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

February 9, 2022

Mr. John Sager
Wisconsin Department of Natural Resources
1701 N. 4th Street
Superior, WI 54880
(715) 392-7822

John.Sager@wisconsin.gov

RE: 2021 RCRA Annual Groundwater Monitoring Report
Former Koppers Inc. Facility
Superior, Wisconsin
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 2021 RCRA Annual Groundwater Monitoring Report for the above-referenced facility.

If you have any questions, please contact me at (412) 429-2694.

Sincerely,

Field & Technical Services LLC

Angie Gatchie
Project Scientist

Attachments: Original Report (hardcopy) and CD (electronic copy)

cc: D. Coenen, WDNR
L. Paul, Koppers Inc. (electronic copy only)
J. Patarcity, Beazer East (electronic copy only)
D. Bessingpass (.pdf transmittal)
H. Pappert, FTS – site copy

2021 RCRA ANNUAL GROUNDWATER MONITORING REPORT

Former Koppers Inc. Facility
Superior, Wisconsin
EPA ID No.: WID 006 176 493

Prepared for:

Beazer East, Inc.

Prepared by:

Field & Technical Services, LLC
200 Third Avenue
Carnegie, Pennsylvania 15106

February 9, 2022

CERTIFICATION

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

Document: **2021 RCRA Annual Groundwater Monitoring Report**
Former Koppers Inc. Facility
Superior, Wisconsin
EPA ID No. WID 006 176 493

Michael Slenska
(Name)


(Signature)

President
(Title)

Beazer East, Inc.
(Company Name)

February 8, 2022
(Date)

PROFESSIONAL GEOLOGIST CERTIFICATION

"I, Thomas E. Jordan, hereby certify that to the best of my knowledge, all information contained in this document is correct and I have personally examined this report, and I am familiar with the information and all attachments herein. Furthermore, based on my inquiry of those persons immediately responsible for obtaining the information contained in this report, I believe that the information is true, accurate, and complete."

Document: **2021 RCRA Annual Groundwater Monitoring Report**
Former Koppers Inc. Facility
Superior, Wisconsin
EPA ID No. WID 006 176 493

Thomas E. Jordan, Ph.D., P.G.
Key Environmental, Inc.
Professional Geologist Registration Number 369

01/20/22
Date

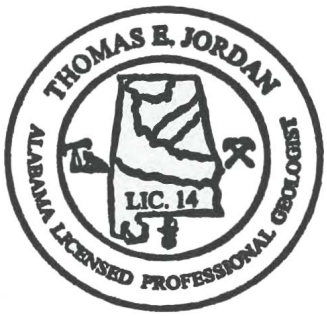


TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

ABBREVIATIONS/ACRONYMS

2002 SAP	Groundwater Monitoring Sampling Analysis Plan dated April 2002 approved by WDNR on October 29, 2002
AMEC	AMEC Earth and Environmental, Inc.
Beazer	Beazer East, Inc.
CAMU	Corrective Action Management Unit
CCO	Conditional Close-Out
CMI	Corrective Measures Implementation
CMS	Corrective Measures Study
DMZ	Design Management Zone
DNAPL	Dense Non-Aqueous Phase Liquid
ES	Wisconsin Enforcement Standards
ft/day	feet per day
ft-bgs	feet below ground surface
ft-btoc	feet below top of casing
FCMS	Focused Corrective Measures Study
FTS	Field & Technical Services, LLC
HHRA	Human Health Risk Assessment
HHERA	Human Health and Ecological Risk Assessment
HSWA	Hazardous and Solid Waste Amendments
ILR	Interim Letter Report
Koppers	Koppers Inc.
MCL	USEPA Maximum Contaminant Levels
ug/l	micrograms per liter
PAH	Polycyclic Aromatic Hydrocarbon
PAL	Wisconsin Preventative Action Limits
Plan Approval	Conditional Closure and Long-Term Care Plan Approval dated October 1, 1987
Plan Approval Modification	Conditional Closure and Long Term Care Plan Approval Modification dated October 29, 2002

ABBREVIATIONS/ACRONYMS
(CONTINUED)

PWP	Project Work Plan
RCRA	Resource Conservation and Recovery Act
RETEC	The RETEC Group, Inc.
SAP	Sampling and Analysis Plan
Site	Former Koppers Inc. Facility, Superior, Wisconsin
SVOC	Semi-Volatile Organic Constituent
TCDD	2,3,7,8-tetrachlorodibenzo-p-dioxin
TEF	Toxicity Equivalency Factor
TEQ	Toxicity Equivalent Quotient
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Constituent
WDNR	Wisconsin Department of Natural Resources
WHO	World Health Organization

1.0 INTRODUCTION

Field and Technical Services, LLC (FTS), on behalf of Beazer East, Inc. (Beazer), prepared this 2021 Resource Conservation and Recovery Act (RCRA) Annual Groundwater Monitoring Report to summarize the compliance groundwater monitoring data collected in 2021 at the former Koppers Inc. (Koppers) facility (Site) located in Superior, Wisconsin.

The purpose of the compliance groundwater monitoring program is to evaluate groundwater quality in the vicinity of two closed surface impoundments, which comprise a single RCRA-regulated unit at the Site. Beazer implements this program in accordance with the following documents and regulations:

- The Conditional Closure and Long-Term Care Plan Approval (Plan Approval) (Wisconsin Department of Natural Resources [WDNR], October 1, 1987);
- The Conditional Closure and Long Term Care Plan Approval Modification (Plan Approval Modification) (WDNR, October 29, 2002);
- Wisconsin Administrative Code NR 664, subchapter F (formerly NR 635); and
- The Site Sampling Analysis Plan (2002 SAP) (The RETEC Group, Inc. [RETEC], April 2002).

Consistent with the requirements established by these documents, this report summarizes the data for two semi-annual sampling events performed in 2021, includes discussions of data trends as well as analytical data trend maps, and presents the annual determination of groundwater flow rate and direction.

1.1 SITE DESCRIPTION

The 112-acre Site is located in northwestern Wisconsin (at the junction of County Roads A and Z), approximately five miles southeast of the town of Superior, in Douglas County. Figure 1 shows the general configuration of the Site. The area immediately surrounding the Site is sparsely populated and consists primarily of brush, woodland, and marshy areas.

1.2 PROJECT BACKGROUND

The facility historically produced pressure-treated railroad cross ties, bridge timbers, switch ties, and crossing panels using creosote (in a No. 6 fuel oil carrier) as the primary

preservative. From 1955 through 1979, the facility treated telephone poles using a petroleum oil preservative containing pentachlorophenol. Koppers Inc. (the prior facility owner) discontinued all wood treating operations at the Site in 2006. The former process facilities have been dismantled and removed from the Site. The Site is currently used by TRP Properties, LLC (the current property owner) as a railroad tie grinding facility. In addition, Koppers Inc. leases portions of the property for storage and transfer of untreated railroad ties.

Prior to 1988, the facility was owned and operated by Koppers Company, Inc. In June 1988, BNS Acquisitions, Inc. (a wholly-owned subsidiary of Beazer PLC) acquired 90 percent of the stock of Koppers Company Inc. On December 28, 1988, the Superior facility was sold to Koppers Industries, Inc., and on January 26, 1989 the name Koppers Company Inc. was changed to Beazer Materials and Services, Inc. On April 16, 1990, the name Beazer Materials and Services, Inc. was changed to Beazer East, Inc. The name Koppers Industries, Inc. was changed to Koppers Inc. in February 2003. Koppers Inc. sold the property to TRP Properties, LLC in September 2012. Beazer East, Inc. retains certain environmental responsibilities at the Site, including monitoring and maintenance associated with the closed RCRA surface impoundments.

In 1977, four non-RCRA wastewater impoundments were constructed as part of the facility's wastewater treatment system. The impoundments were closed in 1982 by removing the water and excavating sludges and soils for off-Site disposal.

In 1982, following closure of the non-RCRA wastewater impoundments, two clay-lined impoundments (the RCRA regulated unit) were constructed to store process wastewater following oil-water separation. These units were considered RCRA units because they contained K001 waste (bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol). However, it should be noted that the use of pentachlorophenol as a wood preservative at the Superior facility was discontinued in 1979, three years prior to the construction of the RCRA impoundments. Thus, the RCRA impoundments are not expected to have received wastewater containing pentachlorophenol.

The areal dimensions of the RCRA impoundment system (including berms) are approximately 350 feet by 220 feet. As shown on Figure 1, a portion of the RCRA impoundment system overlies two of the southern non-RCRA impoundments. The non-RCRA impoundments extended north of the RCRA impoundment system by approximately 400 feet.

Closure activities for the RCRA impoundment system were initiated in the early part of 1988. Wastewater and sludges were removed and taken off-site for disposal prior to closure. The RCRA impoundments were closed in 1989. The closure activities were conducted in accordance with a Closure and Post-Closure Care Plan (Keystone, 1987)

and associated Conditional Closure and Long-Term Care Plan Approval (WDNR, 1987). The completed closure activities were documented in a Construction Documentation Surface Impoundment Closure Report (Keystone, 1989).

Appendix A contains a project activity milestone summary that describes significant project activities and regulatory deliverables.

1.3 CURRENT GROUNDWATER SAMPLING ACTIVITIES

As stated previously, Beazer is currently implementing this post-closure compliance groundwater monitoring program in accordance with the 2002 SAP (formally approved by the WDNR on October 29, 2002). The 2021 groundwater sampling activities were completed on the following dates:

- First semi-annual event - April 27, 2021 through April 29, 2021; and
- Second semi-annual event - October 4, 2021 through October 6, 2021.

A total of 37 wells comprised the monitoring well network during 2021 (Figure 1; Table 1). Three of these 37 wells (W-18D, W-33D, and W-34D) are D-zone (bedrock) wells that are not officially part of the NR 664 RCRA monitoring network, although one or more of these three wells have generally been gauged and/or sampled in conjunction with the semi-annual monitoring events over the last several years.

During the first and second semi-annual 2021 groundwater monitoring events, all existing monitoring wells were gauged to evaluate groundwater flow patterns, and groundwater samples were collected from 10 wells for laboratory analysis (Appendix B contains the field forms from both events). The 10 wells sampled included:

- Upgradient (background) monitoring wells W-04AR2 and W-28C;
- Side-gradient or downgradient monitoring wells W-06A, W-06C, W-10AR2, W-12A, W-12CR, W-30A, and W-30C; and
- Bedrock monitoring well W-18D.

Well W-18D is not a required component of the approved monitoring program, but is sampled periodically at Beazer's discretion. The other nine wells that were sampled represent the required sampling component of the approved RCRA groundwater monitoring program.

1.4 MONITORING WELL STATUS

Monitoring well inspections were performed during both the first and second 2021 semi-annual sampling events. All of the monitoring wells were reported to be in good

condition with no major repairs required during the April 2021 and October 2021 well inspections.

During the previous year's October 2020 well inspection, monitoring wells W-08A, W-21A, W-28C, and W-30A were reported to have casings that needed repair; however all four monitoring wells were able to be secured with a j-plug during the October 2020 event. These four wells were modified and fixed during the April 2021 monitoring event and were resurveyed on June 1, 2021.

1.5 DOCUMENT ORGANIZATION

The remainder of the 2021 RCRA Annual Groundwater Monitoring Report is organized in the following manner:

- Section 2 – Site Geologic and Hydrologic Conditions
- Section 3 – Groundwater Monitoring Results
- Section 4 – Current Site Status
- Section 5 – References

2.0 SITE GEOLOGIC AND HYDROLOGIC CONDITIONS

The information summarized in Sections 2.1 and 2.2 is based on details presented in previous reports for the Site.

2.1 SITE GEOLOGY

In some areas of the Site, primarily in the vicinity of the former treatment area, a thin layer of fill material is present at the ground surface. However, most of the Site is underlain by a sequence of Quaternary sediments deposited by continental glaciers. Three of the four stratigraphic zones of interest at the Site are within these deposits.

The uppermost stratigraphic unit is a red-brown clay deposit, which likely represents a till composed of reworked lake bottom sediments. The upper approximately 15 feet of the red-brown clay contains hairline fractures filled with greenish gray silt and clay. The shallow (A-zone) and intermediate (B-zone) zones consist primarily of this clay with little to no sand or gravel.

The lower regions of the red-brown clay unit, which represent the deep zone (C-zone) at the Site, contain discontinuous deposits of fine- to coarse-grained sand and silt. These discontinuous fine to coarse grained deposits occur at depths that vary from approximately 35 to 50 feet below ground surface (ft-bgs) in certain areas of the Site.

The clay unit continues beneath the discontinuous sand and silt deposits to the top of the Precambrian Lake Superior Sandstone, the uppermost bedrock (D-zone) at the Site. The Precambrian Lake Superior Sandstone occurs regionally at a depth of approximately 170 ft-bgs.

2.2 GROUNDWATER

Perched groundwater may be temporarily retained in the thin fill layer (where present). However, across most of the Site, the uppermost groundwater occurs in an unconfined state within the thick red-brown clay (an aquitard). The A-zone monitoring wells monitor the water table in this shallow clay with the bottom of the screened interval typically located approximately 13.0 to 15.5 ft-bgs. Depth to groundwater in the A-zone wells ranged from 0.90 to 5.27 feet below top of casing (ft-btoc) during the April 2021 event (Table 2A), and from 1.32 to 11.60 ft-btoc during the October 2021 event (Table 2B). Previous geologic studies in the Superior area and aquifer testing at the Site show these clay deposits to have very low intergranular hydraulic conductivities. There are also three B-zone monitoring wells at the Site, which monitor slightly deeper zones within the shallow clay (bottom of the screened interval located approximately 32 to 35 ft-bgs). Depth to groundwater in the B-zone wells ranged from 6.05 to 7.33 ft-btoc

during the April 2021 event (Table 2A), and from 6.70 to 7.82 ft-btoc during the October 2021 event (Table 2B).

The C-zone wells monitor groundwater in the discontinuous silt and sand within the clay unit and are generally screened at depths from approximately 39 to 49 ft-bgs. Groundwater occurs in a confined state within the C-zone. Depth to groundwater in the C-zone wells ranged from 10.02 to 15.00 ft-btoc in April 2021 (Table 2A), and from 10.18 to 15.80 ft-btoc in October 2021 (Table 2B).

Three D-zone wells (W-18D, W-33D, and W-34D) were installed in February 2000 to evaluate groundwater flow and quality in the bedrock zone. These wells are screened at depths of approximately 176 to 196 ft-bgs, and they monitor the Precambrian Lake Superior Sandstone, which is the uppermost bedrock at the Site. Depth to groundwater for the D-zone wells ranged from 36.72 to 45.55 ft-btoc during the April 2021 event (Table 2A) and from 39.24 to 47.45 ft-btoc during the October 2021 event (Table 2B).

Dense Non-Aqueous Phase Liquid (DNAPL)

All wells were gauged for the presence of dense non-aqueous phase liquid (DNAPL) on April 27, 2021 and October 4 through 5, 2021. DNAPL was not observed in any monitoring wells at the Site during either the April or the October 2021 monitoring events.

Groundwater Flow Directions

On April 27, 2021 and October 4 through 5, 2021, the FTS field crew measured and recorded water levels in the Site monitoring well network. Groundwater elevations calculated from these measurements for the first and second semi-annual events are presented in Tables 2A and 2B, respectively. Groundwater elevation contour maps for the A-zone and the C-zone are presented as Figures 2 through 5. Because there are only three D-zone wells at the Site, groundwater elevation contour maps are not prepared for the D-zone. However, based on the potentiometric surface elevations measured for the three wells, it appears that groundwater flow in the D-zone is to the north/northwest.

Historically, groundwater flow patterns in the shallow and intermediate clay indicate localized distortions to the overall northerly flow due to combined effects of variability in recharge; low hydraulic conductivity of the clay; and interactions with surface water (drainage ditches). However, groundwater elevation data consistently support a generally northerly flow direction for groundwater at the Site, which is to be expected based upon the location of regional receiving surface water bodies.

A-zone groundwater elevation contours are presented on Figure 2 (April 27, 2021) and Figure 4 (October 4 and 5, 2021). It should be noted that the development of meaningful A-zone groundwater elevation contours is complicated by the low hydraulic conductivity of the soil and the presence of drainage ditches. Due to these factors, variable groundwater flow patterns have been observed historically for the A-zone clay unit. Despite the varying patterns associated with contouring shallow groundwater in this setting, the predominant groundwater flow direction in the A-zone is generally northwards.

C-zone groundwater elevation contours are presented on Figure 3 (April 27, 2021) and Figure 5 (October 4 and 5, 2021). The groundwater flow direction in the C-zone is generally toward the north, although it should be noted that the sand lenses in the C-zone are discontinuous and are separated by the red-brown clay aquitard.

The groundwater flow directions in the A- and C-zones determined from the April and October 2021 groundwater elevation data are generally consistent with flow directions determined in previous years.

Vertical Hydraulic Gradients

Vertical gradients were calculated at each of the four A/C zone well nests (Table 3). Vertical gradients were calculated using the difference between the 2021 groundwater elevations at the monitored well nest, divided by the difference in elevation between the center points of the well screens. In special circumstances where the water level in the well is lower than the top of the well screen, then the denominator for this equation is modified to use the average between the elevation of the water level and the bottom of the well screen (see Table 3). By convention, the groundwater elevation of the shallower well is subtracted from the deeper well. If the result is positive, the potentiometric head in the deeper well is higher than the potentiometric head in the shallow well and, therefore, groundwater flows in an upward or positive direction. Conversely, if the result is negative, groundwater has a downward or negative vertical component.

Vertical hydraulic gradient calculations for the April and October 2021 monitoring events are presented in Table 3. Based on the 2021 water level data, the average vertical gradient between the A- and C-zones was -0.293 ft/ft for the April 2021 monitoring event and -0.217 ft/ft for the October 2021 monitoring event.

The calculated vertical gradients were negative for each well pair evaluated and for each monitoring event, indicating a downward vertical gradient, which is consistent with gradients calculated during previous years. Based on the magnitude of the gradients and low permeability of the A-zone soils, there is minimal hydraulic connection between the A- and C-zones.

Horizontal Hydraulic Gradients

FTS also calculated horizontal hydraulic gradients as presented in Tables 4 (A-Zone) and 5 (C-Zone). These tables list the wells, groundwater elevations, and horizontal distances used to calculate the gradients. Average horizontal hydraulic gradients for the A-zone were 0.0026 ft/ft for the April 2021 monitoring event, and 0.0129 ft/ft for the October 2021 monitoring event. The average horizontal hydraulic gradient for the C-zone was calculated to be 0.0030 ft/ft and 0.0042 ft/ft for the April 2021 and October 2021 monitoring events, respectively. These gradients are generally consistent with gradients calculated during previous years.

Groundwater Flow Velocity

Both horizontal and vertical linear groundwater flow velocities were calculated using groundwater elevation data obtained for each semi-annual event. Groundwater velocity can be estimated using a variation of Darcy's Law:

$$V = \frac{ki}{n_e}$$

where:

V = velocity
k = hydraulic conductivity
n_e = effective porosity
i = hydraulic gradient

The average hydraulic conductivity for the A-zone is 3.28 x 10^{-3} feet per day (ft/day) which was determined from an evaluation of slug test data (Chester Environmental, 1995). The average hydraulic conductivity in the C-zone is 22.6 ft/day which was determined from the slug test evaluation (Chester Environmental, 1995).

Based on correspondence with the WDNR, Beazer agreed to use two effective porosity values (0.01 and 0.3) when calculating groundwater flow velocities within the uppermost clay (i.e., A-zone). The 0.3 value is used to evaluate flow through the pore space in the upper most clay (primary porosity). The 0.01 value is used to evaluate the flow through the microfractures in the upper most clay (secondary porosity). An effective porosity of 0.2 is used for the discontinuous silt and sand unit (i.e., C-zone) (deMarsily, 1986; Freeze and Cherry, 1979).

Horizontal Groundwater Flow Velocity

Tables 4 and 5 present the procedures and results of the groundwater flow velocity calculations for the A- and C-zones, respectively. The estimated horizontal groundwater

velocities for each of the zones, associated with the respective semi-annual sampling events, are summarized below.

A-zone:

8.4×10^{-4} ft/day (April) and 4.2×10^{-3} ft/day (October) ($n_e = 0.01$)
2.8×10^{-5} ft/day (April) and 1.4×10^{-4} ft/day (October) ($n_e = 0.3$)

C-zone:

3.4×10^{-1} ft/day (April) and 4.8×10^{-1} ft/day (October) ($n_e = 0.2$)

These average horizontal groundwater flow velocities represent an overestimate of the potential rate of dissolved constituent migration in groundwater. Actual constituent flow velocity is lower than calculated groundwater flow velocities because of attenuating effects including adsorption, within the water-bearing zone.

The horizontal groundwater flow velocities calculated using 2021 data are consistent with flow velocities calculated during previous years.

Vertical Groundwater Flow Velocity

Table 6 presents the procedures and results of the vertical groundwater flow velocity calculations. The estimated vertical groundwater velocities for the Site are:

A- to C-zone:

-2.1×10^{-3} ft/day (April) and -1.5×10^{-3} ft/day (October) ($n_e = 0.01$)
-6.9×10^{-5} ft/day (April) and -5.1×10^{-5} ft/day (October) ($n_e = 0.3$)

A hydraulic conductivity value of 7.1×10^{-5} ft/day, based on laboratory vertical permeability tests results, was used to calculate the vertical groundwater velocities. The groundwater flow direction is downward (i.e., negative velocity value). These average linear groundwater flow velocities represent an overestimate of the potential rate of dissolved constituent migration in groundwater. Actual constituent flow velocity is lower than calculated groundwater flow velocities because of attenuating effects including adsorption, within the water-bearing zone. As indicated above, based on the magnitude of the gradients and low permeability of the A-zone soils, there is minimal hydraulic connection between the A and C zones.

The vertical groundwater flow velocities calculated using 2021 data are consistent with flow velocities calculated during previous years.

3.0 GROUNDWATER MONITORING RESULTS

This section summarizes the groundwater sample analytical results for the 2021 semi-annual sampling events. Table 7 lists the general constituent groups and corresponding United States Environmental Protection Agency (USEPA) analytical methods utilized for the groundwater monitoring program as well as the individual compounds per constituent group. Table 8 summarizes data that exceeded the WDNR Preventative Action Limits (PALs), WDNR Enforcement Standards (ESs), or USEPA Maximum Contaminant Levels (MCLs) for the April 2021 and October 2021 groundwater sampling events. A map depicting the data for key historical constituents of interest from the first and second semi-annual 2021 sampling events is provided as Figure 6.

Upon receipt, FTS evaluated each laboratory data report. FTS's data evaluation team determined that the 2021 data were valid and useable for their intended purpose. Data evaluation summaries and copies of laboratory reports are provided in Appendix C.

Tables summarizing the parameters detected during each sampling event are included in Appendix D.

3.1 SEMI-VOLATILE ORGANIC COMPOUNDS

As shown on Table 7, samples collected during each 2021 semi-annual sampling event were analyzed for an extended list of semi-volatile organic compounds (SVOCs) by Eurofins TestAmerica Laboratories, Inc., using USEPA Method 8270D LL.

As shown in Table 8, during the first semi-annual 2021 sampling event, the sample from monitoring well W-04AR2 contained benzo(a)pyrene (0.094 J micrograms per liter [ug/l]), benzo(b)fluoranthene (0.18 J ug/l), and chrysene (0.38 J ug/l) above their WDNR PALs of 0.02 ug/l; chrysene was also detected above its WDNR ESs of 0.2 ug/l. The sample from monitoring well W-10AR2 contained benzo(b)fluoranthene (0.09 J ug/l) and chrysene (0.16 J ug/l) above their WDNR PALs. The sample from monitoring well W-30A contained benzo(a)pyrene (0.11 J ug/l), benzo(b)fluoranthene (0.16 J ug/l), and chrysene (0.29 J ug/l) above their WDNR PALs; chrysene was also detected above its WDNR ESs (Table 8).

During the second semi-annual 2021 event, the sample from monitoring well W-04AR2 contained benzo(a)pyrene (0.46 ug/l), benzo(b)fluoranthene (1.3 ug/l), and chrysene (1.9 ug/l) above their WDNR PALs of 0.02 ug/l and WDNR ESs of 0.2 ug/l. Monitoring well W-04AR2 also contained benzo(a)pyrene above its MCL of 0.2 ug/l. The sample from monitoring well W-10AR2 contained chrysene (0.26 ug/l) above its WDNR PAL and WDNR ES. The sample from monitoring well W-30A contained benzo(b)fluoranthene (0.094 J ug/l) and chrysene (0.17 ug/l) above their WDNR PALs. The sample from monitoring well W-18D contained pentachlorophenol (0.84 ug/l) above its WDNR PAL of 0.1 ug/l (Table 8).

3.2 DIOXINS AND FURANS

Groundwater samples were analyzed for dioxins and furans by USEPA Method 8290A during the first semi-annual sampling event (April 2021). Dioxins and/or furans were detected in samples collected from all nine of the monitoring wells sampled (W-04AR2, W-06A, W-06C, W-10AR2, W-12A, W-12CR, W-28C, W-30A, and W-30C). The only applicable regulatory standard related to dioxins and furans is for the congener 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). The 2,3,7,8-TCDD congener was not detected in any of the nine wells sampled during the first semi-annual 2021 sampling event.

As shown in Table 9, the estimated toxicity (relative to 2,3,7,8-TCDD) of the dioxins and furans that were detected was determined by calculating the Toxicity Equivalent Quotient (TEQ) of the detected dioxins and/or furans in each of the subject samples. To calculate the TEQ of a mixture of dioxins and furans in a given sample, an associated Toxicity Equivalency Factor (TEF) is used to adjust the detected concentration of specific dioxin and furan congeners. The TEF values used for this calculation are 2005 World Health Organization (WHO) derived values. Once calculated for each detected constituent, the individual TEQs are summed, resulting in a total TEQ for a given sample. Under Wisconsin Administrative Code NR 140, 2,3,7,8-TCDD has an ES of 0.00003 ug/l and a PAL of 0.000003 ug/l. As shown in Tables 8 and 9, the sample collected from well W-30A was the only sample with a 2,3,7,8-TCDD TEQ value greater than the WDNR PAL for 2,3,7,8-TCDD. None of the samples had 2,3,7,8-TCDD TEQ values greater than the WDNR ES for 2,3,7,8-TCDD.

3.3 VOLATILE ORGANIC COMPOUNDS

Volatile organic compounds (VOCs) were analyzed by Eurofins TestAmerica Laboratories, Inc., using USEPA Method 8260C during each 2021 semi-annual sampling event. As shown on Table 8, benzene was detected in monitoring well W-10AR2 (15 ug/l and 26 ug/l) above the MCL of 5 ug/l, WDNR ES of 5 ug/l, and WDNR PAL of 0.5 ug/l during the first and second semi-annual 2021 events. Benzene was also detected in monitoring well W-30A (1.8 ug/l and 18 ug/l) above the WDNR PAL during the first semi-annual 2021 event and above the MCL, WDNR ES, and WDNR PAL during the second semi-annual 2021 event.

As shown on Table 8, naphthalene was detected in monitoring well W-30A (130 ug/l) above the WDNR PAL of 10 ug/l and WDNR ES of 100 ug/l during the second semi-annual 2021 event.

3.4 DATA TRENDS

This section of the report presents a discussion of data trends for representative constituents exceeding applicable regulatory standards during the last four sampling events: April and October 2020 and April and October 2021.

3.4.1 A-Zone Wells

Figure 7 presents graphs of recent and historical groundwater monitoring results at two A-zone monitoring wells: W-10AR2 and W-30A. These wells were selected for discussion because samples collected at these wells typically exhibit the highest concentrations and frequency of detection of Site-related constituents among the monitored wells. The constituents selected for trend analysis are benzene, chrysene, naphthalene, and pentachlorophenol. These constituents are considered representative of Site-related constituents that have been detected above WDNR PALs or ESs during the last four monitoring events, and are consistent with the constituents selected for trend evaluation in previous annual groundwater monitoring reports.

As shown on Figure 7, samples collected at monitoring well W-10AR2 exhibited concentrations of benzene exceeding its WDNR PAL and WDNR ES in all of the past four sampling rounds, chrysene exceeded its WDNR PAL in three of the last four sampling rounds (two of those four samples also exceeded the WDNR ES for chrysene), naphthalene was detected below its WDNR PAL and WDNR ES in all of the past four sampling rounds, and pentachlorophenol was not detected in any of the last four sampling rounds. At monitoring well W-30A, benzene exceeded its WDNR PAL in all of the past four sampling rounds (three of those four samples also exceeded the WDNR ES for benzene), chrysene exceeded its WDNR PAL in three of the last four sampling rounds (two of those four samples also exceeded the WDNR ES for chrysene), naphthalene exceeded its WDNR PAL in three of the past four sampling rounds (two of those four samples also exceeded the WDNR ES for naphthalene), and pentachlorophenol was not detected in any of the last four sampling rounds.

Using these recent data, along with historical data (dating back to 1999) collected from wells W-10AR2 and W-30A for benzene, chrysene, naphthalene, and pentachlorophenol, , a linear regression analysis was completed using a 95% confidence level to evaluate whether a data trend exists at wells W-10AR2 and W-30A. The statistical analyses indicate that the long-term trends in the benzene, chrysene, naphthalene, and pentachlorophenol concentrations in wells W-10AR2 and W-30A are stable or decreasing. Details related to the linear regression analysis are provided in Appendix E.

These findings are consistent with the natural attenuation evaluations reported to the WDNR on January 24, 2006, September 18, 2007, and June 12, 2014. Those evaluations documented several lines of evidence indicating the occurrence of natural attenuation of Site-related constituents in groundwater at the Site.

3.4.2 C-Zone Wells

During the October 2020 event, the sample from monitoring well W-30C contained benzo(b)fluoranthene (0.11 J ug/l) and chrysene (0.14 J ug/l) above their WDNR PALs of

0.02 ug/l; however, these detections were below the WDNR ES and MCL for benzo(b)fluoranthene and chrysene. No other detections of Site-related constituents above regulatory standards were observed during the last four sampling events in the C-Zone monitoring wells.

3.4.3 D-Zone Wells

Monitoring well W-18D was sampled during the last four semi-annual sampling events. During the April 2020, October 2020, and October 2021 events, pentachlorophenol (0.43 J ug/l, 0.88 J ug/l, and 0.84 ug/l, respectively) was detected above its WDNR PAL of 0.1 ug/l in monitoring well W-18D; however, these detections were below the WDNR ES and MCL for pentachlorophenol (1 ug/l). No other detections of SVOCs above regulatory standards were observed during the last four sampling events in monitoring well W-18D.

4.0 CURRENT SITE STATUS

As indicated by the data presented in Section 3, the extent of impacted groundwater at this Site is not expanding and appears stable. Additional information regarding project milestones and the current Site status is provided in Appendix A. Semi-annual groundwater monitoring will continue in 2022.

5.0 REFERENCES

ARCADIS, 2014, *Groundwater Natural Attenuation Demonstration Summary Report*, letter to WDNR dated June 12, 2014.

ARCADIS BBL, 2007, *Summary of Supplemental Groundwater Investigations*, letter to WDNR dated September 18, 2007.

Blasland, Bouck & Lee, Inc. (BBL), 2002, *Permit Modification Request to the Groundwater Program*, submitted to WDNR dated April 19, 2002.

BBL, 2006, *Summary of Supplemental Groundwater Monitoring and Natural Attenuation Evaluation*, letter to WDNR dated January 24, 2006.

De Marsily, G., 1986, *Quantitative Hydrogeology - Groundwater Hydrology for Engineers, Academic Press, Inc,* Harcourt Brace, Javanovich, Publishers, Orlando, Florida.

Freeze, A.R. and J.A. Cherry, 1979, *Groundwater*, Prentice-Hall, Inc., Englewood Cliffs, New Jersey.

Keystone Environmental Resources, 1987, *Closure and Post-Closure Plan*, submitted to WDNR dated August 28, 1987.

Keystone Environmental Resources, 1989, *Construction Documentation Surface Impoundment Closure Report*, dated November 1989.

The RETEC Group, Inc. (RETEC), April 2002, *Groundwater Monitoring Sampling Analysis Plan*, KII Superior Facility, Superior, Wisconsin

Wisconsin Department of Natural Resources (WDNR), 1987, *Conditional Closure and Long-Term Care Plan Approval*, dated October 1, 1987.

WDNR, 2002, *Conditional Closure and Long Term Care Plan Approval Modification*, dated October 29, 2002.

TABLES

Table 1
Current Monitoring Well Network
2021 RCRA Annual Groundwater Monitoring Report
Former Koppers Inc. Facility - Superior, Wisconsin

W-02C	**W-10AR2**	W-18D	W-26A	W-32C	W-39A
W-04AR2*	W-11A	W-19A	W-26B	W-33D	W-40A
W-05CR	**W-12A**	W-19C	**W-28C**	W-34D	
W-06A	**W-12CR**	W-20AR	W-29A	W-35A	
W-06C	W-14A	W-21A	**W-30A**	W-36A	
W-08A	W-14B	W-21B	**W-30C**	W-37A	
W-09C	W-16AR	W-25A	W-31C	W-38A	

Notes:

All Wells are gauged for groundwater elevations and NAPL presence/absence.

Wells in **bold** type are sampled for laboratory analysis as part of the NR664 groundwater monitoring program.

* Monitoring well W-04AR was abandoned and replaced with well W-04AR2 on July 24, 2017.

In addition to the wells listed in this table as part of the NR664 groundwater monitoring program, bedrock well W-18D was sampled during 2021 at Beazer's discretion.

Table 2A
First Semi-Annual 2021 Groundwater Elevations
2021 RCRA Annual Groundwater Monitoring Report
Former Koppers Inc. Facility - Superior, Wisconsin

Well	Top of Casing Elevation (feet msl)	Top of Screen Elevation (feet msl)	Bottom of Screen Elevation (feet msl)	April 27, 2021		
				Depth to Water (feet)	Groundwater Elevation (feet msl)	Apparent DNAPL Thickness (feet msl)
W-02C	672.37	632.65	627.65	10.02	662.35	NP
W-04AR2	676.15	672.53	662.53	3.36	672.79	NP
W-05CR	674.69	643.53	633.53	12.13	662.56	NP
W-06A	673.65	670.04	660.04	3.16	670.49	NP
W-06C	674.33	633.93	628.93	11.96	662.37	NP
W-08A[(1)]	676.35	670.62	660.62	5.00	671.35	NP
W-09C	673.16	630.41	625.41	10.82	662.34	NP
W-10AR2	677.09	672.77	659.77	3.79	673.30	NP
W-11A	676.40	669.81	659.81	4.38	672.02	NP
W-12A	677.11	673.33	663.33	2.63	674.48	NP
W-12CR	677.39	635.34	630.34	15.00	662.39	NP
W-14A	678.61	673.05	663.05	4.26	674.35	NP
W-14B	677.60	644.97	639.97	6.05	671.55	NP
W-16AR	675.37	668.20	658.20	4.35	671.02	NP
W-18D	674.79	491.23	471.23	45.55	629.24	NP
W-19A	675.39	669.63	659.63	3.80	671.59	NP
W-19C	674.96	635.79	630.79	12.66	662.30	NP
W-20AR	674.72	669.33	659.33	5.27	669.45	NP
W-21A	674.20	667.88	657.88	4.37	669.83	NP
W-21B	674.61	641.71	636.71	7.33	667.28	NP
W-25A	678.77	672.68	662.68	5.21	673.56	NP
W-26A	673.67	668.05	658.05	2.97	670.70	NP
W-26B	674.02	644.42	639.42	7.06	666.96	NP
W-28C	676.33	635.74	630.74	13.78	662.55	NP
W-29A	673.21	668.38	658.38	0.90	672.31	NP
W-30A	676.81	672.86	662.86	3.81	673.00	NP
W-30C	676.91	633.50	628.50	14.78	662.13	NP
W-31C	671.76	626.64	621.64	10.79	660.97	NP
W-32C	672.88	618.93	613.93	13.49	659.39	NP
W-33D	673.43	495.58	475.58	44.07	629.36	NP
W-34D	674.28	496.07	476.07	36.72	637.56	NP
W-35A	675.05	669.28	659.28	3.26	671.79	NP
W-36A	678.44	673.00	663.00	4.33	674.11	NP
W-37A	676.47	671.05	661.05	2.55	673.92	NP
W-38A	676.78	671.35	661.35	2.76	674.02	NP
W-39A	678.40	672.64	662.64	5.12	673.28	NP
W-40A	676.79	671.18	661.18	3.47	673.32	NP

Notes:
feet-msl - Feet above mean sea level
DNAPL - Dense Non-Aqueous Phase Liquid
NP - DNAPL Not Present
[(1)] - W-08A was gauged on April 28, 2021.

Table 2B
Second Semi-Annual 2021 Groundwater Elevations
2021 RCRA Annual Groundwater Monitoring Report
Former Koppers Inc. Facility - Superior, Wisconsin

Well	Top of Casing Elevation (feet msl)	Top of Screen Elevation (feet msl)	Bottom of Screen Elevation (feet msl)	October 4-5, 2021		
				Depth to Water (feet)	Groundwater Elevation (feet msl)	Apparent DNAPL Thickness (feet msl)
W-02C	672.37	632.65	627.65	10.18	662.19	NP
W-04AR2	676.15	672.53	662.53	3.89	672.26	NP
W-05CR	674.69	643.53	633.53	12.95	661.74	NP
W-06A	673.65	670.04	660.04	9.39	664.26	NP
W-06C	674.33	633.93	628.93	12.70	661.63	NP
W-08A[(1)]	677.06	670.62	660.62	8.03	669.03	NP
W-09C	673.16	630.41	625.41	11.62	661.54	NP
W-10AR2	677.09	672.77	659.77	9.75	667.34	NP
W-11A	676.40	669.81	659.81	5.00	671.40	NP
W-12A	677.11	673.33	663.33	5.86	671.25	NP
W-12CR	677.39	635.34	630.34	15.80	661.59	NP
W-14A	678.61	673.05	663.05	6.72	671.89	NP
W-14B	677.60	644.97	639.97	6.70	670.90	NP
W-16AR	675.37	668.20	658.20	4.24	671.13	NP
W-18D	674.79	491.23	471.23	47.45	627.34	NP
W-19A	675.39	669.63	659.63	5.68	669.71	NP
W-19C	674.96	635.79	630.79	13.43	661.53	NP
W-20AR	674.72	669.33	659.33	6.30	668.42	NP
W-21A[(1)]	674.59	667.88	657.88	11.60	662.99	NP
W-21B	674.61	641.71	636.71	7.82	666.79	NP
W-25A	678.77	672.68	662.68	6.27	672.50	NP
W-26A	673.67	668.05	658.05	10.09	663.58	NP
W-26B	674.02	644.42	639.42	7.11	666.91	NP
W-28C	676.33	635.74	630.74	14.35	661.98	NP
W-29A	673.21	668.38	658.38	1.32	671.89	NP
W-30A[(1)]	676.51	672.86	662.86	6.65	669.86	NP
W-30C	676.91	633.50	628.50	15.53	661.38	NP
W-31C	671.76	626.64	621.64	11.57	660.19	NP
W-32C	672.88	618.93	613.93	14.38	658.50	NP
W-33D	673.43	495.58	475.58	46.05	627.38	NP
W-34D	674.28	496.07	476.07	39.24	635.04	NP
W-35A	675.05	669.28	659.28	9.07	665.98	NP
W-36A	678.44	673.00	663.00	4.96	673.48	NP
W-37A	676.47	671.05	661.05	2.78	673.69	NP
W-38A	676.78	671.35	661.35	4.90	671.88	NP
W-39A	678.40	672.64	662.64	7.33	671.07	NP
W-40A	676.79	671.18	661.18	6.96	669.83	NP

Notes:
feet-msl - Feet above mean sea level
DNAPL - Dense Non-Aqueous Phase Liquid
NP - DNAPL Not Present
[(1)] - Wells were resurveyed on June 1, 2021.

Table 3
Summary of 2021 Vertical Gradients
2021 RCRA Annual Groundwater Monitoring Report
Former Koppers Inc. Facility - Superior, Wisconsin

April 2021

Well Nest		Screen Elevations				Screen Midpoint		Difference Between Screen Midpoints (feet)	Groundwater Elevation		Difference in Groundwater Elevations (feet)	Is h1<t1	Vertical Gradient	
		Well 1		Well 2		Well 1 ---- (feet msl)	Well 2 ---- (feet msl)		Well 1 ---- (feet msl)	Well 2 ---- (feet msl)			(If yes)	(If no)
Well 1	Well 2	Top (feet msl) t1	Bottom (feet msl) b1	Top (feet msl) t2	Bottom (feet msl) b2	(t1+b1)/2	(t1+b1)/2	(t1+b1)/2-(t2+b2)/2	h1	h2	h2-h1		h2-h1 / (h1+b1)/2-(t2+b2)/2	h2-h1 / (t1+b1)/2-(t2+b2)/2
W-06A	W-06C	670.04	660.04	633.98	628.98	665.04	631.48	33.56	670.49	662.37	-8.12	no		-0.242
W-12A	W-12CR	673.33	663.33	635.34	630.34	668.33	632.84	35.49	674.48	662.39	-12.09	no		-0.341
W-19A	W-19C	669.74	659.74	635.79	630.79	664.74	633.29	31.45	671.59	662.30	-9.29	no		-0.295
W-30A	W-30C	672.90	662.90	633.50	628.50	667.90	631.00	36.90	673.00	662.13	-10.87	no		-0.295
									AVERAGE VERTICAL GRADIENT[(1)] - Between Zones A and C					-0.293

October 2021

Well Nest		Screen Elevations				Screen Midpoint		Difference Between Screen Midpoints (feet)	Groundwater Elevation		Difference in Groundwater Elevations (feet)	Is h1<t1	Vertical Gradient	
		Well 1		Well 2		Well 1 ---- (feet msl)	Well 2 ---- (feet msl)		Well 1 ---- (feet msl)	Well 2 ---- (feet msl)			(If yes)	(If no)
Well 1	Well 2	Top (feet msl) t1	Bottom (feet msl) b1	Top (feet msl) t2	Bottom (feet msl) b2	(t1+b1)/2	(t1+b1)/2	(t1+b1)/2-(t2+b2)/2	h1	h2	h2-h1		h2-h1 / (h1+b1)/2-(t2+b2)/2	h2-h1 / (t1+b1)/2-(t2+b2)/2
W-06A	W-06C	670.04	660.04	633.98	628.98	665.04	631.48	33.56	664.26	661.63	-2.63	yes	-0.086	
W-12A	W-12CR	673.33	663.33	635.34	630.34	668.33	632.84	35.49	671.25	661.59	-9.66	yes	-0.280	
W-19A	W-19C	669.74	659.74	635.79	630.79	664.74	633.29	31.45	669.71	661.53	-8.18	yes	-0.260	
W-30A	W-30C	672.90	662.90	633.50	628.50	667.90	631.00	36.90	669.86	661.38	-8.48	yes	-0.240	
									AVERAGE VERTICAL GRADIENT[(1)] - Between Zones A and C					-0.217

Notes:

(1) The Average Vertical Gradient was calculated using nested well sets. The Vertical Gradient was calculated by dividing the Difference in Groundwater Elevations by Difference Between Screen Midpoint Elevations. All of the Vertical Gradients were then averaged to yield the Average Vertical Gradient between the two monitored zones. Negative values indicate a downward vertical gradient.

Table 4
2021 Horizontal Groundwater Flow Velocities for the A-Zone
2021 RCRA Annual Groundwater Monitoring Report
Former Koppers Inc. Facility - Superior, Wisconsin

Parameters	First Semi-Annual 4/27/2021	Second Semi-Annual 10/4-5/2021
Hydraulic Gradient (i1) Vicinity of W-36A to W-04AR2		
Upgradient Elevation (ft, msl), (h1)	674.11	673.48
Downgradient Elevation (ft, msl), (h2)	672.79	672.26
Horizontal Distance Between Up and Downgradient Elevation (ft), (l)	713.32	713.32
Horizontal Hydraulic Gradient (i1=(h1-h2)/l)	0.0019	0.0017
Hydraulic Gradient (i2) Vicinity of W-16AR to W-26A		
Upgradient Elevation (ft, msl), (h1)	671.02	671.13
Downgradient Elevation (ft, msl), (h2)	670.70	663.58
Horizontal Distance Between Up and Downgradient Elevation (ft), (l)	474.56	474.56
Horizontal Hydraulic Gradient (i2 = (h1-h2)/l)	0.0007	0.0159
Hydraulic Gradient (i3) Vicinity of W-08A to W-21A		
Upgradient Well - Elevation (ft, msl), (h1)	671.31	669.03
Downgradient Well - Elevation (ft, msl), (h2)	669.83	662.99
Horizontal Distance Between Up and Downgradient Well (ft), (l)	288.00	288.00
Horizontal Hydraulic Gradient (i3 = (h1-h2)/l)	0.0051	0.0210
Average Hydraulic Gradient i = (i1 + i2 + i3)/3	0.0026	0.0129
Average Hydraulic Conductivity (K) (foot per day)	0.00328	0.00328
Effective Porosity (n)	0.01	0.01
Effective Porosity (n)	0.30	0.30
Average Groundwater Velocity		
(V = Ki/n) (feet per day), Where n = 0.01	**8.4E-04**	**4.2E-03**
(V = Ki/n) (feet per day), Where n = 0.30	**2.8E-05**	**1.4E-04**

Notes:
Average hydraulic conductivity determined from slug tests (Chester Environmental, 1995).
Effective porosity was derived from literature values (de Marsily, 1986; Freeze and Cherry, 1979).
ft = feet
msl = mean sea level

Table 5
2021 Horizontal Groundwater Flow Velocities for the C-Zone
2021 RCRA Annual Groundwater Monitoring Report
Former Koppers Inc. Facility - Superior, Wisconsin

Parameters	First Semi-Annual 4/27/2021	Second Semi-Annual 10/4-5/2021
Hydraulic Gradient (i1) Vicinity of W-28C to W-32C		
Upgradient Elevation (ft, msl), (h1)	662.55	661.98
Downgradient Elevation (ft, msl), (h2)	659.39	658.50
Horizontal Distance Between Up and Downgradient Elevations (ft), (l)	1377.00	1377.00
Horizontal Hydraulic Gradient (i1=(h1-h2)/l)	0.0023	0.0025
Hydraulic Gradient (i2) Vicinity of W-30C to W-32C		
Upgradient Elevation (ft, msl), (h1)	662.13	661.38
Downgradient Elevation (ft, msl), (h2)	659.39	658.50
Horizontal Distance Between Up and Downgradient Elevations (ft), (l)	723.89	487.95
Horizontal Hydraulic Gradient (i2 = (h1-h2)/l)	0.0038	0.0059
Average Hydraulic Gradient i = (i1 + i2)/2	0.0030	0.0042
Average Hydraulic Conductivity (K) (foot per day)	22.6	22.6
Effective Porosity (n)	0.20	0.20
Average Groundwater Velocity		
(V = Ki/n) (feet per day), Where n = 0.20	**3.4E-01**	**4.8E-01**

Notes:
Average hydraulic conductivity determined from slug tests (Chester Environmental, 1995).
Effective porosity was derived from literature values (de Marsily, 1986; Freeze and Cherry, 1979).
ft = feet
msl = mean sea level

Table 6
Summary of 2021 Vertical Groundwater Flow Velocities
for the A to C Zones
2021 RCRA Annual Groundwater Monitoring Report
Former Koppers Inc. Facility - Superior, Wisconsin

Parameters	First Semi-Annual 4/27/2021	Second Semi-Annual 10/4-5/2021
Average Vertical Hydraulic Gradient (i from Table 3)	-0.293	-0.217
Vertical Hydraulic Conductivity (K) (feet/day)[(1)]	7.1E-05	7.1E-05
Effective Porosity (n)	0.01	0.01
Effective Porosity (n)	0.30	0.30
Average Groundwater Flow Velocity[(2)]		
V=Ki/n (ft/day) Where n=0.01	-2.1E-03	-1.5E-03
V=K/in (ft/day) Where n=0.3	-6.9E-05	-5.1E-05

Notes:

(1) The Average Vertical Hydraulic Conductivity value of 7.1 E-05 feet/day was derived from laboratory permeability tests.

(2) The Average Groundwater Velocity was calculated using Darcy's Law given above. The Average Vertical Gradient hydraulic conductivity and effective porosity were used in this calculation. By convention, a positive Vertical Gradient represents an upward flow while a negative Vertical Gradient represents a downward flow.

Table 7
Constituent Groups and EPA Analytical Methods
2021 RCRA Annual Groundwater Monitoring Report
Former Koppers Inc. Facility - Superior, Wisconsin

Field Indicators	
pH - EPA Method 9040	Apparent Color (Visual)
Temperature - EPA Method 170.1	
Specific Conductance - EPA Method 9050	
Semi-Annual Analyses	
VOCs - EPA Method 8260C	
Benzene (1)	1,3,5 Trimethylbenzene
Ethylbenzene	1,1,1- Trichloroethane
Methyl-tert-butylether	n-Butylbenzene
Toluene	Chloromethane
o-Xylene	n-Propylbnezene
p-Xylene	Naphthalene
m-Xylene	Styrene
1,2,4- Trimethylbenzene	
Semi-Volatile Organic Constituents - EPA Method 8270D LL	
1,2,4-Trichlorobenzene	4-Nitroaniline
1,2-Dichlorobenzene	4-Nitrophenol
1,3-Dichlorobenzene	Acenaphthene
1,4-Dichlorobenzene	Acenaphthylene
2,4,5-Trichlorophenol	Anthracene
2,4,6-Trichlorophenol	Benzo(a)anthracene
2,4-Dichlorophenol	Benzo(a)pyrene
2,4-Dimethylphenol	Benzo(b)fluoranthene
2,4-Dinitrotoluene (1)	Benzoic Acid
2,4-Dinitrophenol	Benzyl Alcohol
2,6-Dinitrotoluene (1)	Benzo(g,h,i)perylene
2-Chloronaphthalene	Bis(2-chloroethyl)ether
2-Chlorophenol	Bis(2-chloroethoxy)methane
2-Methylnaphthalene	Bis(2-chloroisopropyl)ether
2-Methylphenol	Bis(2-ethylhexyl)phthalate (1)
2-Nirtoaniline	Benzo(k)flouranthene
2-Nitrophenol	Butyl benzyl phthalate
3,3-Dichlorobenzidine	Chrysene
3-Nitroaniline	Dibenzo(a,h)anthracene
4,6-Dinitro-2-methylphenol	Dibenzofuran
4-Bromophenyl phenyl ether	Diethyl phthalate
4-Chloro-3-methylphenol	Dimethyl phthalate
4-Chloroaniline	Di-n-octyl phthalate
4-Chlorophenyl phenyl ether	Di-n-butyl phthalate
4-Methylphenol	Fluorene
Fluoranthene	Nitrobenzene
Hexachlorobutadiene	N-Nitrosodiphenylamine
Hexachlorocyclopentadiene	N-Nitrosodi-n-propylamine
Hexachlorobenzene	Pentachlorophenol
Hexachloroethane	Phenanthrene
Indeno(1,2,3-cd)pyrene	Phenol
Isophorone	1-Methylnapthalene
Pyrene	2,3,5,6 - Tetrachlorophenol
2,3,4,6 - Tetrachlorophenol	
Annual Analyses (First Semi-Annual Event Only)	
Dioxins and Dibenzofurans - EPA Method 8290A	
Furans	**Dioxins**
TCDFs (total)	TCDDs (total)
2,3,7,8-TCDF	2,3,7,8-TCDD
PeCDFs (total)	PeCDDs (total)
1,2,3,7,8-PeCDF	1,2,3,7,8-PECDD
2,3,4,7,8-PeCDF	HxCDDs (total)
HxCDFs (total)	1,2,3,4,7,8-HxCDD
1,2,3,4,7,8-HxCDF	1,2,3,6,7,8-HxCDD
1,2,3,6,7,8-HxCDF	1,2,3,7,8,9-HxCDD
2,3,4,6,7,8,HxCDF	HpCDDs (total)
1,2,3,7,8,9-HxCDF	1,2,3,4,6,7,8-HpCDD
HpCDFs (total)	OCDDs (total)
1,2,3,4,6,7,8-HpCDF	
1,2,3,4,7,8,9-HpCDF	
OCDFs (total)	

Notes: (1) Report to lowest level of quantitation possible.

Table 8
Summary of Regulatory Exceedances
First and Second Semi-Annual 2021 Sampling Events
2021 RCRA Annual Groundwater Monitoring Report
Former Koppers Inc. Facility - Superior, Wisconsin

Well	Parameter	Sample Result (ug/L)	Regulatory Standard (ug/L)
First Semi-Annual Sampling Event			
MCL Exceedance			
W-10AR2	Benzene	15	5
ES Exceedance			
W-04AR2	Chrysene	0.38 J	0.2
W-10AR2	Benzene	15	5
W-30A	Chrysene	0.29 J	0.2
PAL Exceedance			
W-04AR2	Benzo(a)pyrene Benzo(b)fluoranthene Chrysene	0.094 J 0.18 J 0.38 J	0.02 0.02 0.02
W-10AR2	Benzene Benzo(b)fluoranthene Chrysene	15 0.09 J 0.16 J	0.5 0.02 0.02
W-30A	Benzene Benzo(a)pyrene Benzo(b)fluoranthene Chrysene 2,3,7,8-TCDD TEQ	1.8 0.11 J 0.16 J 0.29 J 5.88E-06	0.5 0.02 0.02 0.02 3.00E-06

Table 8
Summary of Regulatory Exceedances
First and Second Semi-Annual 2021 Sampling Events
2021 RCRA Annual Groundwater Monitoring Report
Former Koppers Inc. Facility - Superior, Wisconsin

Well	Parameter	Sample Result (ug/L)	Regulatory Standard (ug/L)
Second Semi-Annual Sampling Event			
MCL Exceedance			
W-04AR2	Benzo(a)pyrene	0.46	0.2
W-10AR2	Benzene	26	5
W-30A	Benzene	18	5
ES Exceedance			
W-04AR2	Benzo(a)pyrene Benzo(b)fluoranthene Chrysene	0.46 1.3 1.9	0.2 0.2 0.2
W-10AR2	Benzene Chrysene	26 0.26	5 0.2
W-30A	Benzene Naphthalene	18 130	5 100
PAL Exceedance			
W-04AR2	Benzo(a)pyrene Benzo(b)fluoranthene Chrysene	0.46 1.3 1.9	0.02 0.02 0.02
W-10AR2	Benzene Chrysene	26 0.26	0.5 0.02
W-18D	Pentachlorophenol	0.84	0.1
W-30A	Benzene Benzo(b)fluoranthene Chrysene Naphthalene	18 0.094 J 0.17 130	0.5 0.02 0.02 10

Notes:
µg/L - micrograms per liter
J - estimated result
ES - WDNR Enforcement Standards
PAL - WDNR Preventative Action Limits
MCL - Federal Maximum Contaminant Levels
TEQ - Toxicity Equivalent Quotient
- 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 9
Toxicity Equivalent Quotient of Detected Dioxin and Furans
2021 RCRA Annual Groundwater Monitoring Report
Former Koppers Inc. Facility - Superior, Wisconsin

ANALYTE NAME	UNITS	TEFs	W-04AR2 4/28/2021	W-06A 4/28/2021	W-06C 4/28/2021	W-10AR2 4/28/2021	W-12A 4/29/2021	W-12CR 4/29/2021	W-28C 4/28/2021	W-28C DUP 4/28/2021	W-30A 4/28/2021	W-30C 4/29/2021	Equipment Blank 4/28/2021	Equipment Blank 4/29/2021
8290A														
1,2,3,4,6,7,8-HPCDD	UG/L	0.01	**0.000055**	**0.0000054 J**	**0.0000041 J**	**0.00002 J**	**0.000047 J**	**0.0000048 J**	**0.00001 J**	**0.0000079 J**	**0.00017**	**0.000042 J**	**0.00000061 JI**	0.0000005 U
1,2,3,4,6,7,8-HPCDF	UG/L	0.01	**0.0000064 J**	0.0000013 U	0.00000076 U	**0.0000035 J**	**0.000011 J**	0.00000097 U	0.00000099 U	0.0000011 U	**0.000046 J**	**0.0000074 J**	**0.00000036 JI**	**0.00000037 JI**
1,2,3,4,7,8,9-HPCDF	UG/L	0.01	0.00000031 U	0.00000039 U	**0.0000004 JI**	0.00000038 U	**0.0000022 JI**	0.00000012 U	0.00000023 U	0.00000042 U	**0.0000047 J**	**0.0000023 JI**	0.00000027 U	**0.00000032 J**
1,2,3,4,7,8-HXCDD	UG/L	0.1	0.0000018 U	0.0000014 U	0.000001 U	0.000001 U	0.000002 U	0.00000095 U	0.0000012 U	0.0000012 U	0.0000016 U	0.00000084 U	**0.0000012 J**	**0.00000098 J**
1,2,3,4,7,8-HXCDF	UG/L	0.1	**0.00000092 JI**	0.0000003 U	0.00000021 U	0.00000053 U	**0.0000067 J**	0.00000007 U	0.00000022 U	0.00000023 U	**0.0000064 J**	**0.0000011 J**	0.00000017 U	0.00000018 U
1,2,3,6,7,8-HXCDD	UG/L	0.1	**0.0000016 JI**	0.00000031 U	0.00000021 U	**0.00000066 JI**	**0.0000047 JI**	0.00000036 U	**0.00000057 JI**	0.00000026 U	**0.0000047 J**	0.0000022 U	0.00000016 U	**0.00000047 J**
1,2,3,6,7,8-HXCDF	UG/L	0.1	**0.0000012 J**	0.00000031 U	0.00000024 U	**0.0000015 JI**	**0.0000038 JI**	0.000000081 U	0.00000023 U	0.00000025 U	**0.000012 J**	**0.0000018 JI**	0.00000019 U	0.0000002 U
1,2,3,7,8,9-HXCDD	UG/L	0.1	0.0000013 U	0.00000031 U	0.0000002 U	0.0000009 U	**0.0000017 J**	**0.0000003 J**	0.0000009 U	0.00000079 U	0.0000017 U	**0.0000012 J**	**0.00000051 J**	0.00000023 U
1,2,3,7,8,9-HXCDF	UG/L	0.1	0.00000051 U	0.00000039 U	0.00000028 U	0.00000071 U	0.00000077 U	0.000000091 U	0.00000028 U	0.00000032 U	0.0000015 U	0.00000034 U	0.00000023 U	0.00000025 U
1,2,3,7,8-PECDD	UG/L	1	0.00000021 U	0.00000037 U	0.00000019 U	0.0000004 U	0.00000028 U	0.000000084 U	0.0000002 U	**0.00000048 JI**	**0.00000034 JI**	0.00000028 U	0.00000021 U	0.00000027 U
1,2,3,7,8-PECDF	UG/L	0.03	0.00000043 U	0.00000055 U	0.00000023 U	0.00000029 U	**0.00000088 J**	0.000000096 U	0.00000026 U	0.00000047 U	**0.00000084 J**	0.0000003 U	0.00000024 U	0.00000035 U
2,3,4,6,7,8-HXCDF	UG/L	0.1	0.00000042 U	0.00000033 U	0.00000023 U	0.0000006 U	**0.0000013 JI**	0.000000078 U	0.00000023 U	0.00000026 U	0.0000013 U	**0.0000011 JI**	0.00000019 U	0.00000021 U
2,3,4,7,8-PECDF	UG/L	0.3	0.0000004 U	0.00000048 U	0.0000002 U	0.00000027 U	**0.00000097 JI**	0.000000088 U	0.00000025 U	0.0000004 U	**0.00000098 J**	0.00000026 U	0.00000021 U	0.00000031 U
2,3,7,8-TCDD	UG/L	1	0.00000024 U	0.00000027 U	0.00000011 U	0.00000025 U	0.0000003 U	0.00000021 U	0.00000031 U	0.00000027 U	0.000000056 U	0.00000017 U	0.00000011 U	0.0000003 U
2,3,7,8-TCDF	UG/L	0.1	0.00000026 U	0.00000043 U	0.00000025 U	0.00000027 U	**0.0000005 J**	**0.000000083 JI**	0.00000021 U	0.0000002 U	**0.00000027 J**	0.00000031 U	0.00000019 U	0.0000002 U
OCDD	UG/L	0.0003	**0.00066**	**0.000059 J**	**0.000048 J**	**0.00017**	**0.00023**	**0.000059 J**	**0.000093 J**	**0.000081 J**	**0.0021**	**0.00014**	**0.0000022 J**	**0.000002 JI**
OCDF	UG/L	0.0003	**0.000029 J**	0.0000058 U	0.0000036 U	**0.000014 J**	**0.000024 J**	0.0000039 U	0.0000046 U	0.0000059 U	**0.00017**	**0.000016 J**	**0.0000013 JI**	**0.0000012 JI**
TOTAL HPCDD	UG/L	NA	**0.0003**	**0.000014 JI**	**0.000014 J**	**0.000065**	**0.000084**	**0.000017 J**	**0.000046 J**	**0.000034 J**	**0.00043**	**0.000071**	**0.0000016 JI**	0.0000005 U
TOTAL HPCDF	UG/L	NA	**0.000023 J**	**0.0000033 JI**	**0.0000027 JI**	**0.000012 J**	**0.000037 JI**	0.000003 U	**0.0000025 JI**	**0.000003 JI**	**0.00018 I**	**0.000032 JI**	**0.00000036 JI**	**0.00000069 JI**
TOTAL HXCDD	UG/L	NA	**0.000025 JI**	0.0000014 U	0.000001 U	0.0000074 U	**0.000017 JI**	0.0000034 U	0.0000073 U	0.000004 U	**0.00003 JI**	**0.000013 JI**	**0.0000018 J**	**0.000014 J**
TOTAL HXCDF	UG/L	NA	**0.000025 JI**	0.00000039 U	0.00000028 U	**0.000022 JI**	**0.000073 I**	**0.0000022 JI**	**0.0000021 J**	**0.0000014 JI**	**0.00013 I**	**0.00004 JI**	0.00000023 U	0.00000025 U
TOTAL PECDD	UG/L	NA	0.00000021 U	0.00000037 U	0.00000019 U	0.0000004 U	**0.00000081 JI**	**0.00000027 J**	0.0000002 U	**0.00000048 JI**	**0.0000013 JI**	0.00000028 U	0.00000021 U	0.00000027 U
TOTAL PECDF	UG/L	NA	**0.0000046 JI**	0.00000055 U	0.00000023 U	**0.000017 JI**	**0.000051 I**	**0.00000078 JI**	0.00000026 U	0.00000047 U	**0.000096 I**	**0.000014 JI**	0.00000024 U	0.00000035 U
TOTAL TCDD	UG/L	NA	0.00000024 U	0.00000027 U	**0.00000026 J**	0.00000025 U	0.0000003 U	0.00000021 U	0.00000031 U	**0.00000069 JI**	**0.00000012 JI**	0.00000033 U	0.00000014 U	0.0000003 U
TOTAL TCDF	UG/L	NA	**0.00000056 J**	0.00000043 U	0.00000025 U	**0.0000063 JI**	**0.000036 I**	0.00000035 U	**0.00000022 JI**	0.0000002 U	**0.000018 I**	**0.000067 I**	0.00000019 U	**0.00000039 JI**
2,3,7,8-TCDD TEQ - ND = 0	UG/L	NA	**1.19E-06**	**7.17E-08**	**5.94E-08**	**5.02E-07**	**2.87E-06**	**1.04E-07**	**1.85E-07**	**5.83E-07**	**5.88E-06**	**1.08E-06**	**1.82E-07**	**1.53E-07**

Notes:
U Indicates compound was not detected
J Indicates an estimated value
I Indicates value is estimated maximum possible concentration
TEQ = Toxicity Equivalent Quotient
TEQs were calculated using zero for nondetected values
TEF = Toxicity Equivalent Factor
TEFs values taken from the 2005 World Health Organization Re-evaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

FIGURES

N

LEGEND

- ROAD
- STREAM OR DITCH
- RAILROAD TRACKS
- APPROXIMATE PROPERTY BOUNDARY
- W-19A — A ZONE GROUNDWATER MONITORING WELL
- W-26B — B ZONE GROUNDWATER MONITORING WELL
- W-32C — C ZONE GROUNDWATER MONITORING WELL
- W-33D — BEDROCK ZONE GROUNDWATER MONITORING WELL
- W-23A — ABANDONED WELL
- SAMPLED WELL LOCATION

OUTFALL 001 DRAINAGE DITCH
CLOSED SURFACE IMPOUNDMENTS (AREA C)
FLOW
OUTFALL 001 (AREA D)
RAYMOND AVENUE
FORMER LEAD TRACK LANDFILL (AREA H)
SPRAY IRRIGATION FIELD
W-05CR
W-02C
W-31C
W-09C
W-12A
W-12CR
NON RCRA REGULATED CLOSED SURFACE IMPOUNDMENTS
DESIGN MANAGEMENT ZONE
W-29A
W-10AR2
W-30A
W-30C
W-08C
W-01C
W-08A
W-21B
W-21A
W-04C
CLOSED RCRA SURFACE IMPOUNDMENTS
W-04B
W-04AR2
W-06A
W-06C
W-07C
W-26B
W-26A
W-32C
STRAW BALE (AREA G)
W-38A
W-39A
W-25A
W-37A
W-24A
W-11A
W-03C
W-25B
W-36A
W-40A
W-22A
W-18A
W-17A
SHOP
W-28A
W-28C
DRIP TRACK AREA (AREA F)
W-23A
W-33D
FORMER CONTAINER STORAGE FACILITY
FORMER, UNLINED LANDFILL/LANDFARM (AREA A)
W-13A
W-14A
W-14B
TREATMENT AREA (AREA B)
W-34D
W-20AR
W-16A
W-16AR
CONCRETE BERM
W-19C
W-19A
OFFICE
GATE
W-18A
W-18D
W-35A
COUNTY ROAD A
OUTFALL 004 (AREA E)
COUNTY ROAD Z

0 300 600
FEET

BEAZER EAST, INC.
PITTSBURGH, PENNSYLVANIA

DRWN: KLC	DATE: 10/05/21	FTS	FIELD & TECHNICAL SERVICES, LLC 200 THIRD AVENUE CARNEGIE, PA 15106
CHKD: AMG	DATE: 10/05/21		
APPD: JSZ	DATE: 10/26/21		
SCALE: AS SHOWN			
ISSUE DATE:			

FORMER KOPPERS INC. FACILITY
SUPERIOR, WISCONSIN

SITE MAP

PROJECT NO: 0M055621
DRAWING NUMBER
FIGURE 1

REV #	DATE	DESCRIPTION	APPD
1			
2			
3			

REFERENCE: WISCONSIN STATE PLANNER COORDINATE SYSTEM.

q:\projects\beazer projects\superior\cadd\2021 annual report\figure 1.dwg Last Saved By: Kchintella 11/3/2021 9:37 AM Plotted By: Kendra L. Chintella 11/3/2021 9:37 AM Scale: 1:1

N

LEGEND

- ROAD
- STREAM OR DITCH
- RAILROAD TRACKS
- APPROXIMATE PROPERTY BOUNDARY
- W-12A 674.48 — A ZONE GROUNDWATER MONITORING WELL WITH GROUNDWATER ELEVATION (FT-MSL)
- 672 — GROUNDWATER ELEVATION CONTOUR (FT-MSL) (DASHED WHERE INFERRED)

OUTFALL 001 DRAINAGE DITCH
CLOSED SURFACE IMPOUNDMENTS (AREA C)
FLOW
OUTFALL 001 (AREA D)
HAMMOND AVENUE
FORMER LEAD TRACK LANDFILL (AREA H)
SPRAY IRRIGATION FIELD
DESIGN MANAGEMENT ZONE
CLOSED RCRA SURFACE IMPOUNDMENTS
STRAW BALES (AREA G)
FORMER, UNLINED LANDFILL/LANDFARM (AREA A)
DRIP TRACK AREA (AREA F)
TREATMENT AREA (AREA B)
SHOP
FORMER CONTAINER STORAGE FACILITY
CONCRETE BERM
OFFICE
GATE
COUNTY ROAD A
COUNTY ROAD Z
OUTFALL 004 (AREA E)

W-39A 673.28
W-38A 674.02
W-37A 673.92
W-25A 673.56
W-40A 673.32
W-36A 674.11
W-14A 674.35
W-29A 672.31
W-04AR2 672.79
W-11A 672.02
W-10AR2 673.30
W-12A 674.48
W-30A 673.00
W-06A 670.49
W-08A 671.35
W-21A 669.83
W-26A 670.70
W-20AR 669.45
W-19A 671.59
W-16AR 671.02
W-35A 671.79

674 673 672 671 670

0 300 600 FEET

REV #	DATE	DESCRIPTION	APPD
1			
2			
3			

REFERENCE: WISCONSIN STATE PLANNER COORDINATE SYSTEM.
BASE MAP AND TOPOGRAPHY OBTAINED FROM PHOTOGRAMMETRY PERFORMED BY LOCKWOOD MAPPING COMPANY OF ROCHESTER, NY (12/28/01).
ALL LOCATIONS ARE APPROXIMATE.

BEAZER EAST, INC.
PITTSBURGH, PENNSYLVANIA

DRWN:	KLC	DATE:	04/28/21
CHKD:	RMW	DATE:	04/28/21
APPD:	JSZ	DATE:	05/19/21
SCALE:	AS SHOWN		
ISSUE DATE:			

FTS
FIELD & TECHNICAL SERVICES, LLC
200 THIRD AVENUE
CARNEGIE, PA 15106

FORMER KOPPERS INC. FACILITY
SUPERIOR, WISCONSIN

GROUNDWATER ELEVATION CONTOURS A-ZONE WELLS (APRIL 27, 2021)

PROJECT NO: 0M055621
DRAWING NUMBER
FIGURE 2

q:\projects\beazer projects\superior\codd\2021 annual report\figure 2.dwg Last Saved By: Kchintella 10/20/2021 2:19 PM Plotted By: Kendra L. Chintella 10/20/2021 2:19 PM Scale: 1:1

N

LEGEND

- ROAD
- STREAM OR DITCH
- RAILROAD TRACKS
- APPROXIMATE PROPERTY BOUNDARY
- W-09C 662.34 — C ZONE GROUNDWATER MONITORING WELL WITH GROUNDWATER ELEVATION (FT-MSL)
- 661 — GROUNDWATER ELEVATION CONTOUR (FT-MSL) (DASHED WHERE INFERRED)

OUTFALL 001 DRAINAGE DITCH
CLOSED SURFACE IMPOUNDMENTS (AREA C)
FLOW
FORMER LEAD TRACK LANDFILL (AREA H)
SPRAY IRRIGATION FIELD
W-02C 662.35
W-05CR 662.56
OUTFALL 001 (AREA D)
HAMMOND AVENUE
W-31C 660.97
W-09C 662.34
W-12CR 662.39
DESIGN MANAGEMENT ZONE
W-30C 662.13
CLOSED RCRA SURFACE IMPOUNDMENTS
W-06C 662.37
STRAW BALES (AREA G)
W-32C 659.39
FORMER, UNLINED LANDFILL/LANDFARM (AREA A)
W-28C 662.55
DRIP TRACK AREA (AREA F)
W-34D
W-53C
TREATMENT AREA (AREA B)
FORMER CONTAINER STORAGE FACILITY
CONCRETE BERM
W-19C 662.30
W-18D
OFFICE
GATE
COUNTY ROAD A
OUTFALL 004 (AREA E)
COUNTY ROAD Z
660
661
662

0 300 600 FEET

BEAZER EAST, INC.
PITTSBURGH, PENNSYLVANIA

DRWN: KLC	DATE: 04/28/21	FIELD & TECHNICAL SERVICES, LLC 200 THIRD AVENUE CARNEGIE, PA 15106	
CHKD: RMW	DATE: 04/28/21		
APPD: JSZ	DATE: 05/19/21		
SCALE: AS SHOWN			
ISSUE DATE:			

FORMER KOPPERS INC. FACILITY
SUPERIOR, WISCONSIN

GROUNDWATER ELEVATION CONTOURS C-ZONE WELLS (APRIL 27, 2021)

PROJECT NO: 0M055621
DRAWING NUMBER
FIGURE 3

REV #	DATE	DESCRIPTION	APPD
1			
2			
3			

REFERENCE: WISCONSIN STATE PLANNER COORDINATE SYSTEM.
BASE MAP AND TOPOGRAPHY OBTAINED FROM PHOTOGRAMMETRY PERFORMED BY LOCKWOOD MAPPING COMPANY OF ROCHESTER, NY (12/28/01).
ALL LOCATIONS ARE APPROXIMATE.

q:\projects\beazer projects\superior\cadd\2021 annual report\figure 3.dwg Last Saved By: Kchintello 6/28/2021 10:36 AM Plotted By: Kendra L. Chintello 6/28/2021 10:42 AM Scale: 1:1

N

LEGEND

- ROAD
- STREAM OR DITCH
- RAILROAD TRACKS
- APPROXIMATE PROPERTY BOUNDARY
- W-12A 671.25 — A ZONE GROUNDWATER MONITORING WELL WITH GROUNDWATER ELEVATION (FT-MSL)
- 672 — GROUNDWATER ELEVATION CONTOUR (FT-MSL) (DASHED WHERE INFERRED)

OUTFALL 001 DRAINAGE DITCH
CLOSED SURFACE IMPOUNDMENTS (AREA C)
FLOW
OUTFALL 001 (AREA D)
DRUMMOND AVENUE
FORMER LEAD TRACK LANDFILL (AREA H)
SPRAY IRRIGATION FIELD
DESIGN MANAGEMENT ZONE
CLOSED RCRA SURFACE IMPOUNDMENTS
STRAW BALES (AREA G)
FORMER, UNLINED LANDFILL/LANDFARM (AREA A)
DRIP TRACK AREA (AREA F)
TREATMENT AREA (AREA B)
FORMER CONTAINER STORAGE FACILITY
CONCRETE PAD
OFFICE
GATE
COUNTY ROAD A
COUNTY ROAD Z
OUTFALL 004 (AREA E)

W-39A 671.07
W-38A 671.88
W-37A 673.69
W-25A 672.50
W-40A 669.83
W-36A 673.48
W-14A 671.89
W-29A 671.89
W-04AR2 672.26
W-11A 671.40
W-12A 671.25
W-30A 669.86
W-08A 669.03
W-10AR2 667.34
W-06A 664.26
W-21A 662.99
W-26A 663.58
W-20AR 668.42
W-16AR 671.13
W-19A 669.71
W-35A 665.98

0 300 600 FEET

REV #	DATE	DESCRIPTION	APPD
3			
2			
1			

REFERENCE: WISCONSIN STATE PLANNER COORDINATE SYSTEM.
BASE MAP AND TOPOGRAPHY OBTAINED FROM PHOTOGRAMMETRY PERFORMED BY LOCKWOOD MAPPING COMPANY OF ROCHESTER, NY (12/28/01).
ALL LOCATIONS ARE APPROXIMATE.

BEAZER EAST, INC.
PITTSBURGH, PENNSYLVANIA

DRWN:	KLC	DATE:	10/05/21
CHKD:	RMW	DATE:	10/05/21
APPD:	JSZ	DATE:	10/26/21
SCALE:	AS SHOWN		
ISSUE DATE:			

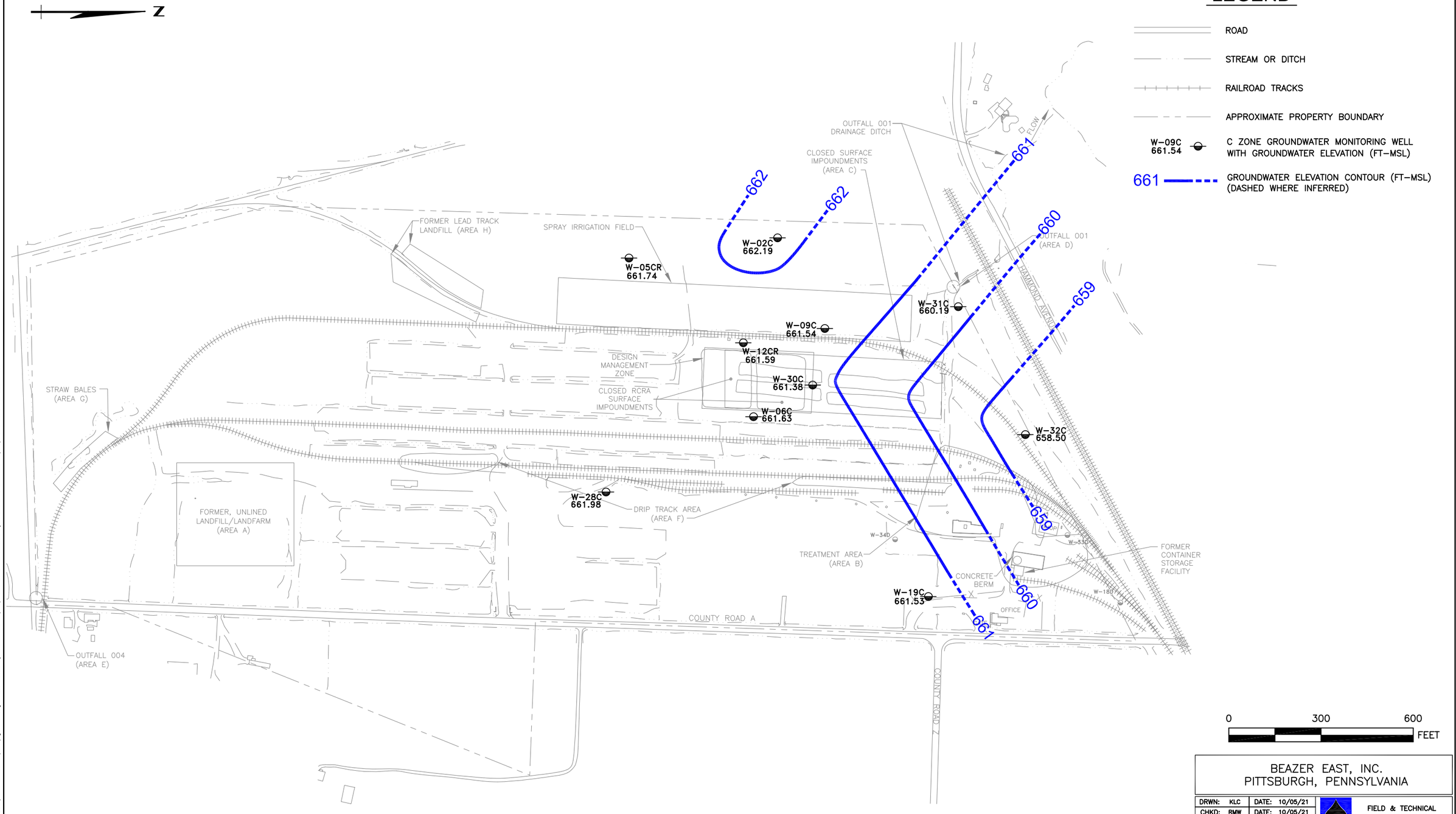
FTS
FIELD & TECHNICAL SERVICES, LLC
200 THIRD AVENUE
CARNEGIE, PA 15106

FORMER KOPPERS INC. FACILITY
SUPERIOR, WISCONSIN

GROUNDWATER ELEVATION CONTOURS A-ZONE WELLS (OCTOBER 4-5, 2021)

PROJECT NO: OM055621
DRAWING NUMBER
FIGURE 4

q:\projects\beazer projects\superior\cadd\2021 annual report\figure 4.dwg Last Saved By: Kchintello 2/8/2022 9:24 AM Plotted By: Kendra L. Chintello 2/8/2022 9:24 AM Scale: 1:1



REV #	DATE	DESCRIPTION	APPD
3			
2			
1			

REFERENCE: WISCONSIN STATE PLANNER COORDINATE SYSTEM.
BASE MAP AND TOPOGRAPHY OBTAINED FROM PHOTOGRAMMETRY PERFORMED BY LOCKWOOD MAPPING COMPANY OF ROCHESTER, NY (12/28/01).
ALL LOCATIONS ARE APPROXIMATE.

BEAZER EAST, INC.
PITTSBURGH, PENNSYLVANIA

DRWN:	KLC	DATE:	10/05/21
CHKD:	RMW	DATE:	10/05/21
APPD:	JSZ	DATE:	10/26/21
SCALE:	AS SHOWN		
ISSUE DATE:			

FTS
FIELD & TECHNICAL SERVICES, LLC
200 THIRD AVENUE
CARNEGIE, PA 15106

FORMER KOPPERS INC. FACILITY
SUPERIOR, WISCONSIN

GROUNDWATER ELEVATION CONTOURS C-ZONE WELLS (OCTOBER 4-5, 2021)

PROJECT NO: 0M055621
DRAWING NUMBER
FIGURE 5

N

W-12A		
Constituent	**Apr-21**	**Oct-21**
BENZENE	0.41 U	0.41 U
BENZO(A)PYRENE	0.059 U	0.073 U
BENZO(B)FLUORANTHENE	0.061 U	0.059 U
CHRYSENE	0.15 U	0.05 U
NAPHTHALENE	0.43 U	0.43 U
2,3,7,8-TCDD TEQ (ND=0)	**2.87E-06**	NA

W-12CR		
Constituent	**Apr-21**	**Oct-21**
BENZENE	0.41 U	0.41 U
BENZO(A)PYRENE	0.053 U	0.078 U
BENZO(B)FLUORANTHENE	0.055 U	0.064 U
CHRYSENE	0.13 U	0.054 U
NAPHTHALENE	0.43 U	0.43 U
2,3,7,8-TCDD TEQ (ND=0)	**1.04E-07**	NA

W-30A		
Constituent	**Apr-21**	**Oct-21**
BENZENE	**1.8**	**18**
BENZO(A)PYRENE	**0.11 J**	0.08 U
BENZO(B)FLUORANTHENE	**0.16 J**	**0.094 J**
CHRYSENE	**0.29 J**	**0.17**
NAPHTHALENE	**10**	**130**
2,3,7,8-TCDD TEQ (ND=0)	**5.88E-06**	NA

W-10AR2		
Constituent	**Apr-21**	**Oct-21**
BENZENE	**15**	**26**
BENZO(A)PYRENE	0.057 U	0.081 U
BENZO(B)FLUORANTHENE	**0.09 J**	0.066 U
CHRYSENE	**0.16 J**	**0.26**
NAPHTHALENE	**6.3**	**3.1**
2,3,7,8-TCDD TEQ (ND=0)	**5.02E-07**	NA

W-30C		
Constituent	**Apr-21**	**Oct-21**
BENZENE	0.41 U	0.41 U
BENZO(A)PYRENE	0.058 U	0.076 U
BENZO(B)FLUORANTHENE	0.06 U	0.062 U
CHRYSENE	0.14 U	0.052 U
NAPHTHALENE	0.43 U	0.43 U
2,3,7,8-TCDD TEQ (ND=0)	**1.08E-06**	NA

W-04AR2		
Constituent	**Apr-21**	**Oct-21**
BENZENE	0.41 U	0.41 U
BENZO(A)PYRENE	**0.094 J**	**0.46**
BENZO(B)FLUORANTHENE	**0.18 J**	**1.3**
CHRYSENE	**0.38 J**	**1.9**
NAPHTHALENE	0.43 U	0.43 U
2,3,7,8-TCDD TEQ (ND=0)	**1.19E-06**	NA

W-28C				
Constituent	**Apr-21**	**Apr-21 Dup**	**Oct-21**	**Oct-21 Dup**
BENZENE	0.41 U	0.41 U	0.41 U	0.41 U
BENZO(A)PYRENE	0.054 U	0.054 U	0.082 U	0.091 U
BENZO(B)FLUORANTHENE	0.056 U	0.056 U	0.067 U	0.074 U
CHRYSENE	0.13 U	0.14 U	0.056 U	0.063 U
NAPHTHALENE	0.43 U	0.43 U	0.43 U	0.43 U
2,3,7,8-TCDD TEQ (ND=0)	**1.85E-07**	**5.83E-07**	NA	NA

W-06A		
Constituent	**Apr-21**	**Oct-21**
BENZENE	0.41 U	0.41 U
BENZO(A)PYRENE	0.058 U	0.08 U
BENZO(B)FLUORANTHENE	0.06 U	0.066 U
CHRYSENE	0.15 U	0.055 U
NAPHTHALENE	0.43 U	0.43 U
2,3,7,8-TCDD TEQ (ND=0)	**7.17E-08**	NA

W-06C		
Constituent	**Apr-21**	**Oct-21**
BENZENE	0.41 U	0.41 U
BENZO(A)PYRENE	0.058 U	0.079 U
BENZO(B)FLUORANTHENE	0.06 U	0.064 U
CHRYSENE	0.14 U	0.054 U
NAPHTHALENE	0.43 U	0.43 U
2,3,7,8-TCDD TEQ (ND=0)	**5.94E-08**	NA

W-18D		
Constituent	**Apr-21**	**Oct-21**
BENZENE	NA	NA
BENZO(A)PYRENE	0.054 U	0.086 U
BENZO(B)FLUORANTHENE	0.056 U	0.07 U
CHRYSENE	0.13 U	0.059 U
NAPHTHALENE	0.29 U	0.27 U
2,3,7,8-TCDD TEQ (ND=0)	NA	NA

W-02C
W-05CR
W-09C
W-31C
W-12A
W-12CR
W-29A
W-10AR2
W-30A
W-30C
W-08C
W-08A
W-01C
W-38A
W-39A
W-04C
W-04B
W-04AR2
W-06A
W-21B
W-21A
W-26B
W-26A
W-32C
W-25A
W-40A
W-11A
W-07C
W-03C
W-22A
W-15A
W-17A
W-16A
W-33D
W-34D
W-20AR
W-16AR
W-19C
W-19A
W-35A
W-18D
W-28A
W-28C
W-23A
W-13A
W-14A
W-14B
DESIGN MANAGEMENT ZONE
CLOSED RCRA SURFACE IMPOUNDMENTS
COUNTY ROAD
WOOD AVENUE
SHOP
CONCRETE BERM
OFFICE
GATE

LEGEND

- ROAD
- STREAM OR DITCH
- RAILROAD TRACKS
- APPROXIMATE PROPERTY BOUNDARY
- W-19A — A ZONE GROUNDWATER MONITORING WELL
- W-26B — B ZONE GROUNDWATER MONITORING WELL
- W-32C — C ZONE GROUNDWATER MONITORING WELL
- W-33D — BEDROCK ZONE GROUNDWATER MONITORING WELL
- W-23A — ABANDONED WELL

STANDARDS

Constituent	WDNR PAL	WDNR ES	MCL
BENZENE	0.5	5	5
BENZO(A)PYRENE	0.02	0.2	0.2
BENZO(B)FLUORANTHENE	0.02	0.2	-
CHRYSENE	0.02	0.2	-
NAPHTHALENE	10	100	-
2,3,7,8-TCDD TEQ (ND=0)	0.000003	0.00003	0.00003

—EXCEEDS WDNR PAL
—EXCEEDS WDNR ES
—EXCEEDS FEDERAL MCL

ALL VALUES ARE IN ug/L

U– NOT DETECTED

J– ESTIMATED RESULT

NA– NOT ANALYZED

TEQ– 2,3,7,8–TCDD TOXICITY EQUIVALENT QUOTIENT 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

PAL– WDNR PREVENTIVE ACTION LIMIT

ES– WDNR ENFORCEMENT STANDARD

MCL– FEDERAL MAXIMUM CONTAMINANT LEVEL

0 300 600 FEET

BEAZER EAST, INC.
PITTSBURGH, PENNSYLVANIA

DRWN:	KLC	DATE:	10/21/21
CHKD:	TSA	DATE:	10/21/21
APPD:	AMG	DATE:	11/11/21
SCALE:	AS SHOWN		
ISSUE DATE:			

FIELD & TECHNICAL SERVICES, LLC
200 THIRD AVENUE
CARNEGIE, PA 15106

FORMER KOPPERS INC. FACILITY
SUPERIOR, WISCONSIN

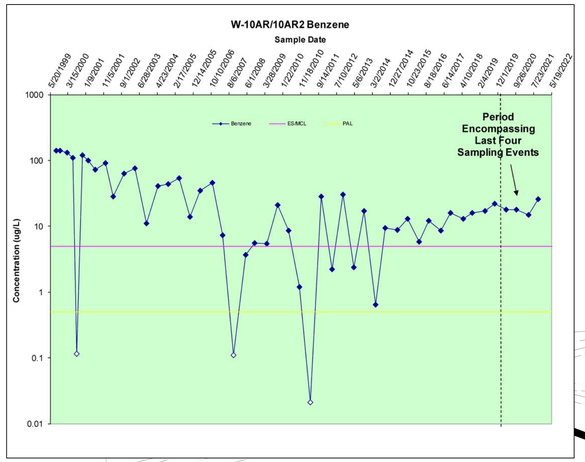
APRIL AND OCTOBER 2021
CONSTITUENTS OF INTEREST

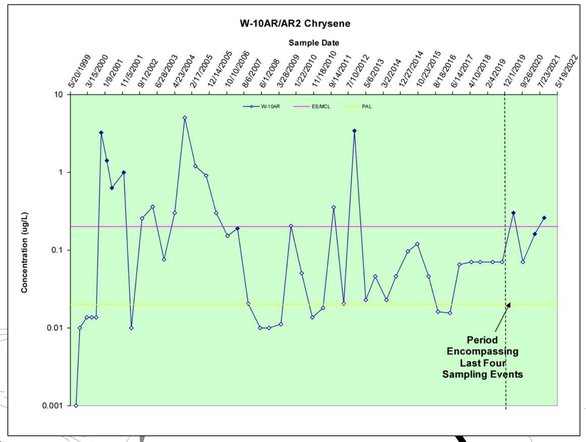
PROJECT NO: 0M055621
DRAWING NUMBER
FIGURE 6

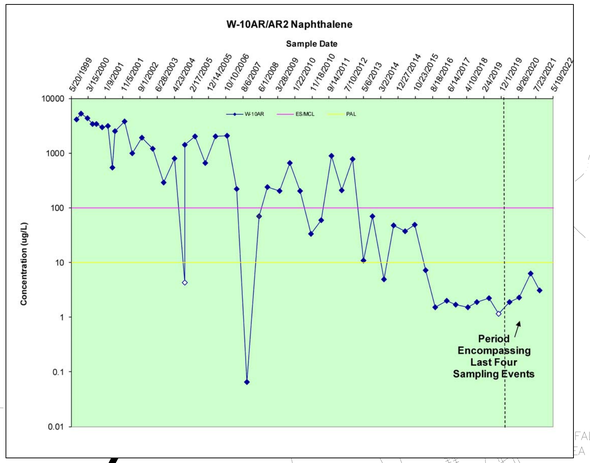
REV #	DATE	DESCRIPTION	APPD
3			
2			
1			

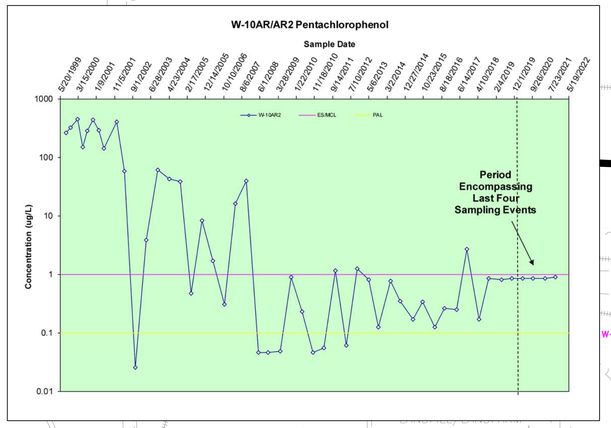
REFERENCE: WISCONSIN STATE PLANNER COORDINATE SYSTEM.

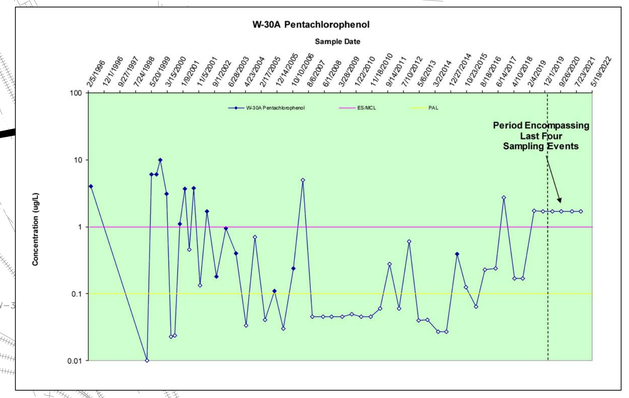
q:\projects\beazer projects\superior\cadd\2021 annual report\figure 6.dwg Last Saved By: Kchintella 11/3/2021 9:40 AM Plotted By: Kendra L. Chintella 11/3/2021 9:40 AM Scale: 1:1

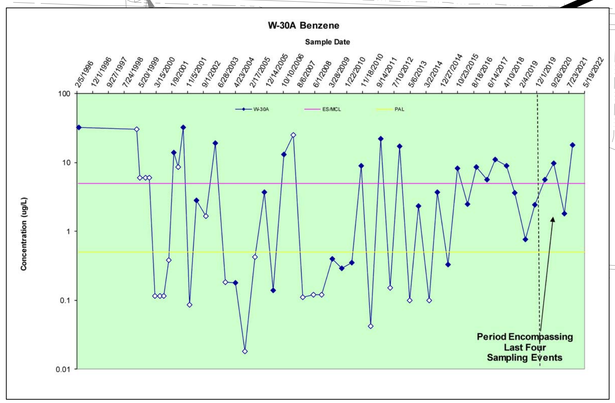


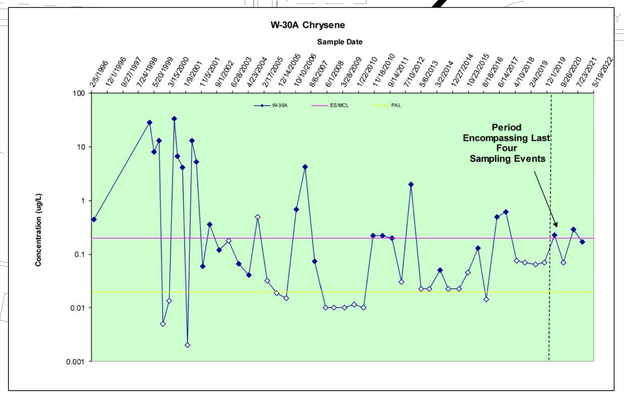


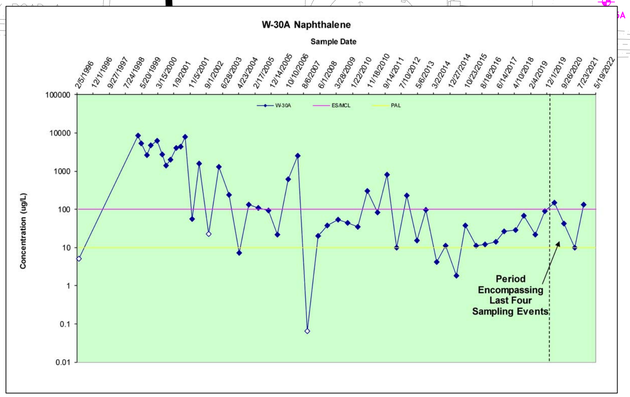












LEGEND

- ROAD
- STREAM OR DITCH
- RAILROAD TRACKS
- APPROXIMATE PROPERTY BOUNDARY
- W-08A — A ZONE GROUNDWATER MONITORING WELL
- INDICATES ANALYTICAL RESULT WAS NON DETECT. VALUE POSTED REPRESENTS ONE-HALF THE DETECTION LIMIT.

N

0 150 300 FEET

REV #	DATE	DESCRIPTION	APPD
1			
2			
3			

REFERENCE: WISCONSIN STATE PLANNER COORDINATE SYSTEM.
BASE MAP AND TOPOGRAPHY OBTAINED FROM PHOTOGRAMMETRY PERFORMED BY LOCKWOOD MAPPING COMPANY OF ROCHESTER, NY (12/28/01).
ALL LOCATIONS ARE APPROXIMATE.

BEAZER EAST, INC.
PITTSBURGH, PENNSYLVANIA

DRWN:	KLC	DATE:	10/21/21
CHKD:	TSA	DATE:	10/21/21
APPD:	AMG	DATE:	10/11/21
SCALE:	AS SHOWN		
ISSUE DATE:			

FIELD & TECHNICAL SERVICES, LLC
200 THIRD AVENUE
CARNEGIE, PA 15106

FORMER KOPPERS INC. FACILITY
SUPERIOR, WISCONSIN

A-ZONE PARAMETER CONCENTRATION TRENDS OF BENZENE, CHRYSENE, NAPHTHALENE, PENTACHLOROPHENOL

PROJECT NO: OM055621
DRAWING NUMBER
FIGURE 7

q:\projects\beazer projects\superior\cadd\2021 annual report\figure 7.dwg Last Saved By: Kchintella 11/3/2021 9:46 AM Plotted By: Kendra L. Chintella 11/3/2021 9:46 AM Scale: 1:1

APPENDIX A

Project Activity Milestone Summary

Former Koppers Superior Site - Project Activity Milestone Summary

Closure and Post Closure Plan

- Beazer submitted a Closure and Post-Closure Plan for the RCRA impoundments to the WDNR in a document dated August 28, 1987 (Keystone Environmental Resources, August 28, 1987).

- The WDNR provided a Plan Approval on October 1, 1987.

    - In accordance with Plan Approval, approximately 1,358 tons of K001 sludge and subgrade soils exhibiting visible presence of K001 sludge-related material were removed from the impoundments and transported off-site by August 3, 1988.

- Subgrade sampling activities took place in August 1988.

    - It was determined that traces of K001 constituents remained in the subgrade and outer berms; therefore, the impoundments were closed as a landfill.

- Closure activities were completed by August 29, 1989 and are detailed in the document *Construction Documentation Surface Impoundment Closure Report* (Keystone Environmental Resources, November 1989).

- Beazer submitted a Permit Modification Request to the Groundwater Monitoring Program to the WDNR on April 19, 2002 (Blasland Bouck, & Lee).

    - Following a public comment period, the WDNR provided a Conditional Closure and Long-Term Care Plan Approval Modification in an October 29, 2002 letter to Beazer.

- In an email from WDNR dated May 5, 2021, Beazer received a Conditional Close-Out (CCO) Letter that requested, among other items, that Beazer submit a Long-Term Care License Renewal Application. Via email dated July 9, 2021, WDNR extended the recommended deadline for a response to the CCO by 90 days (i.e. November 1, 2021). On November 1, 2021, Beazer responded to the items discussed in the CCO. Also included in the November 1, 2021 Response to CCO is a Wisconsin Long-Term Care License Renewal Application.

Design Management Zone

- The design management zone (DMZ) is the point of standards application for Wisconsin water quality standards.

- The closed impoundment system is subject to regulation under NR 664.0090 to 664.0100 and therefore the horizontal distance for the DMZ is zero feet.

    - The DMZ encompasses the vertical surface located along the southern boundary of the south lagoon, the western boundary of the south and north lagoons, the northern boundary of the north lagoon, and the eastern boundary of the north and south lagoons.

Monitoring Well Installation/Decommissioning

- During August 1988, 11 wells installed to monitor groundwater at the two impoundments were decommissioned to allow for capping of the impoundments.

    - The 11 decommissioned monitoring wells were L-1 S, L-2S, L-3S, L-3M, L-4S, L-4M, L-4D, L-5S, L-5M, L-5DR and L-17.

    - In accordance with the interim post closure monitoring plan, four monitoring wells (MW-1S, MW-4S, MW-4D, and MW-2S) were installed in November 1988 and 1989 to replace the decommissioned monitoring wells.

    - These four monitoring wells were subsequently re-designated (W-10B, W-12B, W-12C and W-6B, respectively) to provide a consistent nomenclature with 15 existing monitoring wells.

- In July and August of 1990, 26 new monitoring wells were installed at the Site as part of the Phase II RFI under the Site-wide RCRA corrective action program required by Federal Permit issued by the U.S. EPA September 30, 1988 pursuant to the Hazardous and Solid Waste Amendments (HSWA).

- W-04C was abandoned in 2002 and W-10AR was replaced with W-10AR2 in 2003, as noted below.

- In October 2004, the monitoring well network at the Site was reevaluated. A field inspection of all Site monitoring wells indicated that some wells had been damaged due to frost heave or normal Site activities. Each well was assessed based on its location, relevance to the current sampling plan, extent of damage (if any), and potential for future damage. Based on these assessments, 14 monitoring wells were abandoned, two monitoring wells (W-5C and W-20A) were replaced, and seven monitoring wells were repaired during the fall and winter of 2004. A summary of the completed well abandonment, repair, and replacement activities was submitted to WDNR on March 18, 2005.

- In October 2006, six new A-zone monitoring wells (W-35A through W-40A) were installed for supplemental monitoring purposes.

- On July 13, 2010, monitoring wells W-16A and W-17A were abandoned in preparation for the on-property Corrective Measures Implementation (CMI) activities.

- Monitoring well W-16A was replaced with W-16AR in April 2013.

Groundwater Monitoring Program

- In March 1991 Beazer submitted a Draft Existing Conditions Report to the WDNR to propose a revised RCRA quarterly post-closure compliance monitoring program for the closed RCRA impoundments.

    - The WDNR provided comments on the Draft Existing Conditions Report, and the 1991 and 1992 Annual RCRA Groundwater Monitoring Summary reports in a letter dated July 19, 1993.

    - Beazer responded to the WDNR's comments on the Draft Existing Conditions Report on September 1, 1993, and to their comments on the 1991 and 1992 Annual RCRA Groundwater Monitoring Summary reports on September 10, 1993.

    - The Plan Approval groundwater monitoring program was subsequently approved by the WDNR.

- The analytical program of the Plan Approval groundwater monitoring program was initiated in the fourth quarter 1993, even though new monitoring well installations, needed to satisfy the modified program, had yet to be completed.

- In January 1994 Beazer submitted the documents, *Monitoring Well Installation and Abandonment Project Work Plan* (PWP) and *Groundwater Monitoring Sampling and Analysis Plan* (SAP) to the WDNR to provide a description of the methods and materials to be used to revise the monitoring well network and to perform the modified quarterly sampling, analyses, and statistics.

    - The PWP and SAP were approved by the WDNR and were implemented in June 1995.

    - The scope of work for the PWP included the installation of six monitoring wells (W-6A, W-10A, W-12A, W-12CR, W-30A, and W-30C) and the abandonment of four monitoring wells (W-6B, W-10B, W-12C, and W-12B) and the abandonment of a damaged well, W-27A.

    - As indicated in the SAP and required by the state's regulations, following four quarters of monitoring, statistical evaluation of the data are required; with the reporting of second quarter 1996 data four quarters of data were available for statistical determinations

- In the August 5, 1996, correspondence to Fluor Daniel GTI, the WDNR deferred the statistical evaluation while an assessment of integrating the RCRA-Unit monitoring requirements into part of the Site-wide RCRA corrective action program was made.

- A Plan Approval Modification was issued by the WDNR on October 24, 1996 and represented a change in the lead status for the Site-wide RCRA Facility Investigation, from the U.S. EPA to the WDNR.

- Beazer submitted a new Groundwater Monitoring Sampling Analysis Plan to the WDNR on April 19, 2002 which included a semi-annual groundwater sampling plan, the use of bladder pumps for groundwater sampling, and the use of U.S. EPA Method 8270C (expanded list) to analyze groundwater samples for polycyclic aromatic hydrocarbons (PAHs), phenolics, and semi-volatile organic compounds (SVOCs)

  - With WNDR approval, the groundwater monitoring frequency was reduced from quarterly to semi-annual as of June 2002.

  - The WDNR conditionally approved new Groundwater Monitoring Sampling Analysis Plan in a letter (Plan Approval Modification) to Beazer dated October 29, 2002.

  - As directed by the WDNR, monitoring well W-04C was decommissioned on December 10, 2002.

    - Due to significant damage to the inner and outing casing, monitoring well W-10AR was sealed and replaced by well W-10AR2 on July 31, 2003.

    - As indicated above, 14 monitoring wells were abandoned, two monitoring wells (W-5C and W-20A) were replaced, and seven monitoring wells were repaired during the fall and winter of 2004.

    - Due to significant damage to the inner casing, monitoring well W-04AR was sealed and replaced by well W-04AR2 on July 24, 2017.

Site-Wide Corrective Action Monitoring Program

- As part of the October 24, 1996 Plan Approval Modification, the WDNR required the submittal of a proposal to begin a Site-wide corrective action monitoring program, to supplement the existing Plan Approval.

- A Site-wide corrective action monitoring program was proposed by Beazer via correspondence dated December 20, 1996 and included two minor modifications to the Plan Approval for the RCRA-Unit monitoring:

- Eliminate arsenic from the list of parameters to be monitored, due to its lack of detection.

- Eliminate Method 8270 analyses from the annual list of parameters due to its duplication of analytical results with the other organic compound analytical methods.

- No response was received from the WDNR regarding the December 20, 1996 request, although relevant requested modifications were incorporated into the April 19, 2002 request and associated October 29, 2002 Plan Approval Modification.

- A natural attenuation remedy for groundwater was proposed in the July 2007 Focused Corrective Measures Study (CMS). Supplemental groundwater data were collected between 2004 and 2007 (as summarized in the January 24, 2006 *Groundwater Natural Attenuation Evaluation Report* and September 18, 2007 *Summary of Supplemental Groundwater Investigations*) to demonstrate the occurrence of natural attenuation and support WDNR's approval of the proposed groundwater natural attenuation remedy.

- A work plan for additional groundwater sampling to further support the natural attenuation remedy was submitted to the WDNR on October 12, 2012, and was approved by the WDNR on December 7, 2012. Sampling events associated with this work plan were completed in April 2013, July 2013, October 2013, and January 2014. The additional groundwater sampling was summarized in a *Groundwater Natural Attenuation Demonstration Summary Report*, submitted to the WDNR on June 12, 2014.

- On October 17, 2014, ARCADIS, on behalf of Beazer, submitted a Technical Assistance and Environmental Liability Clarification Request to WDNR, requesting approval of the natural attenuation remedy for groundwater. WDNR approved the groundwater natural attenuation remedy in a letter to Beazer dated November 18, 2014.

Phase II and III RCRA Facility Investigation Reports (Phase II and III RFI Reports)

- A Phase II RFI Report was submitted to the WDNR and U.S. EPA in June 1991.

- A Phase III RFI Work Plan was submitted to the WDNR and U.S. EPA in August 1993 and conditionally approved by the U.S. EPA.

    - A meeting was held on August 2, 1994, between Beazer, U.S. EPA, and WDNR, to discuss the Phase III comments.

    - As result of this meeting, the cone penetrometer portion of the Phase III RFI Work Plan was segregated and re-evaluated.

- A revised Cone Penetrometer Work Plan was submitted to the WDNR and U.S. EPA on August 25, 1994 and was conditionally approved on September 9, 1994.
    - The required conditions were addressed and the field work was performed during October 1994 and January 1995.
    - The results of the Cone Penetrometer work and the proposed Phase III RFI groundwater investigation activities were reported to the WDNR and U.S. EPA in an Interim Letter Report (ILR) in July 1995.
- Concurrent with submittal of the ILR was the submittal of an Addendum Summary Sampling Plan for Dioxins/Furans and the Surface Water and Streambed Sediment Sampling and Analysis Plan to the WDNR and U.S. EPA.
    - The ILR and Summary Sampling Plan for Dioxins/Furans were approved by the WDNR in an October 24, 1996, Plan Approval Modification.
    - Surface water and sediment sampling were performed in June 1996, and the Report of Findings was submitted to the WDNR in March 1997.
    - The Phase III RFI soil and groundwater investigations were implemented from October through December 1996 and the RFI Report was submitted to the Agencies in June 1997.

Surface Water and Streambed Sediment Activities

- The WDNR submitted comments on the Preliminary Characterization Report Surface Water and Streambed Sediment (March 1997) to Beazer via letter dated February 10, 1998, (received by Beazer February 17, 1998).
    - In accordance with the February 10, 1998, letter, Beazer submitted the document, *Supplemental Investigation Work Plan, Surface Water and Streambed Sediment* to the WDNR on May 4, 1998.
    - WDNR provided comments in a letter dated January 29, 1999.
    - Beazer responded to the comments in correspondence dated March 19, 1999.
    - A meeting was held on May 4, 1999 at the WDNR offices in Superior to discuss the Supplemental Investigation Work Plan, the Crawford Creek Surface Water and Sediment Work Plan, and the RFI Report.
- In the fall of 1999, an off-site Surface Water and Sediment Characterization Investigation was undertaken.

- A Supplemental Investigation Work Plan for off-site surface water and sediment characterization was submitted to the WDNR on February 11, 2000.
- The investigation summary report entitled *Supplemental Surface Water and Streambed Sediment Investigation Report* was submitted to WDNR on July 14, 2000.

- As further described below, additional investigations along Crawford Creek and the Outfall 001 drainage ditch were conducted in February 2003, May 2003, April-December 2005, and August 2013 through January 2014 and were reported to the WDNR on June 26, 2003, October 2, 2003, February 21, 2006, and April 15, 2014, respectively.

- Beazer submitted a Human Health and Ecological Risk Assessment (HHERA) for the off-property portion of the Site to the WDNR on January 15, 2009; WDNR provided comments on the HHERA on August 10, 2011 and March 14, 2012.

- On August 22, 2014, Beazer submitted to WDNR a Focused Corrective Measures Study (FCMS) for the off-property portion of the Site. Responses to WDNR comments on the HHERA were submitted to WDNR as Appendix A to the FCMS. WDNR provided draft comments on the FCMS to Beazer on November 13, 2014.

- Since 2018, Beazer and USEPA have been working in conjunction with WDNR to develop a Focused Feasibility Study for the off-property portion of the Site, as part of a Great Lakes Legacy Act project. As part of those efforts, supplemental data gap investigations were completed along Crawford Creek and the Outfall 001 drainage ditch between May and September 2020. The investigation results were reported to WDNR on April 23, 2021.

Soil Risk Evaluation Activities

- In a February 4, 1999 letter, the WDNR provided comments on the "Technical Memorandum on Soil Risk Procedures".
  - Beazer provided responses to the comments on the "Technical Memorandum on Soil Risk Procedures" to the WDNR on April 5, 1999.
  - Following additional coordination with the WDNR and the Wisconsin Department of Health and Family Services, AMEC Earth and Environmental, Inc. (AMEC) provided a letter to the WDNR on August 29, 2001 summarizing the agreed-upon changes to the soil risk procedures.
  - The WDNR confirmed AMEC's summary in a letter to Beazer dated October 17, 2001.

- A Post-Remediation Human Health Risk Assessment (HHRA) was submitted to the WDNR as an attachment to the March 2004 Focused CMS; the Post-Remediation HHRA was revised to reflect changes to Site conditions and additional sampling data, and was resubmitted with the revised Focused CMS in July 2007. Additional revisions were subsequently made to address WDNR comments, and an addendum to the July 2007 Post-Remediation HHRA was submitted to the WDNR on January 8, 2008. A revised HHRA Addendum was submitted in December 2009 to include additional soil sample data collected in 2008.

- In December 2009, Beazer submitted an On-Property CMI Design Report to the WDNR, which outlined the scope of work for implementing corrective measures to address impacted surface soils in the on-property portion of the Site and the on-property portion of the Outfall 001 drainage ditch. WDNR approved the CMI Design Report in May 2010. The corrective measures construction activities were initiated in the fall of 2010, following receipt of the necessary permits, and were completed in July 2011. A Construction Documentation Report was submitted to the WDNR in September 2011. As a required component of the on-property corrective actions, Beazer submitted a *Notification of Continuing Obligations and Residual Contamination* to the property owner on June 16, 2014, and a GIS Registry Submittal to WDNR on August 5, 2015.

Bedrock Investigation Activities

- The WDNR provided comments on the RFI Report (June 1997) to Beazer in a letter dated February 15, 1999.

    - Beazer provided responses to the comments on the RFI Work Plan to the WDNR on March 26, 1999 and subsequently installed three additional wells to monitor the sandstone bedrock beneath the Site.

- An RFI Bedrock Monitoring Wells Report was submitted to WDNR on July 14, 2000.

    - Data related to sampling which was conducted at the three existing bedrock monitoring wells in the northern portion of the facility (W-18D, W-33D, and W-34D) were summarized in a letter to the WDNR dated September 21, 2001.

    - That letter proposed two additional rounds of sampling at the three existing bedrock monitoring wells and that additional off-site bedrock wells were not warranted.

    - On February 14, 2002, the WDNR issued a letter to Beazer providing comments on the *RFI Bedrock Monitoring Wells Report* and the September 21, 2001 letter.

- In a letter to the WDNR dated April 18, 2003, Beazer proposed the scope of continued short-term groundwater monitoring at the three existing bedrock wells.

- Additional bedrock groundwater sampling has been performed since 2003 in conjunction with the Site's semiannual groundwater monitoring program.

Additional Site Issues

- On May 23, 2000, Beazer submitted a Request for Modification of the Closure and Long Term Care Plan Approval and Corrective Action Management Unit (CAMU) Demonstration (CAMU Demonstration Document) to the WDNR.

    - The WDNR provided a letter on November 1, 2000 stating that enough substantive information has been provided to confirm that the CAMU application is "substantially in the approval process".

    - In a letter to Beazer dated January 23, 2002, the WDNR provided a Notice of Incompleteness related to the CAMU Demonstration Document.

    - In a letter to the WDNR dated April 15, 2002, Beazer responded to the WNDR's January 23, 2002 comments on the CAMU Demonstration Document.

    - In July, 2002, Beazer conducted wetland assessment/delineation activities at the Site to determine the presence and extent of regulated wetlands within the proposed CAMU location.

    - In a letter to Beazer dated January 17, 2003, the WDNR suggested that Beazer review Wisconsin regulations to determine the requirements for potential offset distances.

    - In a July 30, 2003 letter to the WDNR, Beazer summarized the basis for the WDNR-referenced offset distances.

    - During the November 21, 2003 project meeting, the WDNR indicated that the offset requirements were not applicable to the proposed CAMU.

- In a letter dated July 25, 2001, Beazer provided a work plan to the WNDR related to for supplemental investigations at the facility and in off-property areas.

    - The proposed investigation included fire pond probing and sampling, and additional sampling at bedrock monitoring wells, test pit excavations in the Crawford Creek floodplain, and sediment/floodplain soil sampling in the Crawford Creek area.

- The on-site portions of these investigations were completed in December 2001 and the associated results were provided to the WDNR in a letter from BBL dated April 12, 2002.
- In a letter to Beazer dated April 11, 2002, the WDNR provided comments on the July 25, 2001 work plan letter.
- Beazer provided responses to the WDNR's comments in a letter dated April 30, 2002.
- On June 24, 2002, Beazer provided a letter to the WDNR to obtain the necessary wetland-related permits/approvals to conduct the Crawford Creek floodplain investigation.
- On December 30, 2002, Beazer provided another letter to the WDNR proposing an alternate approach for performing the Crawford Creek floodplain investigations, whereby the work would be completed during frozen ground conditions, which would not require WDNR wetland-related permits/approvals.
- Throughout 2002, ongoing negotiations were conducted with a nearby property owner to gain access to his property, which is necessary to conduct the Crawford Creek floodplain investigation.
- The Crawford Creek investigation activities (including floodplain test pits and sediment/floodplain soil sampling) were performed in February 2003; a letter report summarizing the scope and findings of the Crawford Creek investigation activities was submitted to the WDNR on June 26, 2003.

- Additional investigations of the Outfall 001 drainage ditch (including visual characterization of manually recovered soil cores collected within and adjacent to the ditch) were performed between May 19 and 22, 2003; a letter report summarizing the scope and findings of the investigation activities was submitted to the WDNR on October 2, 2003.
- Based on a letter from the WDNR dated January 22, 2004 and discussions during a conference call on February 26, 2004, additional investigations of the Outfall 001 drainage ditch and Crawford Creek were conducted between April and December 2005; the investigation results were reported to the WDNR on February 21, 2006.
- Based on discussions during a January 20, 2005 meeting/conference call and a letter from the WDNR dated January 25, 2005, additional on-property soil sampling was conducted in April and September 2005; the sampling results were reported to the WDNR on February 22, 2006.
- Additional on-property soil samples were collected in 2006 to support revisions to the HHRA.

- In a letter to Beazer dated April 11, 2002, the WDNR requested information regarding the potential presence of PAHs and dioxins/furans in Nemadji River fish.
    - In a letter dated July 10, 2002, Beazer provided the requested information to the WDNR.
    - In a memorandum to the WDNR dated January 17, 2003, the WDHFS requested additional information to support the conclusion that collecting and analyzing samples of fish in Crawford Creek and Nemadji River is not warranted.
    - The requested additional information was provided in a letter from AMEC to the WDNR dated June 1, 2003.
    - Revised dioxin/furan fish tissue concentration calculated based on data collected in May 2003 were provided to the WDNR in a letter from AMEC dated October 14, 2003.
- Additional off-property investigations (soil borings, soil sampling, temporary well installations, and groundwater sampling in the Crawford Creek floodplain area) were completed from August 2013 through January 2014 in accordance with a work plan submitted to the WDNR on June 28, 2013 and conditionally approved by the WDNR on July 3, 2013. The investigation results were reported to WDNR on April 15, 2014.
- Supplemental data gap investigations (soil borings, soil sampling, temporary well installations, groundwater sampling, slug testing, surface water sampling, sediment coring, and sediment sampling) were completed along Crawford Creek and the Outfall 001 drainage ditch between May and September 2020, in accordance with a work plan and QAPP dated September 17, 2019, and subsequent addendum dated July 22, 2020. The investigation results were reported to WDNR on April 23, 2021. These investigations were a component of the Focused Feasibility Study being prepared by Beazer and USEPA as part of the Great Lakes Legacy Act project.

APPENDIX B

Field Data and Notes

First Semi-Annual Event

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-04AR2

UNREADABLE

Client:	Beazer East, Inc.	**Well ID:**	W-04AR2
Project Name:	Superior 2021 1SA Sampling	**Date:**	04/28/2021 1125
Project Number:	OM-0556-21-091	**Technician:**	Ben Trask
Location:	Superior, WI	**Weather Conditions:**	50s Sunny

WATER LEVEL DATA

a.) Depth To Groundwater:	3.36	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	14.06	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	10.70	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	1.7	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method: Non-Dedicated Bladder Pump

Conductivity Unit: mS/cm

Total Volume Removed (gals): 0.99

Purge Start: 04/28/2021 1137

Purge End: 04/28/2021 1202

Field Equipment	Calibrated
LaMotte 2020we Turbidity Meter 6110-4815	Yes
YSI 556 MPS 15M101117	Yes
Heron Dipper T2 Water Level Meter 200' 1723-T2	No

Sampling Equipment	Dedicated
Geotech Bladder Pump 633	No

PRE-PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
Initial	1137	150	7.92	7.54	0.979	87.3	6.90	6.72	3.45	

PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
1	1142	150	7.19	7.47	0.978	81.4	2.26	5.49	3.45	
2	1147	150	6.83	7.46	0.971	75.9	1.76	6.44	3.45	
3	1152	150	6.90	7.48	0.922	73.2	2.10	6.13	3.45	
4	1157	150	6.98	7.49	0.910	74.4	2.15	6.10	3.45	
5	1202	150	6.99	7.50	0.905	75.8	2.20	6.05	3.45	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF	8021B_VOA+naphtha	8260B_VOA+naphtha	3	3	40 ml glass vial	HCL	Superior 2021 1SA Sampling_001
TABUF	8270C_SVOC (less naphtha)	8270C_SVOC (less naphtha)	3	3	1 liter amber bottle	None	Superior 2021 1SA Sampling_001
TAKNOX	8290_Dioxins/Furans	8290_Dioxins/Furans	2	2	1 liter amber glass	None	Superior 2021 1SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-04AR2-042821

Sample Start time: 04/28/2021 1207

Sample Finish time: 04/28/2021 1258

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-06A

Client:	Beazer East, Inc.	**Well ID:**	W-06A
Project Name:	Superior 2021 1SA Sampling	**Date:**	04/28/2021 1329
Project Number:	OM-0556-21-091	**Technician:**	Haley Redmond
Location:	Superior, WI	**Weather Conditions:**	50, sunny

WATER LEVEL DATA

a.) Depth To Groundwater:	3.28	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	13.21	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	9.93	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	1.6	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method: Non-Dedicated Bladder Pump

Conductivity Unit: mS/cm

Total Volume Removed (gals): 0.50

Purge Start: 04/28/2021 1330

Purge End: 04/28/2021 1355

Field Equipment	Calibrated
YSI 556 11J102407	Yes
LaMotte 2020we 4714-3514	Yes
Heron 200' Water Lever 1725-T2	No

Sampling Equipment	Dedicated
Bladder Pump 634	No

PRE-PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
Initial	1330	75	8.89	8.72	0.558	-21.7	2.99	3.18	4.41	

PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
1	1335	75	9.43	8.91	0.534	-25.2	2.78	2.34	4.53	
2	1340	75	9.50	9.00	0.512	-25.4	2.37	3.45	5.00	
3	1345	75	9.53	9.02	0.510	-25.9	2.32	2.40	5.00	
4	1350	75	9.55	9.04	0.504	-26.1	2.29	2.50	5.00	
5	1355	75	9.58	9.07	0.500	-26.5	2.25	2.67	5.00	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF	8021B_VOA+naphtha	8260B_VOA+naphtha	3	3	40 ml glass vial	HCL	Superior 2021 1SA Sampling_001
TABUF	8270C_SVOC (less naphtha)	8270C_SVOC (less naphtha)	3	3	1 liter amber bottle	None	Superior 2021 1SA Sampling_001
TAKNOX	8290_Dioxins/Furans	8290_Dioxins/Furans	2	2	1 liter amber glass	None	Superior 2021 1SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-06A-042821

Trip Blank :SUPE-TB-01-042821

Sample Start time: 04/28/2021 1400

Sample Finish time: 04/28/2021 1641

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-06C

UNREADABLE

Client:	Beazer East, Inc.	**Well ID:**	W-06C
Project Name:	Superior 2021 1SA Sampling	**Date:**	04/28/2021 1642
Project Number:	OM-0556-21-091	**Technician:**	Haley Redmond
Location:	Superior, WI	**Weather Conditions:**	50, sunny

WATER LEVEL DATA

a.) Depth To Groundwater:	11.99	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	44.00	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	32.01	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	5.2	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method: Non-Dedicated Bladder Pump

Conductivity Unit: mS/cm

Total Volume Removed (gals): 1.65

Purge Start: 04/28/2021 1650

Purge End: 04/28/2021 1715

Field Equipment	Calibrated
LaMotte 2020we 4714-3514	Yes
Heron 200' Water Lever 1725-T2	No
YSI 556 11J102407	Yes

Sampling Equipment	Dedicated
Bladder Pump 634	No

PRE-PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
Initial	1650	200	10.21	7.57	0.358	-64.3	8.79	3.79	11.99	

PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
1	1655	250	8.04	7.65	0.650	-74.5	3.56	3.00	12.10	
2	1700	250	7.98	7.72	0.659	-81.8	3.54	2.45	12.10	
3	1705	250	7.97	7.72	0.655	-82.3	3.50	2.00	12.10	
4	1710	250	7.98	7.71	0.654	-82.9	3.44	2.00	12.10	
5	1715	250	7.99	7.72	0.655	-83.1	3.40	2.50	12.10	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF	8021B_VOA+naphtha	8260B_VOA+naphtha	3	3	40 ml glass vial	HCL	Superior 2021 1SA Sampling_001
TABUF	8270C_SVOC (less naphtha)	8270C_SVOC (less naphtha)	3	3	1 liter amber bottle	None	Superior 2021 1SA Sampling_001
TAKNOX	8290_Dioxins/Furans	8290_Dioxins/Furans	2	2	1 liter amber glass	None	Superior 2021 1SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-06C-042821

MS/MSD Blank :SUPE-MS/MSD-W-06C-042821

Sample Start time: 04/28/2021 1720

Sample Finish time: 04/28/2021 1855

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-10AR2

Client:	Beazer East, Inc.	**Well ID:**	W-10AR2
Project Name:	Superior 2021 1SA Sampling	**Date:**	04/28/2021 1609
Project Number:	OM-0556-21-091	**Technician:**	Ben Trask
Location:	Superior, WI	**Weather Conditions:**	50s Sunny

WATER LEVEL DATA

a.) Depth To Groundwater:	3.76	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	17.51	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	13.75	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	2.2	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method: Non-Dedicated Bladder Pump

Conductivity Unit: mS/cm

Total Volume Removed (gals): 0.50

Purge Start: 04/28/2021 1623

Purge End: 04/28/2021 1648

Field Equipment	Calibrated
LaMotte 2020we Turbidity Meter 6110-4815	Yes
YSI 556 MPS 15M101117	Yes
Heron Dipper T2 Water Level Meter 200' 1723-T2	No

Sampling Equipment	Dedicated
Geotech Bladder Pump 633	No

PRE-PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
Initial	1623	75	9.13	6.97	1.097	-96.3	4.22	20.20	4.42	

PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
1	1628	75	8.83	6.92	1.095	-88.7	2.89	15.60	4.53	
2	1633	75	8.59	6.89	1.099	-85.8	2.39	11.80	4.66	
3	1638	75	8.38	6.86	1.098	-82.0	2.07	9.40	4.73	
4	1643	75	8.38	6.87	1.095	-78.4	1.97	9.33	4.79	
5	1648	75	8.35	6.85	1.095	-75.5	1.93	9.21	4.83	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF	8021B_VOA+naphtha	8260B_VOA+naphtha	3	3	40 ml glass vial	HCL	Superior 2021 1SA Sampling_001
TABUF	8270C_SVOC (less naphtha)	8270C_SVOC (less naphtha)	3	3	1 liter amber bottle	None	Superior 2021 1SA Sampling_001
TAKNOX	8290_Dioxins/Furans	8290_Dioxins/Furans	2	2	1 liter amber glass	None	Superior 2021 1SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-10AR2-042821

Sample Start time: 04/28/2021 1653

Sample Finish time: 04/28/2021 1755

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-12A

Client:	Beazer East, Inc.	**Well ID:**	W-12A
Project Name:	Superior 2021 1SA Sampling	**Date:**	04/29/2021 0940
Project Number:	OM-0556-21-091	**Technician:**	Haley Redmond
Location:	Superior, WI	**Weather Conditions:**	45, cloudy

WATER LEVEL DATA

a.) Depth To Groundwater:	2.95	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	13.36	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	10.41	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	1.7	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method: Non-Dedicated Bladder Pump

Conductivity Unit: mS/cm

Total Volume Removed (gals): 0.66

Purge Start: 04/29/2021 0943

Purge End: 04/29/2021 1008

Field Equipment	Calibrated
YSI 556 15M101117	Yes
Heron 200' Water Level 1725-T2	No
LaMotte 2020we 4714-3514	Yes

Sampling Equipment	Dedicated
Bladder Pump 634	No

PRE-PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
Initial	0943	100	4.98	7.55	0.428	13.5	4.56	3.45	3.60	

PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
1	0948	100	5.03	7.53	0.418	19.4	3.65	2.50	3.60	
2	0953	100	5.05	7.50	0.413	20.1	3.60	2.00	3.67	
3	0958	100	5.00	7.49	0.407	20.6	3.64	2.50	3.67	
4	1003	100	5.00	7.45	0.407	21.0	3.60	2.00	3.67	
5	1008	100	5.01	7.45	0.403	21.6	3.63	2.56	3.67	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF	8021B_VOA+naphtha	8260B_VOA+naphtha	3	3	40 ml glass vial	HCL	Superior 2021 1SA Sampling_001
TABUF	8270C_SVOC (less naphtha)	8270C_SVOC (less naphtha)	3	3	1 liter amber bottle	None	Superior 2021 1SA Sampling_001
TAKNOX	8290_Dioxins/Furans	8290_Dioxins/Furans	2	2	1 liter amber glass	None	Superior 2021 1SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-12A-042921

Equipment Blank :SUPE-EB-02-042921

Sample Start time: 04/29/2021 1013

Sample Finish time: 04/29/2021 1204

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-12CR

Client:	Beazer East, Inc.	**Well ID:**	W-12CR
Project Name:	Superior 2021 1SA Sampling	**Date:**	04/29/2021 0922
Project Number:	OM-0556-21-091	**Technician:**	Haley Redmond
Location:	Superior, WI	**Weather Conditions:**	45, rain

WATER LEVEL DATA

a.) Depth To Groundwater:	14.99	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	47.69	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	32.70	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	5.3	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method: Non-Dedicated Bladder Pump

Conductivity Unit: mS/cm

Total Volume Removed (gals): 1.32

Purge Start: 04/29/2021 0751

Purge End: 04/29/2021 0816

Field Equipment	Calibrated
YSI 556 15M101117	Yes
LaMotte 2020we 4714-3514	Yes
Heron 200' Water Level 1725-T2	No

Sampling Equipment	Dedicated
Bladder Pump 634	No

PRE-PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
Initial	0751	200	6.74	8.01	1.039	94.6	10.98	4.50	14.99	

PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
1	0756	200	5.53	7.72	1.035	31.9	1.45	5.40	14.99	
2	0801	200	5.51	7.71	1.033	25.4	1.41	4.67	14.99	
3	0806	200	5.50	7.70	1.031	25.3	1.40	4.50	14.99	
4	0811	200	5.50	7.70	1.032	25.0	1.39	5.00	14.99	
5	0816	200	5.52	7.72	1.030	24.9	1.37	5.00	14.99	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF	8021B_VOA+naphtha	8260B_VOA+naphtha	3	3	40 ml glass vial	HCL	Superior 2021 1SA Sampling_001
TABUF	8270C_SVOC (less naphtha)	8270C_SVOC (less naphtha)	3	3	1 liter amber bottle	None	Superior 2021 1SA Sampling_001
TAKNOX	8290_Dioxins/Furans	8290_Dioxins/Furans	2	2	1 liter amber glass	None	Superior 2021 1SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-12CR-042921

Trip Blank :SUPE-TB-01-042921

Sample Start time: 04/29/2021 0821

Sample Finish time: 04/29/2021 0920

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-18D

Client:	Beazer East, Inc.	**Well ID:**	W-18D
Project Name:	Superior 2021 1SA Sampling	**Date:**	04/28/2021 1010
Project Number:	OM-0556-21-091	**Technician:**	Ben Trask
Location:	Superior, WI	**Weather Conditions:**	50s Sunny

WATER LEVEL DATA

a.) Depth To Groundwater:	45.36	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	201.78	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	156.42	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	102.1	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method: Non-Dedicated Bladder Pump

Conductivity Unit: mS/cm

Total Volume Removed (gals): 1.32

Purge Start: 04/28/2021 1021

Purge End: 04/28/2021 1046

Field Equipment	Calibrated
Heron Dipper T2 Water Level Meter 200' 1723-T2	No
LaMotte 2020we Turbidity Meter 6110-4815	Yes
YSI 556 MPS 15M101117	Yes

Sampling Equipment	Dedicated
Geotech Bladder Pump 633	No

PRE-PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
Initial	1021	200	10.11	10.56	0.445	42.6	13.40	2.60	45.40	

PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
1	1026	200	8.81	11.21	0.463	25.8	3.75	2.50	45.50	
2	1031	200	8.59	11.28	0.469	16.4	2.25	2.17	45.50	
3	1036	200	8.60	11.32	0.474	6.9	1.62	2.11	45.50	
4	1041	200	8.65	11.33	0.480	0.9	1.59	2.08	45.50	
5	1046	200	8.78	11.34	0.482	-2.1	1.55	2.10	45.50	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF	8270C_SVOC+Naphth	8270C_SVOC+naphtha	3	3	1 liter amber bottle	None	Superior 2021 1SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-18D-042821

Sample Start time: 04/28/2021 1051

Sample Finish time: 04/28/2021 1110

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-28C

Client:	Beazer East, Inc.	**Well ID:**	W-28C
Project Name:	Superior 2021 1SA Sampling	**Date:**	04/28/2021 0821
Project Number:	OM-0556-21-091	**Technician:**	Ben Trask
Location:	Superior, WI	**Weather Conditions:**	40s Cloudy

WATER LEVEL DATA

a.) Depth To Groundwater:	13.70	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	45.38	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	31.68	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	5.2	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method: Non-Dedicated Bladder Pump

Conductivity Unit: mS/cm

Total Volume Removed (gals): 1.65

Purge Start: 04/28/2021 0838

Purge End: 04/28/2021 0903

Field Equipment	Calibrated
LaMotte 2020we Turbidity Meter 6110-4815	Yes
YSI 556 MPS 15M101117	Yes
Heron Dipper T2 Water Level Meter 200' 1723-T2	No

Sampling Equipment	Dedicated
Geotech Bladder Pump 633	No

PRE-PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
Initial	0838	250	6.17	7.44	0.839	41.2	8.68	2.37	13.70	

PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
1	0843	250	6.22	7.44	0.851	-74.2	2.62	2.16	13.70	
2	0848	250	6.12	7.54	0.888	-123.9	1.64	2.02	13.70	
3	0853	250	6.26	7.61	0.896	-139.3	1.32	1.98	13.70	
4	0858	250	6.33	7.65	0.898	-141.2	1.28	1.88	13.70	
5	0903	250	6.37	7.69	0.900	-144.8	1.26	1.80	13.70	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF	8021B_VOA+naphtha	8260B_VOA+naphtha	3	3	40 ml glass vial	HCL	Superior 2021 1SA Sampling_001
TABUF	8270C_SVOC (less naphtha)	8270C_SVOC (less naphtha)	3	3	1 liter amber bottle	None	Superior 2021 1SA Sampling_001
TAKNOX	8290_Dioxins/Furans	8290_Dioxins/Furans	2	2	1 liter amber glass	None	Superior 2021 1SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-28C-042821

Equipment Blank :SUPE-EB-01-042821

Blind Duplicate :SUPE-M-99A-042821

Sample Start time: 04/28/2021 0908

Sample Finish time: 04/28/2021 0950

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-30A

Client:	Beazer East, Inc.	**Well ID:**	W-30A
Project Name:	Superior 2021 1SA Sampling	**Date:**	04/28/2021 1340
Project Number:	OM-0556-21-091	**Technician:**	Ben Trask
Location:	Superior, WI	**Weather Conditions:**	50s Sunny

WATER LEVEL DATA

a.) Depth To Groundwater:	2.30	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	12.71	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	10.41	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	1.7	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method: Non-Dedicated Bladder Pump

Conductivity Unit: mS/cm

Total Volume Removed (gals): 0.50

Purge Start: 04/28/2021 1411

Purge End: 04/28/2021 1436

Field Equipment	Calibrated
Heron Dipper T2 Water Level Meter 200' 1723-T2	No
YSI 556 MPS 15M101117	Yes
LaMotte 2020we Turbidity Meter 6110-4815	Yes

Sampling Equipment	Dedicated
Geotech Bladder Pump 633	No

PRE-PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
Initial	1411	75	10.47	6.68	1.305	-80.4	13.46	16.30	3.09	

PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
1	1416	75	10.33	6.70	1.306	-82.1	5.86	12.50	3.21	
2	1421	75	10.30	6.71	1.307	-83.7	4.63	9.89	3.40	
3	1426	75	10.04	6.71	1.310	-84.3	3.91	9.67	3.52	
4	1431	75	10.08	6.70	1.307	-83.9	3.78	9.51	3.63	
5	1436	75	10.06	6.70	1.310	-82.7	3.65	9.48	3.63	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF	8021B_VOA+naphtha	8260B_VOA+naphtha	3	3	40 ml glass vial	HCL	Superior 2021 1SA Sampling_001
TABUF	8270C_SVOC (less naphtha)	8270C_SVOC (less naphtha)	3	3	1 liter amber bottle	None	Superior 2021 1SA Sampling_001
TAKNOX	8290_Dioxins/Furans	8290_Dioxins/Furans	2	2	1 liter amber glass	None	Superior 2021 1SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-30A-042821

Sample Start time: 04/28/2021 1441

Sample Finish time: 04/28/2021 1550

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-30C

Client:	Beazer East, Inc.	**Well ID:**	W-30C
Project Name:	Superior 2021 1SA Sampling	**Date:**	04/29/2021 1211
Project Number:	OM-0556-21-091	**Technician:**	Haley Redmond
Location:	Superior, WI	**Weather Conditions:**	55, sunny

WATER LEVEL DATA

a.) Depth To Groundwater:	4.71	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	48.95	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	44.24	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	7.2	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method: Non-Dedicated Bladder Pump

Conductivity Unit: mS/cm

Total Volume Removed (gals): 1.65

Purge Start: 04/29/2021 1221

Purge End: 04/29/2021 1246

Field Equipment	Calibrated
YSI 556 15M101117	Yes
LaMotte 2020we 4714-3514	Yes
Heron 200' Water Level 1725-T2	No

Sampling Equipment	Dedicated
Bladder Pump 634	No

PRE-PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
Initial	1221	250	11.61	7.67	0.409	39.3	7.00	10.00	5.00	

PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
1	1226	250	10.55	7.32	0.399	43.8	1.99	9.86	5.00	
2	1231	250	10.30	7.27	0.395	37.3	1.20	7.87	5.00	
3	1236	250	10.29	7.26	0.394	36.9	1.00	7.50	5.00	
4	1241	250	10.28	7.30	0.396	35.9	0.96	8.90	5.00	
5	1246	250	10.26	7.32	0.394	35.0	0.95	9.00	5.00	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF	8021B_VOA+naphtha	8260B_VOA+naphtha	3	3	40 ml glass vial	HCL	Superior 2021 1SA Sampling_001
TABUF	8270C_SVOC (less naphtha)	8270C_SVOC (less naphtha)	3	3	1 liter amber bottle	None	Superior 2021 1SA Sampling_001
TAKNOX	8290_Dioxins/Furans	8290_Dioxins/Furans	2	2	1 liter amber glass	None	Superior 2021 1SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-30C-042921

Sample Start time: 04/29/2021 1251

Sample Finish time: 04/29/2021 1312

Comments:

Second Semi-Annual Event

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-04AR2

Client:	Beazer East, Inc.	**Well ID:**	W-04AR2
Project Name:	Superior 2021 2SA Sampling	**Date:**	10/06/2021 1125
Project Number:	OM-0556-21-091	**Technician:**	Kelsey Mandus
Location:	Superior, WI	**Weather Conditions:**	55 sunny

WATER LEVEL DATA

a.) Depth To Groundwater:	3.85	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	14.04	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	10.19	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	1.7	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method: Non-Dedicated Bladder Pump

Conductivity Unit: mS/cm

Total Volume Removed (gals): 0.99

Purge Start: 10/06/2021 1134

Purge End: 10/06/2021 1159

Field Equipment	Calibrated
Heron Dipper T2 Water Level Meter 200' 1723-T2	No
YSI 556 MPS 15M101117	Yes
LaMotte 2020we Turbidity Meter 4714-3514	Yes

Sampling Equipment	Dedicated
Geotech Bladder Pump 161	No

PRE-PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
Initial	1134	150	13.74	7.67	1.033	222.0	8.33	5.33	4.05	

PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
1	1139	150	13.84	7.54	1.043	209.2	3.69	5.07	4.05	
2	1144	150	13.71	7.47	1.018	196.2	2.21	4.38	4.05	
3	1149	150	13.88	7.45	0.988	188.2	2.19	4.25	4.05	
4	1154	150	13.72	7.44	0.971	184.9	2.17	4.38	4.05	
5	1159	150	13.81	7.39	0.962	188.3	2.18	4.26	4.05	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF	8260C_VOA+naphtha	8260C_VOA+naphtha	3	3	40 ml glass vial	HCL	Superior 2021 2SA Sampling_001
TACHI	8270C_SVOC (less naphtha)	8270D_SVOC (less naphtha)	2	2	250 ml amber bottle	None	Superior 2021 2SA Sampling_001
TABUF	8270C LL_PCP	8270D LL_PCP	2	2	1 liter amber bottle	None	Superior 2021 2SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-04AR2-100621

Sample Start time: 10/06/2021 1204

Sample Finish time: 10/06/2021 1234

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-06A

Client:	Beazer East, Inc.	**Well ID:**	W-06A
Project Name:	Superior 2021 2SA Sampling	**Date:**	10/06/2021 1343
Project Number:	OM-0556-21-091	**Technician:**	Haley Redmond
Location:	Superior, WI	**Weather Conditions:**	60's, partly sunny

WATER LEVEL DATA

a.) Depth To Groundwater:	9.40	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	13.22	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	3.82	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	0.6	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method: Non-Dedicated Bladder Pump

Conductivity Unit: mS/cm

Total Volume Removed (gals): 0.50

Purge Start: 10/06/2021 1350

Purge End: 10/06/2021 1415

Field Equipment	Calibrated
LaMotte 2020t 1935-4019	Yes
YSI 556 11J102407	Yes
Heron 200' Water Level Meter 1725-T2	No

Sampling Equipment	Dedicated
Geotech Bladder Pump 165	No

PRE-PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
Initial	1350	75	14.51	7.36	0.659	-21.1	3.76	3.75	9.72	

PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
1	1355	75	14.50	7.38	0.658	-20.9	3.54	2.45	9.75	
2	1400	75	14.16	7.39	0.600	-23.0	2.24	2.76	9.80	
3	1405	75	13.81	7.37	0.589	-3.2	2.30	2.50	10.00	
4	1410	75	13.83	7.37	0.579	-0.1	2.28	2.15	10.00	
5	1415	75	13.83	7.37	0.579	1.8	2.27	2.00	10.00	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF	8260C_VOA+naphtha	8260C_VOA+naphtha	3	3	40 ml glass vial	HCL	Superior 2021 2SA Sampling_001
TACHI	8270C_SVOC (less naphtha)	8270D_SVOC (less naphtha)	2	2	250 ml amber bottle	None	Superior 2021 2SA Sampling_001
TABUF	8270C LL_PCP	8270D LL_PCP	2	2	1 liter amber bottle	None	Superior 2021 2SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-06A-100621

Sample Start time: 10/06/2021 1420

Sample Finish time: 10/06/2021 1515

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-06C

UNREADABLE

Client:	Beazer East, Inc.	**Well ID:**	W-06C
Project Name:	Superior 2021 2SA Sampling	**Date:**	10/06/2021 0945
Project Number:	OM-0556-21-091	**Technician:**	Haley Redmond
Location:	Superior, WI	**Weather Conditions:**	50's, cloudy

WATER LEVEL DATA

a.) Depth To Groundwater:	12.69	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	44.00	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	31.31	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	5.1	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method: Non-Dedicated Bladder Pump

Conductivity Unit: mS/cm

Total Volume Removed (gals): 1.65

Purge Start: 10/06/2021 0950

Purge End: 10/06/2021 1015

Field Equipment	Calibrated
LaMotte 2020t 1935-4019	Yes
Heron 200' Water Level Meter 1725-T2	No
YSI 556 11J102407	Yes

Sampling Equipment	Dedicated
Geotech Bladder Pump 165	No

PRE-PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
Initial	0950	250	8.87	8.20	0.636	-201.5	4.87	6.28	12.70	

PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
1	0955	250	8.71	8.23	0.636	-204.9	3.24	5.78	12.70	
2	1000	250	8.69	8.24	0.636	-206.5	2.00	4.50	12.70	
3	1005	250	8.51	8.26	0.636	-218.0	1.07	3.24	12.70	
4	1010	250	8.48	8.26	0.636	-219.0	1.07	3.00	12.70	
5	1015	250	8.48	8.26	0.636	-219.8	1.08	3.00	12.70	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF	8260C_VOA+naphtha	8260C_VOA+naphtha	3	3	40 ml glass vial	HCL	Superior 2021 2SA Sampling_001
TACHI	8270C_SVOC (less naphtha)	8270D_SVOC (less naphtha)	2	2	250 ml amber bottle	None	Superior 2021 2SA Sampling_001
TABUF	8270C LL_PCP	8270D LL_PCP	2	2	1 liter amber bottle	None	Superior 2021 2SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-06C-100621

MS/MSD Blank :SUPE-MS/MSD-W-06C-100621

Sample Start time: 10/06/2021 1020

Sample Finish time: 10/06/2021 1104

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-10AR2

Client:	Beazer East, Inc.	**Well ID:**	W-10AR2
Project Name:	Superior 2021 2SA Sampling	**Date:**	10/06/2021 1401
Project Number:	OM-0556-21-091	**Technician:**	Kelsey Mandus
Location:	Superior, WI	**Weather Conditions:**	60s sun

WATER LEVEL DATA

a.) Depth To Groundwater:	9.78	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	17.48	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	7.70	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	1.3	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method: Non-Dedicated Bladder Pump

Conductivity Unit: mS/cm

Total Volume Removed (gals): 0.50

Purge Start: 10/06/2021 1408

Purge End: 10/06/2021 1433

Field Equipment	Calibrated
Heron Dipper T2 Water Level Meter 200' 1723-T2	No
LaMotte 2020we Turbidity Meter 4714-3514	Yes
YSI 556 MPS 15M101117	Yes

Sampling Equipment	Dedicated
Geotech Bladder Pump 161	No

PRE-PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
Initial	1408	75	12.68	7.19	1.126	48.3	9.87	2.65	9.89	

PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
1	1413	75	11.94	7.01	1.100	12.4	3.26	2.66	9.91	
2	1418	75	11.68	6.95	1.087	-3.3	2.28	2.31	9.97	
3	1423	75	11.69	6.95	1.082	-15.7	1.60	2.29	10.02	
4	1428	75	11.70	6.89	1.080	-16.5	1.57	2.33	10.02	
5	1433	75	11.77	6.88	1.080	-20.7	1.55	2.37	10.02	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF	8260C_VOA+naphtha	8260C_VOA+naphtha	3	3	40 ml glass vial	HCL	Superior 2021 2SA Sampling_001
TACHI	8270C_SVOC (less naphtha)	8270D_SVOC (less naphtha)	2	2	250 ml amber bottle	None	Superior 2021 2SA Sampling_001
TABUF	8270C LL_PCP	8270D LL_PCP	2	2	1 liter amber bottle	None	Superior 2021 2SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-10AR2-100621

Trip Blank :SUPE-TB-01-100621

Sample Start time: 10/06/2021 1438

Sample Finish time: 10/06/2021 1511

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-12A

Client:	Beazer East, Inc.	**Well ID:**	W-12A
Project Name:	Superior 2021 2SA Sampling	**Date:**	10/06/2021 1207
Project Number:	OM-0556-21-091	**Technician:**	Haley Redmond
Location:	Superior, WI	**Weather Conditions:**	60's, partly cloudy

WATER LEVEL DATA

a.) Depth To Groundwater:	5.85	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	13.36	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	7.51	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	1.2	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method: Non-Dedicated Bladder Pump

Conductivity Unit: mS/cm

Total Volume Removed (gals): 0.66

Purge Start: 10/06/2021 1218

Purge End: 10/06/2021 1243

Field Equipment	Calibrated
YSI 556 11J102407	Yes
LaMotte 2020t 1935-4019	Yes
Heron 200' Water Level Meter 1725-T2	No

Sampling Equipment	Dedicated
Geotech Bladder Pump 165	No

PRE-PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
Initial	1218	100	14.27	7.52	0.862	-26.6	2.93	13.90	6.08	

PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
1	1223	100	14.88	7.51	0.851	-27.6	1.51	10.60	6.16	
2	1228	100	14.87	7.51	0.849	-27.7	1.42	8.70	6.18	
3	1233	100	15.09	7.49	0.836	-28.3	1.14	8.50	6.50	
4	1238	100	15.11	7.49	0.832	-27.8	1.15	8.50	6.56	
5	1243	100	15.15	7.48	0.829	-27.0	1.14	8.14	6.58	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF	8260C_VOA+naphtha	8260C_VOA+naphtha	3	3	40 ml glass vial	HCL	Superior 2021 2SA Sampling_001
TACHI	8270C_SVOC (less naphtha)	8270D_SVOC (less naphtha)	2	2	250 ml amber bottle	None	Superior 2021 2SA Sampling_001
TABUF	8270C LL_PCP	8270D LL_PCP	2	2	1 liter amber bottle	None	Superior 2021 2SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-12A-100621

Sample Start time: 10/06/2021 1248

Sample Finish time: 10/06/2021 1334

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-12CR

Client:	Beazer East, Inc.	**Well ID:**	W-12CR
Project Name:	Superior 2021 2SA Sampling	**Date:**	10/06/2021 1110
Project Number:	OM-0556-21-091	**Technician:**	Haley Redmond
Location:	Superior, WI	**Weather Conditions:**	60's, partly cloudy

WATER LEVEL DATA

a.) Depth To Groundwater:	15.78	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	47.71	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	31.93	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	5.2	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method: Non-Dedicated Bladder Pump

Conductivity Unit: mS/cm

Total Volume Removed (gals): 1.32

Purge Start: 10/06/2021 1117

Purge End: 10/06/2021 1142

Field Equipment	Calibrated
YSI 556 11J102407	Yes
LaMotte 2020t 1935-4019	Yes
Heron 200' Water Level Meter 1725-T2	No

Sampling Equipment	Dedicated
Geotech Bladder Pump 165	No

PRE-PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
Initial	1117	200	11.00	8.46	1.096	-168.2	7.89	10.89	15.80	

PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
1	1122	200	10.98	8.06	1.139	-210.5	1.16	9.87	15.80	
2	1127	200	9.72	8.04	1.140	-211.1	1.05	5.68	15.80	
3	1132	200	9.70	8.02	1.140	-208.3	1.09	5.50	15.80	
4	1137	200	9.70	8.00	1.140	-207.9	1.07	5.00	15.80	
5	1142	200	9.71	8.00	1.140	-207.6	1.06	5.00	15.80	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF	8260C_VOA+naphtha	8260C_VOA+naphtha	3	3	40 ml glass vial	HCL	Superior 2021 2SA Sampling_001
TACHI	8270C_SVOC (less naphtha)	8270D_SVOC (less naphtha)	2	2	250 ml amber bottle	None	Superior 2021 2SA Sampling_001
TABUF	8270C LL_PCP	8270D LL_PCP	2	2	1 liter amber bottle	None	Superior 2021 2SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-12CR-100621

Sample Start time: 10/06/2021 1147

Sample Finish time: 10/06/2021 1206

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-18D

Client:	Beazer East, Inc.	**Well ID:**	W-18D
Project Name:	Superior 2021 2SA Sampling	**Date:**	10/06/2021 0830
Project Number:	OM-0556-21-091	**Technician:**	Kelsey Mandus
Location:	Superior, WI	**Weather Conditions:**	55 overcast

WATER LEVEL DATA

a.) Depth To Groundwater:	47.50	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	201.79	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	154.29	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	100.8	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method: Non-Dedicated Bladder Pump

Conductivity Unit: mS/cm

Total Volume Removed (gals): 1.32

Purge Start: 10/06/2021 0857

Purge End: 10/06/2021 0922

Field Equipment	Calibrated
YSI 556 MPS 15M101117	Yes
LaMotte 2020we Turbidity Meter 4714-3514	Yes
Heron Dipper T2 Water Level Meter 200' 1723-T2	No

Sampling Equipment	Dedicated
Geotech Bladder Pump 161	No

PRE-PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
Initial	0857	200	10.66	10.41	0.513	247.0	8.90	2.96	47.55	

PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
1	0902	200	9.23	10.52	0.496	243.0	2.65	2.88	47.55	
2	0907	200	8.82	10.56	0.493	237.5	1.65	2.76	47.55	
3	0912	200	8.58	10.59	0.474	228.9	1.62	2.61	47.55	
4	0917	200	8.55	10.62	0.472	225.6	1.63	2.65	47.55	
5	0922	200	8.49	10.63	0.473	221.4	1.60	2.54	47.55	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TACHI	8270C_SVOC+Naphth	8270D_SVOC+naphtha	2	2	250 ml amber bottle	None	Superior 2021 2SA Sampling_001
TABUF	8270C LL_PCP	8270D LL_PCP	2	2	1 liter amber bottle	None	Superior 2021 2SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-18D-100621

Sample Start time: 10/06/2021 0927

Sample Finish time: 10/06/2021 0947

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-28C

Client:	Beazer East, Inc.	**Well ID:**	W-28C
Project Name:	Superior 2021 2SA Sampling	**Date:**	10/06/2021 1003
Project Number:	OM-0556-21-091	**Technician:**	Kelsey Mandus
Location:	Superior, WI	**Weather Conditions:**	55 overcast

WATER LEVEL DATA

a.) Depth To Groundwater:	14.30	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	45.40	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	31.10	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	5.1	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method: Non-Dedicated Bladder Pump

Conductivity Unit: mS/cm

Total Volume Removed (gals): 1.65

Purge Start: 10/06/2021 1008

Purge End: 10/06/2021 1033

Field Equipment	Calibrated
YSI 556 MPS 15M101117	Yes
LaMotte 2020we Turbidity Meter 4714-3514	Yes
Heron Dipper T2 Water Level Meter 200' 1723-T2	No

Sampling Equipment	Dedicated
Geotech Bladder Pump 161	No

PRE-PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
Initial	1008	250	10.98	7.98	0.804	-55.0	11.70	5.76	14.39	

PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
1	1013	250	9.11	7.82	0.820	-66.9	4.26	2.81	14.39	
2	1018	250	8.58	7.75	0.827	-87.0	1.66	2.77	14.39	
3	1023	250	8.35	7.72	0.879	-118.9	1.49	2.76	14.39	
4	1028	250	8.39	7.70	0.883	-122.7	1.44	2.66	14.39	
5	1033	250	8.42	7.70	0.892	-125.0	1.42	2.52	14.39	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF	8260C_VOA+naphtha	8260C_VOA+naphtha	3	3	40 ml glass vial	HCL	Superior 2021 2SA Sampling_001
TACHI	8270C_SVOC (less naphtha)	8270D_SVOC (less naphtha)	2	2	250 ml amber bottle	None	Superior 2021 2SA Sampling_001
TABUF	8270C LL_PCP	8270D LL_PCP	2	2	1 liter amber bottle	None	Superior 2021 2SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-28C-100621

Equipment Blank :SUPE-EB-01-100621

Blind Duplicate :SUPE-M-99A-100621

Sample Start time: 10/06/2021 1038

Sample Finish time: 10/06/2021 1110

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-30A

Client:	Beazer East, Inc.	**Well ID:**	W-30A
Project Name:	Superior 2021 2SA Sampling	**Date:**	10/06/2021 1240
Project Number:	OM-0556-21-091	**Technician:**	Kelsey Mandus
Location:	Superior, WI	**Weather Conditions:**	60s sunny

WATER LEVEL DATA

a.) Depth To Groundwater:	6.63	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	12.70	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	6.07	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	1.0	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method: Non-Dedicated Bladder Pump

Conductivity Unit: mS/cm

Total Volume Removed (gals): 0.50

Purge Start: 10/06/2021 1250

Purge End: 10/06/2021 1315

Field Equipment	Calibrated
YSI 556 MPS 15M101117	Yes
Heron Dipper T2 Water Level Meter 200' 1723-T2	No
LaMotte 2020we Turbidity Meter 4714-3514	Yes

Sampling Equipment	Dedicated
Geotech Bladder Pump 161	No

PRE-PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
Initial	1250	75	13.78	6.88	1.362	-9.6	4.94	3.65	6.87	

PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
1	1255	75	13.36	6.82	1.360	-40.7	4.32	3.88	6.95	
2	1300	75	13.02	6.86	1.360	-46.3	3.00	4.12	7.09	
3	1305	75	12.69	6.87	1.359	-48.4	2.98	4.06	7.21	
4	1310	75	12.82	6.86	1.359	-47.1	2.96	4.11	7.21	
5	1315	75	12.98	6.85	1.360	-46.2	2.95	4.08	7.21	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF	8260C_VOA+naphtha	8260C_VOA+naphtha	3	3	40 ml glass vial	HCL	Superior 2021 2SA Sampling_001
TACHI	8270C_SVOC (less naphtha)	8270D_SVOC (less naphtha)	2	2	250 ml amber bottle	None	Superior 2021 2SA Sampling_001
TABUF	8270C LL_PCP	8270D LL_PCP	2	2	1 liter amber bottle	None	Superior 2021 2SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-30A-100621

Sample Start time: 10/06/2021 1320

Sample Finish time: 10/06/2021 1355

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-30C

Client:	Beazer East, Inc.	**Well ID:**	W-30C
Project Name:	Superior 2021 2SA Sampling	**Date:**	10/06/2021 0832
Project Number:	OM-0556-21-091	**Technician:**	Haley Redmond
Location:	Superior, WI	**Weather Conditions:**	50's, cloudy

WATER LEVEL DATA

a.) Depth To Groundwater:	15.51	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	48.94	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	33.43	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	5.4	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method: Non-Dedicated Bladder Pump

Conductivity Unit: mS/cm

Total Volume Removed (gals): 1.98

Purge Start: 10/06/2021 0845

Purge End: 10/06/2021 0915

Field Equipment	Calibrated
LaMotte 2020t 1935-4019	Yes
YSI 556 11J102407	Yes
Heron 200' Water Level Meter 1725-T2	No

Sampling Equipment	Dedicated
Geotech Bladder Pump 165	No

PRE-PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
Initial	0845	250	14.09	7.46	0.430	45.9	4.56	12.90	15.50	

PURGE VALUES

Reading #	Time	Purge Rate ml/minute	Temp (degrees C)	pH (s.u.)	Specific Conductivity (mS/cm)	Eh/ORP (mV)	Dissolved O2 (mg/l)	Turbidity (NTU)	Water Level (ft)	Notes
			Constant	+- 0.10	+- 3.000 %	+- 10	+- 10 %	+- 10 %		
1	0850	250	9.41	7.83	0.522	-96.0	1.42	10.90	15.50	
2	0855	250	9.37	7.91	0.588	-127.8	1.24	9.85	15.50	
3	0900	250	9.37	8.00	0.680	-155.0	1.04	9.50	15.50	
4	0905	250	9.37	8.06	0.690	-156.0	1.04	9.50	15.50	
5	0910	250	9.36	8.14	0.700	-154.9	1.00	9.50	15.50	
6	0915	250	9.36	8.16	0.705	-153.7	0.99	8.97	15.50	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF	8260C_VOA+naphtha	8260C_VOA+naphtha	3	3	40 ml glass vial	HCL	Superior 2021 2SA Sampling_001
TACHI	8270C_SVOC (less naphtha)	8270D_SVOC (less naphtha)	2	2	250 ml amber bottle	None	Superior 2021 2SA Sampling_001
TABUF	8270C LL_PCP	8270D LL_PCP	2	2	1 liter amber bottle	None	Superior 2021 2SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-30C-100621

Sample Start time: 10/06/2021 0920

Sample Finish time: 10/06/2021 0934

Comments:

APPENDIX C

Analytical Data

First Semi-Annual Event and Second Semi-Annual Event
(.pdf files on CD)

FTS, LLC

DATE: May 21, 2021

FROM: Kendra Chintella

SUBJECT: Superior GW

SAMPLE DELIVERY GROUP (SDG): 500-198446-1

SAMPLES: SUPE-W-28C-042821, SUPE-EB-01-042821, SUPE-W-18D-042821, SUPE-W-04AR2-042821, SUPE-W-30A-042821, SUPE-W-10AR2-042821, SUPE-M-99A-042821(W-28C), SUPE-TB-01-042821, SUPE-W-06A-042821, SUPE-W-06C-042821, SUPE-W-12A-042921, SUPE-EB-02-042921, SUPE-W-30C-042921, SUPE-W-12CR-042921, SUPE-W-TB-02-042921

ANALYSES: Method 8260C (VOCs), 8270D/8270D LL (SVOCs), 8290A (Dioxins/Furans)

LABORATORY: Eurofins TestAmerica Laboratories, Buffalo, Chicago, 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: OCDD and OCDF were detected in the method blank. See attached page for details.

□ Field Blank Contamination
Noncompliance: 1,2,3,4,6,7,8-HpCDD, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,7,8-HxCDD, 1,2,3,4,7,8,9-HpCDF, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, OCDD, OCDF, total HpCDD, total HpCDF, total HxCDD, and total TCDF were detected in the equipment blanks. See attached page for details.

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

□ Surrogate Recoveries
Noncompliance: The surrogate recovery of p-terphenyl-d14 fell below the recovery limits in sample W-30A. The surrogate recovery of phenol-d5 fell below the recovery limits in sample W-30C. No action was taken on this basis.

□ Matrix Spike/Matrix Spike Duplicate
Noncompliance: The MSD recovery of 1,3,5-trimethylbenzene was above the recovery limits. The RPD of toluene was above the recovery limits. No action was taken on this basis.

□ Laboratory Control Sample
Noncompliance: None

Laboratory Blank Contamination:

The following analytes were detected in the aqueous method blank at the following concentrations:

Analyte	Maximum Concentration	Blank Action Level
OCDD	3.99 JI pg/l	19.95 pg/l
OCDF	2.16 JI pg/l	10.8 pg/l

An action level of 5X the maximum concentration was used to evaluate the sample data for laboratory blank contamination. Associated samples with concentrations below the blank action level were qualified "U" for laboratory blank contamination.

Field Blank Contamination:

The following analytes were detected in the aqueous equipment blank, SUPE-EB-01-042821, at the following concentrations:

Analyte	Maximum Concentration	Blank Action Level
1,2,3,4,6,7,8-HpCDD	0.61 JI pg/l	3.05 pg/l
1,2,3,4,6,7,8-HpCDF	0.36 JI pg/l	1.8 pg/l
1,2,3,4,7,8-HxCDD	1.2 J pg/l	6 pg/l
1,2,3,7,8,9-HxCDD	0.51 J pg/l	2.55 pg/l
OCDD	2.2 J pg/l	11 pg/l
OCDF	1.3 JI pg/l	6.5 pg/l
Total HpCDD	1.6 JI pg/l	8 pg/l
Total HpCDF	0.36 JI pg/l	1.8 pg/l
Total HxCDD	1.8 J pg/l	9 pg/l

The following analytes were detected in the aqueous equipment blank, SUPE-EB-02-042921, at the following concentrations:

Analyte	Maximum Concentration	Blank Action Level
1,2,3,4,6,7,8-HpCDF	0.37 JI pg/l	1.85 pg/l
1,2,3,4,7,8-HxCDD	0.98 J pg/l	4.9 pg/l
1,2,3,4,7,8,9-HpCDF	0.32 J pg/l	1.6 pg/l
1,2,3,6,7,8-HxCDD	0.47 J pg/l	2.35 pg/l
OCDD	2 JI pg/l	10 pg/l
OCDF	1.2 JI pg/l	6 pg/l
Total HpCDF	0.69 JI pg/l	3.45 pg/l
Total HxCDD	1.4 J pg/l	7 pg/l
Total TCDF	0.39 JI pg/l	1.95 pg/l

An action level of 5X the maximum concentration was used to evaluate the sample data for field blank contamination. Associated samples with concentrations below the blank action level were qualified "U" for field blank contamination.

Field Duplicate Precision:

FIELD DUPLICATE PRECISION					
ANALYTE	W-28C	QUAL	M-99A	QUAL	RPD
Benzo(a)anthracene	0.092	J	0.047	J	64.75*
1,2,3,4,6,7,8-HpCDD	10	J	7.9	J	23.46
1,2,3,4,6,7,8-HpCDF	0.99	JI	1.1	J	10.53
1,2,3,4,7,8-HxCDD	1.2	JI	1.2	J	0.00
1,2,3,6,7,8-HxCDD	0.57	JI	0.26	U	NC
1,2,3,7,8-PeCDD	0.2	U	0.48	JI	NC
1,2,3,7,8,9-HxCDD	0.9	J	0.79	JI	13.02
OCDD	93	J	81	J	13.79
OCDF	4.6	JI	5.9	J	24.76
Total HpCDD	46	J	34	J	30.00
Total HpCDF	2.5	JI	3	JI	18.18
Total HxCDD	7.3	JI	4	JI	58.41*
Total HxCDF	2.1	J	1.4	JI	40.00*
Total PeCDD	0.2	U	0.48	JI	NC
Total TCDD	0.31	U	0.69	JI	NC
Total TCDF	0.22	JI	0.2	U	NC

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

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-198446-1
Client Project/Site: Superior, WI Semiannual Groundwater

For:
Field & Technical Services LLC
200 Third Avenue
Carnegie, Pennsylvania 15106

Attn: Ms. Angie Gatchie

Authorized for release by:
5/19/2021 10:55:14 AM
Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@Eurofinset.com

Designee for

Gail Lage, Senior Project Manager
(615)301-5741
Gail.Lage@Eurofinset.com

Table of Contents

Case Narrative

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Job ID: 500-198446-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-198446-1

Comments
No additional comments.

Receipt
The samples were received on 4/30/2021 8:45 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 8 coolers at receipt time were -1.4º C, -1.3º C, -1.3º C, -0.7º C, -0.7º C, -0.6º C, -0.1º C and 0.2º C.

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

GC/MS Semi VOA
Method 8270D LL: The following samples were diluted due to color, appearance,and viscosity: SUPE-W-04AR2-042821, SUPE-W-30A-042821 and SUPE-W-10AR2-042821. Elevated reporting limits (RL) are provided.

Method 8270D LL: The continuing calibration verification (CCV) associated with batch 480-579609 recovered outside acceptance criteria, low biased, for Pentachlorophenol. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method 8270D LL: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: SUPE-W-30A-042821. These results have been reported and qualified.

Method 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 500-596308 and analytical batch 500-596549 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8270D: The following samples contained one acid surrogate outside acceptance limits:SUPE-EB-02-042921 and SUPE-W-30C-042921. The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

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

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

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

Detection Summary

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-28C-042821 — Lab Sample ID: 500-198446-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.092	J	0.19	0.042	ug/L	1		8270D	Total/NA
1,2,3,4,7,8-HxCDD	1.2	J I	48	0.21	pg/L	1		8290A	Total/NA
1,2,3,6,7,8-HxCDD	0.57	J I	48	0.19	pg/L	1		8290A	Total/NA
1,2,3,7,8,9-HxCDD	0.90	J	48	0.19	pg/L	1		8290A	Total/NA
Total HxCDD	7.3	J I	48	0.20	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDD	10	J	48	0.37	pg/L	1		8290A	Total/NA
Total HpCDD	46	J	48	0.37	pg/L	1		8290A	Total/NA
OCDD	93	J B	95	0.10	pg/L	1		8290A	Total/NA
Total TCDF	0.22	J I	9.5	0.21	pg/L	1		8290A	Total/NA
Total HxCDF	2.1	J	48	0.24	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDF	0.99	J I	48	0.17	pg/L	1		8290A	Total/NA
Total HpCDF	2.5	J I	48	0.20	pg/L	1		8290A	Total/NA
OCDF	4.6	J I B	95	0.053	pg/L	1		8290A	Total/NA

Client Sample ID: SUPE-EB-01-042821 — Lab Sample ID: 500-198446-2

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8-HxCDD	1.2	J	49	0.19	pg/L	1		8290A	Total/NA
1,2,3,7,8,9-HxCDD	0.51	J	49	0.17	pg/L	1		8290A	Total/NA
Total HxCDD	1.8	J	49	0.17	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDD	0.61	J I	49	0.29	pg/L	1		8290A	Total/NA
Total HpCDD	1.6	J I	49	0.29	pg/L	1		8290A	Total/NA
OCDD	2.2	J B	98	0.12	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDF	0.36	J I	49	0.18	pg/L	1		8290A	Total/NA
Total HpCDF	0.36	J I	49	0.23	pg/L	1		8290A	Total/NA
OCDF	1.3	J I B	98	0.17	pg/L	1		8290A	Total/NA

Client Sample ID: SUPE-W-18D-042821 — Lab Sample ID: 500-198446-3

No Detections.

Client Sample ID: SUPE-W-04AR2-042821 — Lab Sample ID: 500-198446-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	4.0		0.97	0.31	ug/L	1		8270D	Total/NA
Benzo[a]pyrene	0.094	J	0.19	0.054	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	0.18	J	0.19	0.056	ug/L	1		8270D	Total/NA
Benzo[k]fluoranthene	0.092	J	0.19	0.072	ug/L	1		8270D	Total/NA
Chrysene	0.38	J	0.49	0.14	ug/L	1		8270D	Total/NA
Fluoranthene	0.34	J	0.97	0.31	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.19		0.19	0.043	ug/L	1		8270D	Total/NA
1,2,3,4,7,8-HxCDD	1.8	J	49	0.40	pg/L	1		8290A	Total/NA
1,2,3,6,7,8-HxCDD	1.6	J I	49	0.37	pg/L	1		8290A	Total/NA
1,2,3,7,8,9-HxCDD	1.3	J I	49	0.37	pg/L	1		8290A	Total/NA
Total HxCDD	25	J I	49	0.38	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDD	55		49	0.86	pg/L	1		8290A	Total/NA
Total HpCDD	300		49	0.86	pg/L	1		8290A	Total/NA
OCDD	660	B	99	0.18	pg/L	1		8290A	Total/NA
Total TCDF	0.56	J	9.9	0.26	pg/L	1		8290A	Total/NA
Total PeCDF	4.6	J I	49	0.42	pg/L	1		8290A	Total/NA
1,2,3,4,7,8-HxCDF	0.92	J I	49	0.37	pg/L	1		8290A	Total/NA
1,2,3,6,7,8-HxCDF	1.2	J	49	0.40	pg/L	1		8290A	Total/NA
Total HxCDF	25	J I	49	0.42	pg/L	1		8290A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SUPE-W-04AR2-042821 (Continued)
Lab Sample ID: 500-198446-4

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDF	6.4	J	49	0.22	pg/L	1		8290A	Total/NA
Total HpCDF	23	J	49	0.26	pg/L	1		8290A	Total/NA
OCDF	29	J B	99	0.13	pg/L	1		8290A	Total/NA

Client Sample ID: SUPE-W-30A-042821
Lab Sample ID: 500-198446-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1.1		1.0	0.75	ug/L	1		8260C	Total/NA
Benzene	1.8		1.0	0.41	ug/L	1		8260C	Total/NA
Ethylbenzene	4.5		1.0	0.74	ug/L	1		8260C	Total/NA
m-Xylene & p-Xylene	0.90	J	2.0	0.66	ug/L	1		8260C	Total/NA
Naphthalene	10		1.0	0.43	ug/L	1		8260C	Total/NA
o-Xylene	1.4		1.0	0.76	ug/L	1		8260C	Total/NA
Xylenes, Total	2.3		2.0	0.66	ug/L	1		8260C	Total/NA
1-Methylnaphthalene	16		2.1	0.51	ug/L	1		8270D	Total/NA
Acenaphthene	42		1.0	0.37	ug/L	1		8270D	Total/NA
Acenaphthylene	1.0		1.0	0.33	ug/L	1		8270D	Total/NA
Anthracene	1.1		1.0	0.33	ug/L	1		8270D	Total/NA
Benzo[a]pyrene	0.11	J	0.21	0.058	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	0.16	J	0.21	0.060	ug/L	1		8270D	Total/NA
Benzo[k]fluoranthene	0.091	J	0.21	0.076	ug/L	1		8270D	Total/NA
Chrysene	0.29	J	0.51	0.14	ug/L	1		8270D	Total/NA
Dibenzofuran	15		2.1	0.36	ug/L	1		8270D	Total/NA
Fluoranthene	1.8		1.0	0.33	ug/L	1		8270D	Total/NA
Fluorene	14		1.0	0.39	ug/L	1		8270D	Total/NA
Pyrene	1.2		1.0	0.49	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.24		0.21	0.045	ug/L	1		8270D	Total/NA
Phenanthrene	4.7		1.0	0.36	ug/L	1		8270D	Total/NA
Total TCDD	0.12	J I	11	0.056	pg/L	1		8290A	Total/NA
1,2,3,7,8-PeCDD	0.34	J I	53	0.069	pg/L	1		8290A	Total/NA
Total PeCDD	1.3	J I	53	0.069	pg/L	1		8290A	Total/NA
1,2,3,4,7,8-HxCDD	1.6	J I	53	0.15	pg/L	1		8290A	Total/NA
1,2,3,6,7,8-HxCDD	4.7	J	53	0.14	pg/L	1		8290A	Total/NA
1,2,3,7,8,9-HxCDD	1.7	J	53	0.14	pg/L	1		8290A	Total/NA
Total HxCDD	30	J I	53	0.14	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDD	170		53	0.48	pg/L	1		8290A	Total/NA
Total HpCDD	430		53	0.48	pg/L	1		8290A	Total/NA
OCDD	2100	B	110	0.036	pg/L	1		8290A	Total/NA
2,3,7,8-TCDF	0.27	J	11	0.092	pg/L	1		8290A	Total/NA
Total TCDF	18	I	11	0.092	pg/L	1		8290A	Total/NA
1,2,3,7,8-PeCDF	0.84	J	53	0.23	pg/L	1		8290A	Total/NA
2,3,4,7,8-PeCDF	0.98	J	53	0.21	pg/L	1		8290A	Total/NA
Total PeCDF	96	I	53	0.22	pg/L	1		8290A	Total/NA
1,2,3,4,7,8-HxCDF	6.4	J	53	1.2	pg/L	1		8290A	Total/NA
1,2,3,6,7,8-HxCDF	12	J	53	1.3	pg/L	1		8290A	Total/NA
Total HxCDF	130	I	53	1.3	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDF	46	J	53	0.14	pg/L	1		8290A	Total/NA
1,2,3,4,7,8,9-HpCDF	4.7	J	53	0.20	pg/L	1		8290A	Total/NA
Total HpCDF	180	I	53	0.17	pg/L	1		8290A	Total/NA
OCDF	170	B	110	0.080	pg/L	1		8290A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SUPE-W-10AR2-042821 — Lab Sample ID: 500-198446-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	9.0		1.0	0.75	ug/L	1		8260C	Total/NA
Benzene	15		1.0	0.41	ug/L	1		8260C	Total/NA
Ethylbenzene	21		1.0	0.74	ug/L	1		8260C	Total/NA
m-Xylene & p-Xylene	2.6		2.0	0.66	ug/L	1		8260C	Total/NA
Naphthalene	6.3		1.0	0.43	ug/L	1		8260C	Total/NA
o-Xylene	16		1.0	0.76	ug/L	1		8260C	Total/NA
Toluene	1.0		1.0	0.51	ug/L	1		8260C	Total/NA
Xylenes, Total	19		2.0	0.66	ug/L	1		8260C	Total/NA
1-Methylnaphthalene	23		2.0	0.51	ug/L	1		8270D	Total/NA
Acenaphthene	68		1.0	0.36	ug/L	1		8270D	Total/NA
Acenaphthylene	1.8		1.0	0.32	ug/L	1		8270D	Total/NA
Anthracene	0.82	J	1.0	0.32	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	0.090	J	0.20	0.059	ug/L	1		8270D	Total/NA
Chrysene	0.16	J	0.51	0.14	ug/L	1		8270D	Total/NA
Fluoranthene	2.0		1.0	0.32	ug/L	1		8270D	Total/NA
Fluorene	21		1.0	0.38	ug/L	1		8270D	Total/NA
Phenol	0.71	J	5.1	0.36	ug/L	1		8270D	Total/NA
Pyrene	1.2		1.0	0.49	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.13	J	0.20	0.045	ug/L	1		8270D	Total/NA
Phenanthrene	4.7		1.0	0.35	ug/L	1		8270D	Total/NA
1,2,3,4,7,8-HxCDD	1.0	J I	52	0.43	pg/L	1		8290A	Total/NA
1,2,3,6,7,8-HxCDD	0.66	J I	52	0.39	pg/L	1		8290A	Total/NA
1,2,3,7,8,9-HxCDD	0.90	J I	52	0.39	pg/L	1		8290A	Total/NA
Total HxCDD	7.4	J I	52	0.40	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDD	20	J	52	0.84	pg/L	1		8290A	Total/NA
Total HpCDD	65		52	0.84	pg/L	1		8290A	Total/NA
OCDD	170	B	100	0.18	pg/L	1		8290A	Total/NA
Total TCDF	6.3	J I	10	0.27	pg/L	1		8290A	Total/NA
Total PeCDF	17	J I	52	0.28	pg/L	1		8290A	Total/NA
1,2,3,6,7,8-HxCDF	1.5	J I	52	0.58	pg/L	1		8290A	Total/NA
Total HxCDF	22	J I	52	0.60	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDF	3.5	J	52	0.27	pg/L	1		8290A	Total/NA
Total HpCDF	12	J	52	0.33	pg/L	1		8290A	Total/NA
OCDF	14	J B	100	0.11	pg/L	1		8290A	Total/NA

Client Sample ID: SUPE-M-99A-042821 — Lab Sample ID: 500-198446-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.047	J	0.19	0.043	ug/L	1		8270D	Total/NA
Total TCDD	0.69	J I	9.6	0.27	pg/L	1		8290A	Total/NA
1,2,3,7,8-PeCDD	0.48	J I	48	0.14	pg/L	1		8290A	Total/NA
Total PeCDD	0.48	J I	48	0.14	pg/L	1		8290A	Total/NA
1,2,3,4,7,8-HxCDD	1.2	J	48	0.28	pg/L	1		8290A	Total/NA
1,2,3,7,8,9-HxCDD	0.79	J I	48	0.26	pg/L	1		8290A	Total/NA
Total HxCDD	4.0	J I	48	0.27	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDD	7.9	J	48	0.44	pg/L	1		8290A	Total/NA
Total HpCDD	34	J	48	0.44	pg/L	1		8290A	Total/NA
OCDD	81	J B	96	0.14	pg/L	1		8290A	Total/NA
Total HxCDF	1.4	J I	48	0.27	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDF	1.1	J	48	0.30	pg/L	1		8290A	Total/NA
Total HpCDF	3.0	J I	48	0.36	pg/L	1		8290A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SUPE-M-99A-042821 (Continued) — Lab Sample ID: 500-198446-7

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
OCDF	5.9	J B	96	0.19	pg/L	1		8290A	Total/NA

Client Sample ID: SUPE-TB-01-042821 — Lab Sample ID: 500-198446-8

No Detections.

Client Sample ID: SUPE-W-06A-042821 — Lab Sample ID: 500-198446-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.055	J	0.21	0.046	ug/L	1		8270D	Total/NA
1,2,3,4,7,8-HxCDD	1.4	J	51	0.35	pg/L	1		8290A	Total/NA
Total HxCDD	1.4	J	51	0.32	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDD	5.4	J	51	0.63	pg/L	1		8290A	Total/NA
Total HpCDD	14	J I	51	0.63	pg/L	1		8290A	Total/NA
OCDD	59	J B	100	0.21	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDF	1.3	J	51	0.29	pg/L	1		8290A	Total/NA
Total HpCDF	3.3	J I	51	0.34	pg/L	1		8290A	Total/NA
OCDF	5.8	J B	100	0.22	pg/L	1		8290A	Total/NA

Client Sample ID: SUPE-W-06C-042821 — Lab Sample ID: 500-198446-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.048	J	0.21	0.045	ug/L	1		8270D	Total/NA
Total TCDD	0.26	J	10	0.11	pg/L	1		8290A	Total/NA
1,2,3,4,7,8-HxCDD	1.0	J I	52	0.22	pg/L	1		8290A	Total/NA
Total HxCDD	1.0	J I	52	0.21	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDD	4.1	J	52	0.16	pg/L	1		8290A	Total/NA
Total HpCDD	14	J	52	0.16	pg/L	1		8290A	Total/NA
OCDD	48	J B	100	0.17	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDF	0.76	J	52	0.20	pg/L	1		8290A	Total/NA
1,2,3,4,7,8,9-HpCDF	0.40	J I	52	0.28	pg/L	1		8290A	Total/NA
Total HpCDF	2.7	J I	52	0.24	pg/L	1		8290A	Total/NA
OCDF	3.6	J I B	100	0.093	pg/L	1		8290A	Total/NA

Client Sample ID: SUPE-W-12A-042921 — Lab Sample ID: 500-198446-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.050	J	0.21	0.046	ug/L	1		8270D	Total/NA
Total PeCDD	0.81	J I	51	0.28	pg/L	1		8290A	Total/NA
1,2,3,4,7,8-HxCDD	2.0	J I	51	0.39	pg/L	1		8290A	Total/NA
1,2,3,6,7,8-HxCDD	4.7	J I	51	0.36	pg/L	1		8290A	Total/NA
1,2,3,7,8,9-HxCDD	1.7	J	51	0.35	pg/L	1		8290A	Total/NA
Total HxCDD	17	J I	51	0.37	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDD	47	J	51	0.69	pg/L	1		8290A	Total/NA
Total HpCDD	84		51	0.69	pg/L	1		8290A	Total/NA
OCDD	230	B	100	0.14	pg/L	1		8290A	Total/NA
2,3,7,8-TCDF	0.50	J	10	0.27	pg/L	1		8290A	Total/NA
Total TCDF	36	I	10	0.27	pg/L	1		8290A	Total/NA
1,2,3,7,8-PeCDF	0.88	J	51	0.35	pg/L	1		8290A	Total/NA
2,3,4,7,8-PeCDF	0.97	J I	51	0.32	pg/L	1		8290A	Total/NA
Total PeCDF	51	I	51	0.34	pg/L	1		8290A	Total/NA
1,2,3,4,7,8-HxCDF	6.7	J	51	0.58	pg/L	1		8290A	Total/NA
1,2,3,6,7,8-HxCDF	3.8	J I	51	0.61	pg/L	1		8290A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SUPE-W-12A-042921 (Continued) — Lab Sample ID: 500-198446-11

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
2,3,4,6,7,8-HxCDF	1.3	J I	51	0.66	pg/L	1		8290A	Total/NA
Total HxCDF	73	I	51	0.66	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDF	11	J	51	0.45	pg/L	1		8290A	Total/NA
1,2,3,4,7,8,9-HpCDF	2.2	J I	51	0.59	pg/L	1		8290A	Total/NA
Total HpCDF	37	J I	51	0.52	pg/L	1		8290A	Total/NA
OCDF	24	J B	100	0.17	pg/L	1		8290A	Total/NA

Client Sample ID: SUPE-EB-02-042921 — Lab Sample ID: 500-198446-12

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8-HxCDD	0.98	J	49	0.25	pg/L	1		8290A	Total/NA
1,2,3,6,7,8-HxCDD	0.47	J	49	0.23	pg/L	1		8290A	Total/NA
Total HxCDD	1.4	J	49	0.23	pg/L	1		8290A	Total/NA
OCDD	2.0	J I B	98	0.069	pg/L	1		8290A	Total/NA
Total TCDF	0.39	J I	9.8	0.20	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDF	0.37	J I	49	0.19	pg/L	1		8290A	Total/NA
1,2,3,4,7,8,9-HpCDF	0.32	J	49	0.28	pg/L	1		8290A	Total/NA
Total HpCDF	0.69	J I	49	0.24	pg/L	1		8290A	Total/NA
OCDF	1.2	J I B	98	0.14	pg/L	1		8290A	Total/NA

Client Sample ID: SUPE-W-30C-042921 — Lab Sample ID: 500-198446-13

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8-HxCDD	0.84	J I	51	0.33	pg/L	1		8290A	Total/NA
1,2,3,6,7,8-HxCDD	2.2	J I	51	0.30	pg/L	1		8290A	Total/NA
1,2,3,7,8,9-HxCDD	1.2	J	51	0.30	pg/L	1		8290A	Total/NA
Total HxCDD	13	J I	51	0.31	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDD	42	J	51	0.47	pg/L	1		8290A	Total/NA
Total HpCDD	71		51	0.47	pg/L	1		8290A	Total/NA
OCDD	140	B	100	0.26	pg/L	1		8290A	Total/NA
Total TCDF	67	I	10	0.31	pg/L	1		8290A	Total/NA
Total PeCDF	14	J I	51	0.28	pg/L	1		8290A	Total/NA
1,2,3,4,7,8-HxCDF	1.1	J	51	0.25	pg/L	1		8290A	Total/NA
1,2,3,6,7,8-HxCDF	1.8	J I	51	0.28	pg/L	1		8290A	Total/NA
2,3,4,6,7,8-HxCDF	1.1	J I	51	0.28	pg/L	1		8290A	Total/NA
Total HxCDF	40	J I	51	0.29	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDF	7.4	J	51	0.26	pg/L	1		8290A	Total/NA
1,2,3,4,7,8,9-HpCDF	2.3	J I	51	0.37	pg/L	1		8290A	Total/NA
Total HpCDF	32	J I	51	0.32	pg/L	1		8290A	Total/NA
OCDF	16	J B	100	0.12	pg/L	1		8290A	Total/NA

Client Sample ID: SUPE-W-12CR-042921 — Lab Sample ID: 500-198446-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.048	J	0.19	0.042	ug/L	1		8270D	Total/NA
Total PeCDD	0.27	J	52	0.084	pg/L	1		8290A	Total/NA
1,2,3,4,7,8-HxCDD	0.95	J	52	0.090	pg/L	1		8290A	Total/NA
1,2,3,6,7,8-HxCDD	0.36	J I	52	0.082	pg/L	1		8290A	Total/NA
1,2,3,7,8,9-HxCDD	0.30	J	52	0.081	pg/L	1		8290A	Total/NA
Total HxCDD	3.4	J I	52	0.085	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDD	4.8	J	52	0.13	pg/L	1		8290A	Total/NA
Total HpCDD	17	J	52	0.13	pg/L	1		8290A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SUPE-W-12CR-042921 (Continued)
Lab Sample ID: 500-198446-14

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
OCDD	59	J B	100	0.045	pg/L	1		8290A	Total/NA
2,3,7,8-TCDF	0.083	J I	10	0.071	pg/L	1		8290A	Total/NA
Total TCDF	0.35	J I	10	0.071	pg/L	1		8290A	Total/NA
Total PeCDF	0.78	J I	52	0.092	pg/L	1		8290A	Total/NA
Total HxCDF	2.2	J I	52	0.080	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDF	0.97	J	52	0.089	pg/L	1		8290A	Total/NA
Total HpCDF	3.0	J I	52	0.11	pg/L	1		8290A	Total/NA
OCDF	3.9	J B	100	0.036	pg/L	1		8290A	Total/NA

Client Sample ID: SUPE-W-TB-02-042921
Lab Sample ID: 500-198446-15

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL BUF
8290A	Dioxins and Furans (HRGC/HRMS)	SW846	TAL KNX
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI
5030C	Purge and Trap	SW846	TAL BUF
8290	Separatory Funnel (Liquid-Liquid) Extraction of Dioxins and Furans	SW846	TAL KNX

Protocol References:

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

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200
TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-198446-1	SUPE-W-28C-042821	Water	04/28/21 09:08	04/30/21 08:45	
500-198446-2	SUPE-EB-01-042821	Water	04/28/21 09:50	04/30/21 08:45	
500-198446-3	SUPE-W-18D-042821	Water	04/28/21 10:51	04/30/21 08:45	
500-198446-4	SUPE-W-04AR2-042821	Water	04/28/21 12:07	04/30/21 08:45	
500-198446-5	SUPE-W-30A-042821	Water	04/28/21 14:41	04/30/21 08:45	
500-198446-6	SUPE-W-10AR2-042821	Water	04/28/21 16:53	04/30/21 08:45	
500-198446-7	SUPE-M-99A-042821	Water	04/28/21 22:00	04/30/21 08:45	
500-198446-8	SUPE-TB-01-042821	Water	04/28/21 13:53	04/30/21 08:45	
500-198446-9	SUPE-W-06A-042821	Water	04/28/21 14:00	04/30/21 08:45	
500-198446-10	SUPE-W-06C-042821	Water	04/28/21 17:20	04/30/21 08:45	
500-198446-11	SUPE-W-12A-042921	Water	04/29/21 10:13	04/30/21 08:45	
500-198446-12	SUPE-EB-02-042921	Water	04/29/21 10:18	04/30/21 08:45	
500-198446-13	SUPE-W-30C-042921	Water	04/29/21 12:51	04/30/21 08:45	
500-198446-14	SUPE-W-12CR-042921	Water	04/29/21 08:21	04/30/21 08:45	
500-198446-15	SUPE-W-TB-02-042921	Water	04/29/21 10:00	04/30/21 08:45	

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-28C-042821
Lab Sample ID: 500-198446-1
Date Collected: 04/28/21 09:08
Matrix: Water
Date Received: 04/30/21 08:45

Method: 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			05/04/21 00:39	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/04/21 00:39	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/04/21 00:39	1
Benzene	ND		1.0	0.41	ug/L			05/04/21 00:39	1
Chloromethane	ND		1.0	0.35	ug/L			05/04/21 00:39	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/04/21 00:39	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/04/21 00:39	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/04/21 00:39	1
Naphthalene	ND		1.0	0.43	ug/L			05/04/21 00:39	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/04/21 00:39	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/04/21 00:39	1
o-Xylene	ND		1.0	0.76	ug/L			05/04/21 00:39	1
Styrene	ND		1.0	0.73	ug/L			05/04/21 00:39	1
Toluene	ND		1.0	0.51	ug/L			05/04/21 00:39	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/04/21 00:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*77 - 120*		*05/04/21 00:39*	*1*
4-Bromofluorobenzene (Surr)	*112*		*73 - 120*		*05/04/21 00:39*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*05/04/21 00:39*	*1*
Toluene-d8 (Surr)	*108*		*80 - 120*		*05/04/21 00:39*	*1*

Method: 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	0.34	ug/L		05/04/21 14:51	05/06/21 15:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*95*		*24 - 146*	*05/04/21 14:51*	*05/06/21 15:39*	*1*
2-Fluorobiphenyl	*98*		*37 - 120*	*05/04/21 14:51*	*05/06/21 15:39*	*1*
2-Fluorophenol (Surr)	*50*		*10 - 120*	*05/04/21 14:51*	*05/06/21 15:39*	*1*
Nitrobenzene-d5 (Surr)	*84*		*26 - 120*	*05/04/21 14:51*	*05/06/21 15:39*	*1*
Phenol-d5 (Surr)	*34*		*11 - 120*	*05/04/21 14:51*	*05/06/21 15:39*	*1*
p-Terphenyl-d14	*105*		*64 - 127*	*05/04/21 14:51*	*05/06/21 15:39*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.9	0.29	ug/L		05/03/21 07:11	05/04/21 02:39	1
1,2-Dichlorobenzene	ND		1.9	0.28	ug/L		05/03/21 07:11	05/04/21 02:39	1
1,3-Dichlorobenzene	ND		1.9	0.24	ug/L		05/03/21 07:11	05/04/21 02:39	1
1,4-Dichlorobenzene	ND		1.9	0.26	ug/L		05/03/21 07:11	05/04/21 02:39	1
1-Methylnaphthalene	ND		1.9	0.48	ug/L		05/03/21 07:11	05/04/21 02:39	1
bis(chloroisopropyl) ether	ND		1.9	0.29	ug/L		05/03/21 07:11	05/04/21 02:39	1
2,3,4,6-Tetrachlorophenol	ND		4.8	1.4	ug/L		05/03/21 07:11	05/04/21 02:39	1
2,4,5-Trichlorophenol	ND		9.6	2.2	ug/L		05/03/21 07:11	05/04/21 02:39	1
2,4,6-Trichlorophenol	ND		4.8	1.1	ug/L		05/03/21 07:11	05/04/21 02:39	1
2,4-Dichlorophenol	ND		9.6	2.2	ug/L		05/03/21 07:11	05/04/21 02:39	1
2,4-Dinitrophenol	ND		19	7.1	ug/L		05/03/21 07:11	05/04/21 02:39	1
2,4-Dinitrotoluene	ND		0.96	0.29	ug/L		05/03/21 07:11	05/04/21 02:39	1
2,6-Dinitrotoluene	ND		0.96	0.11	ug/L		05/03/21 07:11	05/04/21 02:39	1
3 & 4 Methylphenol	ND		1.9	0.42	ug/L		05/03/21 07:11	05/04/21 02:39	1

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

Job ID: 500-198446-1

Client Sample ID: SUPE-W-28C-042821
Date Collected: 04/28/21 09:08
Date Received: 04/30/21 08:45

Lab Sample ID: 500-198446-1
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	ND		1.9	0.33	ug/L		05/03/21 07:11	05/04/21 02:39	1
2-Chlorophenol	ND		4.8	0.77	ug/L		05/03/21 07:11	05/04/21 02:39	1
2-Methylnaphthalene	ND		1.9	0.12	ug/L		05/03/21 07:11	05/04/21 02:39	1
2-Methylphenol	ND		1.9	0.30	ug/L		05/03/21 07:11	05/04/21 02:39	1
2-Nitroaniline	ND		4.8	1.0	ug/L		05/03/21 07:11	05/04/21 02:39	1
2-Nitrophenol	ND		9.6	2.0	ug/L		05/03/21 07:11	05/04/21 02:39	1
3-Nitroaniline	ND		9.6	2.2	ug/L		05/03/21 07:11	05/04/21 02:39	1
4,6-Dinitro-2-methylphenol	ND		19	4.7	ug/L		05/03/21 07:11	05/04/21 02:39	1
4-Bromophenyl phenyl ether	ND		4.8	0.87	ug/L		05/03/21 07:11	05/04/21 02:39	1
4-Chloro-3-methylphenol	ND		9.6	2.1	ug/L		05/03/21 07:11	05/04/21 02:39	1
4-Chloroaniline	ND		9.6	2.0	ug/L		05/03/21 07:11	05/04/21 02:39	1
4-Chlorophenyl phenyl ether	ND		4.8	0.78	ug/L		05/03/21 07:11	05/04/21 02:39	1
4-Nitroaniline	ND		9.6	3.8	ug/L		05/03/21 07:11	05/04/21 02:39	1
4-Nitrophenol	ND		19	2.2	ug/L		05/03/21 07:11	05/04/21 02:39	1
Acenaphthene	ND		0.96	0.34	ug/L		05/03/21 07:11	05/04/21 02:39	1
Acenaphthylene	ND		0.96	0.31	ug/L		05/03/21 07:11	05/04/21 02:39	1
Anthracene	ND		0.96	0.31	ug/L		05/03/21 07:11	05/04/21 02:39	1
Benzo[a]pyrene	ND		0.19	0.054	ug/L		05/03/21 07:11	05/04/21 02:39	1
Benzo[b]fluoranthene	ND		0.19	0.056	ug/L		05/03/21 07:11	05/04/21 02:39	1
Benzo[g,h,i]perylene	ND		0.96	0.40	ug/L		05/03/21 07:11	05/04/21 02:39	1
Benzo[k]fluoranthene	ND		0.19	0.071	ug/L		05/03/21 07:11	05/04/21 02:39	1
Benzoic acid	ND		19	4.4	ug/L		05/03/21 07:11	05/04/21 02:39	1
Benzyl alcohol	ND		19	2.9	ug/L		05/03/21 07:11	05/04/21 02:39	1
Bis(2-chloroethoxy)methane	ND		1.9	0.29	ug/L		05/03/21 07:11	05/04/21 02:39	1
Bis(2-chloroethyl)ether	ND		1.9	0.33	ug/L		05/03/21 07:11	05/04/21 02:39	1
Bis(2-ethylhexyl) phthalate	ND		9.6	2.3	ug/L		05/03/21 07:11	05/04/21 02:39	1
Butyl benzyl phthalate	ND		1.9	0.26	ug/L		05/03/21 07:11	05/04/21 02:39	1
Chrysene	ND		0.48	0.13	ug/L		05/03/21 07:11	05/04/21 02:39	1
Dibenz(a,h)anthracene	ND		0.29	0.061	ug/L		05/03/21 07:11	05/04/21 02:39	1
Dibenzofuran	ND		1.9	0.33	ug/L		05/03/21 07:11	05/04/21 02:39	1
Diethyl phthalate	ND		1.9	0.42	ug/L		05/03/21 07:11	05/04/21 02:39	1
Dimethyl phthalate	ND		1.9	0.36	ug/L		05/03/21 07:11	05/04/21 02:39	1
Di-n-butyl phthalate	ND		4.8	0.77	ug/L		05/03/21 07:11	05/04/21 02:39	1
Di-n-octyl phthalate	ND		9.6	2.4	ug/L		05/03/21 07:11	05/04/21 02:39	1
2,3,5,6-Tetrachlorophenol	ND		4.8	2.4	ug/L		05/03/21 07:11	05/04/21 02:39	1
Fluoranthene	ND		0.96	0.31	ug/L		05/03/21 07:11	05/04/21 02:39	1
Fluorene	ND		0.96	0.36	ug/L		05/03/21 07:11	05/04/21 02:39	1
Hexachlorobenzene	ND		0.48	0.13	ug/L		05/03/21 07:11	05/04/21 02:39	1
Hexachlorobutadiene	ND		4.8	1.1	ug/L		05/03/21 07:11	05/04/21 02:39	1
Hexachlorocyclopentadiene	ND		19	3.3	ug/L		05/03/21 07:11	05/04/21 02:39	1
Hexachloroethane	ND		4.8	0.93	ug/L		05/03/21 07:11	05/04/21 02:39	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.080	ug/L		05/03/21 07:11	05/04/21 02:39	1
Isophorone	ND		1.9	0.28	ug/L		05/03/21 07:11	05/04/21 02:39	1
Nitrobenzene	ND		0.96	0.43	ug/L		05/03/21 07:11	05/04/21 02:39	1
N-Nitrosodi-n-propylamine	ND		0.48	0.13	ug/L		05/03/21 07:11	05/04/21 02:39	1
N-Nitrosodiphenylamine	ND		1.9	0.33	ug/L		05/03/21 07:11	05/04/21 02:39	1
Phenol	ND		4.8	0.34	ug/L		05/03/21 07:11	05/04/21 02:39	1
Pyrene	ND		0.96	0.46	ug/L		05/03/21 07:11	05/04/21 02:39	1
2,4-Dimethylphenol	ND		9.6	3.2	ug/L		05/03/21 07:11	05/04/21 02:39	1

Client Sample ID: SUPE-W-28C-042821
Lab Sample ID: 500-198446-1

Date Collected: 04/28/21 09:08
Matrix: Water
Date Received: 04/30/21 08:45

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	**0.092**	**J**	0.19	0.042	ug/L		05/03/21 07:11	05/04/21 02:39	1
Phenanthrene	ND		0.96	0.33	ug/L		05/03/21 07:11	05/04/21 02:39	1
3,3'-Dichlorobenzidine	ND		4.8	0.90	ug/L		05/03/21 07:11	05/04/21 02:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*90*		*40 - 145*	*05/03/21 07:11*	*05/04/21 02:39*	*1*
2-Fluorobiphenyl	*85*		*34 - 110*	*05/03/21 07:11*	*05/04/21 02:39*	*1*
2-Fluorophenol (Surr)	*40*		*27 - 110*	*05/03/21 07:11*	*05/04/21 02:39*	*1*
Nitrobenzene-d5 (Surr)	*69*		*36 - 120*	*05/03/21 07:11*	*05/04/21 02:39*	*1*
Phenol-d5 (Surr)	*21*		*20 - 100*	*05/03/21 07:11*	*05/04/21 02:39*	*1*
Terphenyl-d14 (Surr)	*88*		*40 - 145*	*05/03/21 07:11*	*05/04/21 02:39*	*1*

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		9.5	0.31	pg/L		05/03/21 13:46	05/12/21 03:23	1
Total TCDD	ND		9.5	0.31	pg/L		05/03/21 13:46	05/12/21 03:23	1
1,2,3,7,8-PeCDD	ND		48	0.20	pg/L		05/03/21 13:46	05/12/21 03:23	1
Total PeCDD	ND		48	0.20	pg/L		05/03/21 13:46	05/12/21 03:23	1
1,2,3,4,7,8-HxCDD	**1.2**	**J I**	48	0.21	pg/L		05/03/21 13:46	05/12/21 03:23	1
1,2,3,6,7,8-HxCDD	**0.57**	**J I**	48	0.19	pg/L		05/03/21 13:46	05/12/21 03:23	1
1,2,3,7,8,9-HxCDD	**0.90**	**J**	48	0.19	pg/L		05/03/21 13:46	05/12/21 03:23	1
Total HxCDD	**7.3**	**J I**	48	0.20	pg/L		05/03/21 13:46	05/12/21 03:23	1
1,2,3,4,6,7,8-HpCDD	**10**	**J**	48	0.37	pg/L		05/03/21 13:46	05/12/21 03:23	1
Total HpCDD	**46**	**J**	48	0.37	pg/L		05/03/21 13:46	05/12/21 03:23	1
OCDD	**93**	**J B**	95	0.10	pg/L		05/03/21 13:46	05/12/21 03:23	1
2,3,7,8-TCDF	ND		9.5	0.21	pg/L		05/03/21 13:46	05/12/21 03:23	1
Total TCDF	**0.22**	**J I**	9.5	0.21	pg/L		05/03/21 13:46	05/12/21 03:23	1
1,2,3,7,8-PeCDF	ND		48	0.26	pg/L		05/03/21 13:46	05/12/21 03:23	1
2,3,4,7,8-PeCDF	ND		48	0.25	pg/L		05/03/21 13:46	05/12/21 03:23	1
Total PeCDF	ND		48	0.26	pg/L		05/03/21 13:46	05/12/21 03:23	1
1,2,3,4,7,8-HxCDF	ND		48	0.22	pg/L		05/03/21 13:46	05/12/21 03:23	1
1,2,3,6,7,8-HxCDF	ND		48	0.23	pg/L		05/03/21 13:46	05/12/21 03:23	1
2,3,4,6,7,8-HxCDF	ND		48	0.23	pg/L		05/03/21 13:46	05/12/21 03:23	1
1,2,3,7,8,9-HxCDF	ND		48	0.28	pg/L		05/03/21 13:46	05/12/21 03:23	1
Total HxCDF	**2.1**	**J**	48	0.24	pg/L		05/03/21 13:46	05/12/21 03:23	1
1,2,3,4,6,7,8-HpCDF	**0.99**	**J I**	48	0.17	pg/L		05/03/21 13:46	05/12/21 03:23	1
1,2,3,4,7,8,9-HpCDF	ND		48	0.23	pg/L		05/03/21 13:46	05/12/21 03:23	1
Total HpCDF	**2.5**	**J I**	48	0.20	pg/L		05/03/21 13:46	05/12/21 03:23	1
OCDF	**4.6**	**J I B**	95	0.053	pg/L		05/03/21 13:46	05/12/21 03:23	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*80*		*40 - 135*	*05/03/21 13:46*	*05/12/21 03:23*	*1*
13C-1,2,3,7,8-PeCDD	*81*		*40 - 135*	*05/03/21 13:46*	*05/12/21 03:23*	*1*
13C-1,2,3,4,7,8-HxCDD	*83*		*40 - 135*	*05/03/21 13:46*	*05/12/21 03:23*	*1*
13C-1,2,3,6,7,8-HxCDD	*85*		*40 - 135*	*05/03/21 13:46*	*05/12/21 03:23*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*97*		*40 - 135*	*05/03/21 13:46*	*05/12/21 03:23*	*1*
13C-OCDD	*101*		*40 - 135*	*05/03/21 13:46*	*05/12/21 03:23*	*1*
13C-2,3,7,8-TCDF	*85*		*40 - 135*	*05/03/21 13:46*	*05/12/21 03:23*	*1*
13C-1,2,3,7,8-PeCDF	*84*		*40 - 135*	*05/03/21 13:46*	*05/12/21 03:23*	*1*
13C-2,3,4,7,8-PeCDF	*80*		*40 - 135*	*05/03/21 13:46*	*05/12/21 03:23*	*1*
13C-1,2,3,4,7,8-HxCDF	*96*		*40 - 135*	*05/03/21 13:46*	*05/12/21 03:23*	*1*

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

Job ID: 500-198446-1

Client Sample ID: SUPE-W-28C-042821
Date Collected: 04/28/21 09:08
Date Received: 04/30/21 08:45

Lab Sample ID: 500-198446-1
Matrix: Water

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,6,7,8-HxCDF	85		40 - 135	05/03/21 13:46	05/12/21 03:23	1
13C-2,3,4,6,7,8-HxCDF	87		40 - 135	05/03/21 13:46	05/12/21 03:23	1
13C-1,2,3,7,8,9-HxCDF	93		40 - 135	05/03/21 13:46	05/12/21 03:23	1
13C-1,2,3,4,6,7,8-HpCDF	96		40 - 135	05/03/21 13:46	05/12/21 03:23	1
13C-1,2,3,4,7,8,9-HpCDF	96		40 - 135	05/03/21 13:46	05/12/21 03:23	1
13C-OCDF	79		40 - 135	05/03/21 13:46	05/12/21 03:23	1

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-EB-01-042821
Lab Sample ID: 500-198446-2
Date Collected: 04/28/21 09:50
Matrix: Water
Date Received: 04/30/21 08:45

Method: 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			05/04/21 01:02	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/04/21 01:02	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/04/21 01:02	1
Benzene	ND		1.0	0.41	ug/L			05/04/21 01:02	1
Chloromethane	ND		1.0	0.35	ug/L			05/04/21 01:02	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/04/21 01:02	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/04/21 01:02	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/04/21 01:02	1
Naphthalene	ND		1.0	0.43	ug/L			05/04/21 01:02	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/04/21 01:02	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/04/21 01:02	1
o-Xylene	ND		1.0	0.76	ug/L			05/04/21 01:02	1
Styrene	ND		1.0	0.73	ug/L			05/04/21 01:02	1
Toluene	ND		1.0	0.51	ug/L			05/04/21 01:02	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/04/21 01:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*77 - 120*		*05/04/21 01:02*	*1*
4-Bromofluorobenzene (Surr)	*108*		*73 - 120*		*05/04/21 01:02*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 123*		*05/04/21 01:02*	*1*
Toluene-d8 (Surr)	*106*		*80 - 120*		*05/04/21 01:02*	*1*

Method: 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	0.34	ug/L		05/04/21 14:51	05/06/21 16:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*88*		*24 - 146*	*05/04/21 14:51*	*05/06/21 16:06*	*1*
2-Fluorobiphenyl	*103*		*37 - 120*	*05/04/21 14:51*	*05/06/21 16:06*	*1*
2-Fluorophenol (Surr)	*52*		*10 - 120*	*05/04/21 14:51*	*05/06/21 16:06*	*1*
Nitrobenzene-d5 (Surr)	*90*		*26 - 120*	*05/04/21 14:51*	*05/06/21 16:06*	*1*
Phenol-d5 (Surr)	*35*		*11 - 120*	*05/04/21 14:51*	*05/06/21 16:06*	*1*
p-Terphenyl-d14	*114*		*64 - 127*	*05/04/21 14:51*	*05/06/21 16:06*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.9	0.29	ug/L		05/03/21 07:11	05/04/21 03:01	1
1,2-Dichlorobenzene	ND		1.9	0.28	ug/L		05/03/21 07:11	05/04/21 03:01	1
1,3-Dichlorobenzene	ND		1.9	0.24	ug/L		05/03/21 07:11	05/04/21 03:01	1
1,4-Dichlorobenzene	ND		1.9	0.26	ug/L		05/03/21 07:11	05/04/21 03:01	1
1-Methylnaphthalene	ND		1.9	0.48	ug/L		05/03/21 07:11	05/04/21 03:01	1
bis(chloroisopropyl) ether	ND		1.9	0.29	ug/L		05/03/21 07:11	05/04/21 03:01	1
2,3,4,6-Tetrachlorophenol	ND		4.8	1.4	ug/L		05/03/21 07:11	05/04/21 03:01	1
2,4,5-Trichlorophenol	ND		9.5	2.2	ug/L		05/03/21 07:11	05/04/21 03:01	1
2,4,6-Trichlorophenol	ND		4.8	1.0	ug/L		05/03/21 07:11	05/04/21 03:01	1
2,4-Dichlorophenol	ND		9.5	2.2	ug/L		05/03/21 07:11	05/04/21 03:01	1
2,4-Dinitrophenol	ND		19	7.1	ug/L		05/03/21 07:11	05/04/21 03:01	1
2,4-Dinitrotoluene	ND		0.95	0.29	ug/L		05/03/21 07:11	05/04/21 03:01	1
2,6-Dinitrotoluene	ND		0.95	0.11	ug/L		05/03/21 07:11	05/04/21 03:01	1
3 & 4 Methylphenol	ND		1.9	0.42	ug/L		05/03/21 07:11	05/04/21 03:01	1

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-EB-01-042821
Lab Sample ID: 500-198446-2
Date Collected: 04/28/21 09:50
Matrix: Water
Date Received: 04/30/21 08:45

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	ND		1.9	0.32	ug/L		05/03/21 07:11	05/04/21 03:01	1
2-Chlorophenol	ND		4.8	0.76	ug/L		05/03/21 07:11	05/04/21 03:01	1
2-Methylnaphthalene	ND		1.9	0.12	ug/L		05/03/21 07:11	05/04/21 03:01	1
2-Methylphenol	ND		1.9	0.30	ug/L		05/03/21 07:11	05/04/21 03:01	1
2-Nitroaniline	ND		4.8	1.0	ug/L		05/03/21 07:11	05/04/21 03:01	1
2-Nitrophenol	ND		9.5	2.0	ug/L		05/03/21 07:11	05/04/21 03:01	1
3-Nitroaniline	ND		9.5	2.2	ug/L		05/03/21 07:11	05/04/21 03:01	1
4,6-Dinitro-2-methylphenol	ND		19	4.7	ug/L		05/03/21 07:11	05/04/21 03:01	1
4-Bromophenyl phenyl ether	ND		4.8	0.87	ug/L		05/03/21 07:11	05/04/21 03:01	1
4-Chloro-3-methylphenol	ND		9.5	2.1	ug/L		05/03/21 07:11	05/04/21 03:01	1
4-Chloroaniline	ND		9.5	2.0	ug/L		05/03/21 07:11	05/04/21 03:01	1
4-Chlorophenyl phenyl ether	ND		4.8	0.77	ug/L		05/03/21 07:11	05/04/21 03:01	1
4-Nitroaniline	ND		9.5	3.7	ug/L		05/03/21 07:11	05/04/21 03:01	1
4-Nitrophenol	ND		19	2.2	ug/L		05/03/21 07:11	05/04/21 03:01	1
Acenaphthene	ND		0.95	0.34	ug/L		05/03/21 07:11	05/04/21 03:01	1
Acenaphthylene	ND		0.95	0.30	ug/L		05/03/21 07:11	05/04/21 03:01	1
Anthracene	ND		0.95	0.30	ug/L		05/03/21 07:11	05/04/21 03:01	1
Benzo[a]pyrene	ND		0.19	0.053	ug/L		05/03/21 07:11	05/04/21 03:01	1
Benzo[b]fluoranthene	ND		0.19	0.055	ug/L		05/03/21 07:11	05/04/21 03:01	1
Benzo[g,h,i]perylene	ND		0.95	0.40	ug/L		05/03/21 07:11	05/04/21 03:01	1
Benzo[k]fluoranthene	ND		0.19	0.070	ug/L		05/03/21 07:11	05/04/21 03:01	1
Benzoic acid	ND		19	4.3	ug/L		05/03/21 07:11	05/04/21 03:01	1
Benzyl alcohol	ND		19	2.9	ug/L		05/03/21 07:11	05/04/21 03:01	1
Bis(2-chloroethoxy)methane	ND		1.9	0.29	ug/L		05/03/21 07:11	05/04/21 03:01	1
Bis(2-chloroethyl)ether	ND		1.9	0.33	ug/L		05/03/21 07:11	05/04/21 03:01	1
Bis(2-ethylhexyl) phthalate	ND		9.5	2.3	ug/L		05/03/21 07:11	05/04/21 03:01	1
Butyl benzyl phthalate	ND		1.9	0.26	ug/L		05/03/21 07:11	05/04/21 03:01	1
Chrysene	ND		0.48	0.13	ug/L		05/03/21 07:11	05/04/21 03:01	1
Dibenz(a,h)anthracene	ND		0.29	0.061	ug/L		05/03/21 07:11	05/04/21 03:01	1
Dibenzofuran	ND		1.9	0.33	ug/L		05/03/21 07:11	05/04/21 03:01	1
Diethyl phthalate	ND		1.9	0.42	ug/L		05/03/21 07:11	05/04/21 03:01	1
Dimethyl phthalate	ND		1.9	0.36	ug/L		05/03/21 07:11	05/04/21 03:01	1
Di-n-butyl phthalate	ND		4.8	0.76	ug/L		05/03/21 07:11	05/04/21 03:01	1
Di-n-octyl phthalate	ND		9.5	2.4	ug/L		05/03/21 07:11	05/04/21 03:01	1
2,3,5,6-Tetrachlorophenol	ND		4.8	2.4	ug/L		05/03/21 07:11	05/04/21 03:01	1
Fluoranthene	ND		0.95	0.30	ug/L		05/03/21 07:11	05/04/21 03:01	1
Fluorene	ND		0.95	0.36	ug/L		05/03/21 07:11	05/04/21 03:01	1
Hexachlorobenzene	ND		0.48	0.13	ug/L		05/03/21 07:11	05/04/21 03:01	1
Hexachlorobutadiene	ND		4.8	1.1	ug/L		05/03/21 07:11	05/04/21 03:01	1
Hexachlorocyclopentadiene	ND		19	3.3	ug/L		05/03/21 07:11	05/04/21 03:01	1
Hexachloroethane	ND		4.8	0.92	ug/L		05/03/21 07:11	05/04/21 03:01	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.080	ug/L		05/03/21 07:11	05/04/21 03:01	1
Isophorone	ND		1.9	0.28	ug/L		05/03/21 07:11	05/04/21 03:01	1
Nitrobenzene	ND		0.95	0.43	ug/L		05/03/21 07:11	05/04/21 03:01	1
N-Nitrosodi-n-propylamine	ND		0.48	0.13	ug/L		05/03/21 07:11	05/04/21 03:01	1
N-Nitrosodiphenylamine	ND		1.9	0.32	ug/L		05/03/21 07:11	05/04/21 03:01	1
Phenol	ND		4.8	0.34	ug/L		05/03/21 07:11	05/04/21 03:01	1
Pyrene	ND		0.95	0.46	ug/L		05/03/21 07:11	05/04/21 03:01	1
2,4-Dimethylphenol	ND		9.5	3.2	ug/L		05/03/21 07:11	05/04/21 03:01	1

Client Sample ID: SUPE-EB-01-042821
Lab Sample ID: 500-198446-2

Date Collected: 04/28/21 09:50
Matrix: Water
Date Received: 04/30/21 08:45

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.19	0.042	ug/L		05/03/21 07:11	05/04/21 03:01	1
Phenanthrene	ND		0.95	0.33	ug/L		05/03/21 07:11	05/04/21 03:01	1
3,3'-Dichlorobenzidine	ND		4.8	0.90	ug/L		05/03/21 07:11	05/04/21 03:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*95*		*40 - 145*	*05/03/21 07:11*	*05/04/21 03:01*	*1*
2-Fluorobiphenyl	*93*		*34 - 110*	*05/03/21 07:11*	*05/04/21 03:01*	*1*
2-Fluorophenol (Surr)	*47*		*27 - 110*	*05/03/21 07:11*	*05/04/21 03:01*	*1*
Nitrobenzene-d5 (Surr)	*76*		*36 - 120*	*05/03/21 07:11*	*05/04/21 03:01*	*1*
Phenol-d5 (Surr)	*20*		*20 - 100*	*05/03/21 07:11*	*05/04/21 03:01*	*1*
Terphenyl-d14 (Surr)	*97*		*40 - 145*	*05/03/21 07:11*	*05/04/21 03:01*	*1*

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		9.8	0.11	pg/L		05/03/21 13:46	05/12/21 02:24	1
Total TCDD	ND		9.8	0.14	pg/L		05/03/21 13:46	05/12/21 02:24	1
1,2,3,7,8-PeCDD	ND		49	0.21	pg/L		05/03/21 13:46	05/12/21 02:24	1
Total PeCDD	ND		49	0.21	pg/L		05/03/21 13:46	05/12/21 02:24	1
1,2,3,4,7,8-HxCDD	**1.2**	**J**	49	0.19	pg/L		05/03/21 13:46	05/12/21 02:24	1
1,2,3,6,7,8-HxCDD	ND		49	0.16	pg/L		05/03/21 13:46	05/12/21 02:24	1
1,2,3,7,8,9-HxCDD	**0.51**	**J**	49	0.17	pg/L		05/03/21 13:46	05/12/21 02:24	1
Total HxCDD	**1.8**	**J**	49	0.17	pg/L		05/03/21 13:46	05/12/21 02:24	1
1,2,3,4,6,7,8-HpCDD	**0.61**	**J I**	49	0.29	pg/L		05/03/21 13:46	05/12/21 02:24	1
Total HpCDD	**1.6**	**J I**	49	0.29	pg/L		05/03/21 13:46	05/12/21 02:24	1
OCDD	**2.2**	**J B**	98	0.12	pg/L		05/03/21 13:46	05/12/21 02:24	1
2,3,7,8-TCDF	ND		9.8	0.19	pg/L		05/03/21 13:46	05/12/21 02:24	1
Total TCDF	ND		9.8	0.19	pg/L		05/03/21 13:46	05/12/21 02:24	1
1,2,3,7,8-PeCDF	ND		49	0.24	pg/L		05/03/21 13:46	05/12/21 02:24	1
2,3,4,7,8-PeCDF	ND		49	0.21	pg/L		05/03/21 13:46	05/12/21 02:24	1
Total PeCDF	ND		49	0.24	pg/L		05/03/21 13:46	05/12/21 02:24	1
1,2,3,4,7,8-HxCDF	ND		49	0.17	pg/L		05/03/21 13:46	05/12/21 02:24	1
1,2,3,6,7,8-HxCDF	ND		49	0.19	pg/L		05/03/21 13:46	05/12/21 02:24	1
2,3,4,6,7,8-HxCDF	ND		49	0.19	pg/L		05/03/21 13:46	05/12/21 02:24	1
1,2,3,7,8,9-HxCDF	ND		49	0.23	pg/L		05/03/21 13:46	05/12/21 02:24	1
Total HxCDF	ND		49	0.23	pg/L		05/03/21 13:46	05/12/21 02:24	1
1,2,3,4,6,7,8-HpCDF	**0.36**	**J I**	49	0.18	pg/L		05/03/21 13:46	05/12/21 02:24	1
1,2,3,4,7,8,9-HpCDF	ND		49	0.27	pg/L		05/03/21 13:46	05/12/21 02:24	1
Total HpCDF	**0.36**	**J I**	49	0.23	pg/L		05/03/21 13:46	05/12/21 02:24	1
OCDF	**1.3**	**J I B**	98	0.17	pg/L		05/03/21 13:46	05/12/21 02:24	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*77*		*40 - 135*	*05/03/21 13:46*	*05/12/21 02:24*	*1*
13C-1,2,3,7,8-PeCDD	*76*		*40 - 135*	*05/03/21 13:46*	*05/12/21 02:24*	*1*
13C-1,2,3,4,7,8-HxCDD	*79*		*40 - 135*	*05/03/21 13:46*	*05/12/21 02:24*	*1*
13C-1,2,3,6,7,8-HxCDD	*83*		*40 - 135*	*05/03/21 13:46*	*05/12/21 02:24*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*94*		*40 - 135*	*05/03/21 13:46*	*05/12/21 02:24*	*1*
13C-OCDD	*94*		*40 - 135*	*05/03/21 13:46*	*05/12/21 02:24*	*1*
13C-2,3,7,8-TCDF	*84*		*40 - 135*	*05/03/21 13:46*	*05/12/21 02:24*	*1*
13C-1,2,3,7,8-PeCDF	*77*		*40 - 135*	*05/03/21 13:46*	*05/12/21 02:24*	*1*
13C-2,3,4,7,8-PeCDF	*77*		*40 - 135*	*05/03/21 13:46*	*05/12/21 02:24*	*1*
13C-1,2,3,4,7,8-HxCDF	*93*		*40 - 135*	*05/03/21 13:46*	*05/12/21 02:24*	*1*

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

Job ID: 500-198446-1

Client Sample ID: SUPE-EB-01-042821
Date Collected: 04/28/21 09:50
Date Received: 04/30/21 08:45

Lab Sample ID: 500-198446-2
Matrix: Water

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,6,7,8-HxCDF	81		40 - 135	05/03/21 13:46	05/12/21 02:24	1
13C-2,3,4,6,7,8-HxCDF	83		40 - 135	05/03/21 13:46	05/12/21 02:24	1
13C-1,2,3,7,8,9-HxCDF	85		40 - 135	05/03/21 13:46	05/12/21 02:24	1
13C-1,2,3,4,6,7,8-HpCDF	93		40 - 135	05/03/21 13:46	05/12/21 02:24	1
13C-1,2,3,4,7,8,9-HpCDF	88		40 - 135	05/03/21 13:46	05/12/21 02:24	1
13C-OCDF	75		40 - 135	05/03/21 13:46	05/12/21 02:24	1

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-18D-042821
Lab Sample ID: 500-198446-3
Date Collected: 04/28/21 10:51
Matrix: Water
Date Received: 04/30/21 08:45

Method: 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	0.34	ug/L		05/04/21 14:51	05/06/21 16:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*97*		*24 - 146*	*05/04/21 14:51*	*05/06/21 16:34*	*1*
2-Fluorobiphenyl	*96*		*37 - 120*	*05/04/21 14:51*	*05/06/21 16:34*	*1*
2-Fluorophenol (Surr)	*47*		*10 - 120*	*05/04/21 14:51*	*05/06/21 16:34*	*1*
Nitrobenzene-d5 (Surr)	*83*		*26 - 120*	*05/04/21 14:51*	*05/06/21 16:34*	*1*
Phenol-d5 (Surr)	*32*		*11 - 120*	*05/04/21 14:51*	*05/06/21 16:34*	*1*
p-Terphenyl-d14	*72*		*64 - 127*	*05/04/21 14:51*	*05/06/21 16:34*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.9	0.29	ug/L		05/03/21 07:11	05/04/21 03:22	1
1,2-Dichlorobenzene	ND		1.9	0.28	ug/L		05/03/21 07:11	05/04/21 03:22	1
1,3-Dichlorobenzene	ND		1.9	0.24	ug/L		05/03/21 07:11	05/04/21 03:22	1
1,4-Dichlorobenzene	ND		1.9	0.26	ug/L		05/03/21 07:11	05/04/21 03:22	1
1-Methylnaphthalene	ND		1.9	0.48	ug/L		05/03/21 07:11	05/04/21 03:22	1
bis(chloroisopropyl) ether	ND		1.9	0.29	ug/L		05/03/21 07:11	05/04/21 03:22	1
2,3,4,6-Tetrachlorophenol	ND		4.8	1.5	ug/L		05/03/21 07:11	05/04/21 03:22	1
2,4,5-Trichlorophenol	ND		9.6	2.2	ug/L		05/03/21 07:11	05/04/21 03:22	1
2,4,6-Trichlorophenol	ND		4.8	1.1	ug/L		05/03/21 07:11	05/04/21 03:22	1
2,4-Dichlorophenol	ND		9.6	2.2	ug/L		05/03/21 07:11	05/04/21 03:22	1
2,4-Dinitrophenol	ND		19	7.1	ug/L		05/03/21 07:11	05/04/21 03:22	1
2,4-Dinitrotoluene	ND		0.96	0.29	ug/L		05/03/21 07:11	05/04/21 03:22	1
2,6-Dinitrotoluene	ND		0.96	0.12	ug/L		05/03/21 07:11	05/04/21 03:22	1
3 & 4 Methylphenol	ND		1.9	0.42	ug/L		05/03/21 07:11	05/04/21 03:22	1
2-Chloronaphthalene	ND		1.9	0.33	ug/L		05/03/21 07:11	05/04/21 03:22	1
2-Chlorophenol	ND		4.8	0.77	ug/L		05/03/21 07:11	05/04/21 03:22	1
2-Methylnaphthalene	ND		1.9	0.13	ug/L		05/03/21 07:11	05/04/21 03:22	1
2-Methylphenol	ND		1.9	0.30	ug/L		05/03/21 07:11	05/04/21 03:22	1
2-Nitroaniline	ND		4.8	1.0	ug/L		05/03/21 07:11	05/04/21 03:22	1
2-Nitrophenol	ND		9.6	2.1	ug/L		05/03/21 07:11	05/04/21 03:22	1
3-Nitroaniline	ND		9.6	2.2	ug/L		05/03/21 07:11	05/04/21 03:22	1
4,6-Dinitro-2-methylphenol	ND		19	4.7	ug/L		05/03/21 07:11	05/04/21 03:22	1
4-Bromophenyl phenyl ether	ND		4.8	0.88	ug/L		05/03/21 07:11	05/04/21 03:22	1
4-Chloro-3-methylphenol	ND		9.6	2.1	ug/L		05/03/21 07:11	05/04/21 03:22	1
4-Chloroaniline	ND		9.6	2.0	ug/L		05/03/21 07:11	05/04/21 03:22	1
4-Chlorophenyl phenyl ether	ND		4.8	0.78	ug/L		05/03/21 07:11	05/04/21 03:22	1
4-Nitroaniline	ND		9.6	3.8	ug/L		05/03/21 07:11	05/04/21 03:22	1
4-Nitrophenol	ND		19	2.3	ug/L		05/03/21 07:11	05/04/21 03:22	1
Acenaphthene	ND		0.96	0.35	ug/L		05/03/21 07:11	05/04/21 03:22	1
Acenaphthylene	ND		0.96	0.31	ug/L		05/03/21 07:11	05/04/21 03:22	1
Anthracene	ND		0.96	0.31	ug/L		05/03/21 07:11	05/04/21 03:22	1
Benzo[a]pyrene	ND		0.19	0.054	ug/L		05/03/21 07:11	05/04/21 03:22	1
Benzo[b]fluoranthene	ND		0.19	0.056	ug/L		05/03/21 07:11	05/04/21 03:22	1
Benzo[g,h,i]perylene	ND		0.96	0.40	ug/L		05/03/21 07:11	05/04/21 03:22	1
Benzo[k]fluoranthene	ND		0.19	0.071	ug/L		05/03/21 07:11	05/04/21 03:22	1
Benzoic acid	ND		19	4.4	ug/L		05/03/21 07:11	05/04/21 03:22	1
Benzyl alcohol	ND		19	2.9	ug/L		05/03/21 07:11	05/04/21 03:22	1
Bis(2-chloroethoxy)methane	ND		1.9	0.29	ug/L		05/03/21 07:11	05/04/21 03:22	1

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

Job ID: 500-198446-1

Client Sample ID: SUPE-W-18D-042821
Date Collected: 04/28/21 10:51
Date Received: 04/30/21 08:45

Lab Sample ID: 500-198446-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethyl)ether	ND		1.9	0.34	ug/L		05/03/21 07:11	05/04/21 03:22	1
Bis(2-ethylhexyl) phthalate	ND		9.6	2.3	ug/L		05/03/21 07:11	05/04/21 03:22	1
Butyl benzyl phthalate	ND		1.9	0.26	ug/L		05/03/21 07:11	05/04/21 03:22	1
Chrysene	ND		0.48	0.13	ug/L		05/03/21 07:11	05/04/21 03:22	1
Dibenz(a,h)anthracene	ND		0.29	0.062	ug/L		05/03/21 07:11	05/04/21 03:22	1
Dibenzofuran	ND		1.9	0.34	ug/L		05/03/21 07:11	05/04/21 03:22	1
Diethyl phthalate	ND		1.9	0.42	ug/L		05/03/21 07:11	05/04/21 03:22	1
Dimethyl phthalate	ND		1.9	0.37	ug/L		05/03/21 07:11	05/04/21 03:22	1
Di-n-butyl phthalate	ND		4.8	0.77	ug/L		05/03/21 07:11	05/04/21 03:22	1
Di-n-octyl phthalate	ND		9.6	2.4	ug/L		05/03/21 07:11	05/04/21 03:22	1
2,3,5,6-Tetrachlorophenol	ND		4.8	2.4	ug/L		05/03/21 07:11	05/04/21 03:22	1
Fluoranthene	ND		0.96	0.31	ug/L		05/03/21 07:11	05/04/21 03:22	1
Fluorene	ND		0.96	0.37	ug/L		05/03/21 07:11	05/04/21 03:22	1
Hexachlorobenzene	ND		0.48	0.13	ug/L		05/03/21 07:11	05/04/21 03:22	1
Hexachlorobutadiene	ND		4.8	1.1	ug/L		05/03/21 07:11	05/04/21 03:22	1
Hexachlorocyclopentadiene	ND		19	3.3	ug/L		05/03/21 07:11	05/04/21 03:22	1
Hexachloroethane	ND		4.8	0.93	ug/L		05/03/21 07:11	05/04/21 03:22	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.081	ug/L		05/03/21 07:11	05/04/21 03:22	1
Isophorone	ND		1.9	0.28	ug/L		05/03/21 07:11	05/04/21 03:22	1
Naphthalene	ND		0.96	0.29	ug/L		05/03/21 07:11	05/04/21 03:22	1
Nitrobenzene	ND		0.96	0.43	ug/L		05/03/21 07:11	05/04/21 03:22	1
N-Nitrosodi-n-propylamine	ND		0.48	0.13	ug/L		05/03/21 07:11	05/04/21 03:22	1
N-Nitrosodiphenylamine	ND		1.9	0.33	ug/L		05/03/21 07:11	05/04/21 03:22	1
Phenol	ND		4.8	0.35	ug/L		05/03/21 07:11	05/04/21 03:22	1
Pyrene	ND		0.96	0.46	ug/L		05/03/21 07:11	05/04/21 03:22	1
2,4-Dimethylphenol	ND		9.6	3.2	ug/L		05/03/21 07:11	05/04/21 03:22	1
Benzo[a]anthracene	ND		0.19	0.042	ug/L		05/03/21 07:11	05/04/21 03:22	1
Phenanthrene	ND		0.96	0.34	ug/L		05/03/21 07:11	05/04/21 03:22	1
3,3'-Dichlorobenzidine	ND		4.8	0.90	ug/L		05/03/21 07:11	05/04/21 03:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*105*		*40 - 145*	*05/03/21 07:11*	*05/04/21 03:22*	*1*
2-Fluorobiphenyl	*94*		*34 - 110*	*05/03/21 07:11*	*05/04/21 03:22*	*1*
2-Fluorophenol (Surr)	*43*		*27 - 110*	*05/03/21 07:11*	*05/04/21 03:22*	*1*
Nitrobenzene-d5 (Surr)	*76*		*36 - 120*	*05/03/21 07:11*	*05/04/21 03:22*	*1*
Phenol-d5 (Surr)	*22*		*20 - 100*	*05/03/21 07:11*	*05/04/21 03:22*	*1*
Terphenyl-d14 (Surr)	*91*		*40 - 145*	*05/03/21 07:11*	*05/04/21 03:22*	*1*

Client Sample ID: SUPE-W-04AR2-042821
Lab Sample ID: 500-198446-4

Date Collected: 04/28/21 12:07
Matrix: Water
Date Received: 04/30/21 08:45

Method: 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			05/04/21 01:25	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/04/21 01:25	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/04/21 01:25	1
Benzene	ND		1.0	0.41	ug/L			05/04/21 01:25	1
Chloromethane	ND		1.0	0.35	ug/L			05/04/21 01:25	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/04/21 01:25	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/04/21 01:25	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/04/21 01:25	1
Naphthalene	ND		1.0	0.43	ug/L			05/04/21 01:25	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/04/21 01:25	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/04/21 01:25	1
o-Xylene	ND		1.0	0.76	ug/L			05/04/21 01:25	1
Styrene	ND		1.0	0.73	ug/L			05/04/21 01:25	1
Toluene	ND		1.0	0.51	ug/L			05/04/21 01:25	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/04/21 01:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*		*05/04/21 01:25*	*1*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*05/04/21 01:25*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 123*		*05/04/21 01:25*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/04/21 01:25*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		5.0	1.7	ug/L		05/04/21 14:51	05/06/21 17:01	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*101*		*24 - 146*	*05/04/21 14:51*	*05/06/21 17:01*	*5*
2-Fluorobiphenyl	*98*		*37 - 120*	*05/04/21 14:51*	*05/06/21 17:01*	*5*
2-Fluorophenol (Surr)	*48*		*10 - 120*	*05/04/21 14:51*	*05/06/21 17:01*	*5*
Nitrobenzene-d5 (Surr)	*82*		*26 - 120*	*05/04/21 14:51*	*05/06/21 17:01*	*5*
Phenol-d5 (Surr)	*33*		*11 - 120*	*05/04/21 14:51*	*05/06/21 17:01*	*5*
p-Terphenyl-d14	*94*		*64 - 127*	*05/04/21 14:51*	*05/06/21 17:01*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.9	0.29	ug/L		05/03/21 07:11	05/04/21 03:43	1
1,2-Dichlorobenzene	ND		1.9	0.28	ug/L		05/03/21 07:11	05/04/21 03:43	1
1,3-Dichlorobenzene	ND		1.9	0.24	ug/L		05/03/21 07:11	05/04/21 03:43	1
1,4-Dichlorobenzene	ND		1.9	0.26	ug/L		05/03/21 07:11	05/04/21 03:43	1
1-Methylnaphthalene	ND		1.9	0.49	ug/L		05/03/21 07:11	05/04/21 03:43	1
bis(chloroisopropyl) ether	ND		1.9	0.29	ug/L		05/03/21 07:11	05/04/21 03:43	1
2,3,4,6-Tetrachlorophenol	ND		4.9	1.5	ug/L		05/03/21 07:11	05/04/21 03:43	1
2,4,5-Trichlorophenol	ND		9.7	2.2	ug/L		05/03/21 07:11	05/04/21 03:43	1
2,4,6-Trichlorophenol	ND		4.9	1.1	ug/L		05/03/21 07:11	05/04/21 03:43	1
2,4-Dichlorophenol	ND		9.7	2.2	ug/L		05/03/21 07:11	05/04/21 03:43	1
2,4-Dinitrophenol	ND		19	7.2	ug/L		05/03/21 07:11	05/04/21 03:43	1
2,4-Dinitrotoluene	ND		0.97	0.29	ug/L		05/03/21 07:11	05/04/21 03:43	1
2,6-Dinitrotoluene	ND		0.97	0.12	ug/L		05/03/21 07:11	05/04/21 03:43	1
3 & 4 Methylphenol	ND		1.9	0.43	ug/L		05/03/21 07:11	05/04/21 03:43	1

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

Job ID: 500-198446-1

Client Sample ID: SUPE-W-04AR2-042821
Date Collected: 04/28/21 12:07
Date Received: 04/30/21 08:45

Lab Sample ID: 500-198446-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	ND		1.9	0.33	ug/L		05/03/21 07:11	05/04/21 03:43	1
2-Chlorophenol	ND		4.9	0.78	ug/L		05/03/21 07:11	05/04/21 03:43	1
2-Methylnaphthalene	ND		1.9	0.13	ug/L		05/03/21 07:11	05/04/21 03:43	1
2-Methylphenol	ND		1.9	0.30	ug/L		05/03/21 07:11	05/04/21 03:43	1
2-Nitroaniline	ND		4.9	1.0	ug/L		05/03/21 07:11	05/04/21 03:43	1
2-Nitrophenol	ND		9.7	2.1	ug/L		05/03/21 07:11	05/04/21 03:43	1
3-Nitroaniline	ND		9.7	2.2	ug/L		05/03/21 07:11	05/04/21 03:43	1
4,6-Dinitro-2-methylphenol	ND		19	4.8	ug/L		05/03/21 07:11	05/04/21 03:43	1
4-Bromophenyl phenyl ether	ND		4.9	0.88	ug/L		05/03/21 07:11	05/04/21 03:43	1
4-Chloro-3-methylphenol	ND		9.7	2.1	ug/L		05/03/21 07:11	05/04/21 03:43	1
4-Chloroaniline	ND		9.7	2.0	ug/L		05/03/21 07:11	05/04/21 03:43	1
4-Chlorophenyl phenyl ether	ND		4.9	0.79	ug/L		05/03/21 07:11	05/04/21 03:43	1
4-Nitroaniline	ND		9.7	3.8	ug/L		05/03/21 07:11	05/04/21 03:43	1
4-Nitrophenol	ND		19	2.3	ug/L		05/03/21 07:11	05/04/21 03:43	1
Acenaphthene	ND		0.97	0.35	ug/L		05/03/21 07:11	05/04/21 03:43	1
Acenaphthylene	ND		0.97	0.31	ug/L		05/03/21 07:11	05/04/21 03:43	1
Anthracene	**4.0**		0.97	0.31	ug/L		05/03/21 07:11	05/04/21 03:43	1
Benzo[a]pyrene	**0.094**	**J**	0.19	0.054	ug/L		05/03/21 07:11	05/04/21 03:43	1
Benzo[b]fluoranthene	**0.18**	**J**	0.19	0.056	ug/L		05/03/21 07:11	05/04/21 03:43	1
Benzo[g,h,i]perylene	ND		0.97	0.41	ug/L		05/03/21 07:11	05/04/21 03:43	1
Benzo[k]fluoranthene	**0.092**	**J**	0.19	0.072	ug/L		05/03/21 07:11	05/04/21 03:43	1
Benzoic acid	ND		19	4.4	ug/L		05/03/21 07:11	05/04/21 03:43	1
Benzyl alcohol	ND		19	3.0	ug/L		05/03/21 07:11	05/04/21 03:43	1
Bis(2-chloroethoxy)methane	ND		1.9	0.29	ug/L		05/03/21 07:11	05/04/21 03:43	1
Bis(2-chloroethyl)ether	ND		1.9	0.34	ug/L		05/03/21 07:11	05/04/21 03:43	1
Bis(2-ethylhexyl) phthalate	ND		9.7	2.4	ug/L		05/03/21 07:11	05/04/21 03:43	1
Butyl benzyl phthalate	ND		1.9	0.26	ug/L		05/03/21 07:11	05/04/21 03:43	1
Chrysene	**0.38**	**J**	0.49	0.14	ug/L		05/03/21 07:11	05/04/21 03:43	1
Dibenz(a,h)anthracene	ND		0.29	0.062	ug/L		05/03/21 07:11	05/04/21 03:43	1
Dibenzofuran	ND		1.9	0.34	ug/L		05/03/21 07:11	05/04/21 03:43	1
Diethyl phthalate	ND		1.9	0.43	ug/L		05/03/21 07:11	05/04/21 03:43	1
Dimethyl phthalate	ND		1.9	0.37	ug/L		05/03/21 07:11	05/04/21 03:43	1
Di-n-butyl phthalate	ND		4.9	0.78	ug/L		05/03/21 07:11	05/04/21 03:43	1
Di-n-octyl phthalate	ND		9.7	2.4	ug/L		05/03/21 07:11	05/04/21 03:43	1
2,3,5,6-Tetrachlorophenol	ND		4.9	2.4	ug/L		05/03/21 07:11	05/04/21 03:43	1
Fluoranthene	**0.34**	**J**	0.97	0.31	ug/L		05/03/21 07:11	05/04/21 03:43	1
Fluorene	ND		0.97	0.37	ug/L		05/03/21 07:11	05/04/21 03:43	1
Hexachlorobenzene	ND		0.49	0.14	ug/L		05/03/21 07:11	05/04/21 03:43	1
Hexachlorobutadiene	ND		4.9	1.1	ug/L		05/03/21 07:11	05/04/21 03:43	1
Hexachlorocyclopentadiene	ND		19	3.3	ug/L		05/03/21 07:11	05/04/21 03:43	1
Hexachloroethane	ND		4.9	0.94	ug/L		05/03/21 07:11	05/04/21 03:43	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.082	ug/L		05/03/21 07:11	05/04/21 03:43	1
Isophorone	ND		1.9	0.28	ug/L		05/03/21 07:11	05/04/21 03:43	1
Nitrobenzene	ND		0.97	0.44	ug/L		05/03/21 07:11	05/04/21 03:43	1
N-Nitrosodi-n-propylamine	ND		0.49	0.14	ug/L		05/03/21 07:11	05/04/21 03:43	1
N-Nitrosodiphenylamine	ND		1.9	0.33	ug/L		05/03/21 07:11	05/04/21 03:43	1
Phenol	ND		4.9	0.35	ug/L		05/03/21 07:11	05/04/21 03:43	1
Pyrene	ND		0.97	0.47	ug/L		05/03/21 07:11	05/04/21 03:43	1
2,4-Dimethylphenol	ND		9.7	3.2	ug/L		05/03/21 07:11	05/04/21 03:43	1

Client Sample ID: SUPE-W-04AR2-042821
Date Collected: 04/28/21 12:07
Date Received: 04/30/21 08:45

Lab Sample ID: 500-198446-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	**0.19**		0.19	0.043	ug/L		05/03/21 07:11	05/04/21 03:43	1
Phenanthrene	ND		0.97	0.34	ug/L		05/03/21 07:11	05/04/21 03:43	1
3,3'-Dichlorobenzidine	ND		4.9	0.91	ug/L		05/03/21 07:11	05/04/21 03:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*103*		*40 - 145*	*05/03/21 07:11*	*05/04/21 03:43*	*1*
2-Fluorobiphenyl	*94*		*34 - 110*	*05/03/21 07:11*	*05/04/21 03:43*	*1*
2-Fluorophenol (Surr)	*42*		*27 - 110*	*05/03/21 07:11*	*05/04/21 03:43*	*1*
Nitrobenzene-d5 (Surr)	*77*		*36 - 120*	*05/03/21 07:11*	*05/04/21 03:43*	*1*
Phenol-d5 (Surr)	*22*		*20 - 100*	*05/03/21 07:11*	*05/04/21 03:43*	*1*
Terphenyl-d14 (Surr)	*93*		*40 - 145*	*05/03/21 07:11*	*05/04/21 03:43*	*1*

Method: 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	0.24	pg/L		05/03/21 13:46	05/12/21 04:23	1
Total TCDD	ND		9.9	0.24	pg/L		05/03/21 13:46	05/12/21 04:23	1
1,2,3,7,8-PeCDD	ND		49	0.21	pg/L		05/03/21 13:46	05/12/21 04:23	1
Total PeCDD	ND		49	0.21	pg/L		05/03/21 13:46	05/12/21 04:23	1
1,2,3,4,7,8-HxCDD	**1.8**	**J**	49	0.40	pg/L		05/03/21 13:46	05/12/21 04:23	1
1,2,3,6,7,8-HxCDD	**1.6**	**J I**	49	0.37	pg/L		05/03/21 13:46	05/12/21 04:23	1
1,2,3,7,8,9-HxCDD	**1.3**	**J I**	49	0.37	pg/L		05/03/21 13:46	05/12/21 04:23	1
Total HxCDD	**25**	**J I**	49	0.38	pg/L		05/03/21 13:46	05/12/21 04:23	1
1,2,3,4,6,7,8-HpCDD	**55**		49	0.86	pg/L		05/03/21 13:46	05/12/21 04:23	1
Total HpCDD	**300**		49	0.86	pg/L		05/03/21 13:46	05/12/21 04:23	1
OCDD	**660**	**B**	99	0.18	pg/L		05/03/21 13:46	05/12/21 04:23	1
2,3,7,8-TCDF	ND		9.9	0.26	pg/L		05/03/21 13:46	05/12/21 04:23	1
Total TCDF	**0.56**	**J**	9.9	0.26	pg/L		05/03/21 13:46	05/12/21 04:23	1
1,2,3,7,8-PeCDF	ND		49	0.43	pg/L		05/03/21 13:46	05/12/21 04:23	1
2,3,4,7,8-PeCDF	ND		49	0.40	pg/L		05/03/21 13:46	05/12/21 04:23	1
Total PeCDF	**4.6**	**J I**	49	0.42	pg/L		05/03/21 13:46	05/12/21 04:23	1
1,2,3,4,7,8-HxCDF	**0.92**	**J I**	49	0.37	pg/L		05/03/21 13:46	05/12/21 04:23	1
1,2,3,6,7,8-HxCDF	**1.2**	**J**	49	0.40	pg/L		05/03/21 13:46	05/12/21 04:23	1
2,3,4,6,7,8-HxCDF	ND		49	0.42	pg/L		05/03/21 13:46	05/12/21 04:23	1
1,2,3,7,8,9-HxCDF	ND		49	0.51	pg/L		05/03/21 13:46	05/12/21 04:23	1
Total HxCDF	**25**	**J I**	49	0.42	pg/L		05/03/21 13:46	05/12/21 04:23	1
1,2,3,4,6,7,8-HpCDF	**6.4**	**J**	49	0.22	pg/L		05/03/21 13:46	05/12/21 04:23	1
1,2,3,4,7,8,9-HpCDF	ND		49	0.31	pg/L		05/03/21 13:46	05/12/21 04:23	1
Total HpCDF	**23**	**J**	49	0.26	pg/L		05/03/21 13:46	05/12/21 04:23	1
OCDF	**29**	**J B**	99	0.13	pg/L		05/03/21 13:46	05/12/21 04:23	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*80*		*40 - 135*	*05/03/21 13:46*	*05/12/21 04:23*	*1*
13C-1,2,3,7,8-PeCDD	*86*		*40 - 135*	*05/03/21 13:46*	*05/12/21 04:23*	*1*
13C-1,2,3,4,7,8-HxCDD	*79*		*40 - 135*	*05/03/21 13:46*	*05/12/21 04:23*	*1*
13C-1,2,3,6,7,8-HxCDD	*86*		*40 - 135*	*05/03/21 13:46*	*05/12/21 04:23*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*97*		*40 - 135*	*05/03/21 13:46*	*05/12/21 04:23*	*1*
13C-OCDD	*99*		*40 - 135*	*05/03/21 13:46*	*05/12/21 04:23*	*1*
13C-2,3,7,8-TCDF	*85*		*40 - 135*	*05/03/21 13:46*	*05/12/21 04:23*	*1*
13C-1,2,3,7,8-PeCDF	*88*		*40 - 135*	*05/03/21 13:46*	*05/12/21 04:23*	*1*
13C-2,3,4,7,8-PeCDF	*87*		*40 - 135*	*05/03/21 13:46*	*05/12/21 04:23*	*1*
13C-1,2,3,4,7,8-HxCDF	*97*		*40 - 135*	*05/03/21 13:46*	*05/12/21 04:23*	*1*

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-04AR2-042821
Lab Sample ID: 500-198446-4
Date Collected: 04/28/21 12:07
Matrix: Water
Date Received: 04/30/21 08:45

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,6,7,8-HxCDF	83		40 - 135	05/03/21 13:46	05/12/21 04:23	1
13C-2,3,4,6,7,8-HxCDF	87		40 - 135	05/03/21 13:46	05/12/21 04:23	1
13C-1,2,3,7,8,9-HxCDF	90		40 - 135	05/03/21 13:46	05/12/21 04:23	1
13C-1,2,3,4,6,7,8-HpCDF	96		40 - 135	05/03/21 13:46	05/12/21 04:23	1
13C-1,2,3,4,7,8,9-HpCDF	93		40 - 135	05/03/21 13:46	05/12/21 04:23	1
13C-OCDF	78		40 - 135	05/03/21 13:46	05/12/21 04:23	1

Client Sample ID: SUPE-W-30A-042821
Lab Sample ID: 500-198446-5

Date Collected: 04/28/21 14:41
Matrix: Water
Date Received: 04/30/21 08:45

Method: 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			05/04/21 15:25	1
1,2,4-Trimethylbenzene	**1.1**		1.0	0.75	ug/L			05/04/21 15:25	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/04/21 15:25	1
Benzene	**1.8**		1.0	0.41	ug/L			05/04/21 15:25	1
Chloromethane	ND		1.0	0.35	ug/L			05/04/21 15:25	1
Ethylbenzene	**4.5**		1.0	0.74	ug/L			05/04/21 15:25	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/04/21 15:25	1
m-Xylene & p-Xylene	**0.90**	**J**	2.0	0.66	ug/L			05/04/21 15:25	1
Naphthalene	**10**		1.0	0.43	ug/L			05/04/21 15:25	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/04/21 15:25	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/04/21 15:25	1
o-Xylene	**1.4**		1.0	0.76	ug/L			05/04/21 15:25	1
Styrene	ND		1.0	0.73	ug/L			05/04/21 15:25	1
Toluene	ND		1.0	0.51	ug/L			05/04/21 15:25	1
Xylenes, Total	**2.3**		2.0	0.66	ug/L			05/04/21 15:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*77 - 120*		*05/04/21 15:25*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*05/04/21 15:25*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*05/04/21 15:25*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/04/21 15:25*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		10	3.4	ug/L		05/04/21 14:51	05/06/21 17:29	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*85*		*24 - 146*	*05/04/21 14:51*	*05/06/21 17:29*	*10*
2-Fluorobiphenyl	*93*		*37 - 120*	*05/04/21 14:51*	*05/06/21 17:29*	*10*
2-Fluorophenol (Surr)	*55*		*10 - 120*	*05/04/21 14:51*	*05/06/21 17:29*	*10*
Nitrobenzene-d5 (Surr)	*81*		*26 - 120*	*05/04/21 14:51*	*05/06/21 17:29*	*10*
Phenol-d5 (Surr)	*35*		*11 - 120*	*05/04/21 14:51*	*05/06/21 17:29*	*10*
p-Terphenyl-d14	*60*	*S1-*	*64 - 127*	*05/04/21 14:51*	*05/06/21 17:29*	*10*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.1	0.31	ug/L		05/03/21 07:11	05/04/21 04:05	1
1,2-Dichlorobenzene	ND		2.1	0.30	ug/L		05/03/21 07:11	05/04/21 04:05	1
1,3-Dichlorobenzene	ND		2.1	0.26	ug/L		05/03/21 07:11	05/04/21 04:05	1
1,4-Dichlorobenzene	ND		2.1	0.28	ug/L		05/03/21 07:11	05/04/21 04:05	1
1-Methylnaphthalene	**16**		2.1	0.51	ug/L		05/03/21 07:11	05/04/21 04:05	1
bis(chloroisopropyl) ether	ND		2.1	0.31	ug/L		05/03/21 07:11	05/04/21 04:05	1
2,3,4,6-Tetrachlorophenol	ND		5.1	1.6	ug/L		05/03/21 07:11	05/04/21 04:05	1
2,4,5-Trichlorophenol	ND		10	2.4	ug/L		05/03/21 07:11	05/04/21 04:05	1
2,4,6-Trichlorophenol	ND		5.1	1.1	ug/L		05/03/21 07:11	05/04/21 04:05	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		05/03/21 07:11	05/04/21 04:05	1
2,4-Dinitrophenol	ND		21	7.6	ug/L		05/03/21 07:11	05/04/21 04:05	1
2,4-Dinitrotoluene	ND		1.0	0.31	ug/L		05/03/21 07:11	05/04/21 04:05	1
2,6-Dinitrotoluene	ND		1.0	0.12	ug/L		05/03/21 07:11	05/04/21 04:05	1
3 & 4 Methylphenol	ND		2.1	0.45	ug/L		05/03/21 07:11	05/04/21 04:05	1

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

Job ID: 500-198446-1

Client Sample ID: SUPE-W-30A-042821
Date Collected: 04/28/21 14:41
Date Received: 04/30/21 08:45

Lab Sample ID: 500-198446-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	ND		2.1	0.35	ug/L		05/03/21 07:11	05/04/21 04:05	1
2-Chlorophenol	ND		5.1	0.82	ug/L		05/03/21 07:11	05/04/21 04:05	1
2-Methylnaphthalene	ND		2.1	0.13	ug/L		05/03/21 07:11	05/04/21 04:05	1
2-Methylphenol	ND		2.1	0.32	ug/L		05/03/21 07:11	05/04/21 04:05	1
2-Nitroaniline	ND		5.1	1.1	ug/L		05/03/21 07:11	05/04/21 04:05	1
2-Nitrophenol	ND		10	2.2	ug/L		05/03/21 07:11	05/04/21 04:05	1
3-Nitroaniline	ND		10	2.4	ug/L		05/03/21 07:11	05/04/21 04:05	1
4,6-Dinitro-2-methylphenol	ND		21	5.1	ug/L		05/03/21 07:11	05/04/21 04:05	1
4-Bromophenyl phenyl ether	ND		5.1	0.93	ug/L		05/03/21 07:11	05/04/21 04:05	1
4-Chloro-3-methylphenol	ND		10	2.3	ug/L		05/03/21 07:11	05/04/21 04:05	1
4-Chloroaniline	ND		10	2.2	ug/L		05/03/21 07:11	05/04/21 04:05	1
4-Chlorophenyl phenyl ether	ND		5.1	0.83	ug/L		05/03/21 07:11	05/04/21 04:05	1
4-Nitroaniline	ND		10	4.0	ug/L		05/03/21 07:11	05/04/21 04:05	1
4-Nitrophenol	ND		21	2.4	ug/L		05/03/21 07:11	05/04/21 04:05	1
Acenaphthene	**42**		1.0	0.37	ug/L		05/03/21 07:11	05/04/21 04:05	1
Acenaphthylene	**1.0**		1.0	0.33	ug/L		05/03/21 07:11	05/04/21 04:05	1
Anthracene	**1.1**		1.0	0.33	ug/L		05/03/21 07:11	05/04/21 04:05	1
Benzo[a]pyrene	**0.11**	**J**	0.21	0.058	ug/L		05/03/21 07:11	05/04/21 04:05	1
Benzo[b]fluoranthene	**0.16**	**J**	0.21	0.060	ug/L		05/03/21 07:11	05/04/21 04:05	1
Benzo[g,h,i]perylene	ND		1.0	0.43	ug/L		05/03/21 07:11	05/04/21 04:05	1
Benzo[k]fluoranthene	**0.091**	**J**	0.21	0.076	ug/L		05/03/21 07:11	05/04/21 04:05	1
Benzoic acid	ND		21	4.7	ug/L		05/03/21 07:11	05/04/21 04:05	1
Benzyl alcohol	ND		21	3.1	ug/L		05/03/21 07:11	05/04/21 04:05	1
Bis(2-chloroethoxy)methane	ND		2.1	0.31	ug/L		05/03/21 07:11	05/04/21 04:05	1
Bis(2-chloroethyl)ether	ND		2.1	0.36	ug/L		05/03/21 07:11	05/04/21 04:05	1
Bis(2-ethylhexyl) phthalate	ND		10	2.5	ug/L		05/03/21 07:11	05/04/21 04:05	1
Butyl benzyl phthalate	ND		2.1	0.28	ug/L		05/03/21 07:11	05/04/21 04:05	1
Chrysene	**0.29**	**J**	0.51	0.14	ug/L		05/03/21 07:11	05/04/21 04:05	1
Dibenz(a,h)anthracene	ND		0.31	0.066	ug/L		05/03/21 07:11	05/04/21 04:05	1
Dibenzofuran	**15**		2.1	0.36	ug/L		05/03/21 07:11	05/04/21 04:05	1
Diethyl phthalate	ND		2.1	0.45	ug/L		05/03/21 07:11	05/04/21 04:05	1
Dimethyl phthalate	ND		2.1	0.39	ug/L		05/03/21 07:11	05/04/21 04:05	1
Di-n-butyl phthalate	ND		5.1	0.82	ug/L		05/03/21 07:11	05/04/21 04:05	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		05/03/21 07:11	05/04/21 04:05	1
2,3,5,6-Tetrachlorophenol	ND		5.1	2.6	ug/L		05/03/21 07:11	05/04/21 04:05	1
Fluoranthene	**1.8**		1.0	0.33	ug/L		05/03/21 07:11	05/04/21 04:05	1
Fluorene	**14**		1.0	0.39	ug/L		05/03/21 07:11	05/04/21 04:05	1
Hexachlorobenzene	ND		0.51	0.14	ug/L		05/03/21 07:11	05/04/21 04:05	1
Hexachlorobutadiene	ND		5.1	1.1	ug/L		05/03/21 07:11	05/04/21 04:05	1
Hexachlorocyclopentadiene	ND		21	3.5	ug/L		05/03/21 07:11	05/04/21 04:05	1
Hexachloroethane	ND		5.1	1.0	ug/L		05/03/21 07:11	05/04/21 04:05	1
Indeno[1,2,3-cd]pyrene	ND		0.21	0.086	ug/L		05/03/21 07:11	05/04/21 04:05	1
Isophorone	ND		2.1	0.30	ug/L		05/03/21 07:11	05/04/21 04:05	1
Nitrobenzene	ND		1.0	0.46	ug/L		05/03/21 07:11	05/04/21 04:05	1
N-Nitrosodi-n-propylamine	ND		0.51	0.14	ug/L		05/03/21 07:11	05/04/21 04:05	1
N-Nitrosodiphenylamine	ND		2.1	0.35	ug/L		05/03/21 07:11	05/04/21 04:05	1
Phenol	ND		5.1	0.37	ug/L		05/03/21 07:11	05/04/21 04:05	1
Pyrene	**1.2**		1.0	0.49	ug/L		05/03/21 07:11	05/04/21 04:05	1
2,4-Dimethylphenol	ND		10	3.4	ug/L		05/03/21 07:11	05/04/21 04:05	1

Client Sample ID: SUPE-W-30A-042821
Lab Sample ID: 500-198446-5

Date Collected: 04/28/21 14:41
Matrix: Water
Date Received: 04/30/21 08:45

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	**0.24**		0.21	0.045	ug/L		05/03/21 07:11	05/04/21 04:05	1
Phenanthrene	**4.7**		1.0	0.36	ug/L		05/03/21 07:11	05/04/21 04:05	1
3,3'-Dichlorobenzidine	ND		5.1	0.97	ug/L		05/03/21 07:11	05/04/21 04:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*102*		*40 - 145*	*05/03/21 07:11*	*05/04/21 04:05*	*1*
2-Fluorobiphenyl	*92*		*34 - 110*	*05/03/21 07:11*	*05/04/21 04:05*	*1*
2-Fluorophenol (Surr)	*45*		*27 - 110*	*05/03/21 07:11*	*05/04/21 04:05*	*1*
Nitrobenzene-d5 (Surr)	*78*		*36 - 120*	*05/03/21 07:11*	*05/04/21 04:05*	*1*
Phenol-d5 (Surr)	*24*		*20 - 100*	*05/03/21 07:11*	*05/04/21 04:05*	*1*
Terphenyl-d14 (Surr)	*83*		*40 - 145*	*05/03/21 07:11*	*05/04/21 04:05*	*1*

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		11	0.056	pg/L		05/03/21 13:46	05/12/21 11:51	1
Total TCDD	**0.12**	**J I**	11	0.056	pg/L		05/03/21 13:46	05/12/21 11:51	1
1,2,3,7,8-PeCDD	**0.34**	**J I**	53	0.069	pg/L		05/03/21 13:46	05/12/21 11:51	1
Total PeCDD	**1.3**	**J I**	53	0.069	pg/L		05/03/21 13:46	05/12/21 11:51	1
1,2,3,4,7,8-HxCDD	**1.6**	**J I**	53	0.15	pg/L		05/03/21 13:46	05/12/21 11:51	1
1,2,3,6,7,8-HxCDD	**4.7**	**J**	53	0.14	pg/L		05/03/21 13:46	05/12/21 11:51	1
1,2,3,7,8,9-HxCDD	**1.7**	**J**	53	0.14	pg/L		05/03/21 13:46	05/12/21 11:51	1
Total HxCDD	**30**	**J I**	53	0.14	pg/L		05/03/21 13:46	05/12/21 11:51	1
1,2,3,4,6,7,8-HpCDD	**170**		53	0.48	pg/L		05/03/21 13:46	05/12/21 11:51	1
Total HpCDD	**430**		53	0.48	pg/L		05/03/21 13:46	05/12/21 11:51	1
OCDD	**2100**	**B**	110	0.036	pg/L		05/03/21 13:46	05/12/21 11:51	1
2,3,7,8-TCDF	**0.27**	**J**	11	0.092	pg/L		05/03/21 13:46	05/12/21 11:51	1
Total TCDF	**18**	**I**	11	0.092	pg/L		05/03/21 13:46	05/12/21 11:51	1
1,2,3,7,8-PeCDF	**0.84**	**J**	53	0.23	pg/L		05/03/21 13:46	05/12/21 11:51	1
2,3,4,7,8-PeCDF	**0.98**	**J**	53	0.21	pg/L		05/03/21 13:46	05/12/21 11:51	1
Total PeCDF	**96**	**I**	53	0.22	pg/L		05/03/21 13:46	05/12/21 11:51	1
1,2,3,4,7,8-HxCDF	**6.4**	**J**	53	1.2	pg/L		05/03/21 13:46	05/12/21 11:51	1
1,2,3,6,7,8-HxCDF	**12**	**J**	53	1.3	pg/L		05/03/21 13:46	05/12/21 11:51	1
2,3,4,6,7,8-HxCDF	ND		53	1.3	pg/L		05/03/21 13:46	05/12/21 11:51	1
1,2,3,7,8,9-HxCDF	ND		53	1.5	pg/L		05/03/21 13:46	05/12/21 11:51	1
Total HxCDF	**130**	**I**	53	1.3	pg/L		05/03/21 13:46	05/12/21 11:51	1
1,2,3,4,6,7,8-HpCDF	**46**	**J**	53	0.14	pg/L		05/03/21 13:46	05/12/21 11:51	1
1,2,3,4,7,8,9-HpCDF	**4.7**	**J**	53	0.20	pg/L		05/03/21 13:46	05/12/21 11:51	1
Total HpCDF	**180**	**I**	53	0.17	pg/L		05/03/21 13:46	05/12/21 11:51	1
OCDF	**170**	**B**	110	0.080	pg/L		05/03/21 13:46	05/12/21 11:51	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*77*		*40 - 135*	*05/03/21 13:46*	*05/12/21 11:51*	*1*
13C-1,2,3,7,8-PeCDD	*80*		*40 - 135*	*05/03/21 13:46*	*05/12/21 11:51*	*1*
13C-1,2,3,4,7,8-HxCDD	*82*		*40 - 135*	*05/03/21 13:46*	*05/12/21 11:51*	*1*
13C-1,2,3,6,7,8-HxCDD	*84*		*40 - 135*	*05/03/21 13:46*	*05/12/21 11:51*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*94*		*40 - 135*	*05/03/21 13:46*	*05/12/21 11:51*	*1*
13C-OCDD	*104*		*40 - 135*	*05/03/21 13:46*	*05/12/21 11:51*	*1*
13C-2,3,7,8-TCDF	*80*		*40 - 135*	*05/03/21 13:46*	*05/12/21 11:51*	*1*
13C-1,2,3,7,8-PeCDF	*81*		*40 - 135*	*05/03/21 13:46*	*05/12/21 11:51*	*1*
13C-2,3,4,7,8-PeCDF	*78*		*40 - 135*	*05/03/21 13:46*	*05/12/21 11:51*	*1*
13C-1,2,3,4,7,8-HxCDF	*93*		*40 - 135*	*05/03/21 13:46*	*05/12/21 11:51*	*1*

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-30A-042821
Lab Sample ID: 500-198446-5
Date Collected: 04/28/21 14:41
Matrix: Water
Date Received: 04/30/21 08:45

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,6,7,8-HxCDF	79		40 - 135	05/03/21 13:46	05/12/21 11:51	1
13C-2,3,4,6,7,8-HxCDF	82		40 - 135	05/03/21 13:46	05/12/21 11:51	1
13C-1,2,3,7,8,9-HxCDF	91		40 - 135	05/03/21 13:46	05/12/21 11:51	1
13C-1,2,3,4,6,7,8-HpCDF	92		40 - 135	05/03/21 13:46	05/12/21 11:51	1
13C-1,2,3,4,7,8,9-HpCDF	91		40 - 135	05/03/21 13:46	05/12/21 11:51	1
13C-OCDF	77		40 - 135	05/03/21 13:46	05/12/21 11:51	1

Client Sample ID: SUPE-W-10AR2-042821
Lab Sample ID: 500-198446-6

Date Collected: 04/28/21 16:53
Matrix: Water
Date Received: 04/30/21 08:45

Method: 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			05/04/21 02:12	1
1,2,4-Trimethylbenzene	**9.0**		1.0	0.75	ug/L			05/04/21 02:12	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/04/21 02:12	1
Benzene	**15**		1.0	0.41	ug/L			05/04/21 02:12	1
Chloromethane	ND		1.0	0.35	ug/L			05/04/21 02:12	1
Ethylbenzene	**21**		1.0	0.74	ug/L			05/04/21 02:12	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/04/21 02:12	1
m-Xylene & p-Xylene	**2.6**		2.0	0.66	ug/L			05/04/21 02:12	1
Naphthalene	**6.3**		1.0	0.43	ug/L			05/04/21 02:12	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/04/21 02:12	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/04/21 02:12	1
o-Xylene	**16**		1.0	0.76	ug/L			05/04/21 02:12	1
Styrene	ND		1.0	0.73	ug/L			05/04/21 02:12	1
Toluene	**1.0**		1.0	0.51	ug/L			05/04/21 02:12	1
Xylenes, Total	**19**		2.0	0.66	ug/L			05/04/21 02:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*77 - 120*		*05/04/21 02:12*	*1*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*05/04/21 02:12*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 123*		*05/04/21 02:12*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*05/04/21 02:12*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		5.0	1.7	ug/L		05/04/21 14:51	05/06/21 17:56	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*94*		*24 - 146*	*05/04/21 14:51*	*05/06/21 17:56*	*5*
2-Fluorobiphenyl	*90*		*37 - 120*	*05/04/21 14:51*	*05/06/21 17:56*	*5*
2-Fluorophenol (Surr)	*45*		*10 - 120*	*05/04/21 14:51*	*05/06/21 17:56*	*5*
Nitrobenzene-d5 (Surr)	*75*		*26 - 120*	*05/04/21 14:51*	*05/06/21 17:56*	*5*
Phenol-d5 (Surr)	*31*		*11 - 120*	*05/04/21 14:51*	*05/06/21 17:56*	*5*
p-Terphenyl-d14	*74*		*64 - 127*	*05/04/21 14:51*	*05/06/21 17:56*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.0	0.30	ug/L		05/03/21 07:11	05/04/21 04:26	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		05/03/21 07:11	05/04/21 04:26	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		05/03/21 07:11	05/04/21 04:26	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		05/03/21 07:11	05/04/21 04:26	1
1-Methylnaphthalene	**23**		2.0	0.51	ug/L		05/03/21 07:11	05/04/21 04:26	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		05/03/21 07:11	05/04/21 04:26	1
2,3,4,6-Tetrachlorophenol	ND		5.1	1.5	ug/L		05/03/21 07:11	05/04/21 04:26	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		05/03/21 07:11	05/04/21 04:26	1
2,4,6-Trichlorophenol	ND		5.1	1.1	ug/L		05/03/21 07:11	05/04/21 04:26	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		05/03/21 07:11	05/04/21 04:26	1
2,4-Dinitrophenol	ND		20	7.5	ug/L		05/03/21 07:11	05/04/21 04:26	1
2,4-Dinitrotoluene	ND		1.0	0.30	ug/L		05/03/21 07:11	05/04/21 04:26	1
2,6-Dinitrotoluene	ND		1.0	0.12	ug/L		05/03/21 07:11	05/04/21 04:26	1
3 & 4 Methylphenol	ND		2.0	0.45	ug/L		05/03/21 07:11	05/04/21 04:26	1

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

Job ID: 500-198446-1

Client Sample ID: SUPE-W-10AR2-042821
Date Collected: 04/28/21 16:53
Date Received: 04/30/21 08:45

Lab Sample ID: 500-198446-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	ND		2.0	0.34	ug/L		05/03/21 07:11	05/04/21 04:26	1
2-Chlorophenol	ND		5.1	0.81	ug/L		05/03/21 07:11	05/04/21 04:26	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		05/03/21 07:11	05/04/21 04:26	1
2-Methylphenol	ND		2.0	0.31	ug/L		05/03/21 07:11	05/04/21 04:26	1
2-Nitroaniline	ND		5.1	1.1	ug/L		05/03/21 07:11	05/04/21 04:26	1
2-Nitrophenol	ND		10	2.2	ug/L		05/03/21 07:11	05/04/21 04:26	1
3-Nitroaniline	ND		10	2.3	ug/L		05/03/21 07:11	05/04/21 04:26	1
4,6-Dinitro-2-methylphenol	ND		20	5.0	ug/L		05/03/21 07:11	05/04/21 04:26	1
4-Bromophenyl phenyl ether	ND		5.1	0.92	ug/L		05/03/21 07:11	05/04/21 04:26	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		05/03/21 07:11	05/04/21 04:26	1
4-Chloroaniline	ND		10	2.1	ug/L		05/03/21 07:11	05/04/21 04:26	1
4-Chlorophenyl phenyl ether	ND		5.1	0.82	ug/L		05/03/21 07:11	05/04/21 04:26	1
4-Nitroaniline	ND		10	4.0	ug/L		05/03/21 07:11	05/04/21 04:26	1
4-Nitrophenol	ND		20	2.4	ug/L		05/03/21 07:11	05/04/21 04:26	1
Acenaphthene	**68**		1.0	0.36	ug/L		05/03/21 07:11	05/04/21 04:26	1
Acenaphthylene	**1.8**		1.0	0.32	ug/L		05/03/21 07:11	05/04/21 04:26	1
Anthracene	**0.82**	**J**	1.0	0.32	ug/L		05/03/21 07:11	05/04/21 04:26	1
Benzo[a]pyrene	ND		0.20	0.057	ug/L		05/03/21 07:11	05/04/21 04:26	1
Benzo[b]fluoranthene	**0.090**	**J**	0.20	0.059	ug/L		05/03/21 07:11	05/04/21 04:26	1
Benzo[g,h,i]perylene	ND		1.0	0.43	ug/L		05/03/21 07:11	05/04/21 04:26	1
Benzo[k]fluoranthene	ND		0.20	0.075	ug/L		05/03/21 07:11	05/04/21 04:26	1
Benzoic acid	ND		20	4.6	ug/L		05/03/21 07:11	05/04/21 04:26	1
Benzyl alcohol	ND		20	3.1	ug/L		05/03/21 07:11	05/04/21 04:26	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		05/03/21 07:11	05/04/21 04:26	1
Bis(2-chloroethyl)ether	ND		2.0	0.35	ug/L		05/03/21 07:11	05/04/21 04:26	1
Bis(2-ethylhexyl) phthalate	ND		10	2.5	ug/L		05/03/21 07:11	05/04/21 04:26	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		05/03/21 07:11	05/04/21 04:26	1
Chrysene	**0.16**	**J**	0.51	0.14	ug/L		05/03/21 07:11	05/04/21 04:26	1
Dibenz(a,h)anthracene	ND		0.30	0.065	ug/L		05/03/21 07:11	05/04/21 04:26	1
Dibenzofuran	ND		2.0	0.35	ug/L		05/03/21 07:11	05/04/21 04:26	1
Diethyl phthalate	ND		2.0	0.45	ug/L		05/03/21 07:11	05/04/21 04:26	1
Dimethyl phthalate	ND		2.0	0.38	ug/L		05/03/21 07:11	05/04/21 04:26	1
Di-n-butyl phthalate	ND		5.1	0.81	ug/L		05/03/21 07:11	05/04/21 04:26	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		05/03/21 07:11	05/04/21 04:26	1
2,3,5,6-Tetrachlorophenol	ND		5.1	2.5	ug/L		05/03/21 07:11	05/04/21 04:26	1
Fluoranthene	**2.0**		1.0	0.32	ug/L		05/03/21 07:11	05/04/21 04:26	1
Fluorene	**21**		1.0	0.38	ug/L		05/03/21 07:11	05/04/21 04:26	1
Hexachlorobenzene	ND		0.51	0.14	ug/L		05/03/21 07:11	05/04/21 04:26	1
Hexachlorobutadiene	ND		5.1	1.1	ug/L		05/03/21 07:11	05/04/21 04:26	1
Hexachlorocyclopentadiene	ND		20	3.5	ug/L		05/03/21 07:11	05/04/21 04:26	1
Hexachloroethane	ND		5.1	0.98	ug/L		05/03/21 07:11	05/04/21 04:26	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.085	ug/L		05/03/21 07:11	05/04/21 04:26	1
Isophorone	ND		2.0	0.29	ug/L		05/03/21 07:11	05/04/21 04:26	1
Nitrobenzene	ND		1.0	0.46	ug/L		05/03/21 07:11	05/04/21 04:26	1
N-Nitrosodi-n-propylamine	ND		0.51	0.14	ug/L		05/03/21 07:11	05/04/21 04:26	1
N-Nitrosodiphenylamine	ND		2.0	0.34	ug/L		05/03/21 07:11	05/04/21 04:26	1
Phenol	**0.71**	**J**	5.1	0.36	ug/L		05/03/21 07:11	05/04/21 04:26	1
Pyrene	**1.2**		1.0	0.49	ug/L		05/03/21 07:11	05/04/21 04:26	1
2,4-Dimethylphenol	ND		10	3.4	ug/L		05/03/21 07:11	05/04/21 04:26	1

Client Sample ID: SUPE-W-10AR2-042821
Lab Sample ID: 500-198446-6

Date Collected: 04/28/21 16:53
Matrix: Water
Date Received: 04/30/21 08:45

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	**0.13**	**J**	0.20	0.045	ug/L		05/03/21 07:11	05/04/21 04:26	1
Phenanthrene	**4.7**		1.0	0.35	ug/L		05/03/21 07:11	05/04/21 04:26	1
3,3'-Dichlorobenzidine	ND		5.1	0.95	ug/L		05/03/21 07:11	05/04/21 04:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*98*		*40 - 145*	*05/03/21 07:11*	*05/04/21 04:26*	*1*
2-Fluorobiphenyl	*95*		*34 - 110*	*05/03/21 07:11*	*05/04/21 04:26*	*1*
2-Fluorophenol (Surr)	*53*		*27 - 110*	*05/03/21 07:11*	*05/04/21 04:26*	*1*
Nitrobenzene-d5 (Surr)	*80*		*36 - 120*	*05/03/21 07:11*	*05/04/21 04:26*	*1*
Phenol-d5 (Surr)	*28*		*20 - 100*	*05/03/21 07:11*	*05/04/21 04:26*	*1*
Terphenyl-d14 (Surr)	*81*		*40 - 145*	*05/03/21 07:11*	*05/04/21 04:26*	*1*

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		10	0.25	pg/L		05/03/21 13:46	05/12/21 06:23	1
Total TCDD	ND		10	0.25	pg/L		05/03/21 13:46	05/12/21 06:23	1
1,2,3,7,8-PeCDD	ND		52	0.40	pg/L		05/03/21 13:46	05/12/21 06:23	1
Total PeCDD	ND		52	0.40	pg/L		05/03/21 13:46	05/12/21 06:23	1
1,2,3,4,7,8-HxCDD	**1.0**	**J I**	52	0.43	pg/L		05/03/21 13:46	05/12/21 06:23	1
1,2,3,6,7,8-HxCDD	**0.66**	**J I**	52	0.39	pg/L		05/03/21 13:46	05/12/21 06:23	1
1,2,3,7,8,9-HxCDD	**0.90**	**J I**	52	0.39	pg/L		05/03/21 13:46	05/12/21 06:23	1
Total HxCDD	**7.4**	**J I**	52	0.40	pg/L		05/03/21 13:46	05/12/21 06:23	1
1,2,3,4,6,7,8-HpCDD	**20**	**J**	52	0.84	pg/L		05/03/21 13:46	05/12/21 06:23	1
Total HpCDD	**65**		52	0.84	pg/L		05/03/21 13:46	05/12/21 06:23	1
OCDD	**170**	**B**	100	0.18	pg/L		05/03/21 13:46	05/12/21 06:23	1
2,3,7,8-TCDF	ND		10	0.27	pg/L		05/03/21 13:46	05/12/21 06:23	1
Total TCDF	**6.3**	**J I**	10	0.27	pg/L		05/03/21 13:46	05/12/21 06:23	1
1,2,3,7,8-PeCDF	ND		52	0.29	pg/L		05/03/21 13:46	05/12/21 06:23	1
2,3,4,7,8-PeCDF	ND		52	0.27	pg/L		05/03/21 13:46	05/12/21 06:23	1
Total PeCDF	**17**	**J I**	52	0.28	pg/L		05/03/21 13:46	05/12/21 06:23	1
1,2,3,4,7,8-HxCDF	ND		52	0.53	pg/L		05/03/21 13:46	05/12/21 06:23	1
1,2,3,6,7,8-HxCDF	**1.5**	**J I**	52	0.58	pg/L		05/03/21 13:46	05/12/21 06:23	1
2,3,4,6,7,8-HxCDF	ND		52	0.60	pg/L		05/03/21 13:46	05/12/21 06:23	1
1,2,3,7,8,9-HxCDF	ND		52	0.71	pg/L		05/03/21 13:46	05/12/21 06:23	1
Total HxCDF	**22**	**J I**	52	0.60	pg/L		05/03/21 13:46	05/12/21 06:23	1
1,2,3,4,6,7,8-HpCDF	**3.5**	**J**	52	0.27	pg/L		05/03/21 13:46	05/12/21 06:23	1
1,2,3,4,7,8,9-HpCDF	ND		52	0.38	pg/L		05/03/21 13:46	05/12/21 06:23	1
Total HpCDF	**12**	**J**	52	0.33	pg/L		05/03/21 13:46	05/12/21 06:23	1
OCDF	**14**	**J B**	100	0.11	pg/L		05/03/21 13:46	05/12/21 06:23	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*82*		*40 - 135*	*05/03/21 13:46*	*05/12/21 06:23*	*1*
13C-1,2,3,7,8-PeCDD	*82*		*40 - 135*	*05/03/21 13:46*	*05/12/21 06:23*	*1*
13C-1,2,3,4,7,8-HxCDD	*77*		*40 - 135*	*05/03/21 13:46*	*05/12/21 06:23*	*1*
13C-1,2,3,6,7,8-HxCDD	*87*		*40 - 135*	*05/03/21 13:46*	*05/12/21 06:23*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*93*		*40 - 135*	*05/03/21 13:46*	*05/12/21 06:23*	*1*
13C-OCDD	*103*		*40 - 135*	*05/03/21 13:46*	*05/12/21 06:23*	*1*
13C-2,3,7,8-TCDF	*88*		*40 - 135*	*05/03/21 13:46*	*05/12/21 06:23*	*1*
13C-1,2,3,7,8-PeCDF	*89*		*40 - 135*	*05/03/21 13:46*	*05/12/21 06:23*	*1*
13C-2,3,4,7,8-PeCDF	*85*		*40 - 135*	*05/03/21 13:46*	*05/12/21 06:23*	*1*
13C-1,2,3,4,7,8-HxCDF	*98*		*40 - 135*	*05/03/21 13:46*	*05/12/21 06:23*	*1*

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

Job ID: 500-198446-1

Client Sample ID: SUPE-W-10AR2-042821
Date Collected: 04/28/21 16:53
Date Received: 04/30/21 08:45

Lab Sample ID: 500-198446-6
Matrix: Water

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,6,7,8-HxCDF	84		40 - 135	05/03/21 13:46	05/12/21 06:23	1
13C-2,3,4,6,7,8-HxCDF	86		40 - 135	05/03/21 13:46	05/12/21 06:23	1
13C-1,2,3,7,8,9-HxCDF	92		40 - 135	05/03/21 13:46	05/12/21 06:23	1
13C-1,2,3,4,6,7,8-HpCDF	95		40 - 135	05/03/21 13:46	05/12/21 06:23	1
13C-1,2,3,4,7,8,9-HpCDF	91		40 - 135	05/03/21 13:46	05/12/21 06:23	1
13C-OCDF	77		40 - 135	05/03/21 13:46	05/12/21 06:23	1

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-M-99A-042821
Lab Sample ID: 500-198446-7
Date Collected: 04/28/21 22:00
Matrix: Water
Date Received: 04/30/21 08:45

Method: 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			05/04/21 02:35	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/04/21 02:35	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/04/21 02:35	1
Benzene	ND		1.0	0.41	ug/L			05/04/21 02:35	1
Chloromethane	ND		1.0	0.35	ug/L			05/04/21 02:35	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/04/21 02:35	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/04/21 02:35	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/04/21 02:35	1
Naphthalene	ND		1.0	0.43	ug/L			05/04/21 02:35	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/04/21 02:35	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/04/21 02:35	1
o-Xylene	ND		1.0	0.76	ug/L			05/04/21 02:35	1
Styrene	ND		1.0	0.73	ug/L			05/04/21 02:35	1
Toluene	ND		1.0	0.51	ug/L			05/04/21 02:35	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/04/21 02:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*77 - 120*		*05/04/21 02:35*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*05/04/21 02:35*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*05/04/21 02:35*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/04/21 02:35*	*1*

Method: 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	0.34	ug/L		05/04/21 14:51	05/06/21 18:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*87*		*24 - 146*	*05/04/21 14:51*	*05/06/21 18:23*	*1*
2-Fluorobiphenyl	*95*		*37 - 120*	*05/04/21 14:51*	*05/06/21 18:23*	*1*
2-Fluorophenol (Surr)	*49*		*10 - 120*	*05/04/21 14:51*	*05/06/21 18:23*	*1*
Nitrobenzene-d5 (Surr)	*81*		*26 - 120*	*05/04/21 14:51*	*05/06/21 18:23*	*1*
Phenol-d5 (Surr)	*32*		*11 - 120*	*05/04/21 14:51*	*05/06/21 18:23*	*1*
p-Terphenyl-d14	*103*		*64 - 127*	*05/04/21 14:51*	*05/06/21 18:23*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.9	0.29	ug/L		05/03/21 07:11	05/04/21 04:47	1
1,2-Dichlorobenzene	ND		1.9	0.28	ug/L		05/03/21 07:11	05/04/21 04:47	1
1,3-Dichlorobenzene	ND		1.9	0.24	ug/L		05/03/21 07:11	05/04/21 04:47	1
1,4-Dichlorobenzene	ND		1.9	0.26	ug/L		05/03/21 07:11	05/04/21 04:47	1
1-Methylnaphthalene	ND		1.9	0.49	ug/L		05/03/21 07:11	05/04/21 04:47	1
bis(chloroisopropyl) ether	ND		1.9	0.29	ug/L		05/03/21 07:11	05/04/21 04:47	1
2,3,4,6-Tetrachlorophenol	ND		4.9	1.5	ug/L		05/03/21 07:11	05/04/21 04:47	1
2,4,5-Trichlorophenol	ND		9.7	2.2	ug/L		05/03/21 07:11	05/04/21 04:47	1
2,4,6-Trichlorophenol	ND		4.9	1.1	ug/L		05/03/21 07:11	05/04/21 04:47	1
2,4-Dichlorophenol	ND		9.7	2.2	ug/L		05/03/21 07:11	05/04/21 04:47	1
2,4-Dinitrophenol	ND		19	7.2	ug/L		05/03/21 07:11	05/04/21 04:47	1
2,4-Dinitrotoluene	ND		0.97	0.29	ug/L		05/03/21 07:11	05/04/21 04:47	1
2,6-Dinitrotoluene	ND		0.97	0.12	ug/L		05/03/21 07:11	05/04/21 04:47	1
3 & 4 Methylphenol	ND		1.9	0.43	ug/L		05/03/21 07:11	05/04/21 04:47	1

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-M-99A-042821
Lab Sample ID: 500-198446-7
Date Collected: 04/28/21 22:00
Matrix: Water
Date Received: 04/30/21 08:45

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	ND		1.9	0.33	ug/L		05/03/21 07:11	05/04/21 04:47	1
2-Chlorophenol	ND		4.9	0.78	ug/L		05/03/21 07:11	05/04/21 04:47	1
2-Methylnaphthalene	ND		1.9	0.13	ug/L		05/03/21 07:11	05/04/21 04:47	1
2-Methylphenol	ND		1.9	0.30	ug/L		05/03/21 07:11	05/04/21 04:47	1
2-Nitroaniline	ND		4.9	1.0	ug/L		05/03/21 07:11	05/04/21 04:47	1
2-Nitrophenol	ND		9.7	2.1	ug/L		05/03/21 07:11	05/04/21 04:47	1
3-Nitroaniline	ND		9.7	2.2	ug/L		05/03/21 07:11	05/04/21 04:47	1
4,6-Dinitro-2-methylphenol	ND		19	4.8	ug/L		05/03/21 07:11	05/04/21 04:47	1
4-Bromophenyl phenyl ether	ND		4.9	0.88	ug/L		05/03/21 07:11	05/04/21 04:47	1
4-Chloro-3-methylphenol	ND		9.7	2.1	ug/L		05/03/21 07:11	05/04/21 04:47	1
4-Chloroaniline	ND		9.7	2.0	ug/L		05/03/21 07:11	05/04/21 04:47	1
4-Chlorophenyl phenyl ether	ND		4.9	0.79	ug/L		05/03/21 07:11	05/04/21 04:47	1
4-Nitroaniline	ND		9.7	3.8	ug/L		05/03/21 07:11	05/04/21 04:47	1
4-Nitrophenol	ND		19	2.3	ug/L		05/03/21 07:11	05/04/21 04:47	1
Acenaphthene	ND		0.97	0.35	ug/L		05/03/21 07:11	05/04/21 04:47	1
Acenaphthylene	ND		0.97	0.31	ug/L		05/03/21 07:11	05/04/21 04:47	1
Anthracene	ND		0.97	0.31	ug/L		05/03/21 07:11	05/04/21 04:47	1
Benzo[a]pyrene	ND		0.19	0.054	ug/L		05/03/21 07:11	05/04/21 04:47	1
Benzo[b]fluoranthene	ND		0.19	0.056	ug/L		05/03/21 07:11	05/04/21 04:47	1
Benzo[g,h,i]perylene	ND		0.97	0.41	ug/L		05/03/21 07:11	05/04/21 04:47	1
Benzo[k]fluoranthene	ND		0.19	0.072	ug/L		05/03/21 07:11	05/04/21 04:47	1
Benzoic acid	ND		19	4.4	ug/L		05/03/21 07:11	05/04/21 04:47	1
Benzyl alcohol	ND		19	3.0	ug/L		05/03/21 07:11	05/04/21 04:47	1
Bis(2-chloroethoxy)methane	ND		1.9	0.29	ug/L		05/03/21 07:11	05/04/21 04:47	1
Bis(2-chloroethyl)ether	ND		1.9	0.34	ug/L		05/03/21 07:11	05/04/21 04:47	1
Bis(2-ethylhexyl) phthalate	ND		9.7	2.4	ug/L		05/03/21 07:11	05/04/21 04:47	1
Butyl benzyl phthalate	ND		1.9	0.26	ug/L		05/03/21 07:11	05/04/21 04:47	1
Chrysene	ND		0.49	0.14	ug/L		05/03/21 07:11	05/04/21 04:47	1
Dibenz(a,h)anthracene	ND		0.29	0.062	ug/L		05/03/21 07:11	05/04/21 04:47	1
Dibenzofuran	ND		1.9	0.34	ug/L		05/03/21 07:11	05/04/21 04:47	1
Diethyl phthalate	ND		1.9	0.43	ug/L		05/03/21 07:11	05/04/21 04:47	1
Dimethyl phthalate	ND		1.9	0.37	ug/L		05/03/21 07:11	05/04/21 04:47	1
Di-n-butyl phthalate	ND		4.9	0.78	ug/L		05/03/21 07:11	05/04/21 04:47	1
Di-n-octyl phthalate	ND		9.7	2.4	ug/L		05/03/21 07:11	05/04/21 04:47	1
2,3,5,6-Tetrachlorophenol	ND		4.9	2.4	ug/L		05/03/21 07:11	05/04/21 04:47	1
Fluoranthene	ND		0.97	0.31	ug/L		05/03/21 07:11	05/04/21 04:47	1
Fluorene	ND		0.97	0.37	ug/L		05/03/21 07:11	05/04/21 04:47	1
Hexachlorobenzene	ND		0.49	0.14	ug/L		05/03/21 07:11	05/04/21 04:47	1
Hexachlorobutadiene	ND		4.9	1.1	ug/L		05/03/21 07:11	05/04/21 04:47	1
Hexachlorocyclopentadiene	ND		19	3.3	ug/L		05/03/21 07:11	05/04/21 04:47	1
Hexachloroethane	ND		4.9	0.94	ug/L		05/03/21 07:11	05/04/21 04:47	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.082	ug/L		05/03/21 07:11	05/04/21 04:47	1
Isophorone	ND		1.9	0.28	ug/L		05/03/21 07:11	05/04/21 04:47	1
Nitrobenzene	ND		0.97	0.44	ug/L		05/03/21 07:11	05/04/21 04:47	1
N-Nitrosodi-n-propylamine	ND		0.49	0.14	ug/L		05/03/21 07:11	05/04/21 04:47	1
N-Nitrosodiphenylamine	ND		1.9	0.33	ug/L		05/03/21 07:11	05/04/21 04:47	1
Phenol	ND		4.9	0.35	ug/L		05/03/21 07:11	05/04/21 04:47	1
Pyrene	ND		0.97	0.47	ug/L		05/03/21 07:11	05/04/21 04:47	1
2,4-Dimethylphenol	ND		9.7	3.2	ug/L		05/03/21 07:11	05/04/21 04:47	1

Client Sample ID: SUPE-M-99A-042821
Lab Sample ID: 500-198446-7

Date Collected: 04/28/21 22:00
Matrix: Water
Date Received: 04/30/21 08:45

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	**0.047**	**J**	0.19	0.043	ug/L		05/03/21 07:11	05/04/21 04:47	1
Phenanthrene	ND		0.97	0.34	ug/L		05/03/21 07:11	05/04/21 04:47	1
3,3'-Dichlorobenzidine	ND		4.9	0.91	ug/L		05/03/21 07:11	05/04/21 04:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*98*		*40 - 145*	*05/03/21 07:11*	*05/04/21 04:47*	*1*
2-Fluorobiphenyl	*96*		*34 - 110*	*05/03/21 07:11*	*05/04/21 04:47*	*1*
2-Fluorophenol (Surr)	*46*		*27 - 110*	*05/03/21 07:11*	*05/04/21 04:47*	*1*
Nitrobenzene-d5 (Surr)	*77*		*36 - 120*	*05/03/21 07:11*	*05/04/21 04:47*	*1*
Phenol-d5 (Surr)	*21*		*20 - 100*	*05/03/21 07:11*	*05/04/21 04:47*	*1*
Terphenyl-d14 (Surr)	*93*		*40 - 145*	*05/03/21 07:11*	*05/04/21 04:47*	*1*

Method: 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	0.27	pg/L		05/03/21 13:46	05/12/21 12:51	1
Total TCDD	**0.69**	**J I**	9.6	0.27	pg/L		05/03/21 13:46	05/12/21 12:51	1
1,2,3,7,8-PeCDD	**0.48**	**J I**	48	0.14	pg/L		05/03/21 13:46	05/12/21 12:51	1
Total PeCDD	**0.48**	**J I**	48	0.14	pg/L		05/03/21 13:46	05/12/21 12:51	1
1,2,3,4,7,8-HxCDD	**1.2**	**J**	48	0.28	pg/L		05/03/21 13:46	05/12/21 12:51	1
1,2,3,6,7,8-HxCDD	ND		48	0.26	pg/L		05/03/21 13:46	05/12/21 12:51	1
1,2,3,7,8,9-HxCDD	**0.79**	**J I**	48	0.26	pg/L		05/03/21 13:46	05/12/21 12:51	1
Total HxCDD	**4.0**	**J I**	48	0.27	pg/L		05/03/21 13:46	05/12/21 12:51	1
1,2,3,4,6,7,8-HpCDD	**7.9**	**J**	48	0.44	pg/L		05/03/21 13:46	05/12/21 12:51	1
Total HpCDD	**34**	**J**	48	0.44	pg/L		05/03/21 13:46	05/12/21 12:51	1
OCDD	**81**	**J B**	96	0.14	pg/L		05/03/21 13:46	05/12/21 12:51	1
2,3,7,8-TCDF	ND		9.6	0.20	pg/L		05/03/21 13:46	05/12/21 12:51	1
Total TCDF	ND		9.6	0.20	pg/L		05/03/21 13:46	05/12/21 12:51	1
1,2,3,7,8-PeCDF	ND		48	0.47	pg/L		05/03/21 13:46	05/12/21 12:51	1
2,3,4,7,8-PeCDF	ND		48	0.40	pg/L		05/03/21 13:46	05/12/21 12:51	1
Total PeCDF	ND		48	0.47	pg/L		05/03/21 13:46	05/12/21 12:51	1
1,2,3,4,7,8-HxCDF	ND		48	0.23	pg/L		05/03/21 13:46	05/12/21 12:51	1
1,2,3,6,7,8-HxCDF	ND		48	0.25	pg/L		05/03/21 13:46	05/12/21 12:51	1
2,3,4,6,7,8-HxCDF	ND		48	0.26	pg/L		05/03/21 13:46	05/12/21 12:51	1
1,2,3,7,8,9-HxCDF	ND		48	0.32	pg/L		05/03/21 13:46	05/12/21 12:51	1
Total HxCDF	**1.4**	**J I**	48	0.27	pg/L		05/03/21 13:46	05/12/21 12:51	1
1,2,3,4,6,7,8-HpCDF	**1.1**	**J**	48	0.30	pg/L		05/03/21 13:46	05/12/21 12:51	1
1,2,3,4,7,8,9-HpCDF	ND		48	0.42	pg/L		05/03/21 13:46	05/12/21 12:51	1
Total HpCDF	**3.0**	**J I**	48	0.36	pg/L		05/03/21 13:46	05/12/21 12:51	1
OCDF	**5.9**	**J B**	96	0.19	pg/L		05/03/21 13:46	05/12/21 12:51	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*78*		*40 - 135*	*05/03/21 13:46*	*05/12/21 12:51*	*1*
13C-1,2,3,7,8-PeCDD	*86*		*40 - 135*	*05/03/21 13:46*	*05/12/21 12:51*	*1*
13C-1,2,3,4,7,8-HxCDD	*83*		*40 - 135*	*05/03/21 13:46*	*05/12/21 12:51*	*1*
13C-1,2,3,6,7,8-HxCDD	*85*		*40 - 135*	*05/03/21 13:46*	*05/12/21 12:51*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*99*		*40 - 135*	*05/03/21 13:46*	*05/12/21 12:51*	*1*
13C-OCDD	*97*		*40 - 135*	*05/03/21 13:46*	*05/12/21 12:51*	*1*
13C-2,3,7,8-TCDF	*83*		*40 - 135*	*05/03/21 13:46*	*05/12/21 12:51*	*1*
13C-1,2,3,7,8-PeCDF	*79*		*40 - 135*	*05/03/21 13:46*	*05/12/21 12:51*	*1*
13C-2,3,4,7,8-PeCDF	*84*		*40 - 135*	*05/03/21 13:46*	*05/12/21 12:51*	*1*
13C-1,2,3,4,7,8-HxCDF	*98*		*40 - 135*	*05/03/21 13:46*	*05/12/21 12:51*	*1*

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-M-99A-042821
Lab Sample ID: 500-198446-7
Date Collected: 04/28/21 22:00
Matrix: Water
Date Received: 04/30/21 08:45

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,6,7,8-HxCDF	86		40 - 135	05/03/21 13:46	05/12/21 12:51	1
13C-2,3,4,6,7,8-HxCDF	86		40 - 135	05/03/21 13:46	05/12/21 12:51	1
13C-1,2,3,7,8,9-HxCDF	90		40 - 135	05/03/21 13:46	05/12/21 12:51	1
13C-1,2,3,4,6,7,8-HpCDF	96		40 - 135	05/03/21 13:46	05/12/21 12:51	1
13C-1,2,3,4,7,8,9-HpCDF	95		40 - 135	05/03/21 13:46	05/12/21 12:51	1
13C-OCDF	80		40 - 135	05/03/21 13:46	05/12/21 12:51	1

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-TB-01-042821
Lab Sample ID: 500-198446-8
Date Collected: 04/28/21 13:53
Matrix: Water
Date Received: 04/30/21 08:45

Method: 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			05/04/21 02:58	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/04/21 02:58	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/04/21 02:58	1
Benzene	ND		1.0	0.41	ug/L			05/04/21 02:58	1
Chloromethane	ND		1.0	0.35	ug/L			05/04/21 02:58	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/04/21 02:58	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/04/21 02:58	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/04/21 02:58	1
Naphthalene	ND		1.0	0.43	ug/L			05/04/21 02:58	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/04/21 02:58	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/04/21 02:58	1
o-Xylene	ND		1.0	0.76	ug/L			05/04/21 02:58	1
Styrene	ND		1.0	0.73	ug/L			05/04/21 02:58	1
Toluene	ND		1.0	0.51	ug/L			05/04/21 02:58	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/04/21 02:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*77 - 120*		*05/04/21 02:58*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*05/04/21 02:58*	*1*
Dibromofluoromethane (Surr)	*109*		*75 - 123*		*05/04/21 02:58*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/04/21 02:58*	*1*

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-06A-042821
Lab Sample ID: 500-198446-9
Date Collected: 04/28/21 14:00
Matrix: Water
Date Received: 04/30/21 08:45

Method: 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			05/04/21 03:21	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/04/21 03:21	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/04/21 03:21	1
Benzene	ND		1.0	0.41	ug/L			05/04/21 03:21	1
Chloromethane	ND		1.0	0.35	ug/L			05/04/21 03:21	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/04/21 03:21	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/04/21 03:21	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/04/21 03:21	1
Naphthalene	ND		1.0	0.43	ug/L			05/04/21 03:21	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/04/21 03:21	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/04/21 03:21	1
o-Xylene	ND		1.0	0.76	ug/L			05/04/21 03:21	1
Styrene	ND		1.0	0.73	ug/L			05/04/21 03:21	1
Toluene	ND		1.0	0.51	ug/L			05/04/21 03:21	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/04/21 03:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*77 - 120*		*05/04/21 03:21*	*1*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*05/04/21 03:21*	*1*
Dibromofluoromethane (Surr)	*109*		*75 - 123*		*05/04/21 03:21*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*05/04/21 03:21*	*1*

Method: 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	0.34	ug/L		05/04/21 14:51	05/06/21 18:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*83*		*24 - 146*	*05/04/21 14:51*	*05/06/21 18:51*	*1*
2-Fluorobiphenyl	*91*		*37 - 120*	*05/04/21 14:51*	*05/06/21 18:51*	*1*
2-Fluorophenol (Surr)	*49*		*10 - 120*	*05/04/21 14:51*	*05/06/21 18:51*	*1*
Nitrobenzene-d5 (Surr)	*77*		*26 - 120*	*05/04/21 14:51*	*05/06/21 18:51*	*1*
Phenol-d5 (Surr)	*33*		*11 - 120*	*05/04/21 14:51*	*05/06/21 18:51*	*1*
p-Terphenyl-d14	*101*		*64 - 127*	*05/04/21 14:51*	*05/06/21 18:51*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.1	0.31	ug/L		05/03/21 07:11	05/04/21 05:08	1
1,2-Dichlorobenzene	ND		2.1	0.30	ug/L		05/03/21 07:11	05/04/21 05:08	1
1,3-Dichlorobenzene	ND		2.1	0.26	ug/L		05/03/21 07:11	05/04/21 05:08	1
1,4-Dichlorobenzene	ND		2.1	0.28	ug/L		05/03/21 07:11	05/04/21 05:08	1
1-Methylnaphthalene	ND		2.1	0.52	ug/L		05/03/21 07:11	05/04/21 05:08	1
bis(chloroisopropyl) ether	ND		2.1	0.31	ug/L		05/03/21 07:11	05/04/21 05:08	1
2,3,4,6-Tetrachlorophenol	ND		5.2	1.6	ug/L		05/03/21 07:11	05/04/21 05:08	1
2,4,5-Trichlorophenol	ND		10	2.4	ug/L		05/03/21 07:11	05/04/21 05:08	1
2,4,6-Trichlorophenol	ND		5.2	1.1	ug/L		05/03/21 07:11	05/04/21 05:08	1
2,4-Dichlorophenol	ND		10	2.4	ug/L		05/03/21 07:11	05/04/21 05:08	1
2,4-Dinitrophenol	ND		21	7.7	ug/L		05/03/21 07:11	05/04/21 05:08	1
2,4-Dinitrotoluene	ND		1.0	0.31	ug/L		05/03/21 07:11	05/04/21 05:08	1
2,6-Dinitrotoluene	ND		1.0	0.13	ug/L		05/03/21 07:11	05/04/21 05:08	1
3 & 4 Methylphenol	ND		2.1	0.46	ug/L		05/03/21 07:11	05/04/21 05:08	1

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

Job ID: 500-198446-1

Client Sample ID: SUPE-W-06A-042821
Date Collected: 04/28/21 14:00
Date Received: 04/30/21 08:45

Lab Sample ID: 500-198446-9
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	ND		2.1	0.35	ug/L		05/03/21 07:11	05/04/21 05:08	1
2-Chlorophenol	ND		5.2	0.83	ug/L		05/03/21 07:11	05/04/21 05:08	1
2-Methylnaphthalene	ND		2.1	0.14	ug/L		05/03/21 07:11	05/04/21 05:08	1
2-Methylphenol	ND		2.1	0.32	ug/L		05/03/21 07:11	05/04/21 05:08	1
2-Nitroaniline	ND		5.2	1.1	ug/L		05/03/21 07:11	05/04/21 05:08	1
2-Nitrophenol	ND		10	2.2	ug/L		05/03/21 07:11	05/04/21 05:08	1
3-Nitroaniline	ND		10	2.4	ug/L		05/03/21 07:11	05/04/21 05:08	1
4,6-Dinitro-2-methylphenol	ND		21	5.1	ug/L		05/03/21 07:11	05/04/21 05:08	1
4-Bromophenyl phenyl ether	ND		5.2	0.95	ug/L		05/03/21 07:11	05/04/21 05:08	1
4-Chloro-3-methylphenol	ND		10	2.3	ug/L		05/03/21 07:11	05/04/21 05:08	1
4-Chloroaniline	ND		10	2.2	ug/L		05/03/21 07:11	05/04/21 05:08	1
4-Chlorophenyl phenyl ether	ND		5.2	0.84	ug/L		05/03/21 07:11	05/04/21 05:08	1
4-Nitroaniline	ND		10	4.1	ug/L		05/03/21 07:11	05/04/21 05:08	1
4-Nitrophenol	ND		21	2.4	ug/L		05/03/21 07:11	05/04/21 05:08	1
Acenaphthene	ND		1.0	0.38	ug/L		05/03/21 07:11	05/04/21 05:08	1
Acenaphthylene	ND		1.0	0.33	ug/L		05/03/21 07:11	05/04/21 05:08	1
Anthracene	ND		1.0	0.33	ug/L		05/03/21 07:11	05/04/21 05:08	1
Benzo[a]pyrene	ND		0.21	0.058	ug/L		05/03/21 07:11	05/04/21 05:08	1
Benzo[b]fluoranthene	ND		0.21	0.060	ug/L		05/03/21 07:11	05/04/21 05:08	1
Benzo[g,h,i]perylene	ND		1.0	0.44	ug/L		05/03/21 07:11	05/04/21 05:08	1
Benzo[k]fluoranthene	ND		0.21	0.077	ug/L		05/03/21 07:11	05/04/21 05:08	1
Benzoic acid	ND		21	4.8	ug/L		05/03/21 07:11	05/04/21 05:08	1
Benzyl alcohol	ND		21	3.2	ug/L		05/03/21 07:11	05/04/21 05:08	1
Bis(2-chloroethoxy)methane	ND		2.1	0.31	ug/L		05/03/21 07:11	05/04/21 05:08	1
Bis(2-chloroethyl)ether	ND		2.1	0.36	ug/L		05/03/21 07:11	05/04/21 05:08	1
Bis(2-ethylhexyl) phthalate	ND		10	2.5	ug/L		05/03/21 07:11	05/04/21 05:08	1
Butyl benzyl phthalate	ND		2.1	0.28	ug/L		05/03/21 07:11	05/04/21 05:08	1
Chrysene	ND		0.52	0.15	ug/L		05/03/21 07:11	05/04/21 05:08	1
Dibenz(a,h)anthracene	ND		0.31	0.067	ug/L		05/03/21 07:11	05/04/21 05:08	1
Dibenzofuran	ND		2.1	0.36	ug/L		05/03/21 07:11	05/04/21 05:08	1
Diethyl phthalate	ND		2.1	0.46	ug/L		05/03/21 07:11	05/04/21 05:08	1
Dimethyl phthalate	ND		2.1	0.40	ug/L		05/03/21 07:11	05/04/21 05:08	1
Di-n-butyl phthalate	ND		5.2	0.83	ug/L		05/03/21 07:11	05/04/21 05:08	1
Di-n-octyl phthalate	ND		10	2.6	ug/L		05/03/21 07:11	05/04/21 05:08	1
2,3,5,6-Tetrachlorophenol	ND		5.2	2.6	ug/L		05/03/21 07:11	05/04/21 05:08	1
Fluoranthene	ND		1.0	0.33	ug/L		05/03/21 07:11	05/04/21 05:08	1
Fluorene	ND		1.0	0.40	ug/L		05/03/21 07:11	05/04/21 05:08	1
Hexachlorobenzene	ND		0.52	0.15	ug/L		05/03/21 07:11	05/04/21 05:08	1
Hexachlorobutadiene	ND		5.2	1.2	ug/L		05/03/21 07:11	05/04/21 05:08	1
Hexachlorocyclopentadiene	ND		21	3.6	ug/L		05/03/21 07:11	05/04/21 05:08	1
Hexachloroethane	ND		5.2	1.0	ug/L		05/03/21 07:11	05/04/21 05:08	1
Indeno[1,2,3-cd]pyrene	ND		0.21	0.088	ug/L		05/03/21 07:11	05/04/21 05:08	1
Isophorone	ND		2.1	0.30	ug/L		05/03/21 07:11	05/04/21 05:08	1
Nitrobenzene	ND		1.0	0.47	ug/L		05/03/21 07:11	05/04/21 05:08	1
N-Nitrosodi-n-propylamine	ND		0.52	0.15	ug/L		05/03/21 07:11	05/04/21 05:08	1
N-Nitrosodiphenylamine	ND		2.1	0.35	ug/L		05/03/21 07:11	05/04/21 05:08	1
Phenol	ND		5.2	0.38	ug/L		05/03/21 07:11	05/04/21 05:08	1
Pyrene	ND		1.0	0.50	ug/L		05/03/21 07:11	05/04/21 05:08	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		05/03/21 07:11	05/04/21 05:08	1

Client Sample ID: SUPE-W-06A-042821
Lab Sample ID: 500-198446-9

Date Collected: 04/28/21 14:00
Matrix: Water
Date Received: 04/30/21 08:45

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	**0.055**	**J**	0.21	0.046	ug/L		05/03/21 07:11	05/04/21 05:08	1
Phenanthrene	ND		1.0	0.36	ug/L		05/03/21 07:11	05/04/21 05:08	1
3,3'-Dichlorobenzidine	ND		5.2	0.98	ug/L		05/03/21 07:11	05/04/21 05:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*92*		*40 - 145*	*05/03/21 07:11*	*05/04/21 05:08*	*1*
2-Fluorobiphenyl	*86*		*34 - 110*	*05/03/21 07:11*	*05/04/21 05:08*	*1*
2-Fluorophenol (Surr)	*37*		*27 - 110*	*05/03/21 07:11*	*05/04/21 05:08*	*1*
Nitrobenzene-d5 (Surr)	*70*		*36 - 120*	*05/03/21 07:11*	*05/04/21 05:08*	*1*
Phenol-d5 (Surr)	*23*		*20 - 100*	*05/03/21 07:11*	*05/04/21 05:08*	*1*
Terphenyl-d14 (Surr)	*96*		*40 - 145*	*05/03/21 07:11*	*05/04/21 05:08*	*1*

Method: 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		05/03/21 13:46	05/12/21 13:51	1
Total TCDD	ND		10	0.27	pg/L		05/03/21 13:46	05/12/21 13:51	1
1,2,3,7,8-PeCDD	ND		51	0.37	pg/L		05/03/21 13:46	05/12/21 13:51	1
Total PeCDD	ND		51	0.37	pg/L		05/03/21 13:46	05/12/21 13:51	1
1,2,3,4,7,8-HxCDD	**1.4**	**J**	51	0.35	pg/L		05/03/21 13:46	05/12/21 13:51	1
1,2,3,6,7,8-HxCDD	ND		51	0.31	pg/L		05/03/21 13:46	05/12/21 13:51	1
1,2,3,7,8,9-HxCDD	ND		51	0.31	pg/L		05/03/21 13:46	05/12/21 13:51	1
Total HxCDD	**1.4**	**J**	51	0.32	pg/L		05/03/21 13:46	05/12/21 13:51	1
1,2,3,4,6,7,8-HpCDD	**5.4**	**J**	51	0.63	pg/L		05/03/21 13:46	05/12/21 13:51	1
Total HpCDD	**14**	**J I**	51	0.63	pg/L		05/03/21 13:46	05/12/21 13:51	1
OCDD	**59**	**J B**	100	0.21	pg/L		05/03/21 13:46	05/12/21 13:51	1
2,3,7,8-TCDF	ND		10	0.43	pg/L		05/03/21 13:46	05/12/21 13:51	1
Total TCDF	ND		10	0.43	pg/L		05/03/21 13:46	05/12/21 13:51	1
1,2,3,7,8-PeCDF	ND		51	0.55	pg/L		05/03/21 13:46	05/12/21 13:51	1
2,3,4,7,8-PeCDF	ND		51	0.48	pg/L		05/03/21 13:46	05/12/21 13:51	1
Total PeCDF	ND		51	0.55	pg/L		05/03/21 13:46	05/12/21 13:51	1
1,2,3,4,7,8-HxCDF	ND		51	0.30	pg/L		05/03/21 13:46	05/12/21 13:51	1
1,2,3,6,7,8-HxCDF	ND		51	0.31	pg/L		05/03/21 13:46	05/12/21 13:51	1
2,3,4,6,7,8-HxCDF	ND		51	0.33	pg/L		05/03/21 13:46	05/12/21 13:51	1
1,2,3,7,8,9-HxCDF	ND		51	0.39	pg/L		05/03/21 13:46	05/12/21 13:51	1
Total HxCDF	ND		51	0.39	pg/L		05/03/21 13:46	05/12/21 13:51	1
1,2,3,4,6,7,8-HpCDF	**1.3**	**J**	51	0.29	pg/L		05/03/21 13:46	05/12/21 13:51	1
1,2,3,4,7,8,9-HpCDF	ND		51	0.39	pg/L		05/03/21 13:46	05/12/21 13:51	1
Total HpCDF	**3.3**	**J I**	51	0.34	pg/L		05/03/21 13:46	05/12/21 13:51	1
OCDF	**5.8**	**J B**	100	0.22	pg/L		05/03/21 13:46	05/12/21 13:51	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*77*		*40 - 135*	*05/03/21 13:46*	*05/12/21 13:51*	*1*
13C-1,2,3,7,8-PeCDD	*80*		*40 - 135*	*05/03/21 13:46*	*05/12/21 13:51*	*1*
13C-1,2,3,4,7,8-HxCDD	*74*		*40 - 135*	*05/03/21 13:46*	*05/12/21 13:51*	*1*
13C-1,2,3,6,7,8-HxCDD	*84*		*40 - 135*	*05/03/21 13:46*	*05/12/21 13:51*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*90*		*40 - 135*	*05/03/21 13:46*	*05/12/21 13:51*	*1*
13C-OCDD	*93*		*40 - 135*	*05/03/21 13:46*	*05/12/21 13:51*	*1*
13C-2,3,7,8-TCDF	*82*		*40 - 135*	*05/03/21 13:46*	*05/12/21 13:51*	*1*
13C-1,2,3,7,8-PeCDF	*79*		*40 - 135*	*05/03/21 13:46*	*05/12/21 13:51*	*1*
13C-2,3,4,7,8-PeCDF	*80*		*40 - 135*	*05/03/21 13:46*	*05/12/21 13:51*	*1*
13C-1,2,3,4,7,8-HxCDF	*89*		*40 - 135*	*05/03/21 13:46*	*05/12/21 13:51*	*1*

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-06A-042821
Lab Sample ID: 500-198446-9
Date Collected: 04/28/21 14:00
Matrix: Water
Date Received: 04/30/21 08:45

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,6,7,8-HxCDF	80		40 - 135	05/03/21 13:46	05/12/21 13:51	1
13C-2,3,4,6,7,8-HxCDF	81		40 - 135	05/03/21 13:46	05/12/21 13:51	1
13C-1,2,3,7,8,9-HxCDF	87		40 - 135	05/03/21 13:46	05/12/21 13:51	1
13C-1,2,3,4,6,7,8-HpCDF	88		40 - 135	05/03/21 13:46	05/12/21 13:51	1
13C-1,2,3,4,7,8,9-HpCDF	89		40 - 135	05/03/21 13:46	05/12/21 13:51	1
13C-OCDF	77		40 - 135	05/03/21 13:46	05/12/21 13:51	1

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-06C-042821
Lab Sample ID: 500-198446-10
Date Collected: 04/28/21 17:20
Matrix: Water
Date Received: 04/30/21 08:45

Method: 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			05/04/21 03:44	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/04/21 03:44	1
1,3,5-Trimethylbenzene	ND	F1	1.0	0.77	ug/L			05/04/21 03:44	1
Benzene	ND		1.0	0.41	ug/L			05/04/21 03:44	1
Chloromethane	ND		1.0	0.35	ug/L			05/04/21 03:44	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/04/21 03:44	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/04/21 03:44	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/04/21 03:44	1
Naphthalene	ND		1.0	0.43	ug/L			05/04/21 03:44	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/04/21 03:44	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/04/21 03:44	1
o-Xylene	ND		1.0	0.76	ug/L			05/04/21 03:44	1
Styrene	ND		1.0	0.73	ug/L			05/04/21 03:44	1
Toluene	ND	F2	1.0	0.51	ug/L			05/04/21 03:44	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/04/21 03:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*77 - 120*		*05/04/21 03:44*	*1*
4-Bromofluorobenzene (Surr)	*108*		*73 - 120*		*05/04/21 03:44*	*1*
Dibromofluoromethane (Surr)	*110*		*75 - 123*		*05/04/21 03:44*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*05/04/21 03:44*	*1*

Method: 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	0.34	ug/L		05/04/21 14:51	05/06/21 15:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*91*		*24 - 146*	*05/04/21 14:51*	*05/06/21 15:12*	*1*
2-Fluorobiphenyl	*94*		*37 - 120*	*05/04/21 14:51*	*05/06/21 15:12*	*1*
2-Fluorophenol (Surr)	*51*		*10 - 120*	*05/04/21 14:51*	*05/06/21 15:12*	*1*
Nitrobenzene-d5 (Surr)	*82*		*26 - 120*	*05/04/21 14:51*	*05/06/21 15:12*	*1*
Phenol-d5 (Surr)	*34*		*11 - 120*	*05/04/21 14:51*	*05/06/21 15:12*	*1*
p-Terphenyl-d14	*83*		*64 - 127*	*05/04/21 14:51*	*05/06/21 15:12*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.1	0.31	ug/L		05/03/21 07:11	05/04/21 02:18	1
1,2-Dichlorobenzene	ND		2.1	0.30	ug/L		05/03/21 07:11	05/04/21 02:18	1
1,3-Dichlorobenzene	ND		2.1	0.26	ug/L		05/03/21 07:11	05/04/21 02:18	1
1,4-Dichlorobenzene	ND		2.1	0.28	ug/L		05/03/21 07:11	05/04/21 02:18	1
1-Methylnaphthalene	ND		2.1	0.51	ug/L		05/03/21 07:11	05/04/21 02:18	1
bis(chloroisopropyl) ether	ND		2.1	0.31	ug/L		05/03/21 07:11	05/04/21 02:18	1
2,3,4,6-Tetrachlorophenol	ND		5.1	1.6	ug/L		05/03/21 07:11	05/04/21 02:18	1
2,4,5-Trichlorophenol	ND		10	2.4	ug/L		05/03/21 07:11	05/04/21 02:18	1
2,4,6-Trichlorophenol	ND		5.1	1.1	ug/L		05/03/21 07:11	05/04/21 02:18	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		05/03/21 07:11	05/04/21 02:18	1
2,4-Dinitrophenol	ND		21	7.7	ug/L		05/03/21 07:11	05/04/21 02:18	1
2,4-Dinitrotoluene	ND		1.0	0.31	ug/L		05/03/21 07:11	05/04/21 02:18	1
2,6-Dinitrotoluene	ND		1.0	0.12	ug/L		05/03/21 07:11	05/04/21 02:18	1
3 & 4 Methylphenol	ND		2.1	0.45	ug/L		05/03/21 07:11	05/04/21 02:18	1

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

Job ID: 500-198446-1

Client Sample ID: SUPE-W-06C-042821
Date Collected: 04/28/21 17:20
Date Received: 04/30/21 08:45

Lab Sample ID: 500-198446-10
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	ND		2.1	0.35	ug/L		05/03/21 07:11	05/04/21 02:18	1
2-Chlorophenol	ND		5.1	0.82	ug/L		05/03/21 07:11	05/04/21 02:18	1
2-Methylnaphthalene	ND		2.1	0.13	ug/L		05/03/21 07:11	05/04/21 02:18	1
2-Methylphenol	ND		2.1	0.32	ug/L		05/03/21 07:11	05/04/21 02:18	1
2-Nitroaniline	ND		5.1	1.1	ug/L		05/03/21 07:11	05/04/21 02:18	1
2-Nitrophenol	ND		10	2.2	ug/L		05/03/21 07:11	05/04/21 02:18	1
3-Nitroaniline	ND		10	2.4	ug/L		05/03/21 07:11	05/04/21 02:18	1
4,6-Dinitro-2-methylphenol	ND		21	5.1	ug/L		05/03/21 07:11	05/04/21 02:18	1
4-Bromophenyl phenyl ether	ND		5.1	0.94	ug/L		05/03/21 07:11	05/04/21 02:18	1
4-Chloro-3-methylphenol	ND		10	2.3	ug/L		05/03/21 07:11	05/04/21 02:18	1
4-Chloroaniline	ND		10	2.2	ug/L		05/03/21 07:11	05/04/21 02:18	1
4-Chlorophenyl phenyl ether	ND		5.1	0.83	ug/L		05/03/21 07:11	05/04/21 02:18	1
4-Nitroaniline	ND		10	4.0	ug/L		05/03/21 07:11	05/04/21 02:18	1
4-Nitrophenol	ND		21	2.4	ug/L		05/03/21 07:11	05/04/21 02:18	1
Acenaphthene	ND		1.0	0.37	ug/L		05/03/21 07:11	05/04/21 02:18	1
Acenaphthylene	ND		1.0	0.33	ug/L		05/03/21 07:11	05/04/21 02:18	1
Anthracene	ND		1.0	0.33	ug/L		05/03/21 07:11	05/04/21 02:18	1
Benzo[a]pyrene	ND		0.21	0.058	ug/L		05/03/21 07:11	05/04/21 02:18	1
Benzo[b]fluoranthene	ND		0.21	0.060	ug/L		05/03/21 07:11	05/04/21 02:18	1
Benzo[g,h,i]perylene	ND		1.0	0.43	ug/L		05/03/21 07:11	05/04/21 02:18	1
Benzo[k]fluoranthene	ND		0.21	0.076	ug/L		05/03/21 07:11	05/04/21 02:18	1
Benzoic acid	ND		21	4.7	ug/L		05/03/21 07:11	05/04/21 02:18	1
Benzyl alcohol	ND		21	3.1	ug/L		05/03/21 07:11	05/04/21 02:18	1
Bis(2-chloroethoxy)methane	ND		2.1	0.31	ug/L		05/03/21 07:11	05/04/21 02:18	1
Bis(2-chloroethyl)ether	ND		2.1	0.36	ug/L		05/03/21 07:11	05/04/21 02:18	1
Bis(2-ethylhexyl) phthalate	ND		10	2.5	ug/L		05/03/21 07:11	05/04/21 02:18	1
Butyl benzyl phthalate	ND		2.1	0.28	ug/L		05/03/21 07:11	05/04/21 02:18	1
Chrysene	ND		0.51	0.14	ug/L		05/03/21 07:11	05/04/21 02:18	1
Dibenz(a,h)anthracene	ND		0.31	0.066	ug/L		05/03/21 07:11	05/04/21 02:18	1
Dibenzofuran	ND		2.1	0.36	ug/L		05/03/21 07:11	05/04/21 02:18	1
Diethyl phthalate	ND		2.1	0.45	ug/L		05/03/21 07:11	05/04/21 02:18	1
Dimethyl phthalate	ND		2.1	0.39	ug/L		05/03/21 07:11	05/04/21 02:18	1
Di-n-butyl phthalate	ND		5.1	0.82	ug/L		05/03/21 07:11	05/04/21 02:18	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		05/03/21 07:11	05/04/21 02:18	1
2,3,5,6-Tetrachlorophenol	ND		5.1	2.6	ug/L		05/03/21 07:11	05/04/21 02:18	1
Fluoranthene	ND		1.0	0.33	ug/L		05/03/21 07:11	05/04/21 02:18	1
Fluorene	ND		1.0	0.39	ug/L		05/03/21 07:11	05/04/21 02:18	1
Hexachlorobenzene	ND		0.51	0.14	ug/L		05/03/21 07:11	05/04/21 02:18	1
Hexachlorobutadiene	ND		5.1	1.1	ug/L		05/03/21 07:11	05/04/21 02:18	1
Hexachlorocyclopentadiene	ND		21	3.5	ug/L		05/03/21 07:11	05/04/21 02:18	1
Hexachloroethane	ND		5.1	1.0	ug/L		05/03/21 07:11	05/04/21 02:18	1
Indeno[1,2,3-cd]pyrene	ND		0.21	0.087	ug/L		05/03/21 07:11	05/04/21 02:18	1
Isophorone	ND		2.1	0.30	ug/L		05/03/21 07:11	05/04/21 02:18	1
Nitrobenzene	ND		1.0	0.46	ug/L		05/03/21 07:11	05/04/21 02:18	1
N-Nitrosodi-n-propylamine	ND		0.51	0.14	ug/L		05/03/21 07:11	05/04/21 02:18	1
N-Nitrosodiphenylamine	ND		2.1	0.35	ug/L		05/03/21 07:11	05/04/21 02:18	1
Phenol	ND		5.1	0.37	ug/L		05/03/21 07:11	05/04/21 02:18	1
Pyrene	ND		1.0	0.49	ug/L		05/03/21 07:11	05/04/21 02:18	1
2,4-Dimethylphenol	ND		10	3.4	ug/L		05/03/21 07:11	05/04/21 02:18	1

Client Sample ID: SUPE-W-06C-042821
Lab Sample ID: 500-198446-10

Date Collected: 04/28/21 17:20
Matrix: Water
Date Received: 04/30/21 08:45

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	**0.048**	**J**	0.21	0.045	ug/L		05/03/21 07:11	05/04/21 02:18	1
Phenanthrene	ND		1.0	0.36	ug/L		05/03/21 07:11	05/04/21 02:18	1
3,3'-Dichlorobenzidine	ND		5.1	0.97	ug/L		05/03/21 07:11	05/04/21 02:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*94*		*40 - 145*	*05/03/21 07:11*	*05/04/21 02:18*	*1*
2-Fluorobiphenyl	*88*		*34 - 110*	*05/03/21 07:11*	*05/04/21 02:18*	*1*
2-Fluorophenol (Surr)	*42*		*27 - 110*	*05/03/21 07:11*	*05/04/21 02:18*	*1*
Nitrobenzene-d5 (Surr)	*70*		*36 - 120*	*05/03/21 07:11*	*05/04/21 02:18*	*1*
Phenol-d5 (Surr)	*23*		*20 - 100*	*05/03/21 07:11*	*05/04/21 02:18*	*1*
Terphenyl-d14 (Surr)	*93*		*40 - 145*	*05/03/21 07:11*	*05/04/21 02:18*	*1*

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		10	0.11	pg/L		05/03/21 13:46	05/12/21 14:51	1
Total TCDD	**0.26**	**J**	10	0.11	pg/L		05/03/21 13:46	05/12/21 14:51	1
1,2,3,7,8-PeCDD	ND		52	0.19	pg/L		05/03/21 13:46	05/12/21 14:51	1
Total PeCDD	ND		52	0.19	pg/L		05/03/21 13:46	05/12/21 14:51	1
1,2,3,4,7,8-HxCDD	**1.0**	**J I**	52	0.22	pg/L		05/03/21 13:46	05/12/21 14:51	1
1,2,3,6,7,8-HxCDD	ND		52	0.21	pg/L		05/03/21 13:46	05/12/21 14:51	1
1,2,3,7,8,9-HxCDD	ND		52	0.20	pg/L		05/03/21 13:46	05/12/21 14:51	1
Total HxCDD	**1.0**	**J I**	52	0.21	pg/L		05/03/21 13:46	05/12/21 14:51	1
1,2,3,4,6,7,8-HpCDD	**4.1**	**J**	52	0.16	pg/L		05/03/21 13:46	05/12/21 14:51	1
Total HpCDD	**14**	**J**	52	0.16	pg/L		05/03/21 13:46	05/12/21 14:51	1
OCDD	**48**	**J B**	100	0.17	pg/L		05/03/21 13:46	05/12/21 14:51	1
2,3,7,8-TCDF	ND		10	0.25	pg/L		05/03/21 13:46	05/12/21 14:51	1
Total TCDF	ND		10	0.25	pg/L		05/03/21 13:46	05/12/21 14:51	1
1,2,3,7,8-PeCDF	ND		52	0.23	pg/L		05/03/21 13:46	05/12/21 14:51	1
2,3,4,7,8-PeCDF	ND		52	0.20	pg/L		05/03/21 13:46	05/12/21 14:51	1
Total PeCDF	ND		52	0.23	pg/L		05/03/21 13:46	05/12/21 14:51	1
1,2,3,4,7,8-HxCDF	ND		52	0.21	pg/L		05/03/21 13:46	05/12/21 14:51	1
1,2,3,6,7,8-HxCDF	ND		52	0.24	pg/L		05/03/21 13:46	05/12/21 14:51	1
2,3,4,6,7,8-HxCDF	ND		52	0.23	pg/L		05/03/21 13:46	05/12/21 14:51	1
1,2,3,7,8,9-HxCDF	ND		52	0.28	pg/L		05/03/21 13:46	05/12/21 14:51	1
Total HxCDF	ND		52	0.28	pg/L		05/03/21 13:46	05/12/21 14:51	1
1,2,3,4,6,7,8-HpCDF	**0.76**	**J**	52	0.20	pg/L		05/03/21 13:46	05/12/21 14:51	1
1,2,3,4,7,8,9-HpCDF	**0.40**	**J I**	52	0.28	pg/L		05/03/21 13:46	05/12/21 14:51	1
Total HpCDF	**2.7**	**J I**	52	0.24	pg/L		05/03/21 13:46	05/12/21 14:51	1
OCDF	**3.6**	**J I B**	100	0.093	pg/L		05/03/21 13:46	05/12/21 14:51	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*79*		*40 - 135*	*05/03/21 13:46*	*05/12/21 14:51*	*1*
13C-1,2,3,7,8-PeCDD	*83*		*40 - 135*	*05/03/21 13:46*	*05/12/21 14:51*	*1*
13C-1,2,3,4,7,8-HxCDD	*81*		*40 - 135*	*05/03/21 13:46*	*05/12/21 14:51*	*1*
13C-1,2,3,6,7,8-HxCDD	*88*		*40 - 135*	*05/03/21 13:46*	*05/12/21 14:51*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*94*		*40 - 135*	*05/03/21 13:46*	*05/12/21 14:51*	*1*
13C-OCDD	*100*		*40 - 135*	*05/03/21 13:46*	*05/12/21 14:51*	*1*
13C-2,3,7,8-TCDF	*85*		*40 - 135*	*05/03/21 13:46*	*05/12/21 14:51*	*1*
13C-1,2,3,7,8-PeCDF	*84*		*40 - 135*	*05/03/21 13:46*	*05/12/21 14:51*	*1*
13C-2,3,4,7,8-PeCDF	*83*		*40 - 135*	*05/03/21 13:46*	*05/12/21 14:51*	*1*
13C-1,2,3,4,7,8-HxCDF	*96*		*40 - 135*	*05/03/21 13:46*	*05/12/21 14:51*	*1*

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

Job ID: 500-198446-1

Client Sample ID: SUPE-W-06C-042821
Date Collected: 04/28/21 17:20
Date Received: 04/30/21 08:45

Lab Sample ID: 500-198446-10
Matrix: Water

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,6,7,8-HxCDF	82		40 - 135	05/03/21 13:46	05/12/21 14:51	1
13C-2,3,4,6,7,8-HxCDF	85		40 - 135	05/03/21 13:46	05/12/21 14:51	1
13C-1,2,3,7,8,9-HxCDF	91		40 - 135	05/03/21 13:46	05/12/21 14:51	1
13C-1,2,3,4,6,7,8-HpCDF	93		40 - 135	05/03/21 13:46	05/12/21 14:51	1
13C-1,2,3,4,7,8,9-HpCDF	92		40 - 135	05/03/21 13:46	05/12/21 14:51	1
13C-OCDF	79		40 - 135	05/03/21 13:46	05/12/21 14:51	1

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-12A-042921
Lab Sample ID: 500-198446-11
Date Collected: 04/29/21 10:13
Matrix: Water
Date Received: 04/30/21 08:45

Method: 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			05/04/21 04:07	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/04/21 04:07	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/04/21 04:07	1
Benzene	ND		1.0	0.41	ug/L			05/04/21 04:07	1
Chloromethane	ND		1.0	0.35	ug/L			05/04/21 04:07	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/04/21 04:07	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/04/21 04:07	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/04/21 04:07	1
Naphthalene	ND		1.0	0.43	ug/L			05/04/21 04:07	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/04/21 04:07	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/04/21 04:07	1
o-Xylene	ND		1.0	0.76	ug/L			05/04/21 04:07	1
Styrene	ND		1.0	0.73	ug/L			05/04/21 04:07	1
Toluene	ND		1.0	0.51	ug/L			05/04/21 04:07	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/04/21 04:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*77 - 120*		*05/04/21 04:07*	*1*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*		*05/04/21 04:07*	*1*
Dibromofluoromethane (Surr)	*107*		*75 - 123*		*05/04/21 04:07*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*05/04/21 04:07*	*1*

Method: 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	0.34	ug/L		05/04/21 14:51	05/06/21 19:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*90*		*24 - 146*	*05/04/21 14:51*	*05/06/21 19:18*	*1*
2-Fluorobiphenyl	*84*		*37 - 120*	*05/04/21 14:51*	*05/06/21 19:18*	*1*
2-Fluorophenol (Surr)	*43*		*10 - 120*	*05/04/21 14:51*	*05/06/21 19:18*	*1*
Nitrobenzene-d5 (Surr)	*72*		*26 - 120*	*05/04/21 14:51*	*05/06/21 19:18*	*1*
Phenol-d5 (Surr)	*30*		*11 - 120*	*05/04/21 14:51*	*05/06/21 19:18*	*1*
p-Terphenyl-d14	*69*		*64 - 127*	*05/04/21 14:51*	*05/06/21 19:18*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.1	0.31	ug/L		05/03/21 07:11	05/04/21 05:30	1
1,2-Dichlorobenzene	ND		2.1	0.30	ug/L		05/03/21 07:11	05/04/21 05:30	1
1,3-Dichlorobenzene	ND		2.1	0.26	ug/L		05/03/21 07:11	05/04/21 05:30	1
1,4-Dichlorobenzene	ND		2.1	0.28	ug/L		05/03/21 07:11	05/04/21 05:30	1
1-Methylnaphthalene	ND		2.1	0.52	ug/L		05/03/21 07:11	05/04/21 05:30	1
bis(chloroisopropyl) ether	ND		2.1	0.31	ug/L		05/03/21 07:11	05/04/21 05:30	1
2,3,4,6-Tetrachlorophenol	ND		5.2	1.6	ug/L		05/03/21 07:11	05/04/21 05:30	1
2,4,5-Trichlorophenol	ND		10	2.4	ug/L		05/03/21 07:11	05/04/21 05:30	1
2,4,6-Trichlorophenol	ND		5.2	1.2	ug/L		05/03/21 07:11	05/04/21 05:30	1
2,4-Dichlorophenol	ND		10	2.4	ug/L		05/03/21 07:11	05/04/21 05:30	1
2,4-Dinitrophenol	ND		21	7.8	ug/L		05/03/21 07:11	05/04/21 05:30	1
2,4-Dinitrotoluene	ND		1.0	0.31	ug/L		05/03/21 07:11	05/04/21 05:30	1
2,6-Dinitrotoluene	ND		1.0	0.13	ug/L		05/03/21 07:11	05/04/21 05:30	1
3 & 4 Methylphenol	ND		2.1	0.46	ug/L		05/03/21 07:11	05/04/21 05:30	1

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

Job ID: 500-198446-1

Client Sample ID: SUPE-W-12A-042921
Date Collected: 04/29/21 10:13
Date Received: 04/30/21 08:45

Lab Sample ID: 500-198446-11
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	ND		2.1	0.36	ug/L		05/03/21 07:11	05/04/21 05:30	1
2-Chlorophenol	ND		5.2	0.84	ug/L		05/03/21 07:11	05/04/21 05:30	1
2-Methylnaphthalene	ND		2.1	0.14	ug/L		05/03/21 07:11	05/04/21 05:30	1
2-Methylphenol	ND		2.1	0.33	ug/L		05/03/21 07:11	05/04/21 05:30	1
2-Nitroaniline	ND		5.2	1.1	ug/L		05/03/21 07:11	05/04/21 05:30	1
2-Nitrophenol	ND		10	2.2	ug/L		05/03/21 07:11	05/04/21 05:30	1
3-Nitroaniline	ND		10	2.4	ug/L		05/03/21 07:11	05/04/21 05:30	1
4,6-Dinitro-2-methylphenol	ND		21	5.2	ug/L		05/03/21 07:11	05/04/21 05:30	1
4-Bromophenyl phenyl ether	ND		5.2	0.95	ug/L		05/03/21 07:11	05/04/21 05:30	1
4-Chloro-3-methylphenol	ND		10	2.3	ug/L		05/03/21 07:11	05/04/21 05:30	1
4-Chloroaniline	ND		10	2.2	ug/L		05/03/21 07:11	05/04/21 05:30	1
4-Chlorophenyl phenyl ether	ND		5.2	0.85	ug/L		05/03/21 07:11	05/04/21 05:30	1
4-Nitroaniline	ND		10	4.1	ug/L		05/03/21 07:11	05/04/21 05:30	1
4-Nitrophenol	ND		21	2.5	ug/L		05/03/21 07:11	05/04/21 05:30	1
Acenaphthene	ND		1.0	0.38	ug/L		05/03/21 07:11	05/04/21 05:30	1
Acenaphthylene	ND		1.0	0.34	ug/L		05/03/21 07:11	05/04/21 05:30	1
Anthracene	ND		1.0	0.34	ug/L		05/03/21 07:11	05/04/21 05:30	1
Benzo[a]pyrene	ND		0.21	0.059	ug/L		05/03/21 07:11	05/04/21 05:30	1
Benzo[b]fluoranthene	ND		0.21	0.061	ug/L		05/03/21 07:11	05/04/21 05:30	1
Benzo[g,h,i]perylene	ND		1.0	0.44	ug/L		05/03/21 07:11	05/04/21 05:30	1
Benzo[k]fluoranthene	ND		0.21	0.078	ug/L		05/03/21 07:11	05/04/21 05:30	1
Benzoic acid	ND		21	4.8	ug/L		05/03/21 07:11	05/04/21 05:30	1
Benzyl alcohol	ND		21	3.2	ug/L		05/03/21 07:11	05/04/21 05:30	1
Bis(2-chloroethoxy)methane	ND		2.1	0.31	ug/L		05/03/21 07:11	05/04/21 05:30	1
Bis(2-chloroethyl)ether	ND		2.1	0.37	ug/L		05/03/21 07:11	05/04/21 05:30	1
Bis(2-ethylhexyl) phthalate	ND		10	2.5	ug/L		05/03/21 07:11	05/04/21 05:30	1
Butyl benzyl phthalate	ND		2.1	0.28	ug/L		05/03/21 07:11	05/04/21 05:30	1
Chrysene	ND		0.52	0.15	ug/L		05/03/21 07:11	05/04/21 05:30	1
Dibenz(a,h)anthracene	ND		0.31	0.067	ug/L		05/03/21 07:11	05/04/21 05:30	1
Dibenzofuran	ND		2.1	0.37	ug/L		05/03/21 07:11	05/04/21 05:30	1
Diethyl phthalate	ND		2.1	0.46	ug/L		05/03/21 07:11	05/04/21 05:30	1
Dimethyl phthalate	ND		2.1	0.40	ug/L		05/03/21 07:11	05/04/21 05:30	1
Di-n-butyl phthalate	ND		5.2	0.84	ug/L		05/03/21 07:11	05/04/21 05:30	1
Di-n-octyl phthalate	ND		10	2.6	ug/L		05/03/21 07:11	05/04/21 05:30	1
2,3,5,6-Tetrachlorophenol	ND		5.2	2.6	ug/L		05/03/21 07:11	05/04/21 05:30	1
Fluoranthene	ND		1.0	0.34	ug/L		05/03/21 07:11	05/04/21 05:30	1
Fluorene	ND		1.0	0.40	ug/L		05/03/21 07:11	05/04/21 05:30	1
Hexachlorobenzene	ND		0.52	0.15	ug/L		05/03/21 07:11	05/04/21 05:30	1
Hexachlorobutadiene	ND		5.2	1.2	ug/L		05/03/21 07:11	05/04/21 05:30	1
Hexachlorocyclopentadiene	ND		21	3.6	ug/L		05/03/21 07:11	05/04/21 05:30	1
Hexachloroethane	ND		5.2	1.0	ug/L		05/03/21 07:11	05/04/21 05:30	1
Indeno[1,2,3-cd]pyrene	ND		0.21	0.088	ug/L		05/03/21 07:11	05/04/21 05:30	1
Isophorone	ND		2.1	0.30	ug/L		05/03/21 07:11	05/04/21 05:30	1
Nitrobenzene	ND		1.0	0.47	ug/L		05/03/21 07:11	05/04/21 05:30	1
N-Nitrosodi-n-propylamine	ND		0.52	0.15	ug/L		05/03/21 07:11	05/04/21 05:30	1
N-Nitrosodiphenylamine	ND		2.1	0.36	ug/L		05/03/21 07:11	05/04/21 05:30	1
Phenol	ND		5.2	0.38	ug/L		05/03/21 07:11	05/04/21 05:30	1
Pyrene	ND		1.0	0.50	ug/L		05/03/21 07:11	05/04/21 05:30	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		05/03/21 07:11	05/04/21 05:30	1

Client Sample ID: SUPE-W-12A-042921
Lab Sample ID: 500-198446-11

Date Collected: 04/29/21 10:13
Matrix: Water
Date Received: 04/30/21 08:45

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	**0.050**	**J**	0.21	0.046	ug/L		05/03/21 07:11	05/04/21 05:30	1
Phenanthrene	ND		1.0	0.37	ug/L		05/03/21 07:11	05/04/21 05:30	1
3,3'-Dichlorobenzidine	ND		5.2	0.99	ug/L		05/03/21 07:11	05/04/21 05:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*104*		*40 - 145*	*05/03/21 07:11*	*05/04/21 05:30*	*1*
2-Fluorobiphenyl	*98*		*34 - 110*	*05/03/21 07:11*	*05/04/21 05:30*	*1*
2-Fluorophenol (Surr)	*43*		*27 - 110*	*05/03/21 07:11*	*05/04/21 05:30*	*1*
Nitrobenzene-d5 (Surr)	*79*		*36 - 120*	*05/03/21 07:11*	*05/04/21 05:30*	*1*
Phenol-d5 (Surr)	*24*		*20 - 100*	*05/03/21 07:11*	*05/04/21 05:30*	*1*
Terphenyl-d14 (Surr)	*92*		*40 - 145*	*05/03/21 07:11*	*05/04/21 05:30*	*1*

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		10	0.30	pg/L		05/03/21 13:46	05/12/21 15:52	1
Total TCDD	ND		10	0.30	pg/L		05/03/21 13:46	05/12/21 15:52	1
1,2,3,7,8-PeCDD	ND		51	0.28	pg/L		05/03/21 13:46	05/12/21 15:52	1
Total PeCDD	**0.81**	**J I**	51	0.28	pg/L		05/03/21 13:46	05/12/21 15:52	1
1,2,3,4,7,8-HxCDD	**2.0**	**J I**	51	0.39	pg/L		05/03/21 13:46	05/12/21 15:52	1
1,2,3,6,7,8-HxCDD	**4.7**	**J I**	51	0.36	pg/L		05/03/21 13:46	05/12/21 15:52	1
1,2,3,7,8,9-HxCDD	**1.7**	**J**	51	0.35	pg/L		05/03/21 13:46	05/12/21 15:52	1
Total HxCDD	**17**	**J I**	51	0.37	pg/L		05/03/21 13:46	05/12/21 15:52	1
1,2,3,4,6,7,8-HpCDD	**47**	**J**	51	0.69	pg/L		05/03/21 13:46	05/12/21 15:52	1
Total HpCDD	**84**		51	0.69	pg/L		05/03/21 13:46	05/12/21 15:52	1
OCDD	**230**	**B**	100	0.14	pg/L		05/03/21 13:46	05/12/21 15:52	1
2,3,7,8-TCDF	**0.50**	**J**	10	0.27	pg/L		05/03/21 13:46	05/12/21 15:52	1
Total TCDF	**36**	**I**	10	0.27	pg/L		05/03/21 13:46	05/12/21 15:52	1
1,2,3,7,8-PeCDF	**0.88**	**J**	51	0.35	pg/L		05/03/21 13:46	05/12/21 15:52	1
2,3,4,7,8-PeCDF	**0.97**	**J I**	51	0.32	pg/L		05/03/21 13:46	05/12/21 15:52	1
Total PeCDF	**51**	**I**	51	0.34	pg/L		05/03/21 13:46	05/12/21 15:52	1
1,2,3,4,7,8-HxCDF	**6.7**	**J**	51	0.58	pg/L		05/03/21 13:46	05/12/21 15:52	1
1,2,3,6,7,8-HxCDF	**3.8**	**J I**	51	0.61	pg/L		05/03/21 13:46	05/12/21 15:52	1
2,3,4,6,7,8-HxCDF	**1.3**	**J I**	51	0.66	pg/L		05/03/21 13:46	05/12/21 15:52	1
1,2,3,7,8,9-HxCDF	ND		51	0.77	pg/L		05/03/21 13:46	05/12/21 15:52	1
Total HxCDF	**73**	**I**	51	0.66	pg/L		05/03/21 13:46	05/12/21 15:52	1
1,2,3,4,6,7,8-HpCDF	**11**	**J**	51	0.45	pg/L		05/03/21 13:46	05/12/21 15:52	1
1,2,3,4,7,8,9-HpCDF	**2.2**	**J I**	51	0.59	pg/L		05/03/21 13:46	05/12/21 15:52	1
Total HpCDF	**37**	**J I**	51	0.52	pg/L		05/03/21 13:46	05/12/21 15:52	1
OCDF	**24**	**J B**	100	0.17	pg/L		05/03/21 13:46	05/12/21 15:52	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*80*		*40 - 135*	*05/03/21 13:46*	*05/12/21 15:52*	*1*
13C-1,2,3,7,8-PeCDD	*83*		*40 - 135*	*05/03/21 13:46*	*05/12/21 15:52*	*1*
13C-1,2,3,4,7,8-HxCDD	*73*		*40 - 135*	*05/03/21 13:46*	*05/12/21 15:52*	*1*
13C-1,2,3,6,7,8-HxCDD	*81*		*40 - 135*	*05/03/21 13:46*	*05/12/21 15:52*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*97*		*40 - 135*	*05/03/21 13:46*	*05/12/21 15:52*	*1*
13C-OCDD	*101*		*40 - 135*	*05/03/21 13:46*	*05/12/21 15:52*	*1*
13C-2,3,7,8-TCDF	*81*		*40 - 135*	*05/03/21 13:46*	*05/12/21 15:52*	*1*
13C-1,2,3,7,8-PeCDF	*84*		*40 - 135*	*05/03/21 13:46*	*05/12/21 15:52*	*1*
13C-2,3,4,7,8-PeCDF	*83*		*40 - 135*	*05/03/21 13:46*	*05/12/21 15:52*	*1*
13C-1,2,3,4,7,8-HxCDF	*92*		*40 - 135*	*05/03/21 13:46*	*05/12/21 15:52*	*1*

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

Job ID: 500-198446-1

Client Sample ID: SUPE-W-12A-042921
Date Collected: 04/29/21 10:13
Date Received: 04/30/21 08:45

Lab Sample ID: 500-198446-11
Matrix: Water

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,6,7,8-HxCDF	80		40 - 135	05/03/21 13:46	05/12/21 15:52	1
13C-2,3,4,6,7,8-HxCDF	82		40 - 135	05/03/21 13:46	05/12/21 15:52	1
13C-1,2,3,7,8,9-HxCDF	88		40 - 135	05/03/21 13:46	05/12/21 15:52	1
13C-1,2,3,4,6,7,8-HpCDF	93		40 - 135	05/03/21 13:46	05/12/21 15:52	1
13C-1,2,3,4,7,8,9-HpCDF	93		40 - 135	05/03/21 13:46	05/12/21 15:52	1
13C-OCDF	80		40 - 135	05/03/21 13:46	05/12/21 15:52	1

Client Sample ID: SUPE-EB-02-042921
Lab Sample ID: 500-198446-12
Date Collected: 04/29/21 10:18
Matrix: Water
Date Received: 04/30/21 08:45

Method: 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			05/04/21 04:31	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/04/21 04:31	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/04/21 04:31	1
Benzene	ND		1.0	0.41	ug/L			05/04/21 04:31	1
Chloromethane	ND		1.0	0.35	ug/L			05/04/21 04:31	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/04/21 04:31	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/04/21 04:31	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/04/21 04:31	1
Naphthalene	ND		1.0	0.43	ug/L			05/04/21 04:31	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/04/21 04:31	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/04/21 04:31	1
o-Xylene	ND		1.0	0.76	ug/L			05/04/21 04:31	1
Styrene	ND		1.0	0.73	ug/L			05/04/21 04:31	1
Toluene	ND		1.0	0.51	ug/L			05/04/21 04:31	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/04/21 04:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*77 - 120*		*05/04/21 04:31*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*05/04/21 04:31*	*1*
Dibromofluoromethane (Surr)	*112*		*75 - 123*		*05/04/21 04:31*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/04/21 04:31*	*1*

Method: 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	0.34	ug/L		05/04/21 14:51	05/06/21 19:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*83*		*24 - 146*	*05/04/21 14:51*	*05/06/21 19:46*	*1*
2-Fluorobiphenyl	*93*		*37 - 120*	*05/04/21 14:51*	*05/06/21 19:46*	*1*
2-Fluorophenol (Surr)	*48*		*10 - 120*	*05/04/21 14:51*	*05/06/21 19:46*	*1*
Nitrobenzene-d5 (Surr)	*82*		*26 - 120*	*05/04/21 14:51*	*05/06/21 19:46*	*1*
Phenol-d5 (Surr)	*32*		*11 - 120*	*05/04/21 14:51*	*05/06/21 19:46*	*1*
p-Terphenyl-d14	*110*		*64 - 127*	*05/04/21 14:51*	*05/06/21 19:46*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.0	0.30	ug/L		05/03/21 07:11	05/04/21 05:51	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		05/03/21 07:11	05/04/21 05:51	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		05/03/21 07:11	05/04/21 05:51	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		05/03/21 07:11	05/04/21 05:51	1
1-Methylnaphthalene	ND		2.0	0.50	ug/L		05/03/21 07:11	05/04/21 05:51	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		05/03/21 07:11	05/04/21 05:51	1
2,3,4,6-Tetrachlorophenol	ND		5.0	1.5	ug/L		05/03/21 07:11	05/04/21 05:51	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		05/03/21 07:11	05/04/21 05:51	1
2,4,6-Trichlorophenol	ND		5.0	1.1	ug/L		05/03/21 07:11	05/04/21 05:51	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		05/03/21 07:11	05/04/21 05:51	1
2,4-Dinitrophenol	ND		20	7.4	ug/L		05/03/21 07:11	05/04/21 05:51	1
2,4-Dinitrotoluene	ND		1.0	0.30	ug/L		05/03/21 07:11	05/04/21 05:51	1
2,6-Dinitrotoluene	ND		1.0	0.12	ug/L		05/03/21 07:11	05/04/21 05:51	1
3 & 4 Methylphenol	ND		2.0	0.44	ug/L		05/03/21 07:11	05/04/21 05:51	1

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

Job ID: 500-198446-1

Client Sample ID: SUPE-EB-02-042921
Date Collected: 04/29/21 10:18
Date Received: 04/30/21 08:45

Lab Sample ID: 500-198446-12
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	ND		2.0	0.34	ug/L		05/03/21 07:11	05/04/21 05:51	1
2-Chlorophenol	ND		5.0	0.80	ug/L		05/03/21 07:11	05/04/21 05:51	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		05/03/21 07:11	05/04/21 05:51	1
2-Methylphenol	ND		2.0	0.31	ug/L		05/03/21 07:11	05/04/21 05:51	1
2-Nitroaniline	ND		5.0	1.1	ug/L		05/03/21 07:11	05/04/21 05:51	1
2-Nitrophenol	ND		10	2.1	ug/L		05/03/21 07:11	05/04/21 05:51	1
3-Nitroaniline	ND		10	2.3	ug/L		05/03/21 07:11	05/04/21 05:51	1
4,6-Dinitro-2-methylphenol	ND		20	4.9	ug/L		05/03/21 07:11	05/04/21 05:51	1
4-Bromophenyl phenyl ether	ND		5.0	0.91	ug/L		05/03/21 07:11	05/04/21 05:51	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		05/03/21 07:11	05/04/21 05:51	1
4-Chloroaniline	ND		10	2.1	ug/L		05/03/21 07:11	05/04/21 05:51	1
4-Chlorophenyl phenyl ether	ND		5.0	0.81	ug/L		05/03/21 07:11	05/04/21 05:51	1
4-Nitroaniline	ND		10	3.9	ug/L		05/03/21 07:11	05/04/21 05:51	1
4-Nitrophenol	ND		20	2.3	ug/L		05/03/21 07:11	05/04/21 05:51	1
Acenaphthene	ND		1.0	0.36	ug/L		05/03/21 07:11	05/04/21 05:51	1
Acenaphthylene	ND		1.0	0.32	ug/L		05/03/21 07:11	05/04/21 05:51	1
Anthracene	ND		1.0	0.32	ug/L		05/03/21 07:11	05/04/21 05:51	1
Benzo[a]pyrene	ND		0.20	0.056	ug/L		05/03/21 07:11	05/04/21 05:51	1
Benzo[b]fluoranthene	ND		0.20	0.058	ug/L		05/03/21 07:11	05/04/21 05:51	1
Benzo[g,h,i]perylene	ND		1.0	0.42	ug/L		05/03/21 07:11	05/04/21 05:51	1
Benzo[k]fluoranthene	ND		0.20	0.074	ug/L		05/03/21 07:11	05/04/21 05:51	1
Benzoic acid	ND		20	4.6	ug/L		05/03/21 07:11	05/04/21 05:51	1
Benzyl alcohol	ND		20	3.1	ug/L		05/03/21 07:11	05/04/21 05:51	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		05/03/21 07:11	05/04/21 05:51	1
Bis(2-chloroethyl)ether	ND		2.0	0.35	ug/L		05/03/21 07:11	05/04/21 05:51	1
Bis(2-ethylhexyl) phthalate	ND		10	2.4	ug/L		05/03/21 07:11	05/04/21 05:51	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		05/03/21 07:11	05/04/21 05:51	1
Chrysene	ND		0.50	0.14	ug/L		05/03/21 07:11	05/04/21 05:51	1
Dibenz(a,h)anthracene	ND		0.30	0.064	ug/L		05/03/21 07:11	05/04/21 05:51	1
Dibenzofuran	ND		2.0	0.35	ug/L		05/03/21 07:11	05/04/21 05:51	1
Diethyl phthalate	ND		2.0	0.44	ug/L		05/03/21 07:11	05/04/21 05:51	1
Dimethyl phthalate	ND		2.0	0.38	ug/L		05/03/21 07:11	05/04/21 05:51	1
Di-n-butyl phthalate	ND		5.0	0.80	ug/L		05/03/21 07:11	05/04/21 05:51	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		05/03/21 07:11	05/04/21 05:51	1
2,3,5,6-Tetrachlorophenol	ND		5.0	2.5	ug/L		05/03/21 07:11	05/04/21 05:51	1
Fluoranthene	ND		1.0	0.32	ug/L		05/03/21 07:11	05/04/21 05:51	1
Fluorene	ND		1.0	0.38	ug/L		05/03/21 07:11	05/04/21 05:51	1
Hexachlorobenzene	ND		0.50	0.14	ug/L		05/03/21 07:11	05/04/21 05:51	1
Hexachlorobutadiene	ND		5.0	1.1	ug/L		05/03/21 07:11	05/04/21 05:51	1
Hexachlorocyclopentadiene	ND		20	3.4	ug/L		05/03/21 07:11	05/04/21 05:51	1
Hexachloroethane	ND		5.0	0.97	ug/L		05/03/21 07:11	05/04/21 05:51	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.084	ug/L		05/03/21 07:11	05/04/21 05:51	1
Isophorone	ND		2.0	0.29	ug/L		05/03/21 07:11	05/04/21 05:51	1
Nitrobenzene	ND		1.0	0.45	ug/L		05/03/21 07:11	05/04/21 05:51	1
N-Nitrosodi-n-propylamine	ND		0.50	0.14	ug/L		05/03/21 07:11	05/04/21 05:51	1
N-Nitrosodiphenylamine	ND		2.0	0.34	ug/L		05/03/21 07:11	05/04/21 05:51	1
Phenol	ND		5.0	0.36	ug/L		05/03/21 07:11	05/04/21 05:51	1
Pyrene	ND		1.0	0.48	ug/L		05/03/21 07:11	05/04/21 05:51	1
2,4-Dimethylphenol	ND		10	3.3	ug/L		05/03/21 07:11	05/04/21 05:51	1

Client Sample ID: SUPE-EB-02-042921
Lab Sample ID: 500-198446-12

Date Collected: 04/29/21 10:18
Matrix: Water
Date Received: 04/30/21 08:45

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.20	0.044	ug/L		05/03/21 07:11	05/04/21 05:51	1
Phenanthrene	ND		1.0	0.35	ug/L		05/03/21 07:11	05/04/21 05:51	1
3,3'-Dichlorobenzidine	ND		5.0	0.94	ug/L		05/03/21 07:11	05/04/21 05:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*95*		*40 - 145*	*05/03/21 07:11*	*05/04/21 05:51*	*1*
2-Fluorobiphenyl	*93*		*34 - 110*	*05/03/21 07:11*	*05/04/21 05:51*	*1*
2-Fluorophenol (Surr)	*47*		*27 - 110*	*05/03/21 07:11*	*05/04/21 05:51*	*1*
Nitrobenzene-d5 (Surr)	*74*		*36 - 120*	*05/03/21 07:11*	*05/04/21 05:51*	*1*
Phenol-d5 (Surr)	*19*	*S1-*	*20 - 100*	*05/03/21 07:11*	*05/04/21 05:51*	*1*
Terphenyl-d14 (Surr)	*94*		*40 - 145*	*05/03/21 07:11*	*05/04/21 05:51*	*1*

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		9.8	0.30	pg/L		05/03/21 13:46	05/12/21 10:51	1
Total TCDD	ND		9.8	0.30	pg/L		05/03/21 13:46	05/12/21 10:51	1
1,2,3,7,8-PeCDD	ND		49	0.27	pg/L		05/03/21 13:46	05/12/21 10:51	1
Total PeCDD	ND		49	0.27	pg/L		05/03/21 13:46	05/12/21 10:51	1
1,2,3,4,7,8-HxCDD	**0.98**	**J**	49	0.25	pg/L		05/03/21 13:46	05/12/21 10:51	1
1,2,3,6,7,8-HxCDD	**0.47**	**J**	49	0.23	pg/L		05/03/21 13:46	05/12/21 10:51	1
1,2,3,7,8,9-HxCDD	ND		49	0.23	pg/L		05/03/21 13:46	05/12/21 10:51	1
Total HxCDD	**1.4**	**J**	49	0.23	pg/L		05/03/21 13:46	05/12/21 10:51	1
1,2,3,4,6,7,8-HpCDD	ND		49	0.50	pg/L		05/03/21 13:46	05/12/21 10:51	1
Total HpCDD	ND		49	0.50	pg/L		05/03/21 13:46	05/12/21 10:51	1
OCDD	**2.0**	**J I B**	98	0.069	pg/L		05/03/21 13:46	05/12/21 10:51	1
2,3,7,8-TCDF	ND		9.8	0.20	pg/L		05/03/21 13:46	05/12/21 10:51	1
Total TCDF	**0.39**	**J I**	9.8	0.20	pg/L		05/03/21 13:46	05/12/21 10:51	1
1,2,3,7,8-PeCDF	ND		49	0.35	pg/L		05/03/21 13:46	05/12/21 10:51	1
2,3,4,7,8-PeCDF	ND		49	0.31	pg/L		05/03/21 13:46	05/12/21 10:51	1
Total PeCDF	ND		49	0.35	pg/L		05/03/21 13:46	05/12/21 10:51	1
1,2,3,4,7,8-HxCDF	ND		49	0.18	pg/L		05/03/21 13:46	05/12/21 10:51	1
1,2,3,6,7,8-HxCDF	ND		49	0.20	pg/L		05/03/21 13:46	05/12/21 10:51	1
2,3,4,6,7,8-HxCDF	ND		49	0.21	pg/L		05/03/21 13:46	05/12/21 10:51	1
1,2,3,7,8,9-HxCDF	ND		49	0.25	pg/L		05/03/21 13:46	05/12/21 10:51	1
Total HxCDF	ND		49	0.25	pg/L		05/03/21 13:46	05/12/21 10:51	1
1,2,3,4,6,7,8-HpCDF	**0.37**	**J I**	49	0.19	pg/L		05/03/21 13:46	05/12/21 10:51	1
1,2,3,4,7,8,9-HpCDF	**0.32**	**J**	49	0.28	pg/L		05/03/21 13:46	05/12/21 10:51	1
Total HpCDF	**0.69**	**J I**	49	0.24	pg/L		05/03/21 13:46	05/12/21 10:51	1
OCDF	**1.2**	**J I B**	98	0.14	pg/L		05/03/21 13:46	05/12/21 10:51	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*76*		*40 - 135*	*05/03/21 13:46*	*05/12/21 10:51*	*1*
13C-1,2,3,7,8-PeCDD	*74*		*40 - 135*	*05/03/21 13:46*	*05/12/21 10:51*	*1*
13C-1,2,3,4,7,8-HxCDD	*75*		*40 - 135*	*05/03/21 13:46*	*05/12/21 10:51*	*1*
13C-1,2,3,6,7,8-HxCDD	*87*		*40 - 135*	*05/03/21 13:46*	*05/12/21 10:51*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*86*		*40 - 135*	*05/03/21 13:46*	*05/12/21 10:51*	*1*
13C-OCDD	*94*		*40 - 135*	*05/03/21 13:46*	*05/12/21 10:51*	*1*
13C-2,3,7,8-TCDF	*84*		*40 - 135*	*05/03/21 13:46*	*05/12/21 10:51*	*1*
13C-1,2,3,7,8-PeCDF	*77*		*40 - 135*	*05/03/21 13:46*	*05/12/21 10:51*	*1*
13C-2,3,4,7,8-PeCDF	*76*		*40 - 135*	*05/03/21 13:46*	*05/12/21 10:51*	*1*
13C-1,2,3,4,7,8-HxCDF	*91*		*40 - 135*	*05/03/21 13:46*	*05/12/21 10:51*	*1*

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

Job ID: 500-198446-1

Client Sample ID: SUPE-EB-02-042921
Date Collected: 04/29/21 10:18
Date Received: 04/30/21 08:45

Lab Sample ID: 500-198446-12
Matrix: Water

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,6,7,8-HxCDF	80		40 - 135	05/03/21 13:46	05/12/21 10:51	1
13C-2,3,4,6,7,8-HxCDF	81		40 - 135	05/03/21 13:46	05/12/21 10:51	1
13C-1,2,3,7,8,9-HxCDF	87		40 - 135	05/03/21 13:46	05/12/21 10:51	1
13C-1,2,3,4,6,7,8-HpCDF	89		40 - 135	05/03/21 13:46	05/12/21 10:51	1
13C-1,2,3,4,7,8,9-HpCDF	86		40 - 135	05/03/21 13:46	05/12/21 10:51	1
13C-OCDF	77		40 - 135	05/03/21 13:46	05/12/21 10:51	1

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-30C-042921
Lab Sample ID: 500-198446-13
Date Collected: 04/29/21 12:51
Matrix: Water
Date Received: 04/30/21 08:45

Method: 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			05/04/21 04:54	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/04/21 04:54	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/04/21 04:54	1
Benzene	ND		1.0	0.41	ug/L			05/04/21 04:54	1
Chloromethane	ND		1.0	0.35	ug/L			05/04/21 04:54	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/04/21 04:54	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/04/21 04:54	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/04/21 04:54	1
Naphthalene	ND		1.0	0.43	ug/L			05/04/21 04:54	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/04/21 04:54	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/04/21 04:54	1
o-Xylene	ND		1.0	0.76	ug/L			05/04/21 04:54	1
Styrene	ND		1.0	0.73	ug/L			05/04/21 04:54	1
Toluene	ND		1.0	0.51	ug/L			05/04/21 04:54	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/04/21 04:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*77 - 120*		*05/04/21 04:54*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*05/04/21 04:54*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 123*		*05/04/21 04:54*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/04/21 04:54*	*1*

Method: 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	0.34	ug/L		05/04/21 14:51	05/06/21 20:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*93*		*24 - 146*	*05/04/21 14:51*	*05/06/21 20:13*	*1*
2-Fluorobiphenyl	*85*		*37 - 120*	*05/04/21 14:51*	*05/06/21 20:13*	*1*
2-Fluorophenol (Surr)	*45*		*10 - 120*	*05/04/21 14:51*	*05/06/21 20:13*	*1*
Nitrobenzene-d5 (Surr)	*76*		*26 - 120*	*05/04/21 14:51*	*05/06/21 20:13*	*1*
Phenol-d5 (Surr)	*31*		*11 - 120*	*05/04/21 14:51*	*05/06/21 20:13*	*1*
p-Terphenyl-d14	*102*		*64 - 127*	*05/04/21 14:51*	*05/06/21 20:13*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.1	0.31	ug/L		05/03/21 07:11	05/04/21 06:12	1
1,2-Dichlorobenzene	ND		2.1	0.30	ug/L		05/03/21 07:11	05/04/21 06:12	1
1,3-Dichlorobenzene	ND		2.1	0.26	ug/L		05/03/21 07:11	05/04/21 06:12	1
1,4-Dichlorobenzene	ND		2.1	0.28	ug/L		05/03/21 07:11	05/04/21 06:12	1
1-Methylnaphthalene	ND		2.1	0.52	ug/L		05/03/21 07:11	05/04/21 06:12	1
bis(chloroisopropyl) ether	ND		2.1	0.31	ug/L		05/03/21 07:11	05/04/21 06:12	1
2,3,4,6-Tetrachlorophenol	ND		5.2	1.6	ug/L		05/03/21 07:11	05/04/21 06:12	1
2,4,5-Trichlorophenol	ND		10	2.4	ug/L		05/03/21 07:11	05/04/21 06:12	1
2,4,6-Trichlorophenol	ND		5.2	1.1	ug/L		05/03/21 07:11	05/04/21 06:12	1
2,4-Dichlorophenol	ND		10	2.4	ug/L		05/03/21 07:11	05/04/21 06:12	1
2,4-Dinitrophenol	ND		21	7.7	ug/L		05/03/21 07:11	05/04/21 06:12	1
2,4-Dinitrotoluene	ND		1.0	0.31	ug/L		05/03/21 07:11	05/04/21 06:12	1
2,6-Dinitrotoluene	ND		1.0	0.12	ug/L		05/03/21 07:11	05/04/21 06:12	1
3 & 4 Methylphenol	ND		2.1	0.46	ug/L		05/03/21 07:11	05/04/21 06:12	1

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

Job ID: 500-198446-1

Client Sample ID: SUPE-W-30C-042921
Date Collected: 04/29/21 12:51
Date Received: 04/30/21 08:45

Lab Sample ID: 500-198446-13
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	ND		2.1	0.35	ug/L		05/03/21 07:11	05/04/21 06:12	1
2-Chlorophenol	ND		5.2	0.83	ug/L		05/03/21 07:11	05/04/21 06:12	1
2-Methylnaphthalene	ND		2.1	0.13	ug/L		05/03/21 07:11	05/04/21 06:12	1
2-Methylphenol	ND		2.1	0.32	ug/L		05/03/21 07:11	05/04/21 06:12	1
2-Nitroaniline	ND		5.2	1.1	ug/L		05/03/21 07:11	05/04/21 06:12	1
2-Nitrophenol	ND		10	2.2	ug/L		05/03/21 07:11	05/04/21 06:12	1
3-Nitroaniline	ND		10	2.4	ug/L		05/03/21 07:11	05/04/21 06:12	1
4,6-Dinitro-2-methylphenol	ND		21	5.1	ug/L		05/03/21 07:11	05/04/21 06:12	1
4-Bromophenyl phenyl ether	ND		5.2	0.94	ug/L		05/03/21 07:11	05/04/21 06:12	1
4-Chloro-3-methylphenol	ND		10	2.3	ug/L		05/03/21 07:11	05/04/21 06:12	1
4-Chloroaniline	ND		10	2.2	ug/L		05/03/21 07:11	05/04/21 06:12	1
4-Chlorophenyl phenyl ether	ND		5.2	0.84	ug/L		05/03/21 07:11	05/04/21 06:12	1
4-Nitroaniline	ND		10	4.1	ug/L		05/03/21 07:11	05/04/21 06:12	1
4-Nitrophenol	ND		21	2.4	ug/L		05/03/21 07:11	05/04/21 06:12	1
Acenaphthene	ND		1.0	0.37	ug/L		05/03/21 07:11	05/04/21 06:12	1
Acenaphthylene	ND		1.0	0.33	ug/L		05/03/21 07:11	05/04/21 06:12	1
Anthracene	ND		1.0	0.33	ug/L		05/03/21 07:11	05/04/21 06:12	1
Benzo[a]pyrene	ND		0.21	0.058	ug/L		05/03/21 07:11	05/04/21 06:12	1
Benzo[b]fluoranthene	ND		0.21	0.060	ug/L		05/03/21 07:11	05/04/21 06:12	1
Benzo[g,h,i]perylene	ND		1.0	0.43	ug/L		05/03/21 07:11	05/04/21 06:12	1
Benzo[k]fluoranthene	ND		0.21	0.077	ug/L		05/03/21 07:11	05/04/21 06:12	1
Benzoic acid	ND		21	4.7	ug/L		05/03/21 07:11	05/04/21 06:12	1
Benzyl alcohol	ND		21	3.2	ug/L		05/03/21 07:11	05/04/21 06:12	1
Bis(2-chloroethoxy)methane	ND		2.1	0.31	ug/L		05/03/21 07:11	05/04/21 06:12	1
Bis(2-chloroethyl)ether	ND		2.1	0.36	ug/L		05/03/21 07:11	05/04/21 06:12	1
Bis(2-ethylhexyl) phthalate	ND		10	2.5	ug/L		05/03/21 07:11	05/04/21 06:12	1
Butyl benzyl phthalate	ND		2.1	0.28	ug/L		05/03/21 07:11	05/04/21 06:12	1
Chrysene	ND		0.52	0.14	ug/L		05/03/21 07:11	05/04/21 06:12	1
Dibenz(a,h)anthracene	ND		0.31	0.066	ug/L		05/03/21 07:11	05/04/21 06:12	1
Dibenzofuran	ND		2.1	0.36	ug/L		05/03/21 07:11	05/04/21 06:12	1
Diethyl phthalate	ND		2.1	0.46	ug/L		05/03/21 07:11	05/04/21 06:12	1
Dimethyl phthalate	ND		2.1	0.39	ug/L		05/03/21 07:11	05/04/21 06:12	1
Di-n-butyl phthalate	ND		5.2	0.83	ug/L		05/03/21 07:11	05/04/21 06:12	1
Di-n-octyl phthalate	ND		10	2.6	ug/L		05/03/21 07:11	05/04/21 06:12	1
2,3,5,6-Tetrachlorophenol	ND		5.2	2.6	ug/L		05/03/21 07:11	05/04/21 06:12	1
Fluoranthene	ND		1.0	0.33	ug/L		05/03/21 07:11	05/04/21 06:12	1
Fluorene	ND		1.0	0.39	ug/L		05/03/21 07:11	05/04/21 06:12	1
Hexachlorobenzene	ND		0.52	0.14	ug/L		05/03/21 07:11	05/04/21 06:12	1
Hexachlorobutadiene	ND		5.2	1.1	ug/L		05/03/21 07:11	05/04/21 06:12	1
Hexachlorocyclopentadiene	ND		21	3.6	ug/L		05/03/21 07:11	05/04/21 06:12	1
Hexachloroethane	ND		5.2	1.0	ug/L		05/03/21 07:11	05/04/21 06:12	1
Indeno[1,2,3-cd]pyrene	ND		0.21	0.087	ug/L		05/03/21 07:11	05/04/21 06:12	1
Isophorone	ND		2.1	0.30	ug/L		05/03/21 07:11	05/04/21 06:12	1
Nitrobenzene	ND		1.0	0.47	ug/L		05/03/21 07:11	05/04/21 06:12	1
N-Nitrosodi-n-propylamine	ND		0.52	0.14	ug/L		05/03/21 07:11	05/04/21 06:12	1
N-Nitrosodiphenylamine	ND		2.1	0.35	ug/L		05/03/21 07:11	05/04/21 06:12	1
Phenol	ND		5.2	0.37	ug/L		05/03/21 07:11	05/04/21 06:12	1
Pyrene	ND		1.0	0.50	ug/L		05/03/21 07:11	05/04/21 06:12	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		05/03/21 07:11	05/04/21 06:12	1

Client Sample ID: SUPE-W-30C-042921
Lab Sample ID: 500-198446-13
Date Collected: 04/29/21 12:51
Matrix: Water
Date Received: 04/30/21 08:45

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.21	0.046	ug/L		05/03/21 07:11	05/04/21 06:12	1
Phenanthrene	ND		1.0	0.36	ug/L		05/03/21 07:11	05/04/21 06:12	1
3,3'-Dichlorobenzidine	ND		5.2	0.97	ug/L		05/03/21 07:11	05/04/21 06:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*78*		*40 - 145*	*05/03/21 07:11*	*05/04/21 06:12*	*1*
2-Fluorobiphenyl	*73*		*34 - 110*	*05/03/21 07:11*	*05/04/21 06:12*	*1*
2-Fluorophenol (Surr)	*40*		*27 - 110*	*05/03/21 07:11*	*05/04/21 06:12*	*1*
Nitrobenzene-d5 (Surr)	*60*		*36 - 120*	*05/03/21 07:11*	*05/04/21 06:12*	*1*
Phenol-d5 (Surr)	*19*	*S1-*	*20 - 100*	*05/03/21 07:11*	*05/04/21 06:12*	*1*
Terphenyl-d14 (Surr)	*73*		*40 - 145*	*05/03/21 07:11*	*05/04/21 06:12*	*1*

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		10	0.17	pg/L		05/03/21 13:46	05/12/21 16:52	1
Total TCDD	ND		10	0.33	pg/L		05/03/21 13:46	05/12/21 16:52	1
1,2,3,7,8-PeCDD	ND		51	0.28	pg/L		05/03/21 13:46	05/12/21 16:52	1
Total PeCDD	ND		51	0.28	pg/L		05/03/21 13:46	05/12/21 16:52	1
1,2,3,4,7,8-HxCDD	**0.84**	**J I**	51	0.33	pg/L		05/03/21 13:46	05/12/21 16:52	1
1,2,3,6,7,8-HxCDD	**2.2**	**J I**	51	0.30	pg/L		05/03/21 13:46	05/12/21 16:52	1
1,2,3,7,8,9-HxCDD	**1.2**	**J**	51	0.30	pg/L		05/03/21 13:46	05/12/21 16:52	1
Total HxCDD	**13**	**J I**	51	0.31	pg/L		05/03/21 13:46	05/12/21 16:52	1
1,2,3,4,6,7,8-HpCDD	**42**	**J**	51	0.47	pg/L		05/03/21 13:46	05/12/21 16:52	1
Total HpCDD	**71**		51	0.47	pg/L		05/03/21 13:46	05/12/21 16:52	1
OCDD	**140**	**B**	100	0.26	pg/L		05/03/21 13:46	05/12/21 16:52	1
2,3,7,8-TCDF	ND		10	0.31	pg/L		05/03/21 13:46	05/12/21 16:52	1
Total TCDF	**67**	**I**	10	0.31	pg/L		05/03/21 13:46	05/12/21 16:52	1
1,2,3,7,8-PeCDF	ND		51	0.30	pg/L		05/03/21 13:46	05/12/21 16:52	1
2,3,4,7,8-PeCDF	ND		51	0.26	pg/L		05/03/21 13:46	05/12/21 16:52	1
Total PeCDF	**14**	**J I**	51	0.28	pg/L		05/03/21 13:46	05/12/21 16:52	1
1,2,3,4,7,8-HxCDF	**1.1**	**J**	51	0.25	pg/L		05/03/21 13:46	05/12/21 16:52	1
1,2,3,6,7,8-HxCDF	**1.8**	**J I**	51	0.28	pg/L		05/03/21 13:46	05/12/21 16:52	1
2,3,4,6,7,8-HxCDF	**1.1**	**J I**	51	0.28	pg/L		05/03/21 13:46	05/12/21 16:52	1
1,2,3,7,8,9-HxCDF	ND		51	0.34	pg/L		05/03/21 13:46	05/12/21 16:52	1
Total HxCDF	**40**	**J I**	51	0.29	pg/L		05/03/21 13:46	05/12/21 16:52	1
1,2,3,4,6,7,8-HpCDF	**7.4**	**J**	51	0.26	pg/L		05/03/21 13:46	05/12/21 16:52	1
1,2,3,4,7,8,9-HpCDF	**2.3**	**J I**	51	0.37	pg/L		05/03/21 13:46	05/12/21 16:52	1
Total HpCDF	**32**	**J I**	51	0.32	pg/L		05/03/21 13:46	05/12/21 16:52	1
OCDF	**16**	**J B**	100	0.12	pg/L		05/03/21 13:46	05/12/21 16:52	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*82*		*40 - 135*	*05/03/21 13:46*	*05/12/21 16:52*	*1*
13C-1,2,3,7,8-PeCDD	*84*		*40 - 135*	*05/03/21 13:46*	*05/12/21 16:52*	*1*
13C-1,2,3,4,7,8-HxCDD	*85*		*40 - 135*	*05/03/21 13:46*	*05/12/21 16:52*	*1*
13C-1,2,3,6,7,8-HxCDD	*94*		*40 - 135*	*05/03/21 13:46*	*05/12/21 16:52*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*101*		*40 - 135*	*05/03/21 13:46*	*05/12/21 16:52*	*1*
13C-OCDD	*107*		*40 - 135*	*05/03/21 13:46*	*05/12/21 16:52*	*1*
13C-2,3,7,8-TCDF	*87*		*40 - 135*	*05/03/21 13:46*	*05/12/21 16:52*	*1*
13C-1,2,3,7,8-PeCDF	*84*		*40 - 135*	*05/03/21 13:46*	*05/12/21 16:52*	*1*
13C-2,3,4,7,8-PeCDF	*83*		*40 - 135*	*05/03/21 13:46*	*05/12/21 16:52*	*1*
13C-1,2,3,4,7,8-HxCDF	*101*		*40 - 135*	*05/03/21 13:46*	*05/12/21 16:52*	*1*

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-30C-042921
Lab Sample ID: 500-198446-13
Date Collected: 04/29/21 12:51
Matrix: Water
Date Received: 04/30/21 08:45

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,6,7,8-HxCDF	87		40 - 135	05/03/21 13:46	05/12/21 16:52	1
13C-2,3,4,6,7,8-HxCDF	89		40 - 135	05/03/21 13:46	05/12/21 16:52	1
13C-1,2,3,7,8,9-HxCDF	95		40 - 135	05/03/21 13:46	05/12/21 16:52	1
13C-1,2,3,4,6,7,8-HpCDF	97		40 - 135	05/03/21 13:46	05/12/21 16:52	1
13C-1,2,3,4,7,8,9-HpCDF	99		40 - 135	05/03/21 13:46	05/12/21 16:52	1
13C-OCDF	86		40 - 135	05/03/21 13:46	05/12/21 16:52	1

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-12CR-042921
Lab Sample ID: 500-198446-14
Date Collected: 04/29/21 08:21
Matrix: Water
Date Received: 04/30/21 08:45

Method: 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			05/04/21 05:17	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/04/21 05:17	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/04/21 05:17	1
Benzene	ND		1.0	0.41	ug/L			05/04/21 05:17	1
Chloromethane	ND		1.0	0.35	ug/L			05/04/21 05:17	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/04/21 05:17	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/04/21 05:17	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/04/21 05:17	1
Naphthalene	ND		1.0	0.43	ug/L			05/04/21 05:17	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/04/21 05:17	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/04/21 05:17	1
o-Xylene	ND		1.0	0.76	ug/L			05/04/21 05:17	1
Styrene	ND		1.0	0.73	ug/L			05/04/21 05:17	1
Toluene	ND		1.0	0.51	ug/L			05/04/21 05:17	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/04/21 05:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*05/04/21 05:17*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*05/04/21 05:17*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*05/04/21 05:17*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/04/21 05:17*	*1*

Method: 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	0.34	ug/L		05/04/21 14:51	05/06/21 20:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*95*		*24 - 146*	*05/04/21 14:51*	*05/06/21 20:40*	*1*
2-Fluorobiphenyl	*92*		*37 - 120*	*05/04/21 14:51*	*05/06/21 20:40*	*1*
2-Fluorophenol (Surr)	*48*		*10 - 120*	*05/04/21 14:51*	*05/06/21 20:40*	*1*
Nitrobenzene-d5 (Surr)	*80*		*26 - 120*	*05/04/21 14:51*	*05/06/21 20:40*	*1*
Phenol-d5 (Surr)	*33*		*11 - 120*	*05/04/21 14:51*	*05/06/21 20:40*	*1*
p-Terphenyl-d14	*100*		*64 - 127*	*05/04/21 14:51*	*05/06/21 20:40*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.9	0.29	ug/L		05/03/21 07:11	05/04/21 06:34	1
1,2-Dichlorobenzene	ND		1.9	0.28	ug/L		05/03/21 07:11	05/04/21 06:34	1
1,3-Dichlorobenzene	ND		1.9	0.24	ug/L		05/03/21 07:11	05/04/21 06:34	1
1,4-Dichlorobenzene	ND		1.9	0.26	ug/L		05/03/21 07:11	05/04/21 06:34	1
1-Methylnaphthalene	ND		1.9	0.48	ug/L		05/03/21 07:11	05/04/21 06:34	1
bis(chloroisopropyl) ether	ND		1.9	0.29	ug/L		05/03/21 07:11	05/04/21 06:34	1
2,3,4,6-Tetrachlorophenol	ND		4.8	1.4	ug/L		05/03/21 07:11	05/04/21 06:34	1
2,4,5-Trichlorophenol	ND		9.5	2.2	ug/L		05/03/21 07:11	05/04/21 06:34	1
2,4,6-Trichlorophenol	ND		4.8	1.0	ug/L		05/03/21 07:11	05/04/21 06:34	1
2,4-Dichlorophenol	ND		9.5	2.2	ug/L		05/03/21 07:11	05/04/21 06:34	1
2,4-Dinitrophenol	ND		19	7.1	ug/L		05/03/21 07:11	05/04/21 06:34	1
2,4-Dinitrotoluene	ND		0.95	0.29	ug/L		05/03/21 07:11	05/04/21 06:34	1
2,6-Dinitrotoluene	ND		0.95	0.11	ug/L		05/03/21 07:11	05/04/21 06:34	1
3 & 4 Methylphenol	ND		1.9	0.42	ug/L		05/03/21 07:11	05/04/21 06:34	1

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-12CR-042921
Lab Sample ID: 500-198446-14
Date Collected: 04/29/21 08:21
Matrix: Water
Date Received: 04/30/21 08:45

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	ND		1.9	0.32	ug/L		05/03/21 07:11	05/04/21 06:34	1
2-Chlorophenol	ND		4.8	0.76	ug/L		05/03/21 07:11	05/04/21 06:34	1
2-Methylnaphthalene	ND		1.9	0.12	ug/L		05/03/21 07:11	05/04/21 06:34	1
2-Methylphenol	ND		1.9	0.30	ug/L		05/03/21 07:11	05/04/21 06:34	1
2-Nitroaniline	ND		4.8	1.0	ug/L		05/03/21 07:11	05/04/21 06:34	1
2-Nitrophenol	ND		9.5	2.0	ug/L		05/03/21 07:11	05/04/21 06:34	1
3-Nitroaniline	ND		9.5	2.2	ug/L		05/03/21 07:11	05/04/21 06:34	1
4,6-Dinitro-2-methylphenol	ND		19	4.7	ug/L		05/03/21 07:11	05/04/21 06:34	1
4-Bromophenyl phenyl ether	ND		4.8	0.87	ug/L		05/03/21 07:11	05/04/21 06:34	1
4-Chloro-3-methylphenol	ND		9.5	2.1	ug/L		05/03/21 07:11	05/04/21 06:34	1
4-Chloroaniline	ND		9.5	2.0	ug/L		05/03/21 07:11	05/04/21 06:34	1
4-Chlorophenyl phenyl ether	ND		4.8	0.77	ug/L		05/03/21 07:11	05/04/21 06:34	1
4-Nitroaniline	ND		9.5	3.7	ug/L		05/03/21 07:11	05/04/21 06:34	1
4-Nitrophenol	ND		19	2.2	ug/L		05/03/21 07:11	05/04/21 06:34	1
Acenaphthene	ND		0.95	0.34	ug/L		05/03/21 07:11	05/04/21 06:34	1
Acenaphthylene	ND		0.95	0.31	ug/L		05/03/21 07:11	05/04/21 06:34	1
Anthracene	ND		0.95	0.31	ug/L		05/03/21 07:11	05/04/21 06:34	1
Benzo[a]pyrene	ND		0.19	0.053	ug/L		05/03/21 07:11	05/04/21 06:34	1
Benzo[b]fluoranthene	ND		0.19	0.055	ug/L		05/03/21 07:11	05/04/21 06:34	1
Benzo[g,h,i]perylene	ND		0.95	0.40	ug/L		05/03/21 07:11	05/04/21 06:34	1
Benzo[k]fluoranthene	ND		0.19	0.071	ug/L		05/03/21 07:11	05/04/21 06:34	1
Benzoic acid	ND		19	4.3	ug/L		05/03/21 07:11	05/04/21 06:34	1
Benzyl alcohol	ND		19	2.9	ug/L		05/03/21 07:11	05/04/21 06:34	1
Bis(2-chloroethoxy)methane	ND		1.9	0.29	ug/L		05/03/21 07:11	05/04/21 06:34	1
Bis(2-chloroethyl)ether	ND		1.9	0.33	ug/L		05/03/21 07:11	05/04/21 06:34	1
Bis(2-ethylhexyl) phthalate	ND		9.5	2.3	ug/L		05/03/21 07:11	05/04/21 06:34	1
Butyl benzyl phthalate	ND		1.9	0.26	ug/L		05/03/21 07:11	05/04/21 06:34	1
Chrysene	ND		0.48	0.13	ug/L		05/03/21 07:11	05/04/21 06:34	1
Dibenz(a,h)anthracene	ND		0.29	0.061	ug/L		05/03/21 07:11	05/04/21 06:34	1
Dibenzofuran	ND		1.9	0.33	ug/L		05/03/21 07:11	05/04/21 06:34	1
Diethyl phthalate	ND		1.9	0.42	ug/L		05/03/21 07:11	05/04/21 06:34	1
Dimethyl phthalate	ND		1.9	0.36	ug/L		05/03/21 07:11	05/04/21 06:34	1
Di-n-butyl phthalate	ND		4.8	0.76	ug/L		05/03/21 07:11	05/04/21 06:34	1
Di-n-octyl phthalate	ND		9.5	2.4	ug/L		05/03/21 07:11	05/04/21 06:34	1
2,3,5,6-Tetrachlorophenol	ND		4.8	2.4	ug/L		05/03/21 07:11	05/04/21 06:34	1
Fluoranthene	ND		0.95	0.31	ug/L		05/03/21 07:11	05/04/21 06:34	1
Fluorene	ND		0.95	0.36	ug/L		05/03/21 07:11	05/04/21 06:34	1
Hexachlorobenzene	ND		0.48	0.13	ug/L		05/03/21 07:11	05/04/21 06:34	1
Hexachlorobutadiene	ND		4.8	1.1	ug/L		05/03/21 07:11	05/04/21 06:34	1
Hexachlorocyclopentadiene	ND		19	3.3	ug/L		05/03/21 07:11	05/04/21 06:34	1
Hexachloroethane	ND		4.8	0.93	ug/L		05/03/21 07:11	05/04/21 06:34	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.080	ug/L		05/03/21 07:11	05/04/21 06:34	1
Isophorone	ND		1.9	0.28	ug/L		05/03/21 07:11	05/04/21 06:34	1
Nitrobenzene	ND		0.95	0.43	ug/L		05/03/21 07:11	05/04/21 06:34	1
N-Nitrosodi-n-propylamine	ND		0.48	0.13	ug/L		05/03/21 07:11	05/04/21 06:34	1
N-Nitrosodiphenylamine	ND		1.9	0.32	ug/L		05/03/21 07:11	05/04/21 06:34	1
Phenol	ND		4.8	0.34	ug/L		05/03/21 07:11	05/04/21 06:34	1
Pyrene	ND		0.95	0.46	ug/L		05/03/21 07:11	05/04/21 06:34	1
2,4-Dimethylphenol	ND		9.5	3.2	ug/L		05/03/21 07:11	05/04/21 06:34	1

Client Sample ID: SUPE-W-12CR-042921
Lab Sample ID: 500-198446-14

Date Collected: 04/29/21 08:21
Matrix: Water
Date Received: 04/30/21 08:45

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	**0.048**	**J**	0.19	0.042	ug/L		05/03/21 07:11	05/04/21 06:34	1
Phenanthrene	ND		0.95	0.33	ug/L		05/03/21 07:11	05/04/21 06:34	1
3,3'-Dichlorobenzidine	ND		4.8	0.90	ug/L		05/03/21 07:11	05/04/21 06:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*104*		*40 - 145*	*05/03/21 07:11*	*05/04/21 06:34*	*1*
2-Fluorobiphenyl	*96*		*34 - 110*	*05/03/21 07:11*	*05/04/21 06:34*	*1*
2-Fluorophenol (Surr)	*44*		*27 - 110*	*05/03/21 07:11*	*05/04/21 06:34*	*1*
Nitrobenzene-d5 (Surr)	*78*		*36 - 120*	*05/03/21 07:11*	*05/04/21 06:34*	*1*
Phenol-d5 (Surr)	*24*		*20 - 100*	*05/03/21 07:11*	*05/04/21 06:34*	*1*
Terphenyl-d14 (Surr)	*94*		*40 - 145*	*05/03/21 07:11*	*05/04/21 06:34*	*1*

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		10	0.21	pg/L		05/03/21 13:46	05/12/21 17:52	1
Total TCDD	ND		10	0.21	pg/L		05/03/21 13:46	05/12/21 17:52	1
1,2,3,7,8-PeCDD	ND		52	0.084	pg/L		05/03/21 13:46	05/12/21 17:52	1
Total PeCDD	**0.27**	**J**	52	0.084	pg/L		05/03/21 13:46	05/12/21 17:52	1
1,2,3,4,7,8-HxCDD	**0.95**	**J**	52	0.090	pg/L		05/03/21 13:46	05/12/21 17:52	1
1,2,3,6,7,8-HxCDD	**0.36**	**J I**	52	0.082	pg/L		05/03/21 13:46	05/12/21 17:52	1
1,2,3,7,8,9-HxCDD	**0.30**	**J**	52	0.081	pg/L		05/03/21 13:46	05/12/21 17:52	1
Total HxCDD	**3.4**	**J I**	52	0.085	pg/L		05/03/21 13:46	05/12/21 17:52	1
1,2,3,4,6,7,8-HpCDD	**4.8**	**J**	52	0.13	pg/L		05/03/21 13:46	05/12/21 17:52	1
Total HpCDD	**17**	**J**	52	0.13	pg/L		05/03/21 13:46	05/12/21 17:52	1
OCDD	**59**	**J B**	100	0.045	pg/L		05/03/21 13:46	05/12/21 17:52	1
2,3,7,8-TCDF	**0.083**	**J I**	10	0.071	pg/L		05/03/21 13:46	05/12/21 17:52	1
Total TCDF	**0.35**	**J I**	10	0.071	pg/L		05/03/21 13:46	05/12/21 17:52	1
1,2,3,7,8-PeCDF	ND		52	0.096	pg/L		05/03/21 13:46	05/12/21 17:52	1
2,3,4,7,8-PeCDF	ND		52	0.088	pg/L		05/03/21 13:46	05/12/21 17:52	1
Total PeCDF	**0.78**	**J I**	52	0.092	pg/L		05/03/21 13:46	05/12/21 17:52	1
1,2,3,4,7,8-HxCDF	ND		52	0.070	pg/L		05/03/21 13:46	05/12/21 17:52	1
1,2,3,6,7,8-HxCDF	ND		52	0.081	pg/L		05/03/21 13:46	05/12/21 17:52	1
2,3,4,6,7,8-HxCDF	ND		52	0.078	pg/L		05/03/21 13:46	05/12/21 17:52	1
1,2,3,7,8,9-HxCDF	ND		52	0.091	pg/L		05/03/21 13:46	05/12/21 17:52	1
Total HxCDF	**2.2**	**J I**	52	0.080	pg/L		05/03/21 13:46	05/12/21 17:52	1
1,2,3,4,6,7,8-HpCDF	**0.97**	**J**	52	0.089	pg/L		05/03/21 13:46	05/12/21 17:52	1
1,2,3,4,7,8,9-HpCDF	ND		52	0.12	pg/L		05/03/21 13:46	05/12/21 17:52	1
Total HpCDF	**3.0**	**J I**	52	0.11	pg/L		05/03/21 13:46	05/12/21 17:52	1
OCDF	**3.9**	**J B**	100	0.036	pg/L		05/03/21 13:46	05/12/21 17:52	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*83*		*40 - 135*	*05/03/21 13:46*	*05/12/21 17:52*	*1*
13C-1,2,3,7,8-PeCDD	*87*		*40 - 135*	*05/03/21 13:46*	*05/12/21 17:52*	*1*
13C-1,2,3,4,7,8-HxCDD	*86*		*40 - 135*	*05/03/21 13:46*	*05/12/21 17:52*	*1*
13C-1,2,3,6,7,8-HxCDD	*88*		*40 - 135*	*05/03/21 13:46*	*05/12/21 17:52*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*99*		*40 - 135*	*05/03/21 13:46*	*05/12/21 17:52*	*1*
13C-OCDD	*101*		*40 - 135*	*05/03/21 13:46*	*05/12/21 17:52*	*1*
13C-2,3,7,8-TCDF	*87*		*40 - 135*	*05/03/21 13:46*	*05/12/21 17:52*	*1*
13C-1,2,3,7,8-PeCDF	*90*		*40 - 135*	*05/03/21 13:46*	*05/12/21 17:52*	*1*
13C-2,3,4,7,8-PeCDF	*86*		*40 - 135*	*05/03/21 13:46*	*05/12/21 17:52*	*1*
13C-1,2,3,4,7,8-HxCDF	*94*		*40 - 135*	*05/03/21 13:46*	*05/12/21 17:52*	*1*

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-12CR-042921
Lab Sample ID: 500-198446-14
Date Collected: 04/29/21 08:21
Matrix: Water
Date Received: 04/30/21 08:45

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,6,7,8-HxCDF	82		40 - 135	05/03/21 13:46	05/12/21 17:52	1
13C-2,3,4,6,7,8-HxCDF	86		40 - 135	05/03/21 13:46	05/12/21 17:52	1
13C-1,2,3,7,8,9-HxCDF	92		40 - 135	05/03/21 13:46	05/12/21 17:52	1
13C-1,2,3,4,6,7,8-HpCDF	90		40 - 135	05/03/21 13:46	05/12/21 17:52	1
13C-1,2,3,4,7,8,9-HpCDF	89		40 - 135	05/03/21 13:46	05/12/21 17:52	1
13C-OCDF	66		40 - 135	05/03/21 13:46	05/12/21 17:52	1

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-TB-02-042921
Lab Sample ID: 500-198446-15
Date Collected: 04/29/21 10:00
Matrix: Water
Date Received: 04/30/21 08:45

Method: 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			05/04/21 05:40	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/04/21 05:40	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/04/21 05:40	1
Benzene	ND		1.0	0.41	ug/L			05/04/21 05:40	1
Chloromethane	ND		1.0	0.35	ug/L			05/04/21 05:40	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/04/21 05:40	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/04/21 05:40	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/04/21 05:40	1
Naphthalene	ND		1.0	0.43	ug/L			05/04/21 05:40	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/04/21 05:40	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/04/21 05:40	1
o-Xylene	ND		1.0	0.76	ug/L			05/04/21 05:40	1
Styrene	ND		1.0	0.73	ug/L			05/04/21 05:40	1
Toluene	ND		1.0	0.51	ug/L			05/04/21 05:40	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/04/21 05:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*117*		*77 - 120*		*05/04/21 05:40*	*1*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*05/04/21 05:40*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 123*		*05/04/21 05:40*	*1*
Toluene-d8 (Surr)	*105*		*80 - 120*		*05/04/21 05:40*	*1*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
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
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.

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

GC/MS VOA

Analysis Batch: 579092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198446-1	SUPE-W-28C-042821	Total/NA	Water	8260C	
500-198446-2	SUPE-EB-01-042821	Total/NA	Water	8260C	
500-198446-4	SUPE-W-04AR2-042821	Total/NA	Water	8260C	
500-198446-6	SUPE-W-10AR2-042821	Total/NA	Water	8260C	
500-198446-7	SUPE-M-99A-042821	Total/NA	Water	8260C	
500-198446-8	SUPE-TB-01-042821	Total/NA	Water	8260C	
500-198446-9	SUPE-W-06A-042821	Total/NA	Water	8260C	
500-198446-10	SUPE-W-06C-042821	Total/NA	Water	8260C	
500-198446-11	SUPE-W-12A-042921	Total/NA	Water	8260C	
500-198446-12	SUPE-EB-02-042921	Total/NA	Water	8260C	
500-198446-13	SUPE-W-30C-042921	Total/NA	Water	8260C	
500-198446-14	SUPE-W-12CR-042921	Total/NA	Water	8260C	
500-198446-15	SUPE-W-TB-02-042921	Total/NA	Water	8260C	
MB 480-579092/8	Method Blank	Total/NA	Water	8260C	
LCS 480-579092/6	Lab Control Sample	Total/NA	Water	8260C	
500-198446-10 MS	SUPE-W-06C-042821	Total/NA	Water	8260C	
500-198446-10 MSD	SUPE-W-06C-042821	Total/NA	Water	8260C	

Analysis Batch: 579132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198446-5	SUPE-W-30A-042821	Total/NA	Water	8260C	
MB 480-579132/7	Method Blank	Total/NA	Water	8260C	
LCS 480-579132/5	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 579278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198446-1	SUPE-W-28C-042821	Total/NA	Water	3510C	
500-198446-2	SUPE-EB-01-042821	Total/NA	Water	3510C	
500-198446-3	SUPE-W-18D-042821	Total/NA	Water	3510C	
500-198446-4	SUPE-W-04AR2-042821	Total/NA	Water	3510C	
500-198446-5	SUPE-W-30A-042821	Total/NA	Water	3510C	
500-198446-6	SUPE-W-10AR2-042821	Total/NA	Water	3510C	
500-198446-7	SUPE-M-99A-042821	Total/NA	Water	3510C	
500-198446-9	SUPE-W-06A-042821	Total/NA	Water	3510C	
500-198446-10	SUPE-W-06C-042821	Total/NA	Water	3510C	
500-198446-11	SUPE-W-12A-042921	Total/NA	Water	3510C	
500-198446-12	SUPE-EB-02-042921	Total/NA	Water	3510C	
500-198446-13	SUPE-W-30C-042921	Total/NA	Water	3510C	
500-198446-14	SUPE-W-12CR-042921	Total/NA	Water	3510C	
MB 480-579278/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-579278/2-A	Lab Control Sample	Total/NA	Water	3510C	
500-198446-10 MS	SUPE-W-06C-042821	Total/NA	Water	3510C	
500-198446-10 MSD	SUPE-W-06C-042821	Total/NA	Water	3510C	

Analysis Batch: 579609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198446-1	SUPE-W-28C-042821	Total/NA	Water	8270D LL	579278
500-198446-2	SUPE-EB-01-042821	Total/NA	Water	8270D LL	579278
500-198446-3	SUPE-W-18D-042821	Total/NA	Water	8270D LL	579278

GC/MS Semi VOA (Continued)

Analysis Batch: 579609 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198446-4	SUPE-W-04AR2-042821	Total/NA	Water	8270D LL	579278
500-198446-5	SUPE-W-30A-042821	Total/NA	Water	8270D LL	579278
500-198446-6	SUPE-W-10AR2-042821	Total/NA	Water	8270D LL	579278
500-198446-7	SUPE-M-99A-042821	Total/NA	Water	8270D LL	579278
500-198446-9	SUPE-W-06A-042821	Total/NA	Water	8270D LL	579278
500-198446-10	SUPE-W-06C-042821	Total/NA	Water	8270D LL	579278
500-198446-11	SUPE-W-12A-042921	Total/NA	Water	8270D LL	579278
500-198446-12	SUPE-EB-02-042921	Total/NA	Water	8270D LL	579278
500-198446-13	SUPE-W-30C-042921	Total/NA	Water	8270D LL	579278
500-198446-14	SUPE-W-12CR-042921	Total/NA	Water	8270D LL	579278
MB 480-579278/1-A	Method Blank	Total/NA	Water	8270D LL	579278
LCS 480-579278/2-A	Lab Control Sample	Total/NA	Water	8270D LL	579278
500-198446-10 MS	SUPE-W-06C-042821	Total/NA	Water	8270D LL	579278
500-198446-10 MSD	SUPE-W-06C-042821	Total/NA	Water	8270D LL	579278

Prep Batch: 596308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198446-1	SUPE-W-28C-042821	Total/NA	Water	3510C	
500-198446-2	SUPE-EB-01-042821	Total/NA	Water	3510C	
500-198446-3	SUPE-W-18D-042821	Total/NA	Water	3510C	
500-198446-4	SUPE-W-04AR2-042821	Total/NA	Water	3510C	
500-198446-5	SUPE-W-30A-042821	Total/NA	Water	3510C	
500-198446-6	SUPE-W-10AR2-042821	Total/NA	Water	3510C	
500-198446-7	SUPE-M-99A-042821	Total/NA	Water	3510C	
500-198446-9	SUPE-W-06A-042821	Total/NA	Water	3510C	
500-198446-10	SUPE-W-06C-042821	Total/NA	Water	3510C	
500-198446-11	SUPE-W-12A-042921	Total/NA	Water	3510C	
500-198446-12	SUPE-EB-02-042921	Total/NA	Water	3510C	
500-198446-13	SUPE-W-30C-042921	Total/NA	Water	3510C	
500-198446-14	SUPE-W-12CR-042921	Total/NA	Water	3510C	
MB 500-596308/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-596308/2-A	Lab Control Sample	Total/NA	Water	3510C	
500-198446-10 MS	SUPE-W-06C-042821	Total/NA	Water	3510C	
500-198446-10 MSD	SUPE-W-06C-042821	Total/NA	Water	3510C	

Analysis Batch: 596549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198446-1	SUPE-W-28C-042821	Total/NA	Water	8270D	596308
500-198446-2	SUPE-EB-01-042821	Total/NA	Water	8270D	596308
500-198446-3	SUPE-W-18D-042821	Total/NA	Water	8270D	596308
500-198446-4	SUPE-W-04AR2-042821	Total/NA	Water	8270D	596308
500-198446-5	SUPE-W-30A-042821	Total/NA	Water	8270D	596308
500-198446-6	SUPE-W-10AR2-042821	Total/NA	Water	8270D	596308
500-198446-7	SUPE-M-99A-042821	Total/NA	Water	8270D	596308
500-198446-9	SUPE-W-06A-042821	Total/NA	Water	8270D	596308
500-198446-10	SUPE-W-06C-042821	Total/NA	Water	8270D	596308
500-198446-11	SUPE-W-12A-042921	Total/NA	Water	8270D	596308
500-198446-12	SUPE-EB-02-042921	Total/NA	Water	8270D	596308
500-198446-13	SUPE-W-30C-042921	Total/NA	Water	8270D	596308
500-198446-14	SUPE-W-12CR-042921	Total/NA	Water	8270D	596308
MB 500-596308/1-A	Method Blank	Total/NA	Water	8270D	596308

GC/MS Semi VOA (Continued)

Analysis Batch: 596549 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-596308/2-A	Lab Control Sample	Total/NA	Water	8270D	596308
500-198446-10 MS	SUPE-W-06C-042821	Total/NA	Water	8270D	596308
500-198446-10 MSD	SUPE-W-06C-042821	Total/NA	Water	8270D	596308

Specialty Organics

Prep Batch: 49428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198446-1	SUPE-W-28C-042821	Total/NA	Water	8290	
500-198446-2	SUPE-EB-01-042821	Total/NA	Water	8290	
500-198446-4	SUPE-W-04AR2-042821	Total/NA	Water	8290	
500-198446-5	SUPE-W-30A-042821	Total/NA	Water	8290	
500-198446-6	SUPE-W-10AR2-042821	Total/NA	Water	8290	
500-198446-7	SUPE-M-99A-042821	Total/NA	Water	8290	
500-198446-9	SUPE-W-06A-042821	Total/NA	Water	8290	
500-198446-10	SUPE-W-06C-042821	Total/NA	Water	8290	
500-198446-11	SUPE-W-12A-042921	Total/NA	Water	8290	
500-198446-12	SUPE-EB-02-042921	Total/NA	Water	8290	
500-198446-13	SUPE-W-30C-042921	Total/NA	Water	8290	
500-198446-14	SUPE-W-12CR-042921	Total/NA	Water	8290	
MB 140-49428/14-A	Method Blank	Total/NA	Water	8290	
LCS 140-49428/13-A	Lab Control Sample	Total/NA	Water	8290	

Analysis Batch: 49735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198446-1	SUPE-W-28C-042821	Total/NA	Water	8290A	49428
500-198446-2	SUPE-EB-01-042821	Total/NA	Water	8290A	49428
500-198446-4	SUPE-W-04AR2-042821	Total/NA	Water	8290A	49428
500-198446-6	SUPE-W-10AR2-042821	Total/NA	Water	8290A	49428
MB 140-49428/14-A	Method Blank	Total/NA	Water	8290A	49428
LCS 140-49428/13-A	Lab Control Sample	Total/NA	Water	8290A	49428

Analysis Batch: 49745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198446-5	SUPE-W-30A-042821	Total/NA	Water	8290A	49428
500-198446-7	SUPE-M-99A-042821	Total/NA	Water	8290A	49428
500-198446-9	SUPE-W-06A-042821	Total/NA	Water	8290A	49428
500-198446-10	SUPE-W-06C-042821	Total/NA	Water	8290A	49428
500-198446-11	SUPE-W-12A-042921	Total/NA	Water	8290A	49428
500-198446-12	SUPE-EB-02-042921	Total/NA	Water	8290A	49428
500-198446-13	SUPE-W-30C-042921	Total/NA	Water	8290A	49428
500-198446-14	SUPE-W-12CR-042921	Total/NA	Water	8290A	49428

Surrogate Summary

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

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

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(75-123)	(80-120)
500-198446-1	SUPE-W-28C-042821	114	112	102	108
500-198446-2	SUPE-EB-01-042821	113	108	108	106
500-198446-4	SUPE-W-04AR2-042821	109	95	105	102
500-198446-5	SUPE-W-30A-042821	114	100	104	100
500-198446-6	SUPE-W-10AR2-042821	116	104	108	104
500-198446-7	SUPE-M-99A-042821	113	100	103	99
500-198446-8	SUPE-TB-01-042821	112	99	109	99
500-198446-9	SUPE-W-06A-042821	118	104	109	104
500-198446-10	SUPE-W-06C-042821	118	108	110	95
500-198446-10 MS	SUPE-W-06C-042821	108	105	104	102
500-198446-10 MSD	SUPE-W-06C-042821	117	108	112	106
500-198446-11	SUPE-W-12A-042921	108	105	107	104
500-198446-12	SUPE-EB-02-042921	113	103	112	103
500-198446-13	SUPE-W-30C-042921	108	98	105	102
500-198446-14	SUPE-W-12CR-042921	106	100	101	102
500-198446-15	SUPE-W-TB-02-042921	117	104	108	105
LCS 480-579092/6	Lab Control Sample	109	99	97	100
LCS 480-579132/5	Lab Control Sample	108	97	101	98
MB 480-579092/8	Method Blank	113	98	106	101
MB 480-579132/7	Method Blank	107	102	101	97

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPHL
Lab Sample ID	Client Sample ID	(40-145)	(34-110)	(27-110)	(36-120)	(20-100)	(40-145)
500-198446-1	SUPE-W-28C-042821	90	85	40	69	21	88
500-198446-2	SUPE-EB-01-042821	95	93	47	76	20	97
500-198446-3	SUPE-W-18D-042821	105	94	43	76	22	91
500-198446-4	SUPE-W-04AR2-042821	103	94	42	77	22	93
500-198446-5	SUPE-W-30A-042821	102	92	45	78	24	83
500-198446-6	SUPE-W-10AR2-042821	98	95	53	80	28	81
500-198446-7	SUPE-M-99A-042821	98	96	46	77	21	93
500-198446-9	SUPE-W-06A-042821	92	86	37	70	23	96
500-198446-10	SUPE-W-06C-042821	94	88	42	70	23	93
500-198446-10 MS	SUPE-W-06C-042821	103	88	55	91	39	94
500-198446-10 MSD	SUPE-W-06C-042821	101	86	54	88	37	93
500-198446-11	SUPE-W-12A-042921	104	98	43	79	24	92
500-198446-12	SUPE-EB-02-042921	95	93	47	74	19 S1-	94
500-198446-13	SUPE-W-30C-042921	78	73	40	60	19 S1-	73
500-198446-14	SUPE-W-12CR-042921	104	96	44	78	24	94
LCS 500-596308/2-A	Lab Control Sample	87	71	55	78	36	90
MB 500-596308/1-A	Method Blank	84	84	50	74	29	94

Surrogate Summary

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)

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

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
		TBP	FBP	2FP	NBZ	PHL	TPHd14		
Lab Sample ID	Client Sample ID	(24-146)	(37-120)	(10-120)	(26-120)	(11-120)	(64-127)		
500-198446-1	SUPE-W-28C-042821	95	98	50	84	34	105		
500-198446-2	SUPE-EB-01-042821	88	103	52	90	35	114		
500-198446-3	SUPE-W-18D-042821	97	96	47	83	32	72		
500-198446-4	SUPE-W-04AR2-042821	101	98	48	82	33	94		
500-198446-5	SUPE-W-30A-042821	85	93	55	81	35	60 S1-		
500-198446-6	SUPE-W-10AR2-042821	94	90	45	75	31	74		
500-198446-7	SUPE-M-99A-042821	87	95	49	81	32	103		
500-198446-9	SUPE-W-06A-042821	83	91	49	77	33	101		
500-198446-10	SUPE-W-06C-042821	91	94	51	82	34	83		
500-198446-10 MS	SUPE-W-06C-042821	99	94	51	92	36	90		
500-198446-10 MSD	SUPE-W-06C-042821	93	90	46	77	32	81		
500-198446-11	SUPE-W-12A-042921	90	84	43	72	30	69		
500-198446-12	SUPE-EB-02-042921	83	93	48	82	32	110		
500-198446-13	SUPE-W-30C-042921	93	85	45	76	31	102		
500-198446-14	SUPE-W-12CR-042921	95	92	48	80	33	100		
LCS 480-579278/2-A	Lab Control Sample	90	87	48	84	33	102		
MB 480-579278/1-A	Method Blank	82	89	50	79	33	105		

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHd14 = p-Terphenyl-d14

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

Lab Sample ID: MB 480-579092/8
Matrix: Water
Analysis Batch: 579092

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			05/03/21 23:29	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/03/21 23:29	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/03/21 23:29	1
Benzene	ND		1.0	0.41	ug/L			05/03/21 23:29	1
Chloromethane	ND		1.0	0.35	ug/L			05/03/21 23:29	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/03/21 23:29	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/03/21 23:29	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/03/21 23:29	1
Naphthalene	ND		1.0	0.43	ug/L			05/03/21 23:29	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/03/21 23:29	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/03/21 23:29	1
o-Xylene	ND		1.0	0.76	ug/L			05/03/21 23:29	1
Styrene	ND		1.0	0.73	ug/L			05/03/21 23:29	1
Toluene	ND		1.0	0.51	ug/L			05/03/21 23:29	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/03/21 23:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*77 - 120*		*05/03/21 23:29*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*05/03/21 23:29*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*05/03/21 23:29*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/03/21 23:29*	*1*

Lab Sample ID: LCS 480-579092/6
Matrix: Water
Analysis Batch: 579092

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	27.3		ug/L		109	73 - 126
1,2,4-Trimethylbenzene	25.0	27.1		ug/L		108	76 - 121
1,3,5-Trimethylbenzene	25.0	27.7		ug/L		111	77 - 121
Benzene	25.0	23.0		ug/L		92	71 - 124
Chloromethane	25.0	21.4		ug/L		86	68 - 124
Ethylbenzene	25.0	25.1		ug/L		100	77 - 123
Methyl tert-butyl ether	25.0	27.5		ug/L		110	77 - 120
m-Xylene & p-Xylene	25.0	24.6		ug/L		98	76 - 122
Naphthalene	25.0	27.8		ug/L		111	66 - 125
n-Butylbenzene	25.0	24.4		ug/L		97	71 - 128
N-Propylbenzene	25.0	24.8		ug/L		99	75 - 127
o-Xylene	25.0	25.4		ug/L		101	76 - 122
Styrene	25.0	26.0		ug/L		104	80 - 120
Toluene	25.0	24.4		ug/L		97	80 - 122
Xylenes, Total	50.0	50.0		ug/L		100	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*
Dibromofluoromethane (Surr)	*97*		*75 - 123*
Toluene-d8 (Surr)	*100*		*80 - 120*

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

Lab Sample ID: 500-198446-10 MS
Matrix: Water
Analysis Batch: 579092

Client Sample ID: SUPE-W-06C-042821
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		25.0	27.0		ug/L		108	73 - 126
1,2,4-Trimethylbenzene	ND		25.0	27.3		ug/L		109	76 - 121
1,3,5-Trimethylbenzene	ND	F1	25.0	27.6		ug/L		111	77 - 121
Benzene	ND		25.0	24.8		ug/L		99	71 - 124
Chloromethane	ND		25.0	24.6		ug/L		98	68 - 124
Ethylbenzene	ND		25.0	25.6		ug/L		102	77 - 123
Methyl tert-butyl ether	ND		25.0	27.9		ug/L		112	77 - 120
m-Xylene & p-Xylene	ND		25.0	25.4		ug/L		102	76 - 122
Naphthalene	ND		25.0	28.9		ug/L		116	66 - 125
n-Butylbenzene	ND		25.0	26.7		ug/L		107	71 - 128
N-Propylbenzene	ND		25.0	25.4		ug/L		102	75 - 127
o-Xylene	ND		25.0	25.1		ug/L		100	76 - 122
Styrene	ND		25.0	24.7		ug/L		99	80 - 120
Toluene	ND	F2	25.0	24.7		ug/L		99	80 - 122
Xylenes, Total	ND		50.0	50.5		ug/L		101	76 - 122

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*108*		*77 - 120*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*
Dibromofluoromethane (Surr)	*104*		*75 - 123*
Toluene-d8 (Surr)	*102*		*80 - 120*

Lab Sample ID: 500-198446-10 MSD
Matrix: Water
Analysis Batch: 579092

Client Sample ID: SUPE-W-06C-042821
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		25.0	28.9		ug/L		115	73 - 126	7	15
1,2,4-Trimethylbenzene	ND		25.0	30.4		ug/L		121	76 - 121	11	20
1,3,5-Trimethylbenzene	ND	F1	25.0	32.2	F1	ug/L		129	77 - 121	15	20
Benzene	ND		25.0	27.0		ug/L		108	71 - 124	9	13
Chloromethane	ND		25.0	23.6		ug/L		95	68 - 124	4	15
Ethylbenzene	ND		25.0	29.8		ug/L		119	77 - 123	15	15
Methyl tert-butyl ether	ND		25.0	28.0		ug/L		112	77 - 120	0	37
m-Xylene & p-Xylene	ND		25.0	29.5		ug/L		118	76 - 122	15	16
Naphthalene	ND		25.0	31.3		ug/L		125	66 - 125	8	20
n-Butylbenzene	ND		25.0	29.0		ug/L		116	71 - 128	8	15
N-Propylbenzene	ND		25.0	28.5		ug/L		114	75 - 127	12	15
o-Xylene	ND		25.0	28.9		ug/L		116	76 - 122	14	16
Styrene	ND		25.0	29.1		ug/L		116	80 - 120	16	20
Toluene	ND	F2	25.0	29.4	F2	ug/L		118	80 - 122	17	15
Xylenes, Total	ND		50.0	58.4		ug/L		117	76 - 122	15	16

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*117*		*77 - 120*
4-Bromofluorobenzene (Surr)	*108*		*73 - 120*
Dibromofluoromethane (Surr)	*112*		*75 - 123*
Toluene-d8 (Surr)	*106*		*80 - 120*

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

Lab Sample ID: MB 480-579132/7
Matrix: Water
Analysis Batch: 579132

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			05/04/21 10:33	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/04/21 10:33	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/04/21 10:33	1
Benzene	ND		1.0	0.41	ug/L			05/04/21 10:33	1
Chloromethane	ND		1.0	0.35	ug/L			05/04/21 10:33	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/04/21 10:33	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/04/21 10:33	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/04/21 10:33	1
Naphthalene	ND		1.0	0.43	ug/L			05/04/21 10:33	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/04/21 10:33	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/04/21 10:33	1
o-Xylene	ND		1.0	0.76	ug/L			05/04/21 10:33	1
Styrene	ND		1.0	0.73	ug/L			05/04/21 10:33	1
Toluene	ND		1.0	0.51	ug/L			05/04/21 10:33	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/04/21 10:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*05/04/21 10:33*	*1*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*05/04/21 10:33*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*05/04/21 10:33*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*05/04/21 10:33*	*1*

Lab Sample ID: LCS 480-579132/5
Matrix: Water
Analysis Batch: 579132

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	29.2		ug/L		117	73 - 126
1,2,4-Trimethylbenzene	25.0	27.9		ug/L		111	76 - 121
1,3,5-Trimethylbenzene	25.0	28.0		ug/L		112	77 - 121
Benzene	25.0	24.7		ug/L		99	71 - 124
Chloromethane	25.0	23.2		ug/L		93	68 - 124
Ethylbenzene	25.0	24.8		ug/L		99	77 - 123
Methyl tert-butyl ether	25.0	28.4		ug/L		113	77 - 120
m-Xylene & p-Xylene	25.0	24.2		ug/L		97	76 - 122
Naphthalene	25.0	28.3		ug/L		113	66 - 125
n-Butylbenzene	25.0	25.2		ug/L		101	71 - 128
N-Propylbenzene	25.0	25.3		ug/L		101	75 - 127
o-Xylene	25.0	25.0		ug/L		100	76 - 122
Styrene	25.0	24.8		ug/L		99	80 - 120
Toluene	25.0	23.9		ug/L		96	80 - 122
Xylenes, Total	50.0	49.2		ug/L		98	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*108*		*77 - 120*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*
Dibromofluoromethane (Surr)	*101*		*75 - 123*
Toluene-d8 (Surr)	*98*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-596308/1-A
Matrix: Water
Analysis Batch: 596549

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 596308

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.0	0.30	ug/L		05/03/21 07:11	05/04/21 00:09	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		05/03/21 07:11	05/04/21 00:09	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		05/03/21 07:11	05/04/21 00:09	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		05/03/21 07:11	05/04/21 00:09	1
1-Methylnaphthalene	ND		2.0	0.50	ug/L		05/03/21 07:11	05/04/21 00:09	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		05/03/21 07:11	05/04/21 00:09	1
2,3,4,6-Tetrachlorophenol	ND		5.0	1.5	ug/L		05/03/21 07:11	05/04/21 00:09	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		05/03/21 07:11	05/04/21 00:09	1
2,4,6-Trichlorophenol	ND		5.0	1.1	ug/L		05/03/21 07:11	05/04/21 00:09	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		05/03/21 07:11	05/04/21 00:09	1
2,4-Dinitrophenol	ND		20	7.4	ug/L		05/03/21 07:11	05/04/21 00:09	1
2,4-Dinitrotoluene	ND		1.0	0.30	ug/L		05/03/21 07:11	05/04/21 00:09	1
2,6-Dinitrotoluene	ND		1.0	0.12	ug/L		05/03/21 07:11	05/04/21 00:09	1
3 & 4 Methylphenol	ND		2.0	0.44	ug/L		05/03/21 07:11	05/04/21 00:09	1
2-Chloronaphthalene	ND		2.0	0.34	ug/L		05/03/21 07:11	05/04/21 00:09	1
2-Chlorophenol	ND		5.0	0.80	ug/L		05/03/21 07:11	05/04/21 00:09	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		05/03/21 07:11	05/04/21 00:09	1
2-Methylphenol	ND		2.0	0.31	ug/L		05/03/21 07:11	05/04/21 00:09	1
2-Nitroaniline	ND		5.0	1.1	ug/L		05/03/21 07:11	05/04/21 00:09	1
2-Nitrophenol	ND		10	2.1	ug/L		05/03/21 07:11	05/04/21 00:09	1
3-Nitroaniline	ND		10	2.3	ug/L		05/03/21 07:11	05/04/21 00:09	1
4,6-Dinitro-2-methylphenol	ND		20	4.9	ug/L		05/03/21 07:11	05/04/21 00:09	1
4-Bromophenyl phenyl ether	ND		5.0	0.91	ug/L		05/03/21 07:11	05/04/21 00:09	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		05/03/21 07:11	05/04/21 00:09	1
4-Chloroaniline	ND		10	2.1	ug/L		05/03/21 07:11	05/04/21 00:09	1
4-Chlorophenyl phenyl ether	ND		5.0	0.81	ug/L		05/03/21 07:11	05/04/21 00:09	1
4-Nitroaniline	ND		10	3.9	ug/L		05/03/21 07:11	05/04/21 00:09	1
4-Nitrophenol	ND		20	2.3	ug/L		05/03/21 07:11	05/04/21 00:09	1
Acenaphthene	ND		1.0	0.36	ug/L		05/03/21 07:11	05/04/21 00:09	1
Acenaphthylene	ND		1.0	0.32	ug/L		05/03/21 07:11	05/04/21 00:09	1
Anthracene	ND		1.0	0.32	ug/L		05/03/21 07:11	05/04/21 00:09	1
Benzo[a]pyrene	ND		0.20	0.056	ug/L		05/03/21 07:11	05/04/21 00:09	1
Benzo[b]fluoranthene	ND		0.20	0.058	ug/L		05/03/21 07:11	05/04/21 00:09	1
Benzo[g,h,i]perylene	ND		1.0	0.42	ug/L		05/03/21 07:11	05/04/21 00:09	1
Benzo[k]fluoranthene	ND		0.20	0.074	ug/L		05/03/21 07:11	05/04/21 00:09	1
Benzoic acid	ND		20	4.6	ug/L		05/03/21 07:11	05/04/21 00:09	1
Benzyl alcohol	ND		20	3.1	ug/L		05/03/21 07:11	05/04/21 00:09	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		05/03/21 07:11	05/04/21 00:09	1
Bis(2-chloroethyl)ether	ND		2.0	0.35	ug/L		05/03/21 07:11	05/04/21 00:09	1
Bis(2-ethylhexyl) phthalate	ND		10	2.4	ug/L		05/03/21 07:11	05/04/21 00:09	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		05/03/21 07:11	05/04/21 00:09	1
Chrysene	ND		0.50	0.14	ug/L		05/03/21 07:11	05/04/21 00:09	1
Dibenz(a,h)anthracene	ND		0.30	0.064	ug/L		05/03/21 07:11	05/04/21 00:09	1
Dibenzofuran	ND		2.0	0.35	ug/L		05/03/21 07:11	05/04/21 00:09	1
Diethyl phthalate	ND		2.0	0.44	ug/L		05/03/21 07:11	05/04/21 00:09	1
Dimethyl phthalate	ND		2.0	0.38	ug/L		05/03/21 07:11	05/04/21 00:09	1
Di-n-butyl phthalate	ND		5.0	0.80	ug/L		05/03/21 07:11	05/04/21 00:09	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		05/03/21 07:11	05/04/21 00:09	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-596308/1-A
Matrix: Water
Analysis Batch: 596549

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 596308

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,5,6-Tetrachlorophenol	ND		5.0	2.5	ug/L		05/03/21 07:11	05/04/21 00:09	1
Fluoranthene	ND		1.0	0.32	ug/L		05/03/21 07:11	05/04/21 00:09	1
Fluorene	ND		1.0	0.38	ug/L		05/03/21 07:11	05/04/21 00:09	1
Hexachlorobenzene	ND		0.50	0.14	ug/L		05/03/21 07:11	05/04/21 00:09	1
Hexachlorobutadiene	ND		5.0	1.1	ug/L		05/03/21 07:11	05/04/21 00:09	1
Hexachlorocyclopentadiene	ND		20	3.4	ug/L		05/03/21 07:11	05/04/21 00:09	1
Hexachloroethane	ND		5.0	0.97	ug/L		05/03/21 07:11	05/04/21 00:09	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.084	ug/L		05/03/21 07:11	05/04/21 00:09	1
Isophorone	ND		2.0	0.29	ug/L		05/03/21 07:11	05/04/21 00:09	1
Naphthalene	ND		1.0	0.30	ug/L		05/03/21 07:11	05/04/21 00:09	1
Nitrobenzene	ND		1.0	0.45	ug/L		05/03/21 07:11	05/04/21 00:09	1
N-Nitrosodi-n-propylamine	ND		0.50	0.14	ug/L		05/03/21 07:11	05/04/21 00:09	1
N-Nitrosodiphenylamine	ND		2.0	0.34	ug/L		05/03/21 07:11	05/04/21 00:09	1
Phenol	ND		5.0	0.36	ug/L		05/03/21 07:11	05/04/21 00:09	1
Pyrene	ND		1.0	0.48	ug/L		05/03/21 07:11	05/04/21 00:09	1
2,4-Dimethylphenol	ND		10	3.3	ug/L		05/03/21 07:11	05/04/21 00:09	1
Benzo[a]anthracene	ND		0.20	0.044	ug/L		05/03/21 07:11	05/04/21 00:09	1
Phenanthrene	ND		1.0	0.35	ug/L		05/03/21 07:11	05/04/21 00:09	1
3,3'-Dichlorobenzidine	ND		5.0	0.94	ug/L		05/03/21 07:11	05/04/21 00:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*84*		*40 - 145*	*05/03/21 07:11*	*05/04/21 00:09*	*1*
2-Fluorobiphenyl	*84*		*34 - 110*	*05/03/21 07:11*	*05/04/21 00:09*	*1*
2-Fluorophenol (Surr)	*50*		*27 - 110*	*05/03/21 07:11*	*05/04/21 00:09*	*1*
Nitrobenzene-d5 (Surr)	*74*		*36 - 120*	*05/03/21 07:11*	*05/04/21 00:09*	*1*
Phenol-d5 (Surr)	*29*		*20 - 100*	*05/03/21 07:11*	*05/04/21 00:09*	*1*
Terphenyl-d14 (Surr)	*94*		*40 - 145*	*05/03/21 07:11*	*05/04/21 00:09*	*1*

Lab Sample ID: LCS 500-596308/2-A
Matrix: Water
Analysis Batch: 596549

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 596308

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	40.0	23.5		ug/L		59	26 - 110
1,2-Dichlorobenzene	40.0	23.1		ug/L		58	26 - 110
1,3-Dichlorobenzene	40.0	21.7		ug/L		54	22 - 110
1,4-Dichlorobenzene	40.0	22.5		ug/L		56	23 - 110
1-Methylnaphthalene	40.0	25.8		ug/L		64	38 - 110
bis(chloroisopropyl) ether	40.0	27.9		ug/L		70	38 - 110
2,3,4,6-Tetrachlorophenol	40.0	33.4		ug/L		84	44 - 118
2,4,5-Trichlorophenol	40.0	33.9		ug/L		85	63 - 120
2,4,6-Trichlorophenol	40.0	33.7		ug/L		84	62 - 110
2,4-Dichlorophenol	40.0	31.8		ug/L		80	62 - 110
2,4-Dinitrophenol	80.0	69.2		ug/L		86	37 - 130
2,4-Dinitrotoluene	40.0	35.3		ug/L		88	63 - 122
2,6-Dinitrotoluene	40.0	34.0		ug/L		85	63 - 119
3 & 4 Methylphenol	40.0	28.1		ug/L		70	53 - 110
2-Chloronaphthalene	40.0	26.9		ug/L		67	39 - 110

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-596308/2-A
Matrix: Water
Analysis Batch: 596549

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 596308

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chlorophenol	40.0	31.1		ug/L		78	59 - 110
2-Methylnaphthalene	40.0	25.5		ug/L		64	34 - 110
2-Methylphenol	40.0	30.7		ug/L		77	53 - 110
2-Nitroaniline	40.0	33.9		ug/L		85	59 - 122
2-Nitrophenol	40.0	31.3		ug/L		78	58 - 110
3-Nitroaniline	40.0	21.9		ug/L		55	47 - 123
4,6-Dinitro-2-methylphenol	80.0	77.2		ug/L		96	50 - 117
4-Bromophenyl phenyl ether	40.0	29.2		ug/L		73	58 - 120
4-Chloro-3-methylphenol	40.0	33.0		ug/L		82	64 - 120
4-Chloroaniline	40.0	30.7		ug/L		77	35 - 128
4-Chlorophenyl phenyl ether	40.0	27.5		ug/L		69	47 - 112
4-Nitroaniline	40.0	27.3		ug/L		68	52 - 147
4-Nitrophenol	80.0	29.5		ug/L		37	20 - 110
Acenaphthene	40.0	28.6		ug/L		71	46 - 110
Acenaphthylene	40.0	30.0		ug/L		75	47 - 110
Anthracene	40.0	31.6		ug/L		79	67 - 110
Benzo[a]pyrene	40.0	41.0		ug/L		102	70 - 120
Benzo[b]fluoranthene	40.0	37.0		ug/L		93	69 - 123
Benzo[g,h,i]perylene	40.0	37.3		ug/L		93	70 - 120
Benzo[k]fluoranthene	40.0	36.4		ug/L		91	70 - 120
Benzoic acid	80.0	29.2		ug/L		36	10 - 100
Benzyl alcohol	40.0	31.8		ug/L		79	33 - 127
Bis(2-chloroethoxy)methane	40.0	30.4		ug/L		76	60 - 110
Bis(2-chloroethyl)ether	40.0	30.5		ug/L		76	49 - 110
Bis(2-ethylhexyl) phthalate	40.0	35.3		ug/L		88	69 - 120
Butyl benzyl phthalate	40.0	34.4		ug/L		86	68 - 120
Chrysene	40.0	34.2		ug/L		86	68 - 120
Dibenz(a,h)anthracene	40.0	38.0		ug/L		95	70 - 127
Dibenzofuran	40.0	29.2		ug/L		73	51 - 110
Diethyl phthalate	40.0	32.2		ug/L		81	62 - 120
Dimethyl phthalate	40.0	33.1		ug/L		83	63 - 120
Di-n-butyl phthalate	40.0	32.3		ug/L		81	70 - 120
Di-n-octyl phthalate	40.0	36.2		ug/L		90	70 - 122
Fluoranthene	40.0	35.6		ug/L		89	68 - 120
Fluorene	40.0	28.6		ug/L		71	53 - 120
Hexachlorobenzene	40.0	31.7		ug/L		79	61 - 120
Hexachlorobutadiene	40.0	21.5		ug/L		54	20 - 100
Hexachlorocyclopentadiene	40.0	22.9		ug/L		57	10 - 100
Hexachloroethane	40.0	20.7		ug/L		52	20 - 100
Indeno[1,2,3-cd]pyrene	40.0	39.3		ug/L		98	65 - 133
Isophorone	40.0	30.8		ug/L		77	57 - 110
Naphthalene	40.0	26.2		ug/L		66	36 - 110
Nitrobenzene	40.0	30.0		ug/L		75	53 - 110
N-Nitrosodi-n-propylamine	40.0	28.6		ug/L		72	58 - 110
N-Nitrosodiphenylamine	40.0	34.3		ug/L		86	66 - 110
Phenol	40.0	15.2		ug/L		38	33 - 100
Pyrene	40.0	32.9		ug/L		82	70 - 110
2,4-Dimethylphenol	40.0	31.8		ug/L		80	51 - 110
Benzo[a]anthracene	40.0	34.1		ug/L		85	70 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-596308/2-A
Matrix: Water
Analysis Batch: 596549

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 596308

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Phenanthrene			40.0	30.9		ug/L		77	65 - 120		
3,3'-Dichlorobenzidine			40.0	30.2		ug/L		76	60 - 132		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*87*		*40 - 145*
2-Fluorobiphenyl	*71*		*34 - 110*
2-Fluorophenol (Surr)	*55*		*27 - 110*
Nitrobenzene-d5 (Surr)	*78*		*36 - 120*
Phenol-d5 (Surr)	*36*		*20 - 100*
Terphenyl-d14 (Surr)	*90*		*40 - 145*

Lab Sample ID: 500-198446-10 MS
Matrix: Water
Analysis Batch: 596549

Client Sample ID: SUPE-W-06C-042821
Prep Type: Total/NA
Prep Batch: 596308

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2,4-Trichlorobenzene	ND		41.3	31.0		ug/L		75	26 - 110		
1,2-Dichlorobenzene	ND		41.3	30.0		ug/L		73	26 - 110		
1,3-Dichlorobenzene	ND		41.3	27.9		ug/L		67	22 - 110		
1,4-Dichlorobenzene	ND		41.3	29.1		ug/L		70	23 - 110		
1-Methylnaphthalene	ND		41.3	32.4		ug/L		78	38 - 110		
bis(chloroisopropyl) ether	ND		41.3	32.5		ug/L		79	38 - 110		
2,3,4,6-Tetrachlorophenol	ND		41.3	41.2		ug/L		100	44 - 118		
2,4,5-Trichlorophenol	ND		41.3	41.0		ug/L		99	63 - 120		
2,4,6-Trichlorophenol	ND		41.3	40.7		ug/L		98	62 - 110		
2,4-Dichlorophenol	ND		41.3	38.0		ug/L		92	62 - 110		
2,4-Dinitrophenol	ND		82.7	85.9		ug/L		104	37 - 130		
2,4-Dinitrotoluene	ND		41.3	42.4		ug/L		102	63 - 122		
2,6-Dinitrotoluene	ND		41.3	41.1		ug/L		99	63 - 119		
3 & 4 Methylphenol	ND		41.3	30.9		ug/L		75	53 - 110		
2-Chloronaphthalene	ND		41.3	33.5		ug/L		81	39 - 110		
2-Chlorophenol	ND		41.3	37.1		ug/L		90	59 - 110		
2-Methylnaphthalene	ND		41.3	32.1		ug/L		78	34 - 110		
2-Methylphenol	ND		41.3	34.5		ug/L		84	53 - 110		
2-Nitroaniline	ND		41.3	39.3		ug/L		95	59 - 122		
2-Nitrophenol	ND		41.3	37.2		ug/L		90	58 - 110		
3-Nitroaniline	ND		41.3	22.8		ug/L		55	47 - 123		
4,6-Dinitro-2-methylphenol	ND		82.7	93.2		ug/L		113	50 - 117		
4-Bromophenyl phenyl ether	ND		41.3	38.0		ug/L		92	58 - 120		
4-Chloro-3-methylphenol	ND		41.3	37.4		ug/L		90	64 - 120		
4-Chloroaniline	ND		41.3	38.8		ug/L		94	35 - 128		
4-Chlorophenyl phenyl ether	ND		41.3	35.9		ug/L		87	47 - 112		
4-Nitroaniline	ND		41.3	34.0		ug/L		82	52 - 147		
4-Nitrophenol	ND		82.7	31.3		ug/L		38	20 - 110		
Acenaphthene	ND		41.3	35.4		ug/L		86	46 - 110		
Acenaphthylene	ND		41.3	37.8		ug/L		91	47 - 110		
Anthracene	ND		41.3	38.8		ug/L		94	67 - 110		
Benzo[a]pyrene	ND		41.3	48.8		ug/L		118	70 - 120		

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-198446-10 MS
Client Sample ID: SUPE-W-06C-042821
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 596549
Prep Batch: 596308

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[b]fluoranthene	ND		41.3	44.1		ug/L		107	69 - 123
Benzo[g,h,i]perylene	ND		41.3	42.7		ug/L		103	70 - 120
Benzo[k]fluoranthene	ND		41.3	41.3		ug/L		100	70 - 120
Benzoic acid	ND		82.7	35.0		ug/L		42	10 - 100
Benzyl alcohol	ND		41.3	34.3		ug/L		83	33 - 127
Bis(2-chloroethoxy)methane	ND		41.3	36.0		ug/L		87	60 - 110
Bis(2-chloroethyl)ether	ND		41.3	35.9		ug/L		87	49 - 110
Bis(2-ethylhexyl) phthalate	ND		41.3	41.5		ug/L		100	69 - 120
Butyl benzyl phthalate	ND		41.3	41.6		ug/L		101	68 - 120
Chrysene	ND		41.3	40.7		ug/L		98	68 - 120
Dibenz(a,h)anthracene	ND		41.3	44.0		ug/L		106	70 - 127
Dibenzofuran	ND		41.3	36.0		ug/L		87	51 - 110
Diethyl phthalate	ND		41.3	37.1		ug/L		90	62 - 120
Dimethyl phthalate	ND		41.3	39.2		ug/L		95	63 - 120
Di-n-butyl phthalate	ND		41.3	38.0		ug/L		92	70 - 120
Di-n-octyl phthalate	ND		41.3	43.2		ug/L		105	70 - 122
Fluoranthene	ND		41.3	42.6		ug/L		103	68 - 120
Fluorene	ND		41.3	36.1		ug/L		87	53 - 120
Hexachlorobenzene	ND		41.3	40.2		ug/L		97	61 - 120
Hexachlorobutadiene	ND		41.3	26.3		ug/L		64	20 - 100
Hexachlorocyclopentadiene	ND		41.3	27.2		ug/L		66	10 - 100
Hexachloroethane	ND		41.3	25.5		ug/L		62	20 - 100
Indeno[1,2,3-cd]pyrene	ND		41.3	44.8		ug/L		108	65 - 133
Isophorone	ND		41.3	35.7		ug/L		86	57 - 110
Nitrobenzene	ND		41.3	35.8		ug/L		87	53 - 110
N-Nitrosodi-n-propylamine	ND		41.3	33.4		ug/L		81	58 - 110
N-Nitrosodiphenylamine	ND		41.3	43.2		ug/L		105	66 - 110
Phenol	ND		41.3	17.0		ug/L		41	33 - 100
Pyrene	ND		41.3	40.6		ug/L		98	70 - 110
2,4-Dimethylphenol	ND		41.3	36.3		ug/L		88	51 - 110
Benzo[a]anthracene	0.048	J	41.3	41.0		ug/L		99	70 - 120
Phenanthrene	ND		41.3	38.9		ug/L		94	65 - 120
3,3'-Dichlorobenzidine	ND		41.3	31.5		ug/L		76	60 - 132

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*103*		*40 - 145*
2-Fluorobiphenyl	*88*		*34 - 110*
2-Fluorophenol (Surr)	*55*		*27 - 110*
Nitrobenzene-d5 (Surr)	*91*		*36 - 120*
Phenol-d5 (Surr)	*39*		*20 - 100*
Terphenyl-d14 (Surr)	*94*		*40 - 145*

Lab Sample ID: 500-198446-10 MSD
Client Sample ID: SUPE-W-06C-042821
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 596549
Prep Batch: 596308

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	ND		41.2	29.8		ug/L		72	26 - 110	4	20

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-198446-10 MSD
Client Sample ID: SUPE-W-06C-042821
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 596549
Prep Batch: 596308

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichlorobenzene	ND		41.2	28.8		ug/L		70	26 - 110	4	20
1,3-Dichlorobenzene	ND		41.2	26.7		ug/L		65	22 - 110	4	20
1,4-Dichlorobenzene	ND		41.2	27.4		ug/L		67	23 - 110	6	20
1-Methylnaphthalene	ND		41.2	31.2		ug/L		76	38 - 110	4	20
bis(chloroisopropyl) ether	ND		41.2	31.7		ug/L		77	38 - 110	3	20
2,3,4,6-Tetrachlorophenol	ND		41.2	40.6		ug/L		99	44 - 118	1	20
2,4,5-Trichlorophenol	ND		41.2	40.3		ug/L		98	63 - 120	2	20
2,4,6-Trichlorophenol	ND		41.2	39.9		ug/L		97	62 - 110	2	20
2,4-Dichlorophenol	ND		41.2	36.9		ug/L		90	62 - 110	3	20
2,4-Dinitrophenol	ND		82.3	85.3		ug/L		104	37 - 130	1	20
2,4-Dinitrotoluene	ND		41.2	41.5		ug/L		101	63 - 122	2	20
2,6-Dinitrotoluene	ND		41.2	40.6		ug/L		99	63 - 119	1	20
3 & 4 Methylphenol	ND		41.2	29.7		ug/L		72	53 - 110	4	20
2-Chloronaphthalene	ND		41.2	32.2		ug/L		78	39 - 110	4	20
2-Chlorophenol	ND		41.2	35.7		ug/L		87	59 - 110	4	20
2-Methylnaphthalene	ND		41.2	30.9		ug/L		75	34 - 110	4	20
2-Methylphenol	ND		41.2	33.0		ug/L		80	53 - 110	5	20
2-Nitroaniline	ND		41.2	39.2		ug/L		95	59 - 122	0	20
2-Nitrophenol	ND		41.2	36.9		ug/L		90	58 - 110	1	20
3-Nitroaniline	ND		41.2	22.7		ug/L		55	47 - 123	1	20
4,6-Dinitro-2-methylphenol	ND		82.3	93.1		ug/L		113	50 - 117	0	20
4-Bromophenyl phenyl ether	ND		41.2	37.4		ug/L		91	58 - 120	2	20
4-Chloro-3-methylphenol	ND		41.2	37.5		ug/L		91	64 - 120	0	20
4-Chloroaniline	ND		41.2	37.5		ug/L		91	35 - 128	4	20
4-Chlorophenyl phenyl ether	ND		41.2	35.0		ug/L		85	47 - 112	2	20
4-Nitroaniline	ND		41.2	36.6		ug/L		89	52 - 147	7	20
4-Nitrophenol	ND		82.3	31.4		ug/L		38	20 - 110	0	20
Acenaphthene	ND		41.2	34.1		ug/L		83	46 - 110	4	20
Acenaphthylene	ND		41.2	37.2		ug/L		90	47 - 110	2	20
Anthracene	ND		41.2	38.2		ug/L		93	67 - 110	2	20
Benzo[a]pyrene	ND		41.2	47.5		ug/L		115	70 - 120	3	20
Benzo[b]fluoranthene	ND		41.2	44.3		ug/L		108	69 - 123	0	20
Benzo[g,h,i]perylene	ND		41.2	41.7		ug/L		101	70 - 120	2	20
Benzo[k]fluoranthene	ND		41.2	38.7		ug/L		94	70 - 120	7	20
Benzoic acid	ND		82.3	34.2		ug/L		41	10 - 100	3	20
Benzyl alcohol	ND		41.2	32.6		ug/L		79	33 - 127	5	20
Bis(2-chloroethoxy)methane	ND		41.2	35.0		ug/L		85	60 - 110	3	20
Bis(2-chloroethyl)ether	ND		41.2	34.7		ug/L		84	49 - 110	3	20
Bis(2-ethylhexyl) phthalate	ND		41.2	40.6		ug/L		99	69 - 120	2	20
Butyl benzyl phthalate	ND		41.2	40.5		ug/L		98	68 - 120	3	20
Chrysene	ND		41.2	39.6		ug/L		96	68 - 120	3	20
Dibenz(a,h)anthracene	ND		41.2	42.8		ug/L		104	70 - 127	3	20
Dibenzofuran	ND		41.2	34.9		ug/L		85	51 - 110	3	20
Diethyl phthalate	ND		41.2	36.9		ug/L		90	62 - 120	0	20
Dimethyl phthalate	ND		41.2	38.7		ug/L		94	63 - 120	1	20
Di-n-butyl phthalate	ND		41.2	37.4		ug/L		91	70 - 120	1	20
Di-n-octyl phthalate	ND		41.2	41.9		ug/L		102	70 - 122	3	20
Fluoranthene	ND		41.2	41.8		ug/L		102	68 - 120	2	20
Fluorene	ND		41.2	34.7		ug/L		84	53 - 120	4	20

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-198446-10 MSD
Client Sample ID: SUPE-W-06C-042821
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 596549
Prep Batch: 596308

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hexachlorobenzene	ND		41.2	39.1		ug/L		95	61 - 120	3	20
Hexachlorobutadiene	ND		41.2	25.0		ug/L		61	20 - 100	5	20
Hexachlorocyclopentadiene	ND		41.2	26.4		ug/L		64	10 - 100	3	20
Hexachloroethane	ND		41.2	24.4		ug/L		59	20 - 100	4	20
Indeno[1,2,3-cd]pyrene	ND		41.2	43.7		ug/L		106	65 - 133	2	20
Isophorone	ND		41.2	35.2		ug/L		86	57 - 110	1	20
Nitrobenzene	ND		41.2	35.4		ug/L		86	53 - 110	1	20
N-Nitrosodi-n-propylamine	ND		41.2	32.5		ug/L		79	58 - 110	3	20
N-Nitrosodiphenylamine	ND		41.2	43.5		ug/L		106	66 - 110	1	20
Phenol	ND		41.2	16.1		ug/L		39	33 - 100	5	20
Pyrene	ND		41.2	39.2		ug/L		95	70 - 110	4	20
2,4-Dimethylphenol	ND		41.2	35.5		ug/L		86	51 - 110	2	20
Benzo[a]anthracene	0.048	J	41.2	39.4		ug/L		96	70 - 120	4	20
Phenanthrene	ND		41.2	38.1		ug/L		93	65 - 120	2	20
3,3'-Dichlorobenzidine	ND		41.2	33.5		ug/L		81	60 - 132	6	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*101*		*40 - 145*
2-Fluorobiphenyl	*86*		*34 - 110*
2-Fluorophenol (Surr)	*54*		*27 - 110*
Nitrobenzene-d5 (Surr)	*88*		*36 - 120*
Phenol-d5 (Surr)	*37*		*20 - 100*
Terphenyl-d14 (Surr)	*93*		*40 - 145*

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

Lab Sample ID: MB 480-579278/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 579609
Prep Batch: 579278

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		1.0	0.34	ug/L		05/04/21 14:51	05/06/21 13:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*82*		*24 - 146*	*05/04/21 14:51*	*05/06/21 13:22*	*1*
2-Fluorobiphenyl	*89*		*37 - 120*	*05/04/21 14:51*	*05/06/21 13:22*	*1*
2-Fluorophenol (Surr)	*50*		*10 - 120*	*05/04/21 14:51*	*05/06/21 13:22*	*1*
Nitrobenzene-d5 (Surr)	*79*		*26 - 120*	*05/04/21 14:51*	*05/06/21 13:22*	*1*
Phenol-d5 (Surr)	*33*		*11 - 120*	*05/04/21 14:51*	*05/06/21 13:22*	*1*
p-Terphenyl-d14	*105*		*64 - 127*	*05/04/21 14:51*	*05/06/21 13:22*	*1*

Lab Sample ID: LCS 480-579278/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 579609
Prep Batch: 579278

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Pentachlorophenol			16.0	12.0		ug/L		75	10 - 131		

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

Lab Sample ID: LCS 480-579278/2-A
Matrix: Water
Analysis Batch: 579609

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 579278

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*90*		*24 - 146*
2-Fluorobiphenyl	*87*		*37 - 120*
2-Fluorophenol (Surr)	*48*		*10 - 120*
Nitrobenzene-d5 (Surr)	*84*		*26 - 120*
Phenol-d5 (Surr)	*33*		*11 - 120*
p-Terphenyl-d14	*102*		*64 - 127*

Lab Sample ID: 500-198446-10 MS
Matrix: Water
Analysis Batch: 579609

Client Sample ID: SUPE-W-06C-042821
Prep Type: Total/NA
Prep Batch: 579278

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Pentachlorophenol	ND		16.0	14.5		ug/L		91	23 - 149

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*99*		*24 - 146*
2-Fluorobiphenyl	*94*		*37 - 120*
2-Fluorophenol (Surr)	*51*		*10 - 120*
Nitrobenzene-d5 (Surr)	*92*		*26 - 120*
Phenol-d5 (Surr)	*36*		*11 - 120*
p-Terphenyl-d14	*90*		*64 - 127*

Lab Sample ID: 500-198446-10 MSD
Matrix: Water
Analysis Batch: 579609

Client Sample ID: SUPE-W-06C-042821
Prep Type: Total/NA
Prep Batch: 579278

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Pentachlorophenol	ND		16.0	12.0		ug/L		75	23 - 149	19	37

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*93*		*24 - 146*
2-Fluorobiphenyl	*90*		*37 - 120*
2-Fluorophenol (Surr)	*46*		*10 - 120*
Nitrobenzene-d5 (Surr)	*77*		*26 - 120*
Phenol-d5 (Surr)	*32*		*11 - 120*
p-Terphenyl-d14	*81*		*64 - 127*

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

Lab Sample ID: MB 140-49428/14-A
Matrix: Water
Analysis Batch: 49735

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49428

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		10	0.20	pg/L		05/03/21 13:46	05/12/21 01:20	1
Total TCDD	ND		10	0.20	pg/L		05/03/21 13:46	05/12/21 01:20	1
1,2,3,7,8-PeCDD	ND		50	0.48	pg/L		05/03/21 13:46	05/12/21 01:20	1
Total PeCDD	ND		50	0.48	pg/L		05/03/21 13:46	05/12/21 01:20	1

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

Lab Sample ID: MB 140-49428/14-A
Matrix: Water
Analysis Batch: 49735

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49428

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,7,8-HxCDD	ND		50	0.47	pg/L		05/03/21 13:46	05/12/21 01:20	1
1,2,3,6,7,8-HxCDD	ND		50	0.45	pg/L		05/03/21 13:46	05/12/21 01:20	1
1,2,3,7,8,9-HxCDD	ND		50	0.44	pg/L		05/03/21 13:46	05/12/21 01:20	1
Total HxCDD	ND		50	0.47	pg/L		05/03/21 13:46	05/12/21 01:20	1
1,2,3,4,6,7,8-HpCDD	ND		50	0.54	pg/L		05/03/21 13:46	05/12/21 01:20	1
Total HpCDD	ND		50	0.54	pg/L		05/03/21 13:46	05/12/21 01:20	1
OCDD	3.99	J I	100	0.21	pg/L		05/03/21 13:46	05/12/21 01:20	1
2,3,7,8-TCDF	ND		10	0.43	pg/L		05/03/21 13:46	05/12/21 01:20	1
Total TCDF	ND		10	0.43	pg/L		05/03/21 13:46	05/12/21 01:20	1
1,2,3,7,8-PeCDF	ND		50	0.48	pg/L		05/03/21 13:46	05/12/21 01:20	1
2,3,4,7,8-PeCDF	ND		50	0.43	pg/L		05/03/21 13:46	05/12/21 01:20	1
Total PeCDF	ND		50	0.48	pg/L		05/03/21 13:46	05/12/21 01:20	1
1,2,3,4,7,8-HxCDF	ND		50	0.29	pg/L		05/03/21 13:46	05/12/21 01:20	1
1,2,3,6,7,8-HxCDF	ND		50	0.33	pg/L		05/03/21 13:46	05/12/21 01:20	1
2,3,4,6,7,8-HxCDF	ND		50	0.33	pg/L		05/03/21 13:46	05/12/21 01:20	1
1,2,3,7,8,9-HxCDF	ND		50	0.40	pg/L		05/03/21 13:46	05/12/21 01:20	1
Total HxCDF	ND		50	0.40	pg/L		05/03/21 13:46	05/12/21 01:20	1
1,2,3,4,6,7,8-HpCDF	ND		50	0.26	pg/L		05/03/21 13:46	05/12/21 01:20	1
1,2,3,4,7,8,9-HpCDF	ND		50	0.36	pg/L		05/03/21 13:46	05/12/21 01:20	1
Total HpCDF	ND		50	0.36	pg/L		05/03/21 13:46	05/12/21 01:20	1
OCDF	2.16	J I	100	0.21	pg/L		05/03/21 13:46	05/12/21 01:20	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*75*		*40 - 135*	*05/03/21 13:46*	*05/12/21 01:20*	*1*
13C-1,2,3,7,8-PeCDD	*71*		*40 - 135*	*05/03/21 13:46*	*05/12/21 01:20*	*1*
13C-1,2,3,4,7,8-HxCDD	*75*		*40 - 135*	*05/03/21 13:46*	*05/12/21 01:20*	*1*
13C-1,2,3,6,7,8-HxCDD	*81*		*40 - 135*	*05/03/21 13:46*	*05/12/21 01:20*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*93*		*40 - 135*	*05/03/21 13:46*	*05/12/21 01:20*	*1*
13C-OCDD	*93*		*40 - 135*	*05/03/21 13:46*	*05/12/21 01:20*	*1*
13C-2,3,7,8-TCDF	*79*		*40 - 135*	*05/03/21 13:46*	*05/12/21 01:20*	*1*
13C-1,2,3,7,8-PeCDF	*75*		*40 - 135*	*05/03/21 13:46*	*05/12/21 01:20*	*1*
13C-2,3,4,7,8-PeCDF	*72*		*40 - 135*	*05/03/21 13:46*	*05/12/21 01:20*	*1*
13C-1,2,3,4,7,8-HxCDF	*88*		*40 - 135*	*05/03/21 13:46*	*05/12/21 01:20*	*1*
13C-1,2,3,6,7,8-HxCDF	*72*		*40 - 135*	*05/03/21 13:46*	*05/12/21 01:20*	*1*
13C-2,3,4,6,7,8-HxCDF	*79*		*40 - 135*	*05/03/21 13:46*	*05/12/21 01:20*	*1*
13C-1,2,3,7,8,9-HxCDF	*79*		*40 - 135*	*05/03/21 13:46*	*05/12/21 01:20*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*88*		*40 - 135*	*05/03/21 13:46*	*05/12/21 01:20*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*85*		*40 - 135*	*05/03/21 13:46*	*05/12/21 01:20*	*1*
13C-OCDF	*70*		*40 - 135*	*05/03/21 13:46*	*05/12/21 01:20*	*1*

Lab Sample ID: LCS 140-49428/13-A
Matrix: Water
Analysis Batch: 49735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49428

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,7,8-TCDD	200	195		pg/L		98	77 - 127
1,2,3,7,8-PeCDD	1000	1010		pg/L		101	78 - 128
1,2,3,4,7,8-HxCDD	1000	1050		pg/L		105	73 - 123
1,2,3,6,7,8-HxCDD	1000	959		pg/L		96	72 - 127

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

Lab Sample ID: LCS 140-49428/13-A
Matrix: Water
Analysis Batch: 49735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49428

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2,3,7,8,9-HxCDD			1000	1130		pg/L		113	76 - 126		
1,2,3,4,6,7,8-HpCDD			1000	1030		pg/L		103	73 - 123		
OCDD			2000	1960		pg/L		98	75 - 125		
2,3,7,8-TCDF			200	183		pg/L		92	74 - 124		
1,2,3,7,8-PeCDF			1000	1030		pg/L		103	74 - 124		
2,3,4,7,8-PeCDF			1000	1030		pg/L		103	74 - 124		
1,2,3,4,7,8-HxCDF			1000	909		pg/L		91	75 - 125		
1,2,3,6,7,8-HxCDF			1000	968		pg/L		97	75 - 125		
2,3,4,6,7,8-HxCDF			1000	973		pg/L		97	76 - 126		
1,2,3,7,8,9-HxCDF			1000	977		pg/L		98	76 - 126		
1,2,3,4,6,7,8-HpCDF			1000	934		pg/L		93	71 - 121		
1,2,3,4,7,8,9-HpCDF			1000	964		pg/L		96	73 - 123		
OCDF			2000	2120		pg/L		106	68 - 132		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C-2,3,7,8-TCDD	*74*		*40 - 135*
13C-1,2,3,7,8-PeCDD	*70*		*40 - 135*
13C-1,2,3,4,7,8-HxCDD	*71*		*40 - 135*
13C-1,2,3,6,7,8-HxCDD	*72*		*40 - 135*
13C-1,2,3,4,6,7,8-HpCDD	*87*		*40 - 135*
13C-OCDD	*93*		*40 - 135*
13C-2,3,7,8-TCDF	*78*		*40 - 135*
13C-1,2,3,7,8-PeCDF	*72*		*40 - 135*
13C-2,3,4,7,8-PeCDF	*71*		*40 - 135*
13C-1,2,3,4,7,8-HxCDF	*79*		*40 - 135*
13C-1,2,3,6,7,8-HxCDF	*68*		*40 - 135*
13C-2,3,4,6,7,8-HxCDF	*74*		*40 - 135*
13C-1,2,3,7,8,9-HxCDF	*76*		*40 - 135*
13C-1,2,3,4,6,7,8-HpCDF	*80*		*40 - 135*
13C-1,2,3,4,7,8,9-HpCDF	*82*		*40 - 135*
13C-OCDF	*68*		*40 - 135*

Lab Chronicle

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-28C-042821
Lab Sample ID: 500-198446-1
Date Collected: 04/28/21 09:08
Matrix: Water
Date Received: 04/30/21 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	579092	05/04/21 00:39	WJD	TAL BUF
Total/NA	Prep	3510C			596308	05/03/21 07:11	DAK	TAL CHI
Total/NA	Analysis	8270D		1	596549	05/04/21 02:39	SS	TAL CHI
Total/NA	Prep	3510C			579278	05/04/21 14:51	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	579609	05/06/21 15:39	JMM	TAL BUF
Total/NA	Prep	8290			49428	05/03/21 13:46	SMA	TAL KNX
Total/NA	Analysis	8290A		1	49735	05/12/21 03:23	LKM	TAL KNX

Client Sample ID: SUPE-EB-01-042821
Lab Sample ID: 500-198446-2
Date Collected: 04/28/21 09:50
Matrix: Water
Date Received: 04/30/21 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	579092	05/04/21 01:02	WJD	TAL BUF
Total/NA	Prep	3510C			596308	05/03/21 07:11	DAK	TAL CHI
Total/NA	Analysis	8270D		1	596549	05/04/21 03:01	SS	TAL CHI
Total/NA	Prep	3510C			579278	05/04/21 14:51	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	579609	05/06/21 16:06	JMM	TAL BUF
Total/NA	Prep	8290			49428	05/03/21 13:46	SMA	TAL KNX
Total/NA	Analysis	8290A		1	49735	05/12/21 02:24	LKM	TAL KNX

Client Sample ID: SUPE-W-18D-042821
Lab Sample ID: 500-198446-3
Date Collected: 04/28/21 10:51
Matrix: Water
Date Received: 04/30/21 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			596308	05/03/21 07:11	DAK	TAL CHI
Total/NA	Analysis	8270D		1	596549	05/04/21 03:22	SS	TAL CHI
Total/NA	Prep	3510C			579278	05/04/21 14:51	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	579609	05/06/21 16:34	JMM	TAL BUF

Client Sample ID: SUPE-W-04AR2-042821
Lab Sample ID: 500-198446-4
Date Collected: 04/28/21 12:07
Matrix: Water
Date Received: 04/30/21 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	579092	05/04/21 01:25	WJD	TAL BUF
Total/NA	Prep	3510C			596308	05/03/21 07:11	DAK	TAL CHI
Total/NA	Analysis	8270D		1	596549	05/04/21 03:43	SS	TAL CHI
Total/NA	Prep	3510C			579278	05/04/21 14:51	ATG	TAL BUF
Total/NA	Analysis	8270D LL		5	579609	05/06/21 17:01	JMM	TAL BUF
Total/NA	Prep	8290			49428	05/03/21 13:46	SMA	TAL KNX
Total/NA	Analysis	8290A		1	49735	05/12/21 04:23	LKM	TAL KNX

Lab Chronicle

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-30A-042821
Lab Sample ID: 500-198446-5
Date Collected: 04/28/21 14:41
Matrix: Water
Date Received: 04/30/21 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	579132	05/04/21 15:25	LCH	TAL BUF
Total/NA	Prep	3510C			596308	05/03/21 07:11	DAK	TAL CHI
Total/NA	Analysis	8270D		1	596549	05/04/21 04:05	SS	TAL CHI
Total/NA	Prep	3510C			579278	05/04/21 14:51	ATG	TAL BUF
Total/NA	Analysis	8270D LL		10	579609	05/06/21 17:29	JMM	TAL BUF
Total/NA	Prep	8290			49428	05/03/21 13:46	SMA	TAL KNX
Total/NA	Analysis	8290A		1	49745	05/12/21 11:51	KBL	TAL KNX

Client Sample ID: SUPE-W-10AR2-042821
Lab Sample ID: 500-198446-6
Date Collected: 04/28/21 16:53
Matrix: Water
Date Received: 04/30/21 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	579092	05/04/21 02:12	WJD	TAL BUF
Total/NA	Prep	3510C			596308	05/03/21 07:11	DAK	TAL CHI
Total/NA	Analysis	8270D		1	596549	05/04/21 04:26	SS	TAL CHI
Total/NA	Prep	3510C			579278	05/04/21 14:51	ATG	TAL BUF
Total/NA	Analysis	8270D LL		5	579609	05/06/21 17:56	JMM	TAL BUF
Total/NA	Prep	8290			49428	05/03/21 13:46	SMA	TAL KNX
Total/NA	Analysis	8290A		1	49735	05/12/21 06:23	LKM	TAL KNX

Client Sample ID: SUPE-M-99A-042821
Lab Sample ID: 500-198446-7
Date Collected: 04/28/21 22:00
Matrix: Water
Date Received: 04/30/21 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	579092	05/04/21 02:35	WJD	TAL BUF
Total/NA	Prep	3510C			596308	05/03/21 07:11	DAK	TAL CHI
Total/NA	Analysis	8270D		1	596549	05/04/21 04:47	SS	TAL CHI
Total/NA	Prep	3510C			579278	05/04/21 14:51	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	579609	05/06/21 18:23	JMM	TAL BUF
Total/NA	Prep	8290			49428	05/03/21 13:46	SMA	TAL KNX
Total/NA	Analysis	8290A		1	49745	05/12/21 12:51	KBL	TAL KNX

Client Sample ID: SUPE-TB-01-042821
Lab Sample ID: 500-198446-8
Date Collected: 04/28/21 13:53
Matrix: Water
Date Received: 04/30/21 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	579092	05/04/21 02:58	WJD	TAL BUF

Client Sample ID: SUPE-W-06A-042821
Lab Sample ID: 500-198446-9

Date Collected: 04/28/21 14:00
Matrix: Water
Date Received: 04/30/21 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	579092	05/04/21 03:21	WJD	TAL BUF
Total/NA	Prep	3510C			596308	05/03/21 07:11	DAK	TAL CHI
Total/NA	Analysis	8270D		1	596549	05/04/21 05:08	SS	TAL CHI
Total/NA	Prep	3510C			579278	05/04/21 14:51	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	579609	05/06/21 18:51	JMM	TAL BUF
Total/NA	Prep	8290			49428	05/03/21 13:46	SMA	TAL KNX
Total/NA	Analysis	8290A		1	49745	05/12/21 13:51	KBL	TAL KNX

Client Sample ID: SUPE-W-06C-042821
Lab Sample ID: 500-198446-10

Date Collected: 04/28/21 17:20
Matrix: Water
Date Received: 04/30/21 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	579092	05/04/21 03:44	WJD	TAL BUF
Total/NA	Prep	3510C			596308	05/03/21 07:11	DAK	TAL CHI
Total/NA	Analysis	8270D		1	596549	05/04/21 02:18	SS	TAL CHI
Total/NA	Prep	3510C			579278	05/04/21 14:51	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	579609	05/06/21 15:12	JMM	TAL BUF
Total/NA	Prep	8290			49428	05/03/21 13:46	SMA	TAL KNX
Total/NA	Analysis	8290A		1	49745	05/12/21 14:51	KBL	TAL KNX

Client Sample ID: SUPE-W-12A-042921
Lab Sample ID: 500-198446-11

Date Collected: 04/29/21 10:13
Matrix: Water
Date Received: 04/30/21 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	579092	05/04/21 04:07	WJD	TAL BUF
Total/NA	Prep	3510C			596308	05/03/21 07:11	DAK	TAL CHI
Total/NA	Analysis	8270D		1	596549	05/04/21 05:30	SS	TAL CHI
Total/NA	Prep	3510C			579278	05/04/21 14:51	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	579609	05/06/21 19:18	JMM	TAL BUF
Total/NA	Prep	8290			49428	05/03/21 13:46	SMA	TAL KNX
Total/NA	Analysis	8290A		1	49745	05/12/21 15:52	KBL	TAL KNX

Client Sample ID: SUPE-EB-02-042921
Lab Sample ID: 500-198446-12

Date Collected: 04/29/21 10:18
Matrix: Water
Date Received: 04/30/21 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	579092	05/04/21 04:31	WJD	TAL BUF
Total/NA	Prep	3510C			596308	05/03/21 07:11	DAK	TAL CHI
Total/NA	Analysis	8270D		1	596549	05/04/21 05:51	SS	TAL CHI
Total/NA	Prep	3510C			579278	05/04/21 14:51	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	579609	05/06/21 19:46	JMM	TAL BUF

Lab Chronicle

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-EB-02-042921
Lab Sample ID: 500-198446-12
Date Collected: 04/29/21 10:18
Matrix: Water
Date Received: 04/30/21 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8290			49428	05/03/21 13:46	SMA	TAL KNX
Total/NA	Analysis	8290A		1	49745	05/12/21 10:51	KBL	TAL KNX

Client Sample ID: SUPE-W-30C-042921
Lab Sample ID: 500-198446-13
Date Collected: 04/29/21 12:51
Matrix: Water
Date Received: 04/30/21 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	579092	05/04/21 04:54	WJD	TAL BUF
Total/NA	Prep	3510C			596308	05/03/21 07:11	DAK	TAL CHI
Total/NA	Analysis	8270D		1	596549	05/04/21 06:12	SS	TAL CHI
Total/NA	Prep	3510C			579278	05/04/21 14:51	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	579609	05/06/21 20:13	JMM	TAL BUF
Total/NA	Prep	8290			49428	05/03/21 13:46	SMA	TAL KNX
Total/NA	Analysis	8290A		1	49745	05/12/21 16:52	KBL	TAL KNX

Client Sample ID: SUPE-W-12CR-042921
Lab Sample ID: 500-198446-14
Date Collected: 04/29/21 08:21
Matrix: Water
Date Received: 04/30/21 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	579092	05/04/21 05:17	WJD	TAL BUF
Total/NA	Prep	3510C			596308	05/03/21 07:11	DAK	TAL CHI
Total/NA	Analysis	8270D		1	596549	05/04/21 06:34	SS	TAL CHI
Total/NA	Prep	3510C			579278	05/04/21 14:51	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	579609	05/06/21 20:40	JMM	TAL BUF
Total/NA	Prep	8290			49428	05/03/21 13:46	SMA	TAL KNX
Total/NA	Analysis	8290A		1	49745	05/12/21 17:52	KBL	TAL KNX

Client Sample ID: SUPE-W-TB-02-042921
Lab Sample ID: 500-198446-15
Date Collected: 04/29/21 10:00
Matrix: Water
Date Received: 04/30/21 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	579092	05/04/21 05:40	WJD	TAL BUF

Laboratory References:

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

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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

Accreditation/Certification Summary

Client: Field & Technical Services LLC
Job ID: 500-198446-1
Project/Site: Superior, WI Semiannual Groundwater

Laboratory: Eurofins TestAmerica, Chicago

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

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999580010	08-31-21

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
8270D	3510C	Water	2,3,5,6-Tetrachlorophenol

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	998310390	09-01-21

Laboratory: Eurofins TestAmerica, 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	08-31-21

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

FTS Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 502012

500-198446 COC

Project Name	Superior, WI - 2021 OM&M Program	Company	Field & Technical Services	Client	Beazer East, Inc.
Project Number	OM-0556-21	Address	200 Third Avenue	Contact	
Laboratory	TABUF		Carnegie, PA 15106		btrask.2006@f-ts.com
Shipment Method	Courier		(412) 279-3363		
Program	Superior 2021 1SA Sampling_001				

500-198446

	Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8260B_VOA+naphtha	8270C_SVOC (less naphtha)	8270C_SVOC+naphtha													
					Preservative	HCL	None	None													
					Total Bottle Count																
1	04/28/2021	0908	GW	SUPE-W-28C-042821	6	3	3	0													
2	04/28/2021	0950	GW	SUPE-EB-01-042821	6	3	3	0													
3	04/28/2021	1051	GW	SUPE-W-18D-042821	3	0	0	3													
4	04/28/2021	1207	GW	SUPE-W-04AR2-042821	6	3	3	0													
5	04/28/2021	1441	GW	SUPE-W-30A-042821	6	3	3	0													
6	04/28/2021	1653	GW	SUPE-W-10AR2-042821	6	3	3	0													
7	04/28/2021	2200	GW	SUPE-M-99A-042821	6	3	3	0													

0.9 → -0.1, -0.3 → -1.3,
0.4 → -0.6, 0.3 → -0.7,
-0.4 → -1.4, 1.2 → 0.2,
-0.3 → -1.3, 0.3 → 0.7

TestAmerica Duluth SC
269

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature:	Signature:	Signature:	Signature:	☐ Rush
Printed Name: Ben Trask	Printed Name: Melissa Gascon	Printed Name:	Printed Name: Sherri Scott	
Firm FTS	Firm Eurofins	Firm	Firm BTA-CHT	☒ Standard
Date/Time: 04/28/2021 1911	Date/Time: 4/29/21 0900	Date/Time:	Date/Time: 4/30/21 0920	

FTS Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

TestAmerica Duluth SC 269

REF.# 500-198446

Project Name	Superior, WI - 2021 OM&M Program	Company	Field & Technical Services	Client	Beazer East, Inc.
Project Number	OM-0556-21	Address	200 Third Avenue	Contact	
Laboratory	TAKNOX		Carnegie, PA 15106		btrask.2006@f-ts.com
Shipment Method	Courier		(412) 279-3363		
Program	Superior 2021 1SA Sampling_001				

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8290_Dioxins/Furans															
				Preservative	None															
				Total Bottle Count																
04/28/2021	0908	GW	SUPE-W-28C-042821	2	2															
04/28/2021	0950	GW	SUPE-EB-01-042821	2	2															
04/28/2021	1207	GW	SUPE-W-04AR2-042821	2	2															
04/28/2021	1441	GW	SUPE-W-30A-042821	2	2															
04/28/2021	1653	GW	SUPE-W-10AR2-042821	2	2															
04/28/2021	2200	GW	SUPE-M-99A-042821	2	2															

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature:	Signature:	Signature:	Signature:	
Printed Name: Ben Trask	Printed Name: Melissa Gascon	Printed Name:	Printed Name: Sherri Scott	
Firm FTS	Firm Eurofins	Firm	Firm TSTACHT	☐ Rush
Date/Time: 04/28/2021 1911	Date/Time: 4/29/21 0900	Date/Time:	Date/Time: 4/30/21 0920	☒ Standard

FTS Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

TestAmerica Duluth SC 269

REF.# 502603

Project Name	Superior, WI - 2021 OM&M Program	Company	Field & Technical Services	Client	Beazer East, Inc
Project Number	OM-0556-21	Address	200 Third Avenue	Contact	
Laboratory	TABUF		Carnegie, PA 15106		hredmond.2006@f-ts
Shipment Method	Courier		(412) 279-3363		
Program	Superior 2021 1SA Sampling_001				

500-198446

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8270C_SVOC (less naphtha)	8260B_VOA+naphtha														
				Preservative	None	HCL														
				Total Bottle Count																
04/28/2021	1353	GW	SUPE-TB-01-042821	3	0	3														
04/28/2021	1400	GW	SUPE-W-06A-042821	6	3	3														
04/28/2021	1720	GW	SUPE-W-06C-042821	6	3	3														
04/28/2021	1720	GW	SUPE-MS/MSD-W-06C-042821	12	6	6														

8
9
10

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature:	Signature:	Signature:	Signature:	
Printed Name: Haley Redmond	Printed Name: Melissa Bascar	Printed Name:	Printed Name: Sherri Scott	
Firm FTS	Firm Eurofins	Firm	Firm ETA-CHI	Rush ☐ Standard ☒
Date/Time: 04/28/2021 1911	Date/Time: 4/29/21 0900	Date/Time:	Date/Time: 4/30/21 0920	

FTS Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

TestAmerica Duluth SC
269

REF.# 502003

Project Name.	Superior, WI - 2021 OM&M Program	Company	Field & Technical Services	Client	Beazer East, Inc
Project Number	OM-0556-21	Address	200 Third Avenue	Contact	
Laboratory	TAKNOX		Carnegie, PA 15106		hredmond 2006@f-ts
Shipment Method	Courier		(412) 279-3363		
Program	Superior 2021 1SA Sampling_001				

500-198446

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8290_Dioxins/Furans															
				Preservative	None															
				Total Bottle Count																
04/28/2021	1353	GW	SUPE-TB-01-042821	0	0															
04/28/2021	1400	GW	SUPE-W-06A-042821	2	2															
04/28/2021	1720	GW	SUPE-W-06C-042821	2	2															
04/28/2021	1720	GW	SUPE-MS/MSD-W-06C-042821	0	0															

8
9
10

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature:	Signature: Melissa Bascon	Signature:	Signature: Sherri Scott	☐ Rush
Printed Name: Haley Redmond	Printed Name: Melissa Bascon	Printed Name:	Printed Name: Sherri Scott	
Firm FTS	Firm Eurofins	Firm	Firm EA-CHI	☒ Standard
Date/Time: 04/28/2021 1911	Date/Time: 4/29/21 0900	Date/Time:	Date/Time: 4/30/21 0920	

FTS Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF #

Project Name	Superior, WI - 2021 OM&M Program	Company	Field & Technical Services	Client	Beazer East, Inc.
Project Number	OM-0556-21	Address	200 Third Avenue	Contact	
Laboratory	TABUF		Carnegie, PA 15106		hredmond.2008@f-ts
Shipment Method	Courier		(412) 279-3363		
Program	Superior 2021 1SA Sampling_001				

TestAmerica Duluth 269

500-198446

	Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8260B_VOA+naphtha	8270C_SVOC (less naphtha)														
					Preservative	HCL	None														
					Total Bottle Count																
11	04/29/2021	1013	GW	SUPE-W-12A-042921	6	3	3														
12	04/29/2021	1018	GW	SUPE-EB-02-042921	6	3	3														
13	04/29/2021	1251	GW	SUPE-W-30C-042921	6	3	3														
14	04/29/2021	0821	GW	SUPE-W-12CR-042921	0	3	3														
15	04/29/2021	0000	GW	SUPE-W-TB-02-042921	3	3	0														

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature:	Signature:	Signature:	Signature:	☐ Rush
Printed Name: Haley Redmond	Printed Name: Melissa Gascon	Printed Name:	Printed Name: Sherri Scott	
Firm: FTS	Firm: Eurofins	Firm:	Firm: STL CHI	☒ Standard
Date/Time: 04/29/2021 1450	Date/Time: 4/29/21 1550	Date/Time:	Date/Time: 4/30/21 0920	

FTS Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

TestAmerica Duluth SC
269

REF.#

Project Name	Superior, WI - 2021 OM&M Program	Company	Field & Technical Services	Client	Beazer East, Inc.
Project Number	OM-0556-21	Address	200 Third Avenue	Contact	
Laboratory.	TAKNOX		Carnegie, PA 15106		hredmond.2006@f-ts
Shipment Method	Courier		(412) 279-3363		
Program	Superior 2021 1SA Sampling_001				

500-198446

	Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8290_Dioxins/Furans														
					Preservative	None														
					Total Bottle Count															
11	04/29/2021	1013	GW	SUPE-W-12A-042921	2	2														
12	04/29/2021	1018	GW	SUPE-EB-02-042921	2	2														
13	04/29/2021	1251	GW	SUPE-W-30C-042921	2	2														
14	04/29/2021 ~~0000~~ 0821		GW	HE 4-29-21 SUPE-W-12CR-042921	2	2														

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature:	Signature:	Signature:	Signature:	☐ Rush
Printed Name: Haley Redmond	Printed Name: Melissa Gascon	Printed Name:	Printed Name: Sherri Scott	
Firm: FTS	Firm: Eurofins	Firm:	Firm: ETA-CHT	☒ Standard
Date/Time: 04/29/2021 1450	Date/Time: 4/29/21 1550	Date/Time:	Date/Time: 4/30/21 0920	

ORIGIN ID:DLHA
TESTAMERICA DULUTH
63 E 2ND ST STE 100
SUPERIOR, WI 54880
UNITED STATES US

SHIP DATE: 29APR21
ACTWGT: 58.00 LB MAN
CAD: 0669741/CAFE3409

BILL RECIPIENT

TO SAMPLE RECEIVING
EUROFINS TESTAMERICA CHI
2417 BOND ST

UNIVERSITY PARK IL 60484

(708) 534-5200
REF: FTS/BEAZER

500-198446 Wayb

FedEx Express

TRK# 0201 4546 9353 8080

FRI - 30 APR 10:30A
PRIORITY OVERNIGHT

XH JOTA

60484
IL-US ORD

ORIGIN ID:DLHA (715) 394-3674
TESTAMERICA DULUTH SVC
63 E 2ND ST STE 100
SUPERIOR, WI 54880
UNITED STATES US

SHIP DATE: 29APR21
ACTWGT: 62.95 LB MAN
CAD: 0669741/CAFE3409

BILL RECIPIENT

TO SAMPLE RECEIVING
EUROFINS TESTAMERICA CHICAGO
2417 BOND ST

UNIVERSITY PARK IL 60484

(708) 534-5200
REF: FTS/BEAZER

FedEx Express

TRK# 0201 4546 9353 7999

FRI - 30 APR 10:30A
PRIORITY OVERNIGHT

XH JOTA

60484
IL-US ORD

Part # 156148-434 RIT EXP 02/20

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

500-198446 Chain of Custody

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lage, Gail	COC No: 500-148072.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Gail.Lage@Eurofinset.com	State of Origin: Wisconsin; Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Wisconsin	Job #: 500-198446-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 5/20/2021		
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, 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-28C-042821 (500-198446-1)	4/28/21	09:08 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-EB-01-042821 (500-198446-2)	4/28/21	09:50 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-04AR2-042821 (500-198446-4)	4/28/21	12:07 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-30A-042821 (500-198446-5)	4/28/21	14:41 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-10AR2-042821 (500-198446-6)	4/28/21	16:53 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-M-99A-042821 (500-198446-7)	4/28/21	22:00 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-06A-042821 (500-198446-9)	4/28/21	14:00 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-06C-042821 (500-198446-10)	4/28/21	17:20 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-12A-042921 (500-198446-11)	4/29/21	10:13 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

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: Alvin Scott	Date/Time: 4/30/21 1620	Company: ETACPEI	Received by: [signature]	Date/Time: 5/1/21 0930	Company: ETA
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: 11/01/2020

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lage, Gail	Carrier Tracking No(s):	COC No: 500-148072.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Gail.Lage@Eurofinset.com	State of Origin: Wisconsin	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Wisconsin		Job #: 500-198446-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 5/20/2021			
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	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	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-EB-02-042921 (500-198446-12)	4/29/21	10:18 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-30C-042921 (500-198446-13)	4/29/21	12:51 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-12CR-042921 (500-198446-14)	4/29/21	08:21 Central		Water			X	2	Refer to PT-PM-WI-006 for Wisconsin Protocol

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

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	Ann Scott	4/30/21 1620	ETA		5/1/21 0930	ETA
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: 11/01/2020

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

Log In Number: Loc: 500 **198446**

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 : SC71 Correction factor: +0.1	/			☐ **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?			/	☐ **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

RT: 1.5°c, 0.9°c, 1.1°
CT: 1.6°c, 1.0°c, 1.2°c
3 coolers, Fedex Pri
trk# 1893 4451 7416
" " 7427
" " 7438
Custody seal intact
KL 5/1/21

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 #: _____ PM Instructions: _____

Sample Receiving Associate: Ken Wh Date: 5/1/21

QA026R32.doc, 062719

5/19/2021

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lage, Gail	Carrier Tracking No(s):
Client Contact: Shipping/Receiving	Phone:	E-Mail: Gail.Lage@Eurofinset.com	State of Origin: Wisconsin
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Wisconsin	
Address: 10 Hazelwood Drive, ,	Due Date Requested: 5/20/2021		
City: Amherst	TAT Requested (days):		
State, Zip: NY, 14228-2298			
Phone: 716-691-2600(Tel) 716-691-7991(Fax)	PO #:		
Email:	WO #:		
Project Name: Superior, WI Semiannual Groundwater	Project #: 18015916		
Site:	SSOW#:		

COC No: 500-148066.1
Page: Page 1 of 2
Job #: 500-198446-1

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, 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)	8260C/5030C (MOD) Volatiles, project list	8270D_LL/3510C_LL (MOD) Pentachlorophenol	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SUPE-W-28C-042821 (500-198446-1)	4/28/21	09:08 Central		Water			X	X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-EB-01-042821 (500-198446-2)	4/28/21	09:50 Central		Water			X	X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-18D-042821 (500-198446-3)	4/28/21	10:51 Central		Water				X	1	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-04AR2-042821 (500-198446-4)	4/28/21	12:07 Central		Water			X	X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-30A-042821 (500-198446-5)	4/28/21	14:41 Central		Water			X	X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-10AR2-042821 (500-198446-6)	4/28/21	16:53 Central		Water			X	X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-M-99A-042821 (500-198446-7)	4/28/21	22:00 Central		Water			X	X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-TB-01-042821 (500-198446-8)	4/28/21	13:53 Central		Water			X		3	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-06A-042821 (500-198446-9)	4/28/21	14:00 Central		Water			X	X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification
Unconfirmed

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

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Chris Scott	Date/Time: 4/30/21 1620	Company: ETACHI	Received by: Anniklow C Wolb	Date/Time: 5/1/21 1000	Company: TA
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: 3.1 2.6 # ICE		

Ver: 11/01/2020

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lage, Gail	Carrier Tracking No(s):	COC No: 500-148066.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Gail.Lage@Eurofinset.com	State of Origin: Wisconsin	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Wisconsin		Job #: 500-198446-1
Address: 10 Hazelwood Drive, ,	Due Date Requested: 5/20/2021			
City: Amherst	TAT Requested (days):			
State, Zip: NY, 14228-2298				
Phone: 716-691-2600(Tel) 716-691-7991(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, 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)	8260C/5030C (MOD) Volatiles, project list	8270D_LL/3510C_LL (MOD) Pentachlorophenol	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SUPE-W-06C-042821 (500-198446-10)	4/28/21	17:20 Central		Water			X	X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-06C-042821 (500-198446-10MS)	4/28/21	17:20 Central	MS	Water			X	X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-06C-042821 (500-198446-10MSD)	4/28/21	17:20 Central	MSD	Water			X	X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-12A-042921 (500-198446-11)	4/29/21	10:13 Central		Water			X	X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-EB-02-042921 (500-198446-12)	4/29/21	10:18 Central		Water			X	X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-30C-042921 (500-198446-13)	4/29/21	12:51 Central		Water			X	X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-12CR-042921 (500-198446-14)	4/29/21	08:21 Central		Water			X	X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-TB-02-042921 (500-198446-15)	4/29/21	10:00 Central		Water			X		2	Refer to PT-PM-WI-006 for Wisconsin Protocol

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

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: Shari Scott	Date/Time: 4/30/21 1620	Company: ETA CHI	Received by: PSI		Date/Time:	Company
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: 11/01/2020

Login Sample Receipt Checklist

Client: Field & Technical Services LLC

Job Number: 500-198446-1

Login Number: 198446
List Number: 1
Creator: Scott, Sherri L

List Source: Eurofins TestAmerica, Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
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	-0.1,-1.3,-0.6,-0.7,-1.4,0.2,-1.3,-0.7 SAMPLES NOT FROZEN
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.	True	
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: 500-198446-1

Login Number: 198446
List Number: 3
Creator: Kolb, Chris M

List Source: Eurofins TestAmerica, Buffalo
List Creation: 05/03/21 02:18 PM

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	3.1 2.6 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	

Isotope Dilution Summary

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

Job ID: 500-198446-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	TCDD (40-135)	PeCDD (40-135)	HxCDD (40-135)	HxDD (40-135)	HpCDD (40-135)	OCDD (40-135)	TCDF (40-135)	PeCDF (40-135)
500-198446-1	SUPE-W-28C-042821	80	81	83	85	97	101	85	84
500-198446-2	SUPE-EB-01-042821	77	76	79	83	94	94	84	77
500-198446-4	SUPE-W-04AR2-042821	80	86	79	86	97	99	85	88
500-198446-5	SUPE-W-30A-042821	77	80	82	84	94	104	80	81
500-198446-6	SUPE-W-10AR2-042821	82	82	77	87	93	103	88	89
500-198446-7	SUPE-M-99A-042821	78	86	83	85	99	97	83	79
500-198446-9	SUPE-W-06A-042821	77	80	74	84	90	93	82	79
500-198446-10	SUPE-W-06C-042821	79	83	81	88	94	100	85	84
500-198446-11	SUPE-W-12A-042921	80	83	73	81	97	101	81	84
500-198446-12	SUPE-EB-02-042921	76	74	75	87	86	94	84	77
500-198446-13	SUPE-W-30C-042921	82	84	85	94	101	107	87	84
500-198446-14	SUPE-W-12CR-042921	83	87	86	88	99	101	87	90
LCS 140-49428/13-A	Lab Control Sample	74	70	71	72	87	93	78	72
MB 140-49428/14-A	Method Blank	75	71	75	81	93	93	79	75

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PeCF (40-135)	HxCDF (40-135)	HxDF (40-135)	13CHxCF (40-135)	HxCF (40-135)	HpCDF (40-135)	HpCDF2 (40-135)	OCDF (40-135)
500-198446-1	SUPE-W-28C-042821	80	96	85	87	93	96	96	79
500-198446-2	SUPE-EB-01-042821	77	93	81	83	85	93	88	75
500-198446-4	SUPE-W-04AR2-042821	87	97	83	87	90	96	93	78
500-198446-5	SUPE-W-30A-042821	78	93	79	82	91	92	91	77
500-198446-6	SUPE-W-10AR2-042821	85	98	84	86	92	95	91	77
500-198446-7	SUPE-M-99A-042821	84	98	86	86	90	96	95	80
500-198446-9	SUPE-W-06A-042821	80	89	80	81	87	88	89	77
500-198446-10	SUPE-W-06C-042821	83	96	82	85	91	93	92	79
500-198446-11	SUPE-W-12A-042921	83	92	80	82	88	93	93	80
500-198446-12	SUPE-EB-02-042921	76	91	80	81	87	89	86	77
500-198446-13	SUPE-W-30C-042921	83	101	87	89	95	97	99	86
500-198446-14	SUPE-W-12CR-042921	86	94	82	86	92	90	89	66
LCS 140-49428/13-A	Lab Control Sample	71	79	68	74	76	80	82	68
MB 140-49428/14-A	Method Blank	72	88	72	79	79	88	85	70

Surrogate Legend

TCDD = 13C-2,3,7,8-TCDD
PeCDD = 13C-1,2,3,7,8-PeCDD
HxCDD = 13C-1,2,3,4,7,8-HxCDD
HxDD = 13C-1,2,3,6,7,8-HxCDD
HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
OCDD = 13C-OCDD
TCDF = 13C-2,3,7,8-TCDF
PeCDF = 13C-1,2,3,7,8-PeCDF
PeCF = 13C-2,3,4,7,8-PeCDF
HxCDF = 13C-1,2,3,4,7,8-HxCDF
HxDF = 13C-1,2,3,6,7,8-HxCDF
13CHxCF = 13C-2,3,4,6,7,8-HxCDF
HxCF = 13C-1,2,3,7,8,9-HxCDF
HpCDF = 13C-1,2,3,4,6,7,8-HpCDF
HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF
OCDF = 13C-OCDF

FTS, LLC

DATE: October 20, 2021

FROM: Kendra Chintella

SUBJECT: Superior Groundwater

SAMPLE DELIVERY GROUP (SDG): 480-190738-1

SAMPLES: SUPE-W-18D-100621, SUPE-W-28C-100621, SUPE-EB-01-100621, SUPE-W-04AR2-100621, SUPE-W-30A-100621, SUPE-W-10AR2-100621, SUPE-TB-01-100621, SUPE-M-99A-100621(W-28C), SUPE-W-30C-100621, SUPE-W-06C-100621, SUPE-W-12CR-100621, SUPE-W-12A-100621, SUPE-W-06A-100621

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

LABORATORY: Eurofins TestAmerica Laboratories, Buffalo

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: Chloromethane was detected in the trip blank. See attached page for details.

□ Field Duplicate Precision
Noncompliance: None

□ Surrogate Recoveries
Noncompliance: The surrogate recovery of p-terphenyl-d14 fell below the recovery limits in samples W-04AR2, W-30A, W-12A, and W-06A. No action was taken on this basis.

□ Matrix Spike/Matrix Spike Duplicate
Noncompliance: The MS/MSD recoveries of benzene, ethylbenzene, m&p-xylenes, styrene, and toluene were above the recovery limits. The MSD recovery of methyl tert-butyl ether fell below the recovery limits. The MS recovery of o-xylene was above the recovery limits. No action was taken on this basis.

□ Laboratory Control Sample
Noncompliance: None

Field Blank Contamination:

The following analyte was detected in the aqueous trip blank, SUPE-TB-01-100621, at the following concentration:

Analyte	Maximum Concentration	Blank Action Level
Chloromethane	0.37 J ug/l	1.85 ug/l

An action level of 5X the maximum concentration was used to evaluate the sample data for field blank contamination. Associated samples with concentrations below the blank action level were qualified “U” for field blank contamination.

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-190738-1
Client Project/Site: Superior, WI Semiannual Groundwater

For:
Field & Technical Services LLC
200 Third Avenue
Carnegie, Pennsylvania 15106

Attn: Ms. Angie Gatchie

Authorized for release by:
10/15/2021 10:26:57 AM

Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@Eurofinset.com

Table of Contents

Definitions/Glossary

Client: Field & Technical Services LLC
Job ID: 480-190738-1
Project/Site: Superior, WI Semiannual Groundwater

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.

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

Job ID: 480-190738-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-190738-1

Comments
No additional comments.

Receipt
The samples were received on 10/8/2021 10:00 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 2.6º C, 2.8º C and 3.3º C.

GC/MS VOA
Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: SUPE-W-30A-100621. 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 8270D LL: The following samples were diluted due to the abundance of non-target analytes: SUPE-W-04AR2-100621, SUPE-W-30A-100621 and SUPE-W-10AR2-100621. Elevated reporting limits (RLs) are provided.

Method 8270D LL: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: SUPE-W-04AR2-100621, SUPE-W-30A-100621, SUPE-W-12A-100621 and SUPE-W-06A-100621. These results have been reported and qualified.

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

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

Detection Summary

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

Job ID: 480-190738-1

Client Sample ID: SUPE-W-18D-100621 — Lab Sample ID: 480-190738-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pentachlorophenol	0.84	J	1.1	0.37	ug/L	1		8270D LL	Total/NA

Client Sample ID: SUPE-W-28C-100621 — Lab Sample ID: 480-190738-2

No Detections.

Client Sample ID: SUPE-EB-01-100621 — Lab Sample ID: 480-190738-3

No Detections.

Client Sample ID: SUPE-W-04AR2-100621 — Lab Sample ID: 480-190738-4

No Detections.

Client Sample ID: SUPE-W-30A-100621 — Lab Sample ID: 480-190738-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	8.6		2.0	1.5	ug/L	2		8260C	Total/NA
Benzene	18		2.0	0.82	ug/L	2		8260C	Total/NA
Ethylbenzene	38		2.0	1.5	ug/L	2		8260C	Total/NA
m-Xylene & p-Xylene	11		4.0	1.3	ug/L	2		8260C	Total/NA
Naphthalene	130		2.0	0.86	ug/L	2		8260C	Total/NA
o-Xylene	11		2.0	1.5	ug/L	2		8260C	Total/NA
Toluene	4.5		2.0	1.0	ug/L	2		8260C	Total/NA
Xylenes, Total	22		4.0	1.3	ug/L	2		8260C	Total/NA

Client Sample ID: SUPE-W-10AR2-100621 — Lab Sample ID: 480-190738-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	11		1.0	0.75	ug/L	1		8260C	Total/NA
Benzene	26		1.0	0.41	ug/L	1		8260C	Total/NA
Ethylbenzene	53		1.0	0.74	ug/L	1		8260C	Total/NA
m-Xylene & p-Xylene	4.6		2.0	0.66	ug/L	1		8260C	Total/NA
Naphthalene	3.1		1.0	0.43	ug/L	1		8260C	Total/NA
o-Xylene	22		1.0	0.76	ug/L	1		8260C	Total/NA
Toluene	3.7		1.0	0.51	ug/L	1		8260C	Total/NA
Xylenes, Total	27		2.0	0.66	ug/L	1		8260C	Total/NA

Client Sample ID: SUPE-TB-01-100621 — Lab Sample ID: 480-190738-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloromethane	0.37	J	1.0	0.35	ug/L	1		8260C	Total/NA

Client Sample ID: SUPE-M-99A-100621 — Lab Sample ID: 480-190738-8

No Detections.

Client Sample ID: SUPE-W-30C-100621 — Lab Sample ID: 480-190738-9

No Detections.

Client Sample ID: SUPE-W-06C-100621 — Lab Sample ID: 480-190738-10

No Detections.

Client Sample ID: SUPE-W-12CR-100621 — Lab Sample ID: 480-190738-11

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Detection Summary

Client: Field & Technical Services LLC
Job ID: 480-190738-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-12A-100621
Lab Sample ID: 480-190738-12

No Detections.

Client Sample ID: SUPE-W-06A-100621
Lab Sample ID: 480-190738-13

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: SUPE-W-18D-100621
Lab Sample ID: 480-190738-1
Date Collected: 10/06/21 09:27
Matrix: Water
Date Received: 10/08/21 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.84	J	1.1	0.37	ug/L		10/12/21 08:52	10/13/21 06:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*111*		*24 - 146*	*10/12/21 08:52*	*10/13/21 06:37*	*1*
2-Fluorobiphenyl	*92*		*37 - 120*	*10/12/21 08:52*	*10/13/21 06:37*	*1*
2-Fluorophenol (Surr)	*51*		*10 - 120*	*10/12/21 08:52*	*10/13/21 06:37*	*1*
Nitrobenzene-d5 (Surr)	*79*		*26 - 120*	*10/12/21 08:52*	*10/13/21 06:37*	*1*
Phenol-d5 (Surr)	*36*		*11 - 120*	*10/12/21 08:52*	*10/13/21 06:37*	*1*
p-Terphenyl-d14	*104*		*64 - 127*	*10/12/21 08:52*	*10/13/21 06:37*	*1*

Client Sample ID: SUPE-W-28C-100621
Lab Sample ID: 480-190738-2
Date Collected: 10/06/21 10:38
Matrix: Water
Date Received: 10/08/21 10:00

Method: 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			10/12/21 14:06	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/12/21 14:06	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/12/21 14:06	1
Benzene	ND		1.0	0.41	ug/L			10/12/21 14:06	1
Chloromethane	ND		1.0	0.35	ug/L			10/12/21 14:06	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/12/21 14:06	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/12/21 14:06	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/12/21 14:06	1
Naphthalene	ND		1.0	0.43	ug/L			10/12/21 14:06	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/12/21 14:06	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/12/21 14:06	1
o-Xylene	ND		1.0	0.76	ug/L			10/12/21 14:06	1
Styrene	ND		1.0	0.73	ug/L			10/12/21 14:06	1
Toluene	ND		1.0	0.51	ug/L			10/12/21 14:06	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/12/21 14:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*		*10/12/21 14:06*	*1*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*10/12/21 14:06*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*10/12/21 14:06*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*10/12/21 14:06*	*1*

Method: 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		10/12/21 08:52	10/13/21 07:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*94*		*24 - 146*	*10/12/21 08:52*	*10/13/21 07:03*	*1*
2-Fluorobiphenyl	*100*		*37 - 120*	*10/12/21 08:52*	*10/13/21 07:03*	*1*
2-Fluorophenol (Surr)	*52*		*10 - 120*	*10/12/21 08:52*	*10/13/21 07:03*	*1*
Nitrobenzene-d5 (Surr)	*83*		*26 - 120*	*10/12/21 08:52*	*10/13/21 07:03*	*1*
Phenol-d5 (Surr)	*36*		*11 - 120*	*10/12/21 08:52*	*10/13/21 07:03*	*1*
p-Terphenyl-d14	*106*		*64 - 127*	*10/12/21 08:52*	*10/13/21 07:03*	*1*

Client Sample ID: SUPE-EB-01-100621
Lab Sample ID: 480-190738-3
Date Collected: 10/06/21 11:15
Matrix: Water
Date Received: 10/08/21 10:00

Method: 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			10/12/21 14:29	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/12/21 14:29	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/12/21 14:29	1
Benzene	ND		1.0	0.41	ug/L			10/12/21 14:29	1
Chloromethane	ND		1.0	0.35	ug/L			10/12/21 14:29	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/12/21 14:29	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/12/21 14:29	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/12/21 14:29	1
Naphthalene	ND		1.0	0.43	ug/L			10/12/21 14:29	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/12/21 14:29	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/12/21 14:29	1
o-Xylene	ND		1.0	0.76	ug/L			10/12/21 14:29	1
Styrene	ND		1.0	0.73	ug/L			10/12/21 14:29	1
Toluene	ND		1.0	0.51	ug/L			10/12/21 14:29	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/12/21 14:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*10/12/21 14:29*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*10/12/21 14:29*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 123*		*10/12/21 14:29*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*10/12/21 14:29*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		0.96	0.33	ug/L		10/12/21 08:52	10/13/21 07:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*101*		*24 - 146*	*10/12/21 08:52*	*10/13/21 07:29*	*1*
2-Fluorobiphenyl	*107*		*37 - 120*	*10/12/21 08:52*	*10/13/21 07:29*	*1*
2-Fluorophenol (Surr)	*56*		*10 - 120*	*10/12/21 08:52*	*10/13/21 07:29*	*1*
Nitrobenzene-d5 (Surr)	*93*		*26 - 120*	*10/12/21 08:52*	*10/13/21 07:29*	*1*
Phenol-d5 (Surr)	*38*		*11 - 120*	*10/12/21 08:52*	*10/13/21 07:29*	*1*
p-Terphenyl-d14	*120*		*64 - 127*	*10/12/21 08:52*	*10/13/21 07:29*	*1*

Client Sample ID: SUPE-W-04AR2-100621
Lab Sample ID: 480-190738-4
Date Collected: 10/06/21 12:04
Matrix: Water
Date Received: 10/08/21 10:00

Method: 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			10/12/21 14:52	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/12/21 14:52	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/12/21 14:52	1
Benzene	ND		1.0	0.41	ug/L			10/12/21 14:52	1
Chloromethane	ND		1.0	0.35	ug/L			10/12/21 14:52	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/12/21 14:52	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/12/21 14:52	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/12/21 14:52	1
Naphthalene	ND		1.0	0.43	ug/L			10/12/21 14:52	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/12/21 14:52	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/12/21 14:52	1

Client Sample ID: SUPE-W-04AR2-100621
Lab Sample ID: 480-190738-4
Date Collected: 10/06/21 12:04
Matrix: Water
Date Received: 10/08/21 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		1.0	0.76	ug/L			10/12/21 14:52	1
Styrene	ND		1.0	0.73	ug/L			10/12/21 14:52	1
Toluene	ND		1.0	0.51	ug/L			10/12/21 14:52	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/12/21 14:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*		*10/12/21 14:52*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*10/12/21 14:52*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*10/12/21 14:52*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*10/12/21 14:52*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		5.0	1.7	ug/L		10/12/21 08:52	10/13/21 07:55	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*93*		*24 - 146*	*10/12/21 08:52*	*10/13/21 07:55*	*5*
2-Fluorobiphenyl	*102*		*37 - 120*	*10/12/21 08:52*	*10/13/21 07:55*	*5*
2-Fluorophenol (Surr)	*51*		*10 - 120*	*10/12/21 08:52*	*10/13/21 07:55*	*5*
Nitrobenzene-d5 (Surr)	*88*		*26 - 120*	*10/12/21 08:52*	*10/13/21 07:55*	*5*
Phenol-d5 (Surr)	*32*		*11 - 120*	*10/12/21 08:52*	*10/13/21 07:55*	*5*
p-Terphenyl-d14	*57*	*S1-*	*64 - 127*	*10/12/21 08:52*	*10/13/21 07:55*	*5*

Client Sample ID: SUPE-W-30A-100621
Lab Sample ID: 480-190738-5
Date Collected: 10/06/21 13:20
Matrix: Water
Date Received: 10/08/21 10:00

Method: 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			10/12/21 15:16	2
1,2,4-Trimethylbenzene	**8.6**		2.0	1.5	ug/L			10/12/21 15:16	2
1,3,5-Trimethylbenzene	ND		2.0	1.5	ug/L			10/12/21 15:16	2
Benzene	**18**		2.0	0.82	ug/L			10/12/21 15:16	2
Chloromethane	ND		2.0	0.70	ug/L			10/12/21 15:16	2
Ethylbenzene	**38**		2.0	1.5	ug/L			10/12/21 15:16	2
Methyl tert-butyl ether	ND		2.0	0.32	ug/L			10/12/21 15:16	2
m-Xylene & p-Xylene	**11**		4.0	1.3	ug/L			10/12/21 15:16	2
Naphthalene	**130**		2.0	0.86	ug/L			10/12/21 15:16	2
n-Butylbenzene	ND		2.0	1.3	ug/L			10/12/21 15:16	2
N-Propylbenzene	ND		2.0	1.4	ug/L			10/12/21 15:16	2
o-Xylene	**11**		2.0	1.5	ug/L			10/12/21 15:16	2
Styrene	ND		2.0	1.5	ug/L			10/12/21 15:16	2
Toluene	**4.5**		2.0	1.0	ug/L			10/12/21 15:16	2
Xylenes, Total	**22**		4.0	1.3	ug/L			10/12/21 15:16	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*		*10/12/21 15:16*	*2*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*10/12/21 15:16*	*2*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*10/12/21 15:16*	*2*
Toluene-d8 (Surr)	*103*		*80 - 120*		*10/12/21 15:16*	*2*

Client Sample ID: SUPE-W-30A-100621
Lab Sample ID: 480-190738-5
Date Collected: 10/06/21 13:20
Matrix: Water
Date Received: 10/08/21 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		10	3.4	ug/L		10/12/21 08:52	10/13/21 08:21	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*115*		*24 - 146*	*10/12/21 08:52*	*10/13/21 08:21*	*10*
2-Fluorobiphenyl	*102*		*37 - 120*	*10/12/21 08:52*	*10/13/21 08:21*	*10*
2-Fluorophenol (Surr)	*51*		*10 - 120*	*10/12/21 08:52*	*10/13/21 08:21*	*10*
Nitrobenzene-d5 (Surr)	*96*		*26 - 120*	*10/12/21 08:52*	*10/13/21 08:21*	*10*
Phenol-d5 (Surr)	*32*		*11 - 120*	*10/12/21 08:52*	*10/13/21 08:21*	*10*
p-Terphenyl-d14	*59*	*S1-*	*64 - 127*	*10/12/21 08:52*	*10/13/21 08:21*	*10*

Client Sample ID: SUPE-W-10AR2-100621
Lab Sample ID: 480-190738-6
Date Collected: 10/06/21 14:38
Matrix: Water
Date Received: 10/08/21 10:00

Method: 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			10/12/21 15:39	1
1,2,4-Trimethylbenzene	**11**		1.0	0.75	ug/L			10/12/21 15:39	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/12/21 15:39	1
Benzene	**26**		1.0	0.41	ug/L			10/12/21 15:39	1
Chloromethane	ND		1.0	0.35	ug/L			10/12/21 15:39	1
Ethylbenzene	**53**		1.0	0.74	ug/L			10/12/21 15:39	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/12/21 15:39	1
m-Xylene & p-Xylene	**4.6**		2.0	0.66	ug/L			10/12/21 15:39	1
Naphthalene	**3.1**		1.0	0.43	ug/L			10/12/21 15:39	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/12/21 15:39	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/12/21 15:39	1
o-Xylene	**22**		1.0	0.76	ug/L			10/12/21 15:39	1
Styrene	ND		1.0	0.73	ug/L			10/12/21 15:39	1
Toluene	**3.7**		1.0	0.51	ug/L			10/12/21 15:39	1
Xylenes, Total	**27**		2.0	0.66	ug/L			10/12/21 15:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*10/12/21 15:39*	*1*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*10/12/21 15:39*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*10/12/21 15:39*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*10/12/21 15:39*	*1*

Method: 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		10/12/21 08:52	10/13/21 08:47	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*122*		*24 - 146*	*10/12/21 08:52*	*10/13/21 08:47*	*5*
2-Fluorobiphenyl	*105*		*37 - 120*	*10/12/21 08:52*	*10/13/21 08:47*	*5*
2-Fluorophenol (Surr)	*56*		*10 - 120*	*10/12/21 08:52*	*10/13/21 08:47*	*5*
Nitrobenzene-d5 (Surr)	*94*		*26 - 120*	*10/12/21 08:52*	*10/13/21 08:47*	*5*
Phenol-d5 (Surr)	*38*		*11 - 120*	*10/12/21 08:52*	*10/13/21 08:47*	*5*
p-Terphenyl-d14	*70*		*64 - 127*	*10/12/21 08:52*	*10/13/21 08:47*	*5*

Client: Field & Technical Services LLC
Job ID: 480-190738-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-TB-01-100621
Lab Sample ID: 480-190738-7
Date Collected: 10/06/21 15:45
Matrix: Water
Date Received: 10/08/21 10:00

Method: 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			10/12/21 16:02	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/12/21 16:02	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/12/21 16:02	1
Benzene	ND		1.0	0.41	ug/L			10/12/21 16:02	1
Chloromethane	**0.37**	**J**	1.0	0.35	ug/L			10/12/21 16:02	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/12/21 16:02	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/12/21 16:02	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/12/21 16:02	1
Naphthalene	ND		1.0	0.43	ug/L			10/12/21 16:02	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/12/21 16:02	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/12/21 16:02	1
o-Xylene	ND		1.0	0.76	ug/L			10/12/21 16:02	1
Styrene	ND		1.0	0.73	ug/L			10/12/21 16:02	1
Toluene	ND		1.0	0.51	ug/L			10/12/21 16:02	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/12/21 16:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*10/12/21 16:02*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*10/12/21 16:02*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*10/12/21 16:02*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*10/12/21 16:02*	*1*

Client Sample ID: SUPE-M-99A-100621
Lab Sample ID: 480-190738-8
Date Collected: 10/06/21 20:00
Matrix: Water
Date Received: 10/08/21 10:00

Method: 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			10/12/21 16:25	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/12/21 16:25	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/12/21 16:25	1
Benzene	ND		1.0	0.41	ug/L			10/12/21 16:25	1
Chloromethane	ND		1.0	0.35	ug/L			10/12/21 16:25	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/12/21 16:25	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/12/21 16:25	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/12/21 16:25	1
Naphthalene	ND		1.0	0.43	ug/L			10/12/21 16:25	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/12/21 16:25	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/12/21 16:25	1
o-Xylene	ND		1.0	0.76	ug/L			10/12/21 16:25	1
Styrene	ND		1.0	0.73	ug/L			10/12/21 16:25	1
Toluene	ND		1.0	0.51	ug/L			10/12/21 16:25	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/12/21 16:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*10/12/21 16:25*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*10/12/21 16:25*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*10/12/21 16:25*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*10/12/21 16:25*	*1*

Client Sample ID: SUPE-M-99A-100621
Lab Sample ID: 480-190738-8
Date Collected: 10/06/21 20:00
Matrix: Water
Date Received: 10/08/21 10:00

Method: 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	0.37	ug/L		10/12/21 08:52	10/13/21 09:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*99*		*24 - 146*	*10/12/21 08:52*	*10/13/21 09:13*	*1*
2-Fluorobiphenyl	*101*		*37 - 120*	*10/12/21 08:52*	*10/13/21 09:13*	*1*
2-Fluorophenol (Surr)	*55*		*10 - 120*	*10/12/21 08:52*	*10/13/21 09:13*	*1*
Nitrobenzene-d5 (Surr)	*88*		*26 - 120*	*10/12/21 08:52*	*10/13/21 09:13*	*1*
Phenol-d5 (Surr)	*38*		*11 - 120*	*10/12/21 08:52*	*10/13/21 09:13*	*1*
p-Terphenyl-d14	*103*		*64 - 127*	*10/12/21 08:52*	*10/13/21 09:13*	*1*

Client Sample ID: SUPE-W-30C-100621
Lab Sample ID: 480-190738-9
Date Collected: 10/06/21 09:20
Matrix: Water
Date Received: 10/08/21 10:00

Method: 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			10/12/21 16:48	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/12/21 16:48	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/12/21 16:48	1
Benzene	ND		1.0	0.41	ug/L			10/12/21 16:48	1
Chloromethane	ND		1.0	0.35	ug/L			10/12/21 16:48	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/12/21 16:48	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/12/21 16:48	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/12/21 16:48	1
Naphthalene	ND		1.0	0.43	ug/L			10/12/21 16:48	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/12/21 16:48	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/12/21 16:48	1
o-Xylene	ND		1.0	0.76	ug/L			10/12/21 16:48	1
Styrene	ND		1.0	0.73	ug/L			10/12/21 16:48	1
Toluene	ND		1.0	0.51	ug/L			10/12/21 16:48	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/12/21 16:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*10/12/21 16:48*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*10/12/21 16:48*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*10/12/21 16:48*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*10/12/21 16:48*	*1*

Method: 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		10/12/21 08:52	10/13/21 09:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*108*		*24 - 146*	*10/12/21 08:52*	*10/13/21 09:39*	*1*
2-Fluorobiphenyl	*111*		*37 - 120*	*10/12/21 08:52*	*10/13/21 09:39*	*1*
2-Fluorophenol (Surr)	*58*		*10 - 120*	*10/12/21 08:52*	*10/13/21 09:39*	*1*
Nitrobenzene-d5 (Surr)	*95*		*26 - 120*	*10/12/21 08:52*	*10/13/21 09:39*	*1*
Phenol-d5 (Surr)	*39*		*11 - 120*	*10/12/21 08:52*	*10/13/21 09:39*	*1*
p-Terphenyl-d14	*105*		*64 - 127*	*10/12/21 08:52*	*10/13/21 09:39*	*1*

Client Sample ID: SUPE-W-06C-100621
Lab Sample ID: 480-190738-10
Date Collected: 10/06/21 10:20
Matrix: Water
Date Received: 10/08/21 10:00

Method: 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			10/12/21 17:12	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/12/21 17:12	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/12/21 17:12	1
Benzene	ND	F1	1.0	0.41	ug/L			10/12/21 17:12	1
Chloromethane	ND		1.0	0.35	ug/L			10/12/21 17:12	1
Ethylbenzene	ND	F1	1.0	0.74	ug/L			10/12/21 17:12	1
Methyl tert-butyl ether	ND	F1	1.0	0.16	ug/L			10/12/21 17:12	1
m-Xylene & p-Xylene	ND	F1	2.0	0.66	ug/L			10/12/21 17:12	1
Naphthalene	ND		1.0	0.43	ug/L			10/12/21 17:12	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/12/21 17:12	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/12/21 17:12	1
o-Xylene	ND	F1	1.0	0.76	ug/L			10/12/21 17:12	1
Styrene	ND	F1	1.0	0.73	ug/L			10/12/21 17:12	1
Toluene	ND	F1	1.0	0.51	ug/L			10/12/21 17:12	1
Xylenes, Total	ND	F1	2.0	0.66	ug/L			10/12/21 17:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*10/12/21 17:12*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*10/12/21 17:12*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*10/12/21 17:12*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*10/12/21 17:12*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		0.97	0.33	ug/L		10/12/21 08:52	10/13/21 06:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*103*		*24 - 146*	*10/12/21 08:52*	*10/13/21 06:11*	*1*
2-Fluorobiphenyl	*101*		*37 - 120*	*10/12/21 08:52*	*10/13/21 06:11*	*1*
2-Fluorophenol (Surr)	*53*		*10 - 120*	*10/12/21 08:52*	*10/13/21 06:11*	*1*
Nitrobenzene-d5 (Surr)	*87*		*26 - 120*	*10/12/21 08:52*	*10/13/21 06:11*	*1*
Phenol-d5 (Surr)	*35*		*11 - 120*	*10/12/21 08:52*	*10/13/21 06:11*	*1*
p-Terphenyl-d14	*91*		*64 - 127*	*10/12/21 08:52*	*10/13/21 06:11*	*1*

Client Sample ID: SUPE-W-12CR-100621
Lab Sample ID: 480-190738-11
Date Collected: 10/06/21 11:47
Matrix: Water
Date Received: 10/08/21 10:00

Method: 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			10/12/21 17:36	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/12/21 17:36	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/12/21 17:36	1
Benzene	ND		1.0	0.41	ug/L			10/12/21 17:36	1
Chloromethane	ND		1.0	0.35	ug/L			10/12/21 17:36	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/12/21 17:36	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/12/21 17:36	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/12/21 17:36	1
Naphthalene	ND		1.0	0.43	ug/L			10/12/21 17:36	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/12/21 17:36	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/12/21 17:36	1

Client Sample ID: SUPE-W-12CR-100621
Lab Sample ID: 480-190738-11

Date Collected: 10/06/21 11:47
Matrix: Water
Date Received: 10/08/21 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		1.0	0.76	ug/L			10/12/21 17:36	1
Styrene	ND		1.0	0.73	ug/L			10/12/21 17:36	1
Toluene	ND		1.0	0.51	ug/L			10/12/21 17:36	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/12/21 17:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*10/12/21 17:36*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*10/12/21 17:36*	*1*
Dibromofluoromethane (Surr)	*82*		*75 - 123*		*10/12/21 17:36*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*10/12/21 17:36*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		0.96	0.33	ug/L		10/12/21 08:52	10/13/21 10:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*111*		*24 - 146*	*10/12/21 08:52*	*10/13/21 10:05*	*1*
2-Fluorobiphenyl	*110*		*37 - 120*	*10/12/21 08:52*	*10/13/21 10:05*	*1*
2-Fluorophenol (Surr)	*56*		*10 - 120*	*10/12/21 08:52*	*10/13/21 10:05*	*1*
Nitrobenzene-d5 (Surr)	*93*		*26 - 120*	*10/12/21 08:52*	*10/13/21 10:05*	*1*
Phenol-d5 (Surr)	*37*		*11 - 120*	*10/12/21 08:52*	*10/13/21 10:05*	*1*
p-Terphenyl-d14	*110*		*64 - 127*	*10/12/21 08:52*	*10/13/21 10:05*	*1*

Client Sample ID: SUPE-W-12A-100621
Lab Sample ID: 480-190738-12

Date Collected: 10/06/21 12:48
Matrix: Water
Date Received: 10/08/21 10:00

Method: 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			10/12/21 18:00	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/12/21 18:00	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/12/21 18:00	1
Benzene	ND		1.0	0.41	ug/L			10/12/21 18:00	1
Chloromethane	ND		1.0	0.35	ug/L			10/12/21 18:00	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/12/21 18:00	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/12/21 18:00	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/12/21 18:00	1
Naphthalene	ND		1.0	0.43	ug/L			10/12/21 18:00	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/12/21 18:00	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/12/21 18:00	1
o-Xylene	ND		1.0	0.76	ug/L			10/12/21 18:00	1
Styrene	ND		1.0	0.73	ug/L			10/12/21 18:00	1
Toluene	ND		1.0	0.51	ug/L			10/12/21 18:00	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/12/21 18:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*		*10/12/21 18:00*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*10/12/21 18:00*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*10/12/21 18:00*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*10/12/21 18:00*	*1*

Client Sample ID: SUPE-W-12A-100621
Lab Sample ID: 480-190738-12
Date Collected: 10/06/21 12:48
Matrix: Water
Date Received: 10/08/21 10:00

Method: 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		10/12/21 08:52	10/13/21 10:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*113*		*24 - 146*	*10/12/21 08:52*	*10/13/21 10:32*	*1*
2-Fluorobiphenyl	*108*		*37 - 120*	*10/12/21 08:52*	*10/13/21 10:32*	*1*
2-Fluorophenol (Surr)	*59*		*10 - 120*	*10/12/21 08:52*	*10/13/21 10:32*	*1*
Nitrobenzene-d5 (Surr)	*96*		*26 - 120*	*10/12/21 08:52*	*10/13/21 10:32*	*1*
Phenol-d5 (Surr)	*40*		*11 - 120*	*10/12/21 08:52*	*10/13/21 10:32*	*1*
p-Terphenyl-d14	*53*	*S1-*	*64 - 127*	*10/12/21 08:52*	*10/13/21 10:32*	*1*

Client Sample ID: SUPE-W-06A-100621
Lab Sample ID: 480-190738-13
Date Collected: 10/06/21 14:20
Matrix: Water
Date Received: 10/08/21 10:00

Method: 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			10/12/21 18:23	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/12/21 18:23	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/12/21 18:23	1
Benzene	ND		1.0	0.41	ug/L			10/12/21 18:23	1
Chloromethane	ND		1.0	0.35	ug/L			10/12/21 18:23	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/12/21 18:23	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/12/21 18:23	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/12/21 18:23	1
Naphthalene	ND		1.0	0.43	ug/L			10/12/21 18:23	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/12/21 18:23	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/12/21 18:23	1
o-Xylene	ND		1.0	0.76	ug/L			10/12/21 18:23	1
Styrene	ND		1.0	0.73	ug/L			10/12/21 18:23	1
Toluene	ND		1.0	0.51	ug/L			10/12/21 18:23	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/12/21 18:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*77 - 120*		*10/12/21 18:23*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*10/12/21 18:23*	*1*
Dibromofluoromethane (Surr)	*94*		*75 - 123*		*10/12/21 18:23*	*1*
Toluene-d8 (Surr)	*105*		*80 - 120*		*10/12/21 18:23*	*1*

Method: 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		10/12/21 08:52	10/13/21 10:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*102*		*24 - 146*	*10/12/21 08:52*	*10/13/21 10:58*	*1*
2-Fluorobiphenyl	*95*		*37 - 120*	*10/12/21 08:52*	*10/13/21 10:58*	*1*
2-Fluorophenol (Surr)	*52*		*10 - 120*	*10/12/21 08:52*	*10/13/21 10:58*	*1*
Nitrobenzene-d5 (Surr)	*86*		*26 - 120*	*10/12/21 08:52*	*10/13/21 10:58*	*1*
Phenol-d5 (Surr)	*36*		*11 - 120*	*10/12/21 08:52*	*10/13/21 10:58*	*1*
p-Terphenyl-d14	*47*	*S1-*	*64 - 127*	*10/12/21 08:52*	*10/13/21 10:58*	*1*

Surrogate Summary

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

Job ID: 480-190738-1

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

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(75-123)	(80-120)
480-190738-2	SUPE-W-28C-100621	101	96	101	100
480-190738-3	SUPE-EB-01-100621	99	98	105	104
480-190738-4	SUPE-W-04AR2-100621	101	98	100	103
480-190738-5	SUPE-W-30A-100621	105	100	101	103
480-190738-6	SUPE-W-10AR2-100621	103	102	99	102
480-190738-7	SUPE-TB-01-100621	102	100	102	104
480-190738-8	SUPE-M-99A-100621	102	98	102	103
480-190738-9	SUPE-W-30C-100621	100	99	100	102
480-190738-10	SUPE-W-06C-100621	102	99	101	104
480-190738-10 MS	SUPE-W-06C-100621	100	107	102	109
480-190738-10 MSD	SUPE-W-06C-100621	100	106	100	107
480-190738-11	SUPE-W-12CR-100621	102	101	82	101
480-190738-12	SUPE-W-12A-100621	101	101	100	103
480-190738-13	SUPE-W-06A-100621	97	101	94	105
LCS 480-599985/6	Lab Control Sample	96	104	100	106
MB 480-599985/9	Method Blank	98	98	101	103

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPHd14
Lab Sample ID	Client Sample ID	(24-146)	(37-120)	(10-120)	(26-120)	(11-120)	(64-127)
480-190738-1	SUPE-W-18D-100621	111	92	51	79	36	104
480-190738-2	SUPE-W-28C-100621	94	100	52	83	36	106
480-190738-3	SUPE-EB-01-100621	101	107	56	93	38	120
480-190738-4	SUPE-W-04AR2-100621	93	102	51	88	32	57 S1-
480-190738-5	SUPE-W-30A-100621	115	102	51	96	32	59 S1-
480-190738-6	SUPE-W-10AR2-100621	122	105	56	94	38	70
480-190738-8	SUPE-M-99A-100621	99	101	55	88	38	103
480-190738-9	SUPE-W-30C-100621	108	111	58	95	39	105
480-190738-10	SUPE-W-06C-100621	103	101	53	87	35	91
480-190738-10 MS	SUPE-W-06C-100621	116	104	55	98	36	69
480-190738-10 MSD	SUPE-W-06C-100621	118	101	51	94	35	73
480-190738-11	SUPE-W-12CR-100621	111	110	56	93	37	110
480-190738-12	SUPE-W-12A-100621	113	108	59	96	40	53 S1-
480-190738-13	SUPE-W-06A-100621	102	95	52	86	36	47 S1-
LCS 480-599978/2-A	Lab Control Sample	115	96	49	84	33	109
MB 480-599978/1-A	Method Blank	97	100	56	88	38	117

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)

Surrogate Summary

Client: Field & Technical Services LLC
Job ID: 480-190738-1
Project/Site: Superior, WI Semiannual Groundwater

PHL = Phenol-d5 (Surr)
TPHd14 = p-Terphenyl-d14

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

Lab Sample ID: MB 480-599985/9
Matrix: Water
Analysis Batch: 599985

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			10/12/21 13:12	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/12/21 13:12	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/12/21 13:12	1
Benzene	ND		1.0	0.41	ug/L			10/12/21 13:12	1
Chloromethane	ND		1.0	0.35	ug/L			10/12/21 13:12	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/12/21 13:12	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/12/21 13:12	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/12/21 13:12	1
Naphthalene	ND		1.0	0.43	ug/L			10/12/21 13:12	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/12/21 13:12	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/12/21 13:12	1
o-Xylene	ND		1.0	0.76	ug/L			10/12/21 13:12	1
Styrene	ND		1.0	0.73	ug/L			10/12/21 13:12	1
Toluene	ND		1.0	0.51	ug/L			10/12/21 13:12	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/12/21 13:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*		*10/12/21 13:12*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*10/12/21 13:12*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*10/12/21 13:12*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*10/12/21 13:12*	*1*

Lab Sample ID: LCS 480-599985/6
Matrix: Water
Analysis Batch: 599985

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	22.8		ug/L		91	73 - 126
1,2,4-Trimethylbenzene	25.0	24.6		ug/L		99	76 - 121
1,3,5-Trimethylbenzene	25.0	24.6		ug/L		99	77 - 121
Benzene	25.0	25.9		ug/L		103	71 - 124
Chloromethane	25.0	25.2		ug/L		101	68 - 124
Ethylbenzene	25.0	26.3		ug/L		105	77 - 123
Methyl tert-butyl ether	25.0	22.9		ug/L		92	77 - 120
m-Xylene & p-Xylene	25.0	26.8		ug/L		107	76 - 122
Naphthalene	25.0	22.5		ug/L		90	66 - 125
n-Butylbenzene	25.0	25.6		ug/L		102	71 - 128
N-Propylbenzene	25.0	25.4		ug/L		102	75 - 127
o-Xylene	25.0	26.0		ug/L		104	76 - 122
Styrene	25.0	27.3		ug/L		109	80 - 120
Toluene	25.0	26.7		ug/L		107	80 - 122
Xylenes, Total	50.0	52.8		ug/L		106	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*77 - 120*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*
Dibromofluoromethane (Surr)	*100*		*75 - 123*
Toluene-d8 (Surr)	*106*		*80 - 120*

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

Lab Sample ID: 480-190738-10 MS
Client Sample ID: SUPE-W-06C-100621
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 599985

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		25.0	29.1		ug/L		116	73 - 126
1,2,4-Trimethylbenzene	ND		25.0	28.7		ug/L		115	76 - 121
1,3,5-Trimethylbenzene	ND		25.0	29.6		ug/L		119	77 - 121
Benzene	ND	F1	25.0	31.9	F1	ug/L		128	71 - 124
Chloromethane	ND		25.0	30.9		ug/L		124	68 - 124
Ethylbenzene	ND	F1	25.0	31.7	F1	ug/L		127	77 - 123
Methyl tert-butyl ether	ND	F1	25.0	26.8		ug/L		107	77 - 120
m-Xylene & p-Xylene	ND	F1	25.0	32.1	F1	ug/L		128	76 - 122
Naphthalene	ND		25.0	26.0		ug/L		104	66 - 125
n-Butylbenzene	ND		25.0	31.9		ug/L		128	71 - 128
N-Propylbenzene	ND		25.0	30.0		ug/L		120	75 - 127
o-Xylene	ND	F1	25.0	31.0	F1	ug/L		124	76 - 122
Styrene	ND	F1	25.0	31.2	F1	ug/L		125	80 - 120
Toluene	ND	F1	25.0	32.5	F1	ug/L		130	80 - 122
Xylenes, Total	ND	F1	50.0	63.1	F1	ug/L		126	76 - 122

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*
4-Bromofluorobenzene (Surr)	*107*		*73 - 120*
Dibromofluoromethane (Surr)	*102*		*75 - 123*
Toluene-d8 (Surr)	*109*		*80 - 120*

Lab Sample ID: 480-190738-10 MSD
Client Sample ID: SUPE-W-06C-100621
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 599985

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		25.0	27.9		ug/L		112	73 - 126	4	15
1,2,4-Trimethylbenzene	ND		25.0	28.2		ug/L		113	76 - 121	2	20
1,3,5-Trimethylbenzene	ND		25.0	28.9		ug/L		116	77 - 121	2	20
Benzene	ND	F1	25.0	31.1	F1	ug/L		125	71 - 124	3	13
Chloromethane	ND		25.0	30.0		ug/L		120	68 - 124	3	15
Ethylbenzene	ND	F1	25.0	31.8	F1	ug/L		127	77 - 123	0	15
Methyl tert-butyl ether	ND	F1	25.0	18.5	F1	ug/L		74	77 - 120	37	37
m-Xylene & p-Xylene	ND	F1	25.0	31.8	F1	ug/L		127	76 - 122	1	16
Naphthalene	ND		25.0	25.2		ug/L		101	66 - 125	3	20
n-Butylbenzene	ND		25.0	31.0		ug/L		124	71 - 128	3	15
N-Propylbenzene	ND		25.0	29.9		ug/L		120	75 - 127	0	15
o-Xylene	ND	F1	25.0	30.6		ug/L		122	76 - 122	1	16
Styrene	ND	F1	25.0	31.0	F1	ug/L		124	80 - 120	0	20
Toluene	ND	F1	25.0	31.9	F1	ug/L		128	80 - 122	2	15
Xylenes, Total	ND	F1	50.0	62.4	F1	ug/L		125	76 - 122	1	16

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*
4-Bromofluorobenzene (Surr)	*106*		*73 - 120*
Dibromofluoromethane (Surr)	*100*		*75 - 123*
Toluene-d8 (Surr)	*107*		*80 - 120*

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

Lab Sample ID: MB 480-599978/1-A
Matrix: Water
Analysis Batch: 600125

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599978

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		1.0	0.34	ug/L		10/12/21 08:52	10/13/21 04:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*97*		*24 - 146*	*10/12/21 08:52*	*10/13/21 04:27*	*1*
2-Fluorobiphenyl	*100*		*37 - 120*	*10/12/21 08:52*	*10/13/21 04:27*	*1*
2-Fluorophenol (Surr)	*56*		*10 - 120*	*10/12/21 08:52*	*10/13/21 04:27*	*1*
Nitrobenzene-d5 (Surr)	*88*		*26 - 120*	*10/12/21 08:52*	*10/13/21 04:27*	*1*
Phenol-d5 (Surr)	*38*		*11 - 120*	*10/12/21 08:52*	*10/13/21 04:27*	*1*
p-Terphenyl-d14	*117*		*64 - 127*	*10/12/21 08:52*	*10/13/21 04:27*	*1*

Lab Sample ID: LCS 480-599978/2-A
Matrix: Water
Analysis Batch: 600125

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599978

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Pentachlorophenol			16.0	16.9		ug/L		106	10 - 131		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*115*		*24 - 146*
2-Fluorobiphenyl	*96*		*37 - 120*
2-Fluorophenol (Surr)	*49*		*10 - 120*
Nitrobenzene-d5 (Surr)	*84*		*26 - 120*
Phenol-d5 (Surr)	*33*		*11 - 120*
p-Terphenyl-d14	*109*		*64 - 127*

Lab Sample ID: 480-190738-10 MS
Matrix: Water
Analysis Batch: 600125

Client Sample ID: SUPE-W-06C-100621
Prep Type: Total/NA
Prep Batch: 599978

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Pentachlorophenol	ND		15.5	16.6		ug/L		107	23 - 149		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*116*		*24 - 146*
2-Fluorobiphenyl	*104*		*37 - 120*
2-Fluorophenol (Surr)	*55*		*10 - 120*
Nitrobenzene-d5 (Surr)	*98*		*26 - 120*
Phenol-d5 (Surr)	*36*		*11 - 120*
p-Terphenyl-d14	*69*		*64 - 127*

Lab Sample ID: 480-190738-10 MSD
Matrix: Water
Analysis Batch: 600125

Client Sample ID: SUPE-W-06C-100621
Prep Type: Total/NA
Prep Batch: 599978

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Pentachlorophenol	ND		15.7	16.9		ug/L		107	23 - 149	2	37

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

Lab Sample ID: 480-190738-10 MSD
Matrix: Water
Analysis Batch: 600125

Client Sample ID: SUPE-W-06C-100621
Prep Type: Total/NA
Prep Batch: 599978

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	118		24 - 146
2-Fluorobiphenyl	101		37 - 120
2-Fluorophenol (Surr)	51		10 - 120
Nitrobenzene-d5 (Surr)	94		26 - 120
Phenol-d5 (Surr)	35		11 - 120
p-Terphenyl-d14	73		64 - 127

GC/MS VOA

Analysis Batch: 599985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-190738-2	SUPE-W-28C-100621	Total/NA	Water	8260C	
480-190738-3	SUPE-EB-01-100621	Total/NA	Water	8260C	
480-190738-4	SUPE-W-04AR2-100621	Total/NA	Water	8260C	
480-190738-5	SUPE-W-30A-100621	Total/NA	Water	8260C	
480-190738-6	SUPE-W-10AR2-100621	Total/NA	Water	8260C	
480-190738-7	SUPE-TB-01-100621	Total/NA	Water	8260C	
480-190738-8	SUPE-M-99A-100621	Total/NA	Water	8260C	
480-190738-9	SUPE-W-30C-100621	Total/NA	Water	8260C	
480-190738-10	SUPE-W-06C-100621	Total/NA	Water	8260C	
480-190738-11	SUPE-W-12CR-100621	Total/NA	Water	8260C	
480-190738-12	SUPE-W-12A-100621	Total/NA	Water	8260C	
480-190738-13	SUPE-W-06A-100621	Total/NA	Water	8260C	
MB 480-599985/9	Method Blank	Total/NA	Water	8260C	
LCS 480-599985/6	Lab Control Sample	Total/NA	Water	8260C	
480-190738-10 MS	SUPE-W-06C-100621	Total/NA	Water	8260C	
480-190738-10 MSD	SUPE-W-06C-100621	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 599978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-190738-1	SUPE-W-18D-100621	Total/NA	Water	3510C	
480-190738-2	SUPE-W-28C-100621	Total/NA	Water	3510C	
480-190738-3	SUPE-EB-01-100621	Total/NA	Water	3510C	
480-190738-4	SUPE-W-04AR2-100621	Total/NA	Water	3510C	
480-190738-5	SUPE-W-30A-100621	Total/NA	Water	3510C	
480-190738-6	SUPE-W-10AR2-100621	Total/NA	Water	3510C	
480-190738-8	SUPE-M-99A-100621	Total/NA	Water	3510C	
480-190738-9	SUPE-W-30C-100621	Total/NA	Water	3510C	
480-190738-10	SUPE-W-06C-100621	Total/NA	Water	3510C	
480-190738-11	SUPE-W-12CR-100621	Total/NA	Water	3510C	
480-190738-12	SUPE-W-12A-100621	Total/NA	Water	3510C	
480-190738-13	SUPE-W-06A-100621	Total/NA	Water	3510C	
MB 480-599978/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-599978/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-190738-10 MS	SUPE-W-06C-100621	Total/NA	Water	3510C	
480-190738-10 MSD	SUPE-W-06C-100621	Total/NA	Water	3510C	

Analysis Batch: 600125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-190738-1	SUPE-W-18D-100621	Total/NA	Water	8270D LL	599978
480-190738-2	SUPE-W-28C-100621	Total/NA	Water	8270D LL	599978
480-190738-3	SUPE-EB-01-100621	Total/NA	Water	8270D LL	599978
480-190738-4	SUPE-W-04AR2-100621	Total/NA	Water	8270D LL	599978
480-190738-5	SUPE-W-30A-100621	Total/NA	Water	8270D LL	599978
480-190738-6	SUPE-W-10AR2-100621	Total/NA	Water	8270D LL	599978
480-190738-8	SUPE-M-99A-100621	Total/NA	Water	8270D LL	599978
480-190738-9	SUPE-W-30C-100621	Total/NA	Water	8270D LL	599978
480-190738-10	SUPE-W-06C-100621	Total/NA	Water	8270D LL	599978
480-190738-11	SUPE-W-12CR-100621	Total/NA	Water	8270D LL	599978
480-190738-12	SUPE-W-12A-100621	Total/NA	Water	8270D LL	599978

GC/MS Semi VOA (Continued)

Analysis Batch: 600125 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-190738-13	SUPE-W-06A-100621	Total/NA	Water	8270D LL	599978
MB 480-599978/1-A	Method Blank	Total/NA	Water	8270D LL	599978
LCS 480-599978/2-A	Lab Control Sample	Total/NA	Water	8270D LL	599978
480-190738-10 MS	SUPE-W-06C-100621	Total/NA	Water	8270D LL	599978
480-190738-10 MSD	SUPE-W-06C-100621	Total/NA	Water	8270D LL	599978

Lab Chronicle

Client: Field & Technical Services LLC
Job ID: 480-190738-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-18D-100621
Lab Sample ID: 480-190738-1
Date Collected: 10/06/21 09:27
Matrix: Water
Date Received: 10/08/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			599978	10/12/21 08:52	JMP	TAL BUF
Total/NA	Analysis	8270D LL		1	600125	10/13/21 06:37	PJQ	TAL BUF

Client Sample ID: SUPE-W-28C-100621
Lab Sample ID: 480-190738-2
Date Collected: 10/06/21 10:38
Matrix: Water
Date Received: 10/08/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	599985	10/12/21 14:06	CRL	TAL BUF
Total/NA	Prep	3510C			599978	10/12/21 08:52	JMP	TAL BUF
Total/NA	Analysis	8270D LL		1	600125	10/13/21 07:03	PJQ	TAL BUF

Client Sample ID: SUPE-EB-01-100621
Lab Sample ID: 480-190738-3
Date Collected: 10/06/21 11:15
Matrix: Water
Date Received: 10/08/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	599985	10/12/21 14:29	CRL	TAL BUF
Total/NA	Prep	3510C			599978	10/12/21 08:52	JMP	TAL BUF
Total/NA	Analysis	8270D LL		1	600125	10/13/21 07:29	PJQ	TAL BUF

Client Sample ID: SUPE-W-04AR2-100621
Lab Sample ID: 480-190738-4
Date Collected: 10/06/21 12:04
Matrix: Water
Date Received: 10/08/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	599985	10/12/21 14:52	CRL	TAL BUF
Total/NA	Prep	3510C			599978	10/12/21 08:52	JMP	TAL BUF
Total/NA	Analysis	8270D LL		5	600125	10/13/21 07:55	PJQ	TAL BUF

Client Sample ID: SUPE-W-30A-100621
Lab Sample ID: 480-190738-5
Date Collected: 10/06/21 13:20
Matrix: Water
Date Received: 10/08/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	599985	10/12/21 15:16	CRL	TAL BUF
Total/NA	Prep	3510C			599978	10/12/21 08:52	JMP	TAL BUF
Total/NA	Analysis	8270D LL		10	600125	10/13/21 08:21	PJQ	TAL BUF

Client Sample ID: SUPE-W-10AR2-100621
Lab Sample ID: 480-190738-6
Date Collected: 10/06/21 14:38
Matrix: Water
Date Received: 10/08/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	599985	10/12/21 15:39	CRL	TAL BUF

Lab Chronicle

Client: Field & Technical Services LLC
Job ID: 480-190738-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-10AR2-100621
Lab Sample ID: 480-190738-6
Date Collected: 10/06/21 14:38
Matrix: Water
Date Received: 10/08/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			599978	10/12/21 08:52	JMP	TAL BUF
Total/NA	Analysis	8270D LL		5	600125	10/13/21 08:47	PJQ	TAL BUF

Client Sample ID: SUPE-TB-01-100621
Lab Sample ID: 480-190738-7
Date Collected: 10/06/21 15:45
Matrix: Water
Date Received: 10/08/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	599985	10/12/21 16:02	CRL	TAL BUF

Client Sample ID: SUPE-M-99A-100621
Lab Sample ID: 480-190738-8
Date Collected: 10/06/21 20:00
Matrix: Water
Date Received: 10/08/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	599985	10/12/21 16:25	CRL	TAL BUF
Total/NA	Prep	3510C			599978	10/12/21 08:52	JMP	TAL BUF
Total/NA	Analysis	8270D LL		1	600125	10/13/21 09:13	PJQ	TAL BUF

Client Sample ID: SUPE-W-30C-100621
Lab Sample ID: 480-190738-9
Date Collected: 10/06/21 09:20
Matrix: Water
Date Received: 10/08/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	599985	10/12/21 16:48	CRL	TAL BUF
Total/NA	Prep	3510C			599978	10/12/21 08:52	JMP	TAL BUF
Total/NA	Analysis	8270D LL		1	600125	10/13/21 09:39	PJQ	TAL BUF

Client Sample ID: SUPE-W-06C-100621
Lab Sample ID: 480-190738-10
Date Collected: 10/06/21 10:20
Matrix: Water
Date Received: 10/08/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	599985	10/12/21 17:12	CRL	TAL BUF
Total/NA	Prep	3510C			599978	10/12/21 08:52	JMP	TAL BUF
Total/NA	Analysis	8270D LL		1	600125	10/13/21 06:11	PJQ	TAL BUF

Client Sample ID: SUPE-W-12CR-100621
Lab Sample ID: 480-190738-11
Date Collected: 10/06/21 11:47
Matrix: Water
Date Received: 10/08/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	599985	10/12/21 17:36	CRL	TAL BUF
Total/NA	Prep	3510C			599978	10/12/21 08:52	JMP	TAL BUF
Total/NA	Analysis	8270D LL		1	600125	10/13/21 10:05	PJQ	TAL BUF

Lab Chronicle

Client: Field & Technical Services LLC
Job ID: 480-190738-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-12A-100621
Lab Sample ID: 480-190738-12
Date Collected: 10/06/21 12:48
Matrix: Water
Date Received: 10/08/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	599985	10/12/21 18:00	CRL	TAL BUF
Total/NA	Prep	3510C			599978	10/12/21 08:52	JMP	TAL BUF
Total/NA	Analysis	8270D LL		1	600125	10/13/21 10:32	PJQ	TAL BUF

Client Sample ID: SUPE-W-06A-100621
Lab Sample ID: 480-190738-13
Date Collected: 10/06/21 14:20
Matrix: Water
Date Received: 10/08/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	599985	10/12/21 18:23	CRL	TAL BUF
Total/NA	Prep	3510C			599978	10/12/21 08:52	JMP	TAL BUF
Total/NA	Analysis	8270D LL		1	600125	10/13/21 10:58	PJQ	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: Field & Technical Services LLC
Job ID: 480-190738-1
Project/Site: Superior, WI Semiannual Groundwater

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	998310390	08-31-22

Method Summary

Client: Field & Technical Services LLC
Job ID: 480-190738-1
Project/Site: Superior, WI Semiannual Groundwater

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

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: Field & Technical Services LLC
Job ID: 480-190738-1
Project/Site: Superior, WI Semiannual Groundwater

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-190738-1	SUPE-W-18D-100621	Water	10/06/21 09:27	10/08/21 10:00
480-190738-2	SUPE-W-28C-100621	Water	10/06/21 10:38	10/08/21 10:00
480-190738-3	SUPE-EB-01-100621	Water	10/06/21 11:15	10/08/21 10:00
480-190738-4	SUPE-W-04AR2-100621	Water	10/06/21 12:04	10/08/21 10:00
480-190738-5	SUPE-W-30A-100621	Water	10/06/21 13:20	10/08/21 10:00
480-190738-6	SUPE-W-10AR2-100621	Water	10/06/21 14:38	10/08/21 10:00
480-190738-7	SUPE-TB-01-100621	Water	10/06/21 15:45	10/08/21 10:00
480-190738-8	SUPE-M-99A-100621	Water	10/06/21 20:00	10/08/21 10:00
480-190738-9	SUPE-W-30C-100621	Water	10/06/21 09:20	10/08/21 10:00
480-190738-10	SUPE-W-06C-100621	Water	10/06/21 10:20	10/08/21 10:00
480-190738-11	SUPE-W-12CR-100621	Water	10/06/21 11:47	10/08/21 10:00
480-190738-12	SUPE-W-12A-100621	Water	10/06/21 12:48	10/08/21 10:00
480-190738-13	SUPE-W-06A-100621	Water	10/06/21 14:20	10/08/21 10:00

FTS Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 502023

TestAmerica Duluth SC
269

Project Name:	Superior, WI - 2021 OM&M Program	Company:	Field & Technical Services	Client:	Beazer East, Inc.
Project Number:	OM-0556-21	Address:	200 Third Avenue	Contact:	
Laboratory:	TABUF		Carnegie, PA 15106		kmandus.2006@f-ts.com
Shipment Method	Courier		(412) 279-3363		
Program:	Superior 2021 2SA Sampling_001				

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8270D LL_PCP	8260C_VOA+naphtha	Notes:
				Preservative	None	HCL	
				Total Bottle Count			
10/06/2021	0927	GW	SUPE-W-18D-100621	2	2	0	
10/06/2021	1038	GW	SUPE-W-28C-100621	5	2	3	
10/06/2021	1115	GW	SUPE-EB-01-100621	5	2	3	
10/06/2021	1204	GW	SUPE-W-04AR2-100621	5	2	3	
10/06/2021	1320	GW	SUPE-W-30A-100621	5	2	3	
10/06/2021	1438	GW	SUPE-W-10AR2-100621	5	2	3	
10/06/2021	1545	GW	SUPE-TB-01-100621	3	0	3	
10/06/2021	2000	GW	SUPE-M-99A-100621	5	2	3	

Ref: Field&Tech Svcs- Date: 07Oct21 Wgt: 57.60 LBS DV: 0.00
Dep: Buffalo
Svcs: PRIORITY OVERNIGHT TRCK: 4546 9354 4567
SHIPPING: 0.00 SPECIAL: 0.00 HANDLING: 0.00 TOTAL: 0.00

Ref: Field&Tech Svcs- Date: 07Oct21 Wgt: 62.55 LBS DV: 0.00
Dep: Buffalo
Svcs: PRIORITY OVERNIGHT TRCK: 4546 9354 4578
SHIPPING: 0.00 SPECIAL: 0.00 HANDLING: 0.00 TOTAL: 0.00

Ref: Field&Tech Svcs- Date: 07Oct21 Wgt: 52.70 LBS DV: 0.00
Dep: Buffalo
Svcs: PRIORITY OVERNIGHT TRCK: 4546 9354 4589
SHIPPING: 0.00 SPECIAL: 0.00 HANDLING: 0.00 TOTAL: 0.00

480-190738 Chain of Custody

TC TA Buffalo

Temp 3.3, 2.6, 2.8 # ICE

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: Kelsey Mandus	Signature: Melissa Gascon	Signature: Melissa Gascon	Signature:	☐ Rush
Printed Name: Kelsey Mandus	Printed Name: Melissa Gascon	Printed Name: Melissa Gascon	Printed Name:	
Firm: FTS	Firm: Eurofins	Firm: Eurofins	Firm: TA 10/8/21 1600	☒ Standard
Date/Time: 10/7/21 1715	Date/Time:	Date/Time:	Date/Time:	

10/15/2021

FTS Field & Technical Services, LLC

Ref 216311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# JK010

TestAmerica Duluth SC
269

Project Name: Superior, WI - 2021 OM&M Program
Project Number: OM-0556-21
Laboratory: TABUF
Shipment Method Courier
Program: Superior 2021 2SA Sampling_001

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

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

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8260C_VOA+naphtha	8270D LL_PCP														Notes:
				Preservative	HCL	None														
				Total Bottle Count																
10/06/2021	0920	GW	SUPE-W-30C-100621	5	3	2														
10/06/2021	1020	GW	SUPE-W-06C-100621	5	3	2														
10/06/2021	1020	GW	SUPE-MS/MSD-W-06C-100621	10	6	4														
10/06/2021	1147	GW	SUPE-W-12CR-100621	5	3	2														
10/06/2021	1248	GW	SUPE-W-12A-100621	5	3	2														
10/06/2021	1420	GW	SUPE-W-06A-100621	5	3	2														

TO TA Buffalo
(3 coolers)

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature:	Signature:	Signature:	Signature:	☐ Rush
Printed Name: Haley Redmond	Printed Name: Melissa Gascon	Printed Name: Melissa Gascon	Printed Name:	☒ Standard
Firm: FTS	Firm: Eurofins	Firm: Eurofins	Firm:	
Date/Time: 10/7/21 1710	Date/Time:	Date/Time:	Date/Time:	

10/15/2021

Buffalo Sewer Authority

Monitoring Requirements for Discharge Permits

The following is the list of pollutant parameters that are required to be monitored for the BSA to consider issuing a; Temporary Discharge Permit, Trucker's Discharge Permit, Non-Categorical Industrial Users Discharge Permit and any other wastewater discharges.

Categorical Industrial Users will follow EPA regulations for monitoring.

If a potential discharge warrants monitoring for any pollutant parameters not listed below, then the BSA will require the pollutant parameters to be included in the monitoring.

All sampling and monitoring must follow 40 CFR Part 136 Guidelines Establishing Test Procedures for the Analysis of Pollutants. Analysis must be conducted by an approved NELAC Laboratory and certified by New York State Department of Health.

Monitoring List:

- Metals: arsenic, barium, beryllium, cadmium, chromium, copper, lead, mercury*, nickel, selenium, silver, titanium, zinc and total cyanide.
- EPA Test Method 608, Organochlorine Pesticides and PCBs
- EPA Test Method 624, Purgeable Organics (volatile organic compounds)
- EPA Test Method 625, Base/Neutral and Acid (semi-volatile organic compounds)
- EPA Test Method 1664A SGT- HEM, Total Extractable Hydrocarbons (non-polar hydrocarbons)
- Total Suspended Solids, Total Dissolved Solids, Total Solids
- Biochemical Oxygen Demand, BOD 5 day
- Total Phosphates
- pH

When monitoring for Mercury*, EPA Test Method 245 is acceptable, however the BSA may request EPA Test Method 1631 (Low Level Mercury). If EPA Test Method 1631 is required, then EPA Sampling Method 1669 will also be required.

Revised June 15 2017

L:\WPDOCS\APPLICATIONS\Monitoring Requirements for permits updated June 15 2017.doc

Login Sample Receipt Checklist

Client: Field & Technical Services LLC

Job Number: 480-190738-1

Login Number: 190738
List Number: 1
Creator: Kolb, Chris M

List Source: Eurofins TestAmerica, Buffalo

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
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.	True	
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	

FTS, LLC

DATE: October 20, 2021

FROM: Kendra Chintella

SUBJECT: Superior Groundwater

SAMPLE DELIVERY GROUP (SDG): 500-206508-1

SAMPLES: SUPE-W-18D-100621, SUPE-W-28C-100621, SUPE-EB-01-100621, SUPE-W-04AR2-100621, SUPE-W-30A-100621, SUPE-W-10AR2-100621, SUPE-M-99A-100621(W-28C), SUPE-W-30C-100621, SUPE-W-06C-100621, SUPE-W-12CR-100621, SUPE-W-12A-100621, SUPE-W-06A-100621

ANALYSES: Method 8270D (SVOCs)

LABORATORY: Eurofins TestAmerica Laboratories, Chicago

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: None

□ Field Duplicate Precision
Noncompliance: None

□ Surrogate Recoveries
Noncompliance: None

□ Matrix Spike/Matrix Spike Duplicate
Noncompliance: None

□ Laboratory Control Sample
Noncompliance: None

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-206508-1
Client Project/Site: Superior, WI Semiannual Groundwater

For:
Field & Technical Services LLC
200 Third Avenue
Carnegie, Pennsylvania 15106

Attn: Ms. Angie Gatchie

Authorized for release by:
10/15/2021 8:40:00 AM

Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@Eurofinset.com

Table of Contents

Job ID: 500-206508-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-206508-1

Comments
No additional comments.

Receipt
The samples were received on 10/8/2021 10:25 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was -0.5º C.

GC/MS Semi VOA
Method 8270D: The continuing calibration verification (CCV) analyzed in batch 500-623067 was outside the method criteria for the following analyte(s): 2,2'-oxybis[1-chloropropane] and 2,4-Dinitrophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270D: The continuing calibration verification (CCV) analyzed in batch 500-623192 was outside the method criteria for the following analyte(s): Multi-Analytes. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

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

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

Detection Summary

Client: Field & Technical Services LLC
Job ID: 500-206508-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-18D-100621 — Lab Sample ID: 500-206508-1

No Detections.

Client Sample ID: SUPE-W-28C-100621 — Lab Sample ID: 500-206508-2

No Detections.

Client Sample ID: SUPE-EB-01-100621 — Lab Sample ID: 500-206508-3

No Detections.

Client Sample ID: SUPE-W-04AR2-100621 — Lab Sample ID: 500-206508-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	2.1		0.86	0.29	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.69		0.17	0.049	ug/L	1		8270D	Total/NA
Benzo[a]pyrene	0.46		0.17	0.085	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	1.3		0.17	0.069	ug/L	1		8270D	Total/NA
Benzo[k]fluoranthene	0.50		0.17	0.055	ug/L	1		8270D	Total/NA
Chrysene	1.9		0.17	0.058	ug/L	1		8270D	Total/NA
Fluoranthene	5.7		0.86	0.39	ug/L	1		8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.25		0.17	0.064	ug/L	1		8270D	Total/NA
Phenanthrene	0.61	J	0.86	0.26	ug/L	1		8270D	Total/NA
Pyrene	3.9		0.86	0.37	ug/L	1		8270D	Total/NA

Client Sample ID: SUPE-W-30A-100621 — Lab Sample ID: 500-206508-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	0.061	J	1.6	0.053	ug/L	1		8270D	Total/NA
Acenaphthylene	0.73	J	0.81	0.22	ug/L	1		8270D	Total/NA
Anthracene	1.4		0.81	0.27	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.19		0.16	0.046	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	0.094	J	0.16	0.065	ug/L	1		8270D	Total/NA
Chrysene	0.17		0.16	0.055	ug/L	1		8270D	Total/NA
Dibenzofuran	31		1.6	0.21	ug/L	1		8270D	Total/NA
Fluoranthene	3.3		0.81	0.37	ug/L	1		8270D	Total/NA
Fluorene	24		0.81	0.20	ug/L	1		8270D	Total/NA
Phenanthrene	9.1		0.81	0.24	ug/L	1		8270D	Total/NA
Pyrene	1.9		0.81	0.34	ug/L	1		8270D	Total/NA
1-Methylnaphthalene	28		1.6	0.24	ug/L	1		8270D	Total/NA
Acenaphthene - DL	73		8.1	2.5	ug/L	10		8270D	Total/NA

Client Sample ID: SUPE-W-10AR2-100621 — Lab Sample ID: 500-206508-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	0.091	J	1.6	0.053	ug/L	1		8270D	Total/NA
2-Methylphenol	0.25	J	1.6	0.25	ug/L	1		8270D	Total/NA
Acenaphthylene	1.4		0.82	0.22	ug/L	1		8270D	Total/NA
Anthracene	2.2		0.82	0.27	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.19		0.16	0.046	ug/L	1		8270D	Total/NA
Chrysene	0.26		0.16	0.056	ug/L	1		8270D	Total/NA
Dibenzofuran	27		1.6	0.21	ug/L	1		8270D	Total/NA
Fluoranthene	3.8		0.82	0.37	ug/L	1		8270D	Total/NA
Fluorene	28		0.82	0.20	ug/L	1		8270D	Total/NA
Phenanthrene	0.52	J	0.82	0.25	ug/L	1		8270D	Total/NA
Phenol	2.3	J	4.1	0.55	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Client Sample ID: SUPE-W-10AR2-100621 (Continued) — Lab Sample ID: 500-206508-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pyrene	2.3		0.82	0.35	ug/L	1		8270D	Total/NA
1-Methylnaphthalene	40		1.6	0.25	ug/L	1		8270D	Total/NA
Acenaphthene - DL	120		8.2	2.5	ug/L	10		8270D	Total/NA

Client Sample ID: SUPE-M-99A-100621 — Lab Sample ID: 500-206508-7

No Detections.

Client Sample ID: SUPE-W-30C-100621 — Lab Sample ID: 500-206508-8

No Detections.

Client Sample ID: SUPE-W-06C-100621 — Lab Sample ID: 500-206508-9

No Detections.

Client Sample ID: SUPE-W-12CR-100621 — Lab Sample ID: 500-206508-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2,4,6-Trichlorophenol	1.4	J	4.0	0.57	ug/L	1		8270D	Total/NA

Client Sample ID: SUPE-W-12A-100621 — Lab Sample ID: 500-206508-11

No Detections.

Client Sample ID: SUPE-W-06A-100621 — Lab Sample ID: 500-206508-12

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

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

Job ID: 500-206508-1

Method	Method Description	Protocol	Laboratory
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

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

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Field & Technical Services LLC
Job ID: 500-206508-1
Project/Site: Superior, WI Semiannual Groundwater

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-206508-1	SUPE-W-18D-100621	Water	10/06/21 09:27	10/08/21 10:25
500-206508-2	SUPE-W-28C-100621	Water	10/06/21 10:38	10/08/21 10:25
500-206508-3	SUPE-EB-01-100621	Water	10/06/21 11:15	10/08/21 10:25
500-206508-4	SUPE-W-04AR2-100621	Water	10/06/21 12:04	10/08/21 10:25
500-206508-5	SUPE-W-30A-100621	Water	10/06/21 13:20	10/08/21 10:25
500-206508-6	SUPE-W-10AR2-100621	Water	10/06/21 14:38	10/08/21 10:25
500-206508-7	SUPE-M-99A-100621	Water	10/06/21 20:00	10/08/21 10:25
500-206508-8	SUPE-W-30C-100621	Water	10/06/21 09:20	10/08/21 10:25
500-206508-9	SUPE-W-06C-100621	Water	10/06/21 10:20	10/08/21 10:25
500-206508-10	SUPE-W-12CR-100621	Water	10/06/21 11:47	10/08/21 10:25
500-206508-11	SUPE-W-12A-100621	Water	10/06/21 12:48	10/08/21 10:25
500-206508-12	SUPE-W-06A-100621	Water	10/06/21 14:20	10/08/21 10:25

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

Job ID: 500-206508-1

Client Sample ID: SUPE-W-18D-100621
Date Collected: 10/06/21 09:27
Date Received: 10/08/21 10:25

Lab Sample ID: 500-206508-1
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.7	0.21	ug/L		10/11/21 08:49	10/12/21 17:35	1
1,2-Dichlorobenzene	ND		1.7	0.21	ug/L		10/11/21 08:49	10/12/21 17:35	1
1,3-Dichlorobenzene	ND		1.7	0.18	ug/L		10/11/21 08:49	10/12/21 17:35	1
1,4-Dichlorobenzene	ND		1.7	0.18	ug/L		10/11/21 08:49	10/12/21 17:35	1
bis(chloroisopropyl) ether	ND		1.7	0.33	ug/L		10/11/21 08:49	10/12/21 17:35	1
2,4,5-Trichlorophenol	ND		8.7	2.2	ug/L		10/11/21 08:49	10/12/21 17:35	1
2,4,6-Trichlorophenol	ND		4.3	0.62	ug/L		10/11/21 08:49	10/12/21 17:35	1
2,4-Dichlorophenol	ND		8.7	2.3	ug/L		10/11/21 08:49	10/12/21 17:35	1
2,4-Dimethylphenol	ND		8.7	1.6	ug/L		10/11/21 08:49	10/12/21 17:35	1
2,4-Dinitrophenol	ND		17	7.5	ug/L		10/11/21 08:49	10/12/21 17:35	1
2,4-Dinitrotoluene	ND		0.87	0.21	ug/L		10/11/21 08:49	10/12/21 17:35	1
2,6-Dinitrotoluene	ND		0.87	0.064	ug/L		10/11/21 08:49	10/12/21 17:35	1
2-Chloronaphthalene	ND		1.7	0.20	ug/L		10/11/21 08:49	10/12/21 17:35	1
2-Chlorophenol	ND		4.3	0.49	ug/L		10/11/21 08:49	10/12/21 17:35	1
2-Methylnaphthalene	ND		1.7	0.057	ug/L		10/11/21 08:49	10/12/21 17:35	1
2-Methylphenol	ND		1.7	0.27	ug/L		10/11/21 08:49	10/12/21 17:35	1
2-Nitroaniline	ND		4.3	1.1	ug/L		10/11/21 08:49	10/12/21 17:35	1
2-Nitrophenol	ND		8.7	2.2	ug/L		10/11/21 08:49	10/12/21 17:35	1
3 & 4 Methylphenol	ND		1.7	0.39	ug/L		10/11/21 08:49	10/12/21 17:35	1
3,3'-Dichlorobenzidine	ND		4.3	1.5	ug/L		10/11/21 08:49	10/12/21 17:35	1
3-Nitroaniline	ND		8.7	1.6	ug/L		10/11/21 08:49	10/12/21 17:35	1
4,6-Dinitro-2-methylphenol	ND		17	5.1	ug/L		10/11/21 08:49	10/12/21 17:35	1
4-Bromophenyl phenyl ether	ND		4.3	0.47	ug/L		10/11/21 08:49	10/12/21 17:35	1
4-Chloro-3-methylphenol	ND		8.7	2.0	ug/L		10/11/21 08:49	10/12/21 17:35	1
4-Chloroaniline	ND		8.7	1.8	ug/L		10/11/21 08:49	10/12/21 17:35	1
4-Chlorophenyl phenyl ether	ND		4.3	0.55	ug/L		10/11/21 08:49	10/12/21 17:35	1
4-Nitroaniline	ND		8.7	1.4	ug/L		10/11/21 08:49	10/12/21 17:35	1
4-Nitrophenol	ND		17	6.5	ug/L		10/11/21 08:49	10/12/21 17:35	1
Acenaphthene	ND		0.87	0.27	ug/L		10/11/21 08:49	10/12/21 17:35	1
Acenaphthylene	ND		0.87	0.23	ug/L		10/11/21 08:49	10/12/21 17:35	1
Anthracene	ND		0.87	0.29	ug/L		10/11/21 08:49	10/12/21 17:35	1
Benzo[a]anthracene	ND		0.17	0.049	ug/L		10/11/21 08:49	10/12/21 17:35	1
Benzo[a]pyrene	ND		0.17	0.086	ug/L		10/11/21 08:49	10/12/21 17:35	1
Benzo[b]fluoranthene	ND		0.17	0.070	ug/L		10/11/21 08:49	10/12/21 17:35	1
Benzo[g,h,i]perylene	ND		0.87	0.33	ug/L		10/11/21 08:49	10/12/21 17:35	1
Benzo[k]fluoranthene	ND		0.17	0.056	ug/L		10/11/21 08:49	10/12/21 17:35	1
Benzoic acid	ND		17	5.0	ug/L		10/11/21 08:49	10/12/21 17:35	1
Benzyl alcohol	ND		17	5.3	ug/L		10/11/21 08:49	10/12/21 17:35	1
Bis(2-chloroethoxy)methane	ND		1.7	0.25	ug/L		10/11/21 08:49	10/12/21 17:35	1
Bis(2-chloroethyl)ether	ND		1.7	0.25	ug/L		10/11/21 08:49	10/12/21 17:35	1
Bis(2-ethylhexyl) phthalate	ND		8.7	1.5	ug/L		10/11/21 08:49	10/12/21 17:35	1
Butyl benzyl phthalate	ND		1.7	0.42	ug/L		10/11/21 08:49	10/12/21 17:35	1
Chrysene	ND		0.17	0.059	ug/L		10/11/21 08:49	10/12/21 17:35	1
Dibenz(a,h)anthracene	ND		0.26	0.044	ug/L		10/11/21 08:49	10/12/21 17:35	1
Dibenzofuran	ND		1.7	0.23	ug/L		10/11/21 08:49	10/12/21 17:35	1
Diethyl phthalate	ND		4.3	0.31	ug/L		10/11/21 08:49	10/12/21 17:35	1
Dimethyl phthalate	ND		4.3	0.27	ug/L		10/11/21 08:49	10/12/21 17:35	1
Di-n-butyl phthalate	ND		4.3	0.64	ug/L		10/11/21 08:49	10/12/21 17:35	1
Di-n-octyl phthalate	ND		8.7	0.91	ug/L		10/11/21 08:49	10/12/21 17:35	1

Client: Field & Technical Services LLC
Job ID: 500-206508-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-18D-100621
Lab Sample ID: 500-206508-1
Date Collected: 10/06/21 09:27
Matrix: Water
Date Received: 10/08/21 10:25

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		0.87	0.39	ug/L		10/11/21 08:49	10/12/21 17:35	1
Fluorene	ND		0.87	0.21	ug/L		10/11/21 08:49	10/12/21 17:35	1
Hexachlorobenzene	ND		0.43	0.069	ug/L		10/11/21 08:49	10/12/21 17:35	1
Hexachlorobutadiene	ND		4.3	0.45	ug/L		10/11/21 08:49	10/12/21 17:35	1
Hexachlorocyclopentadiene	ND		17	5.5	ug/L		10/11/21 08:49	10/12/21 17:35	1
Hexachloroethane	ND		4.3	0.52	ug/L		10/11/21 08:49	10/12/21 17:35	1
Indeno[1,2,3-cd]pyrene	ND		0.17	0.065	ug/L		10/11/21 08:49	10/12/21 17:35	1
Isophorone	ND		1.7	0.33	ug/L		10/11/21 08:49	10/12/21 17:35	1
Naphthalene	ND		0.87	0.27	ug/L		10/11/21 08:49	10/12/21 17:35	1
Nitrobenzene	ND		0.87	0.39	ug/L		10/11/21 08:49	10/12/21 17:35	1
N-Nitrosodi-n-propylamine	ND		0.43	0.13	ug/L		10/11/21 08:49	10/12/21 17:35	1
N-Nitrosodiphenylamine	ND		1.7	0.32	ug/L		10/11/21 08:49	10/12/21 17:35	1
Phenanthrene	ND		0.87	0.26	ug/L		10/11/21 08:49	10/12/21 17:35	1
Phenol	ND		4.3	0.58	ug/L		10/11/21 08:49	10/12/21 17:35	1
Pyrene	ND		0.87	0.37	ug/L		10/11/21 08:49	10/12/21 17:35	1
2,3,4,6-Tetrachlorophenol	ND		4.3	0.65	ug/L		10/11/21 08:49	10/12/21 17:35	1
2,3,5,6-Tetrachlorophenol	ND		8.7	3.3	ug/L		10/11/21 08:49	10/12/21 17:35	1
1-Methylnaphthalene	ND		1.7	0.26	ug/L		10/11/21 08:49	10/12/21 17:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*44*		*27 - 110*	*10/11/21 08:49*	*10/12/21 17:35*	*1*
Phenol-d5 (Surr)	*30*		*20 - 110*	*10/11/21 08:49*	*10/12/21 17:35*	*1*
Nitrobenzene-d5 (Surr)	*80*		*36 - 120*	*10/11/21 08:49*	*10/12/21 17:35*	*1*
2-Fluorobiphenyl	*74*		*34 - 110*	*10/11/21 08:49*	*10/12/21 17:35*	*1*
2,4,6-Tribromophenol (Surr)	*103*		*40 - 145*	*10/11/21 08:49*	*10/12/21 17:35*	*1*
Terphenyl-d14 (Surr)	*101*		*40 - 145*	*10/11/21 08:49*	*10/12/21 17:35*	*1*

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

Job ID: 500-206508-1

Client Sample ID: SUPE-W-28C-100621
Date Collected: 10/06/21 10:38
Date Received: 10/08/21 10:25

Lab Sample ID: 500-206508-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.7	0.20	ug/L		10/11/21 08:49	10/12/21 17:59	1
1,2-Dichlorobenzene	ND		1.7	0.20	ug/L		10/11/21 08:49	10/12/21 17:59	1
1,3-Dichlorobenzene	ND		1.7	0.17	ug/L		10/11/21 08:49	10/12/21 17:59	1
1,4-Dichlorobenzene	ND		1.7	0.17	ug/L		10/11/21 08:49	10/12/21 17:59	1
bis(chloroisopropyl) ether	ND		1.7	0.32	ug/L		10/11/21 08:49	10/12/21 17:59	1
2,4,5-Trichlorophenol	ND		8.3	2.1	ug/L		10/11/21 08:49	10/12/21 17:59	1
2,4,6-Trichlorophenol	ND		4.1	0.59	ug/L		10/11/21 08:49	10/12/21 17:59	1
2,4-Dichlorophenol	ND		8.3	2.2	ug/L		10/11/21 08:49	10/12/21 17:59	1
2,4-Dimethylphenol	ND		8.3	1.5	ug/L		10/11/21 08:49	10/12/21 17:59	1
2,4-Dinitrophenol	ND		17	7.1	ug/L		10/11/21 08:49	10/12/21 17:59	1
2,4-Dinitrotoluene	ND		0.83	0.20	ug/L		10/11/21 08:49	10/12/21 17:59	1
2,6-Dinitrotoluene	ND		0.83	0.061	ug/L		10/11/21 08:49	10/12/21 17:59	1
2-Chloronaphthalene	ND		1.7	0.19	ug/L		10/11/21 08:49	10/12/21 17:59	1
2-Chlorophenol	ND		4.1	0.46	ug/L		10/11/21 08:49	10/12/21 17:59	1
2-Methylnaphthalene	ND		1.7	0.054	ug/L		10/11/21 08:49	10/12/21 17:59	1
2-Methylphenol	ND		1.7	0.25	ug/L		10/11/21 08:49	10/12/21 17:59	1
2-Nitroaniline	ND		4.1	1.1	ug/L		10/11/21 08:49	10/12/21 17:59	1
2-Nitrophenol	ND		8.3	2.1	ug/L		10/11/21 08:49	10/12/21 17:59	1
3 & 4 Methylphenol	ND		1.7	0.37	ug/L		10/11/21 08:49	10/12/21 17:59	1
3,3'-Dichlorobenzidine	ND		4.1	1.4	ug/L		10/11/21 08:49	10/12/21 17:59	1
3-Nitroaniline	ND		8.3	1.5	ug/L		10/11/21 08:49	10/12/21 17:59	1
4,6-Dinitro-2-methylphenol	ND		17	4.9	ug/L		10/11/21 08:49	10/12/21 17:59	1
4-Bromophenyl phenyl ether	ND		4.1	0.45	ug/L		10/11/21 08:49	10/12/21 17:59	1
4-Chloro-3-methylphenol	ND		8.3	1.9	ug/L		10/11/21 08:49	10/12/21 17:59	1
4-Chloroaniline	ND		8.3	1.7	ug/L		10/11/21 08:49	10/12/21 17:59	1
4-Chlorophenyl phenyl ether	ND		4.1	0.53	ug/L		10/11/21 08:49	10/12/21 17:59	1
4-Nitroaniline	ND		8.3	1.4	ug/L		10/11/21 08:49	10/12/21 17:59	1
4-Nitrophenol	ND		17	6.2	ug/L		10/11/21 08:49	10/12/21 17:59	1
Acenaphthene	ND		0.83	0.26	ug/L		10/11/21 08:49	10/12/21 17:59	1
Acenaphthylene	ND		0.83	0.22	ug/L		10/11/21 08:49	10/12/21 17:59	1
Anthracene	ND		0.83	0.28	ug/L		10/11/21 08:49	10/12/21 17:59	1
Benzo[a]anthracene	ND		0.17	0.047	ug/L		10/11/21 08:49	10/12/21 17:59	1
Benzo[a]pyrene	ND		0.17	0.082	ug/L		10/11/21 08:49	10/12/21 17:59	1
Benzo[b]fluoranthene	ND		0.17	0.067	ug/L		10/11/21 08:49	10/12/21 17:59	1
Benzo[g,h,i]perylene	ND		0.83	0.31	ug/L		10/11/21 08:49	10/12/21 17:59	1
Benzo[k]fluoranthene	ND		0.17	0.053	ug/L		10/11/21 08:49	10/12/21 17:59	1
Benzoic acid	ND		17	4.8	ug/L		10/11/21 08:49	10/12/21 17:59	1
Benzyl alcohol	ND		17	5.0	ug/L		10/11/21 08:49	10/12/21 17:59	1
Bis(2-chloroethoxy)methane	ND		1.7	0.24	ug/L		10/11/21 08:49	10/12/21 17:59	1
Bis(2-chloroethyl)ether	ND		1.7	0.24	ug/L		10/11/21 08:49	10/12/21 17:59	1
Bis(2-ethylhexyl) phthalate	ND		8.3	1.4	ug/L		10/11/21 08:49	10/12/21 17:59	1
Butyl benzyl phthalate	ND		1.7	0.40	ug/L		10/11/21 08:49	10/12/21 17:59	1
Chrysene	ND		0.17	0.056	ug/L		10/11/21 08:49	10/12/21 17:59	1
Dibenz(a,h)anthracene	ND		0.25	0.042	ug/L		10/11/21 08:49	10/12/21 17:59	1
Dibenzofuran	ND		1.7	0.22	ug/L		10/11/21 08:49	10/12/21 17:59	1
Diethyl phthalate	ND		4.1	0.30	ug/L		10/11/21 08:49	10/12/21 17:59	1
Dimethyl phthalate	ND		4.1	0.26	ug/L		10/11/21 08:49	10/12/21 17:59	1
Di-n-butyl phthalate	ND		4.1	0.61	ug/L		10/11/21 08:49	10/12/21 17:59	1
Di-n-octyl phthalate	ND		8.3	0.87	ug/L		10/11/21 08:49	10/12/21 17:59	1

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

Job ID: 500-206508-1

Client Sample ID: SUPE-W-28C-100621
Date Collected: 10/06/21 10:38
Date Received: 10/08/21 10:25

Lab Sample ID: 500-206508-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		0.83	0.38	ug/L		10/11/21 08:49	10/12/21 17:59	1
Fluorene	ND		0.83	0.20	ug/L		10/11/21 08:49	10/12/21 17:59	1
Hexachlorobenzene	ND		0.41	0.066	ug/L		10/11/21 08:49	10/12/21 17:59	1
Hexachlorobutadiene	ND		4.1	0.43	ug/L		10/11/21 08:49	10/12/21 17:59	1
Hexachlorocyclopentadiene	ND		17	5.3	ug/L		10/11/21 08:49	10/12/21 17:59	1
Hexachloroethane	ND		4.1	0.50	ug/L		10/11/21 08:49	10/12/21 17:59	1
Indeno[1,2,3-cd]pyrene	ND		0.17	0.062	ug/L		10/11/21 08:49	10/12/21 17:59	1
Isophorone	ND		1.7	0.31	ug/L		10/11/21 08:49	10/12/21 17:59	1
Nitrobenzene	ND		0.83	0.37	ug/L		10/11/21 08:49	10/12/21 17:59	1
N-Nitrosodi-n-propylamine	ND		0.41	0.13	ug/L		10/11/21 08:49	10/12/21 17:59	1
N-Nitrosodiphenylamine	ND		1.7	0.31	ug/L		10/11/21 08:49	10/12/21 17:59	1
Phenanthrene	ND		0.83	0.25	ug/L		10/11/21 08:49	10/12/21 17:59	1
Phenol	ND		4.1	0.56	ug/L		10/11/21 08:49	10/12/21 17:59	1
Pyrene	ND		0.83	0.35	ug/L		10/11/21 08:49	10/12/21 17:59	1
2,3,4,6-Tetrachlorophenol	ND		4.1	0.62	ug/L		10/11/21 08:49	10/12/21 17:59	1
2,3,5,6-Tetrachlorophenol	ND		8.3	3.2	ug/L		10/11/21 08:49	10/12/21 17:59	1
1-Methylnaphthalene	ND		1.7	0.25	ug/L		10/11/21 08:49	10/12/21 17:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*50*		*27 - 110*	*10/11/21 08:49*	*10/12/21 17:59*	*1*
Phenol-d5 (Surr)	*33*		*20 - 110*	*10/11/21 08:49*	*10/12/21 17:59*	*1*
Nitrobenzene-d5 (Surr)	*87*		*36 - 120*	*10/11/21 08:49*	*10/12/21 17:59*	*1*
2-Fluorobiphenyl	*80*		*34 - 110*	*10/11/21 08:49*	*10/12/21 17:59*	*1*
2,4,6-Tribromophenol (Surr)	*106*		*40 - 145*	*10/11/21 08:49*	*10/12/21 17:59*	*1*
Terphenyl-d14 (Surr)	*99*		*40 - 145*	*10/11/21 08:49*	*10/12/21 17:59*	*1*

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

Job ID: 500-206508-1

Client Sample ID: SUPE-EB-01-100621
Date Collected: 10/06/21 11:15
Date Received: 10/08/21 10:25

Lab Sample ID: 500-206508-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.5	0.18	ug/L		10/11/21 08:49	10/12/21 18:22	1
1,2-Dichlorobenzene	ND		1.5	0.18	ug/L		10/11/21 08:49	10/12/21 18:22	1
1,3-Dichlorobenzene	ND		1.5	0.15	ug/L		10/11/21 08:49	10/12/21 18:22	1
1,4-Dichlorobenzene	ND		1.5	0.15	ug/L		10/11/21 08:49	10/12/21 18:22	1
bis(chloroisopropyl) ether	ND		1.5	0.28	ug/L		10/11/21 08:49	10/12/21 18:22	1
2,4,5-Trichlorophenol	ND		7.4	1.9	ug/L		10/11/21 08:49	10/12/21 18:22	1
2,4,6-Trichlorophenol	ND		3.7	0.53	ug/L		10/11/21 08:49	10/12/21 18:22	1
2,4-Dichlorophenol	ND		7.4	1.9	ug/L		10/11/21 08:49	10/12/21 18:22	1
2,4-Dimethylphenol	ND		7.4	1.3	ug/L		10/11/21 08:49	10/12/21 18:22	1
2,4-Dinitrophenol	ND		15	6.4	ug/L		10/11/21 08:49	10/12/21 18:22	1
2,4-Dinitrotoluene	ND		0.74	0.18	ug/L		10/11/21 08:49	10/12/21 18:22	1
2,6-Dinitrotoluene	ND		0.74	0.055	ug/L		10/11/21 08:49	10/12/21 18:22	1
2-Chloronaphthalene	ND		1.5	0.17	ug/L		10/11/21 08:49	10/12/21 18:22	1
2-Chlorophenol	ND		3.7	0.41	ug/L		10/11/21 08:49	10/12/21 18:22	1
2-Methylnaphthalene	ND		1.5	0.048	ug/L		10/11/21 08:49	10/12/21 18:22	1
2-Methylphenol	ND		1.5	0.23	ug/L		10/11/21 08:49	10/12/21 18:22	1
2-Nitroaniline	ND		3.7	0.95	ug/L		10/11/21 08:49	10/12/21 18:22	1
2-Nitrophenol	ND		7.4	1.9	ug/L		10/11/21 08:49	10/12/21 18:22	1
3 & 4 Methylphenol	ND		1.5	0.33	ug/L		10/11/21 08:49	10/12/21 18:22	1
3,3'-Dichlorobenzidine	ND		3.7	1.3	ug/L		10/11/21 08:49	10/12/21 18:22	1
3-Nitroaniline	ND		7.4	1.3	ug/L		10/11/21 08:49	10/12/21 18:22	1
4,6-Dinitro-2-methylphenol	ND		15	4.4	ug/L		10/11/21 08:49	10/12/21 18:22	1
4-Bromophenyl phenyl ether	ND		3.7	0.40	ug/L		10/11/21 08:49	10/12/21 18:22	1
4-Chloro-3-methylphenol	ND		7.4	1.7	ug/L		10/11/21 08:49	10/12/21 18:22	1
4-Chloroaniline	ND		7.4	1.5	ug/L		10/11/21 08:49	10/12/21 18:22	1
4-Chlorophenyl phenyl ether	ND		3.7	0.47	ug/L		10/11/21 08:49	10/12/21 18:22	1
4-Nitroaniline	ND		7.4	1.2	ug/L		10/11/21 08:49	10/12/21 18:22	1
4-Nitrophenol	ND		15	5.5	ug/L		10/11/21 08:49	10/12/21 18:22	1
Acenaphthene	ND		0.74	0.23	ug/L		10/11/21 08:49	10/12/21 18:22	1
Acenaphthylene	ND		0.74	0.20	ug/L		10/11/21 08:49	10/12/21 18:22	1
Anthracene	ND		0.74	0.25	ug/L		10/11/21 08:49	10/12/21 18:22	1
Benzo[a]anthracene	ND		0.15	0.042	ug/L		10/11/21 08:49	10/12/21 18:22	1
Benzo[a]pyrene	ND		0.15	0.073	ug/L		10/11/21 08:49	10/12/21 18:22	1
Benzo[b]fluoranthene	ND		0.15	0.060	ug/L		10/11/21 08:49	10/12/21 18:22	1
Benzo[g,h,i]perylene	ND		0.74	0.28	ug/L		10/11/21 08:49	10/12/21 18:22	1
Benzo[k]fluoranthene	ND		0.15	0.047	ug/L		10/11/21 08:49	10/12/21 18:22	1
Benzoic acid	ND		15	4.3	ug/L		10/11/21 08:49	10/12/21 18:22	1
Benzyl alcohol	ND		15	4.5	ug/L		10/11/21 08:49	10/12/21 18:22	1
Bis(2-chloroethoxy)methane	ND		1.5	0.21	ug/L		10/11/21 08:49	10/12/21 18:22	1
Bis(2-chloroethyl)ether	ND		1.5	0.22	ug/L		10/11/21 08:49	10/12/21 18:22	1
Bis(2-ethylhexyl) phthalate	ND		7.4	1.3	ug/L		10/11/21 08:49	10/12/21 18:22	1
Butyl benzyl phthalate	ND		1.5	0.36	ug/L		10/11/21 08:49	10/12/21 18:22	1
Chrysene	ND		0.15	0.051	ug/L		10/11/21 08:49	10/12/21 18:22	1
Dibenz(a,h)anthracene	ND		0.22	0.038	ug/L		10/11/21 08:49	10/12/21 18:22	1
Dibenzofuran	ND		1.5	0.19	ug/L		10/11/21 08:49	10/12/21 18:22	1
Diethyl phthalate	ND		3.7	0.27	ug/L		10/11/21 08:49	10/12/21 18:22	1
Dimethyl phthalate	ND		3.7	0.23	ug/L		10/11/21 08:49	10/12/21 18:22	1
Di-n-butyl phthalate	ND		3.7	0.54	ug/L		10/11/21 08:49	10/12/21 18:22	1
Di-n-octyl phthalate	ND		7.4	0.78	ug/L		10/11/21 08:49	10/12/21 18:22	1

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

Job ID: 500-206508-1

Client Sample ID: SUPE-EB-01-100621
Date Collected: 10/06/21 11:15
Date Received: 10/08/21 10:25

Lab Sample ID: 500-206508-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		0.74	0.34	ug/L		10/11/21 08:49	10/12/21 18:22	1
Fluorene	ND		0.74	0.18	ug/L		10/11/21 08:49	10/12/21 18:22	1
Hexachlorobenzene	ND		0.37	0.059	ug/L		10/11/21 08:49	10/12/21 18:22	1
Hexachlorobutadiene	ND		3.7	0.38	ug/L		10/11/21 08:49	10/12/21 18:22	1
Hexachlorocyclopentadiene	ND		15	4.7	ug/L		10/11/21 08:49	10/12/21 18:22	1
Hexachloroethane	ND		3.7	0.44	ug/L		10/11/21 08:49	10/12/21 18:22	1
Indeno[1,2,3-cd]pyrene	ND		0.15	0.055	ug/L		10/11/21 08:49	10/12/21 18:22	1
Isophorone	ND		1.5	0.28	ug/L		10/11/21 08:49	10/12/21 18:22	1
Nitrobenzene	ND		0.74	0.33	ug/L		10/11/21 08:49	10/12/21 18:22	1
N-Nitrosodi-n-propylamine	ND		0.37	0.11	ug/L		10/11/21 08:49	10/12/21 18:22	1
N-Nitrosodiphenylamine	ND		1.5	0.27	ug/L		10/11/21 08:49	10/12/21 18:22	1
Phenanthrene	ND		0.74	0.22	ug/L		10/11/21 08:49	10/12/21 18:22	1
Phenol	ND		3.7	0.50	ug/L		10/11/21 08:49	10/12/21 18:22	1
Pyrene	ND		0.74	0.32	ug/L		10/11/21 08:49	10/12/21 18:22	1
2,3,4,6-Tetrachlorophenol	ND		3.7	0.55	ug/L		10/11/21 08:49	10/12/21 18:22	1
2,3,5,6-Tetrachlorophenol	ND		7.4	2.8	ug/L		10/11/21 08:49	10/12/21 18:22	1
1-Methylnaphthalene	ND		1.5	0.22	ug/L		10/11/21 08:49	10/12/21 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*68*		*27 - 110*	*10/11/21 08:49*	*10/12/21 18:22*	*1*
Phenol-d5 (Surr)	*42*		*20 - 110*	*10/11/21 08:49*	*10/12/21 18:22*	*1*
Nitrobenzene-d5 (Surr)	*99*		*36 - 120*	*10/11/21 08:49*	*10/12/21 18:22*	*1*
2-Fluorobiphenyl	*89*		*34 - 110*	*10/11/21 08:49*	*10/12/21 18:22*	*1*
2,4,6-Tribromophenol (Surr)	*106*		*40 - 145*	*10/11/21 08:49*	*10/12/21 18:22*	*1*
Terphenyl-d14 (Surr)	*111*		*40 - 145*	*10/11/21 08:49*	*10/12/21 18:22*	*1*

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

Job ID: 500-206508-1

Client Sample ID: SUPE-W-04AR2-100621
Date Collected: 10/06/21 12:04
Date Received: 10/08/21 10:25

Lab Sample ID: 500-206508-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.7	0.20	ug/L		10/11/21 08:49	10/12/21 18:46	1
1,2-Dichlorobenzene	ND		1.7	0.21	ug/L		10/11/21 08:49	10/12/21 18:46	1
1,3-Dichlorobenzene	ND		1.7	0.18	ug/L		10/11/21 08:49	10/12/21 18:46	1
1,4-Dichlorobenzene	ND		1.7	0.18	ug/L		10/11/21 08:49	10/12/21 18:46	1
bis(chloroisopropyl) ether	ND		1.7	0.33	ug/L		10/11/21 08:49	10/12/21 18:46	1
2,4,5-Trichlorophenol	ND		8.6	2.2	ug/L		10/11/21 08:49	10/12/21 18:46	1
2,4,6-Trichlorophenol	ND		4.3	0.61	ug/L		10/11/21 08:49	10/12/21 18:46	1
2,4-Dichlorophenol	ND		8.6	2.2	ug/L		10/11/21 08:49	10/12/21 18:46	1
2,4-Dimethylphenol	ND		8.6	1.5	ug/L		10/11/21 08:49	10/12/21 18:46	1
2,4-Dinitrophenol	ND		17	7.4	ug/L		10/11/21 08:49	10/12/21 18:46	1
2,4-Dinitrotoluene	ND		0.86	0.21	ug/L		10/11/21 08:49	10/12/21 18:46	1
2,6-Dinitrotoluene	ND		0.86	0.063	ug/L		10/11/21 08:49	10/12/21 18:46	1
2-Chloronaphthalene	ND		1.7	0.20	ug/L		10/11/21 08:49	10/12/21 18:46	1
2-Chlorophenol	ND		4.3	0.48	ug/L		10/11/21 08:49	10/12/21 18:46	1
2-Methylnaphthalene	ND		1.7	0.056	ug/L		10/11/21 08:49	10/12/21 18:46	1
2-Methylphenol	ND		1.7	0.26	ug/L		10/11/21 08:49	10/12/21 18:46	1
2-Nitroaniline	ND		4.3	1.1	ug/L		10/11/21 08:49	10/12/21 18:46	1
2-Nitrophenol	ND		8.6	2.1	ug/L		10/11/21 08:49	10/12/21 18:46	1
3 & 4 Methylphenol	ND		1.7	0.38	ug/L		10/11/21 08:49	10/12/21 18:46	1
3,3'-Dichlorobenzidine	ND		4.3	1.5	ug/L		10/11/21 08:49	10/12/21 18:46	1
3-Nitroaniline	ND		8.6	1.5	ug/L		10/11/21 08:49	10/12/21 18:46	1
4,6-Dinitro-2-methylphenol	ND		17	5.1	ug/L		10/11/21 08:49	10/12/21 18:46	1
4-Bromophenyl phenyl ether	ND		4.3	0.46	ug/L		10/11/21 08:49	10/12/21 18:46	1
4-Chloro-3-methylphenol	ND		8.6	2.0	ug/L		10/11/21 08:49	10/12/21 18:46	1
4-Chloroaniline	ND		8.6	1.7	ug/L		10/11/21 08:49	10/12/21 18:46	1
4-Chlorophenyl phenyl ether	ND		4.3	0.54	ug/L		10/11/21 08:49	10/12/21 18:46	1
4-Nitroaniline	ND		8.6	1.4	ug/L		10/11/21 08:49	10/12/21 18:46	1
4-Nitrophenol	ND		17	6.4	ug/L		10/11/21 08:49	10/12/21 18:46	1
Acenaphthene	ND		0.86	0.26	ug/L		10/11/21 08:49	10/12/21 18:46	1
Acenaphthylene	ND		0.86	0.23	ug/L		10/11/21 08:49	10/12/21 18:46	1
Anthracene	**2.1**		0.86	0.29	ug/L		10/11/21 08:49	10/12/21 18:46	1
Benzo[a]anthracene	**0.69**		0.17	0.049	ug/L		10/11/21 08:49	10/12/21 18:46	1
Benzo[a]pyrene	**0.46**		0.17	0.085	ug/L		10/11/21 08:49	10/12/21 18:46	1
Benzo[b]fluoranthene	**1.3**		0.17	0.069	ug/L		10/11/21 08:49	10/12/21 18:46	1
Benzo[g,h,i]perylene	ND		0.86	0.32	ug/L		10/11/21 08:49	10/12/21 18:46	1
Benzo[k]fluoranthene	**0.50**		0.17	0.055	ug/L		10/11/21 08:49	10/12/21 18:46	1
Benzoic acid	ND		17	4.9	ug/L		10/11/21 08:49	10/12/21 18:46	1
Benzyl alcohol	ND		17	5.2	ug/L		10/11/21 08:49	10/12/21 18:46	1
Bis(2-chloroethoxy)methane	ND		1.7	0.24	ug/L		10/11/21 08:49	10/12/21 18:46	1
Bis(2-chloroethyl)ether	ND		1.7	0.25	ug/L		10/11/21 08:49	10/12/21 18:46	1
Bis(2-ethylhexyl) phthalate	ND		8.6	1.5	ug/L		10/11/21 08:49	10/12/21 18:46	1
Butyl benzyl phthalate	ND		1.7	0.41	ug/L		10/11/21 08:49	10/12/21 18:46	1
Chrysene	**1.9**		0.17	0.058	ug/L		10/11/21 08:49	10/12/21 18:46	1
Dibenz(a,h)anthracene	ND		0.26	0.044	ug/L		10/11/21 08:49	10/12/21 18:46	1
Dibenzofuran	ND		1.7	0.23	ug/L		10/11/21 08:49	10/12/21 18:46	1
Diethyl phthalate	ND		4.3	0.31	ug/L		10/11/21 08:49	10/12/21 18:46	1
Dimethyl phthalate	ND		4.3	0.27	ug/L		10/11/21 08:49	10/12/21 18:46	1
Di-n-butyl phthalate	ND		4.3	0.63	ug/L		10/11/21 08:49	10/12/21 18:46	1
Di-n-octyl phthalate	ND		8.6	0.90	ug/L		10/11/21 08:49	10/12/21 18:46	1

Client: Field & Technical Services LLC
Job ID: 500-206508-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-04AR2-100621
Lab Sample ID: 500-206508-4
Date Collected: 10/06/21 12:04
Matrix: Water
Date Received: 10/08/21 10:25

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	**5.7**		0.86	0.39	ug/L		10/11/21 08:49	10/12/21 18:46	1
Fluorene	ND		0.86	0.21	ug/L		10/11/21 08:49	10/12/21 18:46	1
Hexachlorobenzene	ND		0.43	0.068	ug/L		10/11/21 08:49	10/12/21 18:46	1
Hexachlorobutadiene	ND		4.3	0.44	ug/L		10/11/21 08:49	10/12/21 18:46	1
Hexachlorocyclopentadiene	ND		17	5.5	ug/L		10/11/21 08:49	10/12/21 18:46	1
Hexachloroethane	ND		4.3	0.51	ug/L		10/11/21 08:49	10/12/21 18:46	1
Indeno[1,2,3-cd]pyrene	**0.25**		0.17	0.064	ug/L		10/11/21 08:49	10/12/21 18:46	1
Isophorone	ND		1.7	0.32	ug/L		10/11/21 08:49	10/12/21 18:46	1
Nitrobenzene	ND		0.86	0.38	ug/L		10/11/21 08:49	10/12/21 18:46	1
N-Nitrosodi-n-propylamine	ND		0.43	0.13	ug/L		10/11/21 08:49	10/12/21 18:46	1
N-Nitrosodiphenylamine	ND		1.7	0.32	ug/L		10/11/21 08:49	10/12/21 18:46	1
Phenanthrene	**0.61**	**J**	0.86	0.26	ug/L		10/11/21 08:49	10/12/21 18:46	1
Phenol	ND		4.3	0.58	ug/L		10/11/21 08:49	10/12/21 18:46	1
Pyrene	**3.9**		0.86	0.37	ug/L		10/11/21 08:49	10/12/21 18:46	1
2,3,4,6-Tetrachlorophenol	ND		4.3	0.64	ug/L		10/11/21 08:49	10/12/21 18:46	1
2,3,5,6-Tetrachlorophenol	ND		8.6	3.3	ug/L		10/11/21 08:49	10/12/21 18:46	1
1-Methylnaphthalene	ND		1.7	0.26	ug/L		10/11/21 08:49	10/12/21 18:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*43*		*27 - 110*	*10/11/21 08:49*	*10/12/21 18:46*	*1*
Phenol-d5 (Surr)	*36*		*20 - 110*	*10/11/21 08:49*	*10/12/21 18:46*	*1*
Nitrobenzene-d5 (Surr)	*77*		*36 - 120*	*10/11/21 08:49*	*10/12/21 18:46*	*1*
2-Fluorobiphenyl	*76*		*34 - 110*	*10/11/21 08:49*	*10/12/21 18:46*	*1*
2,4,6-Tribromophenol (Surr)	*106*		*40 - 145*	*10/11/21 08:49*	*10/12/21 18:46*	*1*
Terphenyl-d14 (Surr)	*93*		*40 - 145*	*10/11/21 08:49*	*10/12/21 18:46*	*1*

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

Job ID: 500-206508-1

Client Sample ID: SUPE-W-30A-100621
Date Collected: 10/06/21 13:20
Date Received: 10/08/21 10:25

Lab Sample ID: 500-206508-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.6	0.19	ug/L		10/11/21 08:49	10/12/21 19:10	1
1,2-Dichlorobenzene	ND		1.6	0.20	ug/L		10/11/21 08:49	10/12/21 19:10	1
1,3-Dichlorobenzene	ND		1.6	0.17	ug/L		10/11/21 08:49	10/12/21 19:10	1
1,4-Dichlorobenzene	ND		1.6	0.17	ug/L		10/11/21 08:49	10/12/21 19:10	1
bis(chloroisopropyl) ether	ND		1.6	0.31	ug/L		10/11/21 08:49	10/12/21 19:10	1
2,4,5-Trichlorophenol	ND		8.1	2.1	ug/L		10/11/21 08:49	10/12/21 19:10	1
2,4,6-Trichlorophenol	ND		4.0	0.58	ug/L		10/11/21 08:49	10/12/21 19:10	1
2,4-Dichlorophenol	ND		8.1	2.1	ug/L		10/11/21 08:49	10/12/21 19:10	1
2,4-Dimethylphenol	ND		8.1	1.5	ug/L		10/11/21 08:49	10/12/21 19:10	1
2,4-Dinitrophenol	ND		16	6.9	ug/L		10/11/21 08:49	10/12/21 19:10	1
2,4-Dinitrotoluene	ND		0.81	0.20	ug/L		10/11/21 08:49	10/12/21 19:10	1
2,6-Dinitrotoluene	ND		0.81	0.060	ug/L		10/11/21 08:49	10/12/21 19:10	1
2-Chloronaphthalene	ND		1.6	0.19	ug/L		10/11/21 08:49	10/12/21 19:10	1
2-Chlorophenol	ND		4.0	0.45	ug/L		10/11/21 08:49	10/12/21 19:10	1
2-Methylnaphthalene	**0.061**	**J**	1.6	0.053	ug/L		10/11/21 08:49	10/12/21 19:10	1
2-Methylphenol	ND		1.6	0.25	ug/L		10/11/21 08:49	10/12/21 19:10	1
2-Nitroaniline	ND		4.0	1.0	ug/L		10/11/21 08:49	10/12/21 19:10	1
2-Nitrophenol	ND		8.1	2.0	ug/L		10/11/21 08:49	10/12/21 19:10	1
3 & 4 Methylphenol	ND		1.6	0.36	ug/L		10/11/21 08:49	10/12/21 19:10	1
3,3'-Dichlorobenzidine	ND		4.0	1.4	ug/L		10/11/21 08:49	10/12/21 19:10	1
3-Nitroaniline	ND		8.1	1.4	ug/L		10/11/21 08:49	10/12/21 19:10	1
4,6-Dinitro-2-methylphenol	ND		16	4.8	ug/L		10/11/21 08:49	10/12/21 19:10	1
4-Bromophenyl phenyl ether	ND		4.0	0.44	ug/L		10/11/21 08:49	10/12/21 19:10	1
4-Chloro-3-methylphenol	ND		8.1	1.9	ug/L		10/11/21 08:49	10/12/21 19:10	1
4-Chloroaniline	ND		8.1	1.6	ug/L		10/11/21 08:49	10/12/21 19:10	1
4-Chlorophenyl phenyl ether	ND		4.0	0.51	ug/L		10/11/21 08:49	10/12/21 19:10	1
4-Nitroaniline	ND		8.1	1.3	ug/L		10/11/21 08:49	10/12/21 19:10	1
4-Nitrophenol	ND		16	6.0	ug/L		10/11/21 08:49	10/12/21 19:10	1
Acenaphthylene	**0.73**	**J**	0.81	0.22	ug/L		10/11/21 08:49	10/12/21 19:10	1
Anthracene	**1.4**		0.81	0.27	ug/L		10/11/21 08:49	10/12/21 19:10	1
Benzo[a]anthracene	**0.19**		0.16	0.046	ug/L		10/11/21 08:49	10/12/21 19:10	1
Benzo[a]pyrene	ND		0.16	0.080	ug/L		10/11/21 08:49	10/12/21 19:10	1
Benzo[b]fluoranthene	**0.094**	**J**	0.16	0.065	ug/L		10/11/21 08:49	10/12/21 19:10	1
Benzo[g,h,i]perylene	ND		0.81	0.30	ug/L		10/11/21 08:49	10/12/21 19:10	1
Benzo[k]fluoranthene	ND		0.16	0.052	ug/L		10/11/21 08:49	10/12/21 19:10	1
Benzoic acid	ND		16	4.7	ug/L		10/11/21 08:49	10/12/21 19:10	1
Benzyl alcohol	ND		16	4.9	ug/L		10/11/21 08:49	10/12/21 19:10	1
Bis(2-chloroethoxy)methane	ND		1.6	0.23	ug/L		10/11/21 08:49	10/12/21 19:10	1
Bis(2-chloroethyl)ether	ND		1.6	0.24	ug/L		10/11/21 08:49	10/12/21 19:10	1
Bis(2-ethylhexyl) phthalate	ND		8.1	1.4	ug/L		10/11/21 08:49	10/12/21 19:10	1
Butyl benzyl phthalate	ND		1.6	0.39	ug/L		10/11/21 08:49	10/12/21 19:10	1
Chrysene	**0.17**		0.16	0.055	ug/L		10/11/21 08:49	10/12/21 19:10	1
Dibenz(a,h)anthracene	ND		0.24	0.041	ug/L		10/11/21 08:49	10/12/21 19:10	1
Dibenzofuran	**31**		1.6	0.21	ug/L		10/11/21 08:49	10/12/21 19:10	1
Diethyl phthalate	ND		4.0	0.29	ug/L		10/11/21 08:49	10/12/21 19:10	1
Dimethyl phthalate	ND		4.0	0.25	ug/L		10/11/21 08:49	10/12/21 19:10	1
Di-n-butyl phthalate	ND		4.0	0.59	ug/L		10/11/21 08:49	10/12/21 19:10	1
Di-n-octyl phthalate	ND		8.1	0.85	ug/L		10/11/21 08:49	10/12/21 19:10	1
Fluoranthene	**3.3**		0.81	0.37	ug/L		10/11/21 08:49	10/12/21 19:10	1

Client: Field & Technical Services LLC
Job ID: 500-206508-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-30A-100621
Lab Sample ID: 500-206508-5
Date Collected: 10/06/21 13:20
Matrix: Water
Date Received: 10/08/21 10:25

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	**24**		0.81	0.20	ug/L		10/11/21 08:49	10/12/21 19:10	1
Hexachlorobenzene	ND		0.40	0.064	ug/L		10/11/21 08:49	10/12/21 19:10	1
Hexachlorobutadiene	ND		4.0	0.42	ug/L		10/11/21 08:49	10/12/21 19:10	1
Hexachlorocyclopentadiene	ND		16	5.1	ug/L		10/11/21 08:49	10/12/21 19:10	1
Hexachloroethane	ND		4.0	0.48	ug/L		10/11/21 08:49	10/12/21 19:10	1
Indeno[1,2,3-cd]pyrene	ND		0.16	0.060	ug/L		10/11/21 08:49	10/12/21 19:10	1
Isophorone	ND		1.6	0.30	ug/L		10/11/21 08:49	10/12/21 19:10	1
Nitrobenzene	ND		0.81	0.36	ug/L		10/11/21 08:49	10/12/21 19:10	1
N-Nitrosodi-n-propylamine	ND		0.40	0.12	ug/L		10/11/21 08:49	10/12/21 19:10	1
N-Nitrosodiphenylamine	ND		1.6	0.30	ug/L		10/11/21 08:49	10/12/21 19:10	1
Phenanthrene	**9.1**		0.81	0.24	ug/L		10/11/21 08:49	10/12/21 19:10	1
Phenol	ND		4.0	0.54	ug/L		10/11/21 08:49	10/12/21 19:10	1
Pyrene	**1.9**		0.81	0.34	ug/L		10/11/21 08:49	10/12/21 19:10	1
2,3,4,6-Tetrachlorophenol	ND		4.0	0.60	ug/L		10/11/21 08:49	10/12/21 19:10	1
2,3,5,6-Tetrachlorophenol	ND		8.1	3.1	ug/L		10/11/21 08:49	10/12/21 19:10	1
1-Methylnaphthalene	**28**		1.6	0.24	ug/L		10/11/21 08:49	10/12/21 19:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*48*		*27 - 110*	*10/11/21 08:49*	*10/12/21 19:10*	*1*
Phenol-d5 (Surr)	*36*		*20 - 110*	*10/11/21 08:49*	*10/12/21 19:10*	*1*
Nitrobenzene-d5 (Surr)	*81*		*36 - 120*	*10/11/21 08:49*	*10/12/21 19:10*	*1*
2-Fluorobiphenyl	*79*		*34 - 110*	*10/11/21 08:49*	*10/12/21 19:10*	*1*
2,4,6-Tribromophenol (Surr)	*110*		*40 - 145*	*10/11/21 08:49*	*10/12/21 19:10*	*1*
Terphenyl-d14 (Surr)	*90*		*40 - 145*	*10/11/21 08:49*	*10/12/21 19:10*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**73**		8.1	2.5	ug/L		10/11/21 08:49	10/13/21 11:54	10

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

Job ID: 500-206508-1

Client Sample ID: SUPE-W-10AR2-100621
Date Collected: 10/06/21 14:38
Date Received: 10/08/21 10:25

Lab Sample ID: 500-206508-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.6	0.19	ug/L		10/11/21 08:49	10/12/21 19:34	1
1,2-Dichlorobenzene	ND		1.6	0.20	ug/L		10/11/21 08:49	10/12/21 19:34	1
1,3-Dichlorobenzene	ND		1.6	0.17	ug/L		10/11/21 08:49	10/12/21 19:34	1
1,4-Dichlorobenzene	ND		1.6	0.17	ug/L		10/11/21 08:49	10/12/21 19:34	1
bis(chloroisopropyl) ether	ND		1.6	0.31	ug/L		10/11/21 08:49	10/12/21 19:34	1
2,4,5-Trichlorophenol	ND		8.2	2.1	ug/L		10/11/21 08:49	10/12/21 19:34	1
2,4,6-Trichlorophenol	ND		4.1	0.59	ug/L		10/11/21 08:49	10/12/21 19:34	1
2,4-Dichlorophenol	ND		8.2	2.1	ug/L		10/11/21 08:49	10/12/21 19:34	1
2,4-Dimethylphenol	ND		8.2	1.5	ug/L		10/11/21 08:49	10/12/21 19:34	1
2,4-Dinitrophenol	ND		16	7.0	ug/L		10/11/21 08:49	10/12/21 19:34	1
2,4-Dinitrotoluene	ND		0.82	0.20	ug/L		10/11/21 08:49	10/12/21 19:34	1
2,6-Dinitrotoluene	ND		0.82	0.060	ug/L		10/11/21 08:49	10/12/21 19:34	1
2-Chloronaphthalene	ND		1.6	0.19	ug/L		10/11/21 08:49	10/12/21 19:34	1
2-Chlorophenol	ND		4.1	0.46	ug/L		10/11/21 08:49	10/12/21 19:34	1
2-Methylnaphthalene	**0.091**	**J**	1.6	0.053	ug/L		10/11/21 08:49	10/12/21 19:34	1
2-Methylphenol	**0.25**	**J**	1.6	0.25	ug/L		10/11/21 08:49	10/12/21 19:34	1
2-Nitroaniline	ND		4.1	1.1	ug/L		10/11/21 08:49	10/12/21 19:34	1
2-Nitrophenol	ND		8.2	2.0	ug/L		10/11/21 08:49	10/12/21 19:34	1
3 & 4 Methylphenol	ND		1.6	0.37	ug/L		10/11/21 08:49	10/12/21 19:34	1
3,3'-Dichlorobenzidine	ND		4.1	1.4	ug/L		10/11/21 08:49	10/12/21 19:34	1
3-Nitroaniline	ND		8.2	1.5	ug/L		10/11/21 08:49	10/12/21 19:34	1
4,6-Dinitro-2-methylphenol	ND		16	4.8	ug/L		10/11/21 08:49	10/12/21 19:34	1
4-Bromophenyl phenyl ether	ND		4.1	0.44	ug/L		10/11/21 08:49	10/12/21 19:34	1
4-Chloro-3-methylphenol	ND		8.2	1.9	ug/L		10/11/21 08:49	10/12/21 19:34	1
4-Chloroaniline	ND		8.2	1.6	ug/L		10/11/21 08:49	10/12/21 19:34	1
4-Chlorophenyl phenyl ether	ND		4.1	0.52	ug/L		10/11/21 08:49	10/12/21 19:34	1
4-Nitroaniline	ND		8.2	1.4	ug/L		10/11/21 08:49	10/12/21 19:34	1
4-Nitrophenol	ND		16	6.1	ug/L		10/11/21 08:49	10/12/21 19:34	1
Acenaphthylene	**1.4**		0.82	0.22	ug/L		10/11/21 08:49	10/12/21 19:34	1
Anthracene	**2.2**		0.82	0.27	ug/L		10/11/21 08:49	10/12/21 19:34	1
Benzo[a]anthracene	**0.19**		0.16	0.046	ug/L		10/11/21 08:49	10/12/21 19:34	1
Benzo[a]pyrene	ND		0.16	0.081	ug/L		10/11/21 08:49	10/12/21 19:34	1
Benzo[b]fluoranthene	ND		0.16	0.066	ug/L		10/11/21 08:49	10/12/21 19:34	1
Benzo[g,h,i]perylene	ND		0.82	0.31	ug/L		10/11/21 08:49	10/12/21 19:34	1
Benzo[k]fluoranthene	ND		0.16	0.052	ug/L		10/11/21 08:49	10/12/21 19:34	1
Benzoic acid	ND		16	4.7	ug/L		10/11/21 08:49	10/12/21 19:34	1
Benzyl alcohol	ND		16	4.9	ug/L		10/11/21 08:49	10/12/21 19:34	1
Bis(2-chloroethoxy)methane	ND		1.6	0.23	ug/L		10/11/21 08:49	10/12/21 19:34	1
Bis(2-chloroethyl)ether	ND		1.6	0.24	ug/L		10/11/21 08:49	10/12/21 19:34	1
Bis(2-ethylhexyl) phthalate	ND		8.2	1.4	ug/L		10/11/21 08:49	10/12/21 19:34	1
Butyl benzyl phthalate	ND		1.6	0.39	ug/L		10/11/21 08:49	10/12/21 19:34	1
Chrysene	**0.26**		0.16	0.056	ug/L		10/11/21 08:49	10/12/21 19:34	1
Dibenz(a,h)anthracene	ND		0.25	0.041	ug/L		10/11/21 08:49	10/12/21 19:34	1
Dibenzofuran	**27**		1.6	0.21	ug/L		10/11/21 08:49	10/12/21 19:34	1
Diethyl phthalate	ND		4.1	0.30	ug/L		10/11/21 08:49	10/12/21 19:34	1
Dimethyl phthalate	ND		4.1	0.26	ug/L		10/11/21 08:49	10/12/21 19:34	1
Di-n-butyl phthalate	ND		4.1	0.60	ug/L		10/11/21 08:49	10/12/21 19:34	1
Di-n-octyl phthalate	ND		8.2	0.86	ug/L		10/11/21 08:49	10/12/21 19:34	1
Fluoranthene	**3.8**		0.82	0.37	ug/L		10/11/21 08:49	10/12/21 19:34	1

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

Job ID: 500-206508-1

Client Sample ID: SUPE-W-10AR2-100621
Date Collected: 10/06/21 14:38
Date Received: 10/08/21 10:25

Lab Sample ID: 500-206508-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	**28**		0.82	0.20	ug/L		10/11/21 08:49	10/12/21 19:34	1
Hexachlorobenzene	ND		0.41	0.065	ug/L		10/11/21 08:49	10/12/21 19:34	1
Hexachlorobutadiene	ND		4.1	0.42	ug/L		10/11/21 08:49	10/12/21 19:34	1
Hexachlorocyclopentadiene	ND		16	5.2	ug/L		10/11/21 08:49	10/12/21 19:34	1
Hexachloroethane	ND		4.1	0.49	ug/L		10/11/21 08:49	10/12/21 19:34	1
Indeno[1,2,3-cd]pyrene	ND		0.16	0.061	ug/L		10/11/21 08:49	10/12/21 19:34	1
Isophorone	ND		1.6	0.31	ug/L		10/11/21 08:49	10/12/21 19:34	1
Nitrobenzene	ND		0.82	0.37	ug/L		10/11/21 08:49	10/12/21 19:34	1
N-Nitrosodi-n-propylamine	ND		0.41	0.13	ug/L		10/11/21 08:49	10/12/21 19:34	1
N-Nitrosodiphenylamine	ND		1.6	0.30	ug/L		10/11/21 08:49	10/12/21 19:34	1
Phenanthrene	**0.52**	**J**	0.82	0.25	ug/L		10/11/21 08:49	10/12/21 19:34	1
Phenol	**2.3**	**J**	4.1	0.55	ug/L		10/11/21 08:49	10/12/21 19:34	1
Pyrene	**2.3**		0.82	0.35	ug/L		10/11/21 08:49	10/12/21 19:34	1
2,3,4,6-Tetrachlorophenol	ND		4.1	0.61	ug/L		10/11/21 08:49	10/12/21 19:34	1
2,3,5,6-Tetrachlorophenol	ND		8.2	3.1	ug/L		10/11/21 08:49	10/12/21 19:34	1
1-Methylnaphthalene	**40**		1.6	0.25	ug/L		10/11/21 08:49	10/12/21 19:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*56*		*27 - 110*	*10/11/21 08:49*	*10/12/21 19:34*	*1*
Phenol-d5 (Surr)	*39*		*20 - 110*	*10/11/21 08:49*	*10/12/21 19:34*	*1*
Nitrobenzene-d5 (Surr)	*80*		*36 - 120*	*10/11/21 08:49*	*10/12/21 19:34*	*1*
2-Fluorobiphenyl	*72*		*34 - 110*	*10/11/21 08:49*	*10/12/21 19:34*	*1*
2,4,6-Tribromophenol (Surr)	*102*		*40 - 145*	*10/11/21 08:49*	*10/12/21 19:34*	*1*
Terphenyl-d14 (Surr)	*91*		*40 - 145*	*10/11/21 08:49*	*10/12/21 19:34*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**120**		8.2	2.5	ug/L		10/11/21 08:49	10/13/21 12:19	10

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

Job ID: 500-206508-1

Client Sample ID: SUPE-M-99A-100621
Date Collected: 10/06/21 20:00
Date Received: 10/08/21 10:25

Lab Sample ID: 500-206508-7
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.8	0.22	ug/L		10/11/21 08:49	10/12/21 19:58	1
1,2-Dichlorobenzene	ND		1.8	0.23	ug/L		10/11/21 08:49	10/12/21 19:58	1
1,3-Dichlorobenzene	ND		1.8	0.19	ug/L		10/11/21 08:49	10/12/21 19:58	1
1,4-Dichlorobenzene	ND		1.8	0.19	ug/L		10/11/21 08:49	10/12/21 19:58	1
bis(chloroisopropyl) ether	ND		1.8	0.35	ug/L		10/11/21 08:49	10/12/21 19:58	1
2,4,5-Trichlorophenol	ND		9.2	2.4	ug/L		10/11/21 08:49	10/12/21 19:58	1
2,4,6-Trichlorophenol	ND		4.6	0.66	ug/L		10/11/21 08:49	10/12/21 19:58	1
2,4-Dichlorophenol	ND		9.2	2.4	ug/L		10/11/21 08:49	10/12/21 19:58	1
2,4-Dimethylphenol	ND		9.2	1.7	ug/L		10/11/21 08:49	10/12/21 19:58	1
2,4-Dinitrophenol	ND		18	7.9	ug/L		10/11/21 08:49	10/12/21 19:58	1
2,4-Dinitrotoluene	ND		0.92	0.23	ug/L		10/11/21 08:49	10/12/21 19:58	1
2,6-Dinitrotoluene	ND		0.92	0.068	ug/L		10/11/21 08:49	10/12/21 19:58	1
2-Chloronaphthalene	ND		1.8	0.22	ug/L		10/11/21 08:49	10/12/21 19:58	1
2-Chlorophenol	ND		4.6	0.51	ug/L		10/11/21 08:49	10/12/21 19:58	1
2-Methylnaphthalene	ND		1.8	0.060	ug/L		10/11/21 08:49	10/12/21 19:58	1
2-Methylphenol	ND		1.8	0.28	ug/L		10/11/21 08:49	10/12/21 19:58	1
2-Nitroaniline	ND		4.6	1.2	ug/L		10/11/21 08:49	10/12/21 19:58	1
2-Nitrophenol	ND		9.2	2.3	ug/L		10/11/21 08:49	10/12/21 19:58	1
3 & 4 Methylphenol	ND		1.8	0.41	ug/L		10/11/21 08:49	10/12/21 19:58	1
3,3'-Dichlorobenzidine	ND		4.6	1.6	ug/L		10/11/21 08:49	10/12/21 19:58	1
3-Nitroaniline	ND		9.2	1.6	ug/L		10/11/21 08:49	10/12/21 19:58	1
4,6-Dinitro-2-methylphenol	ND		18	5.4	ug/L		10/11/21 08:49	10/12/21 19:58	1
4-Bromophenyl phenyl ether	ND		4.6	0.50	ug/L		10/11/21 08:49	10/12/21 19:58	1
4-Chloro-3-methylphenol	ND		9.2	2.1	ug/L		10/11/21 08:49	10/12/21 19:58	1
4-Chloroaniline	ND		9.2	1.9	ug/L		10/11/21 08:49	10/12/21 19:58	1
4-Chlorophenyl phenyl ether	ND		4.6	0.58	ug/L		10/11/21 08:49	10/12/21 19:58	1
4-Nitroaniline	ND		9.2	1.5	ug/L		10/11/21 08:49	10/12/21 19:58	1
4-Nitrophenol	ND		18	6.8	ug/L		10/11/21 08:49	10/12/21 19:58	1
Acenaphthene	ND		0.92	0.28	ug/L		10/11/21 08:49	10/12/21 19:58	1
Acenaphthylene	ND		0.92	0.25	ug/L		10/11/21 08:49	10/12/21 19:58	1
Anthracene	ND		0.92	0.31	ug/L		10/11/21 08:49	10/12/21 19:58	1
Benzo[a]anthracene	ND		0.18	0.052	ug/L		10/11/21 08:49	10/12/21 19:58	1
Benzo[a]pyrene	ND		0.18	0.091	ug/L		10/11/21 08:49	10/12/21 19:58	1
Benzo[b]fluoranthene	ND		0.18	0.074	ug/L		10/11/21 08:49	10/12/21 19:58	1
Benzo[g,h,i]perylene	ND		0.92	0.35	ug/L		10/11/21 08:49	10/12/21 19:58	1
Benzo[k]fluoranthene	ND		0.18	0.059	ug/L		10/11/21 08:49	10/12/21 19:58	1
Benzoic acid	ND		18	5.3	ug/L		10/11/21 08:49	10/12/21 19:58	1
Benzyl alcohol	ND		18	5.6	ug/L		10/11/21 08:49	10/12/21 19:58	1
Bis(2-chloroethoxy)methane	ND		1.8	0.26	ug/L		10/11/21 08:49	10/12/21 19:58	1
Bis(2-chloroethyl)ether	ND		1.8	0.27	ug/L		10/11/21 08:49	10/12/21 19:58	1
Bis(2-ethylhexyl) phthalate	ND		9.2	1.6	ug/L		10/11/21 08:49	10/12/21 19:58	1
Butyl benzyl phthalate	ND		1.8	0.44	ug/L		10/11/21 08:49	10/12/21 19:58	1
Chrysene	ND		0.18	0.063	ug/L		10/11/21 08:49	10/12/21 19:58	1
Dibenz(a,h)anthracene	ND		0.28	0.047	ug/L		10/11/21 08:49	10/12/21 19:58	1
Dibenzofuran	ND		1.8	0.24	ug/L		10/11/21 08:49	10/12/21 19:58	1
Diethyl phthalate	ND		4.6	0.33	ug/L		10/11/21 08:49	10/12/21 19:58	1
Dimethyl phthalate	ND		4.6	0.29	ug/L		10/11/21 08:49	10/12/21 19:58	1
Di-n-butyl phthalate	ND		4.6	0.67	ug/L		10/11/21 08:49	10/12/21 19:58	1
Di-n-octyl phthalate	ND		9.2	0.97	ug/L		10/11/21 08:49	10/12/21 19:58	1

Client: Field & Technical Services LLC
Job ID: 500-206508-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-M-99A-100621
Lab Sample ID: 500-206508-7
Date Collected: 10/06/21 20:00
Matrix: Water
Date Received: 10/08/21 10:25

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		0.92	0.42	ug/L		10/11/21 08:49	10/12/21 19:58	1
Fluorene	ND		0.92	0.22	ug/L		10/11/21 08:49	10/12/21 19:58	1
Hexachlorobenzene	ND		0.46	0.073	ug/L		10/11/21 08:49	10/12/21 19:58	1
Hexachlorobutadiene	ND		4.6	0.47	ug/L		10/11/21 08:49	10/12/21 19:58	1
Hexachlorocyclopentadiene	ND		18	5.9	ug/L		10/11/21 08:49	10/12/21 19:58	1
Hexachloroethane	ND		4.6	0.55	ug/L		10/11/21 08:49	10/12/21 19:58	1
Indeno[1,2,3-cd]pyrene	ND		0.18	0.069	ug/L		10/11/21 08:49	10/12/21 19:58	1
Isophorone	ND		1.8	0.35	ug/L		10/11/21 08:49	10/12/21 19:58	1
Nitrobenzene	ND		0.92	0.41	ug/L		10/11/21 08:49	10/12/21 19:58	1
N-Nitrosodi-n-propylamine	ND		0.46	0.14	ug/L		10/11/21 08:49	10/12/21 19:58	1
N-Nitrosodiphenylamine	ND		1.8	0.34	ug/L		10/11/21 08:49	10/12/21 19:58	1
Phenanthrene	ND		0.92	0.28	ug/L		10/11/21 08:49	10/12/21 19:58	1
Phenol	ND		4.6	0.62	ug/L		10/11/21 08:49	10/12/21 19:58	1
Pyrene	ND		0.92	0.39	ug/L		10/11/21 08:49	10/12/21 19:58	1
2,3,4,6-Tetrachlorophenol	ND		4.6	0.69	ug/L		10/11/21 08:49	10/12/21 19:58	1
2,3,5,6-Tetrachlorophenol	ND		9.2	3.5	ug/L		10/11/21 08:49	10/12/21 19:58	1
1-Methylnaphthalene	ND		1.8	0.28	ug/L		10/11/21 08:49	10/12/21 19:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*64*		*27 - 110*	*10/11/21 08:49*	*10/12/21 19:58*	*1*
Phenol-d5 (Surr)	*48*		*20 - 110*	*10/11/21 08:49*	*10/12/21 19:58*	*1*
Nitrobenzene-d5 (Surr)	*88*		*36 - 120*	*10/11/21 08:49*	*10/12/21 19:58*	*1*
2-Fluorobiphenyl	*80*		*34 - 110*	*10/11/21 08:49*	*10/12/21 19:58*	*1*
2,4,6-Tribromophenol (Surr)	*108*		*40 - 145*	*10/11/21 08:49*	*10/12/21 19:58*	*1*
Terphenyl-d14 (Surr)	*111*		*40 - 145*	*10/11/21 08:49*	*10/12/21 19:58*	*1*

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

Job ID: 500-206508-1

Client Sample ID: SUPE-W-30C-100621
Date Collected: 10/06/21 09:20
Date Received: 10/08/21 10:25

Lab Sample ID: 500-206508-8
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.5	0.18	ug/L		10/11/21 08:49	10/12/21 20:21	1
1,2-Dichlorobenzene	ND		1.5	0.19	ug/L		10/11/21 08:49	10/12/21 20:21	1
1,3-Dichlorobenzene	ND		1.5	0.16	ug/L		10/11/21 08:49	10/12/21 20:21	1
1,4-Dichlorobenzene	ND		1.5	0.16	ug/L		10/11/21 08:49	10/12/21 20:21	1
bis(chloroisopropyl) ether	ND		1.5	0.29	ug/L		10/11/21 08:49	10/12/21 20:21	1
2,4,5-Trichlorophenol	ND		7.7	2.0	ug/L		10/11/21 08:49	10/12/21 20:21	1
2,4,6-Trichlorophenol	ND		3.8	0.55	ug/L		10/11/21 08:49	10/12/21 20:21	1
2,4-Dichlorophenol	ND		7.7	2.0	ug/L		10/11/21 08:49	10/12/21 20:21	1
2,4-Dimethylphenol	ND		7.7	1.4	ug/L		10/11/21 08:49	10/12/21 20:21	1
2,4-Dinitrophenol	ND		15	6.6	ug/L		10/11/21 08:49	10/12/21 20:21	1
2,4-Dinitrotoluene	ND		0.77	0.19	ug/L		10/11/21 08:49	10/12/21 20:21	1
2,6-Dinitrotoluene	ND		0.77	0.056	ug/L		10/11/21 08:49	10/12/21 20:21	1
2-Chloronaphthalene	ND		1.5	0.18	ug/L		10/11/21 08:49	10/12/21 20:21	1
2-Chlorophenol	ND		3.8	0.43	ug/L		10/11/21 08:49	10/12/21 20:21	1
2-Methylnaphthalene	ND		1.5	0.050	ug/L		10/11/21 08:49	10/12/21 20:21	1
2-Methylphenol	ND		1.5	0.23	ug/L		10/11/21 08:49	10/12/21 20:21	1
2-Nitroaniline	ND		3.8	0.99	ug/L		10/11/21 08:49	10/12/21 20:21	1
2-Nitrophenol	ND		7.7	1.9	ug/L		10/11/21 08:49	10/12/21 20:21	1
3 & 4 Methylphenol	ND		1.5	0.34	ug/L		10/11/21 08:49	10/12/21 20:21	1
3,3'-Dichlorobenzidine	ND		3.8	1.3	ug/L		10/11/21 08:49	10/12/21 20:21	1
3-Nitroaniline	ND		7.7	1.4	ug/L		10/11/21 08:49	10/12/21 20:21	1
4,6-Dinitro-2-methylphenol	ND		15	4.5	ug/L		10/11/21 08:49	10/12/21 20:21	1
4-Bromophenyl phenyl ether	ND		3.8	0.41	ug/L		10/11/21 08:49	10/12/21 20:21	1
4-Chloro-3-methylphenol	ND		7.7	1.8	ug/L		10/11/21 08:49	10/12/21 20:21	1
4-Chloroaniline	ND		7.7	1.5	ug/L		10/11/21 08:49	10/12/21 20:21	1
4-Chlorophenyl phenyl ether	ND		3.8	0.49	ug/L		10/11/21 08:49	10/12/21 20:21	1
4-Nitroaniline	ND		7.7	1.3	ug/L		10/11/21 08:49	10/12/21 20:21	1
4-Nitrophenol	ND		15	5.7	ug/L		10/11/21 08:49	10/12/21 20:21	1
Acenaphthene	ND		0.77	0.24	ug/L		10/11/21 08:49	10/12/21 20:21	1
Acenaphthylene	ND		0.77	0.20	ug/L		10/11/21 08:49	10/12/21 20:21	1
Anthracene	ND		0.77	0.26	ug/L		10/11/21 08:49	10/12/21 20:21	1
Benzo[a]anthracene	ND		0.15	0.043	ug/L		10/11/21 08:49	10/12/21 20:21	1
Benzo[a]pyrene	ND		0.15	0.076	ug/L		10/11/21 08:49	10/12/21 20:21	1
Benzo[b]fluoranthene	ND		0.15	0.062	ug/L		10/11/21 08:49	10/12/21 20:21	1
Benzo[g,h,i]perylene	ND		0.77	0.29	ug/L		10/11/21 08:49	10/12/21 20:21	1
Benzo[k]fluoranthene	ND		0.15	0.049	ug/L		10/11/21 08:49	10/12/21 20:21	1
Benzoic acid	ND		15	4.4	ug/L		10/11/21 08:49	10/12/21 20:21	1
Benzyl alcohol	ND		15	4.6	ug/L		10/11/21 08:49	10/12/21 20:21	1
Bis(2-chloroethoxy)methane	ND		1.5	0.22	ug/L		10/11/21 08:49	10/12/21 20:21	1
Bis(2-chloroethyl)ether	ND		1.5	0.22	ug/L		10/11/21 08:49	10/12/21 20:21	1
Bis(2-ethylhexyl) phthalate	ND		7.7	1.3	ug/L		10/11/21 08:49	10/12/21 20:21	1
Butyl benzyl phthalate	ND		1.5	0.37	ug/L		10/11/21 08:49	10/12/21 20:21	1
Chrysene	ND		0.15	0.052	ug/L		10/11/21 08:49	10/12/21 20:21	1
Dibenz(a,h)anthracene	ND		0.23	0.039	ug/L		10/11/21 08:49	10/12/21 20:21	1
Dibenzofuran	ND		1.5	0.20	ug/L		10/11/21 08:49	10/12/21 20:21	1
Diethyl phthalate	ND		3.8	0.28	ug/L		10/11/21 08:49	10/12/21 20:21	1
Dimethyl phthalate	ND		3.8	0.24	ug/L		10/11/21 08:49	10/12/21 20:21	1
Di-n-butyl phthalate	ND		3.8	0.56	ug/L		10/11/21 08:49	10/12/21 20:21	1
Di-n-octyl phthalate	ND		7.7	0.80	ug/L		10/11/21 08:49	10/12/21 20:21	1

Client: Field & Technical Services LLC
Job ID: 500-206508-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-30C-100621
Lab Sample ID: 500-206508-8
Date Collected: 10/06/21 09:20
Matrix: Water
Date Received: 10/08/21 10:25

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		0.77	0.35	ug/L		10/11/21 08:49	10/12/21 20:21	1
Fluorene	ND		0.77	0.19	ug/L		10/11/21 08:49	10/12/21 20:21	1
Hexachlorobenzene	ND		0.38	0.061	ug/L		10/11/21 08:49	10/12/21 20:21	1
Hexachlorobutadiene	ND		3.8	0.39	ug/L		10/11/21 08:49	10/12/21 20:21	1
Hexachlorocyclopentadiene	ND		15	4.9	ug/L		10/11/21 08:49	10/12/21 20:21	1
Hexachloroethane	ND		3.8	0.46	ug/L		10/11/21 08:49	10/12/21 20:21	1
Indeno[1,2,3-cd]pyrene	ND		0.15	0.057	ug/L		10/11/21 08:49	10/12/21 20:21	1
Isophorone	ND		1.5	0.29	ug/L		10/11/21 08:49	10/12/21 20:21	1
Nitrobenzene	ND		0.77	0.34	ug/L		10/11/21 08:49	10/12/21 20:21	1
N-Nitrosodi-n-propylamine	ND		0.38	0.12	ug/L		10/11/21 08:49	10/12/21 20:21	1
N-Nitrosodiphenylamine	ND		1.5	0.28	ug/L		10/11/21 08:49	10/12/21 20:21	1
Phenanthrene	ND		0.77	0.23	ug/L		10/11/21 08:49	10/12/21 20:21	1
Phenol	ND		3.8	0.51	ug/L		10/11/21 08:49	10/12/21 20:21	1
Pyrene	ND		0.77	0.33	ug/L		10/11/21 08:49	10/12/21 20:21	1
2,3,4,6-Tetrachlorophenol	ND		3.8	0.57	ug/L		10/11/21 08:49	10/12/21 20:21	1
2,3,5,6-Tetrachlorophenol	ND		7.7	2.9	ug/L		10/11/21 08:49	10/12/21 20:21	1
1-Methylnaphthalene	ND		1.5	0.23	ug/L		10/11/21 08:49	10/12/21 20:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*59*		*27 - 110*	*10/11/21 08:49*	*10/12/21 20:21*	*1*
Phenol-d5 (Surr)	*41*		*20 - 110*	*10/11/21 08:49*	*10/12/21 20:21*	*1*
Nitrobenzene-d5 (Surr)	*86*		*36 - 120*	*10/11/21 08:49*	*10/12/21 20:21*	*1*
2-Fluorobiphenyl	*84*		*34 - 110*	*10/11/21 08:49*	*10/12/21 20:21*	*1*
2,4,6-Tribromophenol (Surr)	*108*		*40 - 145*	*10/11/21 08:49*	*10/12/21 20:21*	*1*
Terphenyl-d14 (Surr)	*100*		*40 - 145*	*10/11/21 08:49*	*10/12/21 20:21*	*1*

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

Job ID: 500-206508-1

Client Sample ID: SUPE-W-06C-100621
Date Collected: 10/06/21 10:20
Date Received: 10/08/21 10:25

Lab Sample ID: 500-206508-9
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.6	0.19	ug/L		10/11/21 08:49	10/12/21 21:57	1
1,2-Dichlorobenzene	ND		1.6	0.20	ug/L		10/11/21 08:49	10/12/21 21:57	1
1,3-Dichlorobenzene	ND		1.6	0.17	ug/L		10/11/21 08:49	10/12/21 21:57	1
1,4-Dichlorobenzene	ND		1.6	0.17	ug/L		10/11/21 08:49	10/12/21 21:57	1
bis(chloroisopropyl) ether	ND		1.6	0.30	ug/L		10/11/21 08:49	10/12/21 21:57	1
2,4,5-Trichlorophenol	ND		8.0	2.0	ug/L		10/11/21 08:49	10/12/21 21:57	1
2,4,6-Trichlorophenol	ND		4.0	0.57	ug/L		10/11/21 08:49	10/12/21 21:57	1
2,4-Dichlorophenol	ND		8.0	2.1	ug/L		10/11/21 08:49	10/12/21 21:57	1
2,4-Dimethylphenol	ND		8.0	1.4	ug/L		10/11/21 08:49	10/12/21 21:57	1
2,4-Dinitrophenol	ND		16	6.9	ug/L		10/11/21 08:49	10/12/21 21:57	1
2,4-Dinitrotoluene	ND		0.80	0.20	ug/L		10/11/21 08:49	10/12/21 21:57	1
2,6-Dinitrotoluene	ND		0.80	0.059	ug/L		10/11/21 08:49	10/12/21 21:57	1
2-Chloronaphthalene	ND		1.6	0.19	ug/L		10/11/21 08:49	10/12/21 21:57	1
2-Chlorophenol	ND		4.0	0.45	ug/L		10/11/21 08:49	10/12/21 21:57	1
2-Methylnaphthalene	ND		1.6	0.052	ug/L		10/11/21 08:49	10/12/21 21:57	1
2-Methylphenol	ND		1.6	0.24	ug/L		10/11/21 08:49	10/12/21 21:57	1
2-Nitroaniline	ND		4.0	1.0	ug/L		10/11/21 08:49	10/12/21 21:57	1
2-Nitrophenol	ND		8.0	2.0	ug/L		10/11/21 08:49	10/12/21 21:57	1
3 & 4 Methylphenol	ND		1.6	0.36	ug/L		10/11/21 08:49	10/12/21 21:57	1
3,3'-Dichlorobenzidine	ND		4.0	1.4	ug/L		10/11/21 08:49	10/12/21 21:57	1
3-Nitroaniline	ND		8.0	1.4	ug/L		10/11/21 08:49	10/12/21 21:57	1
4,6-Dinitro-2-methylphenol	ND		16	4.7	ug/L		10/11/21 08:49	10/12/21 21:57	1
4-Bromophenyl phenyl ether	ND		4.0	0.43	ug/L		10/11/21 08:49	10/12/21 21:57	1
4-Chloro-3-methylphenol	ND		8.0	1.8	ug/L		10/11/21 08:49	10/12/21 21:57	1
4-Chloroaniline	ND		8.0	1.6	ug/L		10/11/21 08:49	10/12/21 21:57	1
4-Chlorophenyl phenyl ether	ND		4.0	0.51	ug/L		10/11/21 08:49	10/12/21 21:57	1
4-Nitroaniline	ND		8.0	1.3	ug/L		10/11/21 08:49	10/12/21 21:57	1
4-Nitrophenol	ND		16	5.9	ug/L		10/11/21 08:49	10/12/21 21:57	1
Acenaphthene	ND		0.80	0.25	ug/L		10/11/21 08:49	10/12/21 21:57	1
Acenaphthylene	ND		0.80	0.21	ug/L		10/11/21 08:49	10/12/21 21:57	1
Anthracene	ND		0.80	0.27	ug/L		10/11/21 08:49	10/12/21 21:57	1
Benzo[a]anthracene	ND		0.16	0.045	ug/L		10/11/21 08:49	10/12/21 21:57	1
Benzo[a]pyrene	ND		0.16	0.079	ug/L		10/11/21 08:49	10/12/21 21:57	1
Benzo[b]fluoranthene	ND		0.16	0.064	ug/L		10/11/21 08:49	10/12/21 21:57	1
Benzo[g,h,i]perylene	ND		0.80	0.30	ug/L		10/11/21 08:49	10/12/21 21:57	1
Benzo[k]fluoranthene	ND		0.16	0.051	ug/L		10/11/21 08:49	10/12/21 21:57	1
Benzoic acid	ND		16	4.6	ug/L		10/11/21 08:49	10/12/21 21:57	1
Benzyl alcohol	ND		16	4.8	ug/L		10/11/21 08:49	10/12/21 21:57	1
Bis(2-chloroethoxy)methane	ND		1.6	0.23	ug/L		10/11/21 08:49	10/12/21 21:57	1
Bis(2-chloroethyl)ether	ND		1.6	0.23	ug/L		10/11/21 08:49	10/12/21 21:57	1
Bis(2-ethylhexyl) phthalate	ND		8.0	1.4	ug/L		10/11/21 08:49	10/12/21 21:57	1
Butyl benzyl phthalate	ND		1.6	0.38	ug/L		10/11/21 08:49	10/12/21 21:57	1
Chrysene	ND		0.16	0.054	ug/L		10/11/21 08:49	10/12/21 21:57	1
Dibenz(a,h)anthracene	ND		0.24	0.040	ug/L		10/11/21 08:49	10/12/21 21:57	1
Dibenzofuran	ND		1.6	0.21	ug/L		10/11/21 08:49	10/12/21 21:57	1
Diethyl phthalate	ND		4.0	0.29	ug/L		10/11/21 08:49	10/12/21 21:57	1
Dimethyl phthalate	ND		4.0	0.25	ug/L		10/11/21 08:49	10/12/21 21:57	1
Di-n-butyl phthalate	ND		4.0	0.58	ug/L		10/11/21 08:49	10/12/21 21:57	1
Di-n-octyl phthalate	ND		8.0	0.84	ug/L		10/11/21 08:49	10/12/21 21:57	1

Client: Field & Technical Services LLC
Job ID: 500-206508-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-06C-100621
Lab Sample ID: 500-206508-9
Date Collected: 10/06/21 10:20
Matrix: Water
Date Received: 10/08/21 10:25

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		0.80	0.36	ug/L		10/11/21 08:49	10/12/21 21:57	1
Fluorene	ND		0.80	0.19	ug/L		10/11/21 08:49	10/12/21 21:57	1
Hexachlorobenzene	ND		0.40	0.063	ug/L		10/11/21 08:49	10/12/21 21:57	1
Hexachlorobutadiene	ND		4.0	0.41	ug/L		10/11/21 08:49	10/12/21 21:57	1
Hexachlorocyclopentadiene	ND		16	5.1	ug/L		10/11/21 08:49	10/12/21 21:57	1
Hexachloroethane	ND		4.0	0.48	ug/L		10/11/21 08:49	10/12/21 21:57	1
Indeno[1,2,3-cd]pyrene	ND		0.16	0.060	ug/L		10/11/21 08:49	10/12/21 21:57	1
Isophorone	ND		1.6	0.30	ug/L		10/11/21 08:49	10/12/21 21:57	1
Nitrobenzene	ND		0.80	0.36	ug/L		10/11/21 08:49	10/12/21 21:57	1
N-Nitrosodi-n-propylamine	ND		0.40	0.12	ug/L		10/11/21 08:49	10/12/21 21:57	1
N-Nitrosodiphenylamine	ND		1.6	0.30	ug/L		10/11/21 08:49	10/12/21 21:57	1
Phenanthrene	ND		0.80	0.24	ug/L		10/11/21 08:49	10/12/21 21:57	1
Phenol	ND		4.0	0.54	ug/L		10/11/21 08:49	10/12/21 21:57	1
Pyrene	ND		0.80	0.34	ug/L		10/11/21 08:49	10/12/21 21:57	1
2,3,4,6-Tetrachlorophenol	ND		4.0	0.60	ug/L		10/11/21 08:49	10/12/21 21:57	1
2,3,5,6-Tetrachlorophenol	ND		8.0	3.1	ug/L		10/11/21 08:49	10/12/21 21:57	1
1-Methylnaphthalene	ND		1.6	0.24	ug/L		10/11/21 08:49	10/12/21 21:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*56*		*27 - 110*	*10/11/21 08:49*	*10/12/21 21:57*	*1*
Phenol-d5 (Surr)	*40*		*20 - 110*	*10/11/21 08:49*	*10/12/21 21:57*	*1*
Nitrobenzene-d5 (Surr)	*81*		*36 - 120*	*10/11/21 08:49*	*10/12/21 21:57*	*1*
2-Fluorobiphenyl	*76*		*34 - 110*	*10/11/21 08:49*	*10/12/21 21:57*	*1*
2,4,6-Tribromophenol (Surr)	*109*		*40 - 145*	*10/11/21 08:49*	*10/12/21 21:57*	*1*
Terphenyl-d14 (Surr)	*100*		*40 - 145*	*10/11/21 08:49*	*10/12/21 21:57*	*1*

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

Job ID: 500-206508-1

Client Sample ID: SUPE-W-12CR-100621
Date Collected: 10/06/21 11:47
Date Received: 10/08/21 10:25

Lab Sample ID: 500-206508-10
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.6	0.19	ug/L		10/11/21 08:49	10/12/21 20:45	1
1,2-Dichlorobenzene	ND		1.6	0.19	ug/L		10/11/21 08:49	10/12/21 20:45	1
1,3-Dichlorobenzene	ND		1.6	0.17	ug/L		10/11/21 08:49	10/12/21 20:45	1
1,4-Dichlorobenzene	ND		1.6	0.17	ug/L		10/11/21 08:49	10/12/21 20:45	1
bis(chloroisopropyl) ether	ND		1.6	0.30	ug/L		10/11/21 08:49	10/12/21 20:45	1
2,4,5-Trichlorophenol	ND		7.9	2.0	ug/L		10/11/21 08:49	10/12/21 20:45	1
2,4,6-Trichlorophenol	**1.4**	**J**	4.0	0.57	ug/L		10/11/21 08:49	10/12/21 20:45	1
2,4-Dichlorophenol	ND		7.9	2.1	ug/L		10/11/21 08:49	10/12/21 20:45	1
2,4-Dimethylphenol	ND		7.9	1.4	ug/L		10/11/21 08:49	10/12/21 20:45	1
2,4-Dinitrophenol	ND		16	6.8	ug/L		10/11/21 08:49	10/12/21 20:45	1
2,4-Dinitrotoluene	ND		0.79	0.19	ug/L		10/11/21 08:49	10/12/21 20:45	1
2,6-Dinitrotoluene	ND		0.79	0.058	ug/L		10/11/21 08:49	10/12/21 20:45	1
2-Chloronaphthalene	ND		1.6	0.19	ug/L		10/11/21 08:49	10/12/21 20:45	1
2-Chlorophenol	ND		4.0	0.44	ug/L		10/11/21 08:49	10/12/21 20:45	1
2-Methylnaphthalene	ND		1.6	0.051	ug/L		10/11/21 08:49	10/12/21 20:45	1
2-Methylphenol	ND		1.6	0.24	ug/L		10/11/21 08:49	10/12/21 20:45	1
2-Nitroaniline	ND		4.0	1.0	ug/L		10/11/21 08:49	10/12/21 20:45	1
2-Nitrophenol	ND		7.9	2.0	ug/L		10/11/21 08:49	10/12/21 20:45	1
3 & 4 Methylphenol	ND		1.6	0.35	ug/L		10/11/21 08:49	10/12/21 20:45	1
3,3'-Dichlorobenzidine	ND		4.0	1.4	ug/L		10/11/21 08:49	10/12/21 20:45	1
3-Nitroaniline	ND		7.9	1.4	ug/L		10/11/21 08:49	10/12/21 20:45	1
4,6-Dinitro-2-methylphenol	ND		16	4.7	ug/L		10/11/21 08:49	10/12/21 20:45	1
4-Bromophenyl phenyl ether	ND		4.0	0.43	ug/L		10/11/21 08:49	10/12/21 20:45	1
4-Chloro-3-methylphenol	ND		7.9	1.8	ug/L		10/11/21 08:49	10/12/21 20:45	1
4-Chloroaniline	ND		7.9	1.6	ug/L		10/11/21 08:49	10/12/21 20:45	1
4-Chlorophenyl phenyl ether	ND		4.0	0.50	ug/L		10/11/21 08:49	10/12/21 20:45	1
4-Nitroaniline	ND		7.9	1.3	ug/L		10/11/21 08:49	10/12/21 20:45	1
4-Nitrophenol	ND		16	5.9	ug/L		10/11/21 08:49	10/12/21 20:45	1
Acenaphthene	ND		0.79	0.24	ug/L		10/11/21 08:49	10/12/21 20:45	1
Acenaphthylene	ND		0.79	0.21	ug/L		10/11/21 08:49	10/12/21 20:45	1
Anthracene	ND		0.79	0.26	ug/L		10/11/21 08:49	10/12/21 20:45	1
Benzo[a]anthracene	ND		0.16	0.045	ug/L		10/11/21 08:49	10/12/21 20:45	1
Benzo[a]pyrene	ND		0.16	0.078	ug/L		10/11/21 08:49	10/12/21 20:45	1
Benzo[b]fluoranthene	ND		0.16	0.064	ug/L		10/11/21 08:49	10/12/21 20:45	1
Benzo[g,h,i]perylene	ND		0.79	0.30	ug/L		10/11/21 08:49	10/12/21 20:45	1
Benzo[k]fluoranthene	ND		0.16	0.051	ug/L		10/11/21 08:49	10/12/21 20:45	1
Benzoic acid	ND		16	4.6	ug/L		10/11/21 08:49	10/12/21 20:45	1
Benzyl alcohol	ND		16	4.8	ug/L		10/11/21 08:49	10/12/21 20:45	1
Bis(2-chloroethoxy)methane	ND		1.6	0.22	ug/L		10/11/21 08:49	10/12/21 20:45	1
Bis(2-chloroethyl)ether	ND		1.6	0.23	ug/L		10/11/21 08:49	10/12/21 20:45	1
Bis(2-ethylhexyl) phthalate	ND		7.9	1.4	ug/L		10/11/21 08:49	10/12/21 20:45	1
Butyl benzyl phthalate	ND		1.6	0.38	ug/L		10/11/21 08:49	10/12/21 20:45	1
Chrysene	ND		0.16	0.054	ug/L		10/11/21 08:49	10/12/21 20:45	1
Dibenz(a,h)anthracene	ND		0.24	0.040	ug/L		10/11/21 08:49	10/12/21 20:45	1
Dibenzofuran	ND		1.6	0.21	ug/L		10/11/21 08:49	10/12/21 20:45	1
Diethyl phthalate	ND		4.0	0.29	ug/L		10/11/21 08:49	10/12/21 20:45	1
Dimethyl phthalate	ND		4.0	0.25	ug/L		10/11/21 08:49	10/12/21 20:45	1
Di-n-butyl phthalate	ND		4.0	0.58	ug/L		10/11/21 08:49	10/12/21 20:45	1
Di-n-octyl phthalate	ND		7.9	0.83	ug/L		10/11/21 08:49	10/12/21 20:45	1

Client: Field & Technical Services LLC
Job ID: 500-206508-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-12CR-100621
Lab Sample ID: 500-206508-10
Date Collected: 10/06/21 11:47
Matrix: Water
Date Received: 10/08/21 10:25

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		0.79	0.36	ug/L		10/11/21 08:49	10/12/21 20:45	1
Fluorene	ND		0.79	0.19	ug/L		10/11/21 08:49	10/12/21 20:45	1
Hexachlorobenzene	ND		0.40	0.063	ug/L		10/11/21 08:49	10/12/21 20:45	1
Hexachlorobutadiene	ND		4.0	0.41	ug/L		10/11/21 08:49	10/12/21 20:45	1
Hexachlorocyclopentadiene	ND		16	5.0	ug/L		10/11/21 08:49	10/12/21 20:45	1
Hexachloroethane	ND		4.0	0.47	ug/L		10/11/21 08:49	10/12/21 20:45	1
Indeno[1,2,3-cd]pyrene	ND		0.16	0.059	ug/L		10/11/21 08:49	10/12/21 20:45	1
Isophorone	ND		1.6	0.30	ug/L		10/11/21 08:49	10/12/21 20:45	1
Nitrobenzene	ND		0.79	0.35	ug/L		10/11/21 08:49	10/12/21 20:45	1
N-Nitrosodi-n-propylamine	ND		0.40	0.12	ug/L		10/11/21 08:49	10/12/21 20:45	1
N-Nitrosodiphenylamine	ND		1.6	0.29	ug/L		10/11/21 08:49	10/12/21 20:45	1
Phenanthrene	ND		0.79	0.24	ug/L		10/11/21 08:49	10/12/21 20:45	1
Phenol	ND		4.0	0.53	ug/L		10/11/21 08:49	10/12/21 20:45	1
Pyrene	ND		0.79	0.34	ug/L		10/11/21 08:49	10/12/21 20:45	1
2,3,4,6-Tetrachlorophenol	ND		4.0	0.59	ug/L		10/11/21 08:49	10/12/21 20:45	1
2,3,5,6-Tetrachlorophenol	ND		7.9	3.0	ug/L		10/11/21 08:49	10/12/21 20:45	1
1-Methylnaphthalene	ND		1.6	0.24	ug/L		10/11/21 08:49	10/12/21 20:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*55*		*27 - 110*	*10/11/21 08:49*	*10/12/21 20:45*	*1*
Phenol-d5 (Surr)	*37*		*20 - 110*	*10/11/21 08:49*	*10/12/21 20:45*	*1*
Nitrobenzene-d5 (Surr)	*90*		*36 - 120*	*10/11/21 08:49*	*10/12/21 20:45*	*1*
2-Fluorobiphenyl	*85*		*34 - 110*	*10/11/21 08:49*	*10/12/21 20:45*	*1*
2,4,6-Tribromophenol (Surr)	*109*		*40 - 145*	*10/11/21 08:49*	*10/12/21 20:45*	*1*
Terphenyl-d14 (Surr)	*103*		*40 - 145*	*10/11/21 08:49*	*10/12/21 20:45*	*1*

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

Job ID: 500-206508-1

Client Sample ID: SUPE-W-12A-100621
Date Collected: 10/06/21 12:48
Date Received: 10/08/21 10:25

Lab Sample ID: 500-206508-11
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.5	0.17	ug/L		10/11/21 08:49	10/12/21 21:09	1
1,2-Dichlorobenzene	ND		1.5	0.18	ug/L		10/11/21 08:49	10/12/21 21:09	1
1,3-Dichlorobenzene	ND		1.5	0.15	ug/L		10/11/21 08:49	10/12/21 21:09	1
1,4-Dichlorobenzene	ND		1.5	0.15	ug/L		10/11/21 08:49	10/12/21 21:09	1
bis(chloroisopropyl) ether	ND		1.5	0.28	ug/L		10/11/21 08:49	10/12/21 21:09	1
2,4,5-Trichlorophenol	ND		7.4	1.9	ug/L		10/11/21 08:49	10/12/21 21:09	1
2,4,6-Trichlorophenol	ND		3.7	0.53	ug/L		10/11/21 08:49	10/12/21 21:09	1
2,4-Dichlorophenol	ND		7.4	1.9	ug/L		10/11/21 08:49	10/12/21 21:09	1
2,4-Dimethylphenol	ND		7.4	1.3	ug/L		10/11/21 08:49	10/12/21 21:09	1
2,4-Dinitrophenol	ND		15	6.3	ug/L		10/11/21 08:49	10/12/21 21:09	1
2,4-Dinitrotoluene	ND		0.74	0.18	ug/L		10/11/21 08:49	10/12/21 21:09	1
2,6-Dinitrotoluene	ND		0.74	0.054	ug/L		10/11/21 08:49	10/12/21 21:09	1
2-Chloronaphthalene	ND		1.5	0.17	ug/L		10/11/21 08:49	10/12/21 21:09	1
2-Chlorophenol	ND		3.7	0.41	ug/L		10/11/21 08:49	10/12/21 21:09	1
2-Methylnaphthalene	ND		1.5	0.048	ug/L		10/11/21 08:49	10/12/21 21:09	1
2-Methylphenol	ND		1.5	0.22	ug/L		10/11/21 08:49	10/12/21 21:09	1
2-Nitroaniline	ND		3.7	0.95	ug/L		10/11/21 08:49	10/12/21 21:09	1
2-Nitrophenol	ND		7.4	1.8	ug/L		10/11/21 08:49	10/12/21 21:09	1
3 & 4 Methylphenol	ND		1.5	0.33	ug/L		10/11/21 08:49	10/12/21 21:09	1
3,3'-Dichlorobenzidine	ND		3.7	1.3	ug/L		10/11/21 08:49	10/12/21 21:09	1
3-Nitroaniline	ND		7.4	1.3	ug/L		10/11/21 08:49	10/12/21 21:09	1
4,6-Dinitro-2-methylphenol	ND		15	4.3	ug/L		10/11/21 08:49	10/12/21 21:09	1
4-Bromophenyl phenyl ether	ND		3.7	0.40	ug/L		10/11/21 08:49	10/12/21 21:09	1
4-Chloro-3-methylphenol	ND		7.4	1.7	ug/L		10/11/21 08:49	10/12/21 21:09	1
4-Chloroaniline	ND		7.4	1.5	ug/L		10/11/21 08:49	10/12/21 21:09	1
4-Chlorophenyl phenyl ether	ND		3.7	0.47	ug/L		10/11/21 08:49	10/12/21 21:09	1
4-Nitroaniline	ND		7.4	1.2	ug/L		10/11/21 08:49	10/12/21 21:09	1
4-Nitrophenol	ND		15	5.5	ug/L		10/11/21 08:49	10/12/21 21:09	1
Acenaphthene	ND		0.74	0.23	ug/L		10/11/21 08:49	10/12/21 21:09	1
Acenaphthylene	ND		0.74	0.20	ug/L		10/11/21 08:49	10/12/21 21:09	1
Anthracene	ND		0.74	0.25	ug/L		10/11/21 08:49	10/12/21 21:09	1
Benzo[a]anthracene	ND		0.15	0.042	ug/L		10/11/21 08:49	10/12/21 21:09	1
Benzo[a]pyrene	ND		0.15	0.073	ug/L		10/11/21 08:49	10/12/21 21:09	1
Benzo[b]fluoranthene	ND		0.15	0.059	ug/L		10/11/21 08:49	10/12/21 21:09	1
Benzo[g,h,i]perylene	ND		0.74	0.28	ug/L		10/11/21 08:49	10/12/21 21:09	1
Benzo[k]fluoranthene	ND		0.15	0.047	ug/L		10/11/21 08:49	10/12/21 21:09	1
Benzoic acid	ND		15	4.2	ug/L		10/11/21 08:49	10/12/21 21:09	1
Benzyl alcohol	ND		15	4.5	ug/L		10/11/21 08:49	10/12/21 21:09	1
Bis(2-chloroethoxy)methane	ND		1.5	0.21	ug/L		10/11/21 08:49	10/12/21 21:09	1
Bis(2-chloroethyl)ether	ND		1.5	0.22	ug/L		10/11/21 08:49	10/12/21 21:09	1
Bis(2-ethylhexyl) phthalate	ND		7.4	1.3	ug/L		10/11/21 08:49	10/12/21 21:09	1
Butyl benzyl phthalate	ND		1.5	0.35	ug/L		10/11/21 08:49	10/12/21 21:09	1
Chrysene	ND		0.15	0.050	ug/L		10/11/21 08:49	10/12/21 21:09	1
Dibenz(a,h)anthracene	ND		0.22	0.037	ug/L		10/11/21 08:49	10/12/21 21:09	1
Dibenzofuran	ND		1.5	0.19	ug/L		10/11/21 08:49	10/12/21 21:09	1
Diethyl phthalate	ND		3.7	0.27	ug/L		10/11/21 08:49	10/12/21 21:09	1
Dimethyl phthalate	ND		3.7	0.23	ug/L		10/11/21 08:49	10/12/21 21:09	1
Di-n-butyl phthalate	ND		3.7	0.54	ug/L		10/11/21 08:49	10/12/21 21:09	1
Di-n-octyl phthalate	ND		7.4	0.77	ug/L		10/11/21 08:49	10/12/21 21:09	1

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

Job ID: 500-206508-1

Client Sample ID: SUPE-W-12A-100621
Date Collected: 10/06/21 12:48
Date Received: 10/08/21 10:25

Lab Sample ID: 500-206508-11
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		0.74	0.33	ug/L		10/11/21 08:49	10/12/21 21:09	1
Fluorene	ND		0.74	0.18	ug/L		10/11/21 08:49	10/12/21 21:09	1
Hexachlorobenzene	ND		0.37	0.059	ug/L		10/11/21 08:49	10/12/21 21:09	1
Hexachlorobutadiene	ND		3.7	0.38	ug/L		10/11/21 08:49	10/12/21 21:09	1
Hexachlorocyclopentadiene	ND		15	4.7	ug/L		10/11/21 08:49	10/12/21 21:09	1
Hexachloroethane	ND		3.7	0.44	ug/L		10/11/21 08:49	10/12/21 21:09	1
Indeno[1,2,3-cd]pyrene	ND		0.15	0.055	ug/L		10/11/21 08:49	10/12/21 21:09	1
Isophorone	ND		1.5	0.28	ug/L		10/11/21 08:49	10/12/21 21:09	1
Nitrobenzene	ND		0.74	0.33	ug/L		10/11/21 08:49	10/12/21 21:09	1
N-Nitrosodi-n-propylamine	ND		0.37	0.11	ug/L		10/11/21 08:49	10/12/21 21:09	1
N-Nitrosodiphenylamine	ND		1.5	0.27	ug/L		10/11/21 08:49	10/12/21 21:09	1
Phenanthrene	ND		0.74	0.22	ug/L		10/11/21 08:49	10/12/21 21:09	1
Phenol	ND		3.7	0.49	ug/L		10/11/21 08:49	10/12/21 21:09	1
Pyrene	ND		0.74	0.31	ug/L		10/11/21 08:49	10/12/21 21:09	1
2,3,4,6-Tetrachlorophenol	ND		3.7	0.55	ug/L		10/11/21 08:49	10/12/21 21:09	1
2,3,5,6-Tetrachlorophenol	ND		7.4	2.8	ug/L		10/11/21 08:49	10/12/21 21:09	1
1-Methylnaphthalene	ND		1.5	0.22	ug/L		10/11/21 08:49	10/12/21 21:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*38*		*27 - 110*	*10/11/21 08:49*	*10/12/21 21:09*	*1*
Phenol-d5 (Surr)	*31*		*20 - 110*	*10/11/21 08:49*	*10/12/21 21:09*	*1*
Nitrobenzene-d5 (Surr)	*78*		*36 - 120*	*10/11/21 08:49*	*10/12/21 21:09*	*1*
2-Fluorobiphenyl	*70*		*34 - 110*	*10/11/21 08:49*	*10/12/21 21:09*	*1*
2,4,6-Tribromophenol (Surr)	*104*		*40 - 145*	*10/11/21 08:49*	*10/12/21 21:09*	*1*
Terphenyl-d14 (Surr)	*78*		*40 - 145*	*10/11/21 08:49*	*10/12/21 21:09*	*1*

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

Job ID: 500-206508-1

Client Sample ID: SUPE-W-06A-100621
Date Collected: 10/06/21 14:20
Date Received: 10/08/21 10:25

Lab Sample ID: 500-206508-12
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.6	0.19	ug/L		10/11/21 08:49	10/12/21 21:33	1
1,2-Dichlorobenzene	ND		1.6	0.20	ug/L		10/11/21 08:49	10/12/21 21:33	1
1,3-Dichlorobenzene	ND		1.6	0.17	ug/L		10/11/21 08:49	10/12/21 21:33	1
1,4-Dichlorobenzene	ND		1.6	0.17	ug/L		10/11/21 08:49	10/12/21 21:33	1
bis(chloroisopropyl) ether	ND		1.6	0.31	ug/L		10/11/21 08:49	10/12/21 21:33	1
2,4,5-Trichlorophenol	ND		8.1	2.1	ug/L		10/11/21 08:49	10/12/21 21:33	1
2,4,6-Trichlorophenol	ND		4.1	0.58	ug/L		10/11/21 08:49	10/12/21 21:33	1
2,4-Dichlorophenol	ND		8.1	2.1	ug/L		10/11/21 08:49	10/12/21 21:33	1
2,4-Dimethylphenol	ND		8.1	1.5	ug/L		10/11/21 08:49	10/12/21 21:33	1
2,4-Dinitrophenol	ND		16	7.0	ug/L		10/11/21 08:49	10/12/21 21:33	1
2,4-Dinitrotoluene	ND		0.81	0.20	ug/L		10/11/21 08:49	10/12/21 21:33	1
2,6-Dinitrotoluene	ND		0.81	0.060	ug/L		10/11/21 08:49	10/12/21 21:33	1
2-Chloronaphthalene	ND		1.6	0.19	ug/L		10/11/21 08:49	10/12/21 21:33	1
2-Chlorophenol	ND		4.1	0.45	ug/L		10/11/21 08:49	10/12/21 21:33	1
2-Methylnaphthalene	ND		1.6	0.053	ug/L		10/11/21 08:49	10/12/21 21:33	1
2-Methylphenol	ND		1.6	0.25	ug/L		10/11/21 08:49	10/12/21 21:33	1
2-Nitroaniline	ND		4.1	1.0	ug/L		10/11/21 08:49	10/12/21 21:33	1
2-Nitrophenol	ND		8.1	2.0	ug/L		10/11/21 08:49	10/12/21 21:33	1
3 & 4 Methylphenol	ND		1.6	0.36	ug/L		10/11/21 08:49	10/12/21 21:33	1
3,3'-Dichlorobenzidine	ND		4.1	1.4	ug/L		10/11/21 08:49	10/12/21 21:33	1
3-Nitroaniline	ND		8.1	1.5	ug/L		10/11/21 08:49	10/12/21 21:33	1
4,6-Dinitro-2-methylphenol	ND		16	4.8	ug/L		10/11/21 08:49	10/12/21 21:33	1
4-Bromophenyl phenyl ether	ND		4.1	0.44	ug/L		10/11/21 08:49	10/12/21 21:33	1
4-Chloro-3-methylphenol	ND		8.1	1.9	ug/L		10/11/21 08:49	10/12/21 21:33	1
4-Chloroaniline	ND		8.1	1.6	ug/L		10/11/21 08:49	10/12/21 21:33	1
4-Chlorophenyl phenyl ether	ND		4.1	0.52	ug/L		10/11/21 08:49	10/12/21 21:33	1
4-Nitroaniline	ND		8.1	1.4	ug/L		10/11/21 08:49	10/12/21 21:33	1
4-Nitrophenol	ND		16	6.0	ug/L		10/11/21 08:49	10/12/21 21:33	1
Acenaphthene	ND		0.81	0.25	ug/L		10/11/21 08:49	10/12/21 21:33	1
Acenaphthylene	ND		0.81	0.22	ug/L		10/11/21 08:49	10/12/21 21:33	1
Anthracene	ND		0.81	0.27	ug/L		10/11/21 08:49	10/12/21 21:33	1
Benzo[a]anthracene	ND		0.16	0.046	ug/L		10/11/21 08:49	10/12/21 21:33	1
Benzo[a]pyrene	ND		0.16	0.080	ug/L		10/11/21 08:49	10/12/21 21:33	1
Benzo[b]fluoranthene	ND		0.16	0.066	ug/L		10/11/21 08:49	10/12/21 21:33	1
Benzo[g,h,i]perylene	ND		0.81	0.30	ug/L		10/11/21 08:49	10/12/21 21:33	1
Benzo[k]fluoranthene	ND		0.16	0.052	ug/L		10/11/21 08:49	10/12/21 21:33	1
Benzoic acid	ND		16	4.7	ug/L		10/11/21 08:49	10/12/21 21:33	1
Benzyl alcohol	ND		16	4.9	ug/L		10/11/21 08:49	10/12/21 21:33	1
Bis(2-chloroethoxy)methane	ND		1.6	0.23	ug/L		10/11/21 08:49	10/12/21 21:33	1
Bis(2-chloroethyl)ether	ND		1.6	0.24	ug/L		10/11/21 08:49	10/12/21 21:33	1
Bis(2-ethylhexyl) phthalate	ND		8.1	1.4	ug/L		10/11/21 08:49	10/12/21 21:33	1
Butyl benzyl phthalate	ND		1.6	0.39	ug/L		10/11/21 08:49	10/12/21 21:33	1
Chrysene	ND		0.16	0.055	ug/L		10/11/21 08:49	10/12/21 21:33	1
Dibenz(a,h)anthracene	ND		0.24	0.041	ug/L		10/11/21 08:49	10/12/21 21:33	1
Dibenzofuran	ND		1.6	0.21	ug/L		10/11/21 08:49	10/12/21 21:33	1
Diethyl phthalate	ND		4.1	0.29	ug/L		10/11/21 08:49	10/12/21 21:33	1
Dimethyl phthalate	ND		4.1	0.25	ug/L		10/11/21 08:49	10/12/21 21:33	1
Di-n-butyl phthalate	ND		4.1	0.59	ug/L		10/11/21 08:49	10/12/21 21:33	1
Di-n-octyl phthalate	ND		8.1	0.85	ug/L		10/11/21 08:49	10/12/21 21:33	1

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

Job ID: 500-206508-1

Client Sample ID: SUPE-W-06A-100621
Date Collected: 10/06/21 14:20
Date Received: 10/08/21 10:25

Lab Sample ID: 500-206508-12
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		0.81	0.37	ug/L		10/11/21 08:49	10/12/21 21:33	1
Fluorene	ND		0.81	0.20	ug/L		10/11/21 08:49	10/12/21 21:33	1
Hexachlorobenzene	ND		0.41	0.065	ug/L		10/11/21 08:49	10/12/21 21:33	1
Hexachlorobutadiene	ND		4.1	0.42	ug/L		10/11/21 08:49	10/12/21 21:33	1
Hexachlorocyclopentadiene	ND		16	5.2	ug/L		10/11/21 08:49	10/12/21 21:33	1
Hexachloroethane	ND		4.1	0.49	ug/L		10/11/21 08:49	10/12/21 21:33	1
Indeno[1,2,3-cd]pyrene	ND		0.16	0.061	ug/L		10/11/21 08:49	10/12/21 21:33	1
Isophorone	ND		1.6	0.30	ug/L		10/11/21 08:49	10/12/21 21:33	1
Nitrobenzene	ND		0.81	0.36	ug/L		10/11/21 08:49	10/12/21 21:33	1
N-Nitrosodi-n-propylamine	ND		0.41	0.12	ug/L		10/11/21 08:49	10/12/21 21:33	1
N-Nitrosodiphenylamine	ND		1.6	0.30	ug/L		10/11/21 08:49	10/12/21 21:33	1
Phenanthrene	ND		0.81	0.24	ug/L		10/11/21 08:49	10/12/21 21:33	1
Phenol	ND		4.1	0.55	ug/L		10/11/21 08:49	10/12/21 21:33	1
Pyrene	ND		0.81	0.35	ug/L		10/11/21 08:49	10/12/21 21:33	1
2,3,4,6-Tetrachlorophenol	ND		4.1	0.61	ug/L		10/11/21 08:49	10/12/21 21:33	1
2,3,5,6-Tetrachlorophenol	ND		8.1	3.1	ug/L		10/11/21 08:49	10/12/21 21:33	1
1-Methylnaphthalene	ND		1.6	0.24	ug/L		10/11/21 08:49	10/12/21 21:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*42*		*27 - 110*	*10/11/21 08:49*	*10/12/21 21:33*	*1*
Phenol-d5 (Surr)	*31*		*20 - 110*	*10/11/21 08:49*	*10/12/21 21:33*	*1*
Nitrobenzene-d5 (Surr)	*81*		*36 - 120*	*10/11/21 08:49*	*10/12/21 21:33*	*1*
2-Fluorobiphenyl	*80*		*34 - 110*	*10/11/21 08:49*	*10/12/21 21:33*	*1*
2,4,6-Tribromophenol (Surr)	*106*		*40 - 145*	*10/11/21 08:49*	*10/12/21 21:33*	*1*
Terphenyl-d14 (Surr)	*86*		*40 - 145*	*10/11/21 08:49*	*10/12/21 21:33*	*1*

Definitions/Glossary

Client: Field & Technical Services LLC
Job ID: 500-206508-1
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

GC/MS Semi VOA

Prep Batch: 622814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-206508-1	SUPE-W-18D-100621	Total/NA	Water	3510C	
500-206508-2	SUPE-W-28C-100621	Total/NA	Water	3510C	
500-206508-3	SUPE-EB-01-100621	Total/NA	Water	3510C	
500-206508-4	SUPE-W-04AR2-100621	Total/NA	Water	3510C	
500-206508-5	SUPE-W-30A-100621	Total/NA	Water	3510C	
500-206508-5 - DL	SUPE-W-30A-100621	Total/NA	Water	3510C	
500-206508-6	SUPE-W-10AR2-100621	Total/NA	Water	3510C	
500-206508-6 - DL	SUPE-W-10AR2-100621	Total/NA	Water	3510C	
500-206508-7	SUPE-M-99A-100621	Total/NA	Water	3510C	
500-206508-8	SUPE-W-30C-100621	Total/NA	Water	3510C	
500-206508-9	SUPE-W-06C-100621	Total/NA	Water	3510C	
500-206508-10	SUPE-W-12CR-100621	Total/NA	Water	3510C	
500-206508-11	SUPE-W-12A-100621	Total/NA	Water	3510C	
500-206508-12	SUPE-W-06A-100621	Total/NA	Water	3510C	
MB 500-622814/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-622814/2-A	Lab Control Sample	Total/NA	Water	3510C	
500-206508-9 MS	SUPE-W-06C-100621	Total/NA	Water	3510C	
500-206508-9 MSD	SUPE-W-06C-100621	Total/NA	Water	3510C	

Analysis Batch: 623067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-206508-1	SUPE-W-18D-100621	Total/NA	Water	8270D	622814
500-206508-2	SUPE-W-28C-100621	Total/NA	Water	8270D	622814
500-206508-3	SUPE-EB-01-100621	Total/NA	Water	8270D	622814
500-206508-4	SUPE-W-04AR2-100621	Total/NA	Water	8270D	622814
500-206508-5	SUPE-W-30A-100621	Total/NA	Water	8270D	622814
500-206508-6	SUPE-W-10AR2-100621	Total/NA	Water	8270D	622814
500-206508-7	SUPE-M-99A-100621	Total/NA	Water	8270D	622814
500-206508-8	SUPE-W-30C-100621	Total/NA	Water	8270D	622814
500-206508-9	SUPE-W-06C-100621	Total/NA	Water	8270D	622814
500-206508-10	SUPE-W-12CR-100621	Total/NA	Water	8270D	622814
500-206508-11	SUPE-W-12A-100621	Total/NA	Water	8270D	622814
500-206508-12	SUPE-W-06A-100621	Total/NA	Water	8270D	622814
MB 500-622814/1-A	Method Blank	Total/NA	Water	8270D	622814
LCS 500-622814/2-A	Lab Control Sample	Total/NA	Water	8270D	622814
500-206508-9 MS	SUPE-W-06C-100621	Total/NA	Water	8270D	622814
500-206508-9 MSD	SUPE-W-06C-100621	Total/NA	Water	8270D	622814

Analysis Batch: 623192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-206508-5 - DL	SUPE-W-30A-100621	Total/NA	Water	8270D	622814
500-206508-6 - DL	SUPE-W-10AR2-100621	Total/NA	Water	8270D	622814

Surrogate Summary

Client: Field & Technical Services LLC
Job ID: 500-206508-1
Project/Site: Superior, WI Semiannual Groundwater

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		2FP	PHL	NBZ	FBP	TBP	TPHL
Lab Sample ID	Client Sample ID	(27-110)	(20-110)	(36-120)	(34-110)	(40-145)	(40-145)
500-206508-1	SUPE-W-18D-100621	44	30	80	74	103	101
500-206508-2	SUPE-W-28C-100621	50	33	87	80	106	99
500-206508-3	SUPE-EB-01-100621	68	42	99	89	106	111
500-206508-4	SUPE-W-04AR2-100621	43	36	77	76	106	93
500-206508-5	SUPE-W-30A-100621	48	36	81	79	110	90
500-206508-6	SUPE-W-10AR2-100621	56	39	80	72	102	91
500-206508-7	SUPE-M-99A-100621	64	48	88	80	108	111
500-206508-8	SUPE-W-30C-100621	59	41	86	84	108	100
500-206508-9	SUPE-W-06C-100621	56	40	81	76	109	100
500-206508-9 MS	SUPE-W-06C-100621	53	40	79	83	104	99
500-206508-9 MSD	SUPE-W-06C-100621	55	40	85	87	102	94
500-206508-10	SUPE-W-12CR-100621	55	37	90	85	109	103
500-206508-11	SUPE-W-12A-100621	38	31	78	70	104	78
500-206508-12	SUPE-W-06A-100621	42	31	81	80	106	86
LCS 500-622814/2-A	Lab Control Sample	78	52	97	99	112	105
MB 500-622814/1-A	Method Blank	84	53	90	87	101	108

Surrogate Legend

2FP = 2-Fluorophenol (Surr)
PHL = Phenol-d5 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol (Surr)
TPHL = Terphenyl-d14 (Surr)

Client: Field & Technical Services LLC
Job ID: 500-206508-1
Project/Site: Superior, WI Semiannual Groundwater

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-622814/1-A
Matrix: Water
Analysis Batch: 623067

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 622814

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.6	0.19	ug/L		10/11/21 08:49	10/12/21 14:24	1
1,2-Dichlorobenzene	ND		1.6	0.20	ug/L		10/11/21 08:49	10/12/21 14:24	1
1,3-Dichlorobenzene	ND		1.6	0.17	ug/L		10/11/21 08:49	10/12/21 14:24	1
1,4-Dichlorobenzene	ND		1.6	0.17	ug/L		10/11/21 08:49	10/12/21 14:24	1
bis(chloroisopropyl) ether	ND		1.6	0.30	ug/L		10/11/21 08:49	10/12/21 14:24	1
2,4,5-Trichlorophenol	ND		8.0	2.1	ug/L		10/11/21 08:49	10/12/21 14:24	1
2,4,6-Trichlorophenol	ND		4.0	0.57	ug/L		10/11/21 08:49	10/12/21 14:24	1
2,4-Dichlorophenol	ND		8.0	2.1	ug/L		10/11/21 08:49	10/12/21 14:24	1
2,4-Dimethylphenol	ND		8.0	1.4	ug/L		10/11/21 08:49	10/12/21 14:24	1
2,4-Dinitrophenol	ND		16	6.9	ug/L		10/11/21 08:49	10/12/21 14:24	1
2,4-Dinitrotoluene	ND		0.80	0.20	ug/L		10/11/21 08:49	10/12/21 14:24	1
2,6-Dinitrotoluene	ND		0.80	0.059	ug/L		10/11/21 08:49	10/12/21 14:24	1
2-Chloronaphthalene	ND		1.6	0.19	ug/L		10/11/21 08:49	10/12/21 14:24	1
2-Chlorophenol	ND		4.0	0.45	ug/L		10/11/21 08:49	10/12/21 14:24	1
2-Methylnaphthalene	ND		1.6	0.052	ug/L		10/11/21 08:49	10/12/21 14:24	1
2-Methylphenol	ND		1.6	0.24	ug/L		10/11/21 08:49	10/12/21 14:24	1
2-Nitroaniline	ND		4.0	1.0	ug/L		10/11/21 08:49	10/12/21 14:24	1
2-Nitrophenol	ND		8.0	2.0	ug/L		10/11/21 08:49	10/12/21 14:24	1
3 & 4 Methylphenol	ND		1.6	0.36	ug/L		10/11/21 08:49	10/12/21 14:24	1
3,3'-Dichlorobenzidine	ND		4.0	1.4	ug/L		10/11/21 08:49	10/12/21 14:24	1
3-Nitroaniline	ND		8.0	1.4	ug/L		10/11/21 08:49	10/12/21 14:24	1
4,6-Dinitro-2-methylphenol	ND		16	4.7	ug/L		10/11/21 08:49	10/12/21 14:24	1
4-Bromophenyl phenyl ether	ND		4.0	0.43	ug/L		10/11/21 08:49	10/12/21 14:24	1
4-Chloro-3-methylphenol	ND		8.0	1.8	ug/L		10/11/21 08:49	10/12/21 14:24	1
4-Chloroaniline	ND		8.0	1.6	ug/L		10/11/21 08:49	10/12/21 14:24	1
4-Chlorophenyl phenyl ether	ND		4.0	0.51	ug/L		10/11/21 08:49	10/12/21 14:24	1
4-Nitroaniline	ND		8.0	1.3	ug/L		10/11/21 08:49	10/12/21 14:24	1
4-Nitrophenol	ND		16	5.9	ug/L		10/11/21 08:49	10/12/21 14:24	1
Acenaphthene	ND		0.80	0.25	ug/L		10/11/21 08:49	10/12/21 14:24	1
Acenaphthylene	ND		0.80	0.21	ug/L		10/11/21 08:49	10/12/21 14:24	1
Anthracene	ND		0.80	0.27	ug/L		10/11/21 08:49	10/12/21 14:24	1
Benzo[a]anthracene	ND		0.16	0.045	ug/L		10/11/21 08:49	10/12/21 14:24	1
Benzo[a]pyrene	ND		0.16	0.079	ug/L		10/11/21 08:49	10/12/21 14:24	1
Benzo[b]fluoranthene	ND		0.16	0.065	ug/L		10/11/21 08:49	10/12/21 14:24	1
Benzo[g,h,i]perylene	ND		0.80	0.30	ug/L		10/11/21 08:49	10/12/21 14:24	1
Benzo[k]fluoranthene	ND		0.16	0.051	ug/L		10/11/21 08:49	10/12/21 14:24	1
Benzoic acid	ND		16	4.6	ug/L		10/11/21 08:49	10/12/21 14:24	1
Benzyl alcohol	ND		16	4.8	ug/L		10/11/21 08:49	10/12/21 14:24	1
Bis(2-chloroethoxy)methane	ND		1.6	0.23	ug/L		10/11/21 08:49	10/12/21 14:24	1
Bis(2-chloroethyl)ether	ND		1.6	0.23	ug/L		10/11/21 08:49	10/12/21 14:24	1
Bis(2-ethylhexyl) phthalate	ND		8.0	1.4	ug/L		10/11/21 08:49	10/12/21 14:24	1
Butyl benzyl phthalate	ND		1.6	0.38	ug/L		10/11/21 08:49	10/12/21 14:24	1
Chrysene	ND		0.16	0.055	ug/L		10/11/21 08:49	10/12/21 14:24	1
Dibenz(a,h)anthracene	ND		0.24	0.041	ug/L		10/11/21 08:49	10/12/21 14:24	1
Dibenzofuran	ND		1.6	0.21	ug/L		10/11/21 08:49	10/12/21 14:24	1
Diethyl phthalate	ND		4.0	0.29	ug/L		10/11/21 08:49	10/12/21 14:24	1
Dimethyl phthalate	ND		4.0	0.25	ug/L		10/11/21 08:49	10/12/21 14:24	1
Di-n-butyl phthalate	ND		4.0	0.58	ug/L		10/11/21 08:49	10/12/21 14:24	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-622814/1-A
Matrix: Water
Analysis Batch: 623067

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 622814

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	ND		8.0	0.84	ug/L		10/11/21 08:49	10/12/21 14:24	1
Fluoranthene	ND		0.80	0.36	ug/L		10/11/21 08:49	10/12/21 14:24	1
Fluorene	ND		0.80	0.20	ug/L		10/11/21 08:49	10/12/21 14:24	1
Hexachlorobenzene	ND		0.40	0.064	ug/L		10/11/21 08:49	10/12/21 14:24	1
Hexachlorobutadiene	ND		4.0	0.41	ug/L		10/11/21 08:49	10/12/21 14:24	1
Hexachlorocyclopentadiene	ND		16	5.1	ug/L		10/11/21 08:49	10/12/21 14:24	1
Hexachloroethane	ND		4.0	0.48	ug/L		10/11/21 08:49	10/12/21 14:24	1
Indeno[1,2,3-cd]pyrene	ND		0.16	0.060	ug/L		10/11/21 08:49	10/12/21 14:24	1
Isophorone	ND		1.6	0.30	ug/L		10/11/21 08:49	10/12/21 14:24	1
Naphthalene	ND		0.80	0.25	ug/L		10/11/21 08:49	10/12/21 14:24	1
Nitrobenzene	ND		0.80	0.36	ug/L		10/11/21 08:49	10/12/21 14:24	1
N-Nitrosodi-n-propylamine	ND		0.40	0.12	ug/L		10/11/21 08:49	10/12/21 14:24	1
N-Nitrosodiphenylamine	ND		1.6	0.30	ug/L		10/11/21 08:49	10/12/21 14:24	1
Phenanthrene	ND		0.80	0.24	ug/L		10/11/21 08:49	10/12/21 14:24	1
Phenol	ND		4.0	0.54	ug/L		10/11/21 08:49	10/12/21 14:24	1
Pyrene	ND		0.80	0.34	ug/L		10/11/21 08:49	10/12/21 14:24	1
2,3,4,6-Tetrachlorophenol	ND		4.0	0.60	ug/L		10/11/21 08:49	10/12/21 14:24	1
2,3,5,6-Tetrachlorophenol	ND		8.0	3.1	ug/L		10/11/21 08:49	10/12/21 14:24	1
1-Methylnaphthalene	ND		1.6	0.24	ug/L		10/11/21 08:49	10/12/21 14:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*84*		*27 - 110*	*10/11/21 08:49*	*10/12/21 14:24*	*1*
Phenol-d5 (Surr)	*53*		*20 - 110*	*10/11/21 08:49*	*10/12/21 14:24*	*1*
Nitrobenzene-d5 (Surr)	*90*		*36 - 120*	*10/11/21 08:49*	*10/12/21 14:24*	*1*
2-Fluorobiphenyl	*87*		*34 - 110*	*10/11/21 08:49*	*10/12/21 14:24*	*1*
2,4,6-Tribromophenol (Surr)	*101*		*40 - 145*	*10/11/21 08:49*	*10/12/21 14:24*	*1*
Terphenyl-d14 (Surr)	*108*		*40 - 145*	*10/11/21 08:49*	*10/12/21 14:24*	*1*

Lab Sample ID: LCS 500-622814/2-A
Matrix: Water
Analysis Batch: 623067

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 622814

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	32.0	21.6		ug/L		68	26 - 110
1,2-Dichlorobenzene	32.0	20.6		ug/L		64	26 - 110
1,3-Dichlorobenzene	32.0	19.8		ug/L		62	22 - 110
1,4-Dichlorobenzene	32.0	19.9		ug/L		62	23 - 110
bis(chloroisopropyl) ether	32.0	18.1		ug/L		57	38 - 140
2,4,5-Trichlorophenol	32.0	33.6		ug/L		105	63 - 124
2,4,6-Trichlorophenol	32.0	30.3		ug/L		95	62 - 121
2,4-Dichlorophenol	32.0	28.8		ug/L		90	58 - 120
2,4-Dimethylphenol	32.0	28.9		ug/L		90	51 - 115
2,4-Dinitrophenol	64.0	48.7		ug/L		76	37 - 130
2,4-Dinitrotoluene	32.0	32.7		ug/L		102	63 - 129
2,6-Dinitrotoluene	32.0	32.2		ug/L		101	63 - 129
2-Chloronaphthalene	32.0	25.0		ug/L		78	39 - 110
2-Chlorophenol	32.0	27.0		ug/L		84	59 - 110
2-Methylnaphthalene	32.0	23.3		ug/L		73	34 - 110

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-622814/2-A
Matrix: Water
Analysis Batch: 623067

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 622814

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Methylphenol	32.0	27.7		ug/L		86	53 - 115
2-Nitroaniline	32.0	29.3		ug/L		91	59 - 138
2-Nitrophenol	32.0	28.3		ug/L		89	59 - 115
3 & 4 Methylphenol	32.0	26.4		ug/L		83	50 - 116
3,3'-Dichlorobenzidine	32.0	30.5		ug/L		95	60 - 132
3-Nitroaniline	32.0	20.8		ug/L		65	47 - 123
4,6-Dinitro-2-methylphenol	64.0	59.4		ug/L		93	50 - 129
4-Bromophenyl phenyl ether	32.0	30.5		ug/L		95	58 - 120
4-Chloro-3-methylphenol	32.0	29.9		ug/L		93	64 - 128
4-Chloroaniline	32.0	26.8		ug/L		84	35 - 128
4-Chlorophenyl phenyl ether	32.0	28.2		ug/L		88	48 - 116
4-Nitroaniline	32.0	23.4		ug/L		73	35 - 110
4-Nitrophenol	64.0	38.0		ug/L		59	20 - 110
Acenaphthene	32.0	27.4		ug/L		86	46 - 110
Acenaphthylene	32.0	27.7		ug/L		87	47 - 113
Anthracene	32.0	31.7		ug/L		99	67 - 118
Benzo[a]anthracene	32.0	30.6		ug/L		96	70 - 126
Benzo[a]pyrene	32.0	31.6		ug/L		99	70 - 135
Benzo[b]fluoranthene	32.0	31.7		ug/L		99	69 - 136
Benzo[g,h,i]perylene	32.0	32.9		ug/L		103	70 - 135
Benzo[k]fluoranthene	32.0	32.2		ug/L		100	70 - 133
Benzoic acid	64.0	32.2		ug/L		50	10 - 112
Benzyl alcohol	32.0	30.1		ug/L		94	46 - 132
Bis(2-chloroethoxy)methane	32.0	29.1		ug/L		91	59 - 118
Bis(2-chloroethyl)ether	32.0	28.2		ug/L		88	54 - 112
Bis(2-ethylhexyl) phthalate	32.0	32.6		ug/L		102	69 - 136
Butyl benzyl phthalate	32.0	31.7		ug/L		99	68 - 135
Chrysene	32.0	31.6		ug/L		99	68 - 129
Dibenz(a,h)anthracene	32.0	33.5		ug/L		105	70 - 134
Dibenzofuran	32.0	28.1		ug/L		88	51 - 110
Diethyl phthalate	32.0	33.8		ug/L		106	62 - 123
Dimethyl phthalate	32.0	32.4		ug/L		101	63 - 122
Di-n-butyl phthalate	32.0	33.1		ug/L		103	69 - 129
Di-n-octyl phthalate	32.0	33.5		ug/L		105	68 - 137
Fluoranthene	32.0	32.7		ug/L		102	68 - 126
Fluorene	32.0	28.7		ug/L		90	53 - 120
Hexachlorobenzene	32.0	31.9		ug/L		100	61 - 126
Hexachlorobutadiene	32.0	22.6		ug/L		70	20 - 100
Hexachlorocyclopentadiene	32.0	20.2		ug/L		63	10 - 105
Hexachloroethane	32.0	20.9		ug/L		65	20 - 100
Indeno[1,2,3-cd]pyrene	32.0	33.0		ug/L		103	65 - 133
Isophorone	32.0	30.3		ug/L		95	54 - 127
Naphthalene	32.0	23.9		ug/L		75	36 - 110
Nitrobenzene	32.0	29.7		ug/L		93	54 - 121
N-Nitrosodi-n-propylamine	32.0	30.8		ug/L		96	47 - 131
N-Nitrosodiphenylamine	32.0	31.0		ug/L		97	66 - 120
Phenanthrene	32.0	31.2		ug/L		97	65 - 120
Phenol	32.0	15.3		ug/L		48	33 - 100
Pyrene	32.0	32.4		ug/L		101	70 - 126

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-622814/2-A
Matrix: Water
Analysis Batch: 623067

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 622814

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,4,6-Tetrachlorophenol	32.0	30.5		ug/L		95	44 - 128
1-Methylnaphthalene	32.0	24.4		ug/L		76	38 - 110

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorophenol (Surr)	*78*		*27 - 110*
Phenol-d5 (Surr)	*52*		*20 - 110*
Nitrobenzene-d5 (Surr)	*97*		*36 - 120*
2-Fluorobiphenyl	*99*		*34 - 110*
2,4,6-Tribromophenol (Surr)	*112*		*40 - 145*
Terphenyl-d14 (Surr)	*105*		*40 - 145*

Lab Sample ID: 500-206508-9 MS
Matrix: Water
Analysis Batch: 623067

Client Sample ID: SUPE-W-06C-100621
Prep Type: Total/NA
Prep Batch: 622814

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	ND		31.9	17.9		ug/L		56	26 - 110
1,2-Dichlorobenzene	ND		31.9	17.7		ug/L		55	26 - 110
1,3-Dichlorobenzene	ND		31.9	17.4		ug/L		55	22 - 110
1,4-Dichlorobenzene	ND		31.9	17.3		ug/L		54	23 - 110
bis(chloroisopropyl) ether	ND		31.9	14.5		ug/L		45	38 - 140
2,4,5-Trichlorophenol	ND		31.9	29.0		ug/L		91	63 - 124
2,4,6-Trichlorophenol	ND		31.9	27.4		ug/L		86	62 - 121
2,4-Dichlorophenol	ND		31.9	24.5		ug/L		77	58 - 120
2,4-Dimethylphenol	ND		31.9	24.7		ug/L		77	51 - 115
2,4-Dinitrophenol	ND		63.9	24.3		ug/L		38	37 - 130
2,4-Dinitrotoluene	ND		31.9	30.4		ug/L		95	63 - 129
2,6-Dinitrotoluene	ND		31.9	30.3		ug/L		95	63 - 129
2-Chloronaphthalene	ND		31.9	19.4		ug/L		61	39 - 110
2-Chlorophenol	ND		31.9	23.9		ug/L		75	59 - 110
2-Methylnaphthalene	ND		31.9	18.5		ug/L		58	34 - 110
2-Methylphenol	ND		31.9	23.3		ug/L		73	53 - 115
2-Nitroaniline	ND		31.9	26.5		ug/L		83	59 - 138
2-Nitrophenol	ND		31.9	24.0		ug/L		75	59 - 115
3 & 4 Methylphenol	ND		31.9	21.8		ug/L		68	50 - 116
3,3'-Dichlorobenzidine	ND		31.9	29.3		ug/L		92	60 - 132
3-Nitroaniline	ND		31.9	21.7		ug/L		68	47 - 123
4,6-Dinitro-2-methylphenol	ND		63.9	34.3		ug/L		54	50 - 129
4-Bromophenyl phenyl ether	ND		31.9	27.7		ug/L		87	58 - 120
4-Chloro-3-methylphenol	ND		31.9	26.0		ug/L		81	64 - 128
4-Chloroaniline	ND		31.9	22.4		ug/L		70	35 - 128
4-Chlorophenyl phenyl ether	ND		31.9	23.7		ug/L		74	48 - 116
4-Nitroaniline	ND		31.9	23.8		ug/L		74	35 - 110
4-Nitrophenol	ND		63.9	34.2		ug/L		54	20 - 110
Acenaphthene	ND		31.9	22.1		ug/L		69	46 - 110
Acenaphthylene	ND		31.9	22.1		ug/L		69	47 - 113
Anthracene	ND		31.9	30.2		ug/L		94	67 - 118
Benzo[a]anthracene	ND		31.9	30.7		ug/L		96	70 - 126

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-206508-9 MS
Client Sample ID: SUPE-W-06C-100621
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 623067
Prep Batch: 622814

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]pyrene	ND		31.9	33.0		ug/L		103	70 - 135
Benzo[b]fluoranthene	ND		31.9	35.9		ug/L		112	69 - 136
Benzo[g,h,i]perylene	ND		31.9	24.6		ug/L		77	70 - 135
Benzo[k]fluoranthene	ND		31.9	34.4		ug/L		108	70 - 133
Benzoic acid	ND		63.9	28.4		ug/L		44	10 - 112
Benzyl alcohol	ND		31.9	25.2		ug/L		79	46 - 132
Bis(2-chloroethoxy)methane	ND		31.9	25.2		ug/L		79	59 - 118
Bis(2-chloroethyl)ether	ND		31.9	20.5		ug/L		64	54 - 112
Bis(2-ethylhexyl) phthalate	ND		31.9	33.0		ug/L		103	69 - 136
Butyl benzyl phthalate	ND		31.9	31.1		ug/L		97	68 - 135
Chrysene	ND		31.9	32.0		ug/L		100	68 - 129
Dibenz(a,h)anthracene	ND		31.9	27.6		ug/L		86	70 - 134
Dibenzofuran	ND		31.9	23.1		ug/L		72	51 - 110
Diethyl phthalate	ND		31.9	32.9		ug/L		103	62 - 123
Dimethyl phthalate	ND		31.9	30.8		ug/L		96	63 - 122
Di-n-butyl phthalate	ND		31.9	34.2		ug/L		107	69 - 129
Di-n-octyl phthalate	ND		31.9	36.6		ug/L		115	68 - 137
Fluoranthene	ND		31.9	33.4		ug/L		105	68 - 126
Fluorene	ND		31.9	25.3		ug/L		79	53 - 120
Hexachlorobenzene	ND		31.9	31.1		ug/L		97	61 - 126
Hexachlorobutadiene	ND		31.9	18.1		ug/L		57	20 - 100
Hexachlorocyclopentadiene	ND		31.9	14.1	J	ug/L		44	10 - 105
Hexachloroethane	ND		31.9	17.6		ug/L		55	20 - 100
Indeno[1,2,3-cd]pyrene	ND		31.9	26.9		ug/L		84	65 - 133
Isophorone	ND		31.9	26.4		ug/L		83	54 - 127
Naphthalene	ND		31.9	19.2		ug/L		60	36 - 110
Nitrobenzene	ND		31.9	24.2		ug/L		76	54 - 121
N-Nitrosodi-n-propylamine	ND		31.9	26.1		ug/L		82	47 - 131
N-Nitrosodiphenylamine	ND		31.9	27.3		ug/L		85	66 - 120
Phenanthrene	ND		31.9	29.1		ug/L		91	65 - 120
Phenol	ND		31.9	12.9		ug/L		40	33 - 100
Pyrene	ND		31.9	30.3		ug/L		95	70 - 126
2,3,4,6-Tetrachlorophenol	ND		31.9	30.4		ug/L		95	44 - 128
1-Methylnaphthalene	ND		31.9	18.2		ug/L		57	38 - 110

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorophenol (Surr)	*53*		*27 - 110*
Phenol-d5 (Surr)	*40*		*20 - 110*
Nitrobenzene-d5 (Surr)	*79*		*36 - 120*
2-Fluorobiphenyl	*83*		*34 - 110*
2,4,6-Tribromophenol (Surr)	*104*		*40 - 145*
Terphenyl-d14 (Surr)	*99*		*40 - 145*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-206508-9 MSD
Matrix: Water
Analysis Batch: 623067

Client Sample ID: SUPE-W-06C-100621
Prep Type: Total/NA
Prep Batch: 622814

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	ND		31.9	19.4		ug/L		61	26 - 110	8	20
1,2-Dichlorobenzene	ND		31.9	19.1		ug/L		60	26 - 110	7	20
1,3-Dichlorobenzene	ND		31.9	18.3		ug/L		57	22 - 110	5	20
1,4-Dichlorobenzene	ND		31.9	18.2		ug/L		57	23 - 110	5	20
bis(chloroisopropyl) ether	ND		31.9	15.8		ug/L		50	38 - 140	9	20
2,4,5-Trichlorophenol	ND		31.9	29.5		ug/L		92	63 - 124	2	20
2,4,6-Trichlorophenol	ND		31.9	28.7		ug/L		90	62 - 121	5	20
2,4-Dichlorophenol	ND		31.9	26.3		ug/L		83	58 - 120	7	20
2,4-Dimethylphenol	ND		31.9	25.7		ug/L		81	51 - 115	4	20
2,4-Dinitrophenol	ND		63.8	27.5		ug/L		43	37 - 130	12	20
2,4-Dinitrotoluene	ND		31.9	30.0		ug/L		94	63 - 129	1	20
2,6-Dinitrotoluene	ND		31.9	30.1		ug/L		94	63 - 129	0	20
2-Chloronaphthalene	ND		31.9	20.8		ug/L		65	39 - 110	7	20
2-Chlorophenol	ND		31.9	24.9		ug/L		78	59 - 110	4	20
2-Methylnaphthalene	ND		31.9	19.4		ug/L		61	34 - 110	5	20
2-Methylphenol	ND		31.9	24.1		ug/L		75	53 - 115	3	20
2-Nitroaniline	ND		31.9	26.7		ug/L		84	59 - 138	1	20
2-Nitrophenol	ND		31.9	26.9		ug/L		84	59 - 115	11	20
3 & 4 Methylphenol	ND		31.9	22.1		ug/L		69	50 - 116	2	20
3,3'-Dichlorobenzidine	ND		31.9	28.0		ug/L		88	60 - 132	5	20
3-Nitroaniline	ND		31.9	20.0		ug/L		63	47 - 123	8	20
4,6-Dinitro-2-methylphenol	ND		63.8	40.3		ug/L		63	50 - 129	16	20
4-Bromophenyl phenyl ether	ND		31.9	28.1		ug/L		88	58 - 120	1	20
4-Chloro-3-methylphenol	ND		31.9	27.2		ug/L		85	64 - 128	4	20
4-Chloroaniline	ND		31.9	23.0		ug/L		72	35 - 128	3	20
4-Chlorophenyl phenyl ether	ND		31.9	24.7		ug/L		77	48 - 116	4	20
4-Nitroaniline	ND		31.9	21.8		ug/L		68	35 - 110	9	20
4-Nitrophenol	ND		63.8	32.3		ug/L		51	20 - 110	6	20
Acenaphthene	ND		31.9	23.8		ug/L		75	46 - 110	7	20
Acenaphthylene	ND		31.9	23.9		ug/L		75	47 - 113	8	20
Anthracene	ND		31.9	30.7		ug/L		96	67 - 118	2	20
Benzo[a]anthracene	ND		31.9	29.4		ug/L		92	70 - 126	4	20
Benzo[a]pyrene	ND		31.9	31.2		ug/L		98	70 - 135	5	20
Benzo[b]fluoranthene	ND		31.9	33.5		ug/L		105	69 - 136	7	20
Benzo[g,h,i]perylene	ND		31.9	23.3		ug/L		73	70 - 135	6	20
Benzo[k]fluoranthene	ND		31.9	32.6		ug/L		102	70 - 133	5	20
Benzoic acid	ND		63.8	29.6		ug/L		46	10 - 112	4	20
Benzyl alcohol	ND		31.9	25.1		ug/L		79	46 - 132	0	20
Bis(2-chloroethoxy)methane	ND		31.9	27.3		ug/L		85	59 - 118	8	20
Bis(2-chloroethyl)ether	ND		31.9	21.3		ug/L		67	54 - 112	4	20
Bis(2-ethylhexyl) phthalate	ND		31.9	31.6		ug/L		99	69 - 136	4	20
Butyl benzyl phthalate	ND		31.9	29.5		ug/L		92	68 - 135	5	20
Chrysene	ND		31.9	30.4		ug/L		95	68 - 129	5	20
Dibenz(a,h)anthracene	ND		31.9	26.0		ug/L		81	70 - 134	6	20
Dibenzofuran	ND		31.9	24.6		ug/L		77	51 - 110	6	20
Diethyl phthalate	ND		31.9	30.8		ug/L		96	62 - 123	7	20
Dimethyl phthalate	ND		31.9	30.4		ug/L		95	63 - 122	1	20
Di-n-butyl phthalate	ND		31.9	33.7		ug/L		105	69 - 129	1	20

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-206508-9 MSD
Client Sample ID: SUPE-W-06C-100621
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 623067
Prep Batch: 622814

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Di-n-octyl phthalate	ND		31.9	35.9		ug/L		113	68 - 137	2	20
Fluoranthene	ND		31.9	32.5		ug/L		102	68 - 126	3	20
Fluorene	ND		31.9	25.9		ug/L		81	53 - 120	2	20
Hexachlorobenzene	ND		31.9	30.8		ug/L		96	61 - 126	1	20
Hexachlorobutadiene	ND		31.9	18.9		ug/L		59	20 - 100	4	20
Hexachlorocyclopentadiene	ND		31.9	14.3	J	ug/L		45	10 - 105	1	20
Hexachloroethane	ND		31.9	18.3		ug/L		57	20 - 100	4	20
Indeno[1,2,3-cd]pyrene	ND		31.9	25.3		ug/L		79	65 - 133	6	20
Isophorone	ND		31.9	28.4		ug/L		89	54 - 127	7	20
Naphthalene	ND		31.9	20.7		ug/L		65	36 - 110	8	20
Nitrobenzene	ND		31.9	26.1		ug/L		82	54 - 121	7	20
N-Nitrosodi-n-propylamine	ND		31.9	27.2		ug/L		85	47 - 131	4	20
N-Nitrosodiphenylamine	ND		31.9	28.0		ug/L		88	66 - 120	3	20
Phenanthrene	ND		31.9	29.7		ug/L		93	65 - 120	2	20
Phenol	ND		31.9	13.2		ug/L		41	33 - 100	3	20
Pyrene	ND		31.9	29.2		ug/L		91	70 - 126	4	20
2,3,4,6-Tetrachlorophenol	ND		31.9	27.9		ug/L		88	44 - 128	8	20
1-Methylnaphthalene	ND		31.9	20.4		ug/L		64	38 - 110	11	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorophenol (Surr)	*55*		*27 - 110*
Phenol-d5 (Surr)	*40*		*20 - 110*
Nitrobenzene-d5 (Surr)	*85*		*36 - 120*
2-Fluorobiphenyl	*87*		*34 - 110*
2,4,6-Tribromophenol (Surr)	*102*		*40 - 145*
Terphenyl-d14 (Surr)	*94*		*40 - 145*

Lab Chronicle

Client: Field & Technical Services LLC
Job ID: 500-206508-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-18D-100621
Lab Sample ID: 500-206508-1
Date Collected: 10/06/21 09:27
Matrix: Water
Date Received: 10/08/21 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			622814	10/11/21 08:49	DAK	TAL CHI
Total/NA	Analysis	8270D		1	623067	10/12/21 17:35	SS	TAL CHI

Client Sample ID: SUPE-W-28C-100621
Lab Sample ID: 500-206508-2
Date Collected: 10/06/21 10:38
Matrix: Water
Date Received: 10/08/21 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			622814	10/11/21 08:49	DAK	TAL CHI
Total/NA	Analysis	8270D		1	623067	10/12/21 17:59	SS	TAL CHI

Client Sample ID: SUPE-EB-01-100621
Lab Sample ID: 500-206508-3
Date Collected: 10/06/21 11:15
Matrix: Water
Date Received: 10/08/21 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			622814	10/11/21 08:49	DAK	TAL CHI
Total/NA	Analysis	8270D		1	623067	10/12/21 18:22	SS	TAL CHI

Client Sample ID: SUPE-W-04AR2-100621
Lab Sample ID: 500-206508-4
Date Collected: 10/06/21 12:04
Matrix: Water
Date Received: 10/08/21 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			622814	10/11/21 08:49	DAK	TAL CHI
Total/NA	Analysis	8270D		1	623067	10/12/21 18:46	SS	TAL CHI

Client Sample ID: SUPE-W-30A-100621
Lab Sample ID: 500-206508-5
Date Collected: 10/06/21 13:20
Matrix: Water
Date Received: 10/08/21 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			622814	10/11/21 08:49	DAK	TAL CHI
Total/NA	Analysis	8270D		1	623067	10/12/21 19:10	SS	TAL CHI
Total/NA	Prep	3510C	DL		622814	10/11/21 08:49	DAK	TAL CHI
Total/NA	Analysis	8270D	DL	10	623192	10/13/21 11:54	SS	TAL CHI

Client Sample ID: SUPE-W-10AR2-100621
Lab Sample ID: 500-206508-6
Date Collected: 10/06/21 14:38
Matrix: Water
Date Received: 10/08/21 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			622814	10/11/21 08:49	DAK	TAL CHI
Total/NA	Analysis	8270D		1	623067	10/12/21 19:34	SS	TAL CHI
Total/NA	Prep	3510C	DL		622814	10/11/21 08:49	DAK	TAL CHI
Total/NA	Analysis	8270D	DL	10	623192	10/13/21 12:19	SS	TAL CHI

Lab Chronicle

Client: Field & Technical Services LLC
Job ID: 500-206508-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-M-99A-100621
Lab Sample ID: 500-206508-7
Date Collected: 10/06/21 20:00
Matrix: Water
Date Received: 10/08/21 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			622814	10/11/21 08:49	DAK	TAL CHI
Total/NA	Analysis	8270D		1	623067	10/12/21 19:58	SS	TAL CHI

Client Sample ID: SUPE-W-30C-100621
Lab Sample ID: 500-206508-8
Date Collected: 10/06/21 09:20
Matrix: Water
Date Received: 10/08/21 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			622814	10/11/21 08:49	DAK	TAL CHI
Total/NA	Analysis	8270D		1	623067	10/12/21 20:21	SS	TAL CHI

Client Sample ID: SUPE-W-06C-100621
Lab Sample ID: 500-206508-9
Date Collected: 10/06/21 10:20
Matrix: Water
Date Received: 10/08/21 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			622814	10/11/21 08:49	DAK	TAL CHI
Total/NA	Analysis	8270D		1	623067	10/12/21 21:57	SS	TAL CHI

Client Sample ID: SUPE-W-12CR-100621
Lab Sample ID: 500-206508-10
Date Collected: 10/06/21 11:47
Matrix: Water
Date Received: 10/08/21 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			622814	10/11/21 08:49	DAK	TAL CHI
Total/NA	Analysis	8270D		1	623067	10/12/21 20:45	SS	TAL CHI

Client Sample ID: SUPE-W-12A-100621
Lab Sample ID: 500-206508-11
Date Collected: 10/06/21 12:48
Matrix: Water
Date Received: 10/08/21 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			622814	10/11/21 08:49	DAK	TAL CHI
Total/NA	Analysis	8270D		1	623067	10/12/21 21:09	SS	TAL CHI

Client Sample ID: SUPE-W-06A-100621
Lab Sample ID: 500-206508-12
Date Collected: 10/06/21 14:20
Matrix: Water
Date Received: 10/08/21 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			622814	10/11/21 08:49	DAK	TAL CHI
Total/NA	Analysis	8270D		1	623067	10/12/21 21:33	SS	TAL CHI

Laboratory References:
TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Field & Technical Services LLC
Job ID: 500-206508-1
Project/Site: Superior, WI Semiannual Groundwater

Laboratory: Eurofins TestAmerica, Chicago

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

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999580010	08-31-22

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
8270D	3510C	Water	2,3,5,6-Tetrachlorophenol

FTS Field & Technical Services, LLC

Ref 210311

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

TestAmerica Duluth SC
269

REF.# 502024

Project Name:	Superior, WI - 2021 OM&M Program	Company:	Field & Technical Services	Client:	Beazer East, Inc.
Project Number:	OM-0556-21	Address:	200 Third Avenue	Contact:	
Laboratory:	TACHI		Carnegie, PA 15106		kmandus.2006@f-ts.com
Shipment Method	Courier		(412) 279-3363		
Program:	Superior 2021 2SA Sampling_001				

500-206508 COC

500-206508

	Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8270D_SVOC+naphtha	8270D_SVOC (less naphtha)														Notes:
					Preservative	None	None														
					Total Bottle Count																
1	10/06/2021	0927	GW	SUPE-W-18D-100621	2	2	0														
2	10/06/2021	1038	GW	SUPE-W-28C-100621	2	0	2														
3	10/06/2021	1115	GW	SUPE-EB-01-100621	2	0	2														
4	10/06/2021	1204	GW	SUPE-W-04AR2-100621	2	0	2														
5	10/06/2021	1320	GW	SUPE-W-30A-100621	2	0	2														
6	10/06/2021	1438	GW	SUPE-W-10AR2-100621	2	0	2														
	10/06/2021	1545	GW	SUPE-TB-01-100621	0	0	0														
7	10/06/2021	2000	GW	SUPE-M-99A-100621	2	0	2														

Please send to Chicago TA
(1 cooler)

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: Kelsey Mandus	Signature: Melissa Gascon	Signature: Melissa Gascon	Signature: Paula Buckley	☐ Rush
Printed Name: Kelsey Mandus	Printed Name: Melissa Gascon	Printed Name:	Printed Name: Paula Buckley	
Firm: FTS	Firm	Firm	Firm: ETA CHI	☒ Standard
Date/Time: 10/6/21 1710	Date/Time:	Date/Time:	Date/Time: 10/8/21 1025	

0.5 → -0.5

10/15/2021

FTS Field & Technical Services, LLC

Ref 210311 »

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

TestAmerica Duluth SC
269

REF.# 502009

Project Name:	Superior, WI - 2021 OM&M Program	Company:	Field & Technical Services	Client:	Beazer East, Inc.
Project Number:	OM-0556-21	Address:	200 Third Avenue	Contact:	
Laboratory:	TACHI		Carnegie, PA 15106		hredmond.2006@f-ts.com
Shipment Method	Courier		(412) 279-3363		
Program:	Superior 2021 2SA Sampling_001				500-206508

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8270D_SVOC (less naphtha)																Notes:
				Preservative	None																
				Total Bottle Count																	
10/06/2021	0920	GW	SUPE-W-30C-100621	2	2																
10/06/2021	1020	GW	SUPE-MS/MSD-W-06C-100621	4	4																
10/06/2021	1020	GW	SUPE-W-06C-100621	2	2																
10/06/2021	1147	GW	SUPE-W-12CR-100621	2	2																
10/06/2021	1248	GW	SUPE-W-12A-100621	2	2																
10/06/2021	1420	GW	SUPE-W-06A-100621	2	2																

Please send to TA Chicago

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature:	Signature:	Signature:	Signature:	☐ Rush
Printed Name: Haley Redmond	Printed Name: Melissa Gascon	Printed Name:	Printed Name: Paula Buckley	
Firm FTS	Firm	Firm	Firm CAT CHI 1526	☒ Standard
Date/Time: 10/6/21 1710	Date/Time:	Date/Time:	Date/Time: 10/8/21	

0.5 → -0.5

10/15/2021


ORIGIN ID DLHA (715) 394-3674
TESTAMERICA DULUTH SVC
63 E 2ND ST STE 100
SUPERIOR, WI 54880
UNITED STATES US
SHIP DATE: 07OCT21
ACTWGT: 54.60 LB AN
CAD: 0669744/CAFE4306
BILL RECIPIENT
TO SAMPLE RECEIVING
EUROFINS TESTAMERICA CHICAGO
2417 BOND ST
UNIVERSITY PARK IL 60484
(708) 534-5200
REF: FIELD AND TECH. SERV. - BEAZER EAST
FedEx
Express
FRI - 08 OCT 10:30A
PRIORITY OVERNIGHT
TRK# 0201 4546 9354 4556
XH JOTA
60484
IL-US ORD
500-206508 Wayb

Login Sample Receipt Checklist

Client: Field & Technical Services LLC

Job Number: 500-206508-1

Login Number: 206508
List Number: 1
Creator: Buckley, Paula M

List Source: Eurofins TestAmerica, Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
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	-0.5 samples were not frozen
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.	True	
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX D

Data Summary Tables

First Semi-Annual Event

Table D1
Summary of Detected Constituents
First Semi-Annual 2021 Sampling Event
Superior Facility
Superior, Wisconsin

Location	Parameter	Results ug/L	PAL ug/L	ES ug/L	MCL ug/L
8270D LL					
W-10AR2	1-Methylnaphthalene	23	NA	NA	NA
W-30A	1-Methylnaphthalene	16	NA	NA	NA
W-10AR2	Acenaphthene	68	NA	NA	NA
W-30A	Acenaphthene	42	NA	NA	NA
W-10AR2	Acenaphthylene	1.8	NA	NA	NA
W-30A	Acenaphthylene	1	NA	NA	NA
W-04AR2	Anthracene	4	600	3000	NA
W-10AR2	Anthracene	0.82 J	600	3000	NA
W-30A	Anthracene	1.1	600	3000	NA
W-04AR2	Benzo(a)anthracene	0.19	NA	NA	NA
W-06A	Benzo(a)anthracene	0.055 J	NA	NA	NA
W-06C	Benzo(a)anthracene	0.048 J	NA	NA	NA
W-10AR2	Benzo(a)anthracene	0.13 J	NA	NA	NA
W-12A	Benzo(a)anthracene	0.05 J	NA	NA	NA
W-12CR	Benzo(a)anthracene	0.048 J	NA	NA	NA
W-28C	Benzo(a)anthracene	0.092 J	NA	NA	NA
W-28C DUP	Benzo(a)anthracene	0.047 J	NA	NA	NA
W-30A	Benzo(a)anthracene	0.24	NA	NA	NA
W-04AR2	Benzo(a)pyrene	0.094 J	0.02	0.2	0.2
W-30A	Benzo(a)pyrene	0.11 J	0.02	0.2	0.2
W-04AR2	Benzo(b)fluoranthene	0.18 J	0.02	0.2	NA
W-10AR2	Benzo(b)fluoranthene	0.09 J	0.02	0.2	NA
W-30A	Benzo(b)fluoranthene	0.16 J	0.02	0.2	NA
W-04AR2	Benzo(k)fluoranthene	0.092 J	NA	NA	NA
W-30A	Benzo(k)fluoranthene	0.091 J	NA	NA	NA
W-04AR2	Chrysene	0.38 J	0.02	0.2	NA
W-10AR2	Chrysene	0.16 J	0.02	0.2	NA
W-30A	Chrysene	0.29 J	0.02	0.2	NA
W-30A	Dibenzofuran	15	NA	NA	NA
W-04AR2	Fluoranthene	0.34 J	80	400	NA
W-10AR2	Fluoranthene	2	80	400	NA
W-30A	Fluoranthene	1.8	80	400	NA
W-10AR2	Fluorene	21	80	400	NA
W-30A	Fluorene	14	80	400	NA
W-10AR2	Phenanthrene	4.7	NA	NA	NA
W-30A	Phenanthrene	4.7	NA	NA	NA
W-10AR2	Phenol	0.71 J	400	2000	NA
W-10AR2	Pyrene	1.2	50	250	NA
W-30A	Pyrene	1.2	50	250	NA

Table D1
Summary of Detected Constituents
First Semi-Annual 2021 Sampling Event
Superior Facility
Superior, Wisconsin

Location	Parameter	Results ug/L	PAL ug/L	ES ug/L	MCL ug/L
8260C					
W-10AR2	1,2,4-Trimethylbenzene	9	96*	480*	NA
W-30A	1,2,4-Trimethylbenzene	1.1	96*	480*	NA
W-10AR2	Benzene	15	0.5	5	5
W-30A	Benzene	1.8	0.5	5	5
W-10AR2	Ethylbenzene	21	140	700	700
W-30A	Ethylbenzene	4.5	140	700	700
W-10AR2	Naphthalene	6.3	10	100	NA
W-30A	Naphthalene	10	10	100	NA
W-10AR2	Toluene	1	160	800	1000
W-10AR2	Xylene, Meta & Para	2.6	400**	2000**	10000**
W-30A	Xylene, Meta & Para	0.9 J	400**	2000**	10000**
W-10AR2	Xylene, Ortho	16	400**	2000**	10000**
W-30A	Xylene, Ortho	1.4	400**	2000**	10000**
8290A					
W-04AR2	1,2,3,4,6,7,8-HPCDD	0.000055	NA	NA	NA
W-06A	1,2,3,4,6,7,8-HPCDD	0.0000054 J	NA	NA	NA
W-06C	1,2,3,4,6,7,8-HPCDD	0.0000041 J	NA	NA	NA
W-10AR2	1,2,3,4,6,7,8-HPCDD	0.00002 J	NA	NA	NA
W-12A	1,2,3,4,6,7,8-HPCDD	0.000047 J	NA	NA	NA
W-12CR	1,2,3,4,6,7,8-HPCDD	0.0000048 J	NA	NA	NA
W-28C	1,2,3,4,6,7,8-HPCDD	0.00001 J	NA	NA	NA
W-28C DUP	1,2,3,4,6,7,8-HPCDD	0.0000079 J	NA	NA	NA
W-30A	1,2,3,4,6,7,8-HPCDD	0.00017	NA	NA	NA
W-30C	1,2,3,4,6,7,8-HPCDD	0.000042 J	NA	NA	NA
W-04AR2	1,2,3,4,6,7,8-HPCDF	0.0000064 J	NA	NA	NA
W-10AR2	1,2,3,4,6,7,8-HPCDF	0.0000035 J	NA	NA	NA
W-12A	1,2,3,4,6,7,8-HPCDF	0.000011 J	NA	NA	NA
W-30A	1,2,3,4,6,7,8-HPCDF	0.000046 J	NA	NA	NA
W-30C	1,2,3,4,6,7,8-HPCDF	0.0000074 J	NA	NA	NA
W-06C	1,2,3,4,7,8,9-HPCDF	0.0000004 JI	NA	NA	NA
W-12A	1,2,3,4,7,8,9-HPCDF	0.0000022 JI	NA	NA	NA
W-30A	1,2,3,4,7,8,9-HPCDF	0.0000047 J	NA	NA	NA
W-30C	1,2,3,4,7,8,9-HPCDF	0.0000023 JI	NA	NA	NA
W-04AR2	1,2,3,4,7,8-HXCDF	0.00000092 JI	NA	NA	NA
W-12A	1,2,3,4,7,8-HXCDF	0.0000067 J	NA	NA	NA
W-30A	1,2,3,4,7,8-HXCDF	0.0000064 J	NA	NA	NA
W-30C	1,2,3,4,7,8-HXCDF	0.0000011 J	NA	NA	NA
W-04AR2	1,2,3,6,7,8-HXCDD	0.0000016 JI	NA	NA	NA
W-10AR2	1,2,3,6,7,8-HXCDD	0.00000066 JI	NA	NA	NA
W-12A	1,2,3,6,7,8-HXCDD	0.0000047 JI	NA	NA	NA
W-28C	1,2,3,6,7,8-HXCDD	0.00000057 JI	NA	NA	NA
W-30A	1,2,3,6,7,8-HXCDD	0.0000047 J	NA	NA	NA
W-04AR2	1,2,3,6,7,8-HXCDF	0.0000012 J	NA	NA	NA
W-10AR2	1,2,3,6,7,8-HXCDF	0.0000015 JI	NA	NA	NA
W-12A	1,2,3,6,7,8-HXCDF	0.0000038 JI	NA	NA	NA
W-30A	1,2,3,6,7,8-HXCDF	0.000012 J	NA	NA	NA
W-30C	1,2,3,6,7,8-HXCDF	0.0000018 JI	NA	NA	NA
W-12A	1,2,3,7,8,9-HXCDD	0.0000017 J	NA	NA	NA
W-12CR	1,2,3,7,8,9-HXCDD	0.0000003 J	NA	NA	NA
W-30C	1,2,3,7,8,9-HXCDD	0.0000012 J	NA	NA	NA
W-28C DUP	1,2,3,7,8-PECDD	0.00000048 JI	NA	NA	NA
W-30A	1,2,3,7,8-PECDD	0.00000034 JI	NA	NA	NA
W-12A	1,2,3,7,8-PECDF	0.00000088 J	NA	NA	NA
W-30A	1,2,3,7,8-PECDF	0.00000084 J	NA	NA	NA
W-12A	2,3,4,6,7,8-HXCDF	0.0000013 JI	NA	NA	NA
W-30C	2,3,4,6,7,8-HXCDF	0.0000011 JI	NA	NA	NA

Table D1
Summary of Detected Constituents
First Semi-Annual 2021 Sampling Event
Superior Facility
Superior, Wisconsin

Location	Parameter	Results ug/L	PAL ug/L	ES ug/L	MCL ug/L
W-12A	2,3,4,7,8-PECDF	0.00000097 JI	NA	NA	NA
W-30A	2,3,4,7,8-PECDF	0.00000098 J	NA	NA	NA
W-12A	2,3,7,8-TCDF	0.0000005 J	NA	NA	NA
W-12CR	2,3,7,8-TCDF	0.000000083 JI	NA	NA	NA
W-30A	2,3,7,8-TCDF	0.00000027 J	NA	NA	NA
W-04AR2	OCDD	0.00066	NA	NA	NA
W-06A	OCDD	0.000059 J	NA	NA	NA
W-06C	OCDD	0.000048 J	NA	NA	NA
W-10AR2	OCDD	0.00017	NA	NA	NA
W-12A	OCDD	0.00023	NA	NA	NA
W-12CR	OCDD	0.000059 J	NA	NA	NA
W-28C	OCDD	0.000093 J	NA	NA	NA
W-28C DUP	OCDD	0.000081 J	NA	NA	NA
W-30A	OCDD	0.0021	NA	NA	NA
W-30C	OCDD	0.00014	NA	NA	NA
W-04AR2	OCDF	0.000029 J	NA	NA	NA
W-10AR2	OCDF	0.000014 J	NA	NA	NA
W-12A	OCDF	0.000024 J	NA	NA	NA
W-30A	OCDF	0.00017	NA	NA	NA
W-30C	OCDF	0.000016 J	NA	NA	NA
W-04AR2	Total HPCDD	0.0003	NA	NA	NA
W-06A	Total HPCDD	0.000014 JI	NA	NA	NA
W-06C	Total HPCDD	0.000014 J	NA	NA	NA
W-10AR2	Total HPCDD	0.000065	NA	NA	NA
W-12A	Total HPCDD	0.000084	NA	NA	NA
W-12CR	Total HPCDD	0.000017 J	NA	NA	NA
W-28C	Total HPCDD	0.000046 J	NA	NA	NA
W-28C DUP	Total HPCDD	0.000034 J	NA	NA	NA
W-30A	Total HPCDD	0.00043	NA	NA	NA
W-30C	Total HPCDD	0.000071	NA	NA	NA
W-04AR2	Total HPCDF	0.000023 J	NA	NA	NA
W-06A	Total HPCDF	0.0000033 JI	NA	NA	NA
W-06C	Total HPCDF	0.0000027 JI	NA	NA	NA
W-10AR2	Total HPCDF	0.000012 J	NA	NA	NA
W-12A	Total HPCDF	0.000037 JI	NA	NA	NA
W-28C	Total HPCDF	0.0000025 JI	NA	NA	NA
W-28C DUP	Total HPCDF	0.000003 JI	NA	NA	NA
W-30A	Total HPCDF	0.00018 I	NA	NA	NA
W-30C	Total HPCDF	0.000032 JI	NA	NA	NA
W-04AR2	Total HXCDD	0.000025 JI	NA	NA	NA
W-12A	Total HXCDD	0.000017 JI	NA	NA	NA
W-30A	Total HXCDD	0.00003 JI	NA	NA	NA
W-30C	Total HXCDD	0.000013 JI	NA	NA	NA
W-04AR2	Total HXCDF	0.000025 JI	NA	NA	NA
W-10AR2	Total HXCDF	0.000022 JI	NA	NA	NA
W-12A	Total HXCDF	0.000073 I	NA	NA	NA
W-12CR	Total HXCDF	0.0000022 JI	NA	NA	NA
W-28C	Total HXCDF	0.0000021 J	NA	NA	NA
W-28C DUP	Total HXCDF	0.000014 JI	NA	NA	NA
W-30A	Total HXCDF	0.00013 I	NA	NA	NA
W-30C	Total HXCDF	0.00004 JI	NA	NA	NA
W-12A	Total PECDD	0.00000081 JI	NA	NA	NA
W-12CR	Total PECDD	0.00000027 J	NA	NA	NA
W-28C DUP	Total PECDD	0.00000048 JI	NA	NA	NA
W-30A	Total PECDD	0.0000013 JI	NA	NA	NA
W-04AR2	Total PECDF	0.0000046 JI	NA	NA	NA
W-10AR2	Total PECDF	0.000017 JI	NA	NA	NA
W-12A	Total PECDF	0.000051 I	NA	NA	NA
W-12CR	Total PECDF	0.00000078 JI	NA	NA	NA
W-30A	Total PECDF	0.000096 I	NA	NA	NA

Table D1
Summary of Detected Constituents
First Semi-Annual 2021 Sampling Event
Superior Facility
Superior, Wisconsin

Location	Parameter	Results ug/L	PAL ug/L	ES ug/L	MCL ug/L
W-30C	Total PECDF	0.000014 JI	NA	NA	NA
W-06C	Total TCDD	0.00000026 J	NA	NA	NA
W-28C DUP	Total TCDD	0.00000069 JI	NA	NA	NA
W-30A	Total TCDD	0.00000012 JI	NA	NA	NA
W-04AR2	Total TCDF	0.00000056 J	NA	NA	NA
W-10AR2	Total TCDF	0.0000063 JI	NA	NA	NA
W-12A	Total TCDF	0.000036 I	NA	NA	NA
W-28C	Total TCDF	0.00000022 JI	NA	NA	NA
W-30A	Total TCDF	0.000018 I	NA	NA	NA
W-30C	Total TCDF	0.000067 I	NA	NA	NA
W-04AR2	2,3,7,8-TCDD TEQ	1.19E-06	3E-06	0.00003	0.00003
W-06A	2,3,7,8-TCDD TEQ	7.17E-08	3E-06	0.00003	0.00003
W-06C	2,3,7,8-TCDD TEQ	5.94E-08	3E-06	0.00003	0.00003
W-10AR2	2,3,7,8-TCDD TEQ	5.02E-07	3E-06	0.00003	0.00003
W-12A	2,3,7,8-TCDD TEQ	2.87E-06	3E-06	0.00003	0.00003
W-12CR	2,3,7,8-TCDD TEQ	1.04E-07	3E-06	0.00003	0.00003
W-28C	2,3,7,8-TCDD TEQ	1.85E-07	3E-06	0.00003	0.00003
W-28C DUP	2,3,7,8-TCDD TEQ	5.83E-07	3E-06	0.00003	0.00003
W-30A	2,3,7,8-TCDD TEQ	5.88E-06	3E-06	0.00003	0.00003
W-30C	2,3,7,8-TCDD TEQ	1.08E-06	3E-06	0.00003	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

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.

Second Semi-Annual Event

Table D2
Summary of Detected Constituents
Second Semi-Annual 2021 Sampling Event
Superior Facility
Superior, Wisconsin

Location	Parameter	Results ug/L	PAL ug/L	ES ug/L	MCL ug/L
8270D LL					
W-10AR2	1-Methylnaphthalene	40	NA	NA	NA
W-30A	1-Methylnaphthalene	28	NA	NA	NA
W-12CR	2,4,6-Trichlorophenol	1.4 J	NA	NA	NA
W-10AR2	2-Methylnaphthalene	0.091 J	NA	NA	NA
W-30A	2-Methylnaphthalene	0.061 J	NA	NA	NA
W-10AR2	2-Methylphenol	0.25 J	NA	NA	NA
W-10AR2	Acenaphthene	120	NA	NA	NA
W-30A	Acenaphthene	73	NA	NA	NA
W-10AR2	Acenaphthylene	1.4	NA	NA	NA
W-30A	Acenaphthylene	0.73 J	NA	NA	NA
W-04AR2	Anthracene	2.1	600	3000	NA
W-10AR2	Anthracene	2.2	600	3000	NA
W-30A	Anthracene	1.4	600	3000	NA
W-04AR2	Benzo(a)anthracene	0.69	NA	NA	NA
W-10AR2	Benzo(a)anthracene	0.19	NA	NA	NA
W-30A	Benzo(a)anthracene	0.19	NA	NA	NA
W-04AR2	Benzo(a)pyrene	0.46	0.02	0.2	0.2
W-04AR2	Benzo(b)fluoranthene	1.3	0.02	0.2	NA
W-30A	Benzo(b)fluoranthene	0.094 J	0.02	0.2	NA
W-04AR2	Benzo(k)fluoranthene	0.5	NA	NA	NA
W-04AR2	Chrysene	1.9	0.02	0.2	NA
W-10AR2	Chrysene	0.26	0.02	0.2	NA
W-30A	Chrysene	0.17	0.02	0.2	NA
W-10AR2	Dibenzofuran	27	NA	NA	NA
W-30A	Dibenzofuran	31	NA	NA	NA
W-04AR2	Fluoranthene	5.7	80	400	NA
W-10AR2	Fluoranthene	3.8	80	400	NA
W-30A	Fluoranthene	3.3	80	400	NA
W-10AR2	Fluorene	28	80	400	NA
W-30A	Fluorene	24	80	400	NA
W-04AR2	Indeno(1,2,3-cd)pyrene	0.25	NA	NA	NA
W-18D	Pentachlorophenol	0.84 J	0.1	1	1
W-04AR2	Phenanthrene	0.61 J	NA	NA	NA
W-10AR2	Phenanthrene	0.52 J	NA	NA	NA
W-30A	Phenanthrene	9.1	NA	NA	NA
W-10AR2	Phenol	2.3 J	400	2000	NA
W-04AR2	Pyrene	3.9	50	250	NA
W-10AR2	Pyrene	2.3	50	250	NA
W-30A	Pyrene	1.9	50	250	NA

Table D2
Summary of Detected Constituents
Second Semi-Annual 2021 Sampling Event
Superior Facility
Superior, Wisconsin

Location	Parameter	Results ug/L	PAL ug/L	ES ug/L	MCL ug/L
8260C					
W-10AR2	1,2,4-Trimethylbenzene	11	96*	480*	NA
W-30A	1,2,4-Trimethylbenzene	8.6	96*	480*	NA
W-10AR2	Benzene	26	0.5	5	5
W-30A	Benzene	18	0.5	5	5
W-10AR2	Ethylbenzene	53	140	700	700
W-30A	Ethylbenzene	38	140	700	700
W-10AR2	Naphthalene	3.1	10	100	NA
W-30A	Naphthalene	130	10	100	NA
W-10AR2	Toluene	3.7	160	800	1000
W-30A	Toluene	4.5	160	800	1000
W-10AR2	Xylene, Meta & Para	4.6	400**	2000**	10000**
W-30A	Xylene, Meta & Para	11	400**	2000**	10000**
W-10AR2	Xylene, Ortho	22	400**	2000**	10000**
W-30A	Xylene, Ortho	11	400**	2000**	10000**

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

* - Total trimethylbenzene standard

** - Total xylene standard

APPENDIX E

Linear Regression Analysis

BENZENE STATISTICAL ANALYSIS

	W-10AR2 Benzene	W-30A Benzene	PAL	ES/MCL
Feb-99		0	0.5	5
May-99		0	0.5	5
Aug-99	140	0	0.5	5
Nov-99	140	0	0.5	5
Feb-00	130	0	0.5	5
May-00	110	0	0.5	5
Aug-00	0	0	0.5	5
Nov-00	120	0	0.5	5
Feb-01	100	14	0.5	5
May-01	73	0	0.5	5
Aug-01	0	32	0.5	5
Dec-01	91	100	0.5	5
Apr-02	28	2.8	0.5	5
Oct-02	63	0	0.5	5
Apr-03	75	19	0.5	5
Oct-03	11	0	0.5	5
Apr-04	41	0.18	0.5	5
Oct-04	44	0	0.5	5
Apr-05	54	0	0.5	5
Oct-05	14	3.7	0.5	5
Apr-06	35	0.14	0.5	5
Oct-06	46	13	0.5	5
Apr-07	5	0	0.5	5
Oct-07	0	0	0.5	5
May-08	3.7	0	0.5	5
Oct-08	5.5	0	0.5	5
Apr-09	5.4	0.4	0.5	5
Oct-09	21	0.29	0.5	5
Apr-10	8.6	0.35	0.5	5
Oct-10	1.2	8.9	0.5	5
Apr-11	0	0	0.5	5
Oct-11	28	22	0.5	5
Apr-12	2.2	0	0.5	5
Oct-12	30	17	0.5	5
May-13	2.4	0	0.5	5
Oct-13	17	2.3	0.5	5
Apr-14	0.64	0	0.5	5
Oct-14	9.3	3.7	0.5	5
Apr-15	8.7	0.33	0.5	5
Oct-15	13	8.2	0.5	5
Apr-16	5.8	2.5	0.5	5
Oct-16	12	8.5	0.5	5
Apr-17	8.6	5.6	0.5	5
Oct-17	16	11	0.5	5
May-18	13	8.9	0.5	5
Oct-18	16	3.6	0.5	5
Apr-19	17	0.76	0.5	5
Oct-19	22	2.4	0.5	5
Apr-20	18	5.6	0.5	5
Oct-20	18	9.6	0.5	5
Apr-21	15	1.8	0.5	5
Oct-21	26	18	0.5	5

Benzene data for Feb-99 W-10AR2 and May-99 W-10AR2 not included; Well W-10A was abandoned prior to 3rd quarter 1999 sampling and well W-10AR was installed. Data is not available for W-10A.

SUMMARY OUTPUT FOR W-10AR2 (August 1999 - October 2021)

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.61952759
R Square	0.383814435
Adjusted R Square	0.370977236
Standard Error	31.5585911
Observations	50

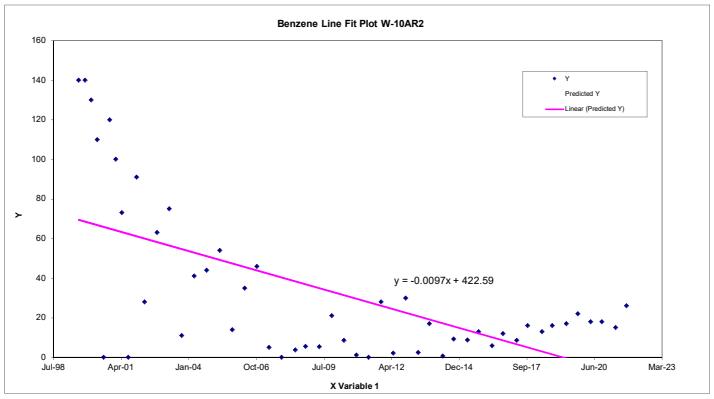
ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	29777.36291	29777.36291	29.89861159	1.61089E-06
Residual	48	47805.34426	995.944672		
Total	49	77582.70717			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	422.5892782	71.33783777	5.923774695	3.27739E-07	279.1549421	566.0236144	279.1549421	566.0236144
X Variable 1	-0.009709041	0.001775623	-5.467962288	1.61089E-06	-0.013279171	-0.006138911	-0.013279171	-0.006138911

RESIDUAL OUTPUT

Observation	*Predicted Y*	*Residuals*
1	69.44231855	70.55768145
2	68.54908675	71.45091325
3	67.65585495	62.34414505
4	66.78204123	43.21795877
5	65.88880943	-65.88880943
6	64.99557763	55.00442237
7	64.10234583	35.89765417
8	63.23824115	9.761758848
9	62.34500935	-62.34500935
10	61.16050631	29.83949369
11	59.98571231	-31.98571231
12	58.20895775	4.791042248
13	56.44191223	18.55808777
14	54.66515767	-43.66515767
15	52.85927599	-11.85927599
16	51.08252143	-7.082521428
17	49.16984029	4.830159711
18	47.39308573	-33.39308573
19	45.62604021	-10.62604021
20	43.84928565	2.15071435
21	42.10165821	-37.10165821
22	40.33461269	-40.33461269
23	38.36367731	-34.66367731
24	36.8587759	-31.3587759
25	34.89754956	-29.49754956
26	33.120795	-12.120795
27	31.37316756	-22.77316756
28	29.58670396	-28.38670396
29	27.82936748	-27.82936748
30	26.05261292	1.947387077
31	24.30498549	-22.10498549
32	22.51852189	7.481478115
33	20.68351308	-18.28351308
34	19.11064838	-2.110648385
35	17.14942204	-16.50942204
36	15.58626639	-6.286266388
37	13.60562196	-4.90562196
38	12.04246631	0.957533691
39	10.090949	-4.290949005
40	8.518084312	3.481915688
41	6.537439884	2.062560116
42	4.974284233	11.02571577
43	2.935385557	10.06461444
44	1.449902236	14.55009776
45	-0.579287398	17.5792874
46	-2.229824421	24.22982442
47	-4.055124188	22.05512419
48	-5.686243129	23.68624313
49	-7.657178515	22.65717852
50	-9.220334167	35.22033417



BENZENE STATISTICAL ANALYSIS

SUMMARY OUTPUT FOR W-30A (February 1999 - October 2021)

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.056426005
R Square	0.003183894
Adjusted R Square	-0.016752428
Standard Error	15.10200009
Observations	52

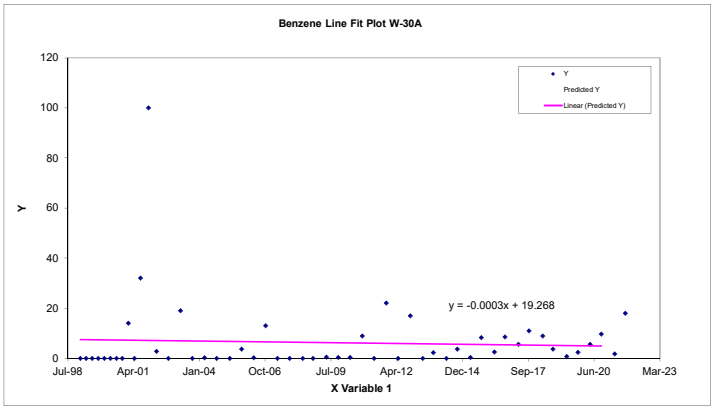
ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	36.42356971	36.42356971	0.159703182	0.691131985
Residual	50	11403.52033	228.0704066		
Total	51	11439.9439			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	19.26847652	32.56923607	0.591615857	0.556773434	-46.14875937	84.68571241	-46.14875937	84.68571241
X Variable 1	-0.000325131	0.000813583	-0.399628806	0.691131985	-0.00195926	0.001308998	-0.00195926	0.001308998

RESIDUAL OUTPUT

Observation	*Predicted Y*	*Residuals*
1	7.501331512	-7.501331512
2	7.472394844	-7.472394844
3	7.442482782	-7.442482782
4	7.41257072	-7.41257072
5	7.382658658	-7.382658658
6	7.353396859	-7.353396859
7	7.323484797	-7.323484797
8	7.293572735	-7.293572735
9	7.263660673	6.736339327
10	7.234724005	-7.234724005
11	7.204811943	24.79518806
12	7.165145948	92.83485405
13	7.125805084	-4.325805084
14	7.066306092	-7.066306092
15	7.00713223	11.99286777
16	6.947633238	-6.947633238
17	6.887158852	-6.707158852
18	6.827659859	-6.827659859
19	6.763609031	-6.763609031
20	6.704110039	-3.004110039
21	6.644936177	-6.504936177
22	6.585437185	6.414562815
23	6.526913586	-6.526913586
24	6.467739724	-6.467739724
25	6.40173811	-6.40173811
26	6.351342788	-6.351342788
27	6.285666305	-5.885666305
28	6.226167312	-5.936167312
29	6.167643713	-5.817643713
30	6.107819589	2.792180411
31	6.048970859	-6.048970859
32	5.989471867	16.01052813
33	5.930948267	-5.930948267
34	5.871124144	11.12887586
35	5.809674365	-5.809674365
36	5.757003125	-3.457003125
37	5.691326642	-5.691326642
38	5.638980534	-1.938980534
39	5.572653788	-5.242653788
40	5.52030768	2.67969232
41	5.454956327	-2.954956327
42	5.402285088	3.097714912
43	5.335958342	0.264041658
44	5.283612234	5.716387766
45	5.215334702	3.684665298
46	5.165589643	-1.565589643
47	5.097637241	-4.337637241
48	5.042364953	-2.642364953
49	4.981240305	0.618759695
50	4.926618279	4.673381721
51	4.860616665	-3.060616665
52	4.808270557	13.19172944



CHRYSENE STATISTICAL ANALYSIS

	W-10AR2 Chrysene	W-30A Chrysene	PAL	ES
Feb-99		28	0.02	0.2
May-99		0	0.02	0.2
Aug-99	0	13	0.02	0.2
Nov-99	0	0	0.02	0.2
Feb-00	0	0	0.02	0.2
May-00	0	33	0.02	0.2
Aug-00	0	6.6	0.02	0.2
Nov-00	3.2	4.1	0.02	0.2
Feb-01	1.4	0	0.02	0.2
May-01	0.62	13	0.02	0.2
Aug-01	0	5.3	0.02	0.2
Dec-01	1	0.059	0.02	0.2
Apr-02	0	0.36	0.02	0.2
Oct-02	0	0.12	0.02	0.2
Apr-03	0	0	0.02	0.2
Oct-03	0	0.067	0.02	0.2
Apr-04	0	0.041	0.02	0.2
Oct-04	0	0	0.02	0.2
Apr-05	0	0	0.02	0.2
Oct-05	0	0	0.02	0.2
Apr-06	0	0	0.02	0.2
Oct-06	0	0.68	0.02	0.2
Apr-07	0.19	4.2	0.02	0.2
Oct-07	0	0.074	0.02	0.2
May-08	0	0	0.02	0.2
Oct-08	0	0	0.02	0.2
Apr-09	0	0	0.02	0.2
Oct-09	0	0	0.02	0.2
Apr-10	0	0	0.02	0.2
Oct-10	0	0.22	0.02	0.2
Apr-11	0	0.22	0.02	0.2
Oct-11	0	0.2	0.02	0.2
Apr-12	0	0	0.02	0.2
Oct-12	3.4	2	0.02	0.2
May-13	0	0	0.02	0.2
Oct-13	0	0	0.02	0.2
Apr-14	0	0.05	0.02	0.2
Oct-14	0	0	0.02	0.2
Apr-15	0	0	0.02	0.2
Oct-15	0	0	0.02	0.2
Apr-16	0	0.13	0.02	0.2
Oct-16	0	0	0.02	0.2
Apr-17	0	0.5	0.02	0.2
Oct-17	0	0.62	0.02	0.2
May-18	0	0	0.02	0.2
Oct-18	0	0	0.02	0.2
Apr-19	0	0	0.02	0.2
Oct-19	0	0	0.02	0.2
Apr-20	0.3	0.23	0.02	0.2
Oct-20	0	0	0.02	0.2
Apr-21	0.16	0.29	0.02	0.2
Oct-21	0.26	0.17	0.02	0.2

Chrysene data for Feb-99 W-10AR2 and May-99 W-10AR2not included; Well W-10A was abandoned prior to 3rd quarter 1999 sampling and well W-10AR was installed. Data is not available for W-10A.

SUMMARY OUTPUT FOR W-10AR2 (August 1999 - October 2021)

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.153290666
R Square	0.023498028
Adjusted R Square	0.003154237
Standard Error	0.686206278
Observations	50

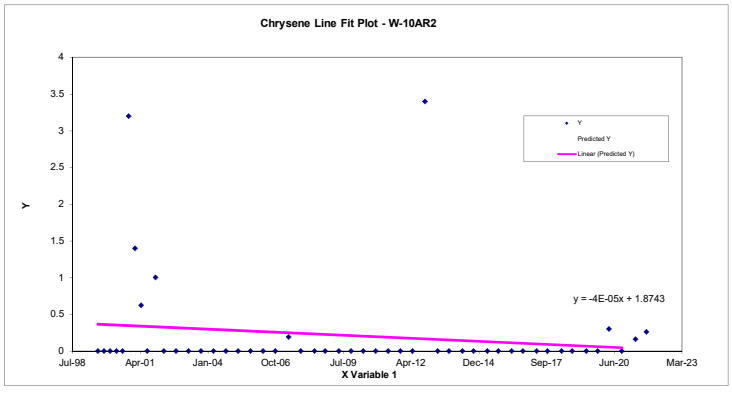
ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.543887291	0.543887291	1.155046679	0.287868077
Residual	48	22.60219471	0.470879056		
Total	49	23.146082			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	1.874311349	1.55106468	1.208403088	0.232811887	-1.244313208	4.992935905	-1.244313208	4.992935905
X Variable 1	-4.14933E-05	3.86081E-05	-1.07473098	0.287868077	-0.00011912	3.61335E-05	-0.00011912	3.61335E-05

RESIDUAL OUTPUT

Observation	*Predicted Y*	*Residuals*
1	0.365074667	-0.365074667
2	0.361257281	-0.361257281
3	0.357439895	-0.357439895
4	0.353705496	-0.353705496
5	0.34988811	-0.34988811
6	0.346070724	2.853929276
7	0.342253339	1.057746661
8	0.338560433	0.281439567
9	0.334743047	-0.334743047
10	0.329680861	0.670319139
11	0.324660169	-0.324660169
12	0.317066891	-0.317066891
13	0.309515106	-0.309515106
14	0.301921827	-0.301921827
15	0.294204069	-0.294204069
16	0.286610791	-0.286610791
17	0.279059006	-0.279059006
18	0.271465727	-0.271465727
19	0.263913942	-0.263913942
20	0.256320664	-0.256320664
21	0.248229466	-0.058229466
22	0.240760668	-0.240760668
23	0.232254536	-0.232254536
24	0.225823071	-0.225823071
25	0.217441419	-0.217441419
26	0.209848141	-0.209848141
27	0.202379343	-0.202379343
28	0.194744571	-0.194744571
29	0.187234279	-0.187234279
30	0.179641001	-0.179641001
31	0.172172203	-0.172172203
32	0.164537431	3.235462569
33	0.156695193	-0.156695193
34	0.149973274	-0.149973274
35	0.141591623	-0.141591623
36	0.134911197	-0.134911197
37	0.126446559	-0.126446559
38	0.119766134	-0.119766134
39	0.111425976	-0.111425976
40	0.104704057	-0.104704057
41	0.096239419	-0.096239419
42	0.089558994	-0.089558994
43	0.080845396	-0.080845396
44	0.074496917	-0.074496917
45	0.065824813	-0.065824813
46	0.058770947	-0.058770947
47	0.051800069	0.248199931
48	0.043999324	-0.043999324
49	0.035576179	0.124423821
50	0.028895754	0.231104246



CHRYSENE STATISTICAL ANALYSIS

SUMMARY OUTPUT FOR W-30A (February 1999 - October 2021)

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.406142951
R Square	0.164952097
Adjusted R Square	0.148251138
Standard Error	5.88838818
Observations	52

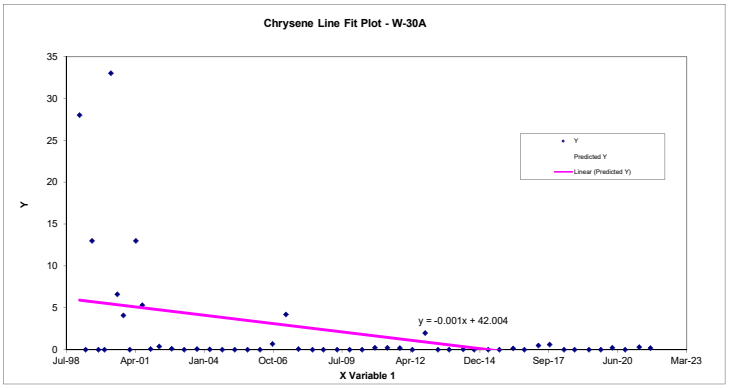
ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	342.4595791	342.4595791	9.876804421	0.002812958
Residual	50	1733.655768	34.67311536		
Total	51	2076.115347			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	42.00360094	12.68669352	3.30770995	0.001747881	16.49732033	67.50988153	16.49732033	67.50988153
X Variable 1	-0.000996962	0.000317227	-3.142738364	0.002812958	-0.001634132	-0.000359792	-0.001634132	-0.000359792

RESIDUAL OUTPUT

Observation	*Predicted Y*	*Residuals*
1	5.921552479	22.07844752
2	5.832822862	-5.832822862
3	5.741102359	7.258897641
4	5.649381855	-5.649381855
5	5.557661352	-5.557661352
6	5.467934772	27.53206523
7	5.376214269	1.223785731
8	5.284493766	-1.184493766
9	5.192773262	-5.192773262
10	5.104043645	7.895956355
11	5.012323142	0.287676858
12	4.890693778	-4.831693778
13	4.770061377	-4.410061377
14	4.587617332	-4.467617332
15	4.40617025	-4.40617025
16	4.223726205	-4.156726205
17	4.038291274	-3.997291274
18	3.855847229	-3.855847229
19	3.674400147	-3.674400147
20	3.491956102	-3.491956102
21	3.310509019	-3.310509019
22	3.128064974	-2.448064974
23	2.933657386	1.266342614
24	2.754204227	-2.680204227
25	2.549827018	-2.549827018
26	2.395297909	-2.395297909
27	2.193911587	-2.193911587
28	2.011467542	-2.011467542
29	1.832014383	-1.832014383
30	1.648573376	-1.428573376
31	1.468123256	-1.248123256
32	1.285679211	-1.085679211
33	1.106226052	-1.106226052
34	0.922785045	1.077214955
35	0.734359228	-0.734359228
36	0.572851386	-0.572851386
37	0.371465063	-0.321465063
38	0.210954182	-0.210954182
39	0.007573935	-0.007573935
40	-0.152936946	0.152936946
41	-0.353326306	0.483326306
42	-0.514834149	0.514834149
43	-0.718214396	1.218214396
44	-0.878725277	1.498725277
45	-1.088087295	1.088087295
46	-1.24062248	1.24062248
47	-1.448987537	1.448987537
48	-1.618471076	1.618471076
49	-1.78596069	2.01596069
50	-1.973389545	1.973389545
51	-2.17577283	2.46577283
52	-2.336283711	2.506283711



NAPHTHALENE STATISTICAL ANALYSIS

	W-10AR2 Naphthalene	W-30A Naphthalene	PAL	ES/MCL
Feb-99		8500	10	100
May-99		5300	10	100
Aug-99	4100	2600	10	100
Nov-99	5300	4800	10	100
Feb-00	4400	6200	10	100
May-00	3400	2700	10	100
Aug-00	3400	1400	10	100
Nov-00	3000	2000	10	100
Feb-01	3100	4000	10	100
May-01	2500	2600	10	100
Aug-01	0	8000	10	100
Dec-01	3800	56	10	100
Apr-02	1000	1600	10	100
Oct-02	1900	0	10	100
Apr-03	1200	1300	10	100
Oct-03	290	240	10	100
Apr-04	800	7.1	10	100
Oct-04	1400	130	10	100
Apr-05	2000	110	10	100
Oct-05	660	92	10	100
Apr-06	2000	22	10	100
Oct-06	2100	610	10	100
Apr-07	220	2500	10	100
Oct-07	0	0	10	100
May-08	70	20	10	100
Oct-08	240	37	10	100
Apr-09	200	54	10	100
Oct-09	660	44	10	100
Apr-10	200	35	10	100
Oct-10	33	300	10	100
Apr-11	60	84	10	100
Oct-11	890	810	10	100
Apr-12	210	9.9	10	100
Oct-12	780	230	10	100
May-13	11	15	10	100
Oct-13	69	96	10	100
Apr-14	4.9	4.2	10	100
Oct-14	47	11	10	100
Apr-15	37	1.8	10	100
Oct-15	49	37	10	100
Apr-16	7.2	11	10	100
Oct-16	1.5	12	10	100
Apr-17	2	14	10	100
Oct-17	1.7	26	10	100
May-18	1.5	29	10	100
Oct-18	1.9	67	10	100
Apr-19	2.2	22	10	100
Oct-19	0	91	10	100
Apr-20	1.9	150	10	100
Oct-20	2.3	43	10	100
Apr-21	6.3	10	10	100
Oct-21	3.1	130	10	100

Naphthalene data for Feb-99 W-10AR2 and May-99 W-10AR2 not included; Well W-10A was abandoned prior to 3rd quarter 1999 sampling and well W-10AR was installed. Data is not available for W-10A.

SUMMARY OUTPUT FOR W-10AR2 (August 1999 - October 2021)

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.753504349
R Square	0.567768804
Adjusted R Square	0.558763988
Standard Error	949.0366384
Observations	50

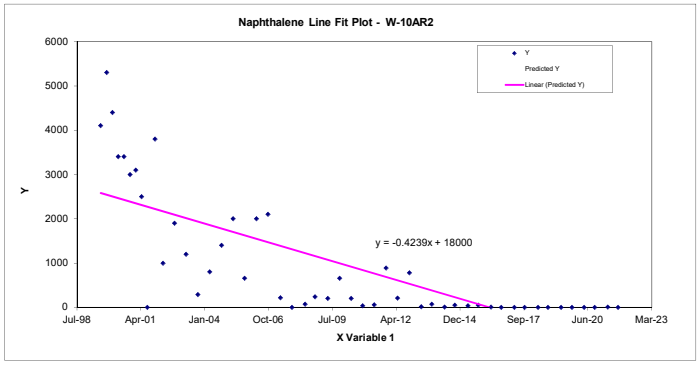
ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	56788789.8	56788789.8	63.05167896	2.70876E-10
Residual	48	43232185.97	900670.541		
Total	49	100020975.8			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	17999.52271	2144.655084	8.39273543	5.65152E-11	13687.40465	22311.64076	13687.40465	22311.64076
X Variable 1	-0.423886523	0.053382792	-7.940508734	2.70876E-10	-0.531219819	-0.316553227	-0.531219819	-0.316553227

RESIDUAL OUTPUT

Observation	*Predicted Y*	*Residuals*
1	2581.498213	1518.501787
2	2542.500652	2757.499348
3	2503.503092	1896.496908
4	2465.353305	934.6466947
5	2426.355745	973.6442548
6	2387.358185	612.6418149
7	2348.360625	751.639375
8	2310.634724	189.3652755
9	2271.637164	-2271.637164
10	2219.923009	1580.076991
11	2168.632739	-1168.632739
12	2091.061506	-191.0615057
13	2013.914159	-813.9141585
14	1936.342925	-1646.342925
15	1857.500032	-1057.500032
16	1779.928798	-379.928798
17	1702.781451	297.2185492
18	1625.210217	-965.2102172
19	1548.06287	451.93713
20	1470.491636	629.5083637
21	1387.833764	-1167.833764
22	1311.53419	-1311.53419
23	1224.637453	-1154.637453
24	1158.935042	-918.9350421
25	1073.309964	-873.3099645
26	995.7387308	-335.7387308
27	919.4391567	-719.4391567
28	841.4440365	-808.4440365
29	764.7205759	-704.7205759
30	687.1493422	202.8506578
31	610.8497681	-400.8497681
32	532.8546479	247.1453521
33	452.7400951	-441.7400951
34	384.0704784	-315.0704784
35	298.4454008	-293.5454008
36	230.1996707	-183.1996707
37	143.72682	-106.72682
38	75.48108985	-26.48108985
39	-9.720101227	16.92010123
40	-78.38971792	79.88971792
41	-164.8625686	166.8625686
42	-233.1082987	234.8082987
43	-322.1244685	323.6244685
44	-386.9791065	388.8791065
45	-475.5713898	477.7713898
46	-547.6320986	547.6320986
47	-627.3227649	629.2227649
48	-698.5357008	700.8357008
49	-784.5846649	790.8846649
50	-852.830395	855.930395



NAPHTHALENE STATISTICAL ANALYSIS

SUMMARY OUTPUT FOR W-30A (February 1999 - October 2021)

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.611089579
R Square	0.373430473
Adjusted R Square	0.360899083
Standard Error	1651.342654
Observations	52

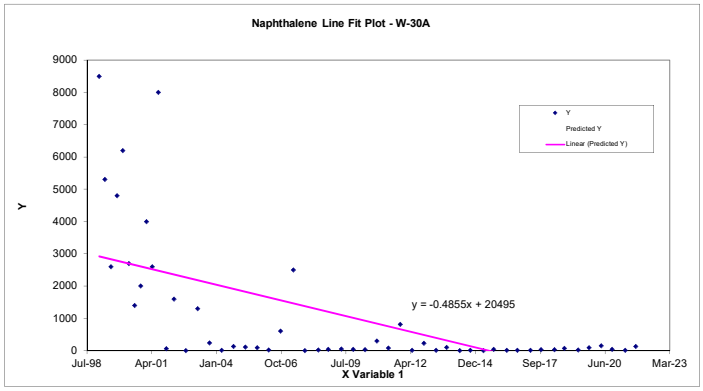
ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	81261509.96	81261509.96	29.79960381	1.49743E-06
Residual	50	136346628.1	2726932.562		
Total	51	217608138.1			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	20495.1127	3560.442782	5.756338173	5.22156E-07	13343.75291	27646.47249	13343.75291	27646.47249
X Variable 1	-0.485529857	0.088942779	-5.458901337	1.49743E-06	-0.664176687	-0.306883027	-0.664176687	-0.306883027

RESIDUAL OUTPUT

Observation	*Predicted Y*	*Residuals*
1	2922.816109	5577.183891
2	2879.603952	2420.396048
3	2834.935205	-234.9352052
4	2790.266458	2009.733542
5	2745.597711	3454.402289
6	2701.900024	-1.900024356
7	2657.231278	-1257.231278
8	2612.562531	-612.5625306
9	2567.893784	1432.106216
10	2524.681627	75.31837349
11	2480.01288	5519.98712
12	2420.778237	-2364.778237
13	2362.029124	-762.0291244
14	2273.177161	-2273.177161
15	2184.810727	-884.8107265
16	2095.958763	-1855.958763
17	2005.650209	-1998.550209
18	1916.798245	-1786.798245
19	1828.431811	-1718.431811
20	1739.579848	-1647.579848
21	1651.213414	-1629.213414
22	1562.36145	-952.3614497
23	1467.683128	1032.316872
24	1380.287753	-1380.287753
25	1280.754133	-1260.754133
26	1205.497005	-1168.497005
27	1107.419974	-1053.419974
28	1018.56801	-974.5680097
29	931.1726354	-896.1726354
30	841.8351417	-541.8351417
31	753.9542376	-669.9542376
32	665.1022737	144.8977263
33	577.7068994	-567.8068994
34	488.3694057	-258.3694057
35	396.6042627	-381.6042627
36	317.9484259	-221.9484259
37	219.8713947	-215.6713947
38	141.7010877	-130.7010877
39	42.65299688	-40.85299688
40	-35.51731011	72.51731011
41	-133.1088114	144.1088114
42	-211.7646483	223.7646483
43	-310.8127391	324.8127391
44	-388.9830461	414.9830461
45	-490.9443161	519.9443161
46	-565.2303842	632.2303842
47	-666.7061244	688.7061244
48	-749.2462001	840.2462001
49	-840.5258132	990.5258132
50	-922.0948292	965.0948292
51	-1020.65739	1030.65739
52	-1098.827697	1228.827697



PENTACHLOROPHENOL STATISTICAL ANALYSIS

	W-10AR2 Penta		W-30A Penta	PAL	ES
Feb-99		Feb-99	0	0.1	1
May-99		May-99	6	0.1	1
Aug-99	260	Aug-99	6	0.1	1
Nov-99	320	Nov-99	10	0.1	1
Feb-00	450	Feb-00	3.1	0.1	1
May-00	150	May-00	0	0.1	1
Aug-00	280	Aug-00	0	0.1	1
Nov-00	440	Nov-00	1.1	0.1	1
Feb-01	290	Feb-01	3.7	0.1	1
May-01	140	May-01	0	0.1	1
Dec-01	400	Aug-01	3.8	0.1	1
Apr-02	58	Dec-01	0	0.1	1
Oct-02	0.0255	Apr-02	1.7	0.1	1
Apr-03	3.8	Oct-02	0.18	0.1	1
Oct-03	60	Apr-03	0.95	0.1	1
Apr-04	42	Oct-03	0.4	0.1	1
Oct-04	38	Apr-04	0	0.1	1
Apr-05	0.4695	Oct-04	0	0.1	1
Oct-05	8.3	Apr-05	0	0.1	1
Apr-06	0	Oct-05	0.11	0.1	1
Oct-06	0.305	Apr-06	0	0.1	1
Apr-07	16	Oct-06	0.24	0.1	1
Oct-07	0	Apr-07	0	0.1	1
May-08	0	Oct-07	0	0.1	1
Oct-08	0	May-08	0	0.1	1
Apr-09	0	Oct-08	0	0.1	1
Oct-09	0	Apr-09	0	0.1	1
Apr-10	0	Oct-09	0	0.1	1
Oct-10	0	Apr-10	0	0.1	1
Apr-11	0	Oct-10	0	0.1	1
Oct-11	0	Apr-11	0	0.1	1
Apr-12	0	Oct-11	0	0.1	1
Oct-12	0	Apr-12	0	0.1	1
May-13	0.81	Oct-12	0	0.1	1
Oct-13	0	May-13	0	0.1	1
Apr-14	0.76	Oct-13	0	0.1	1
Oct-14	0.35	Apr-14	0	0.1	1
Apr-15	0	Oct-14	0	0.1	1
Oct-15	0	Apr-15	0.39	0.1	1
Apr-16	0	Oct-15	0	0.1	1
Oct-16	0	Apr-16	0	0.1	1
Apr-17	0	Oct-16	0	0.1	1
Oct-17	0	Apr-17	0	0.1	1
May-18	0	Oct-17	0	0.1	1
Oct-18	0	May-18	0	0.1	1
Apr-19	0	Oct-18	0	0.1	1
Oct-19	0	Apr-19	0	0.1	1
Apr-20	0	Oct-19	0	0.1	1
Oct-20	0	Apr-20	0	0.1	1
Apr-21	0	Oct-20	0	0.1	1
Oct-21	0	Apr-21	0	0.1	1
		Oct-21	0	0.1	1

Pentachlorophenol data for Feb-99 W-10AR2 and May-99 W-10AR2not included; Well W-10A was abandoned prior to 3rd quarter 1999 sampling and well W-10AR was installed. Data is not available for W-10A.
Pentachlorophenol data for Aug-01 W-10AR2 not available

SUMMARY OUTPUT FOR W-10AR2 (August 1999 - October 2021)

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.63912427
R Square	0.408479832
Adjusted R Square	0.395894296
Standard Error	97.96462123
Observations	49

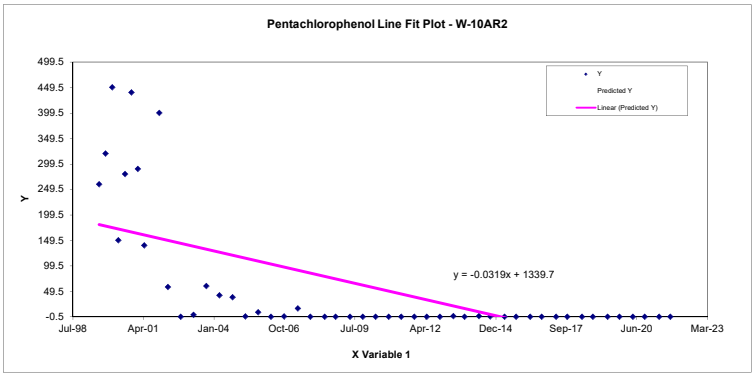
ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	311485.2223	311485.2223	32.45629335	7.71342E-07
Residual	47	451062.1496	9597.067013		
Total	48	762547.3719			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	1339.695092	224.9927184	5.954393109	3.15504E-07	887.068125	1792.322059	887.068125	1792.322059
X Variable 1	-0.031857475	0.005591932	-5.697042509	7.71342E-07	-0.043106991	-0.020607958	-0.043106991	-0.020607958

RESIDUAL OUTPUT

Observation	*Predicted Y*	*Residuals*
1	180.943168	79.05683202
2	178.0122803	141.9877197
3	175.0813926	274.9186074
4	172.2142199	-22.21421994
5	169.2833323	110.7166677
6	166.3524446	273.6475554
7	163.4215569	126.5784431
8	160.5862417	-20.5862417
9	153.7687421	246.2312579
10	149.9139877	-91.91398771
11	144.0840699	-144.0585699
12	138.2860095	-134.4860095
13	132.4560916	-72.45609163
14	126.5306014	-84.53060135
15	120.7006835	-82.7006835
16	114.9026231	-114.4331231
17	109.0727053	-100.7727053
18	103.2746449	-103.2746449
19	97.44472704	-97.13972704
20	91.23251949	-75.23251949
21	85.49817406	-85.49817406
22	78.96739177	-78.96739177
23	74.0294832	-74.0294832
24	67.59427333	-67.59427333
25	61.76435548	-61.76435548
26	56.03001005	-56.03001005
27	50.16823473	-50.16823473
28	44.40203182	-44.40203182
29	38.57211397	-38.57211397
30	32.83776854	-32.83776854
31	26.97599321	-26.97599321
32	20.95493051	-20.14493051
33	15.79401963	-15.79401963
34	9.358809757	-8.598809757
35	4.229756346	-3.879756346
36	-2.269168474	2.269168474
37	-7.398221885	7.398221885
38	-13.80157428	13.80157428
39	-18.96248517	18.96248517
40	-25.46140999	25.46140999
41	-30.5904634	30.5904634
42	-37.28053306	37.28053306
43	-42.1228692	42.1228692
44	-48.81293887	48.81293887
45	-54.22870955	54.22870955
46	-60.21791478	60.21791478
47	-65.56997051	65.56997051
48	-72.03703786	72.03703786
49	-77.16609127	77.16609127



PENTACHLOROPHENOL STATISTICAL ANALYSIS

SUMMARY OUTPUT FOR W-30A (February 1999 - October 2021)

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.477611728
R Square	0.228112962
Adjusted R Square	0.212675222
Standard Error	1.703012795
Observations	52

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	42.85505361	42.85505361	14.77631772	0.000342963
Residual	50	145.0126291	2.900252582		
Total	51	187.8676827			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	14.80961087	3.671805828	4.033331707	0.000188017	7.434571814	22.18464992	7.434571814	22.18464992
X Variable 1	-0.00035259	9.17247E-05	-3.843997622	0.000342963	-0.000536824	-0.000168355	-0.000536824	-0.000168355

RESIDUAL OUTPUT

Observation	*Predicted Y*	*Residuals*
1	2.04868854	-2.04868854
2	2.017308067	3.982691933
3	1.984869825	4.015130175
4	1.952431583	8.047568417
5	1.919993341	1.180006659
6	1.888260278	-1.888260278
7	1.855822036	-1.855822036
8	1.823383794	-0.723383794
9	1.790945552	1.909054448
10	1.759565079	-1.759565079
11	1.727126837	2.072873163
12	1.684110907	-1.684110907
13	1.641447567	0.058552433
14	1.576923673	-1.396923673
15	1.512752368	-0.562752368
16	1.448228474	-1.048228474
17	1.38264681	-1.38264681
18	1.318122916	-1.318122916
19	1.253951611	-1.253951611
20	1.189427717	-1.079427717
21	1.125256412	-1.125256412
22	1.060732518	-0.820732518
23	0.991977548	-0.991977548
24	0.928511423	-0.928511423
25	0.856230557	-0.856230557
26	0.801579171	-0.801579171
27	0.730356075	-0.730356075
28	0.66618477	-0.66618477
29	0.602366055	-0.602366055
30	0.537489571	-0.537489571
31	0.473670856	-0.473670856
32	0.409146961	-0.409146961
33	0.345680836	-0.345680836
34	0.280804352	-0.280804352
35	0.21416492	-0.21416492
36	0.157045407	-0.157045407
37	0.08582231	-0.08582231
38	0.029055387	-0.029055387
39	-0.042872889	0.432872889
40	-0.099639813	0.099639813
41	-0.17051032	0.17051032
42	-0.227629833	0.227629833
43	-0.299558108	0.299558108
44	-0.356325032	0.356325032
45	-0.430368845	0.430368845
46	-0.484315052	0.484315052
47	-0.558006276	0.558006276
48	-0.617946505	0.617946505
49	-0.684233348	0.684233348
50	-0.743820988	0.743820988
51	-0.815044084	0.815044084
52	-0.871811008	0.871811008