	05/05/23 19:22	1
Benzo[b]fluoranthene	**0.089**	**J**	0.16	0.084	ug/L		05/03/23 14:11	05/05/23 19:22	1
Benzo[g,h,i]perylene	ND		0.16	0.059	ug/L		05/03/23 14:11	05/05/23 19:22	1
Benzo[k]fluoranthene	ND		0.16	0.076	ug/L		05/03/23 14:11	05/05/23 19:22	1
Benzoic acid	**5.1**		4.3	0.80	ug/L		05/03/23 14:11	05/05/23 19:22	1
Benzyl alcohol	ND		0.86	0.14	ug/L		05/03/23 14:11	05/05/23 19:22	1
Bis(2-chloroethoxy)methane	ND		0.86	0.13	ug/L		05/03/23 14:11	05/05/23 19:22	1
Bis(2-chloroethyl)ether	ND		0.16	0.034	ug/L		05/03/23 14:11	05/05/23 19:22	1
Bis(2-ethylhexyl) phthalate	ND		8.6	5.4	ug/L		05/03/23 14:11	05/05/23 19:22	1
bis(chloroisopropyl) ether	ND		0.16	0.050	ug/L		05/03/23 14:11	05/05/23 19:22	1
Butyl benzyl phthalate	ND		0.86	0.40	ug/L		05/03/23 14:11	05/05/23 19:22	1
Chrysene	**0.13**	**J**	0.16	0.070	ug/L		05/03/23 14:11	05/05/23 19:22	1
Dibenz(a,h)anthracene	ND		0.16	0.062	ug/L		05/03/23 14:11	05/05/23 19:22	1
Dibenzofuran	**0.21**	**J**	0.86	0.16	ug/L		05/03/23 14:11	05/05/23 19:22	1
Diethyl phthalate	ND		0.86	0.49	ug/L		05/03/23 14:11	05/05/23 19:22	1
Dimethyl phthalate	ND		0.86	0.17	ug/L		05/03/23 14:11	05/05/23 19:22	1

Client Sample ID: SUPE-W-99B-042723
Lab Sample ID: 180-155744-2

Date Collected: 04/27/23 10:30
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	ND		0.86	0.64	ug/L		05/03/23 14:11	05/05/23 19:22	1
Di-n-octyl phthalate	ND	*+	0.86	0.59	ug/L		05/03/23 14:11	05/05/23 19:22	1
Fluoranthene	**0.50**		0.16	0.052	ug/L		05/03/23 14:11	05/05/23 19:22	1
Fluorene	**0.24**		0.16	0.059	ug/L		05/03/23 14:11	05/05/23 19:22	1
Hexachlorobenzene	ND		0.16	0.048	ug/L		05/03/23 14:11	05/05/23 19:22	1
Hexachlorobutadiene	ND		0.16	0.059	ug/L		05/03/23 14:11	05/05/23 19:22	1
Hexachlorocyclopentadiene	ND		0.86	0.43	ug/L		05/03/23 14:11	05/05/23 19:22	1
Hexachloroethane	ND		0.86	0.11	ug/L		05/03/23 14:11	05/05/23 19:22	1
Indeno[1,2,3-cd]pyrene	ND		0.16	0.073	ug/L		05/03/23 14:11	05/05/23 19:22	1
Isophorone	ND		0.86	0.16	ug/L		05/03/23 14:11	05/05/23 19:22	1
Methylphenol, 3 & 4	ND		0.86	0.32	ug/L		05/03/23 14:11	05/05/23 19:22	1
Nitrobenzene	ND		1.7	0.43	ug/L		05/03/23 14:11	05/05/23 19:22	1
N-Nitrosodi-n-propylamine	ND		0.16	0.061	ug/L		05/03/23 14:11	05/05/23 19:22	1
N-Nitrosodiphenylamine	ND		0.86	0.10	ug/L		05/03/23 14:11	05/05/23 19:22	1
Phenanthrene	**0.76**		0.16	0.047	ug/L		05/03/23 14:11	05/05/23 19:22	1
Phenol	ND		0.86	0.42	ug/L		05/03/23 14:11	05/05/23 19:22	1
Pyrene	**0.44**		0.16	0.047	ug/L		05/03/23 14:11	05/05/23 19:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*78*		*23 - 128*	*05/03/23 14:11*	*05/05/23 19:22*	*1*
2-Fluorobiphenyl	*71*		*20 - 105*	*05/03/23 14:11*	*05/05/23 19:22*	*1*
2-Fluorophenol (Surr)	*77*		*20 - 105*	*05/03/23 14:11*	*05/05/23 19:22*	*1*
Nitrobenzene-d5 (Surr)	*82*		*20 - 107*	*05/03/23 14:11*	*05/05/23 19:22*	*1*
Phenol-d5 (Surr)	*71*		*20 - 106*	*05/03/23 14:11*	*05/05/23 19:22*	*1*
Terphenyl-d14 (Surr)	*105*		*22 - 120*	*05/03/23 14:11*	*05/05/23 19:22*	*1*

Client Sample ID: SUPE-W-12A-042723
Lab Sample ID: 180-155744-3

Date Collected: 04/27/23 08:44
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/01/23 17:22	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/01/23 17:22	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/01/23 17:22	1
Benzene	ND		1.0	0.41	ug/L			05/01/23 17:22	1
Chloromethane	ND		1.0	0.35	ug/L			05/01/23 17:22	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/01/23 17:22	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/01/23 17:22	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/01/23 17:22	1
Naphthalene	ND		1.0	0.43	ug/L			05/01/23 17:22	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/01/23 17:22	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/01/23 17:22	1
o-Xylene	ND		1.0	0.76	ug/L			05/01/23 17:22	1
Styrene	ND		1.0	0.73	ug/L			05/01/23 17:22	1
Toluene	ND		1.0	0.51	ug/L			05/01/23 17:22	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/01/23 17:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*77 - 120*		*05/01/23 17:22*	*1*

Client Sample ID: SUPE-W-12A-042723
Lab Sample ID: 180-155744-3
Date Collected: 04/27/23 08:44
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*05/01/23 17:22*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*05/01/23 17:22*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*05/01/23 17:22*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		1.0	0.35	ug/L		05/02/23 09:25	05/04/23 20:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*83*		*24 - 146*	*05/02/23 09:25*	*05/04/23 20:43*	*1*
2-Fluorobiphenyl	*77*		*37 - 120*	*05/02/23 09:25*	*05/04/23 20:43*	*1*
2-Fluorophenol (Surr)	*39*		*10 - 120*	*05/02/23 09:25*	*05/04/23 20:43*	*1*
Nitrobenzene-d5 (Surr)	*57*		*26 - 120*	*05/02/23 09:25*	*05/04/23 20:43*	*1*
Phenol-d5 (Surr)	*28*		*11 - 120*	*05/02/23 09:25*	*05/04/23 20:43*	*1*
p-Terphenyl-d14	*85*		*64 - 127*	*05/02/23 09:25*	*05/04/23 20:43*	*1*

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.86	0.11	ug/L		05/03/23 14:11	05/06/23 19:42	1
1,2-Dichlorobenzene	ND		0.86	0.082	ug/L		05/03/23 14:11	05/06/23 19:42	1
1,3-Dichlorobenzene	ND		0.86	0.085	ug/L		05/03/23 14:11	05/06/23 19:42	1
1,4-Dichlorobenzene	ND		0.86	0.053	ug/L		05/03/23 14:11	05/06/23 19:42	1
1-Methylnaphthalene	ND		0.16	0.048	ug/L		05/03/23 14:11	05/06/23 19:42	1
2,3,4,6-Tetrachlorophenol	ND		0.86	0.28	ug/L		05/03/23 14:11	05/06/23 19:42	1
2,3,5,6-Tetrachlorophenol	ND		0.86	0.44	ug/L		05/03/23 14:11	05/06/23 19:42	1
2,4,5-Trichlorophenol	ND		0.86	0.22	ug/L		05/03/23 14:11	05/06/23 19:42	1
2,4,6-Trichlorophenol	ND		0.86	0.19	ug/L		05/03/23 14:11	05/06/23 19:42	1
2,4-Dichlorophenol	ND		0.16	0.044	ug/L		05/03/23 14:11	05/06/23 19:42	1
2,4-Dimethylphenol	ND		0.86	0.14	ug/L		05/03/23 14:11	05/06/23 19:42	1
2,4-Dinitrophenol	ND		8.6	1.3	ug/L		05/03/23 14:11	05/06/23 19:42	1
2,4-Dinitrotoluene	ND		0.86	0.30	ug/L		05/03/23 14:11	05/06/23 19:42	1
2,6-Dinitrotoluene	ND		0.86	0.15	ug/L		05/03/23 14:11	05/06/23 19:42	1
2-Chloronaphthalene	ND		0.16	0.051	ug/L		05/03/23 14:11	05/06/23 19:42	1
2-Chlorophenol	ND		0.86	0.11	ug/L		05/03/23 14:11	05/06/23 19:42	1
2-Methylnaphthalene	ND		0.16	0.053	ug/L		05/03/23 14:11	05/06/23 19:42	1
2-Methylphenol	ND		0.86	0.26	ug/L		05/03/23 14:11	05/06/23 19:42	1
2-Nitroaniline	ND		4.3	0.47	ug/L		05/03/23 14:11	05/06/23 19:42	1
2-Nitrophenol	ND		0.86	0.17	ug/L		05/03/23 14:11	05/06/23 19:42	1
3,3'-Dichlorobenzidine	ND		0.86	0.50	ug/L		05/03/23 14:11	05/06/23 19:42	1
3-Nitroaniline	ND		4.3	0.38	ug/L		05/03/23 14:11	05/06/23 19:42	1
4,6-Dinitro-2-methylphenol	ND		4.3	1.3	ug/L		05/03/23 14:11	05/06/23 19:42	1
4-Bromophenyl phenyl ether	ND		0.86	0.28	ug/L		05/03/23 14:11	05/06/23 19:42	1
4-Chloro-3-methylphenol	ND		0.86	0.24	ug/L		05/03/23 14:11	05/06/23 19:42	1
4-Chloroaniline	ND		0.86	0.32	ug/L		05/03/23 14:11	05/06/23 19:42	1
4-Chlorophenyl phenyl ether	ND		0.86	0.19	ug/L		05/03/23 14:11	05/06/23 19:42	1
4-Nitroaniline	ND		4.3	0.31	ug/L		05/03/23 14:11	05/06/23 19:42	1
4-Nitrophenol	ND		4.3	0.81	ug/L		05/03/23 14:11	05/06/23 19:42	1
Acenaphthene	**0.059**	**J**	0.16	0.056	ug/L		05/03/23 14:11	05/06/23 19:42	1
Acenaphthylene	ND		0.16	0.056	ug/L		05/03/23 14:11	05/06/23 19:42	1
Anthracene	**0.064**	**J**	0.16	0.042	ug/L		05/03/23 14:11	05/06/23 19:42	1

Client Sample ID: SUPE-W-12A-042723
Lab Sample ID: 180-155744-3

Date Collected: 04/27/23 08:44
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.16	0.065	ug/L		05/03/23 14:11	05/06/23 19:42	1
Benzo[a]pyrene	ND		0.16	0.046	ug/L		05/03/23 14:11	05/06/23 19:42	1
Benzo[b]fluoranthene	ND		0.16	0.084	ug/L		05/03/23 14:11	05/06/23 19:42	1
Benzo[g,h,i]perylene	ND		0.16	0.059	ug/L		05/03/23 14:11	05/06/23 19:42	1
Benzo[k]fluoranthene	ND		0.16	0.076	ug/L		05/03/23 14:11	05/06/23 19:42	1
Benzoic acid	**1.8**	**J**	4.3	0.80	ug/L		05/03/23 14:11	05/06/23 19:42	1
Benzyl alcohol	ND		0.86	0.14	ug/L		05/03/23 14:11	05/06/23 19:42	1
Bis(2-chloroethoxy)methane	ND		0.86	0.13	ug/L		05/03/23 14:11	05/06/23 19:42	1
Bis(2-chloroethyl)ether	ND		0.16	0.034	ug/L		05/03/23 14:11	05/06/23 19:42	1
Bis(2-ethylhexyl) phthalate	ND		8.6	5.4	ug/L		05/03/23 14:11	05/06/23 19:42	1
bis(chloroisopropyl) ether	ND		0.16	0.050	ug/L		05/03/23 14:11	05/06/23 19:42	1
Butyl benzyl phthalate	**0.66**	**J**	0.86	0.40	ug/L		05/03/23 14:11	05/06/23 19:42	1
Chrysene	ND		0.16	0.070	ug/L		05/03/23 14:11	05/06/23 19:42	1
Dibenz(a,h)anthracene	ND		0.16	0.062	ug/L		05/03/23 14:11	05/06/23 19:42	1
Dibenzofuran	ND		0.86	0.16	ug/L		05/03/23 14:11	05/06/23 19:42	1
Diethyl phthalate	ND		0.86	0.49	ug/L		05/03/23 14:11	05/06/23 19:42	1
Dimethyl phthalate	ND		0.86	0.17	ug/L		05/03/23 14:11	05/06/23 19:42	1
Di-n-butyl phthalate	**0.71**	**J**	0.86	0.64	ug/L		05/03/23 14:11	05/06/23 19:42	1
Di-n-octyl phthalate	ND	*+	0.86	0.59	ug/L		05/03/23 14:11	05/06/23 19:42	1
Fluoranthene	**0.087**	**J**	0.16	0.052	ug/L		05/03/23 14:11	05/06/23 19:42	1
Fluorene	ND		0.16	0.059	ug/L		05/03/23 14:11	05/06/23 19:42	1
Hexachlorobenzene	ND		0.16	0.048	ug/L		05/03/23 14:11	05/06/23 19:42	1
Hexachlorobutadiene	ND		0.16	0.059	ug/L		05/03/23 14:11	05/06/23 19:42	1
Hexachlorocyclopentadiene	ND		0.86	0.43	ug/L		05/03/23 14:11	05/06/23 19:42	1
Hexachloroethane	ND		0.86	0.11	ug/L		05/03/23 14:11	05/06/23 19:42	1
Indeno[1,2,3-cd]pyrene	ND		0.16	0.073	ug/L		05/03/23 14:11	05/06/23 19:42	1
Isophorone	ND		0.86	0.16	ug/L		05/03/23 14:11	05/06/23 19:42	1
Methylphenol, 3 & 4	ND		0.86	0.32	ug/L		05/03/23 14:11	05/06/23 19:42	1
Nitrobenzene	ND		1.7	0.43	ug/L		05/03/23 14:11	05/06/23 19:42	1
N-Nitrosodi-n-propylamine	ND		0.16	0.061	ug/L		05/03/23 14:11	05/06/23 19:42	1
N-Nitrosodiphenylamine	ND		0.86	0.10	ug/L		05/03/23 14:11	05/06/23 19:42	1
Phenanthrene	**0.13**	**J**	0.16	0.047	ug/L		05/03/23 14:11	05/06/23 19:42	1
Phenol	ND		0.86	0.42	ug/L		05/03/23 14:11	05/06/23 19:42	1
Pyrene	**0.054**	**J**	0.16	0.047	ug/L		05/03/23 14:11	05/06/23 19:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*96*		*23 - 128*	*05/03/23 14:11*	*05/06/23 19:42*	*1*
2-Fluorobiphenyl	*86*		*20 - 105*	*05/03/23 14:11*	*05/06/23 19:42*	*1*
2-Fluorophenol (Surr)	*94*		*20 - 105*	*05/03/23 14:11*	*05/06/23 19:42*	*1*
Nitrobenzene-d5 (Surr)	*98*		*20 - 107*	*05/03/23 14:11*	*05/06/23 19:42*	*1*
Phenol-d5 (Surr)	*92*		*20 - 106*	*05/03/23 14:11*	*05/06/23 19:42*	*1*
Terphenyl-d14 (Surr)	*101*		*22 - 120*	*05/03/23 14:11*	*05/06/23 19:42*	*1*

Client Sample ID: SUPE-EB-02-042723
Lab Sample ID: 180-155744-4

Date Collected: 04/27/23 11:00
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/01/23 17:45	1

Client: Field & Technical Services LLC
Job ID: 180-155744-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-EB-02-042723
Lab Sample ID: 180-155744-4
Date Collected: 04/27/23 11:00
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/01/23 17:45	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/01/23 17:45	1
Benzene	ND		1.0	0.41	ug/L			05/01/23 17:45	1
Chloromethane	ND		1.0	0.35	ug/L			05/01/23 17:45	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/01/23 17:45	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/01/23 17:45	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/01/23 17:45	1
Naphthalene	ND		1.0	0.43	ug/L			05/01/23 17:45	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/01/23 17:45	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/01/23 17:45	1
o-Xylene	ND		1.0	0.76	ug/L			05/01/23 17:45	1
Styrene	ND		1.0	0.73	ug/L			05/01/23 17:45	1
Toluene	ND		1.0	0.51	ug/L			05/01/23 17:45	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/01/23 17:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*05/01/23 17:45*	*1*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*05/01/23 17:45*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*05/01/23 17:45*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/01/23 17:45*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		0.95	0.32	ug/L		05/02/23 09:25	05/04/23 21:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*64*		*24 - 146*	*05/02/23 09:25*	*05/04/23 21:10*	*1*
2-Fluorobiphenyl	*68*		*37 - 120*	*05/02/23 09:25*	*05/04/23 21:10*	*1*
2-Fluorophenol (Surr)	*33*		*10 - 120*	*05/02/23 09:25*	*05/04/23 21:10*	*1*
Nitrobenzene-d5 (Surr)	*51*		*26 - 120*	*05/02/23 09:25*	*05/04/23 21:10*	*1*
Phenol-d5 (Surr)	*23*		*11 - 120*	*05/02/23 09:25*	*05/04/23 21:10*	*1*
p-Terphenyl-d14	*103*		*64 - 127*	*05/02/23 09:25*	*05/04/23 21:10*	*1*

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.83	0.11	ug/L		05/03/23 14:11	05/06/23 20:04	1
1,2-Dichlorobenzene	ND		0.83	0.079	ug/L		05/03/23 14:11	05/06/23 20:04	1
1,3-Dichlorobenzene	ND		0.83	0.083	ug/L		05/03/23 14:11	05/06/23 20:04	1
1,4-Dichlorobenzene	ND		0.83	0.051	ug/L		05/03/23 14:11	05/06/23 20:04	1
1-Methylnaphthalene	ND		0.16	0.047	ug/L		05/03/23 14:11	05/06/23 20:04	1
2,3,4,6-Tetrachlorophenol	ND		0.83	0.27	ug/L		05/03/23 14:11	05/06/23 20:04	1
2,3,5,6-Tetrachlorophenol	ND		0.83	0.42	ug/L		05/03/23 14:11	05/06/23 20:04	1
2,4,5-Trichlorophenol	ND		0.83	0.21	ug/L		05/03/23 14:11	05/06/23 20:04	1
2,4,6-Trichlorophenol	ND		0.83	0.19	ug/L		05/03/23 14:11	05/06/23 20:04	1
2,4-Dichlorophenol	ND		0.16	0.043	ug/L		05/03/23 14:11	05/06/23 20:04	1
2,4-Dimethylphenol	ND		0.83	0.14	ug/L		05/03/23 14:11	05/06/23 20:04	1
2,4-Dinitrophenol	ND		8.3	1.3	ug/L		05/03/23 14:11	05/06/23 20:04	1
2,4-Dinitrotoluene	ND		0.83	0.29	ug/L		05/03/23 14:11	05/06/23 20:04	1
2,6-Dinitrotoluene	ND		0.83	0.14	ug/L		05/03/23 14:11	05/06/23 20:04	1
2-Chloronaphthalene	ND		0.16	0.049	ug/L		05/03/23 14:11	05/06/23 20:04	1

Client: Field & Technical Services LLC
Job ID: 180-155744-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-EB-02-042723
Lab Sample ID: 180-155744-4
Date Collected: 04/27/23 11:00
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorophenol	ND		0.83	0.11	ug/L		05/03/23 14:11	05/06/23 20:04	1
2-Methylnaphthalene	ND		0.16	0.052	ug/L		05/03/23 14:11	05/06/23 20:04	1
2-Methylphenol	ND		0.83	0.25	ug/L		05/03/23 14:11	05/06/23 20:04	1
2-Nitroaniline	ND		4.2	0.46	ug/L		05/03/23 14:11	05/06/23 20:04	1
2-Nitrophenol	ND		0.83	0.16	ug/L		05/03/23 14:11	05/06/23 20:04	1
3,3'-Dichlorobenzidine	ND		0.83	0.49	ug/L		05/03/23 14:11	05/06/23 20:04	1
3-Nitroaniline	ND		4.2	0.36	ug/L		05/03/23 14:11	05/06/23 20:04	1
4,6-Dinitro-2-methylphenol	ND		4.2	1.2	ug/L		05/03/23 14:11	05/06/23 20:04	1
4-Bromophenyl phenyl ether	ND		0.83	0.27	ug/L		05/03/23 14:11	05/06/23 20:04	1
4-Chloro-3-methylphenol	ND		0.83	0.23	ug/L		05/03/23 14:11	05/06/23 20:04	1
4-Chloroaniline	ND		0.83	0.31	ug/L		05/03/23 14:11	05/06/23 20:04	1
4-Chlorophenyl phenyl ether	ND		0.83	0.18	ug/L		05/03/23 14:11	05/06/23 20:04	1
4-Nitroaniline	ND		4.2	0.30	ug/L		05/03/23 14:11	05/06/23 20:04	1
4-Nitrophenol	ND		4.2	0.78	ug/L		05/03/23 14:11	05/06/23 20:04	1
Acenaphthene	ND		0.16	0.054	ug/L		05/03/23 14:11	05/06/23 20:04	1
Acenaphthylene	ND		0.16	0.054	ug/L		05/03/23 14:11	05/06/23 20:04	1
Anthracene	ND		0.16	0.041	ug/L		05/03/23 14:11	05/06/23 20:04	1
Benzo[a]anthracene	ND		0.16	0.063	ug/L		05/03/23 14:11	05/06/23 20:04	1
Benzo[a]pyrene	ND		0.16	0.044	ug/L		05/03/23 14:11	05/06/23 20:04	1
Benzo[b]fluoranthene	ND		0.16	0.081	ug/L		05/03/23 14:11	05/06/23 20:04	1
Benzo[g,h,i]perylene	ND		0.16	0.058	ug/L		05/03/23 14:11	05/06/23 20:04	1
Benzo[k]fluoranthene	ND		0.16	0.073	ug/L		05/03/23 14:11	05/06/23 20:04	1
Benzoic acid	**10**		4.2	0.77	ug/L		05/03/23 14:11	05/06/23 20:04	1
Benzyl alcohol	**0.56**	**J**	0.83	0.14	ug/L		05/03/23 14:11	05/06/23 20:04	1
Bis(2-chloroethoxy)methane	ND		0.83	0.13	ug/L		05/03/23 14:11	05/06/23 20:04	1
Bis(2-chloroethyl)ether	ND		0.16	0.033	ug/L		05/03/23 14:11	05/06/23 20:04	1
Bis(2-ethylhexyl) phthalate	ND		8.3	5.2	ug/L		05/03/23 14:11	05/06/23 20:04	1
bis(chloroisopropyl) ether	ND		0.16	0.048	ug/L		05/03/23 14:11	05/06/23 20:04	1
Butyl benzyl phthalate	**0.79**	**J**	0.83	0.39	ug/L		05/03/23 14:11	05/06/23 20:04	1
Chrysene	ND		0.16	0.068	ug/L		05/03/23 14:11	05/06/23 20:04	1
Dibenz(a,h)anthracene	ND		0.16	0.060	ug/L		05/03/23 14:11	05/06/23 20:04	1
Dibenzofuran	ND		0.83	0.16	ug/L		05/03/23 14:11	05/06/23 20:04	1
Diethyl phthalate	ND		0.83	0.47	ug/L		05/03/23 14:11	05/06/23 20:04	1
Dimethyl phthalate	ND		0.83	0.17	ug/L		05/03/23 14:11	05/06/23 20:04	1
Di-n-butyl phthalate	**0.78**	**J**	0.83	0.62	ug/L		05/03/23 14:11	05/06/23 20:04	1
Di-n-octyl phthalate	ND	*+	0.83	0.57	ug/L		05/03/23 14:11	05/06/23 20:04	1
Fluoranthene	ND		0.16	0.050	ug/L		05/03/23 14:11	05/06/23 20:04	1
Fluorene	ND		0.16	0.058	ug/L		05/03/23 14:11	05/06/23 20:04	1
Hexachlorobenzene	ND		0.16	0.047	ug/L		05/03/23 14:11	05/06/23 20:04	1
Hexachlorobutadiene	ND		0.16	0.058	ug/L		05/03/23 14:11	05/06/23 20:04	1
Hexachlorocyclopentadiene	ND		0.83	0.41	ug/L		05/03/23 14:11	05/06/23 20:04	1
Hexachloroethane	ND		0.83	0.11	ug/L		05/03/23 14:11	05/06/23 20:04	1
Indeno[1,2,3-cd]pyrene	ND		0.16	0.071	ug/L		05/03/23 14:11	05/06/23 20:04	1
Isophorone	ND		0.83	0.16	ug/L		05/03/23 14:11	05/06/23 20:04	1
Methylphenol, 3 & 4	ND		0.83	0.31	ug/L		05/03/23 14:11	05/06/23 20:04	1
Nitrobenzene	ND		1.7	0.42	ug/L		05/03/23 14:11	05/06/23 20:04	1
N-Nitrosodi-n-propylamine	ND		0.16	0.059	ug/L		05/03/23 14:11	05/06/23 20:04	1
N-Nitrosodiphenylamine	ND		0.83	0.099	ug/L		05/03/23 14:11	05/06/23 20:04	1
Phenanthrene	**0.079**	**J**	0.16	0.046	ug/L		05/03/23 14:11	05/06/23 20:04	1

Client Sample ID: SUPE-EB-02-042723
Lab Sample ID: 180-155744-4
Date Collected: 04/27/23 11:00
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		0.83	0.41	ug/L		05/03/23 14:11	05/06/23 20:04	1
Pyrene	ND		0.16	0.045	ug/L		05/03/23 14:11	05/06/23 20:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*79*		*23 - 128*	*05/03/23 14:11*	*05/06/23 20:04*	*1*
2-Fluorobiphenyl	*66*		*20 - 105*	*05/03/23 14:11*	*05/06/23 20:04*	*1*
2-Fluorophenol (Surr)	*74*		*20 - 105*	*05/03/23 14:11*	*05/06/23 20:04*	*1*
Nitrobenzene-d5 (Surr)	*79*		*20 - 107*	*05/03/23 14:11*	*05/06/23 20:04*	*1*
Phenol-d5 (Surr)	*73*		*20 - 106*	*05/03/23 14:11*	*05/06/23 20:04*	*1*
Terphenyl-d14 (Surr)	*76*		*22 - 120*	*05/03/23 14:11*	*05/06/23 20:04*	*1*

Client Sample ID: SUPE-W-30A-042723
Lab Sample ID: 180-155744-5
Date Collected: 04/27/23 11:29
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	1.6	ug/L			05/01/23 18:07	2
1,2,4-Trimethylbenzene	ND		2.0	1.5	ug/L			05/01/23 18:07	2
1,3,5-Trimethylbenzene	ND		2.0	1.5	ug/L			05/01/23 18:07	2
Benzene	ND		2.0	0.82	ug/L			05/01/23 18:07	2
Chloromethane	ND		2.0	0.70	ug/L			05/01/23 18:07	2
Ethylbenzene	ND		2.0	1.5	ug/L			05/01/23 18:07	2
Methyl tert-butyl ether	ND		2.0	0.32	ug/L			05/01/23 18:07	2
m-Xylene & p-Xylene	ND		4.0	1.3	ug/L			05/01/23 18:07	2
Naphthalene	**2.0**		2.0	0.86	ug/L			05/01/23 18:07	2
n-Butylbenzene	ND		2.0	1.3	ug/L			05/01/23 18:07	2
N-Propylbenzene	ND		2.0	1.4	ug/L			05/01/23 18:07	2
o-Xylene	ND		2.0	1.5	ug/L			05/01/23 18:07	2
Styrene	ND		2.0	1.5	ug/L			05/01/23 18:07	2
Toluene	ND		2.0	1.0	ug/L			05/01/23 18:07	2
Xylenes, Total	ND		4.0	1.3	ug/L			05/01/23 18:07	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*77 - 120*		*05/01/23 18:07*	*2*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*05/01/23 18:07*	*2*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*05/01/23 18:07*	*2*
Toluene-d8 (Surr)	*98*		*80 - 120*		*05/01/23 18:07*	*2*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		11	3.6	ug/L		05/02/23 09:25	05/05/23 12:26	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*86*		*24 - 146*	*05/02/23 09:25*	*05/05/23 12:26*	*10*
2-Fluorobiphenyl	*80*		*37 - 120*	*05/02/23 09:25*	*05/05/23 12:26*	*10*
2-Fluorophenol (Surr)	*40*		*10 - 120*	*05/02/23 09:25*	*05/05/23 12:26*	*10*
Nitrobenzene-d5 (Surr)	*56*		*26 - 120*	*05/02/23 09:25*	*05/05/23 12:26*	*10*
Phenol-d5 (Surr)	*25*		*11 - 120*	*05/02/23 09:25*	*05/05/23 12:26*	*10*
p-Terphenyl-d14	*88*		*64 - 127*	*05/02/23 09:25*	*05/05/23 12:26*	*10*

Client: Field & Technical Services LLC
Job ID: 180-155744-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-30A-042723
Lab Sample ID: 180-155744-5
Date Collected: 04/27/23 11:29
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.83	0.11	ug/L		05/03/23 14:11	05/06/23 20:26	1
1,2-Dichlorobenzene	**0.11**	**J**	0.83	0.079	ug/L		05/03/23 14:11	05/06/23 20:26	1
1,3-Dichlorobenzene	ND		0.83	0.083	ug/L		05/03/23 14:11	05/06/23 20:26	1
1,4-Dichlorobenzene	ND		0.83	0.051	ug/L		05/03/23 14:11	05/06/23 20:26	1
1-Methylnaphthalene	ND		0.16	0.047	ug/L		05/03/23 14:11	05/06/23 20:26	1
2,3,4,6-Tetrachlorophenol	ND		0.83	0.27	ug/L		05/03/23 14:11	05/06/23 20:26	1
2,3,5,6-Tetrachlorophenol	ND		0.83	0.42	ug/L		05/03/23 14:11	05/06/23 20:26	1
2,4,5-Trichlorophenol	ND		0.83	0.21	ug/L		05/03/23 14:11	05/06/23 20:26	1
2,4,6-Trichlorophenol	ND		0.83	0.19	ug/L		05/03/23 14:11	05/06/23 20:26	1
2,4-Dichlorophenol	ND		0.16	0.043	ug/L		05/03/23 14:11	05/06/23 20:26	1
2,4-Dimethylphenol	ND		0.83	0.14	ug/L		05/03/23 14:11	05/06/23 20:26	1
2,4-Dinitrophenol	ND		8.3	1.3	ug/L		05/03/23 14:11	05/06/23 20:26	1
2,4-Dinitrotoluene	ND		0.83	0.29	ug/L		05/03/23 14:11	05/06/23 20:26	1
2,6-Dinitrotoluene	ND		0.83	0.14	ug/L		05/03/23 14:11	05/06/23 20:26	1
2-Chloronaphthalene	ND		0.16	0.049	ug/L		05/03/23 14:11	05/06/23 20:26	1
2-Chlorophenol	ND		0.83	0.11	ug/L		05/03/23 14:11	05/06/23 20:26	1
2-Methylnaphthalene	ND		0.16	0.052	ug/L		05/03/23 14:11	05/06/23 20:26	1
2-Methylphenol	ND		0.83	0.25	ug/L		05/03/23 14:11	05/06/23 20:26	1
2-Nitroaniline	ND		4.2	0.46	ug/L		05/03/23 14:11	05/06/23 20:26	1
2-Nitrophenol	ND		0.83	0.16	ug/L		05/03/23 14:11	05/06/23 20:26	1
3,3'-Dichlorobenzidine	ND		0.83	0.49	ug/L		05/03/23 14:11	05/06/23 20:26	1
3-Nitroaniline	ND		4.2	0.36	ug/L		05/03/23 14:11	05/06/23 20:26	1
4,6-Dinitro-2-methylphenol	ND		4.2	1.2	ug/L		05/03/23 14:11	05/06/23 20:26	1
4-Bromophenyl phenyl ether	ND		0.83	0.27	ug/L		05/03/23 14:11	05/06/23 20:26	1
4-Chloro-3-methylphenol	ND		0.83	0.23	ug/L		05/03/23 14:11	05/06/23 20:26	1
4-Chloroaniline	ND		0.83	0.31	ug/L		05/03/23 14:11	05/06/23 20:26	1
4-Chlorophenyl phenyl ether	ND		0.83	0.18	ug/L		05/03/23 14:11	05/06/23 20:26	1
4-Nitroaniline	ND		4.2	0.30	ug/L		05/03/23 14:11	05/06/23 20:26	1
4-Nitrophenol	ND		4.2	0.78	ug/L		05/03/23 14:11	05/06/23 20:26	1
Acenaphthene	**0.074**	**J**	0.16	0.054	ug/L		05/03/23 14:11	05/06/23 20:26	1
Acenaphthylene	ND		0.16	0.054	ug/L		05/03/23 14:11	05/06/23 20:26	1
Anthracene	**0.39**		0.16	0.041	ug/L		05/03/23 14:11	05/06/23 20:26	1
Benzo[a]anthracene	ND		0.16	0.063	ug/L		05/03/23 14:11	05/06/23 20:26	1
Benzo[a]pyrene	ND		0.16	0.044	ug/L		05/03/23 14:11	05/06/23 20:26	1
Benzo[b]fluoranthene	ND		0.16	0.081	ug/L		05/03/23 14:11	05/06/23 20:26	1
Benzo[g,h,i]perylene	ND		0.16	0.058	ug/L		05/03/23 14:11	05/06/23 20:26	1
Benzo[k]fluoranthene	ND		0.16	0.073	ug/L		05/03/23 14:11	05/06/23 20:26	1
Benzoic acid	**1.8**	**J**	4.2	0.77	ug/L		05/03/23 14:11	05/06/23 20:26	1
Benzyl alcohol	ND		0.83	0.14	ug/L		05/03/23 14:11	05/06/23 20:26	1
Bis(2-chloroethoxy)methane	ND		0.83	0.13	ug/L		05/03/23 14:11	05/06/23 20:26	1
Bis(2-chloroethyl)ether	ND		0.16	0.033	ug/L		05/03/23 14:11	05/06/23 20:26	1
Bis(2-ethylhexyl) phthalate	ND		8.3	5.2	ug/L		05/03/23 14:11	05/06/23 20:26	1
bis(chloroisopropyl) ether	ND		0.16	0.048	ug/L		05/03/23 14:11	05/06/23 20:26	1
Butyl benzyl phthalate	ND		0.83	0.39	ug/L		05/03/23 14:11	05/06/23 20:26	1
Chrysene	ND		0.16	0.068	ug/L		05/03/23 14:11	05/06/23 20:26	1
Dibenz(a,h)anthracene	ND		0.16	0.060	ug/L		05/03/23 14:11	05/06/23 20:26	1
Dibenzofuran	ND		0.83	0.16	ug/L		05/03/23 14:11	05/06/23 20:26	1
Diethyl phthalate	ND		0.83	0.47	ug/L		05/03/23 14:11	05/06/23 20:26	1
Dimethyl phthalate	ND		0.83	0.17	ug/L		05/03/23 14:11	05/06/23 20:26	1

Client Sample ID: SUPE-W-30A-042723
Lab Sample ID: 180-155744-5

Date Collected: 04/27/23 11:29
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	**0.64**	**J**	0.83	0.62	ug/L		05/03/23 14:11	05/06/23 20:26	1
Di-n-octyl phthalate	ND	*+	0.83	0.57	ug/L		05/03/23 14:11	05/06/23 20:26	1
Fluoranthene	**0.053**	**J**	0.16	0.050	ug/L		05/03/23 14:11	05/06/23 20:26	1
Fluorene	ND		0.16	0.058	ug/L		05/03/23 14:11	05/06/23 20:26	1
Hexachlorobenzene	ND		0.16	0.047	ug/L		05/03/23 14:11	05/06/23 20:26	1
Hexachlorobutadiene	ND		0.16	0.058	ug/L		05/03/23 14:11	05/06/23 20:26	1
Hexachlorocyclopentadiene	ND		0.83	0.41	ug/L		05/03/23 14:11	05/06/23 20:26	1
Hexachloroethane	ND		0.83	0.11	ug/L		05/03/23 14:11	05/06/23 20:26	1
Indeno[1,2,3-cd]pyrene	ND		0.16	0.071	ug/L		05/03/23 14:11	05/06/23 20:26	1
Isophorone	ND		0.83	0.16	ug/L		05/03/23 14:11	05/06/23 20:26	1
Methylphenol, 3 & 4	ND		0.83	0.31	ug/L		05/03/23 14:11	05/06/23 20:26	1
Nitrobenzene	ND		1.7	0.42	ug/L		05/03/23 14:11	05/06/23 20:26	1
N-Nitrosodi-n-propylamine	ND		0.16	0.059	ug/L		05/03/23 14:11	05/06/23 20:26	1
N-Nitrosodiphenylamine	ND		0.83	0.099	ug/L		05/03/23 14:11	05/06/23 20:26	1
Phenanthrene	**0.076**	**J**	0.16	0.046	ug/L		05/03/23 14:11	05/06/23 20:26	1
Phenol	ND		0.83	0.41	ug/L		05/03/23 14:11	05/06/23 20:26	1
Pyrene	**0.050**	**J**	0.16	0.045	ug/L		05/03/23 14:11	05/06/23 20:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*92*		*23 - 128*	*05/03/23 14:11*	*05/06/23 20:26*	*1*
2-Fluorobiphenyl	*82*		*20 - 105*	*05/03/23 14:11*	*05/06/23 20:26*	*1*
2-Fluorophenol (Surr)	*89*		*20 - 105*	*05/03/23 14:11*	*05/06/23 20:26*	*1*
Nitrobenzene-d5 (Surr)	*88*		*20 - 107*	*05/03/23 14:11*	*05/06/23 20:26*	*1*
Phenol-d5 (Surr)	*84*		*20 - 106*	*05/03/23 14:11*	*05/06/23 20:26*	*1*
Terphenyl-d14 (Surr)	*101*		*22 - 120*	*05/03/23 14:11*	*05/06/23 20:26*	*1*

Client Sample ID: SUPE-W-10AR2-042723
Lab Sample ID: 180-155744-6

Date Collected: 04/27/23 14:33
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/01/23 18:29	1
1,2,4-Trimethylbenzene	**6.9**		1.0	0.75	ug/L			05/01/23 18:29	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/01/23 18:29	1
Benzene	**15**		1.0	0.41	ug/L			05/01/23 18:29	1
Chloromethane	ND		1.0	0.35	ug/L			05/01/23 18:29	1
Ethylbenzene	**25**		1.0	0.74	ug/L			05/01/23 18:29	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/01/23 18:29	1
m-Xylene & p-Xylene	**2.4**		2.0	0.66	ug/L			05/01/23 18:29	1
Naphthalene	**1.5**		1.0	0.43	ug/L			05/01/23 18:29	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/01/23 18:29	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/01/23 18:29	1
o-Xylene	**12**		1.0	0.76	ug/L			05/01/23 18:29	1
Styrene	ND		1.0	0.73	ug/L			05/01/23 18:29	1
Toluene	**1.7**		1.0	0.51	ug/L			05/01/23 18:29	1
Xylenes, Total	**14**		2.0	0.66	ug/L			05/01/23 18:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*05/01/23 18:29*	*1*

Client Sample ID: SUPE-W-10AR2-042723
Lab Sample ID: 180-155744-6
Date Collected: 04/27/23 14:33
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*05/01/23 18:29*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*05/01/23 18:29*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/01/23 18:29*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		5.3	1.8	ug/L		05/02/23 09:25	05/05/23 12:53	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*90*		*24 - 146*	*05/02/23 09:25*	*05/05/23 12:53*	*5*
2-Fluorobiphenyl	*73*		*37 - 120*	*05/02/23 09:25*	*05/05/23 12:53*	*5*
2-Fluorophenol (Surr)	*42*		*10 - 120*	*05/02/23 09:25*	*05/05/23 12:53*	*5*
Nitrobenzene-d5 (Surr)	*59*		*26 - 120*	*05/02/23 09:25*	*05/05/23 12:53*	*5*
Phenol-d5 (Surr)	*25*		*11 - 120*	*05/02/23 09:25*	*05/05/23 12:53*	*5*
p-Terphenyl-d14	*88*		*64 - 127*	*05/02/23 09:25*	*05/05/23 12:53*	*5*

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.86	0.11	ug/L		05/03/23 14:11	05/06/23 20:48	1
1,2-Dichlorobenzene	ND		0.86	0.082	ug/L		05/03/23 14:11	05/06/23 20:48	1
1,3-Dichlorobenzene	ND		0.86	0.085	ug/L		05/03/23 14:11	05/06/23 20:48	1
1,4-Dichlorobenzene	ND		0.86	0.053	ug/L		05/03/23 14:11	05/06/23 20:48	1
1-Methylnaphthalene	**7.3**		0.16	0.048	ug/L		05/03/23 14:11	05/06/23 20:48	1
2,3,4,6-Tetrachlorophenol	ND		0.86	0.28	ug/L		05/03/23 14:11	05/06/23 20:48	1
2,3,5,6-Tetrachlorophenol	ND		0.86	0.44	ug/L		05/03/23 14:11	05/06/23 20:48	1
2,4,5-Trichlorophenol	ND		0.86	0.22	ug/L		05/03/23 14:11	05/06/23 20:48	1
2,4,6-Trichlorophenol	ND		0.86	0.19	ug/L		05/03/23 14:11	05/06/23 20:48	1
2,4-Dichlorophenol	ND		0.16	0.044	ug/L		05/03/23 14:11	05/06/23 20:48	1
2,4-Dimethylphenol	ND		0.86	0.14	ug/L		05/03/23 14:11	05/06/23 20:48	1
2,4-Dinitrophenol	ND		8.6	1.3	ug/L		05/03/23 14:11	05/06/23 20:48	1
2,4-Dinitrotoluene	ND		0.86	0.30	ug/L		05/03/23 14:11	05/06/23 20:48	1
2,6-Dinitrotoluene	ND		0.86	0.15	ug/L		05/03/23 14:11	05/06/23 20:48	1
2-Chloronaphthalene	ND		0.16	0.051	ug/L		05/03/23 14:11	05/06/23 20:48	1
2-Chlorophenol	ND		0.86	0.11	ug/L		05/03/23 14:11	05/06/23 20:48	1
2-Methylnaphthalene	ND		0.16	0.053	ug/L		05/03/23 14:11	05/06/23 20:48	1
2-Methylphenol	ND		0.86	0.26	ug/L		05/03/23 14:11	05/06/23 20:48	1
2-Nitroaniline	ND		4.3	0.47	ug/L		05/03/23 14:11	05/06/23 20:48	1
2-Nitrophenol	ND		0.86	0.17	ug/L		05/03/23 14:11	05/06/23 20:48	1
3,3'-Dichlorobenzidine	ND		0.86	0.50	ug/L		05/03/23 14:11	05/06/23 20:48	1
3-Nitroaniline	ND		4.3	0.38	ug/L		05/03/23 14:11	05/06/23 20:48	1
4,6-Dinitro-2-methylphenol	ND		4.3	1.3	ug/L		05/03/23 14:11	05/06/23 20:48	1
4-Bromophenyl phenyl ether	ND		0.86	0.28	ug/L		05/03/23 14:11	05/06/23 20:48	1
4-Chloro-3-methylphenol	ND		0.86	0.24	ug/L		05/03/23 14:11	05/06/23 20:48	1
4-Chloroaniline	ND		0.86	0.32	ug/L		05/03/23 14:11	05/06/23 20:48	1
4-Chlorophenyl phenyl ether	ND		0.86	0.19	ug/L		05/03/23 14:11	05/06/23 20:48	1
4-Nitroaniline	ND		4.3	0.31	ug/L		05/03/23 14:11	05/06/23 20:48	1
4-Nitrophenol	ND		4.3	0.81	ug/L		05/03/23 14:11	05/06/23 20:48	1
Acenaphthene	**39**	**E**	0.16	0.056	ug/L		05/03/23 14:11	05/06/23 20:48	1
Acenaphthylene	**0.86**		0.16	0.056	ug/L		05/03/23 14:11	05/06/23 20:48	1
Anthracene	**0.32**		0.16	0.042	ug/L		05/03/23 14:11	05/06/23 20:48	1

Client: Field & Technical Services LLC
Project/Site: Superior, WI Semiannual Groundwater

Job ID: 180-155744-1

Client Sample ID: SUPE-W-10AR2-042723
Date Collected: 04/27/23 14:33
Date Received: 04/28/23 09:10

Lab Sample ID: 180-155744-6
Matrix: Water

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.16	0.065	ug/L		05/03/23 14:11	05/06/23 20:48	1
Benzo[a]pyrene	ND		0.16	0.046	ug/L		05/03/23 14:11	05/06/23 20:48	1
Benzo[b]fluoranthene	ND		0.16	0.084	ug/L		05/03/23 14:11	05/06/23 20:48	1
Benzo[g,h,i]perylene	ND		0.16	0.059	ug/L		05/03/23 14:11	05/06/23 20:48	1
Benzo[k]fluoranthene	ND		0.16	0.076	ug/L		05/03/23 14:11	05/06/23 20:48	1
Benzoic acid	ND		4.3	0.80	ug/L		05/03/23 14:11	05/06/23 20:48	1
Benzyl alcohol	ND		0.86	0.14	ug/L		05/03/23 14:11	05/06/23 20:48	1
Bis(2-chloroethoxy)methane	ND		0.86	0.13	ug/L		05/03/23 14:11	05/06/23 20:48	1
Bis(2-chloroethyl)ether	ND		0.16	0.034	ug/L		05/03/23 14:11	05/06/23 20:48	1
Bis(2-ethylhexyl) phthalate	ND		8.6	5.4	ug/L		05/03/23 14:11	05/06/23 20:48	1
bis(chloroisopropyl) ether	ND		0.16	0.050	ug/L		05/03/23 14:11	05/06/23 20:48	1
Butyl benzyl phthalate	ND		0.86	0.40	ug/L		05/03/23 14:11	05/06/23 20:48	1
Chrysene	ND		0.16	0.070	ug/L		05/03/23 14:11	05/06/23 20:48	1
Dibenz(a,h)anthracene	ND		0.16	0.062	ug/L		05/03/23 14:11	05/06/23 20:48	1
Dibenzofuran	**8.7**		0.86	0.16	ug/L		05/03/23 14:11	05/06/23 20:48	1
Diethyl phthalate	ND		0.86	0.49	ug/L		05/03/23 14:11	05/06/23 20:48	1
Dimethyl phthalate	ND		0.86	0.17	ug/L		05/03/23 14:11	05/06/23 20:48	1
Di-n-butyl phthalate	ND		0.86	0.64	ug/L		05/03/23 14:11	05/06/23 20:48	1
Di-n-octyl phthalate	ND	*+	0.86	0.59	ug/L		05/03/23 14:11	05/06/23 20:48	1
Fluoranthene	**0.78**		0.16	0.052	ug/L		05/03/23 14:11	05/06/23 20:48	1
Fluorene	**8.5**		0.16	0.059	ug/L		05/03/23 14:11	05/06/23 20:48	1
Hexachlorobenzene	ND		0.16	0.048	ug/L		05/03/23 14:11	05/06/23 20:48	1
Hexachlorobutadiene	ND		0.16	0.059	ug/L		05/03/23 14:11	05/06/23 20:48	1
Hexachlorocyclopentadiene	ND		0.86	0.43	ug/L		05/03/23 14:11	05/06/23 20:48	1
Hexachloroethane	ND		0.86	0.11	ug/L		05/03/23 14:11	05/06/23 20:48	1
Indeno[1,2,3-cd]pyrene	ND		0.16	0.073	ug/L		05/03/23 14:11	05/06/23 20:48	1
Isophorone	ND		0.86	0.16	ug/L		05/03/23 14:11	05/06/23 20:48	1
Methylphenol, 3 & 4	ND		0.86	0.32	ug/L		05/03/23 14:11	05/06/23 20:48	1
Nitrobenzene	ND		1.7	0.43	ug/L		05/03/23 14:11	05/06/23 20:48	1
N-Nitrosodi-n-propylamine	ND		0.16	0.061	ug/L		05/03/23 14:11	05/06/23 20:48	1
N-Nitrosodiphenylamine	ND		0.86	0.10	ug/L		05/03/23 14:11	05/06/23 20:48	1
Phenanthrene	**1.2**		0.16	0.047	ug/L		05/03/23 14:11	05/06/23 20:48	1
Phenol	ND		0.86	0.42	ug/L		05/03/23 14:11	05/06/23 20:48	1
Pyrene	**0.53**		0.16	0.047	ug/L		05/03/23 14:11	05/06/23 20:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*76*		*23 - 128*	*05/03/23 14:11*	*05/06/23 20:48*	*1*
2-Fluorobiphenyl	*64*		*20 - 105*	*05/03/23 14:11*	*05/06/23 20:48*	*1*
2-Fluorophenol (Surr)	*72*		*20 - 105*	*05/03/23 14:11*	*05/06/23 20:48*	*1*
Nitrobenzene-d5 (Surr)	*72*		*20 - 107*	*05/03/23 14:11*	*05/06/23 20:48*	*1*
Phenol-d5 (Surr)	*68*		*20 - 106*	*05/03/23 14:11*	*05/06/23 20:48*	*1*
Terphenyl-d14 (Surr)	*79*		*22 - 120*	*05/03/23 14:11*	*05/06/23 20:48*	*1*

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		3.4	0.45	ug/L		05/03/23 14:11	05/10/23 09:51	4
1,2-Dichlorobenzene	ND		3.4	0.33	ug/L		05/03/23 14:11	05/10/23 09:51	4
1,3-Dichlorobenzene	ND		3.4	0.34	ug/L		05/03/23 14:11	05/10/23 09:51	4
1,4-Dichlorobenzene	ND		3.4	0.21	ug/L		05/03/23 14:11	05/10/23 09:51	4
1-Methylnaphthalene	**7.4**		0.66	0.19	ug/L		05/03/23 14:11	05/10/23 09:51	4

Client: Field & Technical Services LLC
Project/Site: Superior, WI Semiannual Groundwater

Job ID: 180-155744-1

Client Sample ID: SUPE-W-10AR2-042723
Date Collected: 04/27/23 14:33
Date Received: 04/28/23 09:10

Lab Sample ID: 180-155744-6
Matrix: Water

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,6-Tetrachlorophenol	ND		3.4	1.1	ug/L		05/03/23 14:11	05/10/23 09:51	4
2,3,5,6-Tetrachlorophenol	ND		3.4	1.7	ug/L		05/03/23 14:11	05/10/23 09:51	4
2,4,5-Trichlorophenol	ND		3.4	0.87	ug/L		05/03/23 14:11	05/10/23 09:51	4
2,4,6-Trichlorophenol	ND		3.4	0.77	ug/L		05/03/23 14:11	05/10/23 09:51	4
2,4-Dichlorophenol	ND		0.66	0.18	ug/L		05/03/23 14:11	05/10/23 09:51	4
2,4-Dimethylphenol	ND		3.4	0.58	ug/L		05/03/23 14:11	05/10/23 09:51	4
2,4-Dinitrophenol	ND		34	5.3	ug/L		05/03/23 14:11	05/10/23 09:51	4
2,4-Dinitrotoluene	ND		3.4	1.2	ug/L		05/03/23 14:11	05/10/23 09:51	4
2,6-Dinitrotoluene	ND		3.4	0.60	ug/L		05/03/23 14:11	05/10/23 09:51	4
2-Chloronaphthalene	ND		0.66	0.20	ug/L		05/03/23 14:11	05/10/23 09:51	4
2-Chlorophenol	ND		3.4	0.44	ug/L		05/03/23 14:11	05/10/23 09:51	4
2-Methylnaphthalene	ND		0.66	0.21	ug/L		05/03/23 14:11	05/10/23 09:51	4
2-Methylphenol	ND		3.4	1.0	ug/L		05/03/23 14:11	05/10/23 09:51	4
2-Nitroaniline	ND		17	1.9	ug/L		05/03/23 14:11	05/10/23 09:51	4
2-Nitrophenol	ND		3.4	0.67	ug/L		05/03/23 14:11	05/10/23 09:51	4
3,3'-Dichlorobenzidine	ND		3.4	2.0	ug/L		05/03/23 14:11	05/10/23 09:51	4
3-Nitroaniline	ND		17	1.5	ug/L		05/03/23 14:11	05/10/23 09:51	4
4,6-Dinitro-2-methylphenol	ND		17	5.1	ug/L		05/03/23 14:11	05/10/23 09:51	4
4-Bromophenyl phenyl ether	ND		3.4	1.1	ug/L		05/03/23 14:11	05/10/23 09:51	4
4-Chloro-3-methylphenol	ND		3.4	0.96	ug/L		05/03/23 14:11	05/10/23 09:51	4
4-Chloroaniline	ND		3.4	1.3	ug/L		05/03/23 14:11	05/10/23 09:51	4
4-Chlorophenyl phenyl ether	ND		3.4	0.76	ug/L		05/03/23 14:11	05/10/23 09:51	4
4-Nitroaniline	ND		17	1.3	ug/L		05/03/23 14:11	05/10/23 09:51	4
4-Nitrophenol	ND		17	3.2	ug/L		05/03/23 14:11	05/10/23 09:51	4
Acenaphthene	**36**		0.66	0.22	ug/L		05/03/23 14:11	05/10/23 09:51	4
Acenaphthylene	**0.71**		0.66	0.22	ug/L		05/03/23 14:11	05/10/23 09:51	4
Anthracene	**0.29**	**J**	0.66	0.17	ug/L		05/03/23 14:11	05/10/23 09:51	4
Benzo[a]anthracene	ND		0.66	0.26	ug/L		05/03/23 14:11	05/10/23 09:51	4
Benzo[a]pyrene	ND		0.66	0.18	ug/L		05/03/23 14:11	05/10/23 09:51	4
Benzo[b]fluoranthene	ND		0.66	0.33	ug/L		05/03/23 14:11	05/10/23 09:51	4
Benzo[g,h,i]perylene	ND		0.66	0.24	ug/L		05/03/23 14:11	05/10/23 09:51	4
Benzo[k]fluoranthene	ND		0.66	0.30	ug/L		05/03/23 14:11	05/10/23 09:51	4
Benzoic acid	ND		17	3.2	ug/L		05/03/23 14:11	05/10/23 09:51	4
Benzyl alcohol	ND		3.4	0.56	ug/L		05/03/23 14:11	05/10/23 09:51	4
Bis(2-chloroethoxy)methane	ND		3.4	0.52	ug/L		05/03/23 14:11	05/10/23 09:51	4
Bis(2-chloroethyl)ether	ND		0.66	0.14	ug/L		05/03/23 14:11	05/10/23 09:51	4
Bis(2-ethylhexyl) phthalate	ND		34	21	ug/L		05/03/23 14:11	05/10/23 09:51	4
bis(chloroisopropyl) ether	ND		0.66	0.20	ug/L		05/03/23 14:11	05/10/23 09:51	4
Butyl benzyl phthalate	ND		3.4	1.6	ug/L		05/03/23 14:11	05/10/23 09:51	4
Chrysene	ND		0.66	0.28	ug/L		05/03/23 14:11	05/10/23 09:51	4
Dibenz(a,h)anthracene	ND		0.66	0.25	ug/L		05/03/23 14:11	05/10/23 09:51	4
Dibenzofuran	**9.0**		3.4	0.66	ug/L		05/03/23 14:11	05/10/23 09:51	4
Diethyl phthalate	ND		3.4	2.0	ug/L		05/03/23 14:11	05/10/23 09:51	4
Dimethyl phthalate	ND		3.4	0.69	ug/L		05/03/23 14:11	05/10/23 09:51	4
Di-n-butyl phthalate	ND		3.4	2.6	ug/L		05/03/23 14:11	05/10/23 09:51	4
Di-n-octyl phthalate	ND	*+	3.4	2.4	ug/L		05/03/23 14:11	05/10/23 09:51	4
Fluoranthene	**0.79**		0.66	0.21	ug/L		05/03/23 14:11	05/10/23 09:51	4
Fluorene	**9.1**		0.66	0.24	ug/L		05/03/23 14:11	05/10/23 09:51	4
Hexachlorobenzene	ND		0.66	0.19	ug/L		05/03/23 14:11	05/10/23 09:51	4

Client: Field & Technical Services LLC
Project/Site: Superior, WI Semiannual Groundwater

Job ID: 180-155744-1

Client Sample ID: SUPE-W-10AR2-042723
Date Collected: 04/27/23 14:33
Date Received: 04/28/23 09:10

Lab Sample ID: 180-155744-6
Matrix: Water

Method: SW846 EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		0.66	0.24	ug/L		05/03/23 14:11	05/10/23 09:51	4
Hexachlorocyclopentadiene	ND		3.4	1.7	ug/L		05/03/23 14:11	05/10/23 09:51	4
Hexachloroethane	ND		3.4	0.46	ug/L		05/03/23 14:11	05/10/23 09:51	4
Indeno[1,2,3-cd]pyrene	ND		0.66	0.29	ug/L		05/03/23 14:11	05/10/23 09:51	4
Isophorone	ND		3.4	0.65	ug/L		05/03/23 14:11	05/10/23 09:51	4
Methylphenol, 3 & 4	ND		3.4	1.3	ug/L		05/03/23 14:11	05/10/23 09:51	4
Nitrobenzene	ND		6.9	1.7	ug/L		05/03/23 14:11	05/10/23 09:51	4
N-Nitrosodi-n-propylamine	ND		0.66	0.24	ug/L		05/03/23 14:11	05/10/23 09:51	4
N-Nitrosodiphenylamine	ND		3.4	0.41	ug/L		05/03/23 14:11	05/10/23 09:51	4
Phenanthrene	**1.2**		0.66	0.19	ug/L		05/03/23 14:11	05/10/23 09:51	4
Phenol	ND		3.4	1.7	ug/L		05/03/23 14:11	05/10/23 09:51	4
Pyrene	**0.41**	**J**	0.66	0.19	ug/L		05/03/23 14:11	05/10/23 09:51	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*56*		*23 - 128*	*05/03/23 14:11*	*05/10/23 09:51*	*4*
2-Fluorobiphenyl	*59*		*20 - 105*	*05/03/23 14:11*	*05/10/23 09:51*	*4*
2-Fluorophenol (Surr)	*49*		*20 - 105*	*05/03/23 14:11*	*05/10/23 09:51*	*4*
Nitrobenzene-d5 (Surr)	*51*		*20 - 107*	*05/03/23 14:11*	*05/10/23 09:51*	*4*
Phenol-d5 (Surr)	*55*		*20 - 106*	*05/03/23 14:11*	*05/10/23 09:51*	*4*
Terphenyl-d14 (Surr)	*64*		*22 - 120*	*05/03/23 14:11*	*05/10/23 09:51*	*4*

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-667627/8
Matrix: Water
Analysis Batch: 667627

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/01/23 13:40	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/01/23 13:40	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/01/23 13:40	1
Benzene	ND		1.0	0.41	ug/L			05/01/23 13:40	1
Chloromethane	ND		1.0	0.35	ug/L			05/01/23 13:40	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/01/23 13:40	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/01/23 13:40	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/01/23 13:40	1
Naphthalene	ND		1.0	0.43	ug/L			05/01/23 13:40	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/01/23 13:40	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/01/23 13:40	1
o-Xylene	ND		1.0	0.76	ug/L			05/01/23 13:40	1
Styrene	ND		1.0	0.73	ug/L			05/01/23 13:40	1
Toluene	ND		1.0	0.51	ug/L			05/01/23 13:40	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/01/23 13:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*77 - 120*		*05/01/23 13:40*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*05/01/23 13:40*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*05/01/23 13:40*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/01/23 13:40*	*1*

Lab Sample ID: LCS 480-667627/6
Matrix: Water
Analysis Batch: 667627

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,1-Trichloroethane			25.0	21.7		ug/L		87	73 - 126		
1,2,4-Trimethylbenzene			25.0	21.7		ug/L		87	76 - 121		
1,3,5-Trimethylbenzene			25.0	21.7		ug/L		87	77 - 121		
Benzene			25.0	21.9		ug/L		88	71 - 124		
Chloromethane			25.0	19.3		ug/L		77	68 - 124		
Ethylbenzene			25.0	21.5		ug/L		86	77 - 123		
Methyl tert-butyl ether			25.0	20.6		ug/L		83	77 - 120		
m-Xylene & p-Xylene			25.0	22.3		ug/L		89	76 - 122		
Naphthalene			25.0	21.7		ug/L		87	66 - 125		
n-Butylbenzene			25.0	22.8		ug/L		91	71 - 128		
N-Propylbenzene			25.0	21.8		ug/L		87	75 - 127		
o-Xylene			25.0	22.5		ug/L		90	76 - 122		
Styrene			25.0	22.1		ug/L		88	80 - 120		
Toluene			25.0	21.6		ug/L		86	80 - 122		
Xylenes, Total			50.0	44.8		ug/L		90	76 - 122		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*
Dibromofluoromethane (Surr)	*100*		*75 - 123*
Toluene-d8 (Surr)	*98*		*80 - 120*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 480-667743/1-A
Matrix: Water
Analysis Batch: 668191

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 667743

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		1.0	0.34	ug/L		05/02/23 09:25	05/04/23 14:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*53*		*24 - 146*	*05/02/23 09:25*	*05/04/23 14:13*	*1*
2-Fluorobiphenyl	*104*		*37 - 120*	*05/02/23 09:25*	*05/04/23 14:13*	*1*
2-Fluorophenol (Surr)	*51*		*10 - 120*	*05/02/23 09:25*	*05/04/23 14:13*	*1*
Nitrobenzene-d5 (Surr)	*87*		*26 - 120*	*05/02/23 09:25*	*05/04/23 14:13*	*1*
Phenol-d5 (Surr)	*38*		*11 - 120*	*05/02/23 09:25*	*05/04/23 14:13*	*1*
p-Terphenyl-d14	*111*		*64 - 127*	*05/02/23 09:25*	*05/04/23 14:13*	*1*

Lab Sample ID: LCS 480-667743/2-A
Matrix: Water
Analysis Batch: 668191

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667743

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Pentachlorophenol	16.0	13.8		ug/L		86	10 - 131

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*99*		*24 - 146*
2-Fluorobiphenyl	*93*		*37 - 120*
2-Fluorophenol (Surr)	*53*		*10 - 120*
Nitrobenzene-d5 (Surr)	*82*		*26 - 120*
Phenol-d5 (Surr)	*37*		*11 - 120*
p-Terphenyl-d14	*99*		*64 - 127*

Method: EPA 8270E LL - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 180-434154/1-A
Matrix: Water
Analysis Batch: 434343

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 434154

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.0	0.13	ug/L		05/03/23 14:11	05/05/23 08:25	1
1,2-Dichlorobenzene	ND		1.0	0.095	ug/L		05/03/23 14:11	05/05/23 08:25	1
1,3-Dichlorobenzene	ND		1.0	0.099	ug/L		05/03/23 14:11	05/05/23 08:25	1
1,4-Dichlorobenzene	ND		1.0	0.061	ug/L		05/03/23 14:11	05/05/23 08:25	1
1-Methylnaphthalene	ND		0.19	0.056	ug/L		05/03/23 14:11	05/05/23 08:25	1
2,3,4,6-Tetrachlorophenol	ND		1.0	0.33	ug/L		05/03/23 14:11	05/05/23 08:25	1
2,3,5,6-Tetrachlorophenol	ND		1.0	0.51	ug/L		05/03/23 14:11	05/05/23 08:25	1
2,4,5-Trichlorophenol	ND		1.0	0.25	ug/L		05/03/23 14:11	05/05/23 08:25	1
2,4,6-Trichlorophenol	ND		1.0	0.22	ug/L		05/03/23 14:11	05/05/23 08:25	1
2,4-Dichlorophenol	ND		0.19	0.051	ug/L		05/03/23 14:11	05/05/23 08:25	1
2,4-Dimethylphenol	ND		1.0	0.17	ug/L		05/03/23 14:11	05/05/23 08:25	1
2,4-Dinitrophenol	ND		10	1.5	ug/L		05/03/23 14:11	05/05/23 08:25	1
2,4-Dinitrotoluene	ND		1.0	0.35	ug/L		05/03/23 14:11	05/05/23 08:25	1
2,6-Dinitrotoluene	ND		1.0	0.17	ug/L		05/03/23 14:11	05/05/23 08:25	1
2-Chloronaphthalene	ND		0.19	0.059	ug/L		05/03/23 14:11	05/05/23 08:25	1
2-Chlorophenol	ND		1.0	0.13	ug/L		05/03/23 14:11	05/05/23 08:25	1

Method: EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 180-434154/1-A
Matrix: Water
Analysis Batch: 434343

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 434154

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		0.19	0.062	ug/L		05/03/23 14:11	05/05/23 08:25	1
2-Methylphenol	ND		1.0	0.30	ug/L		05/03/23 14:11	05/05/23 08:25	1
2-Nitroaniline	ND		5.0	0.55	ug/L		05/03/23 14:11	05/05/23 08:25	1
2-Nitrophenol	ND		1.0	0.19	ug/L		05/03/23 14:11	05/05/23 08:25	1
3,3'-Dichlorobenzidine	ND		1.0	0.58	ug/L		05/03/23 14:11	05/05/23 08:25	1
3-Nitroaniline	ND		5.0	0.44	ug/L		05/03/23 14:11	05/05/23 08:25	1
4,6-Dinitro-2-methylphenol	ND		5.0	1.5	ug/L		05/03/23 14:11	05/05/23 08:25	1
4-Bromophenyl phenyl ether	ND		1.0	0.32	ug/L		05/03/23 14:11	05/05/23 08:25	1
4-Chloro-3-methylphenol	ND		1.0	0.28	ug/L		05/03/23 14:11	05/05/23 08:25	1
4-Chloroaniline	ND		1.0	0.38	ug/L		05/03/23 14:11	05/05/23 08:25	1
4-Chlorophenyl phenyl ether	ND		1.0	0.22	ug/L		05/03/23 14:11	05/05/23 08:25	1
4-Nitroaniline	ND		5.0	0.36	ug/L		05/03/23 14:11	05/05/23 08:25	1
4-Nitrophenol	ND		5.0	0.94	ug/L		05/03/23 14:11	05/05/23 08:25	1
Acenaphthene	ND		0.19	0.065	ug/L		05/03/23 14:11	05/05/23 08:25	1
Acenaphthylene	ND		0.19	0.065	ug/L		05/03/23 14:11	05/05/23 08:25	1
Anthracene	ND		0.19	0.049	ug/L		05/03/23 14:11	05/05/23 08:25	1
Benzo[a]anthracene	ND		0.19	0.075	ug/L		05/03/23 14:11	05/05/23 08:25	1
Benzo[a]pyrene	ND		0.19	0.053	ug/L		05/03/23 14:11	05/05/23 08:25	1
Benzo[b]fluoranthene	ND		0.19	0.097	ug/L		05/03/23 14:11	05/05/23 08:25	1
Benzo[g,h,i]perylene	ND		0.19	0.069	ug/L		05/03/23 14:11	05/05/23 08:25	1
Benzo[k]fluoranthene	ND		0.19	0.088	ug/L		05/03/23 14:11	05/05/23 08:25	1
Benzoic acid	ND		5.0	0.92	ug/L		05/03/23 14:11	05/05/23 08:25	1
Benzyl alcohol	ND		1.0	0.16	ug/L		05/03/23 14:11	05/05/23 08:25	1
Bis(2-chloroethoxy)methane	ND		1.0	0.15	ug/L		05/03/23 14:11	05/05/23 08:25	1
Bis(2-chloroethyl)ether	ND		0.19	0.040	ug/L		05/03/23 14:11	05/05/23 08:25	1
Bis(2-ethylhexyl) phthalate	ND		10	6.2	ug/L		05/03/23 14:11	05/05/23 08:25	1
bis(chloroisopropyl) ether	ND		0.19	0.058	ug/L		05/03/23 14:11	05/05/23 08:25	1
Butyl benzyl phthalate	ND		1.0	0.46	ug/L		05/03/23 14:11	05/05/23 08:25	1
Chrysene	ND		0.19	0.081	ug/L		05/03/23 14:11	05/05/23 08:25	1
Dibenz(a,h)anthracene	ND		0.19	0.072	ug/L		05/03/23 14:11	05/05/23 08:25	1
Dibenzofuran	ND		1.0	0.19	ug/L		05/03/23 14:11	05/05/23 08:25	1
Diethyl phthalate	ND		1.0	0.57	ug/L		05/03/23 14:11	05/05/23 08:25	1
Dimethyl phthalate	ND		1.0	0.20	ug/L		05/03/23 14:11	05/05/23 08:25	1
Di-n-butyl phthalate	ND		1.0	0.74	ug/L		05/03/23 14:11	05/05/23 08:25	1
Di-n-octyl phthalate	ND		1.0	0.69	ug/L		05/03/23 14:11	05/05/23 08:25	1
Fluoranthene	ND		0.19	0.060	ug/L		05/03/23 14:11	05/05/23 08:25	1
Fluorene	ND		0.19	0.069	ug/L		05/03/23 14:11	05/05/23 08:25	1
Hexachlorobenzene	ND		0.19	0.056	ug/L		05/03/23 14:11	05/05/23 08:25	1
Hexachlorobutadiene	ND		0.19	0.069	ug/L		05/03/23 14:11	05/05/23 08:25	1
Hexachlorocyclopentadiene	ND		1.0	0.50	ug/L		05/03/23 14:11	05/05/23 08:25	1
Hexachloroethane	ND		1.0	0.13	ug/L		05/03/23 14:11	05/05/23 08:25	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.085	ug/L		05/03/23 14:11	05/05/23 08:25	1
Isophorone	ND		1.0	0.19	ug/L		05/03/23 14:11	05/05/23 08:25	1
Methylphenol, 3 & 4	ND		1.0	0.37	ug/L		05/03/23 14:11	05/05/23 08:25	1
Nitrobenzene	ND		2.0	0.50	ug/L		05/03/23 14:11	05/05/23 08:25	1
N-Nitrosodi-n-propylamine	ND		0.19	0.071	ug/L		05/03/23 14:11	05/05/23 08:25	1
N-Nitrosodiphenylamine	ND		1.0	0.12	ug/L		05/03/23 14:11	05/05/23 08:25	1
Phenanthrene	ND		0.19	0.055	ug/L		05/03/23 14:11	05/05/23 08:25	1
Phenol	ND		1.0	0.49	ug/L		05/03/23 14:11	05/05/23 08:25	1

Method: EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 180-434154/1-A
Matrix: Water
Analysis Batch: 434343

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 434154

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	ND		0.19	0.054	ug/L		05/03/23 14:11	05/05/23 08:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*85*		*23 - 128*	*05/03/23 14:11*	*05/05/23 08:25*	*1*
2-Fluorobiphenyl	*74*		*20 - 105*	*05/03/23 14:11*	*05/05/23 08:25*	*1*
2-Fluorophenol (Surr)	*91*		*20 - 105*	*05/03/23 14:11*	*05/05/23 08:25*	*1*
Nitrobenzene-d5 (Surr)	*81*		*20 - 107*	*05/03/23 14:11*	*05/05/23 08:25*	*1*
Phenol-d5 (Surr)	*87*		*20 - 106*	*05/03/23 14:11*	*05/05/23 08:25*	*1*
Terphenyl-d14 (Surr)	*92*		*22 - 120*	*05/03/23 14:11*	*05/05/23 08:25*	*1*

Lab Sample ID: LCS 180-434154/2-A
Matrix: Water
Analysis Batch: 434343

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 434154

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trichlorobenzene	20.0	15.9		ug/L		80	51 - 100
1,2-Dichlorobenzene	20.0	15.3		ug/L		76	51 - 100
1,3-Dichlorobenzene	20.0	15.3		ug/L		77	51 - 100
1,4-Dichlorobenzene	20.0	15.3		ug/L		76	52 - 100
1-Methylnaphthalene	20.0	15.8		ug/L		79	53 - 100
2,3,4,6-Tetrachlorophenol	20.0	15.9		ug/L		80	50 - 100
2,4,5-Trichlorophenol	20.0	16.6		ug/L		83	55 - 100
2,4,6-Trichlorophenol	20.0	16.3		ug/L		81	54 - 100
2,4-Dichlorophenol	20.0	16.7		ug/L		83	55 - 100
2,4-Dimethylphenol	20.0	16.1		ug/L		81	51 - 100
2,4-Dinitrophenol	40.0	22.5		ug/L		56	32 - 100
2,4-Dinitrotoluene	20.0	16.1		ug/L		81	56 - 100
2,6-Dinitrotoluene	20.0	16.2		ug/L		81	56 - 101
2-Chloronaphthalene	20.0	15.7		ug/L		78	52 - 100
2-Chlorophenol	20.0	15.8		ug/L		79	53 - 100
2-Methylnaphthalene	20.0	16.2		ug/L		81	53 - 100
2-Methylphenol	20.0	16.3		ug/L		82	51 - 100
2-Nitroaniline	20.0	18.8		ug/L		94	47 - 104
2-Nitrophenol	20.0	18.3		ug/L		92	56 - 100
3,3'-Dichlorobenzidine	20.0	13.9		ug/L		70	42 - 100
3-Nitroaniline	20.0	16.7		ug/L		83	54 - 100
4,6-Dinitro-2-methylphenol	40.0	28.3		ug/L		71	48 - 100
4-Bromophenyl phenyl ether	20.0	16.9		ug/L		85	50 - 100
4-Chloro-3-methylphenol	20.0	16.2		ug/L		81	47 - 105
4-Chloroaniline	20.0	15.7		ug/L		78	48 - 100
4-Chlorophenyl phenyl ether	20.0	15.6		ug/L		78	52 - 100
4-Nitroaniline	20.0	16.0		ug/L		80	54 - 100
4-Nitrophenol	40.0	30.7		ug/L		77	37 - 120
Acenaphthene	20.0	15.5		ug/L		77	51 - 100
Acenaphthylene	20.0	16.5		ug/L		82	54 - 100
Anthracene	20.0	16.6		ug/L		83	54 - 100
Benzo[a]anthracene	20.0	16.6		ug/L		83	52 - 100
Benzo[a]pyrene	20.0	16.0		ug/L		80	52 - 100

Method: EPA 8270E LL - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 180-434154/2-A
Matrix: Water
Analysis Batch: 434343

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 434154

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzo[b]fluoranthene	20.0	14.9		ug/L		75	50 - 100
Benzo[g,h,i]perylene	20.0	15.4		ug/L		77	53 - 100
Benzo[k]fluoranthene	20.0	16.0		ug/L		80	49 - 100
Benzoic acid	20.0	19.4		ug/L		97	31 - 122
Benzyl alcohol	20.0	12.7		ug/L		64	33 - 107
Bis(2-chloroethoxy)methane	20.0	16.5		ug/L		83	49 - 100
Bis(2-chloroethyl)ether	20.0	15.9		ug/L		80	46 - 100
Bis(2-ethylhexyl) phthalate	20.0	18.5		ug/L		93	52 - 101
bis(chloroisopropyl) ether	20.0	16.4		ug/L		82	29 - 102
Butyl benzyl phthalate	20.0	18.8		ug/L		94	52 - 100
Chrysene	20.0	15.9		ug/L		80	51 - 100
Dibenz(a,h)anthracene	20.0	16.0		ug/L		80	52 - 101
Dibenzofuran	20.0	15.7		ug/L		78	53 - 100
Diethyl phthalate	20.0	15.7		ug/L		79	52 - 100
Dimethyl phthalate	20.0	16.1		ug/L		80	55 - 100
Di-n-butyl phthalate	20.0	17.1		ug/L		86	57 - 100
Di-n-octyl phthalate	20.0	20.4	*+	ug/L		102	41 - 100
Fluoranthene	20.0	15.2		ug/L		76	56 - 100
Fluorene	20.0	16.0		ug/L		80	53 - 100
Hexachlorobenzene	20.0	16.3		ug/L		81	46 - 100
Hexachlorobutadiene	20.0	16.0		ug/L		80	42 - 101
Hexachlorocyclopentadiene	20.0	15.8		ug/L		79	38 - 102
Hexachloroethane	20.0	15.6		ug/L		78	46 - 100
Indeno[1,2,3-cd]pyrene	20.0	16.4		ug/L		82	54 - 100
Isophorone	20.0	17.1		ug/L		85	50 - 100
Methylphenol, 3 & 4	20.0	15.7		ug/L		78	51 - 100
Nitrobenzene	20.0	16.1		ug/L		80	47 - 100
N-Nitrosodi-n-propylamine	20.0	16.4		ug/L		82	43 - 103
N-Nitrosodiphenylamine	20.0	17.0		ug/L		85	53 - 100
Phenanthrene	20.0	15.8		ug/L		79	53 - 100
Phenol	20.0	15.7		ug/L		79	49 - 100
Pyrene	20.0	17.9		ug/L		89	53 - 100

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*80*		*23 - 128*
2-Fluorobiphenyl	*74*		*20 - 105*
2-Fluorophenol (Surr)	*79*		*20 - 105*
Nitrobenzene-d5 (Surr)	*81*		*20 - 107*
Phenol-d5 (Surr)	*81*		*20 - 106*
Terphenyl-d14 (Surr)	*82*		*22 - 120*

GC/MS VOA

Analysis Batch: 667627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-155744-1	SUPE-W-04AR2-042723	Total/NA	Water	8260C	
180-155744-2	SUPE-W-99B-042723	Total/NA	Water	8260C	
180-155744-3	SUPE-W-12A-042723	Total/NA	Water	8260C	
180-155744-4	SUPE-EB-02-042723	Total/NA	Water	8260C	
180-155744-5	SUPE-W-30A-042723	Total/NA	Water	8260C	
180-155744-6	SUPE-W-10AR2-042723	Total/NA	Water	8260C	
MB 480-667627/8	Method Blank	Total/NA	Water	8260C	
LCS 480-667627/6	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 434154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-155744-1	SUPE-W-04AR2-042723	Total/NA	Water	3520C	
180-155744-2	SUPE-W-99B-042723	Total/NA	Water	3520C	
180-155744-3	SUPE-W-12A-042723	Total/NA	Water	3520C	
180-155744-4	SUPE-EB-02-042723	Total/NA	Water	3520C	
180-155744-5	SUPE-W-30A-042723	Total/NA	Water	3520C	
180-155744-6	SUPE-W-10AR2-042723	Total/NA	Water	3520C	
180-155744-6 - DL	SUPE-W-10AR2-042723	Total/NA	Water	3520C	
MB 180-434154/1-A	Method Blank	Total/NA	Water	3520C	
LCS 180-434154/2-A	Lab Control Sample	Total/NA	Water	3520C	

Analysis Batch: 434343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-155744-1	SUPE-W-04AR2-042723	Total/NA	Water	EPA 8270E LL	434154
180-155744-2	SUPE-W-99B-042723	Total/NA	Water	EPA 8270E LL	434154
MB 180-434154/1-A	Method Blank	Total/NA	Water	EPA 8270E LL	434154
LCS 180-434154/2-A	Lab Control Sample	Total/NA	Water	EPA 8270E LL	434154

Analysis Batch: 434450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-155744-3	SUPE-W-12A-042723	Total/NA	Water	EPA 8270E LL	434154
180-155744-4	SUPE-EB-02-042723	Total/NA	Water	EPA 8270E LL	434154
180-155744-5	SUPE-W-30A-042723	Total/NA	Water	EPA 8270E LL	434154
180-155744-6	SUPE-W-10AR2-042723	Total/NA	Water	EPA 8270E LL	434154

Analysis Batch: 434715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-155744-6 - DL	SUPE-W-10AR2-042723	Total/NA	Water	EPA 8270E LL	434154

Prep Batch: 667743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-155744-1	SUPE-W-04AR2-042723	Total/NA	Water	3510C	
180-155744-2	SUPE-W-99B-042723	Total/NA	Water	3510C	
180-155744-3	SUPE-W-12A-042723	Total/NA	Water	3510C	
180-155744-4	SUPE-EB-02-042723	Total/NA	Water	3510C	
180-155744-5	SUPE-W-30A-042723	Total/NA	Water	3510C	
180-155744-6	SUPE-W-10AR2-042723	Total/NA	Water	3510C	
MB 480-667743/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-667743/2-A	Lab Control Sample	Total/NA	Water	3510C	

QC Association Summary

Client: Field & Technical Services LLC
Job ID: 180-155744-1
Project/Site: Superior, WI Semiannual Groundwater

GC/MS Semi VOA

Analysis Batch: 668191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-155744-1	SUPE-W-04AR2-042723	Total/NA	Water	8270D LL	667743
180-155744-2	SUPE-W-99B-042723	Total/NA	Water	8270D LL	667743
180-155744-3	SUPE-W-12A-042723	Total/NA	Water	8270D LL	667743
180-155744-4	SUPE-EB-02-042723	Total/NA	Water	8270D LL	667743
MB 480-667743/1-A	Method Blank	Total/NA	Water	8270D LL	667743
LCS 480-667743/2-A	Lab Control Sample	Total/NA	Water	8270D LL	667743

Analysis Batch: 668304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-155744-5	SUPE-W-30A-042723	Total/NA	Water	8270D LL	667743
180-155744-6	SUPE-W-10AR2-042723	Total/NA	Water	8270D LL	667743

FTS Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 502083

[redacted]

Project Name:	Superior, WI - 2023 OM&M Program	Company:	Field & Technical Services	Client:	Beazer East, Inc.
Project Number:	OM-0556-23	Address:	200 Third Avenue	Contact:	
Laboratory:	TAKNOX		Carnegie, PA 15106		slindquist.2006@f-ts.com
Shipment Method	FEDEX		(412) 279-3363		
Program:	Superior 2023 1SA Sampling_001				

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8290_Dioxins/Furans (Knoxville) (1L)																Notes:
				Preservative	None																
				Total Bottle Count	[illegible]																
04/27/2023	0855	GW	SUPE-W-04AR2-042723	2	2																
04/27/2023	1030	GW	SUPE-W-99B-042723	2	2																

180-155744 Chain of Custody

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: [signature]	Signature: [signature]	Signature:	Signature:	[ ] Rush
Printed Name: Shane Lindquist	Printed Name: [signature]	Printed Name:	Printed Name:	
Firm FTS	Firm [signature]	Firm	Firm	[X] Standard
Date/Time: 04/27/2023 1647	Date/Time: 4-28-23 0910	Date/Time:	Date/Time:	

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 502081 [redacted]

FTS Field & Technical Services, LLC

Ref 210311

Project Name: Superior, WI - 2023 OM&M Program
Project Number: OM-0556-23
Laboratory: TACHI
Shipment Method FEDEX
Program: Superior 2023 1SA Sampling_001

Company: Field & Technical Services
Address: 200 Third Avenue
Carnegie, PA 15106
(412) 279-3363

Client: Beazer East, Inc.
Contact: slindquist.2006@f-ts.com

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8270D_SVOC (less naphtha) (Chicago)																Notes:
				Preservative	None																
				Total Bottle Count																	
04/27/2023	0855	GW	SUPE-W-04AR2-042723	2	2																
04/27/2023	1030	GW	SUPE-W-99B-042723	2	2																

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: [signature]	Signature: [signature]	Signature:	Signature:	[ ] Rush
Printed Name: Shane Lindquist	Printed Name: [illegible]	Printed Name:	Printed Name:	[X] Standard
Firm FTS	Firm FTS/HWE	Firm	Firm	
Date/Time:	Date/Time: 4/28/23 0910	Date/Time:	Date/Time:	

5/19/2023

FTS Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 502076 [redacted]

Project Name: Superior, WI - 2023 OM&M Program
Project Number: OM-0556-23
Laboratory: TAKNOX
Shipment Method FEDEX
Program: Superior 2023 1SA Sampling_001

Company: Field & Technical Services
Address: 200 Third Avenue
Carnegie, PA 15106
(412) 279-3363

Client: Beazer East, Inc.
Contact:
mferrick.2006@f-ts.com

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8290_Dioxins/Furans (Knoxville) (1L)															Notes:
				Preservative	None															
				Total Bottle Count	[redacted]															
04/27/2023	0844	GW	SUPE-W-12A-042723	2	2															
04/27/2023	1100	GW	SUPE-EB-02-042723	2	2															
04/27/2023	1129	GW	SUPE-W-30A-042723	2	2															
04/27/2023	1433	GW	SUPE-W-10AR2-042723	2	2															

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: [signature]	Signature: [signature]	Signature:	Signature:	☐ Rush
Printed Name: Marie Ferrick	Printed Name: [illegible]	Printed Name:	Printed Name:	
Firm FTS	Firm [illegible]	Firm	Firm	☒ Standard
Date/Time: 04/27/2023 2212	Date/Time: 4-28-23 0910	Date/Time:	Date/Time:	

FTS Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 502074 [redacted]

Project Name: Superior, WI - 2023 OM&M Program
Project Number: OM-0556-23
Laboratory: TACHI
Shipment Method FEDEX
Program: Superior 2023 1SA Sampling_001

Company: Field & Technical Services
Address: 200 Third Avenue
Carnegie, PA 15106
(412) 279-3363

Client: Beazer East, Inc.
Contact:
mferrick.2006@f-ts.com

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8270D_SVOC (less naphtha) (Chicago) (cas...)																Notes:
				Preservative	None																
				Total Bottle Count	[redacted]																
04/27/2023	0844	GW	SUPE-W-12A-042723	2	2																
04/27/2023	1100	GW	SUPE-EB-02-042723	2	2																
04/27/2023	1129	GW	SUPE-W-30A-042723	2	2																
04/27/2023	1433	GW	SUPE-W-10AR2-042723	2	2																

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: [signature]	Signature: [signature]	Signature:	Signature:	[ ] Rush
Printed Name: Marie Ferrick	Printed Name: [signature]	Printed Name:	Printed Name:	[X] Standard
Firm FTS	Firm [signature]	Firm	Firm	
Date/Time: 04/27/2023 2212	Date/Time: 4-28-23 0910	Date/Time:	Date/Time:	

5/19/2023

FTS Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 502082 [redacted]

Project Name: Superior, WI - 2023 OM&M Program
Project Number: OM-0556-23
Laboratory: TABUF
Shipment Method FEDEX
Program: Superior 2023 1SA Sampling_001

Company: Field & Technical Services
Address: 200 Third Avenue
Carnegie, PA 15106
(412) 279-3363

Client: Beazer East, Inc.
Contact:
slindquist.2006@f-ts.com

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8260C_VOA+naphtha (Buffalo)	8270D LL_PCP (Buffalo) (1L)													Notes:
				Preservative	HCL	None													
				Total Bottle Count	[redacted]														
04/27/2023	0855	GW	SUPE-W-04AR2-042723	6	3	3													
04/27/2023	1030	GW	SUPE-W-99B-042723	6	3	3													

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: [signature]	Signature: [signature]	Signature:	Signature:	☐ Rush
Printed Name: Shane Lindquist	Printed Name: Veenya Rucker	Printed Name:	Printed Name:	
Firm FTS	Firm FTS/FWR	Firm	Firm	☒ Standard
Date/Time: 04/27/2023 1647	Date/Time: 4-28-23 0910	Date/Time:	Date/Time:	

Page 1 of 1

5/19/2023

FTS Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 502075 [redacted]

Project Name: Superior, WI - 2023 OM&M Program
Project Number: OM-0556-23
Laboratory: TABUF
Shipment Method FEDEX
Program: Superior 2023 1SA Sampling_001

Company: Field & Technical Services
Address: 200 Third Avenue
Carnegie, PA 15106
(412) 279-3363

Client: Beazer East, Inc.
Contact:
mferrick.2006@f-ts.com

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8260C_VOA+naphtha (Buffalo)	8270D LL_PCP (Buffalo) (1L)														Notes:
				Preservative	HCL	None														
				Total Bottle Count																
04/27/2023	0844	GW	SUPE-W-12A-042723	6	3	3														
04/27/2023	1100	GW	SUPE-EB-02-042723	6	3	3														
04/27/2023	1129	GW	SUPE-W-30A-042723	6	3	3														
04/27/2023	1433	GW	SUPE-W-10AR2-042723	6	3	3														

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: [signature]	Signature: [signature]	Signature:	Signature:	☐ Rush
Printed Name: Marie Ferrick	Printed Name: [illegible]	Printed Name:	Printed Name:	
Firm FTS	Firm FTS	Firm	Firm	☒ Standard
Date/Time: 04/27/2023 2212	Date/Time: 4-28-23 0910	Date/Time:	Date/Time:	

Page 1 of 1

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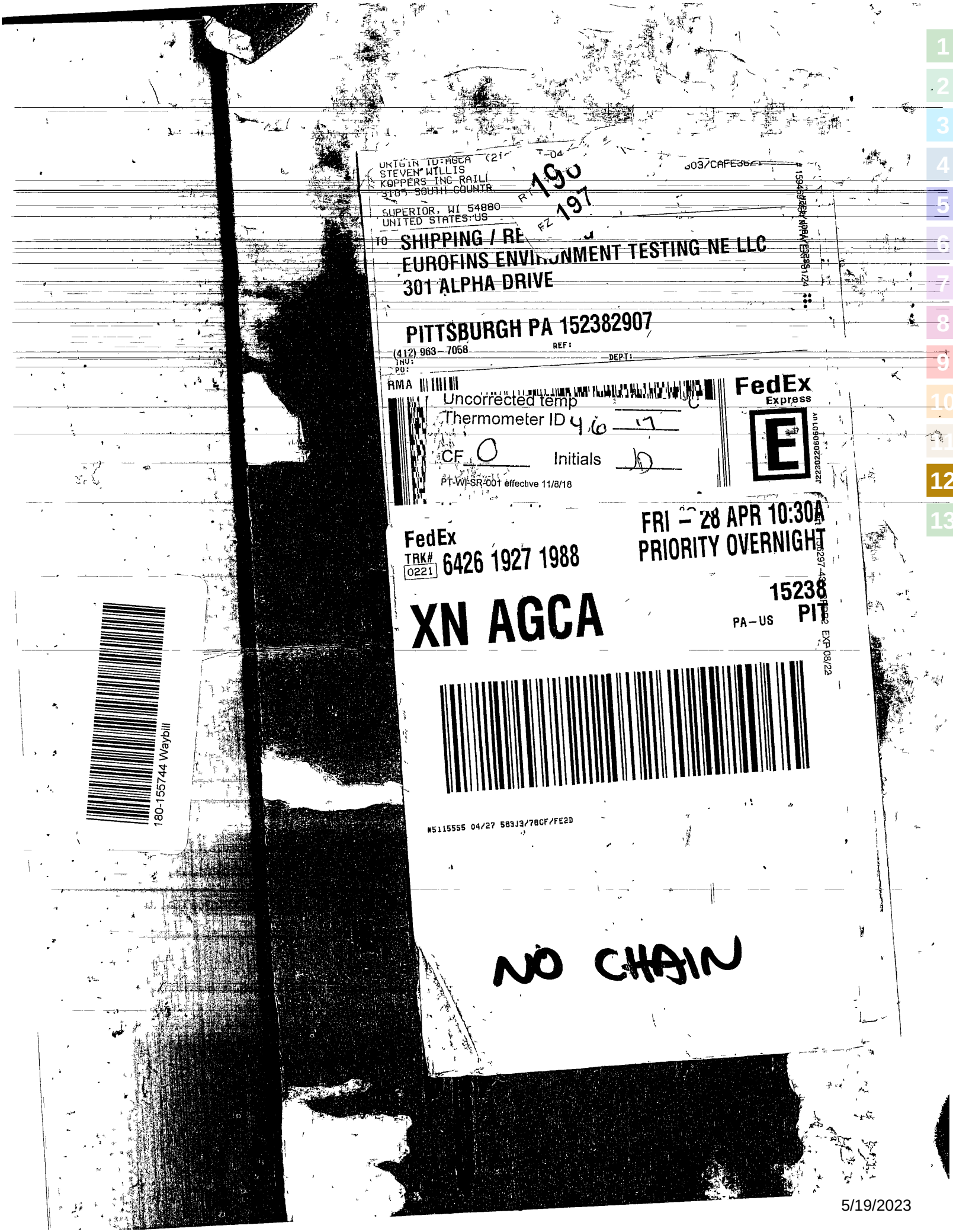
5/19/2023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KOPPERS INC RAIL
3185 SOUTH COUNTR
SUPERIOR, WI 54880
UNITED STATES US
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EUROFINS ENVIRONMENT TESTING NE LLC
301 ALPHA DRIVE
PITTSBURGH PA 152382907
(412) 963-7058
REF:
INV:
PO:
DEPT:
RMA
Uncorrected temp
Thermometer ID 46
CF 0
Initials
PT-WI-SR-001 effective 11/8/18
FedEx Express
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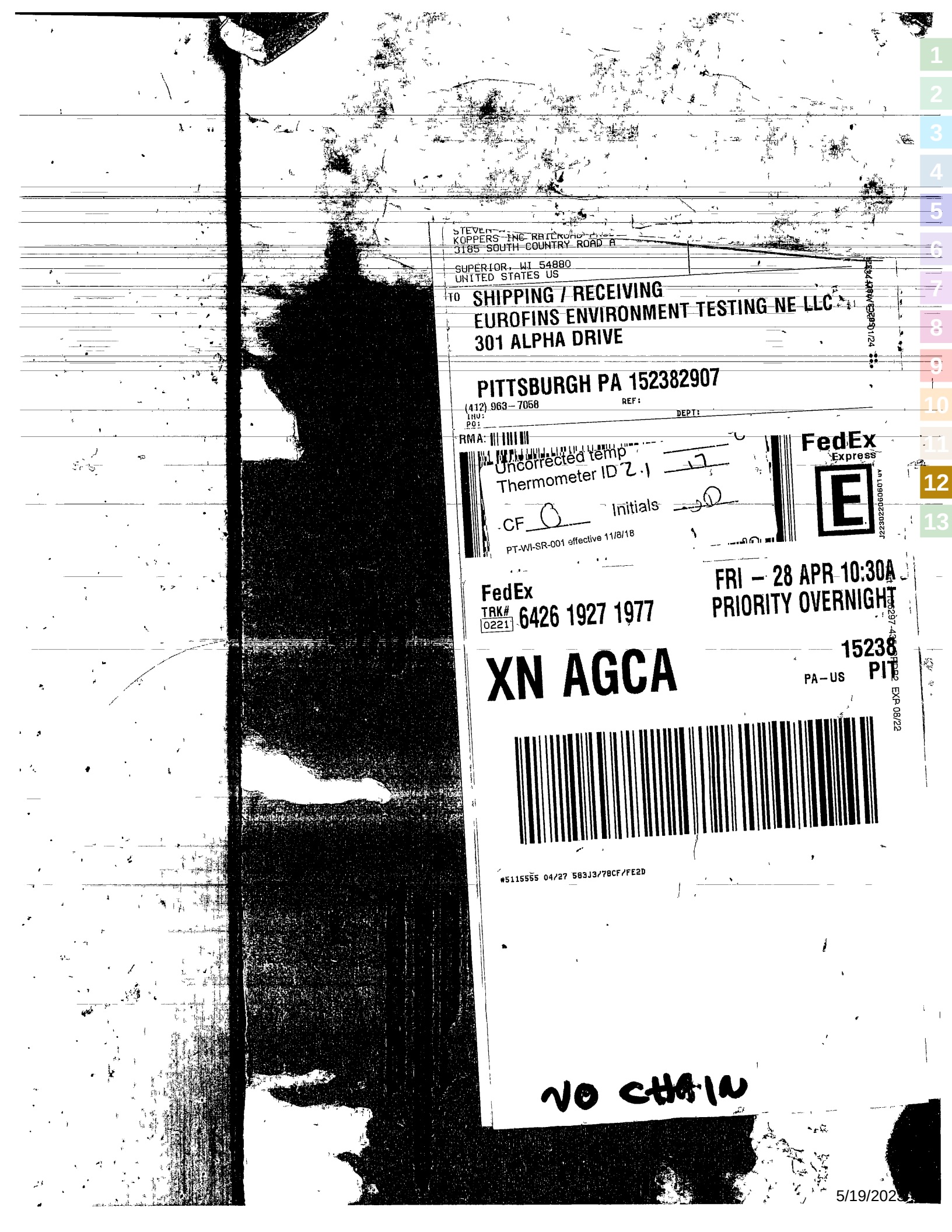
XN AGCA
15238
PA-US
PIT
EXP 08/22
180-155744 Waybill
NO CHAIN


STEVEN
KOPPERS INC RAILROAD DEPT
3185 SOUTH COUNTRY ROAD A
SUPERIOR, WI 54880
UNITED STATES US
TO SHIPPING / RECEIVING
EUROFINS ENVIRONMENT TESTING NE LLC
301 ALPHA DRIVE
PITTSBURGH PA 152382907
(412) 963-7058
REF:
INV:
PO:
DEPT:
RMA:
Uncorrected temp
Thermometer ID 2.1
CF 0
Initials
PT-WI-SR-001 effective 11/8/18
FedEx
Express
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FRI - 28 APR 10:30A
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XN AGCA
15238
PA-US
PIT
EXP 08/22
#5115555 04/27 583J3/78CF/FE2D
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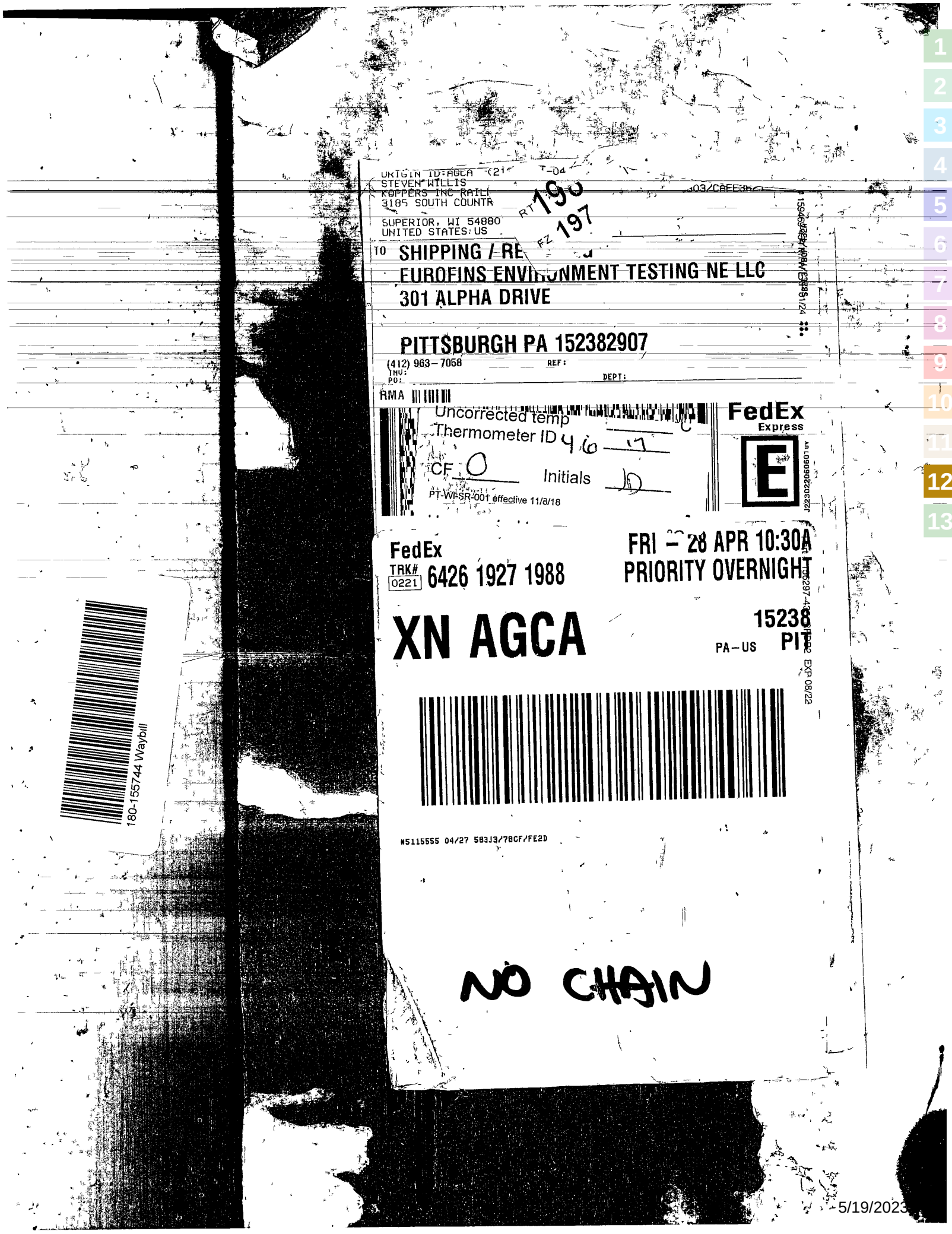
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STEVEN WILLIS
KOPPERS INC RAILI
3185 SOUTH COUNTR
SUPERIOR, WI 54880
UNITED STATES:US
SHIPPING / RE
EUROFINS ENVIRONMENT TESTING NE LLC
301 ALPHA DRIVE
PITTSBURGH PA 152382907
(412) 963-7058
REF:
INV:
PO:
DEPT:
RMA
Uncorrected temp
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CF 0
Initials
PT-WI-SR-001 effective 11/8/18
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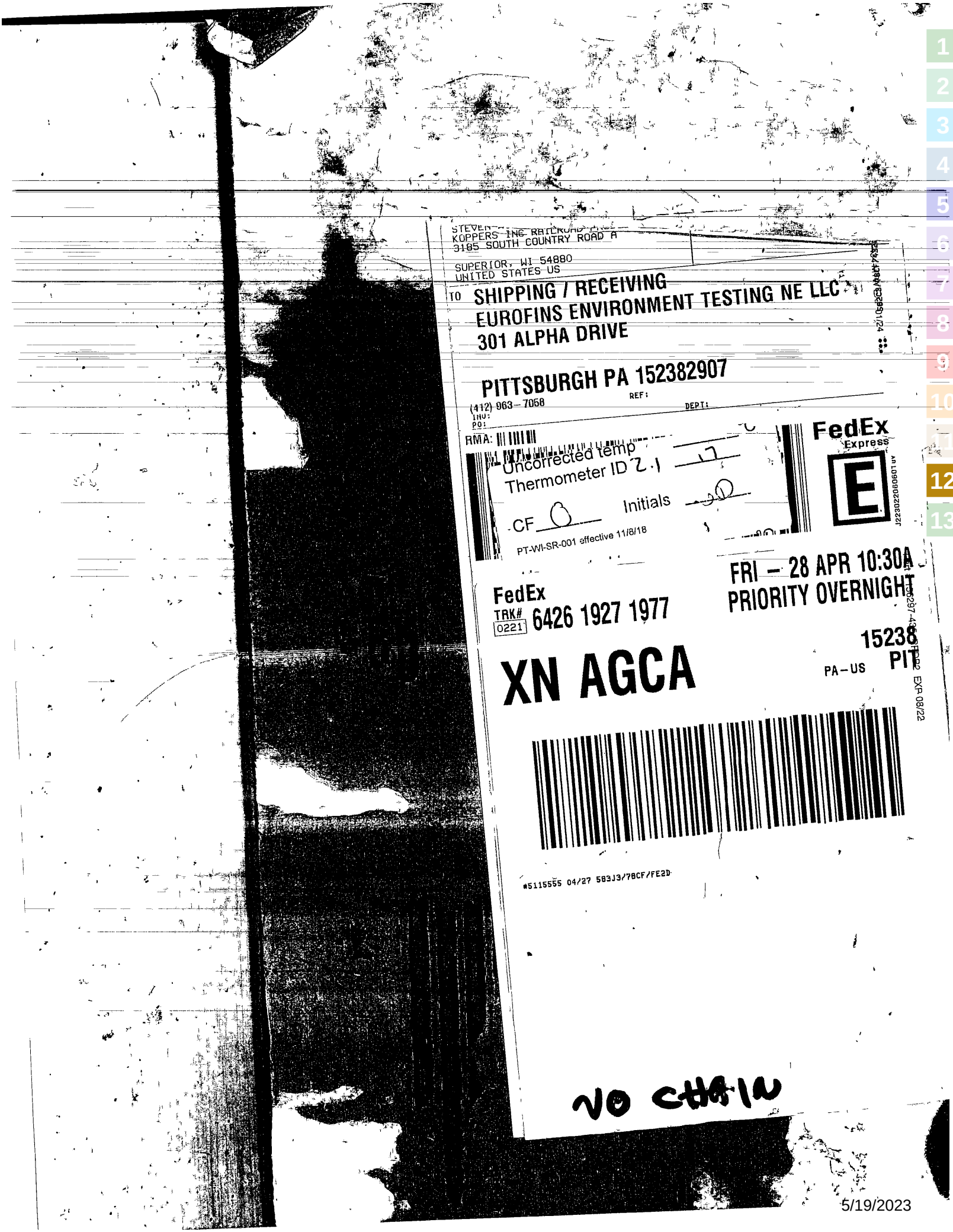
15238
PA-US
PI
#5115555 04/27 583J3/78CF/FE2D
NO CHAIN
180-155744 Waybill


KOPPERS INC RAILROAD
3185 SOUTH COUNTRY ROAD A
SUPERIOR, WI 54880
UNITED STATES US
TO SHIPPING / RECEIVING
EUROFINS ENVIRONMENT TESTING NE LLC
301 ALPHA DRIVE
PITTSBURGH PA 152382907
(412) 963-7058
REF:
DEPT:
INV:
PO:
RMA:
Uncorrected temp
Thermometer ID Z-1
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PRIORITY OVERNIGHT
XN AGCA
15238
PA-US
PIT
EXP 08/22
#5115555 04/27 583J3/78CF/FE2D
NO CHAIN

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-485917.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Shali.Brown@et.eurofinsus.com	State of Origin: Wisconsin	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - Wisconsin; State Program - Wisconsin		Job #: 180-155744-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 5/18/2023			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: Superior, WI Semiannual Groundwater	Project #: 18015916			
Site:	SSOW#:			

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8290A/8290_P_Sep 17 Isomers + Totals	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SUPE-W-04AR2-042723 (180-155744-1)	4/27/23	08:55 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-99B-042723 (180-155744-2)	4/27/23	10:30 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-12A-042723 (180-155744-3)	4/27/23	08:44 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-30A-042723 (180-155744-5)	4/27/23	11:29 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-10AR2-042723 (180-155744-6)	4/27/23	14:33 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol

180-155744 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Pittsburgh places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample ...ot currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Pittsburgh laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Pittsburgh attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Pittsburgh.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ______ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) — Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	5-1-23 1700	ETA-KNOX	[signature]	5/2/23 9:45	ETA KNX
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Loc: 180
155744

EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Log In Number:

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Are the shipping containers intact?	✓			☐ Containers, Broken	Custody Seals Intact
2. Were ambient air containers received intact?			✓	☐ Checked in lab	Received at RT: 0.7 / CT: 0.5°C
3. The coolers/containers custody seal if present, is it intact?	✓			☐ Yes ☐ NA	RT: 0.3 / CT: 0.1°C
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID: SC75 Correction factor: -0.2°C	✓			☐ Cooler Out of Temp, Client Contacted, Proceed/Cancel ☐ Cooler Out of Temp, Same Day Receipt	RT: 0.4 / CT: 0.2°C DH 5/2/23 3 Coolers FedEx 6426 1927 7107 M PD
5. Were all of the sample containers received intact?	✓			☐ Containers, Broken	
6. Were samples received in appropriate containers?	✓			☐ Containers, Improper; Client Contacted; Proceed/Cancel	
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ COC & Samples Do Not Match ☐ COC Incorrect/Incomplete ☐ COC Not Received	
8. Were all of the samples listed on the COC received?	✓			☐ Sample Received, Not on COC ☐ Sample on COC, Not Received	
9. Is the date/time of sample collection noted?	✓			☐ COC; No Date/Time; Client Contacted	
10. Was the sampler identified on the COC? DH 5/2/23	✓		✓	☐ Sampler Not Listed on COC	**Labeling Verified by:** **Date:**
11. Is the client and project name/# identified?	✓			☐ COC Incorrect/Incomplete	
12. Are tests/parameters listed for each sample?	✓			☐ COC No tests on COC	**pH test strip lot number:**
13. Is the matrix of the samples noted?	✓			☐ COC Incorrect/Incomplete	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ COC Incorrect/Incomplete	
15. Were samples received within holding time?	✓			☐ Holding Time - Receipt	
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ pH Adjusted, pH Included (See box 16A) ☐ Incorrect Preservative	
17. Were VOA samples received without headspace?			✓	☐ Headspace (VOA only)	
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:			✓	☐ Residual Chlorine	
19. For 1613B water samples is pH<9?			✓	☐ If no, notify lab to adjust	
20. For rad samples was sample activity info. Provided?			✓	☐ Project missing info	

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: 18015911e PM Instructions:

Sample Receiving Associate: Dean Hicks Date: 5/2/23

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5/19/2023

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-485917.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Shali.Brown@et.eurofinsus.com	State of Origin: Wisconsin	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - Wisconsin; State Program - Wisconsin		Job #: 180-155744-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 5/18/2023			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: Superior, WI Semiannual Groundwater	Project #: 18015916			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8290A/8290_P_Sep 17 Isomers + Totals	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SUPE-W-04AR2-042723 (180-155744-1)	4/27/23	08:55 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-99B-042723 (180-155744-2)	4/27/23	10:30 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-12A-042723 (180-155744-3)	4/27/23	08:44 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-30A-042723 (180-155744-5)	4/27/23	11:29 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-10AR2-042723 (180-155744-6)	4/27/23	14:33 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol

180-155744 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Pittsburgh places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample ...ot currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Pittsburgh laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Pittsburgh attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Pittsburgh.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	5-1-23 17:00	ETA KNX	[signature]	5/2/23 9:45	ETA KNX
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

5/19/2023

Loc: 180
155744

EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST Log In Number:

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Are the shipping containers intact?	✓			☐ Containers, Broken	Custody Seals Intact
2. Were ambient air containers received intact?			✓	☐ Checked in lab	Received at RT: 0.7 / CT: 0.5°C
3. The coolers/containers custody seal if present, is it intact?	✓			☐ Yes ☐ NA	RT: 0.3 / CT: 0.1°C
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID: SC75 Correction factor: -0.2°C	✓			☐ Cooler Out of Temp, Client Contacted, Proceed/Cancel ☐ Cooler Out of Temp, Same Day Receipt	RT: 0.4 / CT: 0.2°C DH 5/2/23 3 Coolers FedEx 6426 1927 7107 M PD
5. Were all of the sample containers received intact?	✓			☐ Containers, Broken	
6. Were samples received in appropriate containers?	✓			☐ Containers, Improper; Client Contacted; Proceed/Cancel	
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ COC & Samples Do Not Match ☐ COC Incorrect/Incomplete ☐ COC Not Received	
8. Were all of the samples listed on the COC received?	✓			☐ Sample Received, Not on COC ☐ Sample on COC, Not Received	
9. Is the date/time of sample collection noted?	✓			☐ COC; No Date/Time; Client Contacted	
10. Was the sampler identified on the COC? DH 5/2/23	✓		✓	☐ Sampler Not Listed on COC	**Labeling Verified by:** **Date:**
11. Is the client and project name/# identified?	✓			☐ COC Incorrect/Incomplete	**pH test strip lot number:**
12. Are tests/parameters listed for each sample?	✓			☐ COC No tests on COC	
13. Is the matrix of the samples noted?	✓			☐ COC Incorrect/Incomplete	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ COC Incorrect/Incomplete	
15. Were samples received within holding time?	✓			☐ Holding Time - Receipt	
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ pH Adjusted, pH Included (See box 16A) ☐ Incorrect Preservative	
17. Were VOA samples received without headspace?			✓	☐ Headspace (VOA only)	
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:			✓	☐ Residual Chlorine	
19. For 1613B water samples is pH<9?			✓	☐ If no, notify lab to adjust	
20. For rad samples was sample activity info. Provided?			✓	☐ Project missing info	

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: 18015911e PM Instructions:

Sample Receiving Associate: Dean Hick Date: 5/2/23

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5/19/2023

Login Sample Receipt Checklist

Client: Field & Technical Services LLC

Job Number: 180-155744-1

Login Number: 155744
List Number: 1
Creator: Abernathy, Eric L

List Source: Eurofins Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Field & Technical Services LLC

Job Number: 180-155744-1

Login Number: 155744
List Number: 2
Creator: Kolb, Chris M

List Source: Eurofins Buffalo
List Creation: 05/01/23 09:27 AM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.6 2.8 2.1 3.0 1.9 1.7 ir gun #1 ice
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Angie Gatchie
Field & Technical Services LLC
200 Third Avenue
Carnegie, Pennsylvania 15106

Generated 6/12/2023 4:39:20 PM Revision 1

JOB DESCRIPTION

Superior, WI Semiannual Groundwater

JOB NUMBER

180-155744-2

Eurofins Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh PA 15238

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

PA Lab ID: 02-00416

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Pittsburgh Project Manager.

Authorization

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Revision 1

Authorized for release by
Shali Brown, Project Manager II
Shali.Brown@et.eurofinsus.com
(615)301-5031

Table of Contents

Job ID: 180-155744-2

Laboratory: Eurofins Pittsburgh

Narrative

Job Narrative
180-155744-2

Comments
061223 Revised report to add the Receipt Exception comment below. This report replaces the report previously issued on 061223.

Receipt
The samples were received on 4/28/2023 9:10 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.1º C and 4.6º C.

Receipt Exceptions
Amber liter bottles for Dioxin were not recieved for the folliwng sample: SUPE-EB-02-042723 (180-155744-4)

Dioxin
Methods 0010/1668A, 1613B, 1668A, 1668C, 23, 8290A, Split, TO-9A: The identification of samples and analytes for which manual integrations were necessary is listed in the manual integration summary.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Methods 1668_Sep_2L, 3540C, 8290, Combined Prep, HRMS-Sepf, HRMS-Sox, HRMS-waste, Split: The following samples went through Gel-Permeation Cleanup procedure, based on EPA method 3640A: .SUPE-W-04AR2-042723 (180-155744-1), SUPE-W-99B-042723 (180-155744-2), SUPE-W-12A-042723 (180-155744-3), SUPE-W-30A-042723 (180-155744-5) and SUPE-W-10AR2-042723 (180-155744-6)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: Field & Technical Services LLC
Job ID: 180-155744-2
Project/Site: Superior, WI Semiannual Groundwater

Qualifiers

Dioxin

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Field & Technical Services LLC
Job ID: 180-155744-2
Project/Site: Superior, WI Semiannual Groundwater

Laboratory: Eurofins Knoxville

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	998044300	08-31-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8290A	8290	Water	Total HpCDD
8290A	8290	Water	Total HpCDF
8290A	8290	Water	Total HxCDD
8290A	8290	Water	Total HxCDF
8290A	8290	Water	Total PeCDD
8290A	8290	Water	Total PeCDF
8290A	8290	Water	Total TCDD
8290A	8290	Water	Total TCDF

Sample Summary

Client: Field & Technical Services LLC
Job ID: 180-155744-2
Project/Site: Superior, WI Semiannual Groundwater

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-155744-1	SUPE-W-04AR2-042723	Water	04/27/23 08:55	04/28/23 09:10
180-155744-2	SUPE-W-99B-042723	Water	04/27/23 10:30	04/28/23 09:10
180-155744-3	SUPE-W-12A-042723	Water	04/27/23 08:44	04/28/23 09:10
180-155744-5	SUPE-W-30A-042723	Water	04/27/23 11:29	04/28/23 09:10
180-155744-6	SUPE-W-10AR2-042723	Water	04/27/23 14:33	04/28/23 09:10

Method Summary

Client: Field & Technical Services LLC
Job ID: 180-155744-2
Project/Site: Superior, WI Semiannual Groundwater

Method	Method Description	Protocol	Laboratory
8290A	Dioxins and Furans (HRGC/HRMS)	SW846	EET KNX
8290	Separatory Funnel (Liquid-Liquid) Extraction of Dioxins and Furans	SW846	EET KNX

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET KNX = Eurofins Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Lab Chronicle

Client: Field & Technical Services LLC
Project/Site: Superior, WI Semiannual Groundwater

Job ID: 180-155744-2

Client Sample ID: SUPE-W-04AR2-042723
Lab Sample ID: 180-155744-1
Date Collected: 04/27/23 08:55
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8290			1006.4 mL	20 uL	73375	05/18/23 08:49	DAC	EET KNX
Total/NA	Analysis	8290A		1			74097	06/08/23 01:10	MSP	EET KNX
	Instrument ID: D4A									

Client Sample ID: SUPE-W-99B-042723
Lab Sample ID: 180-155744-2
Date Collected: 04/27/23 10:30
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8290			986 mL	20 uL	73375	05/18/23 08:49	DAC	EET KNX
Total/NA	Analysis	8290A		1			74097	06/08/23 02:10	MSP	EET KNX
	Instrument ID: D4A									

Client Sample ID: SUPE-W-12A-042723
Lab Sample ID: 180-155744-3
Date Collected: 04/27/23 08:44
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8290			961.1 mL	20 uL	73375	05/18/23 08:49	DAC	EET KNX
Total/NA	Analysis	8290A		1			74097	06/08/23 03:09	MSP	EET KNX
	Instrument ID: D4A									

Client Sample ID: SUPE-W-30A-042723
Lab Sample ID: 180-155744-5
Date Collected: 04/27/23 11:29
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8290			974.9 mL	20 uL	73375	05/18/23 08:49	DAC	EET KNX
Total/NA	Analysis	8290A		1			74097	06/08/23 04:09	MSP	EET KNX
	Instrument ID: D4A									

Client Sample ID: SUPE-W-10AR2-042723
Lab Sample ID: 180-155744-6
Date Collected: 04/27/23 14:33
Matrix: Water
Date Received: 04/28/23 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8290			928.6 mL	20 uL	73375	05/18/23 08:49	DAC	EET KNX
Total/NA	Analysis	8290A		1			74097	06/08/23 05:09	MSP	EET KNX
	Instrument ID: D4A									

Laboratory References:
EET KNX = Eurofins Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Lab Chronicle

Client: Field & Technical Services LLC
Job ID: 180-155744-2
Project/Site: Superior, WI Semiannual Groundwater

Analyst References:

Lab: EET KNX

Batch Type: Prep

DAC = Drew Costanzo

Batch Type: Analysis

MSP = Michael Patty

Client Sample ID: SUPE-W-04AR2-042723
Lab Sample ID: 180-155744-1

Date Collected: 04/27/23 08:55
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		9.9	0.18	pg/L		05/18/23 08:49	06/08/23 01:10	1
Total TCDD	ND		9.9	0.18	pg/L		05/18/23 08:49	06/08/23 01:10	1
1,2,3,7,8-PeCDD	ND		50	0.15	pg/L		05/18/23 08:49	06/08/23 01:10	1
Total PeCDD	ND		50	0.15	pg/L		05/18/23 08:49	06/08/23 01:10	1
1,2,3,4,7,8-HxCDD	**1.0**	**J I B**	50	0.19	pg/L		05/18/23 08:49	06/08/23 01:10	1
1,2,3,6,7,8-HxCDD	**0.53**	**J B**	50	0.17	pg/L		05/18/23 08:49	06/08/23 01:10	1
1,2,3,7,8,9-HxCDD	**1.0**	**J I**	50	0.17	pg/L		05/18/23 08:49	06/08/23 01:10	1
Total HxCDD	**10**	**J I B**	50	0.18	pg/L		05/18/23 08:49	06/08/23 01:10	1
1,2,3,4,6,7,8-HpCDD	**12**	**J I B**	50	1.2	pg/L		05/18/23 08:49	06/08/23 01:10	1
Total HpCDD	**86**	**I B**	50	1.2	pg/L		05/18/23 08:49	06/08/23 01:10	1
OCDD	**130**	**B**	99	0.061	pg/L		05/18/23 08:49	06/08/23 01:10	1
2,3,7,8-TCDF	ND		9.9	0.15	pg/L		05/18/23 08:49	06/08/23 01:10	1
Total TCDF	**1.8**	**J I B**	9.9	0.15	pg/L		05/18/23 08:49	06/08/23 01:10	1
1,2,3,7,8-PeCDF	**0.52**	**J B**	50	0.23	pg/L		05/18/23 08:49	06/08/23 01:10	1
2,3,4,7,8-PeCDF	**0.80**	**J I B**	50	0.22	pg/L		05/18/23 08:49	06/08/23 01:10	1
Total PeCDF	**4.1**	**J I B**	50	0.23	pg/L		05/18/23 08:49	06/08/23 01:10	1
1,2,3,4,7,8-HxCDF	**0.55**	**J**	50	0.20	pg/L		05/18/23 08:49	06/08/23 01:10	1
1,2,3,6,7,8-HxCDF	ND		50	0.21	pg/L		05/18/23 08:49	06/08/23 01:10	1
2,3,4,6,7,8-HxCDF	**0.66**	**J I**	50	0.23	pg/L		05/18/23 08:49	06/08/23 01:10	1
1,2,3,7,8,9-HxCDF	ND		50	0.27	pg/L		05/18/23 08:49	06/08/23 01:10	1
Total HxCDF	**8.1**	**J I**	50	0.23	pg/L		05/18/23 08:49	06/08/23 01:10	1
1,2,3,4,6,7,8-HpCDF	**2.0**	**J I B**	50	0.13	pg/L		05/18/23 08:49	06/08/23 01:10	1
1,2,3,4,7,8,9-HpCDF	**0.78**	**J I B**	50	0.18	pg/L		05/18/23 08:49	06/08/23 01:10	1
Total HpCDF	**6.7**	**J I B**	50	0.16	pg/L		05/18/23 08:49	06/08/23 01:10	1
OCDF	**5.6**	**J I B**	99	0.49	pg/L		05/18/23 08:49	06/08/23 01:10	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*69*		*40 - 135*	*05/18/23 08:49*	*06/08/23 01:10*	*1*
13C-1,2,3,7,8-PeCDD	*63*		*40 - 135*	*05/18/23 08:49*	*06/08/23 01:10*	*1*
13C-1,2,3,4,7,8-HxCDD	*64*		*40 - 135*	*05/18/23 08:49*	*06/08/23 01:10*	*1*
13C-1,2,3,6,7,8-HxCDD	*82*		*40 - 135*	*05/18/23 08:49*	*06/08/23 01:10*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*73*		*40 - 135*	*05/18/23 08:49*	*06/08/23 01:10*	*1*
13C-OCDD	*71*		*40 - 135*	*05/18/23 08:49*	*06/08/23 01:10*	*1*
13C-2,3,7,8-TCDF	*73*		*40 - 135*	*05/18/23 08:49*	*06/08/23 01:10*	*1*
13C-1,2,3,7,8-PeCDF	*68*		*40 - 135*	*05/18/23 08:49*	*06/08/23 01:10*	*1*
13C-2,3,4,7,8-PeCDF	*66*		*40 - 135*	*05/18/23 08:49*	*06/08/23 01:10*	*1*
13C-1,2,3,4,7,8-HxCDF	*77*		*40 - 135*	*05/18/23 08:49*	*06/08/23 01:10*	*1*
13C-1,2,3,6,7,8-HxCDF	*75*		*40 - 135*	*05/18/23 08:49*	*06/08/23 01:10*	*1*
13C-2,3,4,6,7,8-HxCDF	*75*		*40 - 135*	*05/18/23 08:49*	*06/08/23 01:10*	*1*
13C-1,2,3,7,8,9-HxCDF	*74*		*40 - 135*	*05/18/23 08:49*	*06/08/23 01:10*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*76*		*40 - 135*	*05/18/23 08:49*	*06/08/23 01:10*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*70*		*40 - 135*	*05/18/23 08:49*	*06/08/23 01:10*	*1*
13C-OCDF	*70*		*40 - 135*	*05/18/23 08:49*	*06/08/23 01:10*	*1*

Client Sample ID: SUPE-W-99B-042723
Lab Sample ID: 180-155744-2

Date Collected: 04/27/23 10:30
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		10	0.27	pg/L		05/18/23 08:49	06/08/23 02:10	1

Client Sample ID: SUPE-W-99B-042723
Lab Sample ID: 180-155744-2
Date Collected: 04/27/23 10:30
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TCDD	**1.1**	**J I B**	10	0.27	pg/L		05/18/23 08:49	06/08/23 02:10	1
1,2,3,7,8-PeCDD	**0.58**	**J I B**	51	0.24	pg/L		05/18/23 08:49	06/08/23 02:10	1
Total PeCDD	**0.91**	**J I B**	51	0.24	pg/L		05/18/23 08:49	06/08/23 02:10	1
1,2,3,4,7,8-HxCDD	**1.5**	**J I B**	51	0.14	pg/L		05/18/23 08:49	06/08/23 02:10	1
1,2,3,6,7,8-HxCDD	**1.5**	**J B**	51	0.13	pg/L		05/18/23 08:49	06/08/23 02:10	1
1,2,3,7,8,9-HxCDD	**2.1**	**J**	51	0.13	pg/L		05/18/23 08:49	06/08/23 02:10	1
Total HxCDD	**33**	**J I B**	51	0.13	pg/L		05/18/23 08:49	06/08/23 02:10	1
1,2,3,4,6,7,8-HpCDD	**54**	**B**	51	1.5	pg/L		05/18/23 08:49	06/08/23 02:10	1
Total HpCDD	**460**	**B**	51	1.5	pg/L		05/18/23 08:49	06/08/23 02:10	1
OCDD	**540**	**B**	100	0.35	pg/L		05/18/23 08:49	06/08/23 02:10	1
2,3,7,8-TCDF	**0.13**	**J I B**	10	0.11	pg/L		05/18/23 08:49	06/08/23 02:10	1
Total TCDF	**7.2**	**J I B**	10	0.11	pg/L		05/18/23 08:49	06/08/23 02:10	1
1,2,3,7,8-PeCDF	**0.69**	**J I B**	51	0.15	pg/L		05/18/23 08:49	06/08/23 02:10	1
2,3,4,7,8-PeCDF	**0.44**	**J I B**	51	0.13	pg/L		05/18/23 08:49	06/08/23 02:10	1
Total PeCDF	**12**	**J I B**	51	0.14	pg/L		05/18/23 08:49	06/08/23 02:10	1
1,2,3,4,7,8-HxCDF	**1.3**	**J I**	51	0.20	pg/L		05/18/23 08:49	06/08/23 02:10	1
1,2,3,6,7,8-HxCDF	**1.7**	**J I**	51	0.22	pg/L		05/18/23 08:49	06/08/23 02:10	1
2,3,4,6,7,8-HxCDF	ND		51	0.24	pg/L		05/18/23 08:49	06/08/23 02:10	1
1,2,3,7,8,9-HxCDF	ND		51	0.29	pg/L		05/18/23 08:49	06/08/23 02:10	1
Total HxCDF	**21**	**J I**	51	0.24	pg/L		05/18/23 08:49	06/08/23 02:10	1
1,2,3,4,6,7,8-HpCDF	**4.7**	**J I B**	51	0.17	pg/L		05/18/23 08:49	06/08/23 02:10	1
1,2,3,4,7,8,9-HpCDF	**1.2**	**J B**	51	0.22	pg/L		05/18/23 08:49	06/08/23 02:10	1
Total HpCDF	**15**	**J I B**	51	0.20	pg/L		05/18/23 08:49	06/08/23 02:10	1
OCDF	**19**	**J B**	100	0.11	pg/L		05/18/23 08:49	06/08/23 02:10	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*71*		*40 - 135*	*05/18/23 08:49*	*06/08/23 02:10*	*1*
13C-1,2,3,7,8-PeCDD	*66*		*40 - 135*	*05/18/23 08:49*	*06/08/23 02:10*	*1*
13C-1,2,3,4,7,8-HxCDD	*65*		*40 - 135*	*05/18/23 08:49*	*06/08/23 02:10*	*1*
13C-1,2,3,6,7,8-HxCDD	*76*		*40 - 135*	*05/18/23 08:49*	*06/08/23 02:10*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*73*		*40 - 135*	*05/18/23 08:49*	*06/08/23 02:10*	*1*
13C-OCDD	*73*		*40 - 135*	*05/18/23 08:49*	*06/08/23 02:10*	*1*
13C-2,3,7,8-TCDF	*73*		*40 - 135*	*05/18/23 08:49*	*06/08/23 02:10*	*1*
13C-1,2,3,7,8-PeCDF	*72*		*40 - 135*	*05/18/23 08:49*	*06/08/23 02:10*	*1*
13C-2,3,4,7,8-PeCDF	*71*		*40 - 135*	*05/18/23 08:49*	*06/08/23 02:10*	*1*
13C-1,2,3,4,7,8-HxCDF	*76*		*40 - 135*	*05/18/23 08:49*	*06/08/23 02:10*	*1*
13C-1,2,3,6,7,8-HxCDF	*72*		*40 - 135*	*05/18/23 08:49*	*06/08/23 02:10*	*1*
13C-2,3,4,6,7,8-HxCDF	*75*		*40 - 135*	*05/18/23 08:49*	*06/08/23 02:10*	*1*
13C-1,2,3,7,8,9-HxCDF	*72*		*40 - 135*	*05/18/23 08:49*	*06/08/23 02:10*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*76*		*40 - 135*	*05/18/23 08:49*	*06/08/23 02:10*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*73*		*40 - 135*	*05/18/23 08:49*	*06/08/23 02:10*	*1*
13C-OCDF	*69*		*40 - 135*	*05/18/23 08:49*	*06/08/23 02:10*	*1*

Client Sample ID: SUPE-W-12A-042723
Lab Sample ID: 180-155744-3
Date Collected: 04/27/23 08:44
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		10	0.095	pg/L		05/18/23 08:49	06/08/23 03:09	1
Total TCDD	**1.3**	**J I B**	10	0.095	pg/L		05/18/23 08:49	06/08/23 03:09	1

Client Sample ID: SUPE-W-12A-042723
Lab Sample ID: 180-155744-3

Date Collected: 04/27/23 08:44
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,7,8-PeCDD	0.40	J I B	52	0.26	pg/L		05/18/23 08:49	06/08/23 03:09	1
Total PeCDD	0.40	J I B	52	0.26	pg/L		05/18/23 08:49	06/08/23 03:09	1
1,2,3,4,7,8-HxCDD	2.1	J I B	52	0.26	pg/L		05/18/23 08:49	06/08/23 03:09	1
1,2,3,6,7,8-HxCDD	3.5	J B	52	0.23	pg/L		05/18/23 08:49	06/08/23 03:09	1
1,2,3,7,8,9-HxCDD	1.7	J I	52	0.23	pg/L		05/18/23 08:49	06/08/23 03:09	1
Total HxCDD	18	J I B	52	0.24	pg/L		05/18/23 08:49	06/08/23 03:09	1
1,2,3,4,6,7,8-HpCDD	69	B	52	1.5	pg/L		05/18/23 08:49	06/08/23 03:09	1
Total HpCDD	130	B	52	1.5	pg/L		05/18/23 08:49	06/08/23 03:09	1
OCDD	570	B	100	0.31	pg/L		05/18/23 08:49	06/08/23 03:09	1
2,3,7,8-TCDF	0.66	J I B	10	0.10	pg/L		05/18/23 08:49	06/08/23 03:09	1
Total TCDF	24	I B	10	0.10	pg/L		05/18/23 08:49	06/08/23 03:09	1
1,2,3,7,8-PeCDF	0.84	J B	52	0.22	pg/L		05/18/23 08:49	06/08/23 03:09	1
2,3,4,7,8-PeCDF	0.92	J B	52	0.20	pg/L		05/18/23 08:49	06/08/23 03:09	1
Total PeCDF	52	I B	52	0.21	pg/L		05/18/23 08:49	06/08/23 03:09	1
1,2,3,4,7,8-HxCDF	5.1	J	52	0.74	pg/L		05/18/23 08:49	06/08/23 03:09	1
1,2,3,6,7,8-HxCDF	6.4	J I	52	0.80	pg/L		05/18/23 08:49	06/08/23 03:09	1
2,3,4,6,7,8-HxCDF	1.2	J I	52	0.82	pg/L		05/18/23 08:49	06/08/23 03:09	1
1,2,3,7,8,9-HxCDF	ND		52	1.0	pg/L		05/18/23 08:49	06/08/23 03:09	1
Total HxCDF	68	I	52	0.84	pg/L		05/18/23 08:49	06/08/23 03:09	1
1,2,3,4,6,7,8-HpCDF	19	J I B	52	0.59	pg/L		05/18/23 08:49	06/08/23 03:09	1
1,2,3,4,7,8,9-HpCDF	2.3	J B	52	0.78	pg/L		05/18/23 08:49	06/08/23 03:09	1
Total HpCDF	63	I B	52	0.69	pg/L		05/18/23 08:49	06/08/23 03:09	1
OCDF	51	J B	100	0.11	pg/L		05/18/23 08:49	06/08/23 03:09	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*75*		*40 - 135*	*05/18/23 08:49*	*06/08/23 03:09*	*1*
13C-1,2,3,7,8-PeCDD	*77*		*40 - 135*	*05/18/23 08:49*	*06/08/23 03:09*	*1*
13C-1,2,3,4,7,8-HxCDD	*72*		*40 - 135*	*05/18/23 08:49*	*06/08/23 03:09*	*1*
13C-1,2,3,6,7,8-HxCDD	*86*		*40 - 135*	*05/18/23 08:49*	*06/08/23 03:09*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*80*		*40 - 135*	*05/18/23 08:49*	*06/08/23 03:09*	*1*
13C-OCDD	*82*		*40 - 135*	*05/18/23 08:49*	*06/08/23 03:09*	*1*
13C-2,3,7,8-TCDF	*79*		*40 - 135*	*05/18/23 08:49*	*06/08/23 03:09*	*1*
13C-1,2,3,7,8-PeCDF	*80*		*40 - 135*	*05/18/23 08:49*	*06/08/23 03:09*	*1*
13C-2,3,4,7,8-PeCDF	*79*		*40 - 135*	*05/18/23 08:49*	*06/08/23 03:09*	*1*
13C-1,2,3,4,7,8-HxCDF	*83*		*40 - 135*	*05/18/23 08:49*	*06/08/23 03:09*	*1*
13C-1,2,3,6,7,8-HxCDF	*79*		*40 - 135*	*05/18/23 08:49*	*06/08/23 03:09*	*1*
13C-2,3,4,6,7,8-HxCDF	*77*		*40 - 135*	*05/18/23 08:49*	*06/08/23 03:09*	*1*
13C-1,2,3,7,8,9-HxCDF	*80*		*40 - 135*	*05/18/23 08:49*	*06/08/23 03:09*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*84*		*40 - 135*	*05/18/23 08:49*	*06/08/23 03:09*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*80*		*40 - 135*	*05/18/23 08:49*	*06/08/23 03:09*	*1*
13C-OCDF	*76*		*40 - 135*	*05/18/23 08:49*	*06/08/23 03:09*	*1*

Client Sample ID: SUPE-W-30A-042723
Lab Sample ID: 180-155744-5

Date Collected: 04/27/23 11:29
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		10	0.19	pg/L		05/18/23 08:49	06/08/23 04:09	1
Total TCDD	0.40	J I B	10	0.19	pg/L		05/18/23 08:49	06/08/23 04:09	1
1,2,3,7,8-PeCDD	ND		51	0.35	pg/L		05/18/23 08:49	06/08/23 04:09	1

Client Sample ID: SUPE-W-30A-042723
Lab Sample ID: 180-155744-5
Date Collected: 04/27/23 11:29
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Total PeCDD	ND		51	0.35	pg/L		05/18/23 08:49	06/08/23 04:09	1
1,2,3,4,7,8-HxCDD	**1.4**	**J B**	51	0.35	pg/L		05/18/23 08:49	06/08/23 04:09	1
1,2,3,6,7,8-HxCDD	**7.1**	**J B**	51	0.32	pg/L		05/18/23 08:49	06/08/23 04:09	1
1,2,3,7,8,9-HxCDD	**2.4**	**J**	51	0.32	pg/L		05/18/23 08:49	06/08/23 04:09	1
Total HxCDD	**28**	**J I B**	51	0.33	pg/L		05/18/23 08:49	06/08/23 04:09	1
1,2,3,4,6,7,8-HpCDD	**130**	**B**	51	0.98	pg/L		05/18/23 08:49	06/08/23 04:09	1
Total HpCDD	**290**	**B**	51	0.98	pg/L		05/18/23 08:49	06/08/23 04:09	1
OCDD	**1600**	**B**	100	0.22	pg/L		05/18/23 08:49	06/08/23 04:09	1
2,3,7,8-TCDF	ND		10	0.12	pg/L		05/18/23 08:49	06/08/23 04:09	1
Total TCDF	**33**	**I B**	10	0.12	pg/L		05/18/23 08:49	06/08/23 04:09	1
1,2,3,7,8-PeCDF	ND		51	0.68	pg/L		05/18/23 08:49	06/08/23 04:09	1
2,3,4,7,8-PeCDF	**2.0**	**J I B**	51	0.57	pg/L		05/18/23 08:49	06/08/23 04:09	1
Total PeCDF	**170**	**I B**	51	0.63	pg/L		05/18/23 08:49	06/08/23 04:09	1
1,2,3,4,7,8-HxCDF	**7.8**	**J**	51	0.90	pg/L		05/18/23 08:49	06/08/23 04:09	1
1,2,3,6,7,8-HxCDF	**15**	**J**	51	0.96	pg/L		05/18/23 08:49	06/08/23 04:09	1
2,3,4,6,7,8-HxCDF	**2.2**	**J I**	51	1.0	pg/L		05/18/23 08:49	06/08/23 04:09	1
1,2,3,7,8,9-HxCDF	ND		51	1.2	pg/L		05/18/23 08:49	06/08/23 04:09	1
Total HxCDF	**170**	**I**	51	1.0	pg/L		05/18/23 08:49	06/08/23 04:09	1
1,2,3,4,6,7,8-HpCDF	**39**	**J B**	51	0.73	pg/L		05/18/23 08:49	06/08/23 04:09	1
1,2,3,4,7,8,9-HpCDF	**4.6**	**J B**	51	0.98	pg/L		05/18/23 08:49	06/08/23 04:09	1
Total HpCDF	**150**	**B**	51	0.85	pg/L		05/18/23 08:49	06/08/23 04:09	1
OCDF	**110**	**B**	100	0.14	pg/L		05/18/23 08:49	06/08/23 04:09	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*68*		*40 - 135*	*05/18/23 08:49*	*06/08/23 04:09*	*1*
13C-1,2,3,7,8-PeCDD	*65*		*40 - 135*	*05/18/23 08:49*	*06/08/23 04:09*	*1*
13C-1,2,3,4,7,8-HxCDD	*67*		*40 - 135*	*05/18/23 08:49*	*06/08/23 04:09*	*1*
13C-1,2,3,6,7,8-HxCDD	*80*		*40 - 135*	*05/18/23 08:49*	*06/08/23 04:09*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*78*		*40 - 135*	*05/18/23 08:49*	*06/08/23 04:09*	*1*
13C-OCDD	*80*		*40 - 135*	*05/18/23 08:49*	*06/08/23 04:09*	*1*
13C-2,3,7,8-TCDF	*72*		*40 - 135*	*05/18/23 08:49*	*06/08/23 04:09*	*1*
13C-1,2,3,7,8-PeCDF	*68*		*40 - 135*	*05/18/23 08:49*	*06/08/23 04:09*	*1*
13C-2,3,4,7,8-PeCDF	*69*		*40 - 135*	*05/18/23 08:49*	*06/08/23 04:09*	*1*
13C-1,2,3,4,7,8-HxCDF	*76*		*40 - 135*	*05/18/23 08:49*	*06/08/23 04:09*	*1*
13C-1,2,3,6,7,8-HxCDF	*74*		*40 - 135*	*05/18/23 08:49*	*06/08/23 04:09*	*1*
13C-2,3,4,6,7,8-HxCDF	*74*		*40 - 135*	*05/18/23 08:49*	*06/08/23 04:09*	*1*
13C-1,2,3,7,8,9-HxCDF	*75*		*40 - 135*	*05/18/23 08:49*	*06/08/23 04:09*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*81*		*40 - 135*	*05/18/23 08:49*	*06/08/23 04:09*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*76*		*40 - 135*	*05/18/23 08:49*	*06/08/23 04:09*	*1*
13C-OCDF	*75*		*40 - 135*	*05/18/23 08:49*	*06/08/23 04:09*	*1*

Client Sample ID: SUPE-W-10AR2-042723
Lab Sample ID: 180-155744-6
Date Collected: 04/27/23 14:33
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		11	0.11	pg/L		05/18/23 08:49	06/08/23 05:09	1
Total TCDD	ND		11	0.11	pg/L		05/18/23 08:49	06/08/23 05:09	1
1,2,3,7,8-PeCDD	ND		54	0.18	pg/L		05/18/23 08:49	06/08/23 05:09	1
Total PeCDD	**0.36**	**J B**	54	0.18	pg/L		05/18/23 08:49	06/08/23 05:09	1

Client: Field & Technical Services LLC
Job ID: 180-155744-2
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-10AR2-042723
Lab Sample ID: 180-155744-6
Date Collected: 04/27/23 14:33
Matrix: Water
Date Received: 04/28/23 09:10

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,7,8-HxCDD	0.93	J I B	54	0.14	pg/L		05/18/23 08:49	06/08/23 05:09	1
1,2,3,6,7,8-HxCDD	0.65	J B	54	0.13	pg/L		05/18/23 08:49	06/08/23 05:09	1
1,2,3,7,8,9-HxCDD	0.53	J I	54	0.13	pg/L		05/18/23 08:49	06/08/23 05:09	1
Total HxCDD	6.5	J I B	54	0.13	pg/L		05/18/23 08:49	06/08/23 05:09	1
1,2,3,4,6,7,8-HpCDD	19	J B	54	0.66	pg/L		05/18/23 08:49	06/08/23 05:09	1
Total HpCDD	51	J B	54	0.66	pg/L		05/18/23 08:49	06/08/23 05:09	1
OCDD	210	B	110	0.30	pg/L		05/18/23 08:49	06/08/23 05:09	1
2,3,7,8-TCDF	ND		11	0.092	pg/L		05/18/23 08:49	06/08/23 05:09	1
Total TCDF	8.7	J I B	11	0.092	pg/L		05/18/23 08:49	06/08/23 05:09	1
1,2,3,7,8-PeCDF	0.30	J I B	54	0.13	pg/L		05/18/23 08:49	06/08/23 05:09	1
2,3,4,7,8-PeCDF	0.39	J I B	54	0.12	pg/L		05/18/23 08:49	06/08/23 05:09	1
Total PeCDF	13	J I B	54	0.12	pg/L		05/18/23 08:49	06/08/23 05:09	1
1,2,3,4,7,8-HxCDF	1.1	J I	54	0.26	pg/L		05/18/23 08:49	06/08/23 05:09	1
1,2,3,6,7,8-HxCDF	1.7	J I	54	0.27	pg/L		05/18/23 08:49	06/08/23 05:09	1
2,3,4,6,7,8-HxCDF	0.86	J I	54	0.30	pg/L		05/18/23 08:49	06/08/23 05:09	1
1,2,3,7,8,9-HxCDF	ND		54	0.36	pg/L		05/18/23 08:49	06/08/23 05:09	1
Total HxCDF	28	J I	54	0.30	pg/L		05/18/23 08:49	06/08/23 05:09	1
1,2,3,4,6,7,8-HpCDF	4.2	J I B	54	0.27	pg/L		05/18/23 08:49	06/08/23 05:09	1
1,2,3,4,7,8,9-HpCDF	0.88	J I B	54	0.37	pg/L		05/18/23 08:49	06/08/23 05:09	1
Total HpCDF	14	J I B	54	0.32	pg/L		05/18/23 08:49	06/08/23 05:09	1
OCDF	12	J B	110	0.15	pg/L		05/18/23 08:49	06/08/23 05:09	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*65*		*40 - 135*	*05/18/23 08:49*	*06/08/23 05:09*	*1*
13C-1,2,3,7,8-PeCDD	*62*		*40 - 135*	*05/18/23 08:49*	*06/08/23 05:09*	*1*
13C-1,2,3,4,7,8-HxCDD	*66*		*40 - 135*	*05/18/23 08:49*	*06/08/23 05:09*	*1*
13C-1,2,3,6,7,8-HxCDD	*81*		*40 - 135*	*05/18/23 08:49*	*06/08/23 05:09*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*75*		*40 - 135*	*05/18/23 08:49*	*06/08/23 05:09*	*1*
13C-OCDD	*75*		*40 - 135*	*05/18/23 08:49*	*06/08/23 05:09*	*1*
13C-2,3,7,8-TCDF	*66*		*40 - 135*	*05/18/23 08:49*	*06/08/23 05:09*	*1*
13C-1,2,3,7,8-PeCDF	*65*		*40 - 135*	*05/18/23 08:49*	*06/08/23 05:09*	*1*
13C-2,3,4,7,8-PeCDF	*65*		*40 - 135*	*05/18/23 08:49*	*06/08/23 05:09*	*1*
13C-1,2,3,4,7,8-HxCDF	*75*		*40 - 135*	*05/18/23 08:49*	*06/08/23 05:09*	*1*
13C-1,2,3,6,7,8-HxCDF	*75*		*40 - 135*	*05/18/23 08:49*	*06/08/23 05:09*	*1*
13C-2,3,4,6,7,8-HxCDF	*74*		*40 - 135*	*05/18/23 08:49*	*06/08/23 05:09*	*1*
13C-1,2,3,7,8,9-HxCDF	*74*		*40 - 135*	*05/18/23 08:49*	*06/08/23 05:09*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*80*		*40 - 135*	*05/18/23 08:49*	*06/08/23 05:09*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*75*		*40 - 135*	*05/18/23 08:49*	*06/08/23 05:09*	*1*
13C-OCDF	*73*		*40 - 135*	*05/18/23 08:49*	*06/08/23 05:09*	*1*

Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Lab Sample ID: MB 140-73375/19-A
Matrix: Water
Analysis Batch: 74037

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73375

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		10	0.13	pg/L		05/19/23 08:35	06/07/23 06:14	1
Total TCDD	0.171	J I	10	0.13	pg/L		05/19/23 08:35	06/07/23 06:14	1
1,2,3,7,8-PeCDD	0.661	J	50	0.13	pg/L		05/19/23 08:35	06/07/23 06:14	1
Total PeCDD	0.661	J	50	0.13	pg/L		05/19/23 08:35	06/07/23 06:14	1
1,2,3,4,7,8-HxCDD	1.55	J I	50	0.23	pg/L		05/19/23 08:35	06/07/23 06:14	1
1,2,3,6,7,8-HxCDD	0.362	J	50	0.21	pg/L		05/19/23 08:35	06/07/23 06:14	1
1,2,3,7,8,9-HxCDD	ND		50	0.21	pg/L		05/19/23 08:35	06/07/23 06:14	1
Total HxCDD	2.36	J I	50	0.22	pg/L		05/19/23 08:35	06/07/23 06:14	1
1,2,3,4,6,7,8-HpCDD	2.00	J I	50	0.47	pg/L		05/19/23 08:35	06/07/23 06:14	1
Total HpCDD	2.00	J I	50	0.47	pg/L		05/19/23 08:35	06/07/23 06:14	1
OCDD	3.23	J	100	0.23	pg/L		05/19/23 08:35	06/07/23 06:14	1
2,3,7,8-TCDF	0.255	J I	10	0.12	pg/L		05/19/23 08:35	06/07/23 06:14	1
Total TCDF	3.72	J I	10	0.12	pg/L		05/19/23 08:35	06/07/23 06:14	1
1,2,3,7,8-PeCDF	0.920	J I	50	0.13	pg/L		05/19/23 08:35	06/07/23 06:14	1
2,3,4,7,8-PeCDF	1.13	J	50	0.12	pg/L		05/19/23 08:35	06/07/23 06:14	1
Total PeCDF	3.32	J I	50	0.12	pg/L		05/19/23 08:35	06/07/23 06:14	1
1,2,3,4,7,8-HxCDF	ND		50	0.23	pg/L		05/19/23 08:35	06/07/23 06:14	1
1,2,3,6,7,8-HxCDF	ND		50	0.25	pg/L		05/19/23 08:35	06/07/23 06:14	1
2,3,4,6,7,8-HxCDF	ND		50	0.26	pg/L		05/19/23 08:35	06/07/23 06:14	1
1,2,3,7,8,9-HxCDF	ND		50	0.33	pg/L		05/19/23 08:35	06/07/23 06:14	1
Total HxCDF	ND		50	0.33	pg/L		05/19/23 08:35	06/07/23 06:14	1
1,2,3,4,6,7,8-HpCDF	0.866	J I	50	0.18	pg/L		05/19/23 08:35	06/07/23 06:14	1
1,2,3,4,7,8,9-HpCDF	0.635	J I	50	0.23	pg/L		05/19/23 08:35	06/07/23 06:14	1
Total HpCDF	1.96	J I	50	0.21	pg/L		05/19/23 08:35	06/07/23 06:14	1
OCDF	1.50	J I	100	0.19	pg/L		05/19/23 08:35	06/07/23 06:14	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*65*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-1,2,3,7,8-PeCDD	*62*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-1,2,3,4,7,8-HxCDD	*71*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-1,2,3,6,7,8-HxCDD	*82*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*81*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-OCDD	*83*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-2,3,7,8-TCDF	*66*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-1,2,3,7,8-PeCDF	*64*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-2,3,4,7,8-PeCDF	*66*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-1,2,3,4,7,8-HxCDF	*81*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-1,2,3,6,7,8-HxCDF	*78*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-2,3,4,6,7,8-HxCDF	*79*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-1,2,3,7,8,9-HxCDF	*76*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*82*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*79*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*
13C-OCDF	*74*		*40 - 135*	*05/19/23 08:35*	*06/07/23 06:14*	*1*

Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 140-73375/18-A
Matrix: Water
Analysis Batch: 74037

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73375

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
2,3,7,8-TCDD			200	187		pg/L		93	77 - 127		
1,2,3,7,8-PeCDD			1000	1010		pg/L		101	78 - 128		
1,2,3,4,7,8-HxCDD			1000	1000		pg/L		100	73 - 123		
1,2,3,6,7,8-HxCDD			1000	935		pg/L		93	72 - 127		
1,2,3,7,8,9-HxCDD			1000	1010		pg/L		101	76 - 126		
1,2,3,4,6,7,8-HpCDD			1000	964		pg/L		96	73 - 123		
OCDD			2000	1930		pg/L		97	75 - 125		
2,3,7,8-TCDF			200	190		pg/L		95	74 - 124		
1,2,3,7,8-PeCDF			1000	1020		pg/L		102	74 - 124		
2,3,4,7,8-PeCDF			1000	1020		pg/L		102	74 - 124		
1,2,3,4,7,8-HxCDF			1000	865		pg/L		87	75 - 125		
1,2,3,6,7,8-HxCDF			1000	932		pg/L		93	75 - 125		
2,3,4,6,7,8-HxCDF			1000	949		pg/L		95	76 - 126		
1,2,3,7,8,9-HxCDF			1000	929		pg/L		93	76 - 126		
1,2,3,4,6,7,8-HpCDF			1000	920		pg/L		92	71 - 121		
1,2,3,4,7,8,9-HpCDF			1000	972		pg/L		97	73 - 123		
OCDF			2000	1940		pg/L		97	68 - 132		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C-2,3,7,8-TCDD	*64*		*40 - 135*
13C-1,2,3,7,8-PeCDD	*65*		*40 - 135*
13C-1,2,3,4,7,8-HxCDD	*71*		*40 - 135*
13C-1,2,3,6,7,8-HxCDD	*76*		*40 - 135*
13C-1,2,3,4,6,7,8-HpCDD	*81*		*40 - 135*
13C-OCDD	*85*		*40 - 135*
13C-2,3,7,8-TCDF	*65*		*40 - 135*
13C-1,2,3,7,8-PeCDF	*63*		*40 - 135*
13C-2,3,4,7,8-PeCDF	*67*		*40 - 135*
13C-1,2,3,4,7,8-HxCDF	*79*		*40 - 135*
13C-1,2,3,6,7,8-HxCDF	*73*		*40 - 135*
13C-2,3,4,6,7,8-HxCDF	*76*		*40 - 135*
13C-1,2,3,7,8,9-HxCDF	*75*		*40 - 135*
13C-1,2,3,4,6,7,8-HpCDF	*82*		*40 - 135*
13C-1,2,3,4,7,8,9-HpCDF	*81*		*40 - 135*
13C-OCDF	*80*		*40 - 135*

QC Association Summary

Client: Field & Technical Services LLC
Job ID: 180-155744-2
Project/Site: Superior, WI Semiannual Groundwater

Specialty Organics

Prep Batch: 73375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-155744-1	SUPE-W-04AR2-042723	Total/NA	Water	8290	
180-155744-2	SUPE-W-99B-042723	Total/NA	Water	8290	
180-155744-3	SUPE-W-12A-042723	Total/NA	Water	8290	
180-155744-5	SUPE-W-30A-042723	Total/NA	Water	8290	
180-155744-6	SUPE-W-10AR2-042723	Total/NA	Water	8290	
MB 140-73375/19-A	Method Blank	Total/NA	Water	8290	
LCS 140-73375/18-A	Lab Control Sample	Total/NA	Water	8290	

Analysis Batch: 74037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 140-73375/19-A	Method Blank	Total/NA	Water	8290A	73375
LCS 140-73375/18-A	Lab Control Sample	Total/NA	Water	8290A	73375

Analysis Batch: 74097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-155744-1	SUPE-W-04AR2-042723	Total/NA	Water	8290A	73375
180-155744-2	SUPE-W-99B-042723	Total/NA	Water	8290A	73375
180-155744-3	SUPE-W-12A-042723	Total/NA	Water	8290A	73375
180-155744-5	SUPE-W-30A-042723	Total/NA	Water	8290A	73375
180-155744-6	SUPE-W-10AR2-042723	Total/NA	Water	8290A	73375

FTS Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 502083

[redacted]

Project Name:	Superior, WI - 2023 OM&M Program	Company:	Field & Technical Services	Client:	Beazer East, Inc.
Project Number:	OM-0556-23	Address:	200 Third Avenue	Contact:	
Laboratory:	TAKNOX		Carnegie, PA 15106		slindquist.2006@f-ts.com
Shipment Method	FEDEX		(412) 279-3363		
Program:	Superior 2023 1SA Sampling_001				

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8290_Dioxins/Furans (Knoxville) (1L)																Notes:
				Preservative	None																
				Total Bottle Count	[illegible]																
04/27/2023	0855	GW	SUPE-W-04AR2-042723	2	2																
04/27/2023	1030	GW	SUPE-W-99B-042723	2	2																

180-155744 Chain of Custody

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: [signature]	Signature: [signature]	Signature:	Signature:	[ ] Rush
Printed Name: Shane Lindquist	Printed Name: [signature]	Printed Name:	Printed Name:	
Firm FTS	Firm [signature]	Firm	Firm	[X] Standard
Date/Time: 04/27/2023 1647	Date/Time: 4-27-23 0910	Date/Time:	Date/Time:	

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 502081 [redacted]

FTS Field & Technical Services, LLC

Ref 210311

Project Name: Superior, WI - 2023 OM&M Program
Project Number: OM-0556-23
Laboratory: TACHI
Shipment Method FEDEX
Program: Superior 2023 1SA Sampling_001

Company: Field & Technical Services
Address: 200 Third Avenue
Carnegie, PA 15106
(412) 279-3363

Client: Beazer East, Inc.
Contact: slindquist.2006@f-ts.com

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8270D_SVOC (less naphtha) (Chicago)																Notes:
				Preservative	None																
				Total Bottle Count																	
04/27/2023	0855	GW	SUPE-W-04AR2-042723	2	2																
04/27/2023	1030	GW	SUPE-W-99B-042723	2	2																

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: [signature]	Signature: [signature]	Signature:	Signature:	[ ] Rush
Printed Name: Shane Lindquist	Printed Name: [illegible]	Printed Name:	Printed Name:	[X] Standard
Firm FTS	Firm FTS/HWE	Firm	Firm	
Date/Time:	Date/Time: 4/28/23 0910	Date/Time:	Date/Time:	

Page 1 of 1

FTS Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 502076 [redacted]

Project Name: Superior, WI - 2023 OM&M Program
Project Number: OM-0556-23
Laboratory: TAKNOX
Shipment Method FEDEX
Program: Superior 2023 1SA Sampling_001

Company: Field & Technical Services
Address: 200 Third Avenue
Carnegie, PA 15106
(412) 279-3363

Client: Beazer East, Inc.
Contact:
mferrick.2006@f-ts.com

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8290_Dioxins/Furans (Knoxville) (1L)															Notes:
				Preservative	None															
				Total Bottle Count	[redacted]															
04/27/2023	0844	GW	SUPE-W-12A-042723	2	2															
04/27/2023	1100	GW	SUPE-EB-02-042723	2	2															
04/27/2023	1129	GW	SUPE-W-30A-042723	2	2															
04/27/2023	1433	GW	SUPE-W-10AR2-042723	2	2															

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: [signature]	Signature: [signature]	Signature:	Signature:	☐ Rush
Printed Name: Marie Ferrick	Printed Name: [illegible]	Printed Name:	Printed Name:	
Firm FTS	Firm [illegible]	Firm	Firm	☒ Standard
Date/Time: 04/27/2023 2212	Date/Time: 4-28-23 0910	Date/Time:	Date/Time:	

FTS Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 502074 [redacted]

Project Name: Superior, WI - 2023 OM&M Program
Project Number: OM-0556-23
Laboratory: TACHI
Shipment Method FEDEX
Program: Superior 2023 1SA Sampling_001

Company: Field & Technical Services
Address: 200 Third Avenue
Carnegie, PA 15106
(412) 279-3363

Client: Beazer East, Inc.
Contact: mferrick.2006@f-ts.com

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8270D_SVOC (less naphtha) (Chicago) (cas...)																Notes:
				Preservative	None																
				Total Bottle Count	[redacted]																
04/27/2023	0844	GW	SUPE-W-12A-042723	2	2																
04/27/2023	1100	GW	SUPE-EB-02-042723	2	2																
04/27/2023	1129	GW	SUPE-W-30A-042723	2	2																
04/27/2023	1433	GW	SUPE-W-10AR2-042723	2	2																

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: [signature]	Signature: [signature]	Signature:	Signature:	[ ] Rush
Printed Name: Marie Ferrick	Printed Name: [signature]	Printed Name:	Printed Name:	[X] Standard
Firm FTS	Firm [signature]	Firm	Firm	
Date/Time: 04/27/2023 2212	Date/Time: 4-28-23 0910	Date/Time:	Date/Time:	

FTS Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 502082 [redacted]

Project Name: Superior, WI - 2023 OM&M Program
Project Number: OM-0556-23
Laboratory: TABUF
Shipment Method FEDEX
Program: Superior 2023 1SA Sampling_001

Company: Field & Technical Services
Address: 200 Third Avenue
Carnegie, PA 15106
(412) 279-3363

Client: Beazer East, Inc.
Contact:
slindquist.2006@f-ts.com

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8260C_VOA+naphtha (Buffalo)	8270D LL_PCP (Buffalo) (1L)													Notes:
				Preservative	HCL	None													
				Total Bottle Count	[redacted]														
04/27/2023	0855	GW	SUPE-W-04AR2-042723	6	3	3													
04/27/2023	1030	GW	SUPE-W-99B-042723	6	3	3													

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: [signature]	Signature: [signature]	Signature:	Signature:	☐ Rush
Printed Name: Shane Lindquist	Printed Name: Veenya Rucker	Printed Name:	Printed Name:	
Firm FTS	Firm F/FTS	Firm	Firm	☒ Standard
Date/Time: 04/27/2023 1647	Date/Time: 4-28-23 0910	Date/Time:	Date/Time:	

FTS Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 502075 [redacted]

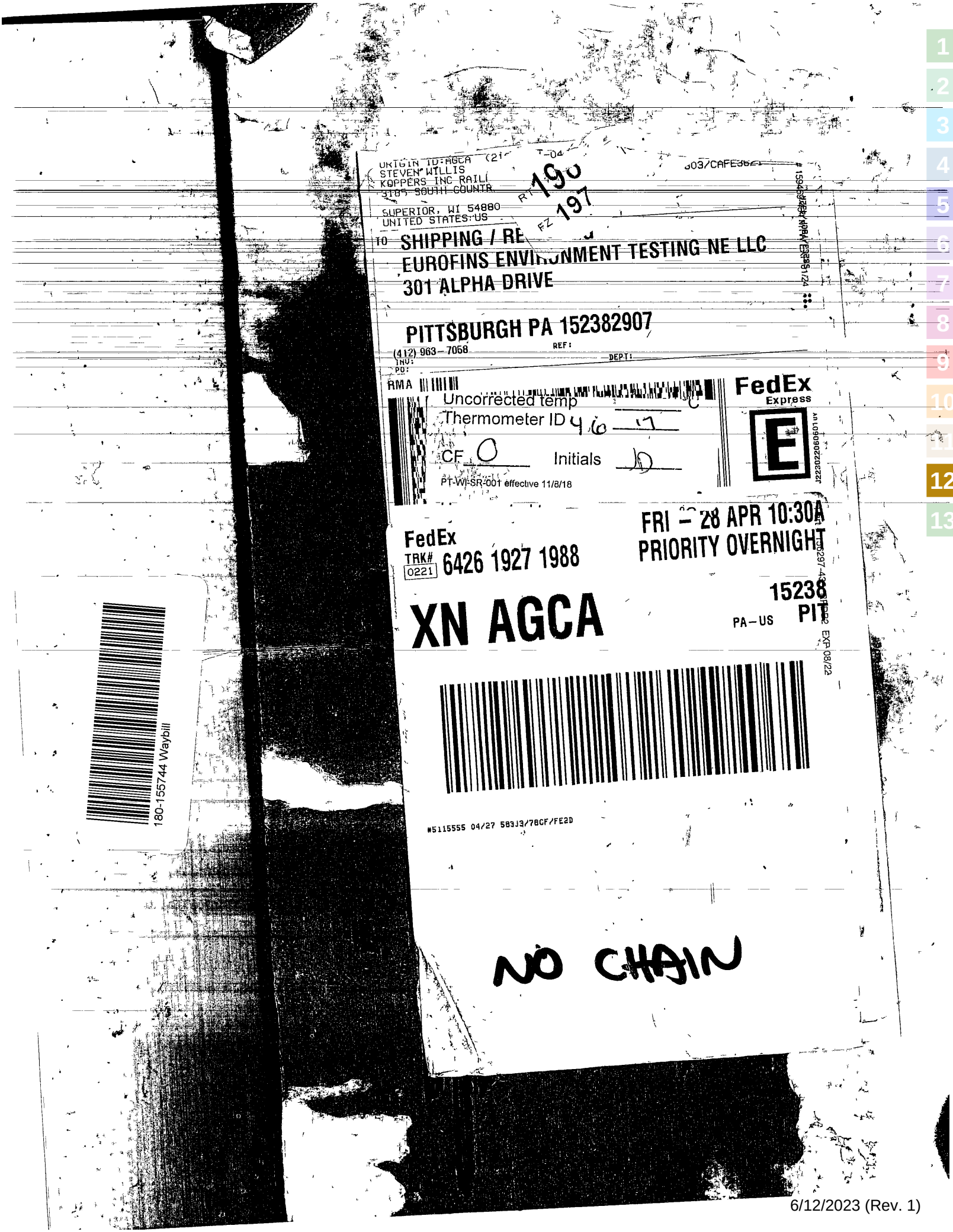
Project Name: Superior, WI - 2023 OM&M Program
Project Number: OM-0556-23
Laboratory: TABUF
Shipment Method FEDEX
Program: Superior 2023 1SA Sampling_001

Company: Field & Technical Services
Address: 200 Third Avenue
Carnegie, PA 15106
(412) 279-3363

Client: Beazer East, Inc.
Contact:
mferrick.2006@f-ts.com

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8260C_VOA+naphtha (Buffalo)	8270D LL_PCP (Buffalo) (1L)														Notes:
				Preservative	HCL	None														
				Total Bottle Count																
04/27/2023	0844	GW	SUPE-W-12A-042723	6	3	3														
04/27/2023	1100	GW	SUPE-EB-02-042723	6	3	3														
04/27/2023	1129	GW	SUPE-W-30A-042723	6	3	3														
04/27/2023	1433	GW	SUPE-W-10AR2-042723	6	3	3														

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: [signature]	Signature: [signature]	Signature:	Signature:	[ ] Rush
Printed Name: Marie Ferrick	Printed Name: [illegible]	Printed Name:	Printed Name:	
Firm FTS	Firm FTS/TAT	Firm	Firm	[X] Standard
Date/Time: 04/27/2023 2212	Date/Time: 4-28-23 0910	Date/Time:	Date/Time:	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3185 SOUTH COUNTR
SUPERIOR, WI 54880
UNITED STATES US
TO SHIPPING / RE
EUROFINS ENVIRONMENT TESTING NE LLC
301 ALPHA DRIVE
PITTSBURGH PA 152382907
(412) 963-7058
REF:
INV:
PO:
DEPT:
RMA
Uncorrected temp
Thermometer ID 46
CF 0
Initials
PT-WI-SR-001 effective 11/8/18
FedEx Express
FedEx
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PRIORITY OVERNIGHT
XN AGCA
15238
PA-US
PIT
180-155744 Waybill
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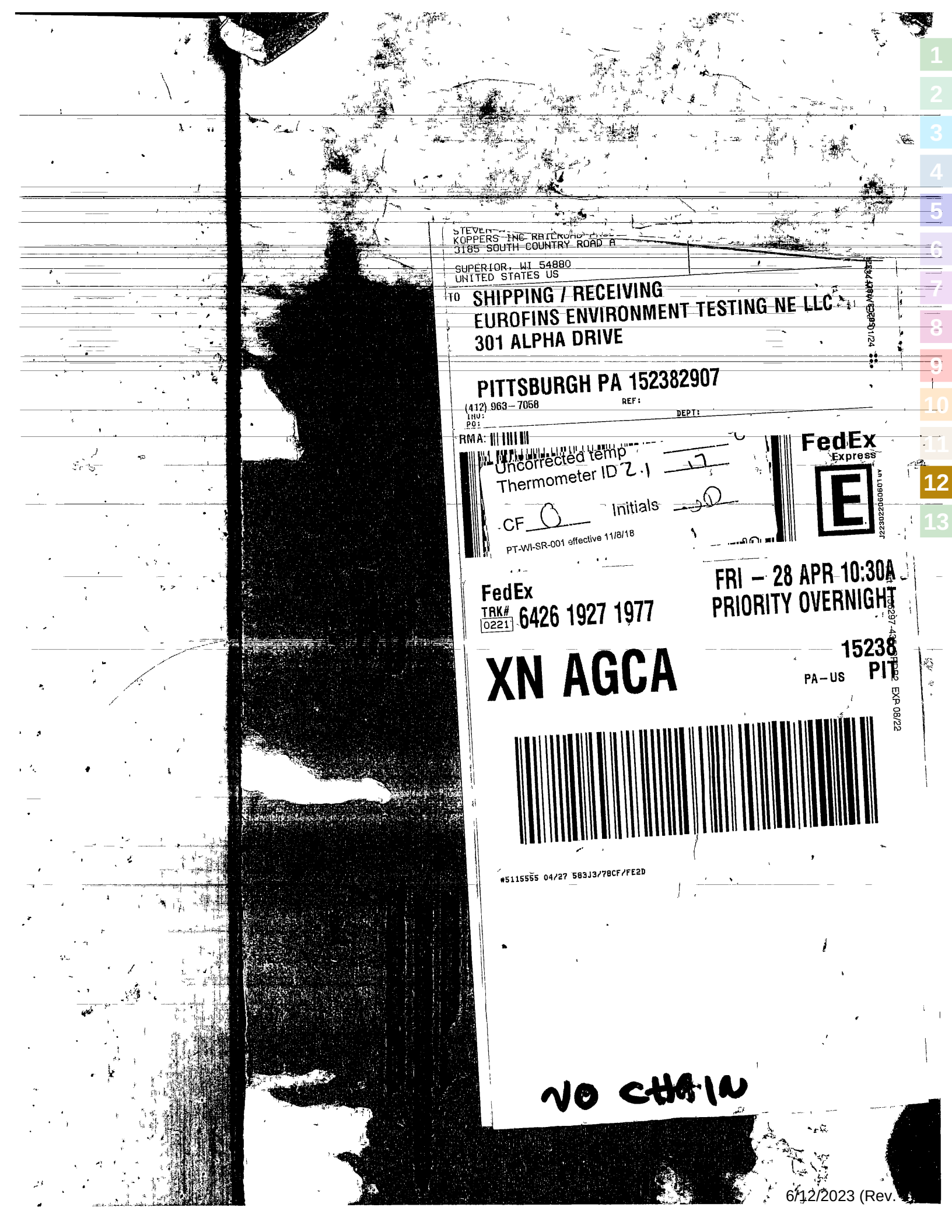
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3185 SOUTH COUNTRY ROAD A
SUPERIOR, WI 54880
UNITED STATES US
TO SHIPPING / RECEIVING
EUROFINS ENVIRONMENT TESTING NE LLC
301 ALPHA DRIVE
PITTSBURGH PA 152382907
(412) 963-7058
REF:
INV:
PO:
DEPT:
RMA:
Uncorrected temp
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FRI - 28 APR 10:30A
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15238
PA-US
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EXP 08/22
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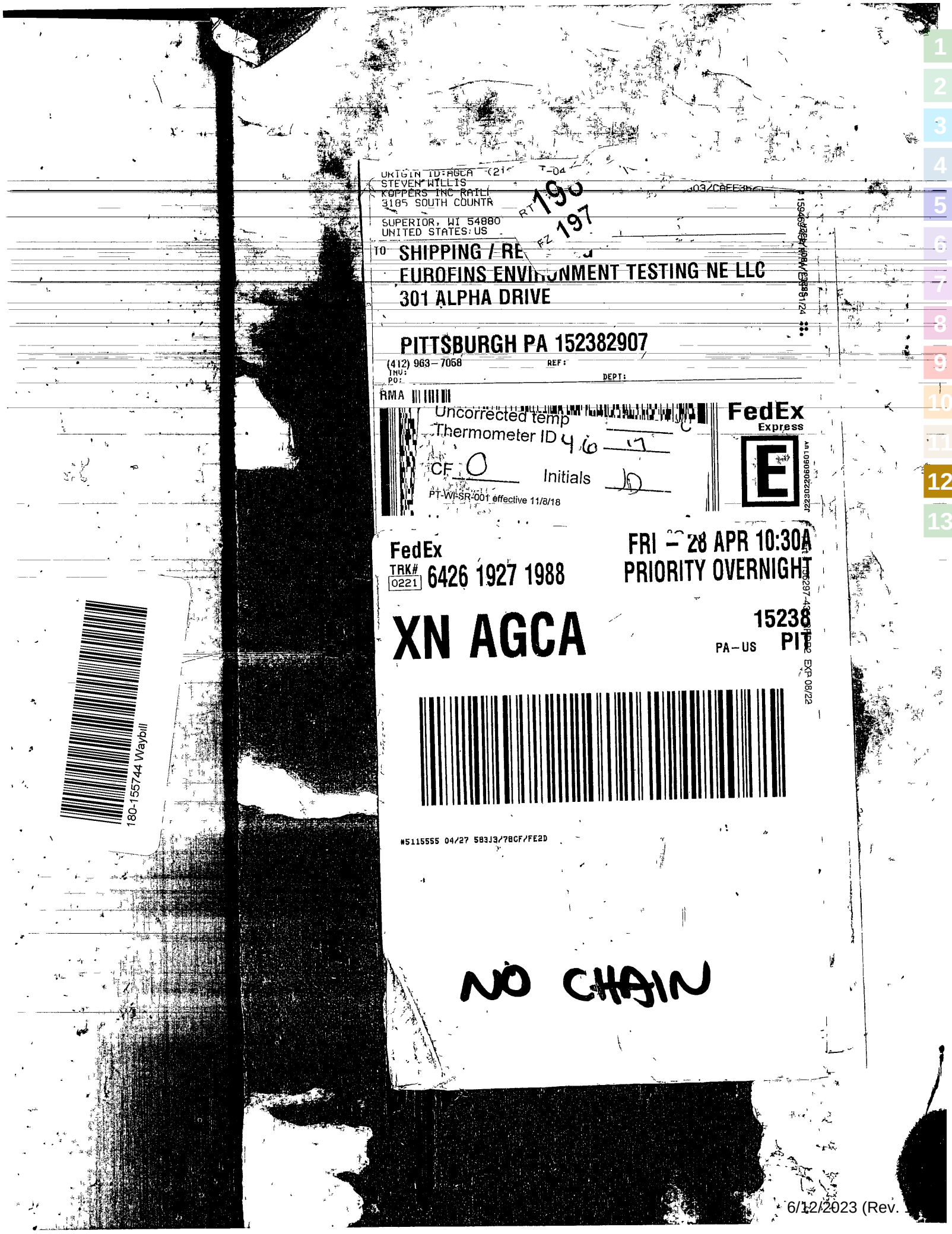
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STEVEN WILLIS
KOPPERS INC RAIL
3185 SOUTH COUNTR
SUPERIOR, WI 54880
UNITED STATES:US
SHIPPING / RE
EUROFINS ENVIRONMENT TESTING NE LLC
301 ALPHA DRIVE
PITTSBURGH PA 152382907
(412) 963-7058
REF:
INV:
PO:
DEPT:
RMA
Uncorrected temp
Thermometer ID 46
CF 0
Initials
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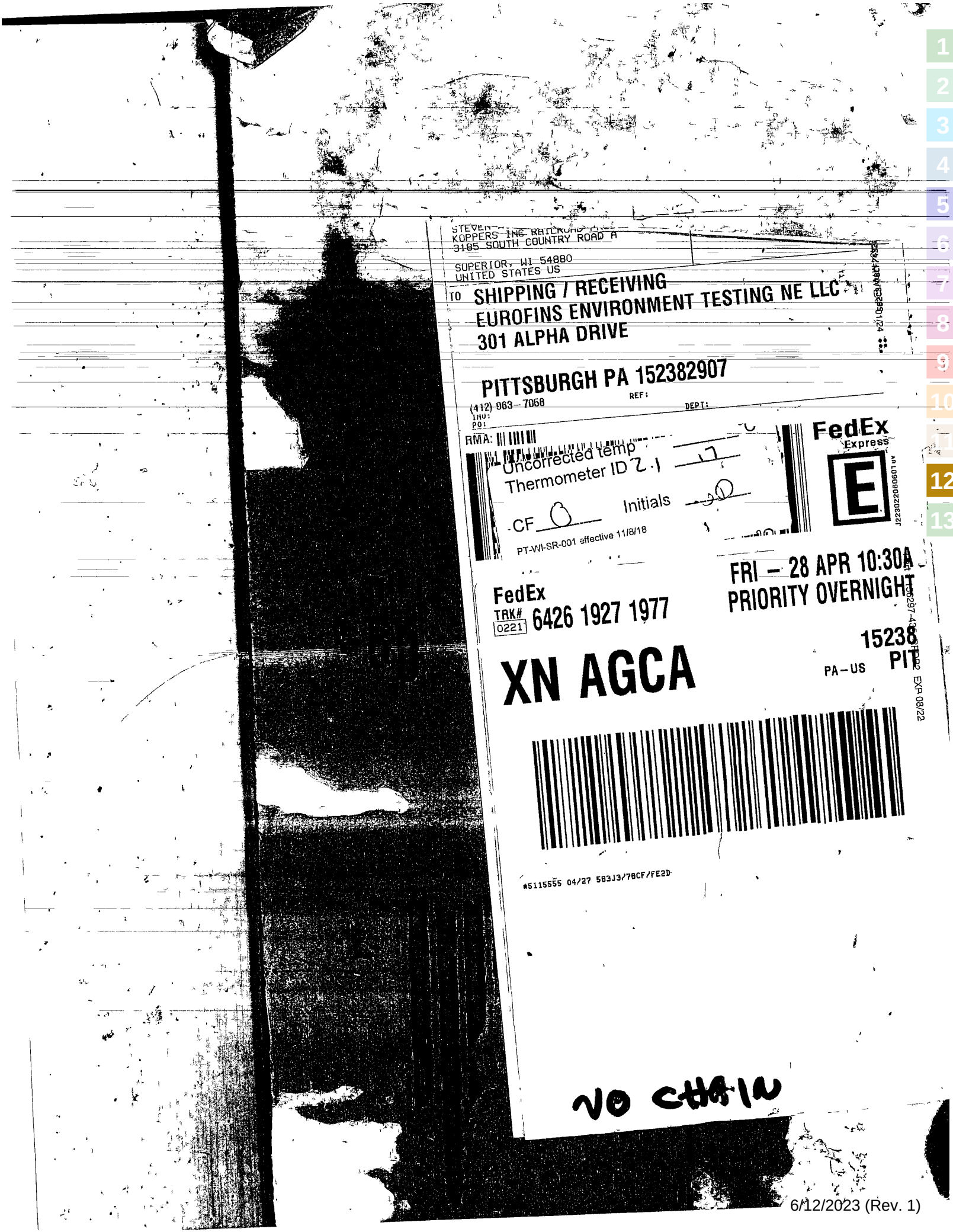
15238
PA-US
PI
#5115555 04/27 583J3/78CF/FE2D
NO CHAIN
180-155744 Waybill


KOPPERS INC RAILROAD
3185 SOUTH COUNTRY ROAD A
SUPERIOR, WI 54880
UNITED STATES US
TO SHIPPING / RECEIVING
EUROFINS ENVIRONMENT TESTING NE LLC
301 ALPHA DRIVE
PITTSBURGH PA 152382907
(412) 963-7058
REF:
INV:
PO:
DEPT:
RMA:
Uncorrected temp
Thermometer ID 2.1
CF 0
Initials
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PRIORITY OVERNIGHT
XN AGCA
15238
PA-US
PIT
EXP 08/22
#5115555 04/27 583J3/78CF/FE2D
NO CHAIN

Login Sample Receipt Checklist

Client: Field & Technical Services LLC

Job Number: 180-155744-2

Login Number: 155744
List Number: 1
Creator: Abernathy, Eric L

List Source: Eurofins Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX F

ASCII DATA