FTS
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February 22, 2021

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

RE: 2020 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 2020 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

Angela Gatchie

Angie Gatchie
Project Scientist

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

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

2020 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

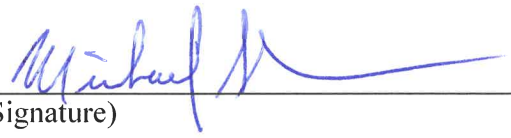
February 22, 2021

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: **2020 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)

2-10-2021
(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: **2020 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

01/28/2021
Date

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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
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
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 2020 Resource Conservation and Recovery Act (RCRA) Annual Groundwater Monitoring Report to summarize the compliance groundwater monitoring data collected in 2020 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 2020, 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 2020 groundwater sampling activities were completed on the following dates:

- First semi-annual event - April 21, 2020 through April 22, 2020; and
- Second semi-annual event - October 6, 2020 through October 8, 2020.

A total of 37 wells comprised the monitoring well network during 2020 (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 2020 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 2020 semi-annual sampling events. During the 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. Currently, Beazer is exploring options to repair these four wells as similar casing issues have been noted and repaired historically. All of the other monitoring wells were reported to be in good condition with no major repairs required during the April 2020 and October 2020 well inspections.

1.5 DOCUMENT ORGANIZATION

The remainder of the 2020 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 in 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 1.02 to 5.83 feet below top of casing (ft-btoc) during the April 2020 event (Table 2A), and from 1.62 to 8.60 ft-btoc during the October 2020 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 5.70 to 7.19 ft-btoc

during the April 2020 event (Table 2A), and from 6.20 to 7.45 ft-btoc during the October 2020 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 9.67 to 14.59 ft-btoc in April 2020 (Table 2A), and from 10.21 to 15.04 ft-btoc in October 2020 (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 36.02 to 45.30 ft-btoc during the April 2020 event (Table 2A) and from 37.15 to 46.50 ft-btoc during the October 2020 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 21, 2020 and October 6, 2020. DNAPL was not observed in any monitoring wells at the Site during either the April or the October 2020 monitoring events.

Groundwater Flow Directions

On April 21, 2020 and October 6, 2020, 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 21, 2020) and Figure 4 (October 6, 2020). 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 toward the north/northwest.

C-zone groundwater elevation contours are presented on Figure 3 (April 21, 2020) and Figure 5 (October 6, 2020). 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 2020 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 2020 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 2020 monitoring events are presented in Table 3. Based on the 2020 water level data, the average vertical gradient between the A- and C-zones was -0.261 ft/ft for the April 2020 monitoring event and -0.201 ft/ft for the October 2020 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 0.0054 ft/ft for the April 2020 monitoring event, and 0.0071 ft/ft for the October 2020 monitoring event. The average horizontal hydraulic gradient for the C-zone was calculated to be 0.0029 ft/ft and 0.0042 ft/ft for the April 2020 and October 2020 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

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 average hydraulic conductivity for the A-zone is 3.28 x 10^{-3} feet per day (ft/day) which was determined from the slug test evaluation (Chester Environmental, 1995). The 0.3 value is used to evaluate flow through the pore space in the clay (primary porosity). The 0.01 value is used to evaluate the flow through the microfractures in the clay (secondary porosity). The average hydraulic conductivity in the C-zone is 22.6 ft/day which was determined from the slug test evaluation (Chester Environmental, 1995). 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:

1.8×10^{-3} ft/day (April) and 2.3×10^{-3} ft/day (October) ($n_e = 0.01$)
5.9×10^{-5} ft/day (April) and 7.8×10^{-5} ft/day (October) ($n_e = 0.3$)

C-zone:

3.3×10^{-1} ft/day (April) and 4.7×10^{-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 2020 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:

-1.9×10^{-3} ft/day (April) and -1.4×10^{-3} ft/day (October) ($n_e = 0.01$)
-6.2×10^{-5} ft/day (April) and -4.8×10^{-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 2020 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 2020 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 2020 and October 2020 groundwater sampling events. A map depicting the data for key historical constituents of interest from the first and second semi-annual 2020 sampling events is provided as Figure 6.

Upon receipt, FTS evaluated each laboratory data report. FTS's data evaluation team determined that the 2020 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 2020 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 2020 sampling event, the sample from monitoring well W-04AR2 contained benzo(a)pyrene (0.67 micrograms per liter [ug/l]), benzo(b)fluoranthene (1.3 ug/l), and chrysene (1.6 ug/l) above their WDNR PALs of 0.02 ug/l and WDNR ESs of 0.2 ug/l. The sample from monitoring well W-10AR2 contained benzo(a)pyrene (0.3 ug/l), benzo(b)fluoranthene (0.22 ug/l), and chrysene (0.3 J ug/l) above their WDNR PALs and WDNR ESs. The sample from monitoring well W-30A contained benzo(b)fluoranthene (0.26 ug/l) and chrysene (0.23 J ug/l) above their WDNR PALs and WDNR ESs. Monitoring wells W-04AR2 and W-10AR2 also contained benzo(a)pyrene above its MCL of 0.2 ug/l during the first semi-annual 2020 event. The samples from monitoring wells W-12CR and W-18D contained pentachlorophenol (0.41 J ug/l and 0.43 J ug/l) above its WDNR PAL of 0.1 ug/l) (Table 8).

During the second semi-annual 2020 event, the sample from monitoring well W-04AR2 contained benzo(a)pyrene (0.43 ug/l), benzo(b)fluoranthene (0.94 ug/l), and chrysene (1.4 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-30C contained benzo(b)fluoranthene (0.11 J ug/l) and chrysene (0.14 J ug/l) above their WDNR PALs. The samples from monitoring wells W-12A and

W-18D contained pentachlorophenol (0.87 J ug/l and 0.88 J 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 2020). Dioxins and/or furans were detected in samples collected from eight of the nine monitoring wells sampled (W-04AR2, W-06A, W-06C, W-10AR2, 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 2020 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 2020 semi-annual sampling event. As shown on Table 8, benzene was detected in monitoring well W-10AR2 (18 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 2020 events, respectively. Benzene was also detected in monitoring well W-30A (5.6 ug/l and 9.6 ug/l) above the MCL, WDNR ES, and WDNR PAL during the first and second semi-annual 2020 events.

As shown on Table 8, naphthalene was detected in monitoring well W-30A (150 ug/l and 43 ug/l) above the WDNR PAL of 10 ug/l during the first and second semi-annual 2020 events, respectively. Naphthalene was also detected above the WDNR ES of 100 ug/l in monitoring well W-30A during the first semi-annual 2020 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/May and October 2019, and April and October 2020.

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 and WDNR ES in one of the last four sampling rounds, naphthalene was either not-detected or 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 (two of those four samples also exceeded the WDNR ES for benzene), chrysene exceeded its WDNR PAL and WDNR ES in one of the last four sampling rounds, naphthalene exceeded its WDNR PAL in all of the past four sampling rounds (one 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, pentachlorophenol, and naphthalene, 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, pentachlorophenol, and naphthalene 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 and October 2020 events, pentachlorophenol (0.43 J ug/l and 0.88 J ug/l) 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. 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 2021.

5.0 REFERENCES

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

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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
2020 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 2019 at Beazer's discretion.

Table 2A
First Semi-Annual 2020 Groundwater Elevations
2020 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 21, 2020		
				Depth to Water (feet)	Groundwater Elevation (feet msl)	Apparent DNAPL Thickness (feet msl)
W-02C	672.37	632.65	627.65	9.67	662.70	NP
W-04AR2	676.15	672.53	662.53	3.62	672.53	NP
W-05CR	674.69	643.53	633.53	11.71	662.98	NP
W-06A	673.65	670.04	660.04	4.11	669.54	NP
W-06C	674.33	633.93	628.93	11.60	662.73	NP
W-08A	676.35	670.62	660.62	4.84	671.51	NP
W-09C	673.16	630.41	625.41	10.47	662.69	NP
W-10AR2	677.09	672.77	659.77	5.40	671.69	NP
W-11A	676.40	669.81	659.81	5.54	670.86	NP
W-12A	677.11	673.33	663.33	4.22	672.89	NP
W-12CR	677.39	635.34	630.34	14.59	662.80	NP
W-14A	678.61	673.05	663.05	4.52	674.09	NP
W-14B	677.60	644.97	639.97	5.70	671.90	NP
W-16AR	675.37	668.20	658.20	3.72	671.65	NP
W-18D	674.79	491.23	471.23	45.30	629.49	NP
W-19A	675.39	669.63	659.63	4.25	671.14	NP
W-19C	674.96	635.79	630.79	12.34	662.62	NP
W-20AR	674.72	669.33	659.33	5.83	668.89	NP
W-21A	674.20	667.88	657.88	4.53	669.67	NP
W-21B	674.61	641.71	636.71	7.19	667.42	NP
W-25A	678.77	672.68	662.68	5.20	673.57	NP
W-26A	673.67	668.05	658.05	3.70	669.97	NP
W-26B	674.02	644.42	639.42	6.69	667.33	NP
W-28C	676.33	635.74	630.74	13.27	663.06	NP
W-29A	673.21	668.38	658.38	1.02	672.19	NP
W-30A[(1)]	676.81	672.86	662.86	3.93	672.88	NP
W-30C	676.91	633.50	628.50	14.39	662.52	NP
W-31C	671.76	626.64	621.64	10.55	661.21	NP
W-32C	672.88	618.93	613.93	12.92	659.96	NP
W-33D	673.43	495.58	475.58	43.88	629.55	NP
W-34D	674.28	496.07	476.07	36.02	638.26	NP
W-35A	675.05	669.28	659.28	3.78	671.27	NP
W-36A	678.44	673.00	663.00	5.13	673.31	NP
W-37A	676.47	671.05	661.05	2.39	674.08	NP
W-38A	676.78	671.35	661.35	2.81	673.97	NP
W-39A	678.40	672.64	662.64	5.15	673.25	NP
W-40A	676.79	671.18	661.18	3.58	673.21	NP

Notes:
feet-msl - Feet above mean sea level
DNAPL - Dense Non-Aqueous Phase Liquid
NP - DNAPL Not Present
NM - not measured
[(1)] - W-30A was resurveyed on April 30, 2019

Table 2B
Second Semi-Annual 2020 Groundwater Elevations
2020 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 6, 2020		
				Depth to Water (feet)	Groundwater Elevation (feet msl)	Apparent DNAPL Thickness (feet msl)
W-02C	672.37	632.65	627.65	10.21	662.16	NP
W-04AR2	676.15	672.53	662.53	3.95	672.20	NP
W-05CR	674.69	643.53	633.53	12.30	662.39	NP
W-06A	673.65	670.04	660.04	8.07	665.58	NP
W-06C	674.33	633.93	628.93	12.11	662.22	NP
W-08A	676.35	670.62	660.62	6.51	669.84	NP
W-09C	673.16	630.41	625.41	11.00	662.16	NP
W-10AR2	677.09	672.77	659.77	8.60	668.49	NP
W-11A	676.40	669.81	659.81	4.89	671.51	NP
W-12A	677.11	673.33	663.33	6.02	671.09	NP
W-12CR	677.39	635.34	630.34	15.04	662.35	NP
W-14A	678.61	673.05	663.05	6.60	672.01	NP
W-14B	677.60	644.97	639.97	6.20	671.40	NP
W-16AR	675.37	668.20	658.20	5.45	669.92	NP
W-18D	674.79	491.23	471.23	46.50	628.29	NP
W-19A	675.39	669.63	659.63	6.73	668.66	NP
W-19C	674.96	635.79	630.79	12.81	662.15	NP
W-20AR	674.72	669.33	659.33	6.71	668.01	NP
W-21A	674.20	667.88	657.88	8.10	666.10	NP
W-21B	674.61	641.71	636.71	7.45	667.16	NP
W-25A	678.77	672.68	662.68	5.89	672.88	NP
W-26A	673.67	668.05	658.05	7.49	666.18	NP
W-26B	674.02	644.42	639.42	7.10	666.92	NP
W-28C	676.33	635.74	630.74	13.68	662.65	NP
W-29A	673.21	668.38	658.38	1.62	671.59	NP
W-30A[(1)]	676.81	672.86	662.86	6.56	670.25	NP
W-30C	676.91	633.50	628.50	14.90	662.01	NP
W-31C	671.76	626.64	621.64	10.80	660.96	NP
W-32C	672.88	618.93	613.93	13.70	659.18	NP
W-33D	673.43	495.58	475.58	44.80	628.63	NP
W-34D	674.28	496.07	476.07	37.15	637.13	NP
W-35A	675.05	669.28	659.28	7.06	667.99	NP
W-36A	678.44	673.00	663.00	5.59	672.85	NP
W-37A	676.47	671.05	661.05	3.48	672.99	NP
W-38A	676.78	671.35	661.35	4.56	672.22	NP
W-39A	678.40	672.64	662.64	6.92	671.48	NP
W-40A	676.79	671.18	661.18	5.08	671.71	NP

Notes:
feet-msl - Feet above mean sea level
DNAPL - Dense Non-Aqueous Phase Liquid
NP - DNAPL Not Present
NM - not measured
(1) - W-30A was resurveyed on April 30, 2019

Table 3
Summary of 2020 Vertical Gradients
2020 RCRA Annual Groundwater Monitoring Report
Former Koppers Inc. Facility - Superior, Wisconsin

April 2020

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	669.54	662.73	-6.81	yes	-0.204	
W-12A	W-12CR	673.33	663.33	635.34	630.34	668.33	632.84	35.49	672.89	662.80	-10.09	yes	-0.286	
W-19A	W-19C	669.74	659.74	635.79	630.79	664.74	633.29	31.45	671.14	662.62	-8.52	no		-0.271
W-30A	W-30C	672.90	662.90	633.50	628.50	667.90	631.00	36.90	672.88	662.52	-10.36	yes	-0.281	
									AVERAGE VERTICAL GRADIENT[(1)] - Between Zones A and C				-0.261	

October 2020

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	665.58	662.22	-3.36	yes	-0.107	
W-12A	W-12CR	673.33	663.33	635.34	630.34	668.33	632.84	35.49	671.09	662.35	-8.74	yes	-0.254	
W-19A	W-19C	669.74	659.74	635.79	630.79	664.74	633.29	31.45	668.66	662.15	-6.51	yes	-0.211	
W-30A	W-30C	672.90	662.90	633.50	628.50	667.90	631.00	36.90	670.25	662.01	-8.24	yes	-0.232	
									AVERAGE VERTICAL GRADIENT[(1)] - Between Zones A and C				-0.201	

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
2020 Horizontal Groundwater Flow Velocities for the A-Zone
2020 RCRA Annual Groundwater Monitoring Report
Former Koppers Inc. Facility - Superior, Wisconsin

Parameters	First Semi-Annual 4/21/2020	Second Semi-Annual 10/06/2020
Hydraulic Gradient (i1) Vicinity of W-38A to W-29A		
Upgradient Elevation (ft, msl), (h1)	673.97	672.22
Downgradient Elevation (ft, msl), (h2)	672.19	671.59
Horizontal Distance Between Up and Downgradient Elevation (ft), (l)	1225.18	1225.18
Horizontal Hydraulic Gradient (i1=(h1-h2)/l)	0.0015	0.0005
Hydraulic Gradient (i2) Vicinity of W-26A to W-16AR		
Upgradient Elevation (ft, msl), (h1)	671.65	669.92
Downgradient Elevation (ft, msl), (h2)	669.97	666.18
Horizontal Distance Between Up and Downgradient Elevation (ft), (l)	474.56	474.56
Horizontal Hydraulic Gradient (i2 = (h1-h2)/l)	0.0035	0.0079
Hydraulic Gradient (i3) Vicinity of W-08A to W-21A		
Upgradient Well - Elevation (ft, msl), (h1)	672.88	669.84
Downgradient Well - Elevation (ft, msl), (h2)	669.67	666.10
Horizontal Distance Between Up and Downgradient Well (ft), (l)	288.00	288.00
Horizontal Hydraulic Gradient (i3 = (h1-h2)/l)	0.0111	0.0130
Average Hydraulic Gradient i = (i1 + i2 + i3)/3	0.0054	0.0071
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	**1.8E-03**	**2.3E-03**
(V = Ki/n) (feet per day), Where n = 0.30	**5.9E-05**	**7.8E-05**

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
2020 Horizontal Groundwater Flow Velocities for the C-Zone
2020 RCRA Annual Groundwater Monitoring Report
Former Koppers Inc. Facility - Superior, Wisconsin

Parameters	First Semi-Annual 4/21/2020	Second Semi-Annual 10/06/2020
Hydraulic Gradient (i1) Vicinity of W-28C to W-32C		
Upgradient Elevation (ft, msl), (h1)	663.06	662.65
Downgradient Elevation (ft, msl), (h2)	659.96	659.18
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)	662.52	662.01
Downgradient Elevation (ft, msl), (h2)	659.96	659.18
Horizontal Distance Between Up and Downgradient Elevations (ft), (l)	723.89	487.95
Horizontal Hydraulic Gradient (i2 = (h1-h2)/l)	0.0035	0.0058
Average Hydraulic Gradient i = (i1 + i2)/2	0.0029	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	**3.3E-01**	**4.7E-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 2020 Vertical Groundwater Flow Velocities
for the A to C Zones
2020 RCRA Annual Groundwater Monitoring Report
Former Koppers Inc. Facility - Superior, Wisconsin

Parameters	First Semi-Annual 4/21/2020	Second Semi-Annual 10/06/2020
Average Vertical Hydraulic Gradient (i from Table 3)	-0.261	-0.201
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	-1.9E-03	-1.4E-03
V=K/in (ft/day) Where n=0.3	-6.2E-05	-4.8E-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
2020 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 2020 Sampling Events
2020 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-04AR2	Benzo(a)pyrene	0.67	0.2
W-10AR2	Benzene	18	5
	Benzo(a)pyrene	0.3	0.2
W-30A	Benzene	5.6	5
ES Exceedance			
W-04AR2	Benzo(a)pyrene	0.67	0.2
	Benzo(b)fluoranthene	1.3	0.2
	Chrysene	1.6	0.2
W-10AR2	Benzene	18	5
	Benzo(a)pyrene	0.3	0.2
	Benzo(b)fluoranthene	0.22	0.2
	Chrysene	0.3 J	0.2
W-30A	Benzene	5.6	5
	Benzo(b)fluoranthene	0.26	0.2
	Chrysene	0.23 J	0.2
	Naphthalene	150	100
PAL Exceedance			
W-04AR2	Benzo(a)pyrene	0.67	0.02
	Benzo(b)fluoranthene	1.3	0.02
	Chrysene	1.6	0.02
W-10AR2	Benzene	18	0.5
	Benzo(a)pyrene	0.3	0.02
	Benzo(b)fluoranthene	0.22	0.02
	Chrysene	0.3 J	0.02
W-12CR	Pentachlorophenol	0.41 J	0.1
W-18D	Pentachlorophenol	0.43 J	0.1
W-30A	Benzene	5.6	0.5
	Benzo(b)fluoranthene	0.26	0.02
	Chrysene	0.23 J	0.02
	Naphthalene	150	10
	2,3,7,8-TCDD TEQ	5.93E-06	3.00E-06

Table 8
Summary of Regulatory Exceedances
First and Second Semi-Annual 2020 Sampling Events
2020 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	0.43	0.2
W-10AR2	Benzene	18	5
W-30A	Benzene	9.6	5
ES Exceedance			
W-04AR2	Benzo(a)pyrene Benzo(b)fluoranthene Chrysene	0.43 0.94 1.4	0.2 0.2 0.2
W-10AR2	Benzene	18	5
W-30A	Benzene	9.6	5
PAL Exceedance			
W-04AR2	Benzo(a)pyrene Benzo(b)fluoranthene Chrysene	0.43 0.94 1.4	0.02 0.02 0.02
W-10AR2	Benzene	18	0.5
W-12A	Pentachlorophenol	0.87 J	0.1
W-18D	Pentachlorophenol	0.88 J	0.1
W-30A	Benzene Naphthalene	9.6 43	0.5 10
W-30C	Benzo(b)fluoranthene Chrysene	0.11 J 0.14 J	0.02 0.02

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
2020 RCRA Annual Groundwater Monitoring Report
Former Koppers Inc. Facility - Superior, Wisconsin

ANALYTE NAME	UNITS	TEFs	W-04AR2 4/22/2020	W-06A 4/21/2020	W-06C 4/21/2020	W-10AR2 4/22/2020	W-12A 4/22/2020	W-12CR 4/22/2020	W-28C 4/22/2020	W-30A 4/22/2020	W-30C 4/21/2020	W-30C-DUP 4/21/2020	Equipment Blank 4/22/2020
8290A													
1,2,3,4,6,7,8-HPCDD	UG/L	0.01	**0.00006**	0.000005 U	0.0000015 U	**0.000018 J**	0.0000029 U	0.0000033 U	**0.0000095 J**	**0.00021**	0.0000052 U	0.0000034 U	**0.0000011 JI**
1,2,3,4,6,7,8-HPCDF	UG/L	0.01	**0.0000092 J**	0.0000014 U	0.0000001 U	0.0000025 U	0.0000013 U	0.00000072 U	0.0000026 U	**0.00007**	0.0000014 U	0.0000012 U	**0.00000048 JI**
1,2,3,4,7,8,9-HPCDF	UG/L	0.01	0.00000092 U	0.00000023 U	0.00000013 U	0.00000065 U	0.00000049 U	0.00000012 U	0.00000053 U	**0.0000068 J**	0.00000054 U	0.00000024 U	0.0000001 U
1,2,3,4,7,8-HXCDD	UG/L	0.1	**0.00000062 JI**	0.00000012 U	0.00000016 U	0.00000015 U	0.0000001 U	0.000000081 U	**0.00000027 JI**	**0.000001 J**	0.00000016 U	0.00000022 U	0.00000008 U
1,2,3,4,7,8-HXCDF	UG/L	0.1	0.00000092 U	0.00000016 U	0.0000003 U	0.0000004 U	0.00000018 U	0.00000019 U	0.00000025 U	**0.0000088 J**	0.0000003 U	0.00000028 U	0.00000015 U
1,2,3,6,7,8-HXCDD	UG/L	0.1	0.0000023 U	0.00000013 U	0.00000035 U	0.0000008 U	0.00000011 U	0.000000091 U	0.00000041 U	**0.0000085 J**	0.00000045 U	0.00000024 U	0.000000089 U
1,2,3,6,7,8-HXCDF	UG/L	0.1	0.00000052 U	0.00000016 U	0.0000003 U	0.00000043 U	0.00000018 U	0.0000002 U	0.00000027 U	0.0000022 U	0.00000032 U	0.00000029 U	0.00000015 U
1,2,3,7,8,9-HXCDD	UG/L	0.1	0.0000018 U	0.00000012 U	0.00000036 U	0.0000009 U	0.00000043 U	0.00000027 U	0.00000065 U	0.0000019 U	0.00000053 U	0.00000021 U	0.000000078 U
1,2,3,7,8,9-HXCDF	UG/L	0.1	0.00000022 U	0.00000016 U	0.00000029 U	0.00000041 U	0.00000018 U	0.00000018 U	0.00000025 U	0.0000015 U	0.0000003 U	0.00000026 U	0.00000015 U
1,2,3,7,8-PECDD	UG/L	1	0.00000039 U	0.00000034 U	0.00000033 U	0.00000019 U	0.00000015 U	0.00000013 U	0.00000026 U	0.00000025 U	0.00000034 U	0.00000027 U	0.00000017 U
1,2,3,7,8-PECDF	UG/L	0.03	0.00000045 U	0.0000002 U	0.00000036 U	0.00000016 U	0.00000029 U	0.00000017 U	0.00000018 U	0.00000055 U	0.00000033 U	0.00000022 U	0.00000017 U
2,3,4,6,7,8-HXCDF	UG/L	0.1	0.00000046 U	0.00000052 U	0.00000029 U	0.00000043 U	0.00000018 U	0.00000018 U	0.00000025 U	0.0000015 U	0.0000003 U	0.00000026 U	0.00000015 U
2,3,4,7,8-PECDF	UG/L	0.3	0.00000047 U	0.00000019 U	0.00000032 U	**0.00000037 JI**	0.00000024 U	0.00000016 U	0.00000018 U	**0.0000011 JI**	0.0000003 U	0.00000019 U	0.00000015 U
2,3,7,8-TCDD	UG/L	1	0.00000026 U	0.00000013 U	0.0000002 U	0.00000034 U	0.00000011 U	0.00000013 U	0.00000012 U	0.00000019 U	0.00000018 U	0.00000015 U	0.00000017 U
2,3,7,8-TCDF	UG/L	0.1	0.00000037 U	0.00000024 U	0.00000015 U	0.00000019 U	0.0000002 U	0.00000012 U	0.00000014 U	0.00000016 U	0.00000014 U	0.00000014 U	**0.00000022 JI**
OCDD	UG/L	0.0003	**0.00067**	**0.000072 J**	0.000012 U	**0.0002**	0.000028 U	0.000041 U	**0.00015**	**0.0028**	0.000038 U	0.000028 U	**0.000013 J**
OCDF	UG/L	0.0003	**0.000029 J**	0.000005 U	0.0000017 U	0.000011 U	0.0000041 U	0.0000027 U	0.0000087 U	**0.0002**	0.0000037 U	0.0000032 U	**0.00000095 JI**
TOTAL HPCDD	UG/L	NA	**0.00028**	0.000014 U	0.0000044 U	**0.000069**	0.0000059 U	0.000011 U	**0.000038 J**	**0.00046**	0.0000091 U	0.0000081 U	**0.0000044 JI**
TOTAL HPCDF	UG/L	NA	**0.000034 J**	0.0000046 U	0.00000027 U	0.0000098 U	0.0000045 U	0.0000028 U	0.0000083 U	**0.00027**	0.0000052 U	0.0000036 U	**0.00000081 JI**
TOTAL HXCDD	UG/L	NA	**0.000026 JI**	0.0000024 U	0.000002 U	0.0000081 U	0.0000031 U	0.0000026 U	0.0000051 U	**0.000035 JI**	0.000002 U	0.00000024 U	**0.0000016 JI**
TOTAL HXCDF	UG/L	NA	**0.00003 JI**	0.00000052 U	0.0000003 U	0.00001 U	0.0000053 U	0.0000013 U	0.0000032 U	**0.00022 I**	0.0000026 U	0.0000021 U	0.00000015 U
TOTAL PECDD	UG/L	NA	0.00000039 U	0.00000034 U	0.00000033 U	0.00000019 U	0.00000015 U	**0.00000052 JI**	0.00000026 U	0.00000025 U	0.00000034 U	0.00000027 U	0.00000017 U
TOTAL PECDF	UG/L	NA	**0.0000062 JI**	0.0000002 U	0.00000036 U	**0.0000048 JI**	0.000003 U	0.00000031 U	0.0000011 U	**0.000078 I**	0.00000033 U	0.00000047 U	0.00000017 U
TOTAL TCDD	UG/L	NA	**0.0000006 JI**	**0.0000008 JI**	**0.00000062 JI**	**0.0000007 JI**	0.00000011 U	**0.00000059 JI**	0.00000012 U	0.00000019 U	**0.00000058 JI**	0.00000015 U	0.00000017 U
TOTAL TCDF	UG/L	NA	**0.0000027 JI**	0.00000078 U	0.00000015 U	**0.0000024 JI**	0.0000022 U	0.00000012 U	0.00000064 U	**0.000017 I**	**0.0000024 JI**	0.0000018 U	**0.00000046 JI**
2,3,7,8-TCDD TEQ - ND = 0	UG/L	NA	**9.64E-07**	**2.16E-08**	0.00E+00	**3.51E-07**	0.00E+00	0.00E+00	**1.67E-07**	**5.93E-06**	0.00E+00	0.00E+00	**4.20E-08**

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
FLOW
CLOSED SURFACE IMPOUNDMENTS (AREA C)
OUTFALL 001 (AREA D)
HAMMOND 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
W-29A
DESIGN MANAGEMENT ZONE
W-10AR2
W-30A
W-30C
W-01C
W-08C
W-08A
W-21B
W-21A
STRAW BALE (AREA G)
W-38A
W-39A
W-04C
W-04B
W-04AR2
CLOSED RCRA SURFACE IMPOUNDMENTS
W-06A
W-06C
W-07C
W-26B
W-26A
W-32C
W-25A
W-37A
W-24A
W-11A
W-03C
W-25B
W-36A
W-40A
W-22A
W-28A
W-28C
DRIP TRACK AREA (AREA F)
W-23A
W-17B
W-17A
SHOP
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-18C
W-18D
W-35A
COUNTY ROAD A
COUNTY ROAD Z
OUTFALL 004 (AREA E)

0 300 600 FEET

BEAZER EAST, INC.
PITTSBURGH, PENNSYLVANIA

DRWN: KLC	DATE: 04/21/20	FTS	FIELD & TECHNICAL SERVICES, LLC 200 THIRD AVENUE CARNEGIE, PA 15106
CHKD: AMG	DATE: 04/21/20		
APPD: JSZ	DATE: 05/12/20		
SCALE: AS SHOWN			
ISSUE DATE:			

FORMER KOPPERS INC. FACILITY
SUPERIOR, WISCONSIN

SITE MAP

PROJECT NO: 0M055620
DRAWING NUMBER
FIGURE 1

REV #	DATE	DESCRIPTION	APPD
1			
2			
3			

REFERENCE: WISCONSIN STATE PLANNER COORDINATE SYSTEM.

q:\projects\beazer projects\superior\cadd\2020 annual report\figure 1.dwg Last Saved By: Kchintella 5/4/2020 2:51 PM Plotted By: Kendra L. Chintella 5/4/2020 2:51 PM Scale: 1:1

N

LEGEND

- ROAD
- STREAM OR DITCH
- RAILROAD TRACKS
- APPROXIMATE PROPERTY BOUNDARY
- W-12A 672.89 — 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
FORMER LEAD TRACK LANDFILL (AREA H)
SPRAY IRRIGATION FIELD
OUTFALL 001 (AREA D)
HAMMOND AVENUE
DESIGN MANAGEMENT ZONE
CLOSED RCRA SURFACE IMPOUNDMENTS
STRAW BALES (AREA G)
W-38A 673.97
W-39A 673.25
W-25A 673.57
W-40A 673.21
W-37A 674.08
W-36A 673.31
W-29A 672.19
W-12A 672.89
W-10AR2 671.69
W-30A 672.88
W-08A 671.51
W-04AR2 672.53
W-06A 669.54
W-11A 670.86
W-21A 669.67
W-26A 669.97
673
672
671
670
674
FORMER UNLINED LANDFILL/LANDFARM (AREA A)
W-14A 674.09
DRIP TRACK AREA (AREA F)
W-20AR 668.89
TREATMENT AREA (AREA B)
SHOP
FORMER CONTAINER STORAGE FACILITY
CONCRETE BERM
W-16AR 671.65
W-19A 671.14
W-35A 671.27
OFFICE
GATE
COUNTY ROAD A
COUNTY ROAD Z
OUTFALL 004 (AREA E)

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: 04/21/20	FIELD & TECHNICAL SERVICES, LLC 200 THIRD AVENUE CARNEGIE, PA 15106
CHKD: RMW	DATE: 04/21/20	
APPD: JSZ	DATE: 05/12/20	
SCALE: AS SHOWN		
ISSUE DATE:		

FORMER KOPPERS INC. FACILITY
SUPERIOR, WISCONSIN

GROUNDWATER ELEVATION CONTOURS A-ZONE WELLS (APRIL 21, 2020)

PROJECT NO: OM055620
DRAWING NUMBER
FIGURE 2

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N

LEGEND

- ROAD
- STREAM OR DITCH
- RAILROAD TRACKS
- APPROXIMATE PROPERTY BOUNDARY
- W-09C 662.69 — C ZONE GROUNDWATER MONITORING WELL WITH GROUNDWATER ELEVATION (FT-MSL)
- 661 — GROUNDWATER ELEVATION CONTOUR (FT-MSL) (DASHED WHERE INFERRED)

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

W-02C 662.70
W-05CR 662.98
W-31C 661.21
W-09C 662.69
W-12CR 662.80
W-30C 662.52
W-06C 662.73
W-32C 659.96
W-28C 663.06
W-34D
W-33D
W-18D
W-19C 662.62

662
661
660
663

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:	04/21/20
CHKD:	RMW	DATE:	04/21/20
APPD:	JSZ	DATE:	05/12/20
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 (APRIL 21, 2020)

PROJECT NO: 0M055620
DRAWING NUMBER
FIGURE 3

N

LEGEND

- ROAD
- STREAM OR DITCH
- RAILROAD TRACKS
- APPROXIMATE PROPERTY BOUNDARY
- W-12A 671.09 — 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
FORMER LEAD TRACK LANDFILL (AREA H)
SPRAY IRRIGATION FIELD
OUTFALL 001 (AREA D)
HAMMOND AVENUE
DESIGN MANAGEMENT ZONE
CLOSED RCRA SURFACE IMPOUNDMENTS
STRAW BALES (AREA G)
FORMER, UNLINED LANDFILL/LANDFARM (AREA A)
DRIP IRRIGATION AREA
TREATMENT AREA (AREA B)
CONCRETE BERM
OFFICE
GATE
FORMER CONTAINER STORAGE FACILITY
COUNTY ROAD A
COUNTY ROAD Z
OUTFALL 004 (AREA E)

W-39A 671.48
W-38A 672.22
W-40A 671.71
W-25A 672.88
W-37A 672.99
W-36A 672.85
W-14A 672.01
W-29A 671.59
W-04AR2 672.20
W-11A 671.51
W-10AR2 668.49
W-12A 671.09
W-30A 670.25
W-08A 669.84
W-06A 665.58
W-21A 666.10
W-26A 666.18
W-20AR 668.01
W-16AR 669.92
W-19A 668.66
W-35A 667.99

672 671 670 669 669 670 671 671 670 669 668 667 666 666 667 668 667 668 669 669 668 668 671 670 669 668 672 672

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: 10/07/20	FTS	FIELD & TECHNICAL SERVICES, LLC 200 THIRD AVENUE CARNEGIE, PA 15106
CHKD: RMW	DATE: 10/07/20		
APPD: JSZ	DATE: 10/28/20		
SCALE: AS SHOWN			
ISSUE DATE:			

FORMER KOPPERS INC. FACILITY
SUPERIOR, WISCONSIN

GROUNDWATER ELEVATION CONTOURS A-ZONE WELLS (OCTOBER 6, 2020)

PROJECT NO: 0M055620
DRAWING NUMBER
FIGURE 4

N

LEGEND

- ROAD
- STREAM OR DITCH
- RAILROAD TRACKS
- APPROXIMATE PROPERTY BOUNDARY
- W-09C 662.16 — 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
OUTFALL 001 (AREA D)
HAMMOND AVENUE
W-02C 662.16
W-05CR 662.39
W-09C 662.16
W-31C 660.96
W-12CR 662.35
DESIGN MANAGEMENT ZONE
W-30C 662.01
CLOSED RCRA SURFACE IMPOUNDMENTS
W-06C 662.22
W-32C 659.18
STRAW BALES (AREA G)
FORMER, UNLINED LANDFILL/LANDFARM (AREA A)
W-28C 662.65
DRIP TRACK AREA (AREA F)
SHOP
W-34D
W-53C
TREATMENT AREA (AREA B)
FORMER CONTAINER STORAGE FACILITY
CONCRETE BERM
W-19C 662.15
W-18D
OFFICE
GATE
COUNTY ROAD A
OUTFALL 004 (AREA E)
COUNTY ROAD Z
662
661
660

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:	10/07/20
CHKD:	RMW	DATE:	10/07/20
APPD:	JSZ	DATE:	10/28/20
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 6, 2020)

PROJECT NO: 0M055620
DRAWING NUMBER
FIGURE 5

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N

W-12A		
Constituent	**Apr-20**	**Oct-20**
BENZENE	0.41 U	0.41 U
BENZO(A)PYRENE	0.058 U	0.057 U
BENZO(B)FLUORANTHENE	0.06 U	0.059 U
CHRYSENE	0.14 U	0.14 U
NAPHTHALENE	0.43 U	0.43 U
2,3,7,8-TCDD TEQ (ND=0)	0.00E+00	NA

W-12CR		
Constituent	**Apr-20**	**Oct-20**
BENZENE	0.41 U	0.41 U
BENZO(A)PYRENE	0.055 U	0.056 U
BENZO(B)FLUORANTHENE	0.057 U	0.058 U
CHRYSENE	0.14 U	0.14 U
NAPHTHALENE	0.43 U	0.43 U
2,3,7,8-TCDD TEQ (ND=0)	0.00E+00	NA

W-30A		
Constituent	**Apr-20**	**Oct-20**
BENZENE	**5.6**	**9.6**
BENZO(A)PYRENE	0.057 U	0.057 U
BENZO(B)FLUORANTHENE	**0.26**	0.059 U
CHRYSENE	**0.23 J**	0.14 U
NAPHTHALENE	**150**	**43**
2,3,7,8-TCDD TEQ (ND=0)	**5.93E-06**	NA

W-10AR2		
Constituent	**Apr-20**	**Oct-20**
BENZENE	**18**	**18**
BENZO(A)PYRENE	**0.3**	0.058 U
BENZO(B)FLUORANTHENE	**0.22**	0.06 U
CHRYSENE	**0.3 J**	0.14 U
NAPHTHALENE	**1.9**	**2.3**
2,3,7,8-TCDD TEQ (ND=0)	**3.51E-07**	NA

W-30C			
Constituent	**Apr-20**	**Apr-20 Dup**	**Oct-20**
BENZENE	0.41 U	0.41 U	0.41 U
BENZO(A)PYRENE	0.053 U	0.053 U	0.056 U
BENZO(B)FLUORANTHENE	0.055 U	0.055 U	**0.11 J**
CHRYSENE	0.13 U	0.13 U	**0.14 J**
NAPHTHALENE	0.43 U	0.43 U	0.43 U
2,3,7,8-TCDD TEQ (ND=0)	0.00E+00	0.00E+00	NA

W-04AR2		
Constituent	**Apr-20**	**Oct-20**
BENZENE	0.41 U	0.41 U
BENZO(A)PYRENE	**0.67**	**0.43**
BENZO(B)FLUORANTHENE	**1.3**	**0.94**
CHRYSENE	**1.6**	**1.4**
NAPHTHALENE	0.43 U	0.43 U
2,3,7,8-TCDD TEQ (ND=0)	**9.64E-07**	NA

W-28C			
Constituent	**Apr-20**	**Oct-20**	**Oct-20 Dup**
BENZENE	0.41 U	0.41 U	0.41 U
BENZO(A)PYRENE	0.053 U	0.056 U	0.055 U
BENZO(B)FLUORANTHENE	0.055 U	0.058 U	0.057 U
CHRYSENE	0.13 U	0.14 U	0.14 U
NAPHTHALENE	0.43 U	0.43 U	0.43 U
2,3,7,8-TCDD TEQ (ND=0)	**1.67E-07**	NA	NA

W-06A		
Constituent	**Apr-20**	**Oct-20**
BENZENE	0.41 U	0.41 U
BENZO(A)PYRENE	0.055 U	0.055 U
BENZO(B)FLUORANTHENE	0.057 U	0.057 U
CHRYSENE	0.14 U	0.14 U
NAPHTHALENE	**2.1**	0.43 U
2,3,7,8-TCDD TEQ (ND=0)	**2.16E-08**	NA

W-06C		
Constituent	**Apr-20**	**Oct-20**
BENZENE	0.41 U	0.41 U
BENZO(A)PYRENE	0.053 U	0.058 U
BENZO(B)FLUORANTHENE	0.055 U	0.06 U
CHRYSENE	0.13 U	0.14 U
NAPHTHALENE	0.43 U	0.43 U
2,3,7,8-TCDD TEQ (ND=0)	0.00E+00	NA

W-18D		
Constituent	**Apr-20**	**Oct-20**
BENZENE	NA	NA
BENZO(A)PYRENE	0.057 U	0.057 U
BENZO(B)FLUORANTHENE	0.059 U	0.059 U
CHRYSENE	0.14 U	0.14 U
NAPHTHALENE	0.31 U	0.3 U
2,3,7,8-TCDD TEQ (ND=0)	NA	NA

W-02C W-05CR W-09C W-31C W-12A W-12CR W-30A W-30C W-08C W-08A W-01C W-21B W-21A W-26B W-26A W-32C W-29A W-10AR2 W-04C W-04B W-04AR2 W-06A W-07C W-03C W-11A W-22A W-15A W-17A W-16A W-33D W-16AR W-34D W-20AR W-19C W-19A W-35A W-18D W-28A W-28C W-23A W-38A W-39A W-25A W-25B W-40A W-13A W-14A W-14B

DESIGN MANAGEMENT ZONE
CLOSED RCRA SURFACE IMPOUNDMENTS
CONCRETE BERM
OFFICE
SHOP
GATE
COUNTY ROAD
HOOD AVENUE

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

REV #	DATE	DESCRIPTION	APPD
1			
2			
3			

REFERENCE: WISCONSIN STATE PLANNER COORDINATE SYSTEM.

BEAZER EAST, INC.
PITTSBURGH, PENNSYLVANIA

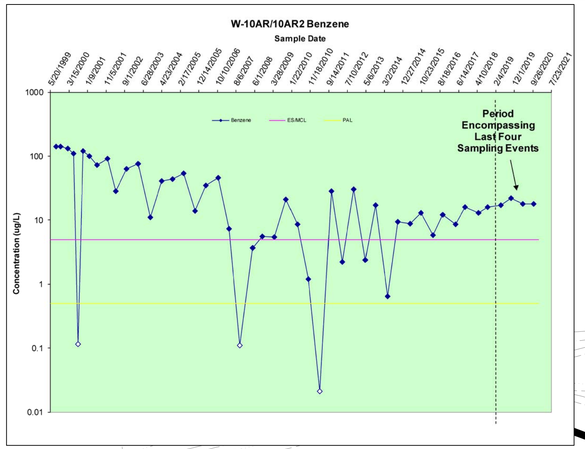
DRWN: KLC	DATE: 11/06/20	FIELD & TECHNICAL SERVICES, LLC
CHKD: TSA	DATE: 11/06/20	200 THIRD AVENUE
APPD: AMG	DATE: 11/30/20	CARNEGIE, PA 15106
SCALE: AS SHOWN		
ISSUE DATE:		

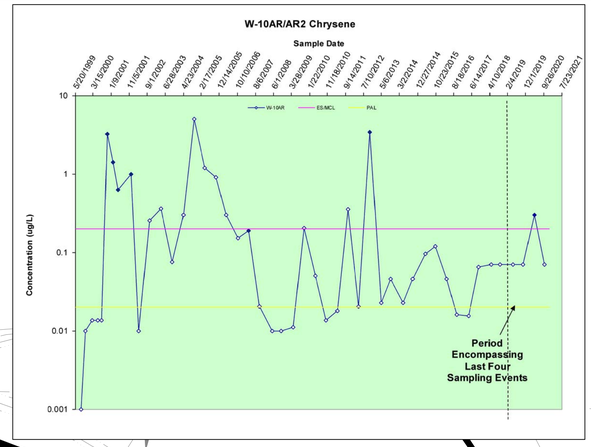
FORMER KOPPERS INC. FACILITY
SUPERIOR, WISCONSIN

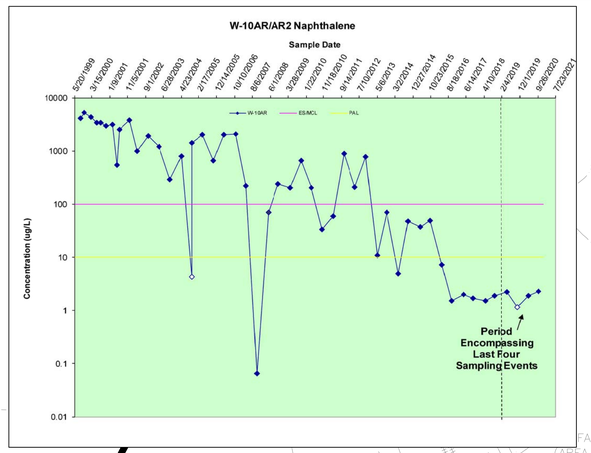
APRIL AND OCTOBER 2020
CONSTITUENTS OF INTEREST

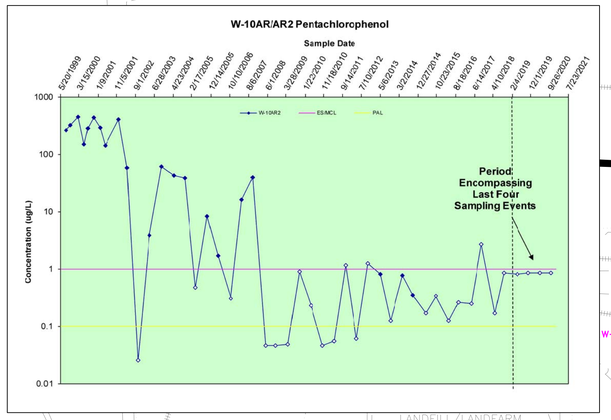
PROJECT NO: 0M055620
DRAWING NUMBER
FIGURE 6

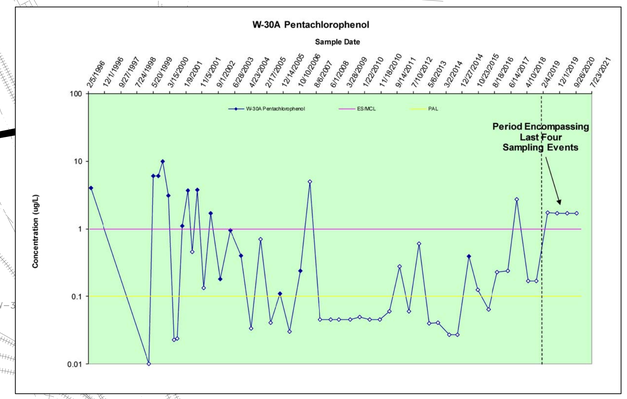
q:\projects\beazer projects\superior\cadd\2020 annual report\Figure 6.dwg Last Saved By: Kchintella 11/5/2020 1:42 PM Plotted By: Kendra L. Chintella 11/5/2020 1:43 PM Scale: 1:1

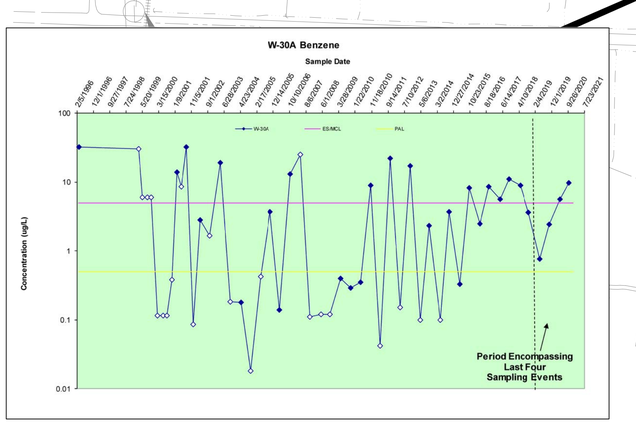


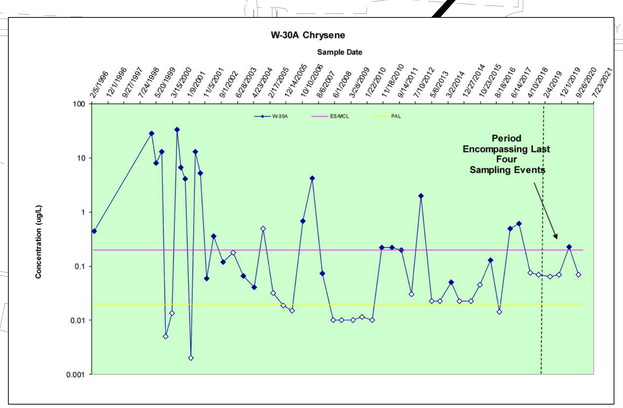


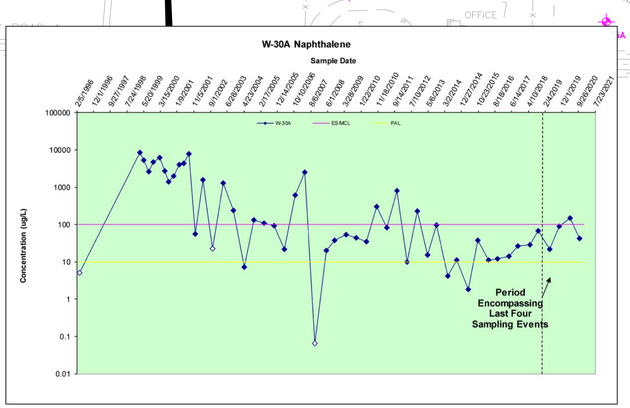












LEGEND

- 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:	11/06/20
CHKD:	TSA	DATE:	11/06/20
APPD:	AMG	DATE:	11/30/20
SCALE:	AS SHOWN		
ISSUE DATE:			

FTS

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: 0M055620
DRAWING NUMBER
FIGURE 7

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.

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.

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.

APPENDIX B

Field Data and Notes

First Semi-Annual Event

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-04AR2

Client:	Beazer East, Inc.	**Well ID:**	W-04AR2
Project Name:	Superior 2020 1SA Sampling	**Date:**	04/22/2020 1140
Project Number:	OM-0556-20-091	**Technician:**	Katie McMullen
Location:	Superior	**Weather Conditions:**	35, windy

WATER LEVEL DATA

a.) Depth To Groundwater:	3.53	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	14.07	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	10.54	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	1.72	(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: 04/22/2020 1150

Purge End: 04/22/2020 1215

Field Equipment	Calibrated
YSI 556 MPS 15M101116	Yes
Lamotte 2020we 3005-0813	Yes
Heron water level meter 200' 1724-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	1150	100	5.04	8.25	0.448	27.6	12.20	7.59	3.83	

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	1155	150	5.01	7.50	0.852	12.6	2.09	6.10	4.01	
2	1200	150	4.99	7.51	0.845	12.5	2.05	6.13	4.15	
3	1205	150	4.98	7.51	0.832	12.0	2.29	6.11	4.27	
4	1210	150	4.93	7.52	0.824	12.2	2.31	6.02	4.36	
5	1215	150	4.96	7.52	0.816	13.0	2.42	6.36	4.47	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
TABUF	8021B_VOA+naphtha	8260B_VOA+naphtha	2	3	40 ml glass vial	HCL	Superior 2020 1SA Sampling_001
TABUF	8270C_SVOC (less naphtha)	8270C_SVOC (less naphtha)	3	3	1 liter amber bottle	None	Superior 2020 1SA Sampling_001
TAKNOX	8290_Dioxins/Furans	8290_Dioxins/Furans	2	2	1 liter amber glass	None	Superior 2020 1SA Sampling_001

SAMPLE IDENTIFICATION(S)
Normal Sample :SUPE-W-04AR2-042220
Equipment Blank :SUPE-EB-01-042220

Sample Start time: 04/22/2020 1225

Sample Finish time: 04/22/2020 1305

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-06A

Client:	Beazer East, Inc.	**Well ID:**	W-06A
Project Name:	Superior 2020 1SA Sampling	**Date:**	04/21/2020 1458
Project Number:	OM-0556-20-091	**Technician:**	Katie McMullen
Location:	Superior	**Weather Conditions:**	40, sunny

WATER LEVEL DATA

a.) Depth To Groundwater:	4.09	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	13.20	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	9.11	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	1.49	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method:	Non-Dedicated Bladder Pump	Purge Start:	04/21/2020 1505
Conductivity Unit:	ms/cm	Purge End:	04/21/2020 1530
Total Volume Removed (gals):	0.50		

Field Equipment	Calibrated
Lamotte 2020we 3005-0813	Yes
Heron water level meter 200' 1724-T2	No
YSI 556 MPS 15M101116	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	1505	75	2.00	7.42	0.779	-38.3	8.33	6.40	4.28	

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	1510	75	2.30	7.38	0.766	-34.0	5.93	4.30	4.39	
2	1515	75	2.39	7.32	0.762	-28.1	4.87	4.18	4.50	
3	1520	75	2.39	7.30	0.747	-10.3	3.98	2.97	4.59	
4	1525	75	2.43	7.29	0.736	-6.1	3.99	2.86	4.68	
5	1530	75	2.45	7.28	0.734	-4.1	3.97	2.75	4.78	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
TABUF	8021B_VOA+naphtha	8260B_VOA+naphtha	2	3	40 ml glass vial	HCL	Superior 2020 1SA Sampling_001
TABUF	8270C_SVOC (less naphtha)	8270C_SVOC (less naphtha)	3	3	1 liter amber bottle	None	Superior 2020 1SA Sampling_001
TAKNOX	8290_Dioxins/Furans	8290_Dioxins/Furans	2	2	1 liter amber glass	None	Superior 2020 1SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-06A-042120

Sample Start time: 04/21/2020 1535

Sample Finish time: 04/21/2020 1645

Comments: purged @ lowest sustainable rate

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-06C

Client:	Beazer East, Inc.	**Well ID:**	W-06C
Project Name:	Superior 2020 1SA Sampling	**Date:**	04/21/2020 1650
Project Number:	OM-0556-20-091	**Technician:**	Katie McMullen
Location:	Superior	**Weather Conditions:**	40, sunny

WATER LEVEL DATA

a.) Depth To Groundwater:	11.55	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	43.99	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	32.44	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	5.29	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method:	Non-Dedicated Bladder Pump	Purge Start:	04/21/2020 1700
Conductivity Unit:	ms/cm	Purge End:	04/21/2020 1725
Total Volume Removed (gals):	2.97		

Field Equipment	Calibrated
Lamotte 2020we 3005-0813	Yes
Heron water level meter 200' 1724-T2	No
YSI 556 MPS 15M101116	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	1700	450	2.97	8.03	0.633	-98.8	6.82	5.21	11.55	

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	1705	450	1.92	7.87	0.617	-111.1	3.13	4.09	11.55	
2	1710	450	1.95	7.85	0.605	-119.1	1.91	3.46	11.55	
3	1715	450	1.95	7.84	0.605	-122.3	1.70	3.28	11.55	
4	1720	450	1.95	7.84	0.605	-123.6	1.62	3.29	11.55	
5	1725	450	1.94	7.84	0.605	-123.7	1.57	3.22	11.55	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
TABUF	8021B_VOA+naphtha	8260B_VOA+naphtha	2	3	40 ml glass vial	HCL	Superior 2020 1SA Sampling_001
TABUF	8270C_SVOC (less naphtha)	8270C_SVOC (less naphtha)	3	3	1 liter amber bottle	None	Superior 2020 1SA Sampling_001
TAKNOX	8290_Dioxins/Furans	8290_Dioxins/Furans	2	2	1 liter amber glass	None	Superior 2020 1SA Sampling_001

SAMPLE IDENTIFICATION(S)
Normal Sample :SUPE-W-06C-042120
MS/MSD Blank :SUPE-W-06C-MS/MSD-042120

Sample Start time: 04/21/2020 1730

Sample Finish time: 04/21/2020 1810

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-10AR2

Client:	Beazer East, Inc.	**Well ID:**	W-10AR2
Project Name:	Superior 2020 1SA Sampling	**Date:**	04/22/2020 1620
Project Number:	OM-0556-20-091	**Technician:**	Katie McMullen
Location:	Superior	**Weather Conditions:**	30, windy

WATER LEVEL DATA

a.) Depth To Groundwater:	5.28	(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:	12.23	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	2.00	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method:	Non-Dedicated Bladder Pump	Purge Start:	04/22/2020 1630
Conductivity Unit:	ms/cm	Purge End:	04/22/2020 1655
Total Volume Removed (gals):	0.50		

Field Equipment	Calibrated
Lamotte 2020we 3005-0813	Yes
Heron water level meter 200' 1724-t2	No
YSI 556 MPS 15M101116	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	1630	75	6.58	7.02	0.951	-33.7	13.58	6.82	5.51	

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	1635	75	6.61	7.00	0.952	-32.3	10.42	4.77	5.63	
2	1640	75	6.75	6.99	0.949	-31.8	6.07	4.69	5.74	
3	1645	75	6.49	6.99	0.956	-32.2	2.65	4.58	5.84	
4	1650	75	6.53	6.99	0.953	-32.6	2.63	4.62	5.95	
5	1655	75	6.67	6.98	0.951	-32.8	2.55	4.38	6.04	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
TABUF	8021B_VOA+naphtha	8260B_VOA+naphtha	2	3	40 ml glass vial	HCL	Superior 2020 1SA Sampling_001
TABUF	8270C_SVOC (less naphtha)	8270C_SVOC (less naphtha)	3	3	1 liter amber bottle	None	Superior 2020 1SA Sampling_001
TAKNOX	8290_Dioxins/Furans	8290_Dioxins/Furans	2	2	1 liter amber glass	None	Superior 2020 1SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-10AR2-042220

Sample Start time: 04/22/2020 1700

Sample Finish time: 04/22/2020 1808

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-12A

Client:	Beazer East, Inc.	**Well ID:**	W-12A
Project Name:	Superior 2020 1SA Sampling	**Date:**	04/22/2020 0839
Project Number:	OM-0556-20-091	**Technician:**	Katie McMullen
Location:	Superior	**Weather Conditions:**	35,windy

WATER LEVEL DATA

a.) Depth To Groundwater:	4.23	(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:	9.13	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	1.49	(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: 04/22/2020 0850

Purge End: 04/22/2020 0915

Field Equipment	Calibrated
Lamotte 2020we 3005-0813	Yes
Heron water level meter 200' 1724-t2	No
YSI 556 MPS 15M101116	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	0850	100	5.43	7.36	0.733	-1.2	10.21	3.44	4.67	

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	0855	100	5.44	7.31	0.740	11.1	10.81	2.92	4.85	
2	0900	100	5.27	7.29	0.741	15.3	4.57	2.93	4.99	
3	0905	100	5.18	7.28	0.738	19.2	2.67	2.91	5.15	
4	0910	100	5.09	7.27	0.735	17.5	2.56	2.93	5.28	
5	0915	100	5.03	7.25	0.740	14.5	2.48	2.79	5.42	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
TABUF	8021B_VOA+naphtha	8260B_VOA+naphtha	2	3	40 ml glass vial	HCL	Superior 2020 1SA Sampling_001
TABUF	8270C_SVOC (less naphtha)	8270C_SVOC (less naphtha)	3	3	1 liter amber bottle	None	Superior 2020 1SA Sampling_001
TAKNOX	8290_Dioxins/Furans	8290_Dioxins/Furans	2	2	1 liter amber glass	None	Superior 2020 1SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-12A-042220

Sample Start time: 04/22/2020 0920

Sample Finish time: 04/22/2020 1015

Comments: purged @ slowest sustainable rate

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-12CR

Client:	Beazer East, Inc.	**Well ID:**	W-12CR
Project Name:	Superior 2020 1SA Sampling	**Date:**	04/22/2020 1320
Project Number:	OM-0556-20-091	**Technician:**	Katie McMullen
Location:	Superior	**Weather Conditions:**	30,windy

WATER LEVEL DATA

a.) Depth To Groundwater:	14.58	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	47.65	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	33.07	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	5.40	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method:	Non-Dedicated Bladder Pump	Purge Start:	04/22/2020 1325
Conductivity Unit:	ms/cm	Purge End:	04/22/2020 1350
Total Volume Removed (gals):	1.65		

Field Equipment	Calibrated
Heron water level meter 200' 1724-t2	No
Lamotte 2020we 3005-0813	Yes
YSI 556 MPS 15M101116	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	1325	250	5.94	7.96	0.557	-28.0	15.12	5.50	14.61	

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	1330	250	6.38	7.57	1.032	-116.4	0.79	3.32	14.61	
2	1335	250	6.26	7.57	1.035	-115.1	0.77	3.41	14.61	
3	1340	250	6.14	7.57	1.038	-115.9	0.73	3.29	14.61	
4	1345	250	6.12	7.56	1.037	-115.8	0.72	3.30	14.61	
5	1350	250	6.12	7.56	1.037	-116.2	0.73	3.06	14.61	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
TABUF	8021B_VOA+naphtha	8260B_VOA+naphtha	2	3	40 ml glass vial	HCL	Superior 2020 1SA Sampling_001
TABUF	8270C_SVOC (less naphtha)	8270C_SVOC (less naphtha)	3	3	1 liter amber bottle	None	Superior 2020 1SA Sampling_001
TAKNOX	8290_Dioxins/Furans	8290_Dioxins/Furans	2	2	1 liter amber glass	None	Superior 2020 1SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-12CR-042220

Sample Start time: 04/22/2020 1352

Sample Finish time: 04/22/2020 1313

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-18D

Client:	Beazer East, Inc.	**Well ID:**	W-18D
Project Name:	Superior 2020 1SA Sampling	**Date:**	04/22/2020 1042
Project Number:	OM-0556-20-091	**Technician:**	Katie McMullen
Location:	Superior	**Weather Conditions:**	35, windy

WATER LEVEL DATA

a.) Depth To Groundwater:	45.35	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	201.75	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	156.40	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	25.52	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method:	Non-Dedicated Bladder Pump	Purge Start:	04/22/2020 1045
Conductivity Unit:	ms/cm	Purge End:	04/22/2020 1110
Total Volume Removed (gals):	1.98		

Field Equipment	Calibrated
Lamotte 2020we 3005-0813	Yes
YSI 556 MPS 15M101116	Yes
Heron water level meter 200' 1724-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	1045	300	4.47	10.63	0.400	-34.9	21.22	3.51	45.55	

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	1050	300	4.57	10.92	0.391	-42.2	8.36	3.60	45.55	
2	1055	300	4.58	10.99	0.392	-48.4	2.73	3.29	45.55	
3	1100	300	4.66	11.02	0.395	-50.6	2.72	3.41	45.55	
4	1105	300	4.78	11.04	0.404	-54.9	2.63	3.07	45.55	
5	1110	300	4.82	11.04	0.406	-55.7	2.55	3.15	45.55	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
TABUF	8270C_SVOC+Naphth	8270C_SVOC+naphtha	3	3	1 liter amber bottle	None	Superior 2020 1SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-18D-042220

Sample Start time: 04/22/2020 1112

Sample Finish time: 04/22/2020 1125

Comments:

Print Date: 4/29/2020
Print Time: 12:56:59PM

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-28C

Client:	Beazer East, Inc.	**Well ID:**	W-28C
Project Name:	Superior 2020 1SA Sampling	**Date:**	04/22/2020 0716
Project Number:	OM-0556-20-091	**Technician:**	Katie McMullen
Location:	Superior	**Weather Conditions:**	35, overcast

WATER LEVEL DATA

a.) Depth To Groundwater:	13.30	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	45.30	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	32.00	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	5.22	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method:	Non-Dedicated Bladder Pump	Purge Start:	04/22/2020 0725
Conductivity Unit:	ms/cm	Purge End:	04/22/2020 0750
Total Volume Removed (gals):	1.65		

Field Equipment	Calibrated
YSI 556 MPS 15M101116	Yes
Heron water level meter 200' 1724-t2	No
Lamotte 2020we 3005-0813	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	0725	250	5.23	7.63	0.800	-60.1	14.40	4.67	13.35	

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	0730	250	5.40	7.71	0.814	-102.6	4.49	3.37	13.35	
2	0735	250	5.62	7.72	0.819	-104.0	2.79	3.21	13.35	
3	0740	250	5.73	7.72	0.820	-116.0	1.91	2.57	13.35	
4	0745	250	5.76	7.72	0.820	-109.5	1.84	2.49	13.35	
5	0750	250	5.77	7.72	0.820	-117.1	1.72	2.47	13.35	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
TABUF	8021B_VOA+naphtha	8260B_VOA+naphtha	2	3	40 ml glass vial	HCL	Superior 2020 1SA Sampling_001
TABUF	8270C_SVOC (less naphtha)	8270C_SVOC (less naphtha)	3	3	1 liter amber bottle	None	Superior 2020 1SA Sampling_001
TAKNOX	8290_Dioxins/Furans	8290_Dioxins/Furans	2	2	1 liter amber glass	None	Superior 2020 1SA Sampling_001

SAMPLE IDENTIFICATION(S)
Normal Sample :SUPE-W-28C-042220
Trip Blank :SUPE-TB-01-042220

Sample Start time: 04/22/2020 0755

Sample Finish time: 04/22/2020 0818

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-30A

Client:	Beazer East, Inc.	**Well ID:**	W-30A
Project Name:	Superior 2020 1SA Sampling	**Date:**	04/22/2020 1423
Project Number:	OM-0556-20-091	**Technician:**	Katie McMullen
Location:	Superior	**Weather Conditions:**	30, windy

WATER LEVEL DATA

a.) Depth To Groundwater:	3.75	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	13.12	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	9.37	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	1.53	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method: Non-Dedicated Bladder Pump

Purge Start: 04/22/2020 1430

Conductivity Unit: ms/cm

Purge End: 04/22/2020 1455

Total Volume Removed (gals): 0.50

Field Equipment	Calibrated
Heron water level meter 200' 1724-t2	No
YSI 556 MPS 15M101116	Yes
Lamotte 2020we 3005-0813	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	1430	75	5.26	6.82	1.130	-91.7	25.34	10.27	4.01	

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	1435	75	5.26	6.80	1.127	-92.5	9.35	9.61	4.15	
2	1440	75	5.45	6.80	1.129	-95.4	3.77	9.44	4.23	
3	1445	75	5.48	6.80	1.122	-98.0	2.57	9.47	4.31	
4	1450	75	5.50	6.80	1.120	-98.1	2.49	9.61	4.39	
5	1455	75	5.56	6.80	1.115	-98.4	2.38	9.73	4.47	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
TABUF	8021B_VOA+naphtha	8260B_VOA+naphtha	2	3	40 ml glass vial	HCL	Superior 2020 1SA Sampling_001
TABUF	8270C_SVOC (less naphtha)	8270C_SVOC (less naphtha)	3	3	1 liter amber bottle	None	Superior 2020 1SA Sampling_001
TAKNOX	8290_Dioxins/Furans	8290_Dioxins/Furans	2	2	1 liter amber glass	None	Superior 2020 1SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-30A-042220

Sample Start time: 04/22/2020 1500

Sample Finish time: 04/22/2020 1610

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-30C

Client:	Beazer East, Inc.	**Well ID:**	W-30C
Project Name:	Superior 2020 1SA Sampling	**Date:**	04/21/2020 1310
Project Number:	OM-0556-20-091	**Technician:**	Katie McMullen
Location:	Superior	**Weather Conditions:**	40, sunny

WATER LEVEL DATA

a.) Depth To Groundwater:	14.38	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	48.43	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	34.05	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	5.56	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method:	Non-Dedicated Bladder Pump	Purge Start:	04/21/2020 1317
Conductivity Unit:	ms/cm	Purge End:	04/21/2020 1342
Total Volume Removed (gals):	1.32		

Field Equipment	Calibrated
Heron water level meter 200' 1724-T2	No
Lamotte 2020we 3005-0813	Yes
YSI 556 MPS 15M101116	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	1317	200	2.67	7.75	0.626	1.4	22.85	21.40	14.43	

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	1322	200	2.20	7.83	0.691	-89.3	8.84	11.60	14.43	
2	1327	200	2.10	7.88	0.715	-102.5	7.06	7.28	14.43	
3	1332	200	2.10	7.89	0.729	-109.8	3.57	7.54	14.43	
4	1337	200	2.14	7.89	0.733	-104.8	3.59	7.51	14.43	
5	1342	200	2.13	7.90	0.741	-101.3	3.51	7.61	14.43	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
TABUF	8021B_VOA+naphtha	8260B_VOA+naphtha	2	3	40 ml glass vial	HCL	Superior 2020 1SA Sampling_001
TABUF	8270C_SVOC (less naphtha)	8270C_SVOC (less naphtha)	3	3	1 liter amber bottle	None	Superior 2020 1SA Sampling_001
TAKNOX	8290_Dioxins/Furans	8290_Dioxins/Furans	2	2	1 liter amber glass	None	Superior 2020 1SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-30C-042120

Blind Duplicate :SUPE-M99-A-042120

Sample Start time: 04/21/2020 1345

Sample Finish time: 04/21/2020 1452

Comments:

Second 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 2020 2SA Sampling	**Date:**	10/07/2020 1157
Project Number:	OM-0556-20-091	**Technician:**	Katie McMullen
Location:	Superior, WI	**Weather Conditions:**	60, sunny

WATER LEVEL DATA

a.) Depth To Groundwater:	3.71	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	14.09	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	10.38	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	1.69	(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: 10/07/2020 1205

Purge End: 10/07/2020 1230

Field Equipment	Calibrated
LaMotte 2020we 3005-0813	Yes
YSI 556 MPS 15M101116	Yes
Heron Water Level Meter 200' 1724-T2	No

Sampling Equipment	Dedicated
Geopump 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	1205	100	13.02	8.77	0.898	-16.9	4.15	9.54	4.20	

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	1210	100	12.86	8.15	0.947	-40.6	2.87	3.29	4.30	
2	1215	100	12.74	8.03	0.952	-48.7	2.91	2.84	4.34	
3	1220	100	12.71	7.95	0.954	-52.7	1.36	2.69	4.38	
4	1225	100	12.77	7.93	0.952	-52.6	1.35	2.63	4.43	
5	1230	100	12.74	7.91	0.951	-52.4	1.35	2.44	4.48	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF		8260B_VOA+naphtha	2	3	40 ml glass vial	HCL	Superior 2020 2SA Sampling_001
TABUF		8270C_SVOC (less naphtha)	3	3	1 liter amber bottle	None	Superior 2020 2SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-04AR2-100720

Sample Start time: 10/07/2020 1235

Sample Finish time: 10/07/2020 1309

Comments: Wood chipping in progress during sampling.

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-06A

Client:	Beazer East, Inc.	**Well ID:**	W-06A
Project Name:	Superior 2020 2SA Sampling	**Date:**	10/07/2020 1005
Project Number:	OM-0556-20-091	**Technician:**	Aaron Malecki
Location:	Superior, WI	**Weather Conditions:**	50s sunny

WATER LEVEL DATA

a.) Depth To Groundwater:	7.66	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	13.18	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	5.52	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	0.9	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method: Non-Dedicated Bladder Pump

Conductivity Unit: mS/cm

Total Volume Removed (gals): 0.73

Purge Start: 10/07/2020 1015

Purge End: 10/07/2020 1040

Field Equipment	Calibrated
LaMotte 2020t 1884-4019	Yes
YSI Pro DSS 19J101163	Yes
Heron 200' water level 122003005FR	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	1015	150	11.70	8.58	0.883	-56.6	2.47	8.96	8.38	

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	1020	150	11.50	7.43	0.879	-73.6	0.90	7.47	8.56	
2	1025	100	11.70	7.22	0.869	-72.7	0.62	5.11	8.73	
3	1030	100	11.90	7.19	0.849	-50.7	0.67	4.37	8.91	
4	1035	100	12.10	7.16	0.833	-49.2	0.71	4.21	9.01	
5	1040	100	12.10	7.14	0.830	-41.4	0.67	4.00	9.12	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF		8260B_VOA+naphtha	2	3	40 ml glass vial	HCL	Superior 2020 2SA Sampling_001
TABUF		8270C_SVOC (less naphtha)	3	3	1 liter amber bottle	None	Superior 2020 2SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-06A-100720

Sample Start time: 10/07/2020 1045

Sample Finish time: 10/07/2020 1139

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-06C

Client:	Beazer East, Inc.	**Well ID:**	W-06C
Project Name:	Superior 2020 2SA Sampling	**Date:**	10/07/2020 1203
Project Number:	OM-0556-20-091	**Technician:**	Aaron Malecki
Location:	Superior, WI	**Weather Conditions:**	50s sunny

WATER LEVEL DATA

a.) Depth To Groundwater:	12.50	(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:	31.50	(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): 1.85

Purge Start: 10/07/2020 1205

Purge End: 10/07/2020 1230

Field Equipment	Calibrated
Heron 200' water level 122003005FR	No
LaMotte 2020t 1884-4019	Yes
YSI Pro DSS 19J101163	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	1205	250	10.10	12.35	0.618	-142.1	1.93	4.78	12.20	

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	1210	250	9.10	9.28	0.603	-160.7	0.81	4.23	12.20	
2	1215	250	9.00	8.31	0.599	-170.7	0.41	2.72	12.20	
3	1220	300	8.50	7.94	0.598	-174.3	0.33	3.34	12.20	
4	1225	300	8.30	7.90	0.598	-182.6	0.32	3.25	12.20	
5	1230	300	8.20	7.87	0.597	-189.2	0.31	3.06	12.20	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF		8260B_VOA+naphtha	2	3	40 ml glass vial	HCL	Superior 2020 2SA Sampling_001
TABUF		8270C_SVOC (less naphtha)	3	3	1 liter amber bottle	None	Superior 2020 2SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-06C-100720

MS/MSD Blank :SUPE-W-06C-MS/MSD-100720

Sample Start time: 10/07/2020 1235

Sample Finish time: 10/07/2020 1329

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-10AR2

Client:	Beazer East, Inc.	**Well ID:**	W-10AR2
Project Name:	Superior 2020 2SA Sampling	**Date:**	10/07/2020 1343
Project Number:	OM-0556-20-091	**Technician:**	Katie McMullen
Location:	Superior, WI	**Weather Conditions:**	60, sunny

WATER LEVEL DATA

a.) Depth To Groundwater:	8.53	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	17.50	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	8.97	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	1.46	(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: 10/07/2020 1355

Purge End: 10/07/2020 1420

Field Equipment	Calibrated
Heron Water Level Meter 200' 1724-T2	No
LaMotte 2020we 3005-0813	Yes
YSI 556 MPS 15M101116	Yes

Sampling Equipment	Dedicated
Geopump 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	1355	100	16.46	7.45	0.997	-77.4	6.80	2.71	8.70	

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	1400	100	14.94	7.17	0.993	-74.4	1.79	1.63	8.79	
2	1405	100	14.92	7.03	0.991	-71.2	1.20	1.94	8.83	
3	1410	100	14.97	7.02	0.987	-70.7	1.19	1.87	8.88	
4	1415	100	14.96	7.01	0.990	-70.1	1.15	1.78	8.93	
5	1420	100	15.03	7.01	0.987	-69.7	1.16	1.77	8.98	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF		8260B_VOA+naphtha	2	3	40 ml glass vial	HCL	Superior 2020 2SA Sampling_001
TABUF		8270C_SVOC (less naphtha)	3	3	1 liter amber bottle	None	Superior 2020 2SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-10AR2-100720

Sample Start time: 10/07/2020 1425

Sample Finish time: 10/07/2020 1510

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-12A

Client:	Beazer East, Inc.	**Well ID:**	W-12A
Project Name:	Superior 2020 2SA Sampling	**Date:**	10/07/2020 1357
Project Number:	OM-0556-20-091	**Technician:**	Aaron Malecki
Location:	Superior, WI	**Weather Conditions:**	60s sunny

WATER LEVEL DATA

a.) Depth To Groundwater:	5.94	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	13.35	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	7.41	(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): 0.50

Purge Start: 10/07/2020 1401

Purge End: 10/07/2020 1425

Field Equipment	Calibrated
LaMotte 2020t 1884-4019	Yes
YSI Pro DSS 19J101163	Yes
Heron 200' water level 122003005FR	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	1400	75	13.50	7.31	0.870	-109.4	2.23	56.80	6.35	

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	1405	75	12.80	7.08	0.851	-94.5	1.62	17.70	6.47	
2	1410	75	12.80	6.89	0.837	-75.7	1.24	10.64	6.68	
3	1415	75	13.00	6.85	0.805	-61.7	1.20	8.99	6.84	
4	1420	75	13.00	6.83	0.796	-59.0	1.17	9.20	7.06	
5	1425	75	13.30	6.84	0.792	-54.6	1.16	8.74	7.18	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF		8260B_VOA+naphtha	2	3	40 ml glass vial	HCL	Superior 2020 2SA Sampling_001
TABUF		8270C_SVOC (less naphtha)	3	3	1 liter amber bottle	None	Superior 2020 2SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-12A-100720

Sample Start time: 10/07/2020 1430

Sample Finish time: 10/07/2020 1521

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-12CR

Client:	Beazer East, Inc.	**Well ID:**	W-12CR
Project Name:	Superior 2020 2SA Sampling	**Date:**	10/07/2020 1525
Project Number:	OM-0556-20-091	**Technician:**	Aaron Malecki
Location:	Superior, WI	**Weather Conditions:**	60s sunny

WATER LEVEL DATA

a.) Depth To Groundwater:	15.20	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	47.66	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	32.46	(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: 10/07/2020 1535

Purge End: 10/07/2020 1600

Field Equipment	Calibrated
Heron 200' water level 122003005FR	No
LaMotte 2020t 1884-4019	Yes
YSI Pro DSS 19J101163	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	1535	200	10.00	7.29	1.099	-126.5	3.12	5.73	15.26	

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	1540	200	8.90	7.21	1.087	-137.9	0.79	4.02	15.26	
2	1545	200	8.50	7.16	1.085	-143.6	0.53	3.37	15.26	
3	1550	200	8.30	7.13	1.084	-144.3	0.51	3.33	15.26	
4	1555	200	8.10	7.09	1.084	-145.8	0.48	3.12	15.26	
5	1600	200	8.10	7.08	1.085	-146.4	0.47	3.04	15.26	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF		8260B_VOA+naphtha	2	3	40 ml glass vial	HCL	Superior 2020 2SA Sampling_001
TABUF		8270C_SVOC (less naphtha)	3	3	1 liter amber bottle	None	Superior 2020 2SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-12CR-100720

Sample Start time: 10/07/2020 1605

Sample Finish time: 10/07/2020 1621

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-18D

Client:	Beazer East, Inc.	**Well ID:**	W-18D
Project Name:	Superior 2020 2SA Sampling	**Date:**	10/07/2020 1033
Project Number:	OM-0556-20-091	**Technician:**	Katie McMullen
Location:	Superior, WI	**Weather Conditions:**	55, sunny

WATER LEVEL DATA

a.) Depth To Groundwater:	46.10	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	201.75	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	155.65	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	101.64	(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: 10/07/2020 1040

Purge End: 10/07/2020 1105

Field Equipment	Calibrated
YSI 556 MPS 15M101116	Yes
LaMotte 2020we 3005-0813	Yes
Heron Water Level Meter 200' 1724-T2	No

Sampling Equipment	Dedicated
Geopump 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	1040	300	10.46	9.56	0.445	-23.5	9.98	2.06	46.54	

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	1045	300	9.29	10.36	0.438	-33.3	2.99	1.65	46.56	
2	1050	300	9.02	10.85	0.435	-39.5	2.12	1.37	46.56	
3	1055	300	8.91	11.09	0.444	-48.7	1.72	1.29	46.56	
4	1100	300	8.94	11.11	0.445	-49.1	1.67	1.33	46.56	
5	1105	300	8.84	11.12	0.446	-49.2	1.66	1.25	46.56	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF		8270C_SVOC+naphtha	3	3	1 liter amber bottle	None	Superior 2020 2SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-18D-100720

Sample Start time: 10/07/2020 1110

Sample Finish time: 10/07/2020 1122

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-28C

Client:	Beazer East, Inc.	**Well ID:**	W-28C
Project Name:	Superior 2020 2SA Sampling	**Date:**	10/07/2020 0901
Project Number:	OM-0556-20-091	**Technician:**	Katie McMullen
Location:	Superior, WI	**Weather Conditions:**	55, sunny

WATER LEVEL DATA

a.) Depth To Groundwater:	13.70	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	45.30	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	31.60	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	5.15	(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: 10/07/2020 0915

Purge End: 10/07/2020 0940

Field Equipment	Calibrated
YSI 556 MPS 15M101116	Yes
Heron Water Level Meter 200' 1724-T2	No
LaMotte 2020we 3005-0813	Yes

Sampling Equipment	Dedicated
Geopump 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	0915	250	8.84	8.20	0.848	-103.2	13.41	4.95	13.72	

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	0920	250	8.18	7.69	0.858	-134.9	3.11	2.33	13.72	
2	0925	250	8.10	7.64	0.858	-140.4	2.18	1.55	13.72	
3	0930	250	8.09	7.65	0.858	-151.7	1.04	1.49	13.72	
4	0935	250	8.07	7.65	0.860	-151.9	1.01	1.42	13.72	
5	0940	250	8.08	7.65	0.862	-153.9	0.98	1.37	13.72	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF		8260B_VOA+naphtha	2	3	40 ml glass vial	HCL	Superior 2020 2SA Sampling_001
TABUF		8270C_SVOC (less naphtha)	3	3	1 liter amber bottle	None	Superior 2020 2SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-28C-100720

Trip Blank :SUPE-TB-01-100720

Equipment Blank :SUPE-EB-01-100720

Blind Duplicate :SUPE-W-99-100720

Sample Start time: 10/07/2020 0945

Sample Finish time: 10/07/2020 1015

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-30A

Client:	Beazer East, Inc.	**Well ID:**	W-30A
Project Name:	Superior 2020 2SA Sampling	**Date:**	10/08/2020 0739
Project Number:	OM-0556-20-091	**Technician:**	Aaron Malecki
Location:	Superior, WI	**Weather Conditions:**	40s sunny

WATER LEVEL DATA

a.) Depth To Groundwater:	6.52	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	13.12	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	6.60	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	1.1	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method: Non-Dedicated Bladder Pump

Conductivity Unit: mS/cm

Total Volume Removed (gals): 0.49

Purge Start: 10/08/2020 0744

Purge End: 10/08/2020 0810

Field Equipment	Calibrated
Heron 200' water level 1724-T2	No
LaMotte 2020we 3005-0813	Yes
YSI 556 MPS 15M101116	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	0745	75	8.56	7.60	1.224	-100.5	6.50	5.11	6.88	

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	0750	75	8.94	6.75	1.225	-109.4	2.69	4.64	7.06	
2	0755	75	9.28	6.58	1.225	-111.6	2.01	3.41	7.16	
3	0800	75	9.52	6.51	1.225	-113.8	1.57	3.36	7.35	
4	0805	75	9.69	6.48	1.226	-115.5	1.46	3.28	7.53	
5	0810	74	9.76	6.46	1.225	-116.1	1.45	3.30	7.68	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF		8260B_VOA+naphtha	2	3	40 ml glass vial	HCL	Superior 2020 2SA Sampling_001
TABUF		8270C_SVOC (less naphtha)	3	3	1 liter amber bottle	None	Superior 2020 2SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-30A-100820

Equipment Blank :SUPE-EB-02-100820

Trip Blank :SUPE-TB-02-100820

Sample Start time: 10/08/2020 0815

Sample Finish time: 10/08/2020 0857

Comments:

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: W-30C

Client:	Beazer East, Inc.	**Well ID:**	W-30C
Project Name:	Superior 2020 2SA Sampling	**Date:**	10/07/2020 0840
Project Number:	OM-0556-20-091	**Technician:**	Aaron Malecki
Location:	Superior, WI	**Weather Conditions:**	50s sunny

WATER LEVEL DATA

a.) Depth To Groundwater:	14.95	(ft)	e.) Depth to LNAPL:	NP	(ft)
b.) Total Well Depth:	48.88	(ft)	f.) Depth to DNAPL:	NP	(ft)
c.) Length of Water Column:	33.93	(ft)	g.) LNAPL Thickness:	N/A	(ft)
d.) Well Volume:	5.5	(gal)	h.) DNAPL Thickness:	N/A	(ft)

WATER PURGE DATA

Purge Method: Non-Dedicated Bladder Pump

Conductivity Unit: mS/cm

Total Volume Removed (gals): 3.17

Purge Start: 10/07/2020 0853

Purge End: 10/07/2020 0935

Field Equipment	Calibrated
Heron 200' water level 122003005FR	No
YSI P Pro DSS 19J101163	Yes
LaMotte 2020t 1884-4019	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	0855	300	8.50	7.84	0.560	-87.0	7.43	1000.00	14.97	Muddy

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	0900	300	7.80	7.16	0.676	-144.0	5.23	75.50	15.01	
2	0905	300	7.80	7.15	0.686	-144.6	2.08	41.90	15.01	
3	0910	300	7.80	7.20	0.691	-143.1	0.75	16.00	15.01	
4	0915	300	7.80	7.31	0.704	-152.6	0.63	14.50	15.01	
5	0920	300	7.80	7.39	0.708	-158.3	0.53	11.30	15.01	
6	0925	300	8.30	7.47	0.710	-164.1	0.50	13.70	15.01	
7	0930	300	8.20	7.50	0.712	-164.7	0.49	12.70	15.01	
8	0935	300	8.40	7.53	0.712	-166.2	0.47	13.70	15.01	

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle Qty Req.	Bottle Qty Collected	BottleType	Preservative	Program
TABUF		8260B_VOA+naphtha	2	3	40 ml glass vial	HCL	Superior 2020 2SA Sampling_001
TABUF		8270C_SVOC (less naphtha)	3	3	1 liter amber bottle	None	Superior 2020 2SA Sampling_001

SAMPLE IDENTIFICATION(S)

Normal Sample :SUPE-W-30C-100720

Sample Start time: 10/07/2020 0940

Sample Finish time: 10/07/2020 1057

Comments:

APPENDIX C

Analytical Data

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

FTS, LLC

DATE: May 20, 2020

FROM: Kendra Chintella

SUBJECT: Superior GW

SAMPLE DELIVERY GROUP (SDG): 480-169009-1

SAMPLES: SUPE-M99-A-042120(W-30C), SUPE-TB-01-042220, SUPE-W-28C-042220, SUPE-W-12A-042220, SUPE-W-18D-042220, SUPE-W-04AR2-042220, SUPE-EB-01-042220, SUPE-W-30C-042120, SUPE-W-12CR-042220, SUPE-W-30A-042220, SUPE-W-06A-042120, SUPE-W-10AR2-042220, SUPE-W-06C-042120

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: Pentachlorophenol was extracted outside of hold time for M99-A and W-30C and results in these samples were qualified as estimated, "J".

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

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

□ Surrogate Recoveries
Noncompliance: The surrogate recovery of 2,4,6-tribromophenol was above the recovery limits in samples W-12CR and W-10AR2. No action was taken on this basis.

□ Matrix Spike/Matrix Spike Duplicate
Noncompliance: The MS recovery of anthracene was above the recovery limits. The MS/MSD recoveries of hexachlorobenzene were above the recovery limits. The RPDs of 1,2,4-trichlorobenzene, 2-methylnaphthalene, hexachlorobenzene, hexachlorocyclopentadiene, and hexachloroethane were above the recovery limits. No action was taken on this basis.

□ Laboratory Control Sample
Noncompliance: The LCS recoveries of anthracene, dimethyl phthalate, di-n-butyl phthalate, fluoranthene, and hexachlorobenzene were above the recovery limits. No action was taken on this basis.

Laboratory Blank Contamination:

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

Analyte	Maximum Concentration	Blank Action Level
1,2,3,4,6,7,8-HpCDD	1.54 JI pg/l	7.7 pg/l
1,2,3,4,6,7,8-HpCDF	1.17 JI pg/l	5.85 pg/l
1,2,3,4,7,8,9-HpCDF	0.894 J pg/l	4.47 pg/l
1,2,3,4,7,8-HxCDF	0.802 JI pg/l	4.01 pg/l
1,2,3,6,7,8-HxCDD	0.904 JI pg/l	4.52 pg/l
1,2,3,6,7,8-HxCDF	0.661 JI pg/l	3.305 pg/l
1,2,3,7,8,9-HxCDD	1.03 JI pg/l	5.15 pg/l
1,2,3,7,8,9-HxCDF	0.808 J pg/l	4.04 pg/l
1,2,3,7,8-PeCDF	0.83 J pg/l	4.15 pg/l
2,3,4,6,7.8-HxCDF	1.11 JI pg/l	5.55 pg/l
OCDD	9.83 J pg/l	49.15 pg/l
OCDF	4.74 J pg/l	23.7 pg/l
Total HpCDD	2.24 JI pg/l	11.2 pg/l
Total HpCDF	2.07 JI pg/l	10.35 pg/l
Total HxCDD	3.36 JI pg/l	16.8 pg/l
Total HxCDF	3.38 JI pg/l	16.9 pg/l
Total PeCDF	0.83 J pg/l	4.15 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-01-042220, at the following concentrations:

Analyte	Maximum Concentration	Blank Action Level
1,2,3,4,6,7,8-HpCDD	1.1 JI pg/l	5.5 pg/l
1,2,3,4,6,7,8-HpCDF	0.48 JI pg/l	2.4 pg/l
2,3,7,8-TCDF	0.22 JI pg/l	1.1 pg/l
OCDD	13 J pg/l	65 pg/l
OCDF	0.95 JI pg/l	4.75 pg/l
Total HpCDD	4.4 JI pg/l	22 pg/l
Total HpCDF	0.81 JI pg/l	4.05 pg/l
Total HxCDD	1.6 JI pg/l	8 pg/l
Total TCDF	0.46 JI pg/l	2.3 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-30C	QUAL	M99-A	QUAL	RPD
1,2,3,4,6,7,8-HpCDD	5.2	J	3.4	JI	41.86*
1,2,3,4,6,7,8-HpCDF	1.4	JI	1.2	J	15.38
1,2,3,4,7,8,9-HpCDF	0.54	J	0.24	U	NC
1,2,3,6,7,8-HxCDD	0.45	JI	0.24	U	NC
1,2,3,7,8,9-HxCDD	0.53	JI	0.21	U	NC
OCDD	38	J	28	J	30.30*
OCDF	3.7	J	3.2	JI	14.49
Total HpCDD	9.1	J	8.1	JI	11.63
Total HpCDF	5.2	JI	3.6	JI	36.36*
Total HxCDD	2	JI	0.24	U	NC
Total HxCDF	2.6	JI	2.1	JI	21.28
Total PeCDF	0.33	U	0.47	JI	NC
Total TCDD	0.58	JI	0.15	U	NC
Total TCDF	2.4	JI	1.8	JI	28.57

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

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ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-169009-1
Client Project/Site: Superior, WI Semiannual Groundwater
Revision: 2

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

Attn: Ms. Angie Gatchie

Veronica Bortot

Authorized for release by:
5/20/2020 2:29:12 PM

Veronica Bortot, Senior Project Manager
(412)963-2435
veronica.bortot@testamericainc.com

Table of Contents

Definitions/Glossary

Client: Field & Technical Services LLC
Job ID: 480-169009-1
Project/Site: Superior, WI Semiannual Groundwater

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate recovery exceeds control limits

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Job ID: 480-169009-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-169009-1

Revision 2 - to correct narrative
Revised: to change formatter

Receipt
The samples were received on 4/24/2020 10:00 AM; the samples arrived in good condition, properly preserved, and where required, on ice. The temperatures of the 7 coolers at receipt time were 2.6°C, 2.8°C, 3.0°C, 3.1°C, 3.3°C, 3.4°C and 3.7°C

Receipt Exceptions
Received 2 containers for each sample, COC list total number of containers as 4. Container label analysis is listed as 8290 Dioxins/Furans, COC list analysis as 8270/3510C
Due to shipping error ; samples SUPE-M99-A-042120 and SUPE-W-30C-04212 For PCP analyses were extracted one day outside of holding time.

Department GC/MS VOA
Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: SUPE-W-30A-042220. Elevated reporting limits (RLs) are provide

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

Department GC/MS Semi VOA
Method 8270D: The following samples contained one acid surrogate outside acceptance limits:SUPE-W-12CR-042220 and SUPE-W-10AR2-042220. 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

Method 8270D: Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover above the criteria for this method with associated detections when utilizing this list of analytes. The LCS associated with preparation batch 500-539931 and analytical batch 500-540079 had 2 analytes above the control limits with associated detections: Anthracene and Fluoranthene. The following analytes were also above the QC limits and had no associated detections: Dimethyl phthalate, Di-n-butyl phthalate and Hexachlorobenzene. LCS 500-539931/2-

Method 8270D_LL: The following sample(s) was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: SUPE-M99-A-042120 and SUPE-W-30C-04212

Method 8270D_LL: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 480-52877

Method 8270D_LL: The following samples were diluted due to the nature of the sample matrix: SUPE-W-30A-042220 and SUPE-W-10AR2-042220. Elevated reporting limits (RLs) are provide

Method 8270D_LL: The following sample was diluted due to the nature of the sample matrix: SUPE-W-04AR2-042220. Elevated reporting limits (RLs) are provide

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

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

Detection Summary

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

Job ID: 480-169009-1

Client Sample ID: SUPE-M99-A-042120 — Lab Sample ID: 480-169009-1

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	3.4	J I B	50	0.24	pg/L	1		8290A	Total/NA
Total HpCDD	8.1	J I B	50	0.24	pg/L	1		8290A	Total/NA
OCDD	28	J B	100	0.19	pg/L	1		8290A	Total/NA
Total TCDF	1.8	J I	10	0.14	pg/L	1		8290A	Total/NA
Total PeCDF	0.47	J I B	50	0.20	pg/L	1		8290A	Total/NA
Total HxCDF	2.1	J I B	50	0.27	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDF	1.2	J B	50	0.19	pg/L	1		8290A	Total/NA
Total HpCDF	3.6	J I B	50	0.21	pg/L	1		8290A	Total/NA
OCDF	3.2	J I B	100	0.16	pg/L	1		8290A	Total/NA

Client Sample ID: SUPE-TB-01-042220 — Lab Sample ID: 480-169009-2

No Detections.

Client Sample ID: SUPE-W-28C-042220 — Lab Sample ID: 480-169009-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.12	J	0.19	0.042	ug/L	1		8270D	Total/NA
1,2,3,4,7,8-HxCDD	0.27	J I	50	0.17	pg/L	1		8290A	Total/NA
1,2,3,6,7,8-HxCDD	0.41	J I B	50	0.17	pg/L	1		8290A	Total/NA
1,2,3,7,8,9-HxCDD	0.65	J B	50	0.16	pg/L	1		8290A	Total/NA
Total HxCDD	5.1	J I B	50	0.16	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDD	9.5	J B	50	0.25	pg/L	1		8290A	Total/NA
Total HpCDD	38	J B	50	0.25	pg/L	1		8290A	Total/NA
OCDD	150	B	100	0.20	pg/L	1		8290A	Total/NA
Total TCDF	0.64	J I	10	0.14	pg/L	1		8290A	Total/NA
Total PeCDF	1.1	J I B	50	0.18	pg/L	1		8290A	Total/NA
Total HxCDF	3.2	J I B	50	0.26	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDF	2.6	J B	50	0.17	pg/L	1		8290A	Total/NA
1,2,3,4,7,8,9-HpCDF	0.53	J B	50	0.21	pg/L	1		8290A	Total/NA
Total HpCDF	8.3	J I B	50	0.19	pg/L	1		8290A	Total/NA
OCDF	8.7	J I B	100	0.19	pg/L	1		8290A	Total/NA

Client Sample ID: SUPE-W-12A-042220 — Lab Sample ID: 480-169009-4

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8,9-HxCDD	0.43	J I B	50	0.10	pg/L	1		8290A	Total/NA
Total HxCDD	3.1	J I B	50	0.11	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDD	2.9	J B	50	0.15	pg/L	1		8290A	Total/NA
Total HpCDD	5.9	J B	50	0.15	pg/L	1		8290A	Total/NA
OCDD	28	J B	100	0.12	pg/L	1		8290A	Total/NA
2,3,7,8-TCDF	0.20	J I	10	0.094	pg/L	1		8290A	Total/NA
Total TCDF	2.2	J I	10	0.094	pg/L	1		8290A	Total/NA
Total PeCDF	3.0	J I B	50	0.26	pg/L	1		8290A	Total/NA
Total HxCDF	5.3	J I B	50	0.18	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDF	1.3	J B	50	0.053	pg/L	1		8290A	Total/NA
1,2,3,4,7,8,9-HpCDF	0.49	J I B	50	0.065	pg/L	1		8290A	Total/NA
Total HpCDF	4.5	J I B	50	0.059	pg/L	1		8290A	Total/NA
OCDF	4.1	J B	100	0.20	pg/L	1		8290A	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 480-169009-1

Client Sample ID: SUPE-W-18D-042220 — Lab Sample ID: 480-169009-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pentachlorophenol	0.43	J	1.0	0.34	ug/L	1		8270D LL	Total/NA

Client Sample ID: SUPE-W-04AR2-042220 — Lab Sample ID: 480-169009-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.38	J	1.0	0.36	ug/L	1		8270D	Total/NA
Anthracene	3.5	*	1.0	0.32	ug/L	1		8270D	Total/NA
Benzo[a]pyrene	0.67		0.20	0.056	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	1.3		0.20	0.058	ug/L	1		8270D	Total/NA
Benzo[k]fluoranthene	0.49		0.20	0.074	ug/L	1		8270D	Total/NA
Chrysene	1.6		0.50	0.14	ug/L	1		8270D	Total/NA
Dibenzofuran	0.44	J	2.0	0.35	ug/L	1		8270D	Total/NA
Fluoranthene	4.4	*	1.0	0.32	ug/L	1		8270D	Total/NA
Fluorene	0.76	J	1.0	0.38	ug/L	1		8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.37		0.20	0.084	ug/L	1		8270D	Total/NA
Pyrene	2.6		1.0	0.48	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.85		0.20	0.044	ug/L	1		8270D	Total/NA
Phenanthrene	2.3		1.0	0.35	ug/L	1		8270D	Total/NA
Total TCDD	0.60	J I	10	0.26	pg/L	1		8290A	Total/NA
1,2,3,4,7,8-HxCDD	0.62	J I	50	0.25	pg/L	1		8290A	Total/NA
1,2,3,6,7,8-HxCDD	2.3	J B	50	0.25	pg/L	1		8290A	Total/NA
1,2,3,7,8,9-HxCDD	1.8	J B	50	0.23	pg/L	1		8290A	Total/NA
Total HxCDD	26	J I B	50	0.24	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDD	60	B	50	0.79	pg/L	1		8290A	Total/NA
Total HpCDD	280	B	50	0.79	pg/L	1		8290A	Total/NA
OCDD	670	B	100	0.17	pg/L	1		8290A	Total/NA
2,3,7,8-TCDF	0.37	J	10	0.13	pg/L	1		8290A	Total/NA
Total TCDF	2.7	J I	10	0.13	pg/L	1		8290A	Total/NA
Total PeCDF	6.2	J I B	50	0.46	pg/L	1		8290A	Total/NA
1,2,3,4,7,8-HxCDF	0.92	J B	50	0.21	pg/L	1		8290A	Total/NA
1,2,3,6,7,8-HxCDF	0.52	J B	50	0.22	pg/L	1		8290A	Total/NA
2,3,4,6,7,8-HxCDF	0.46	J I B	50	0.21	pg/L	1		8290A	Total/NA
Total HxCDF	30	J I B	50	0.21	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDF	9.2	J B	50	0.16	pg/L	1		8290A	Total/NA
1,2,3,4,7,8,9-HpCDF	0.92	J B	50	0.21	pg/L	1		8290A	Total/NA
Total HpCDF	34	J B	50	0.19	pg/L	1		8290A	Total/NA
OCDF	29	J B	100	0.18	pg/L	1		8290A	Total/NA

Client Sample ID: SUPE-EB-01-042220 — Lab Sample ID: 480-169009-7

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
Total HxCDD	1.6	J I B	50	0.082	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDD	1.1	J I B	50	0.13	pg/L	1		8290A	Total/NA
Total HpCDD	4.4	J I B	50	0.13	pg/L	1		8290A	Total/NA
OCDD	13	J B	99	0.12	pg/L	1		8290A	Total/NA
2,3,7,8-TCDF	0.22	J I	9.9	0.098	pg/L	1		8290A	Total/NA
Total TCDF	0.46	J I	9.9	0.098	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDF	0.48	J I B	50	0.084	pg/L	1		8290A	Total/NA
Total HpCDF	0.81	J I B	50	0.094	pg/L	1		8290A	Total/NA
OCDF	0.95	J I B	99	0.071	pg/L	1		8290A	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 480-169009-1

Client Sample ID: SUPE-W-30C-042120 — Lab Sample ID: 480-169009-8

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
Total TCDD	0.58	J I	9.8	0.18	pg/L	1		8290A	Total/NA
1,2,3,6,7,8-HxCDD	0.45	J I B	49	0.17	pg/L	1		8290A	Total/NA
1,2,3,7,8,9-HxCDD	0.53	J I B	49	0.15	pg/L	1		8290A	Total/NA
Total HxCDD	2.0	J I B	49	0.16	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDD	5.2	J B	49	0.23	pg/L	1		8290A	Total/NA
Total HpCDD	9.1	J B	49	0.23	pg/L	1		8290A	Total/NA
OCDD	38	J B	98	0.27	pg/L	1		8290A	Total/NA
Total TCDF	2.4	J I	9.8	0.14	pg/L	1		8290A	Total/NA
Total HxCDF	2.6	J I B	49	0.30	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDF	1.4	J I B	49	0.16	pg/L	1		8290A	Total/NA
1,2,3,4,7,8,9-HpCDF	0.54	J B	49	0.19	pg/L	1		8290A	Total/NA
Total HpCDF	5.2	J I B	49	0.17	pg/L	1		8290A	Total/NA
OCDF	3.7	J B	98	0.22	pg/L	1		8290A	Total/NA

Client Sample ID: SUPE-W-12CR-042220 — Lab Sample ID: 480-169009-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pentachlorophenol	0.41	J	1.0	0.34	ug/L	1		8270D LL	Total/NA
2,3,4,6-Tetrachlorophenol	1.6	J	4.9	1.5	ug/L	1		8270D	Total/NA
2,4,6-Trichlorophenol	2.0	J	4.9	1.1	ug/L	1		8270D	Total/NA
Total TCDD	0.59	J I	10	0.13	pg/L	1		8290A	Total/NA
Total PeCDD	0.52	J I	50	0.13	pg/L	1		8290A	Total/NA
1,2,3,7,8,9-HxCDD	0.27	J I B	50	0.080	pg/L	1		8290A	Total/NA
Total HxCDD	2.6	J I B	50	0.084	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDD	3.3	J B	50	0.080	pg/L	1		8290A	Total/NA
Total HpCDD	11	J B	50	0.080	pg/L	1		8290A	Total/NA
OCDD	41	J B	100	0.12	pg/L	1		8290A	Total/NA
Total PeCDF	0.31	J B	50	0.17	pg/L	1		8290A	Total/NA
Total HxCDF	1.3	J I B	50	0.19	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDF	0.72	J B	50	0.099	pg/L	1		8290A	Total/NA
Total HpCDF	2.8	J B	50	0.11	pg/L	1		8290A	Total/NA
OCDF	2.7	J B	100	0.12	pg/L	1		8290A	Total/NA

Client Sample ID: SUPE-W-30A-042220 — Lab Sample ID: 480-169009-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	6.5		2.0	1.5	ug/L	2		8260C	Total/NA
Benzene	5.6		2.0	0.82	ug/L	2		8260C	Total/NA
Ethylbenzene	17		2.0	1.5	ug/L	2		8260C	Total/NA
m-Xylene & p-Xylene	6.4		4.0	1.3	ug/L	2		8260C	Total/NA
Naphthalene	150		2.0	0.86	ug/L	2		8260C	Total/NA
o-Xylene	5.5		2.0	1.5	ug/L	2		8260C	Total/NA
Toluene	1.5	J	2.0	1.0	ug/L	2		8260C	Total/NA
Xylenes, Total	12		4.0	1.3	ug/L	2		8260C	Total/NA
1-Methylnaphthalene	8.7		2.0	0.51	ug/L	1		8270D	Total/NA
2-Methylnaphthalene	0.22	J	2.0	0.13	ug/L	1		8270D	Total/NA
Acenaphthene	23		1.0	0.37	ug/L	1		8270D	Total/NA
Acenaphthylene	0.56	J	1.0	0.33	ug/L	1		8270D	Total/NA
Anthracene	0.97	J *	1.0	0.33	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	0.26		0.20	0.059	ug/L	1		8270D	Total/NA
Benzo[k]fluoranthene	0.26		0.20	0.075	ug/L	1		8270D	Total/NA
Chrysene	0.23	J	0.51	0.14	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SUPE-W-30A-042220 (Continued) — Lab Sample ID: 480-169009-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dibenzofuran	7.5		2.0	0.36	ug/L	1		8270D	Total/NA
Fluoranthene	1.4	*	1.0	0.33	ug/L	1		8270D	Total/NA
Fluorene	6.0		1.0	0.39	ug/L	1		8270D	Total/NA
Pyrene	0.95	J	1.0	0.49	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.19	J	0.20	0.045	ug/L	1		8270D	Total/NA
Phenanthrene	1.5		1.0	0.36	ug/L	1		8270D	Total/NA
1,2,3,4,7,8-HxCDD	1.0	J	48	0.17	pg/L	1		8290A	Total/NA
1,2,3,6,7,8-HxCDD	8.5	J B	48	0.17	pg/L	1		8290A	Total/NA
1,2,3,7,8,9-HxCDD	1.9	J B	48	0.16	pg/L	1		8290A	Total/NA
Total HxCDD	35	J I B	48	0.17	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDD	210	B	48	0.68	pg/L	1		8290A	Total/NA
Total HpCDD	460	B	48	0.68	pg/L	1		8290A	Total/NA
OCDD	2800	B	97	0.053	pg/L	1		8290A	Total/NA
Total TCDF	17	I	9.7	0.16	pg/L	1		8290A	Total/NA
1,2,3,7,8-PeCDF	0.55	J B	48	0.28	pg/L	1		8290A	Total/NA
2,3,4,7,8-PeCDF	1.1	J I	48	0.29	pg/L	1		8290A	Total/NA
Total PeCDF	78	I B	48	0.29	pg/L	1		8290A	Total/NA
1,2,3,4,7,8-HxCDF	8.8	J B	48	1.5	pg/L	1		8290A	Total/NA
1,2,3,6,7,8-HxCDF	2.2	J B	48	1.5	pg/L	1		8290A	Total/NA
Total HxCDF	220	I B	48	1.5	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDF	70	B	48	0.17	pg/L	1		8290A	Total/NA
1,2,3,4,7,8,9-HpCDF	6.8	J B	48	0.23	pg/L	1		8290A	Total/NA
Total HpCDF	270	B	48	0.20	pg/L	1		8290A	Total/NA
OCDF	200	B	97	0.097	pg/L	1		8290A	Total/NA

Client Sample ID: SUPE-W-06A-042120 — Lab Sample ID: 480-169009-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	2.1		1.0	0.43	ug/L	1		8260C	Total/NA
Bis(2-ethylhexyl) phthalate	2.4	J	9.8	2.4	ug/L	1		8270D	Total/NA
Total TCDD	0.80	J I	10	0.13	pg/L	1		8290A	Total/NA
Total HxCDD	2.4	J I B	51	0.12	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDD	5.0	J B	51	0.28	pg/L	1		8290A	Total/NA
Total HpCDD	14	J B	51	0.28	pg/L	1		8290A	Total/NA
OCDD	72	J B	100	0.10	pg/L	1		8290A	Total/NA
2,3,7,8-TCDF	0.24	J I	10	0.12	pg/L	1		8290A	Total/NA
Total TCDF	0.78	J I	10	0.12	pg/L	1		8290A	Total/NA
2,3,4,6,7,8-HxCDF	0.52	J I B	51	0.16	pg/L	1		8290A	Total/NA
Total HxCDF	0.52	J I B	51	0.16	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDF	1.4	J I B	51	0.18	pg/L	1		8290A	Total/NA
Total HpCDF	4.6	J I B	51	0.20	pg/L	1		8290A	Total/NA
OCDF	5.0	J B	100	0.17	pg/L	1		8290A	Total/NA

Client Sample ID: SUPE-W-10AR2-042220 — Lab Sample ID: 480-169009-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	9.8		1.0	0.75	ug/L	1		8260C	Total/NA
Benzene	18		1.0	0.41	ug/L	1		8260C	Total/NA
Ethylbenzene	44		1.0	0.74	ug/L	1		8260C	Total/NA
m-Xylene & p-Xylene	3.6		2.0	0.66	ug/L	1		8260C	Total/NA
Naphthalene	1.9		1.0	0.43	ug/L	1		8260C	Total/NA
o-Xylene	18		1.0	0.76	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SUPE-W-10AR2-042220 (Continued) — Lab Sample ID: 480-169009-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	2.4		1.0	0.51	ug/L	1		8260C	Total/NA
Xylenes, Total	22		2.0	0.66	ug/L	1		8260C	Total/NA
1-Methylnaphthalene	48		2.0	0.50	ug/L	1		8270D	Total/NA
Anthracene	1.1	*	1.0	0.32	ug/L	1		8270D	Total/NA
Benzo[a]pyrene	0.30		0.20	0.056	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	0.22		0.20	0.058	ug/L	1		8270D	Total/NA
Benzo[k]fluoranthene	0.27		0.20	0.074	ug/L	1		8270D	Total/NA
Chrysene	0.30	J	0.50	0.14	ug/L	1		8270D	Total/NA
Dibenzofuran	34		2.0	0.35	ug/L	1		8270D	Total/NA
Fluoranthene	3.0	*	1.0	0.32	ug/L	1		8270D	Total/NA
Fluorene	28		1.0	0.38	ug/L	1		8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.13	J	0.20	0.084	ug/L	1		8270D	Total/NA
Pyrene	1.7		1.0	0.48	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.22		0.20	0.044	ug/L	1		8270D	Total/NA
Phenanthrene	11		1.0	0.35	ug/L	1		8270D	Total/NA
Acenaphthene - DL	120		5.0	1.8	ug/L	5		8270D	Total/NA
Total TCDD	0.70	J I	10	0.34	pg/L	1		8290A	Total/NA
1,2,3,6,7,8-HxCDD	0.80	J I B	52	0.16	pg/L	1		8290A	Total/NA
1,2,3,7,8,9-HxCDD	0.90	J B	52	0.15	pg/L	1		8290A	Total/NA
Total HxCDD	8.1	J I B	52	0.15	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDD	18	J B	52	0.65	pg/L	1		8290A	Total/NA
Total HpCDD	69	B	52	0.65	pg/L	1		8290A	Total/NA
OCDD	200	B	100	0.24	pg/L	1		8290A	Total/NA
2,3,7,8-TCDF	0.19	J I	10	0.16	pg/L	1		8290A	Total/NA
Total TCDF	2.4	J I	10	0.16	pg/L	1		8290A	Total/NA
2,3,4,7,8-PeCDF	0.37	J I	52	0.16	pg/L	1		8290A	Total/NA
Total PeCDF	4.8	J I B	52	0.16	pg/L	1		8290A	Total/NA
Total HxCDF	10	J I B	52	0.42	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDF	2.5	J B	52	0.13	pg/L	1		8290A	Total/NA
1,2,3,4,7,8,9-HpCDF	0.65	J B	52	0.17	pg/L	1		8290A	Total/NA
Total HpCDF	9.8	J B	52	0.15	pg/L	1		8290A	Total/NA
OCDF	11	J B	100	0.56	pg/L	1		8290A	Total/NA

Client Sample ID: SUPE-W-06C-042120 — Lab Sample ID: 480-169009-13

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
Total TCDD	0.62	J I	10	0.20	pg/L	1		8290A	Total/NA
1,2,3,6,7,8-HxCDD	0.35	J I B	51	0.16	pg/L	1		8290A	Total/NA
1,2,3,7,8,9-HxCDD	0.36	J I B	51	0.15	pg/L	1		8290A	Total/NA
Total HxCDD	2.0	J I B	51	0.16	pg/L	1		8290A	Total/NA
1,2,3,4,6,7,8-HpCDD	1.5	J I B	51	0.23	pg/L	1		8290A	Total/NA
Total HpCDD	4.4	J I B	51	0.23	pg/L	1		8290A	Total/NA
OCDD	12	J B	100	0.16	pg/L	1		8290A	Total/NA
Total HpCDF	0.27	J B	51	0.11	pg/L	1		8290A	Total/NA
OCDF	1.7	J I B	100	0.12	pg/L	1		8290A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SUPE-M99-A-042120
Lab Sample ID: 480-169009-1

Date Collected: 04/21/20 00:00
Matrix: Water
Date Received: 04/24/20 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			04/26/20 00:09	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/26/20 00:09	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/26/20 00:09	1
Benzene	ND		1.0	0.41	ug/L			04/26/20 00:09	1
Chloromethane	ND		1.0	0.35	ug/L			04/26/20 00:09	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/26/20 00:09	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/26/20 00:09	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/26/20 00:09	1
Naphthalene	ND		1.0	0.43	ug/L			04/26/20 00:09	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/26/20 00:09	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/26/20 00:09	1
o-Xylene	ND		1.0	0.76	ug/L			04/26/20 00:09	1
Styrene	ND		1.0	0.73	ug/L			04/26/20 00:09	1
Toluene	ND		1.0	0.51	ug/L			04/26/20 00:09	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/26/20 00:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*04/26/20 00:09*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*04/26/20 00:09*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*04/26/20 00:09*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*04/26/20 00:09*	*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	H	1.0	0.34	ug/L		04/29/20 15:30	04/30/20 16:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*100*		*24 - 146*	*04/29/20 15:30*	*04/30/20 16:17*	*1*
2-Fluorobiphenyl	*97*		*37 - 120*	*04/29/20 15:30*	*04/30/20 16:17*	*1*
2-Fluorophenol (Surr)	*49*		*10 - 120*	*04/29/20 15:30*	*04/30/20 16:17*	*1*
Nitrobenzene-d5 (Surr)	*83*		*26 - 120*	*04/29/20 15:30*	*04/30/20 16:17*	*1*
Phenol-d5 (Surr)	*33*		*11 - 120*	*04/29/20 15:30*	*04/30/20 16:17*	*1*
p-Terphenyl-d14	*107*		*64 - 127*	*04/29/20 15:30*	*04/30/20 16:17*	*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		04/27/20 17:28	04/28/20 14:51	1
1,2-Dichlorobenzene	ND		1.9	0.28	ug/L		04/27/20 17:28	04/28/20 14:51	1
1,3-Dichlorobenzene	ND		1.9	0.24	ug/L		04/27/20 17:28	04/28/20 14:51	1
1,4-Dichlorobenzene	ND		1.9	0.26	ug/L		04/27/20 17:28	04/28/20 14:51	1
1-Methylnaphthalene	ND		1.9	0.48	ug/L		04/27/20 17:28	04/28/20 14:51	1
bis(chloroisopropyl) ether	ND		1.9	0.29	ug/L		04/27/20 17:28	04/28/20 14:51	1
2,3,4,6-Tetrachlorophenol	ND		4.8	1.4	ug/L		04/27/20 17:28	04/28/20 14:51	1
2,4,5-Trichlorophenol	ND		9.5	2.2	ug/L		04/27/20 17:28	04/28/20 14:51	1
2,4,6-Trichlorophenol	ND		4.8	1.0	ug/L		04/27/20 17:28	04/28/20 14:51	1
2,4-Dichlorophenol	ND		9.5	2.2	ug/L		04/27/20 17:28	04/28/20 14:51	1
2,4-Dinitrophenol	ND		19	7.1	ug/L		04/27/20 17:28	04/28/20 14:51	1
2,4-Dinitrotoluene	ND		0.95	0.29	ug/L		04/27/20 17:28	04/28/20 14:51	1
2,6-Dinitrotoluene	ND		0.95	0.11	ug/L		04/27/20 17:28	04/28/20 14:51	1
3 & 4 Methylphenol	ND		1.9	0.42	ug/L		04/27/20 17:28	04/28/20 14:51	1

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

Job ID: 480-169009-1

Client Sample ID: SUPE-M99-A-042120
Date Collected: 04/21/20 00:00
Date Received: 04/24/20 10:00

Lab Sample ID: 480-169009-1
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	0.32	ug/L		04/27/20 17:28	04/28/20 14:51	1
2-Chlorophenol	ND		4.8	0.76	ug/L		04/27/20 17:28	04/28/20 14:51	1
2-Methylnaphthalene	ND		1.9	0.12	ug/L		04/27/20 17:28	04/28/20 14:51	1
2-Methylphenol	ND		1.9	0.29	ug/L		04/27/20 17:28	04/28/20 14:51	1
2-Nitroaniline	ND		4.8	1.0	ug/L		04/27/20 17:28	04/28/20 14:51	1
2-Nitrophenol	ND		9.5	2.0	ug/L		04/27/20 17:28	04/28/20 14:51	1
3-Nitroaniline	ND		9.5	2.2	ug/L		04/27/20 17:28	04/28/20 14:51	1
4,6-Dinitro-2-methylphenol	ND		19	4.7	ug/L		04/27/20 17:28	04/28/20 14:51	1
4-Bromophenyl phenyl ether	ND		4.8	0.87	ug/L		04/27/20 17:28	04/28/20 14:51	1
4-Chloro-3-methylphenol	ND		9.5	2.1	ug/L		04/27/20 17:28	04/28/20 14:51	1
4-Chloroaniline	ND		9.5	2.0	ug/L		04/27/20 17:28	04/28/20 14:51	1
4-Chlorophenyl phenyl ether	ND		4.8	0.77	ug/L		04/27/20 17:28	04/28/20 14:51	1
4-Nitroaniline	ND		9.5	3.7	ug/L		04/27/20 17:28	04/28/20 14:51	1
4-Nitrophenol	ND		19	2.2	ug/L		04/27/20 17:28	04/28/20 14:51	1
Acenaphthene	ND		0.95	0.34	ug/L		04/27/20 17:28	04/28/20 14:51	1
Acenaphthylene	ND		0.95	0.30	ug/L		04/27/20 17:28	04/28/20 14:51	1
Anthracene	ND	*	0.95	0.30	ug/L		04/27/20 17:28	04/28/20 14:51	1
Benzo[a]pyrene	ND		0.19	0.053	ug/L		04/27/20 17:28	04/28/20 14:51	1
Benzo[b]fluoranthene	ND		0.19	0.055	ug/L		04/27/20 17:28	04/28/20 14:51	1
Benzo[g,h,i]perylene	ND		0.95	0.40	ug/L		04/27/20 17:28	04/28/20 14:51	1
Benzo[k]fluoranthene	ND		0.19	0.070	ug/L		04/27/20 17:28	04/28/20 14:51	1
Benzoic acid	ND		19	4.3	ug/L		04/27/20 17:28	04/28/20 14:51	1
Benzyl alcohol	ND		19	2.9	ug/L		04/27/20 17:28	04/28/20 14:51	1
Bis(2-chloroethoxy)methane	ND		1.9	0.29	ug/L		04/27/20 17:28	04/28/20 14:51	1
Bis(2-chloroethyl)ether	ND		1.9	0.33	ug/L		04/27/20 17:28	04/28/20 14:51	1
Bis(2-ethylhexyl) phthalate	ND		9.5	2.3	ug/L		04/27/20 17:28	04/28/20 14:51	1
Butyl benzyl phthalate	ND		1.9	0.26	ug/L		04/27/20 17:28	04/28/20 14:51	1
Chrysene	ND		0.48	0.13	ug/L		04/27/20 17:28	04/28/20 14:51	1
Dibenz(a,h)anthracene	ND		0.29	0.061	ug/L		04/27/20 17:28	04/28/20 14:51	1
Dibenzofuran	ND		1.9	0.33	ug/L		04/27/20 17:28	04/28/20 14:51	1
Diethyl phthalate	ND		1.9	0.42	ug/L		04/27/20 17:28	04/28/20 14:51	1
Dimethyl phthalate	ND	*	1.9	0.36	ug/L		04/27/20 17:28	04/28/20 14:51	1
Di-n-butyl phthalate	ND	*	4.8	0.76	ug/L		04/27/20 17:28	04/28/20 14:51	1
Di-n-octyl phthalate	ND		9.5	2.3	ug/L		04/27/20 17:28	04/28/20 14:51	1
2,3,5,6-Tetrachlorophenol	ND		4.8	2.4	ug/L		04/27/20 17:28	04/28/20 14:51	1
Fluoranthene	ND	*	0.95	0.30	ug/L		04/27/20 17:28	04/28/20 14:51	1
Fluorene	ND		0.95	0.36	ug/L		04/27/20 17:28	04/28/20 14:51	1
Hexachlorobenzene	ND	*	0.48	0.13	ug/L		04/27/20 17:28	04/28/20 14:51	1
Hexachlorobutadiene	ND		4.8	1.1	ug/L		04/27/20 17:28	04/28/20 14:51	1
Hexachlorocyclopentadiene	ND		19	3.3	ug/L		04/27/20 17:28	04/28/20 14:51	1
Hexachloroethane	ND		4.8	0.92	ug/L		04/27/20 17:28	04/28/20 14:51	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.080	ug/L		04/27/20 17:28	04/28/20 14:51	1
Isophorone	ND		1.9	0.28	ug/L		04/27/20 17:28	04/28/20 14:51	1
Nitrobenzene	ND		0.95	0.43	ug/L		04/27/20 17:28	04/28/20 14:51	1
N-Nitrosodi-n-propylamine	ND		0.48	0.13	ug/L		04/27/20 17:28	04/28/20 14:51	1
N-Nitrosodiphenylamine	ND		1.9	0.32	ug/L		04/27/20 17:28	04/28/20 14:51	1
Phenol	ND		4.8	0.34	ug/L		04/27/20 17:28	04/28/20 14:51	1
Pyrene	ND		0.95	0.46	ug/L		04/27/20 17:28	04/28/20 14:51	1
2,4-Dimethylphenol	ND		9.5	3.2	ug/L		04/27/20 17:28	04/28/20 14:51	1

Client Sample ID: SUPE-M99-A-042120

Date Collected: 04/21/20 00:00
Date Received: 04/24/20 10:00

Lab Sample ID: 480-169009-1

Matrix: Water

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		04/27/20 17:28	04/28/20 14:51	1
Phenanthrene	ND		0.95	0.33	ug/L		04/27/20 17:28	04/28/20 14:51	1
3,3'-Dichlorobenzidine	ND		4.8	0.89	ug/L		04/27/20 17:28	04/28/20 14:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*135*		*40 - 145*	*04/27/20 17:28*	*04/28/20 14:51*	*1*
2-Fluorobiphenyl	*97*		*34 - 110*	*04/27/20 17:28*	*04/28/20 14:51*	*1*
2-Fluorophenol (Surr)	*63*		*27 - 110*	*04/27/20 17:28*	*04/28/20 14:51*	*1*
Nitrobenzene-d5 (Surr)	*79*		*36 - 120*	*04/27/20 17:28*	*04/28/20 14:51*	*1*
Phenol-d5 (Surr)	*27*		*20 - 100*	*04/27/20 17:28*	*04/28/20 14:51*	*1*
Terphenyl-d14 (Surr)	*114*		*40 - 145*	*04/27/20 17:28*	*04/28/20 14:51*	*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		10	0.15	pg/L		04/28/20 11:57	04/30/20 16:58	1
Total TCDD	ND		10	0.15	pg/L		04/28/20 11:57	04/30/20 16:58	1
1,2,3,7,8-PeCDD	ND		50	0.27	pg/L		04/28/20 11:57	04/30/20 16:58	1
Total PeCDD	ND		50	0.27	pg/L		04/28/20 11:57	04/30/20 16:58	1
1,2,3,4,7,8-HxCDD	ND		50	0.22	pg/L		04/28/20 11:57	04/30/20 16:58	1
1,2,3,6,7,8-HxCDD	ND		50	0.24	pg/L		04/28/20 11:57	04/30/20 16:58	1
1,2,3,7,8,9-HxCDD	ND		50	0.21	pg/L		04/28/20 11:57	04/30/20 16:58	1
Total HxCDD	ND		50	0.24	pg/L		04/28/20 11:57	04/30/20 16:58	1
1,2,3,4,6,7,8-HpCDD	**3.4**	**J I B**	50	0.24	pg/L		04/28/20 11:57	04/30/20 16:58	1
Total HpCDD	**8.1**	**J I B**	50	0.24	pg/L		04/28/20 11:57	04/30/20 16:58	1
OCDD	**28**	**J B**	100	0.19	pg/L		04/28/20 11:57	04/30/20 16:58	1
2,3,7,8-TCDF	ND		10	0.14	pg/L		04/28/20 11:57	04/30/20 16:58	1
Total TCDF	**1.8**	**J I**	10	0.14	pg/L		04/28/20 11:57	04/30/20 16:58	1
1,2,3,7,8-PeCDF	ND		50	0.22	pg/L		04/28/20 11:57	04/30/20 16:58	1
2,3,4,7,8-PeCDF	ND		50	0.19	pg/L		04/28/20 11:57	04/30/20 16:58	1
Total PeCDF	**0.47**	**J I B**	50	0.20	pg/L		04/28/20 11:57	04/30/20 16:58	1
1,2,3,4,7,8-HxCDF	ND		50	0.28	pg/L		04/28/20 11:57	04/30/20 16:58	1
1,2,3,6,7,8-HxCDF	ND		50	0.29	pg/L		04/28/20 11:57	04/30/20 16:58	1
2,3,4,6,7,8-HxCDF	ND		50	0.26	pg/L		04/28/20 11:57	04/30/20 16:58	1
1,2,3,7,8,9-HxCDF	ND		50	0.26	pg/L		04/28/20 11:57	04/30/20 16:58	1
Total HxCDF	**2.1**	**J I B**	50	0.27	pg/L		04/28/20 11:57	04/30/20 16:58	1
1,2,3,4,6,7,8-HpCDF	**1.2**	**J B**	50	0.19	pg/L		04/28/20 11:57	04/30/20 16:58	1
1,2,3,4,7,8,9-HpCDF	ND		50	0.24	pg/L		04/28/20 11:57	04/30/20 16:58	1
Total HpCDF	**3.6**	**J I B**	50	0.21	pg/L		04/28/20 11:57	04/30/20 16:58	1
OCDF	**3.2**	**J I B**	100	0.16	pg/L		04/28/20 11:57	04/30/20 16:58	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*67*		*40 - 135*	*04/28/20 11:57*	*04/30/20 16:58*	*1*
13C-1,2,3,7,8-PeCDD	*69*		*40 - 135*	*04/28/20 11:57*	*04/30/20 16:58*	*1*
13C-1,2,3,4,7,8-HxCDD	*68*		*40 - 135*	*04/28/20 11:57*	*04/30/20 16:58*	*1*
13C-1,2,3,6,7,8-HxCDD	*68*		*40 - 135*	*04/28/20 11:57*	*04/30/20 16:58*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*89*		*40 - 135*	*04/28/20 11:57*	*04/30/20 16:58*	*1*
13C-OCDD	*73*		*40 - 135*	*04/28/20 11:57*	*04/30/20 16:58*	*1*
13C-2,3,7,8-TCDF	*69*		*40 - 135*	*04/28/20 11:57*	*04/30/20 16:58*	*1*
13C-1,2,3,7,8-PeCDF	*69*		*40 - 135*	*04/28/20 11:57*	*04/30/20 16:58*	*1*
13C-2,3,4,7,8-PeCDF	*65*		*40 - 135*	*04/28/20 11:57*	*04/30/20 16:58*	*1*
13C-1,2,3,4,7,8-HxCDF	*69*		*40 - 135*	*04/28/20 11:57*	*04/30/20 16:58*	*1*

Client Sample ID: SUPE-M99-A-042120
Lab Sample ID: 480-169009-1
Date Collected: 04/21/20 00:00
Matrix: Water
Date Received: 04/24/20 10:00

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	63		40 - 135	04/28/20 11:57	04/30/20 16:58	1
13C-2,3,4,6,7,8-HxCDF	74		40 - 135	04/28/20 11:57	04/30/20 16:58	1
13C-1,2,3,7,8,9-HxCDF	79		40 - 135	04/28/20 11:57	04/30/20 16:58	1
13C-1,2,3,4,6,7,8-HpCDF	73		40 - 135	04/28/20 11:57	04/30/20 16:58	1
13C-1,2,3,4,7,8,9-HpCDF	88		40 - 135	04/28/20 11:57	04/30/20 16:58	1
13C-OCDF	76		40 - 135	04/28/20 11:57	04/30/20 16:58	1

Client Sample ID: SUPE-TB-01-042220
Lab Sample ID: 480-169009-2
Date Collected: 04/22/20 07:25
Matrix: Water
Date Received: 04/24/20 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			04/26/20 00:32	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/26/20 00:32	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/26/20 00:32	1
Benzene	ND		1.0	0.41	ug/L			04/26/20 00:32	1
Chloromethane	ND		1.0	0.35	ug/L			04/26/20 00:32	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/26/20 00:32	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/26/20 00:32	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/26/20 00:32	1
Naphthalene	ND		1.0	0.43	ug/L			04/26/20 00:32	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/26/20 00:32	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/26/20 00:32	1
o-Xylene	ND		1.0	0.76	ug/L			04/26/20 00:32	1
Styrene	ND		1.0	0.73	ug/L			04/26/20 00:32	1
Toluene	ND		1.0	0.51	ug/L			04/26/20 00:32	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/26/20 00:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 120		04/26/20 00:32	1
4-Bromofluorobenzene (Surr)	100		73 - 120		04/26/20 00:32	1
Dibromofluoromethane (Surr)	102		75 - 123		04/26/20 00:32	1
Toluene-d8 (Surr)	100		80 - 120		04/26/20 00:32	1

Client Sample ID: SUPE-W-28C-042220
Lab Sample ID: 480-169009-3
Date Collected: 04/22/20 07:55
Matrix: Water
Date Received: 04/24/20 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			04/26/20 00:55	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/26/20 00:55	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/26/20 00:55	1
Benzene	ND		1.0	0.41	ug/L			04/26/20 00:55	1
Chloromethane	ND		1.0	0.35	ug/L			04/26/20 00:55	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/26/20 00:55	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/26/20 00:55	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/26/20 00:55	1
Naphthalene	ND		1.0	0.43	ug/L			04/26/20 00:55	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/26/20 00:55	1

Client: Field & Technical Services LLC
Job ID: 480-169009-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-28C-042220
Lab Sample ID: 480-169009-3
Date Collected: 04/22/20 07:55
Matrix: Water
Date Received: 04/24/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.0	0.69	ug/L			04/26/20 00:55	1
o-Xylene	ND		1.0	0.76	ug/L			04/26/20 00:55	1
Styrene	ND		1.0	0.73	ug/L			04/26/20 00:55	1
Toluene	ND		1.0	0.51	ug/L			04/26/20 00:55	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/26/20 00:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*04/26/20 00:55*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*04/26/20 00:55*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*04/26/20 00:55*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*04/26/20 00:55*	*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		04/29/20 15:30	04/30/20 16:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*98*		*24 - 146*	*04/29/20 15:30*	*04/30/20 16:45*	*1*
2-Fluorobiphenyl	*101*		*37 - 120*	*04/29/20 15:30*	*04/30/20 16:45*	*1*
2-Fluorophenol (Surr)	*52*		*10 - 120*	*04/29/20 15:30*	*04/30/20 16:45*	*1*
Nitrobenzene-d5 (Surr)	*85*		*26 - 120*	*04/29/20 15:30*	*04/30/20 16:45*	*1*
Phenol-d5 (Surr)	*35*		*11 - 120*	*04/29/20 15:30*	*04/30/20 16:45*	*1*
p-Terphenyl-d14	*107*		*64 - 127*	*04/29/20 15:30*	*04/30/20 16:45*	*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	0.28	ug/L		04/27/20 17:28	04/28/20 15:19	1
1,2-Dichlorobenzene	ND		1.9	0.28	ug/L		04/27/20 17:28	04/28/20 15:19	1
1,3-Dichlorobenzene	ND		1.9	0.24	ug/L		04/27/20 17:28	04/28/20 15:19	1
1,4-Dichlorobenzene	ND		1.9	0.26	ug/L		04/27/20 17:28	04/28/20 15:19	1
1-Methylnaphthalene	ND		1.9	0.47	ug/L		04/27/20 17:28	04/28/20 15:19	1
bis(chloroisopropyl) ether	ND		1.9	0.28	ug/L		04/27/20 17:28	04/28/20 15:19	1
2,3,4,6-Tetrachlorophenol	ND		4.7	1.4	ug/L		04/27/20 17:28	04/28/20 15:19	1
2,4,5-Trichlorophenol	ND		9.5	2.2	ug/L		04/27/20 17:28	04/28/20 15:19	1
2,4,6-Trichlorophenol	ND		4.7	1.0	ug/L		04/27/20 17:28	04/28/20 15:19	1
2,4-Dichlorophenol	ND		9.5	2.2	ug/L		04/27/20 17:28	04/28/20 15:19	1
2,4-Dinitrophenol	ND		19	7.1	ug/L		04/27/20 17:28	04/28/20 15:19	1
2,4-Dinitrotoluene	ND		0.95	0.28	ug/L		04/27/20 17:28	04/28/20 15:19	1
2,6-Dinitrotoluene	ND		0.95	0.11	ug/L		04/27/20 17:28	04/28/20 15:19	1
3 & 4 Methylphenol	ND		1.9	0.42	ug/L		04/27/20 17:28	04/28/20 15:19	1
2-Chloronaphthalene	ND		1.9	0.32	ug/L		04/27/20 17:28	04/28/20 15:19	1
2-Chlorophenol	ND		4.7	0.76	ug/L		04/27/20 17:28	04/28/20 15:19	1
2-Methylnaphthalene	ND		1.9	0.12	ug/L		04/27/20 17:28	04/28/20 15:19	1
2-Methylphenol	ND		1.9	0.29	ug/L		04/27/20 17:28	04/28/20 15:19	1
2-Nitroaniline	ND		4.7	1.0	ug/L		04/27/20 17:28	04/28/20 15:19	1
2-Nitrophenol	ND		9.5	2.0	ug/L		04/27/20 17:28	04/28/20 15:19	1
3-Nitroaniline	ND		9.5	2.2	ug/L		04/27/20 17:28	04/28/20 15:19	1
4,6-Dinitro-2-methylphenol	ND		19	4.7	ug/L		04/27/20 17:28	04/28/20 15:19	1
4-Bromophenyl phenyl ether	ND		4.7	0.86	ug/L		04/27/20 17:28	04/28/20 15:19	1
4-Chloro-3-methylphenol	ND		9.5	2.1	ug/L		04/27/20 17:28	04/28/20 15:19	1

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

Job ID: 480-169009-1

Client Sample ID: SUPE-W-28C-042220
Date Collected: 04/22/20 07:55
Date Received: 04/24/20 10:00

Lab Sample ID: 480-169009-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloroaniline	ND		9.5	2.0	ug/L		04/27/20 17:28	04/28/20 15:19	1
4-Chlorophenyl phenyl ether	ND		4.7	0.77	ug/L		04/27/20 17:28	04/28/20 15:19	1
4-Nitroaniline	ND		9.5	3.7	ug/L		04/27/20 17:28	04/28/20 15:19	1
4-Nitrophenol	ND		19	2.2	ug/L		04/27/20 17:28	04/28/20 15:19	1
Acenaphthene	ND		0.95	0.34	ug/L		04/27/20 17:28	04/28/20 15:19	1
Acenaphthylene	ND		0.95	0.30	ug/L		04/27/20 17:28	04/28/20 15:19	1
Anthracene	ND	*	0.95	0.30	ug/L		04/27/20 17:28	04/28/20 15:19	1
Benzo[a]pyrene	ND		0.19	0.053	ug/L		04/27/20 17:28	04/28/20 15:19	1
Benzo[b]fluoranthene	ND		0.19	0.055	ug/L		04/27/20 17:28	04/28/20 15:19	1
Benzo[g,h,i]perylene	ND		0.95	0.40	ug/L		04/27/20 17:28	04/28/20 15:19	1
Benzo[k]fluoranthene	ND		0.19	0.070	ug/L		04/27/20 17:28	04/28/20 15:19	1
Benzoic acid	ND		19	4.3	ug/L		04/27/20 17:28	04/28/20 15:19	1
Benzyl alcohol	ND		19	2.9	ug/L		04/27/20 17:28	04/28/20 15:19	1
Bis(2-chloroethoxy)methane	ND		1.9	0.28	ug/L		04/27/20 17:28	04/28/20 15:19	1
Bis(2-chloroethyl)ether	ND		1.9	0.33	ug/L		04/27/20 17:28	04/28/20 15:19	1
Bis(2-ethylhexyl) phthalate	ND		9.5	2.3	ug/L		04/27/20 17:28	04/28/20 15:19	1
Butyl benzyl phthalate	ND		1.9	0.26	ug/L		04/27/20 17:28	04/28/20 15:19	1
Chrysene	ND		0.47	0.13	ug/L		04/27/20 17:28	04/28/20 15:19	1
Dibenz(a,h)anthracene	ND		0.28	0.061	ug/L		04/27/20 17:28	04/28/20 15:19	1
Dibenzofuran	ND		1.9	0.33	ug/L		04/27/20 17:28	04/28/20 15:19	1
Diethyl phthalate	ND		1.9	0.42	ug/L		04/27/20 17:28	04/28/20 15:19	1
Dimethyl phthalate	ND	*	1.9	0.36	ug/L		04/27/20 17:28	04/28/20 15:19	1
Di-n-butyl phthalate	ND	*	4.7	0.76	ug/L		04/27/20 17:28	04/28/20 15:19	1
Di-n-octyl phthalate	ND		9.5	2.3	ug/L		04/27/20 17:28	04/28/20 15:19	1
2,3,5,6-Tetrachlorophenol	ND		4.7	2.4	ug/L		04/27/20 17:28	04/28/20 15:19	1
Fluoranthene	ND	*	0.95	0.30	ug/L		04/27/20 17:28	04/28/20 15:19	1
Fluorene	ND		0.95	0.36	ug/L		04/27/20 17:28	04/28/20 15:19	1
Hexachlorobenzene	ND	*	0.47	0.13	ug/L		04/27/20 17:28	04/28/20 15:19	1
Hexachlorobutadiene	ND		4.7	1.1	ug/L		04/27/20 17:28	04/28/20 15:19	1
Hexachlorocyclopentadiene	ND		19	3.3	ug/L		04/27/20 17:28	04/28/20 15:19	1
Hexachloroethane	ND		4.7	0.92	ug/L		04/27/20 17:28	04/28/20 15:19	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.080	ug/L		04/27/20 17:28	04/28/20 15:19	1
Isophorone	ND		1.9	0.28	ug/L		04/27/20 17:28	04/28/20 15:19	1
Nitrobenzene	ND		0.95	0.43	ug/L		04/27/20 17:28	04/28/20 15:19	1
N-Nitrosodi-n-propylamine	ND		0.47	0.13	ug/L		04/27/20 17:28	04/28/20 15:19	1
N-Nitrosodiphenylamine	ND		1.9	0.32	ug/L		04/27/20 17:28	04/28/20 15:19	1
Phenol	ND		4.7	0.34	ug/L		04/27/20 17:28	04/28/20 15:19	1
Pyrene	ND		0.95	0.46	ug/L		04/27/20 17:28	04/28/20 15:19	1
2,4-Dimethylphenol	ND		9.5	3.2	ug/L		04/27/20 17:28	04/28/20 15:19	1
Benzo[a]anthracene	**0.12**	**J**	0.19	0.042	ug/L		04/27/20 17:28	04/28/20 15:19	1
Phenanthrene	ND		0.95	0.33	ug/L		04/27/20 17:28	04/28/20 15:19	1
3,3'-Dichlorobenzidine	ND		4.7	0.89	ug/L		04/27/20 17:28	04/28/20 15:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*136*		*40 - 145*	*04/27/20 17:28*	*04/28/20 15:19*	*1*
2-Fluorobiphenyl	*94*		*34 - 110*	*04/27/20 17:28*	*04/28/20 15:19*	*1*
2-Fluorophenol (Surr)	*55*		*27 - 110*	*04/27/20 17:28*	*04/28/20 15:19*	*1*
Nitrobenzene-d5 (Surr)	*78*		*36 - 120*	*04/27/20 17:28*	*04/28/20 15:19*	*1*
Phenol-d5 (Surr)	*23*		*20 - 100*	*04/27/20 17:28*	*04/28/20 15:19*	*1*
Terphenyl-d14 (Surr)	*113*		*40 - 145*	*04/27/20 17:28*	*04/28/20 15:19*	*1*

Client Sample ID: SUPE-W-28C-042220

Date Collected: 04/22/20 07:55
Date Received: 04/24/20 10:00

Lab Sample ID: 480-169009-3

Matrix: Water

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	0.12	pg/L		04/28/20 11:57	04/30/20 17:59	1
Total TCDD	ND		10	0.12	pg/L		04/28/20 11:57	04/30/20 17:59	1
1,2,3,7,8-PeCDD	ND		50	0.26	pg/L		04/28/20 11:57	04/30/20 17:59	1
Total PeCDD	ND		50	0.26	pg/L		04/28/20 11:57	04/30/20 17:59	1
1,2,3,4,7,8-HxCDD	**0.27**	**J I**	50	0.17	pg/L		04/28/20 11:57	04/30/20 17:59	1
1,2,3,6,7,8-HxCDD	**0.41**	**J I B**	50	0.17	pg/L		04/28/20 11:57	04/30/20 17:59	1
1,2,3,7,8,9-HxCDD	**0.65**	**J B**	50	0.16	pg/L		04/28/20 11:57	04/30/20 17:59	1
Total HxCDD	**5.1**	**J I B**	50	0.16	pg/L		04/28/20 11:57	04/30/20 17:59	1
1,2,3,4,6,7,8-HpCDD	**9.5**	**J B**	50	0.25	pg/L		04/28/20 11:57	04/30/20 17:59	1
Total HpCDD	**38**	**J B**	50	0.25	pg/L		04/28/20 11:57	04/30/20 17:59	1
OCDD	**150**	**B**	100	0.20	pg/L		04/28/20 11:57	04/30/20 17:59	1
2,3,7,8-TCDF	ND		10	0.14	pg/L		04/28/20 11:57	04/30/20 17:59	1
Total TCDF	**0.64**	**J I**	10	0.14	pg/L		04/28/20 11:57	04/30/20 17:59	1
1,2,3,7,8-PeCDF	ND		50	0.18	pg/L		04/28/20 11:57	04/30/20 17:59	1
2,3,4,7,8-PeCDF	ND		50	0.18	pg/L		04/28/20 11:57	04/30/20 17:59	1
Total PeCDF	**1.1**	**J I B**	50	0.18	pg/L		04/28/20 11:57	04/30/20 17:59	1
1,2,3,4,7,8-HxCDF	ND		50	0.25	pg/L		04/28/20 11:57	04/30/20 17:59	1
1,2,3,6,7,8-HxCDF	ND		50	0.27	pg/L		04/28/20 11:57	04/30/20 17:59	1
2,3,4,6,7,8-HxCDF	ND		50	0.25	pg/L		04/28/20 11:57	04/30/20 17:59	1
1,2,3,7,8,9-HxCDF	ND		50	0.25	pg/L		04/28/20 11:57	04/30/20 17:59	1
Total HxCDF	**3.2**	**J I B**	50	0.26	pg/L		04/28/20 11:57	04/30/20 17:59	1
1,2,3,4,6,7,8-HpCDF	**2.6**	**J B**	50	0.17	pg/L		04/28/20 11:57	04/30/20 17:59	1
1,2,3,4,7,8,9-HpCDF	**0.53**	**J B**	50	0.21	pg/L		04/28/20 11:57	04/30/20 17:59	1
Total HpCDF	**8.3**	**J I B**	50	0.19	pg/L		04/28/20 11:57	04/30/20 17:59	1
OCDF	**8.7**	**J I B**	100	0.19	pg/L		04/28/20 11:57	04/30/20 17:59	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*75*		*40 - 135*	*04/28/20 11:57*	*04/30/20 17:59*	*1*
13C-1,2,3,7,8-PeCDD	*78*		*40 - 135*	*04/28/20 11:57*	*04/30/20 17:59*	*1*
13C-1,2,3,4,7,8-HxCDD	*76*		*40 - 135*	*04/28/20 11:57*	*04/30/20 17:59*	*1*
13C-1,2,3,6,7,8-HxCDD	*72*		*40 - 135*	*04/28/20 11:57*	*04/30/20 17:59*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*94*		*40 - 135*	*04/28/20 11:57*	*04/30/20 17:59*	*1*
13C-OCDD	*78*		*40 - 135*	*04/28/20 11:57*	*04/30/20 17:59*	*1*
13C-2,3,7,8-TCDF	*78*		*40 - 135*	*04/28/20 11:57*	*04/30/20 17:59*	*1*
13C-1,2,3,7,8-PeCDF	*83*		*40 - 135*	*04/28/20 11:57*	*04/30/20 17:59*	*1*
13C-2,3,4,7,8-PeCDF	*71*		*40 - 135*	*04/28/20 11:57*	*04/30/20 17:59*	*1*
13C-1,2,3,4,7,8-HxCDF	*79*		*40 - 135*	*04/28/20 11:57*	*04/30/20 17:59*	*1*
13C-1,2,3,6,7,8-HxCDF	*69*		*40 - 135*	*04/28/20 11:57*	*04/30/20 17:59*	*1*
13C-2,3,4,6,7,8-HxCDF	*77*		*40 - 135*	*04/28/20 11:57*	*04/30/20 17:59*	*1*
13C-1,2,3,7,8,9-HxCDF	*83*		*40 - 135*	*04/28/20 11:57*	*04/30/20 17:59*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*80*		*40 - 135*	*04/28/20 11:57*	*04/30/20 17:59*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*96*		*40 - 135*	*04/28/20 11:57*	*04/30/20 17:59*	*1*
13C-OCDF	*82*		*40 - 135*	*04/28/20 11:57*	*04/30/20 17:59*	*1*

Client Sample ID: SUPE-W-12A-042220

Date Collected: 04/22/20 09:20
Date Received: 04/24/20 10:00

Lab Sample ID: 480-169009-4

Matrix: Water

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			04/26/20 01:18	1

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

Job ID: 480-169009-1

Client Sample ID: SUPE-W-12A-042220

Date Collected: 04/22/20 09:20
Date Received: 04/24/20 10:00

Lab Sample ID: 480-169009-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/26/20 01:18	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/26/20 01:18	1
Benzene	ND		1.0	0.41	ug/L			04/26/20 01:18	1
Chloromethane	ND		1.0	0.35	ug/L			04/26/20 01:18	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/26/20 01:18	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/26/20 01:18	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/26/20 01:18	1
Naphthalene	ND		1.0	0.43	ug/L			04/26/20 01:18	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/26/20 01:18	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/26/20 01:18	1
o-Xylene	ND		1.0	0.76	ug/L			04/26/20 01:18	1
Styrene	ND		1.0	0.73	ug/L			04/26/20 01:18	1
Toluene	ND		1.0	0.51	ug/L			04/26/20 01:18	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/26/20 01:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*04/26/20 01:18*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*04/26/20 01:18*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*04/26/20 01:18*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*04/26/20 01:18*	*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		04/29/20 15:30	04/30/20 17:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*104*		*24 - 146*	*04/29/20 15:30*	*04/30/20 17:14*	*1*
2-Fluorobiphenyl	*105*		*37 - 120*	*04/29/20 15:30*	*04/30/20 17:14*	*1*
2-Fluorophenol (Surr)	*53*		*10 - 120*	*04/29/20 15:30*	*04/30/20 17:14*	*1*
Nitrobenzene-d5 (Surr)	*88*		*26 - 120*	*04/29/20 15:30*	*04/30/20 17:14*	*1*
Phenol-d5 (Surr)	*36*		*11 - 120*	*04/29/20 15:30*	*04/30/20 17:14*	*1*
p-Terphenyl-d14	*116*		*64 - 127*	*04/29/20 15:30*	*04/30/20 17:14*	*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		04/27/20 17:28	04/28/20 15:46	1
1,2-Dichlorobenzene	ND		2.1	0.30	ug/L		04/27/20 17:28	04/28/20 15:46	1
1,3-Dichlorobenzene	ND		2.1	0.26	ug/L		04/27/20 17:28	04/28/20 15:46	1
1,4-Dichlorobenzene	ND		2.1	0.28	ug/L		04/27/20 17:28	04/28/20 15:46	1
1-Methylnaphthalene	ND		2.1	0.52	ug/L		04/27/20 17:28	04/28/20 15:46	1
bis(chloroisopropyl) ether	ND		2.1	0.31	ug/L		04/27/20 17:28	04/28/20 15:46	1
2,3,4,6-Tetrachlorophenol	ND		5.2	1.6	ug/L		04/27/20 17:28	04/28/20 15:46	1
2,4,5-Trichlorophenol	ND		10	2.4	ug/L		04/27/20 17:28	04/28/20 15:46	1
2,4,6-Trichlorophenol	ND		5.2	1.1	ug/L		04/27/20 17:28	04/28/20 15:46	1
2,4-Dichlorophenol	ND		10	2.4	ug/L		04/27/20 17:28	04/28/20 15:46	1
2,4-Dinitrophenol	ND		21	7.7	ug/L		04/27/20 17:28	04/28/20 15:46	1
2,4-Dinitrotoluene	ND		1.0	0.31	ug/L		04/27/20 17:28	04/28/20 15:46	1
2,6-Dinitrotoluene	ND		1.0	0.12	ug/L		04/27/20 17:28	04/28/20 15:46	1
3 & 4 Methylphenol	ND		2.1	0.45	ug/L		04/27/20 17:28	04/28/20 15:46	1
2-Chloronaphthalene	ND		2.1	0.35	ug/L		04/27/20 17:28	04/28/20 15:46	1

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

Job ID: 480-169009-1

Client Sample ID: SUPE-W-12A-042220
Date Collected: 04/22/20 09:20
Date Received: 04/24/20 10:00

Lab Sample ID: 480-169009-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorophenol	ND		5.2	0.83	ug/L		04/27/20 17:28	04/28/20 15:46	1
2-Methylnaphthalene	ND		2.1	0.13	ug/L		04/27/20 17:28	04/28/20 15:46	1
2-Methylphenol	ND		2.1	0.32	ug/L		04/27/20 17:28	04/28/20 15:46	1
2-Nitroaniline	ND		5.2	1.1	ug/L		04/27/20 17:28	04/28/20 15:46	1
2-Nitrophenol	ND		10	2.2	ug/L		04/27/20 17:28	04/28/20 15:46	1
3-Nitroaniline	ND		10	2.4	ug/L		04/27/20 17:28	04/28/20 15:46	1
4,6-Dinitro-2-methylphenol	ND		21	5.1	ug/L		04/27/20 17:28	04/28/20 15:46	1
4-Bromophenyl phenyl ether	ND		5.2	0.94	ug/L		04/27/20 17:28	04/28/20 15:46	1
4-Chloro-3-methylphenol	ND		10	2.3	ug/L		04/27/20 17:28	04/28/20 15:46	1
4-Chloroaniline	ND		10	2.2	ug/L		04/27/20 17:28	04/28/20 15:46	1
4-Chlorophenyl phenyl ether	ND		5.2	0.84	ug/L		04/27/20 17:28	04/28/20 15:46	1
4-Nitroaniline	ND		10	4.1	ug/L		04/27/20 17:28	04/28/20 15:46	1
4-Nitrophenol	ND		21	2.4	ug/L		04/27/20 17:28	04/28/20 15:46	1
Acenaphthene	ND		1.0	0.37	ug/L		04/27/20 17:28	04/28/20 15:46	1
Acenaphthylene	ND		1.0	0.33	ug/L		04/27/20 17:28	04/28/20 15:46	1
Anthracene	ND	*	1.0	0.33	ug/L		04/27/20 17:28	04/28/20 15:46	1
Benzo[a]pyrene	ND		0.21	0.058	ug/L		04/27/20 17:28	04/28/20 15:46	1
Benzo[b]fluoranthene	ND		0.21	0.060	ug/L		04/27/20 17:28	04/28/20 15:46	1
Benzo[g,h,i]perylene	ND		1.0	0.43	ug/L		04/27/20 17:28	04/28/20 15:46	1
Benzo[k]fluoranthene	ND		0.21	0.076	ug/L		04/27/20 17:28	04/28/20 15:46	1
Benzoic acid	ND		21	4.7	ug/L		04/27/20 17:28	04/28/20 15:46	1
Benzyl alcohol	ND		21	3.2	ug/L		04/27/20 17:28	04/28/20 15:46	1
Bis(2-chloroethoxy)methane	ND		2.1	0.31	ug/L		04/27/20 17:28	04/28/20 15:46	1
Bis(2-chloroethyl)ether	ND		2.1	0.36	ug/L		04/27/20 17:28	04/28/20 15:46	1
Bis(2-ethylhexyl) phthalate	ND		10	2.5	ug/L		04/27/20 17:28	04/28/20 15:46	1
Butyl benzyl phthalate	ND		2.1	0.28	ug/L		04/27/20 17:28	04/28/20 15:46	1
Chrysene	ND		0.52	0.14	ug/L		04/27/20 17:28	04/28/20 15:46	1
Dibenz(a,h)anthracene	ND		0.31	0.066	ug/L		04/27/20 17:28	04/28/20 15:46	1
Dibenzofuran	ND		2.1	0.36	ug/L		04/27/20 17:28	04/28/20 15:46	1
Diethyl phthalate	ND		2.1	0.45	ug/L		04/27/20 17:28	04/28/20 15:46	1
Dimethyl phthalate	ND	*	2.1	0.39	ug/L		04/27/20 17:28	04/28/20 15:46	1
Di-n-butyl phthalate	ND	*	5.2	0.83	ug/L		04/27/20 17:28	04/28/20 15:46	1
Di-n-octyl phthalate	ND		10	2.6	ug/L		04/27/20 17:28	04/28/20 15:46	1
2,3,5,6-Tetrachlorophenol	ND		5.2	2.6	ug/L		04/27/20 17:28	04/28/20 15:46	1
Fluoranthene	ND	*	1.0	0.33	ug/L		04/27/20 17:28	04/28/20 15:46	1
Fluorene	ND		1.0	0.39	ug/L		04/27/20 17:28	04/28/20 15:46	1
Hexachlorobenzene	ND	*	0.52	0.14	ug/L		04/27/20 17:28	04/28/20 15:46	1
Hexachlorobutadiene	ND		5.2	1.1	ug/L		04/27/20 17:28	04/28/20 15:46	1
Hexachlorocyclopentadiene	ND		21	3.6	ug/L		04/27/20 17:28	04/28/20 15:46	1
Hexachloroethane	ND		5.2	1.0	ug/L		04/27/20 17:28	04/28/20 15:46	1
Indeno[1,2,3-cd]pyrene	ND		0.21	0.087	ug/L		04/27/20 17:28	04/28/20 15:46	1
Isophorone	ND		2.1	0.30	ug/L		04/27/20 17:28	04/28/20 15:46	1
Nitrobenzene	ND		1.0	0.47	ug/L		04/27/20 17:28	04/28/20 15:46	1
N-Nitrosodi-n-propylamine	ND		0.52	0.14	ug/L		04/27/20 17:28	04/28/20 15:46	1
N-Nitrosodiphenylamine	ND		2.1	0.35	ug/L		04/27/20 17:28	04/28/20 15:46	1
Phenol	ND		5.2	0.37	ug/L		04/27/20 17:28	04/28/20 15:46	1
Pyrene	ND		1.0	0.50	ug/L		04/27/20 17:28	04/28/20 15:46	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/27/20 17:28	04/28/20 15:46	1
Benzo[a]anthracene	ND		0.21	0.045	ug/L		04/27/20 17:28	04/28/20 15:46	1

Client Sample ID: SUPE-W-12A-042220
Lab Sample ID: 480-169009-4

Date Collected: 04/22/20 09:20
Matrix: Water
Date Received: 04/24/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		1.0	0.36	ug/L		04/27/20 17:28	04/28/20 15:46	1
3,3'-Dichlorobenzidine	ND		5.2	0.97	ug/L		04/27/20 17:28	04/28/20 15:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*132*		*40 - 145*	*04/27/20 17:28*	*04/28/20 15:46*	*1*
2-Fluorobiphenyl	*91*		*34 - 110*	*04/27/20 17:28*	*04/28/20 15:46*	*1*
2-Fluorophenol (Surr)	*58*		*27 - 110*	*04/27/20 17:28*	*04/28/20 15:46*	*1*
Nitrobenzene-d5 (Surr)	*80*		*36 - 120*	*04/27/20 17:28*	*04/28/20 15:46*	*1*
Phenol-d5 (Surr)	*27*		*20 - 100*	*04/27/20 17:28*	*04/28/20 15:46*	*1*
Terphenyl-d14 (Surr)	*116*		*40 - 145*	*04/27/20 17:28*	*04/28/20 15:46*	*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		04/28/20 11:57	04/30/20 23:57	1
Total TCDD	ND		10	0.11	pg/L		04/28/20 11:57	04/30/20 23:57	1
1,2,3,7,8-PeCDD	ND		50	0.15	pg/L		04/28/20 11:57	04/30/20 23:57	1
Total PeCDD	ND		50	0.15	pg/L		04/28/20 11:57	04/30/20 23:57	1
1,2,3,4,7,8-HxCDD	ND		50	0.10	pg/L		04/28/20 11:57	04/30/20 23:57	1
1,2,3,6,7,8-HxCDD	ND		50	0.11	pg/L		04/28/20 11:57	04/30/20 23:57	1
1,2,3,7,8,9-HxCDD	**0.43**	**J I B**	50	0.10	pg/L		04/28/20 11:57	04/30/20 23:57	1
Total HxCDD	**3.1**	**J I B**	50	0.11	pg/L		04/28/20 11:57	04/30/20 23:57	1
1,2,3,4,6,7,8-HpCDD	**2.9**	**J B**	50	0.15	pg/L		04/28/20 11:57	04/30/20 23:57	1
Total HpCDD	**5.9**	**J B**	50	0.15	pg/L		04/28/20 11:57	04/30/20 23:57	1
OCDD	**28**	**J B**	100	0.12	pg/L		04/28/20 11:57	04/30/20 23:57	1
2,3,7,8-TCDF	**0.20**	**J I**	10	0.094	pg/L		04/28/20 11:57	04/30/20 23:57	1
Total TCDF	**2.2**	**J I**	10	0.094	pg/L		04/28/20 11:57	04/30/20 23:57	1
1,2,3,7,8-PeCDF	ND		50	0.29	pg/L		04/28/20 11:57	04/30/20 23:57	1
2,3,4,7,8-PeCDF	ND		50	0.24	pg/L		04/28/20 11:57	04/30/20 23:57	1
Total PeCDF	**3.0**	**J I B**	50	0.26	pg/L		04/28/20 11:57	04/30/20 23:57	1
1,2,3,4,7,8-HxCDF	ND		50	0.18	pg/L		04/28/20 11:57	04/30/20 23:57	1
1,2,3,6,7,8-HxCDF	ND		50	0.18	pg/L		04/28/20 11:57	04/30/20 23:57	1
2,3,4,6,7,8-HxCDF	ND		50	0.18	pg/L		04/28/20 11:57	04/30/20 23:57	1
1,2,3,7,8,9-HxCDF	ND		50	0.18	pg/L		04/28/20 11:57	04/30/20 23:57	1
Total HxCDF	**5.3**	**J I B**	50	0.18	pg/L		04/28/20 11:57	04/30/20 23:57	1
1,2,3,4,6,7,8-HpCDF	**1.3**	**J B**	50	0.053	pg/L		04/28/20 11:57	04/30/20 23:57	1
1,2,3,4,7,8,9-HpCDF	**0.49**	**J I B**	50	0.065	pg/L		04/28/20 11:57	04/30/20 23:57	1
Total HpCDF	**4.5**	**J I B**	50	0.059	pg/L		04/28/20 11:57	04/30/20 23:57	1
OCDF	**4.1**	**J B**	100	0.20	pg/L		04/28/20 11:57	04/30/20 23:57	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*70*		*40 - 135*	*04/28/20 11:57*	*04/30/20 23:57*	*1*
13C-1,2,3,7,8-PeCDD	*75*		*40 - 135*	*04/28/20 11:57*	*04/30/20 23:57*	*1*
13C-1,2,3,4,7,8-HxCDD	*75*		*40 - 135*	*04/28/20 11:57*	*04/30/20 23:57*	*1*
13C-1,2,3,6,7,8-HxCDD	*72*		*40 - 135*	*04/28/20 11:57*	*04/30/20 23:57*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*101*		*40 - 135*	*04/28/20 11:57*	*04/30/20 23:57*	*1*
13C-OCDD	*82*		*40 - 135*	*04/28/20 11:57*	*04/30/20 23:57*	*1*
13C-2,3,7,8-TCDF	*73*		*40 - 135*	*04/28/20 11:57*	*04/30/20 23:57*	*1*
13C-1,2,3,7,8-PeCDF	*74*		*40 - 135*	*04/28/20 11:57*	*04/30/20 23:57*	*1*
13C-2,3,4,7,8-PeCDF	*70*		*40 - 135*	*04/28/20 11:57*	*04/30/20 23:57*	*1*
13C-1,2,3,4,7,8-HxCDF	*78*		*40 - 135*	*04/28/20 11:57*	*04/30/20 23:57*	*1*
13C-1,2,3,6,7,8-HxCDF	*71*		*40 - 135*	*04/28/20 11:57*	*04/30/20 23:57*	*1*

Client Sample ID: SUPE-W-12A-042220
Lab Sample ID: 480-169009-4
Date Collected: 04/22/20 09:20
Matrix: Water
Date Received: 04/24/20 10:00

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

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,4,6,7,8-HxCDF	*75*		*40 - 135*	*04/28/20 11:57*	*04/30/20 23:57*	*1*
13C-1,2,3,7,8,9-HxCDF	*84*		*40 - 135*	*04/28/20 11:57*	*04/30/20 23:57*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*84*		*40 - 135*	*04/28/20 11:57*	*04/30/20 23:57*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*102*		*40 - 135*	*04/28/20 11:57*	*04/30/20 23:57*	*1*
13C-OCDF	*86*		*40 - 135*	*04/28/20 11:57*	*04/30/20 23:57*	*1*

Client Sample ID: SUPE-W-18D-042220
Lab Sample ID: 480-169009-5
Date Collected: 04/22/20 11:12
Matrix: Water
Date Received: 04/24/20 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	0.43	J	1.0	0.34	ug/L		04/29/20 15:30	04/30/20 17:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*113*		*24 - 146*	*04/29/20 15:30*	*04/30/20 17:42*	*1*
2-Fluorobiphenyl	*104*		*37 - 120*	*04/29/20 15:30*	*04/30/20 17:42*	*1*
2-Fluorophenol (Surr)	*55*		*10 - 120*	*04/29/20 15:30*	*04/30/20 17:42*	*1*
Nitrobenzene-d5 (Surr)	*88*		*26 - 120*	*04/29/20 15:30*	*04/30/20 17:42*	*1*
Phenol-d5 (Surr)	*36*		*11 - 120*	*04/29/20 15:30*	*04/30/20 17:42*	*1*
p-Terphenyl-d14	*102*		*64 - 127*	*04/29/20 15:30*	*04/30/20 17:42*	*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	0.31	ug/L		04/27/20 17:28	04/28/20 19:55	1
1,2-Dichlorobenzene	ND		2.0	0.30	ug/L		04/27/20 17:28	04/28/20 19:55	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		04/27/20 17:28	04/28/20 19:55	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		04/27/20 17:28	04/28/20 19:55	1
1-Methylnaphthalene	ND		2.0	0.51	ug/L		04/27/20 17:28	04/28/20 19:55	1
bis(chloroisopropyl) ether	ND		2.0	0.31	ug/L		04/27/20 17:28	04/28/20 19:55	1
2,3,4,6-Tetrachlorophenol	ND		5.1	1.5	ug/L		04/27/20 17:28	04/28/20 19:55	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		04/27/20 17:28	04/28/20 19:55	1
2,4,6-Trichlorophenol	ND		5.1	1.1	ug/L		04/27/20 17:28	04/28/20 19:55	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		04/27/20 17:28	04/28/20 19:55	1
2,4-Dinitrophenol	ND		20	7.6	ug/L		04/27/20 17:28	04/28/20 19:55	1
2,4-Dinitrotoluene	ND		1.0	0.31	ug/L		04/27/20 17:28	04/28/20 19:55	1
2,6-Dinitrotoluene	ND		1.0	0.12	ug/L		04/27/20 17:28	04/28/20 19:55	1
3 & 4 Methylphenol	ND		2.0	0.45	ug/L		04/27/20 17:28	04/28/20 19:55	1
2-Chloronaphthalene	ND		2.0	0.35	ug/L		04/27/20 17:28	04/28/20 19:55	1
2-Chlorophenol	ND		5.1	0.81	ug/L		04/27/20 17:28	04/28/20 19:55	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		04/27/20 17:28	04/28/20 19:55	1
2-Methylphenol	ND		2.0	0.32	ug/L		04/27/20 17:28	04/28/20 19:55	1
2-Nitroaniline	ND		5.1	1.1	ug/L		04/27/20 17:28	04/28/20 19:55	1
2-Nitrophenol	ND		10	2.2	ug/L		04/27/20 17:28	04/28/20 19:55	1
3-Nitroaniline	ND		10	2.3	ug/L		04/27/20 17:28	04/28/20 19:55	1
4,6-Dinitro-2-methylphenol	ND		20	5.0	ug/L		04/27/20 17:28	04/28/20 19:55	1
4-Bromophenyl phenyl ether	ND		5.1	0.93	ug/L		04/27/20 17:28	04/28/20 19:55	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		04/27/20 17:28	04/28/20 19:55	1
4-Chloroaniline	ND		10	2.1	ug/L		04/27/20 17:28	04/28/20 19:55	1
4-Chlorophenyl phenyl ether	ND		5.1	0.82	ug/L		04/27/20 17:28	04/28/20 19:55	1

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

Job ID: 480-169009-1

Client Sample ID: SUPE-W-18D-042220
Date Collected: 04/22/20 11:12
Date Received: 04/24/20 10:00

Lab Sample ID: 480-169009-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroaniline	ND		10	4.0	ug/L		04/27/20 17:28	04/28/20 19:55	1
4-Nitrophenol	ND		20	2.4	ug/L		04/27/20 17:28	04/28/20 19:55	1
Acenaphthene	ND		1.0	0.37	ug/L		04/27/20 17:28	04/28/20 19:55	1
Acenaphthylene	ND		1.0	0.33	ug/L		04/27/20 17:28	04/28/20 19:55	1
Anthracene	ND	*	1.0	0.33	ug/L		04/27/20 17:28	04/28/20 19:55	1
Benzo[a]pyrene	ND		0.20	0.057	ug/L		04/27/20 17:28	04/28/20 19:55	1
Benzo[b]fluoranthene	ND		0.20	0.059	ug/L		04/27/20 17:28	04/28/20 19:55	1
Benzo[g,h,i]perylene	ND		1.0	0.43	ug/L		04/27/20 17:28	04/28/20 19:55	1
Benzo[k]fluoranthene	ND		0.20	0.075	ug/L		04/27/20 17:28	04/28/20 19:55	1
Benzoic acid	ND		20	4.6	ug/L		04/27/20 17:28	04/28/20 19:55	1
Benzyl alcohol	ND		20	3.1	ug/L		04/27/20 17:28	04/28/20 19:55	1
Bis(2-chloroethoxy)methane	ND		2.0	0.31	ug/L		04/27/20 17:28	04/28/20 19:55	1
Bis(2-chloroethyl)ether	ND		2.0	0.36	ug/L		04/27/20 17:28	04/28/20 19:55	1
Bis(2-ethylhexyl) phthalate	ND		10	2.5	ug/L		04/27/20 17:28	04/28/20 19:55	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		04/27/20 17:28	04/28/20 19:55	1
Chrysene	ND		0.51	0.14	ug/L		04/27/20 17:28	04/28/20 19:55	1
Dibenz(a,h)anthracene	ND		0.31	0.065	ug/L		04/27/20 17:28	04/28/20 19:55	1
Dibenzofuran	ND		2.0	0.36	ug/L		04/27/20 17:28	04/28/20 19:55	1
Diethyl phthalate	ND		2.0	0.45	ug/L		04/27/20 17:28	04/28/20 19:55	1
Dimethyl phthalate	ND	*	2.0	0.39	ug/L		04/27/20 17:28	04/28/20 19:55	1
Di-n-butyl phthalate	ND	*	5.1	0.81	ug/L		04/27/20 17:28	04/28/20 19:55	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		04/27/20 17:28	04/28/20 19:55	1
2,3,5,6-Tetrachlorophenol	ND		5.1	2.5	ug/L		04/27/20 17:28	04/28/20 19:55	1
Fluoranthene	ND	*	1.0	0.33	ug/L		04/27/20 17:28	04/28/20 19:55	1
Fluorene	ND		1.0	0.39	ug/L		04/27/20 17:28	04/28/20 19:55	1
Hexachlorobenzene	ND	*	0.51	0.14	ug/L		04/27/20 17:28	04/28/20 19:55	1
Hexachlorobutadiene	ND		5.1	1.1	ug/L		04/27/20 17:28	04/28/20 19:55	1
Hexachlorocyclopentadiene	ND		20	3.5	ug/L		04/27/20 17:28	04/28/20 19:55	1
Hexachloroethane	ND		5.1	0.99	ug/L		04/27/20 17:28	04/28/20 19:55	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.086	ug/L		04/27/20 17:28	04/28/20 19:55	1
Isophorone	ND		2.0	0.30	ug/L		04/27/20 17:28	04/28/20 19:55	1
Naphthalene	ND		1.0	0.31	ug/L		04/27/20 17:28	04/28/20 19:55	1
Nitrobenzene	ND		1.0	0.46	ug/L		04/27/20 17:28	04/28/20 19:55	1
N-Nitrosodi-n-propylamine	ND		0.51	0.14	ug/L		04/27/20 17:28	04/28/20 19:55	1
N-Nitrosodiphenylamine	ND		2.0	0.35	ug/L		04/27/20 17:28	04/28/20 19:55	1
Phenol	ND		5.1	0.37	ug/L		04/27/20 17:28	04/28/20 19:55	1
Pyrene	ND		1.0	0.49	ug/L		04/27/20 17:28	04/28/20 19:55	1
2,4-Dimethylphenol	ND		10	3.4	ug/L		04/27/20 17:28	04/28/20 19:55	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/27/20 17:28	04/28/20 19:55	1
Phenanthrene	ND		1.0	0.36	ug/L		04/27/20 17:28	04/28/20 19:55	1
3,3'-Dichlorobenzidine	ND		5.1	0.96	ug/L		04/27/20 17:28	04/28/20 19:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*139*		*40 - 145*	*04/27/20 17:28*	*04/28/20 19:55*	*1*
2-Fluorobiphenyl	*96*		*34 - 110*	*04/27/20 17:28*	*04/28/20 19:55*	*1*
2-Fluorophenol (Surr)	*62*		*27 - 110*	*04/27/20 17:28*	*04/28/20 19:55*	*1*
Nitrobenzene-d5 (Surr)	*81*		*36 - 120*	*04/27/20 17:28*	*04/28/20 19:55*	*1*
Phenol-d5 (Surr)	*30*		*20 - 100*	*04/27/20 17:28*	*04/28/20 19:55*	*1*
Terphenyl-d14 (Surr)	*113*		*40 - 145*	*04/27/20 17:28*	*04/28/20 19:55*	*1*

Client Sample ID: SUPE-W-04AR2-042220

Date Collected: 04/22/20 12:25
Date Received: 04/24/20 10:00

Lab Sample ID: 480-169009-6

Matrix: Water

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			04/26/20 01:41	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/26/20 01:41	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/26/20 01:41	1
Benzene	ND		1.0	0.41	ug/L			04/26/20 01:41	1
Chloromethane	ND		1.0	0.35	ug/L			04/26/20 01:41	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/26/20 01:41	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/26/20 01:41	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/26/20 01:41	1
Naphthalene	ND		1.0	0.43	ug/L			04/26/20 01:41	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/26/20 01:41	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/26/20 01:41	1
o-Xylene	ND		1.0	0.76	ug/L			04/26/20 01:41	1
Styrene	ND		1.0	0.73	ug/L			04/26/20 01:41	1
Toluene	ND		1.0	0.51	ug/L			04/26/20 01:41	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/26/20 01:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*		*04/26/20 01:41*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*04/26/20 01:41*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*04/26/20 01:41*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*04/26/20 01:41*	*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		04/29/20 15:30	04/30/20 18:11	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*97*		*24 - 146*	*04/29/20 15:30*	*04/30/20 18:11*	*5*
2-Fluorobiphenyl	*106*		*37 - 120*	*04/29/20 15:30*	*04/30/20 18:11*	*5*
2-Fluorophenol (Surr)	*51*		*10 - 120*	*04/29/20 15:30*	*04/30/20 18:11*	*5*
Nitrobenzene-d5 (Surr)	*83*		*26 - 120*	*04/29/20 15:30*	*04/30/20 18:11*	*5*
Phenol-d5 (Surr)	*34*		*11 - 120*	*04/29/20 15:30*	*04/30/20 18:11*	*5*
p-Terphenyl-d14	*81*		*64 - 127*	*04/29/20 15:30*	*04/30/20 18:11*	*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		04/27/20 17:28	04/28/20 20:23	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		04/27/20 17:28	04/28/20 20:23	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		04/27/20 17:28	04/28/20 20:23	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		04/27/20 17:28	04/28/20 20:23	1
1-Methylnaphthalene	ND		2.0	0.50	ug/L		04/27/20 17:28	04/28/20 20:23	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		04/27/20 17:28	04/28/20 20:23	1
2,3,4,6-Tetrachlorophenol	ND		5.0	1.5	ug/L		04/27/20 17:28	04/28/20 20:23	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		04/27/20 17:28	04/28/20 20:23	1
2,4,6-Trichlorophenol	ND		5.0	1.1	ug/L		04/27/20 17:28	04/28/20 20:23	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		04/27/20 17:28	04/28/20 20:23	1
2,4-Dinitrophenol	ND		20	7.4	ug/L		04/27/20 17:28	04/28/20 20:23	1
2,4-Dinitrotoluene	ND		1.0	0.30	ug/L		04/27/20 17:28	04/28/20 20:23	1
2,6-Dinitrotoluene	ND		1.0	0.12	ug/L		04/27/20 17:28	04/28/20 20:23	1
3 & 4 Methylphenol	ND		2.0	0.44	ug/L		04/27/20 17:28	04/28/20 20:23	1

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

Job ID: 480-169009-1

Client Sample ID: SUPE-W-04AR2-042220
Date Collected: 04/22/20 12:25
Date Received: 04/24/20 10:00

Lab Sample ID: 480-169009-6
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		04/27/20 17:28	04/28/20 20:23	1
2-Chlorophenol	ND		5.0	0.80	ug/L		04/27/20 17:28	04/28/20 20:23	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		04/27/20 17:28	04/28/20 20:23	1
2-Methylphenol	ND		2.0	0.31	ug/L		04/27/20 17:28	04/28/20 20:23	1
2-Nitroaniline	ND		5.0	1.1	ug/L		04/27/20 17:28	04/28/20 20:23	1
2-Nitrophenol	ND		10	2.1	ug/L		04/27/20 17:28	04/28/20 20:23	1
3-Nitroaniline	ND		10	2.3	ug/L		04/27/20 17:28	04/28/20 20:23	1
4,6-Dinitro-2-methylphenol	ND		20	4.9	ug/L		04/27/20 17:28	04/28/20 20:23	1
4-Bromophenyl phenyl ether	ND		5.0	0.91	ug/L		04/27/20 17:28	04/28/20 20:23	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		04/27/20 17:28	04/28/20 20:23	1
4-Chloroaniline	ND		10	2.1	ug/L		04/27/20 17:28	04/28/20 20:23	1
4-Chlorophenyl phenyl ether	ND		5.0	0.81	ug/L		04/27/20 17:28	04/28/20 20:23	1
4-Nitroaniline	ND		10	3.9	ug/L		04/27/20 17:28	04/28/20 20:23	1
4-Nitrophenol	ND		20	2.3	ug/L		04/27/20 17:28	04/28/20 20:23	1
Acenaphthene	**0.38**	**J**	1.0	0.36	ug/L		04/27/20 17:28	04/28/20 20:23	1
Acenaphthylene	ND		1.0	0.32	ug/L		04/27/20 17:28	04/28/20 20:23	1
Anthracene	**3.5**	*****	1.0	0.32	ug/L		04/27/20 17:28	04/28/20 20:23	1
Benzo[a]pyrene	**0.67**		0.20	0.056	ug/L		04/27/20 17:28	04/28/20 20:23	1
Benzo[b]fluoranthene	**1.3**		0.20	0.058	ug/L		04/27/20 17:28	04/28/20 20:23	1
Benzo[g,h,i]perylene	ND		1.0	0.42	ug/L		04/27/20 17:28	04/28/20 20:23	1
Benzo[k]fluoranthene	**0.49**		0.20	0.074	ug/L		04/27/20 17:28	04/28/20 20:23	1
Benzoic acid	ND		20	4.5	ug/L		04/27/20 17:28	04/28/20 20:23	1
Benzyl alcohol	ND		20	3.0	ug/L		04/27/20 17:28	04/28/20 20:23	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		04/27/20 17:28	04/28/20 20:23	1
Bis(2-chloroethyl)ether	ND		2.0	0.35	ug/L		04/27/20 17:28	04/28/20 20:23	1
Bis(2-ethylhexyl) phthalate	ND		10	2.4	ug/L		04/27/20 17:28	04/28/20 20:23	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		04/27/20 17:28	04/28/20 20:23	1
Chrysene	**1.6**		0.50	0.14	ug/L		04/27/20 17:28	04/28/20 20:23	1
Dibenz(a,h)anthracene	ND		0.30	0.064	ug/L		04/27/20 17:28	04/28/20 20:23	1
Dibenzofuran	**0.44**	**J**	2.0	0.35	ug/L		04/27/20 17:28	04/28/20 20:23	1
Diethyl phthalate	ND		2.0	0.44	ug/L		04/27/20 17:28	04/28/20 20:23	1
Dimethyl phthalate	ND	*	2.0	0.38	ug/L		04/27/20 17:28	04/28/20 20:23	1
Di-n-butyl phthalate	ND	*	5.0	0.80	ug/L		04/27/20 17:28	04/28/20 20:23	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		04/27/20 17:28	04/28/20 20:23	1
2,3,5,6-Tetrachlorophenol	ND		5.0	2.5	ug/L		04/27/20 17:28	04/28/20 20:23	1
Fluoranthene	**4.4**	*****	1.0	0.32	ug/L		04/27/20 17:28	04/28/20 20:23	1
Fluorene	**0.76**	**J**	1.0	0.38	ug/L		04/27/20 17:28	04/28/20 20:23	1
Hexachlorobenzene	ND	*	0.50	0.14	ug/L		04/27/20 17:28	04/28/20 20:23	1
Hexachlorobutadiene	ND		5.0	1.1	ug/L		04/27/20 17:28	04/28/20 20:23	1
Hexachlorocyclopentadiene	ND		20	3.4	ug/L		04/27/20 17:28	04/28/20 20:23	1
Hexachloroethane	ND		5.0	0.97	ug/L		04/27/20 17:28	04/28/20 20:23	1
Indeno[1,2,3-cd]pyrene	**0.37**		0.20	0.084	ug/L		04/27/20 17:28	04/28/20 20:23	1
Isophorone	ND		2.0	0.29	ug/L		04/27/20 17:28	04/28/20 20:23	1
Nitrobenzene	ND		1.0	0.45	ug/L		04/27/20 17:28	04/28/20 20:23	1
N-Nitrosodi-n-propylamine	ND		0.50	0.14	ug/L		04/27/20 17:28	04/28/20 20:23	1
N-Nitrosodiphenylamine	ND		2.0	0.34	ug/L		04/27/20 17:28	04/28/20 20:23	1
Phenol	ND		5.0	0.36	ug/L		04/27/20 17:28	04/28/20 20:23	1
Pyrene	**2.6**		1.0	0.48	ug/L		04/27/20 17:28	04/28/20 20:23	1
2,4-Dimethylphenol	ND		10	3.3	ug/L		04/27/20 17:28	04/28/20 20:23	1

Client Sample ID: SUPE-W-04AR2-042220

Date Collected: 04/22/20 12:25
Date Received: 04/24/20 10:00

Lab Sample ID: 480-169009-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	**0.85**		0.20	0.044	ug/L		04/27/20 17:28	04/28/20 20:23	1
Phenanthrene	**2.3**		1.0	0.35	ug/L		04/27/20 17:28	04/28/20 20:23	1
3,3'-Dichlorobenzidine	ND		5.0	0.94	ug/L		04/27/20 17:28	04/28/20 20:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*132*		*40 - 145*	*04/27/20 17:28*	*04/28/20 20:23*	*1*
2-Fluorobiphenyl	*93*		*34 - 110*	*04/27/20 17:28*	*04/28/20 20:23*	*1*
2-Fluorophenol (Surr)	*51*		*27 - 110*	*04/27/20 17:28*	*04/28/20 20:23*	*1*
Nitrobenzene-d5 (Surr)	*85*		*36 - 120*	*04/27/20 17:28*	*04/28/20 20:23*	*1*
Phenol-d5 (Surr)	*24*		*20 - 100*	*04/27/20 17:28*	*04/28/20 20:23*	*1*
Terphenyl-d14 (Surr)	*102*		*40 - 145*	*04/27/20 17:28*	*04/28/20 20:23*	*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	0.26	pg/L		04/28/20 11:57	05/01/20 00:58	1
Total TCDD	**0.60**	**J I**	10	0.26	pg/L		04/28/20 11:57	05/01/20 00:58	1
1,2,3,7,8-PeCDD	ND		50	0.39	pg/L		04/28/20 11:57	05/01/20 00:58	1
Total PeCDD	ND		50	0.39	pg/L		04/28/20 11:57	05/01/20 00:58	1
1,2,3,4,7,8-HxCDD	**0.62**	**J I**	50	0.25	pg/L		04/28/20 11:57	05/01/20 00:58	1
1,2,3,6,7,8-HxCDD	**2.3**	**J B**	50	0.25	pg/L		04/28/20 11:57	05/01/20 00:58	1
1,2,3,7,8,9-HxCDD	**1.8**	**J B**	50	0.23	pg/L		04/28/20 11:57	05/01/20 00:58	1
Total HxCDD	**26**	**J I B**	50	0.24	pg/L		04/28/20 11:57	05/01/20 00:58	1
1,2,3,4,6,7,8-HpCDD	**60**	**B**	50	0.79	pg/L		04/28/20 11:57	05/01/20 00:58	1
Total HpCDD	**280**	**B**	50	0.79	pg/L		04/28/20 11:57	05/01/20 00:58	1
OCDD	**670**	**B**	100	0.17	pg/L		04/28/20 11:57	05/01/20 00:58	1
2,3,7,8-TCDF	**0.37**	**J**	10	0.13	pg/L		04/28/20 11:57	05/01/20 00:58	1
Total TCDF	**2.7**	**J I**	10	0.13	pg/L		04/28/20 11:57	05/01/20 00:58	1
1,2,3,7,8-PeCDF	ND		50	0.45	pg/L		04/28/20 11:57	05/01/20 00:58	1
2,3,4,7,8-PeCDF	ND		50	0.47	pg/L		04/28/20 11:57	05/01/20 00:58	1
Total PeCDF	**6.2**	**J I B**	50	0.46	pg/L		04/28/20 11:57	05/01/20 00:58	1
1,2,3,4,7,8-HxCDF	**0.92**	**J B**	50	0.21	pg/L		04/28/20 11:57	05/01/20 00:58	1
1,2,3,6,7,8-HxCDF	**0.52**	**J B**	50	0.22	pg/L		04/28/20 11:57	05/01/20 00:58	1
2,3,4,6,7,8-HxCDF	**0.46**	**J I B**	50	0.21	pg/L		04/28/20 11:57	05/01/20 00:58	1
1,2,3,7,8,9-HxCDF	ND		50	0.22	pg/L		04/28/20 11:57	05/01/20 00:58	1
Total HxCDF	**30**	**J I B**	50	0.21	pg/L		04/28/20 11:57	05/01/20 00:58	1
1,2,3,4,6,7,8-HpCDF	**9.2**	**J B**	50	0.16	pg/L		04/28/20 11:57	05/01/20 00:58	1
1,2,3,4,7,8,9-HpCDF	**0.92**	**J B**	50	0.21	pg/L		04/28/20 11:57	05/01/20 00:58	1
Total HpCDF	**34**	**J B**	50	0.19	pg/L		04/28/20 11:57	05/01/20 00:58	1
OCDF	**29**	**J B**	100	0.18	pg/L		04/28/20 11:57	05/01/20 00:58	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*71*		*40 - 135*	*04/28/20 11:57*	*05/01/20 00:58*	*1*
13C-1,2,3,7,8-PeCDD	*74*		*40 - 135*	*04/28/20 11:57*	*05/01/20 00:58*	*1*
13C-1,2,3,4,7,8-HxCDD	*75*		*40 - 135*	*04/28/20 11:57*	*05/01/20 00:58*	*1*
13C-1,2,3,6,7,8-HxCDD	*71*		*40 - 135*	*04/28/20 11:57*	*05/01/20 00:58*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*94*		*40 - 135*	*04/28/20 11:57*	*05/01/20 00:58*	*1*
13C-OCDD	*79*		*40 - 135*	*04/28/20 11:57*	*05/01/20 00:58*	*1*
13C-2,3,7,8-TCDF	*74*		*40 - 135*	*04/28/20 11:57*	*05/01/20 00:58*	*1*
13C-1,2,3,7,8-PeCDF	*87*		*40 - 135*	*04/28/20 11:57*	*05/01/20 00:58*	*1*
13C-2,3,4,7,8-PeCDF	*70*		*40 - 135*	*04/28/20 11:57*	*05/01/20 00:58*	*1*
13C-1,2,3,4,7,8-HxCDF	*80*		*40 - 135*	*04/28/20 11:57*	*05/01/20 00:58*	*1*

Client Sample ID: SUPE-W-04AR2-042220
Lab Sample ID: 480-169009-6
Date Collected: 04/22/20 12:25
Matrix: Water
Date Received: 04/24/20 10:00

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	*71*		*40 - 135*	*04/28/20 11:57*	*05/01/20 00:58*	*1*
13C-2,3,4,6,7,8-HxCDF	*78*		*40 - 135*	*04/28/20 11:57*	*05/01/20 00:58*	*1*
13C-1,2,3,7,8,9-HxCDF	*84*		*40 - 135*	*04/28/20 11:57*	*05/01/20 00:58*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*83*		*40 - 135*	*04/28/20 11:57*	*05/01/20 00:58*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*99*		*40 - 135*	*04/28/20 11:57*	*05/01/20 00:58*	*1*
13C-OCDF	*81*		*40 - 135*	*04/28/20 11:57*	*05/01/20 00:58*	*1*

Client Sample ID: SUPE-EB-01-042220
Lab Sample ID: 480-169009-7
Date Collected: 04/22/20 13:10
Matrix: Water
Date Received: 04/24/20 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			04/26/20 02:04	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/26/20 02:04	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/26/20 02:04	1
Benzene	ND		1.0	0.41	ug/L			04/26/20 02:04	1
Chloromethane	ND		1.0	0.35	ug/L			04/26/20 02:04	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/26/20 02:04	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/26/20 02:04	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/26/20 02:04	1
Naphthalene	ND		1.0	0.43	ug/L			04/26/20 02:04	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/26/20 02:04	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/26/20 02:04	1
o-Xylene	ND		1.0	0.76	ug/L			04/26/20 02:04	1
Styrene	ND		1.0	0.73	ug/L			04/26/20 02:04	1
Toluene	ND		1.0	0.51	ug/L			04/26/20 02:04	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/26/20 02:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*04/26/20 02:04*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*04/26/20 02:04*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*04/26/20 02:04*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*04/26/20 02:04*	*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		04/29/20 15:30	04/30/20 18:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*90*		*24 - 146*	*04/29/20 15:30*	*04/30/20 18:40*	*1*
2-Fluorobiphenyl	*98*		*37 - 120*	*04/29/20 15:30*	*04/30/20 18:40*	*1*
2-Fluorophenol (Surr)	*49*		*10 - 120*	*04/29/20 15:30*	*04/30/20 18:40*	*1*
Nitrobenzene-d5 (Surr)	*85*		*26 - 120*	*04/29/20 15:30*	*04/30/20 18:40*	*1*
Phenol-d5 (Surr)	*33*		*11 - 120*	*04/29/20 15:30*	*04/30/20 18:40*	*1*
p-Terphenyl-d14	*110*		*64 - 127*	*04/29/20 15:30*	*04/30/20 18:40*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.0	0.29	ug/L		04/27/20 17:28	04/28/20 16:14	1
1,2-Dichlorobenzene	ND		2.0	0.28	ug/L		04/27/20 17:28	04/28/20 16:14	1

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

Job ID: 480-169009-1

Client Sample ID: SUPE-EB-01-042220
Date Collected: 04/22/20 13:10
Date Received: 04/24/20 10:00

Lab Sample ID: 480-169009-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		04/27/20 17:28	04/28/20 16:14	1
1,4-Dichlorobenzene	ND		2.0	0.26	ug/L		04/27/20 17:28	04/28/20 16:14	1
1-Methylnaphthalene	ND		2.0	0.49	ug/L		04/27/20 17:28	04/28/20 16:14	1
bis(chloroisopropyl) ether	ND		2.0	0.29	ug/L		04/27/20 17:28	04/28/20 16:14	1
2,3,4,6-Tetrachlorophenol	ND		4.9	1.5	ug/L		04/27/20 17:28	04/28/20 16:14	1
2,4,5-Trichlorophenol	ND		9.8	2.2	ug/L		04/27/20 17:28	04/28/20 16:14	1
2,4,6-Trichlorophenol	ND		4.9	1.1	ug/L		04/27/20 17:28	04/28/20 16:14	1
2,4-Dichlorophenol	ND		9.8	2.2	ug/L		04/27/20 17:28	04/28/20 16:14	1
2,4-Dinitrophenol	ND		20	7.3	ug/L		04/27/20 17:28	04/28/20 16:14	1
2,4-Dinitrotoluene	ND		0.98	0.29	ug/L		04/27/20 17:28	04/28/20 16:14	1
2,6-Dinitrotoluene	ND		0.98	0.12	ug/L		04/27/20 17:28	04/28/20 16:14	1
3 & 4 Methylphenol	ND		2.0	0.43	ug/L		04/27/20 17:28	04/28/20 16:14	1
2-Chloronaphthalene	ND		2.0	0.33	ug/L		04/27/20 17:28	04/28/20 16:14	1
2-Chlorophenol	ND		4.9	0.78	ug/L		04/27/20 17:28	04/28/20 16:14	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		04/27/20 17:28	04/28/20 16:14	1
2-Methylphenol	ND		2.0	0.30	ug/L		04/27/20 17:28	04/28/20 16:14	1
2-Nitroaniline	ND		4.9	1.1	ug/L		04/27/20 17:28	04/28/20 16:14	1
2-Nitrophenol	ND		9.8	2.1	ug/L		04/27/20 17:28	04/28/20 16:14	1
3-Nitroaniline	ND		9.8	2.2	ug/L		04/27/20 17:28	04/28/20 16:14	1
4,6-Dinitro-2-methylphenol	ND		20	4.8	ug/L		04/27/20 17:28	04/28/20 16:14	1
4-Bromophenyl phenyl ether	ND		4.9	0.89	ug/L		04/27/20 17:28	04/28/20 16:14	1
4-Chloro-3-methylphenol	ND		9.8	2.2	ug/L		04/27/20 17:28	04/28/20 16:14	1
4-Chloroaniline	ND		9.8	2.1	ug/L		04/27/20 17:28	04/28/20 16:14	1
4-Chlorophenyl phenyl ether	ND		4.9	0.79	ug/L		04/27/20 17:28	04/28/20 16:14	1
4-Nitroaniline	ND		9.8	3.9	ug/L		04/27/20 17:28	04/28/20 16:14	1
4-Nitrophenol	ND		20	2.3	ug/L		04/27/20 17:28	04/28/20 16:14	1
Acenaphthene	ND		0.98	0.35	ug/L		04/27/20 17:28	04/28/20 16:14	1
Acenaphthylene	ND		0.98	0.31	ug/L		04/27/20 17:28	04/28/20 16:14	1
Anthracene	ND	*	0.98	0.31	ug/L		04/27/20 17:28	04/28/20 16:14	1
Benzo[a]pyrene	ND		0.20	0.055	ug/L		04/27/20 17:28	04/28/20 16:14	1
Benzo[b]fluoranthene	ND		0.20	0.057	ug/L		04/27/20 17:28	04/28/20 16:14	1
Benzo[g,h,i]perylene	ND		0.98	0.41	ug/L		04/27/20 17:28	04/28/20 16:14	1
Benzo[k]fluoranthene	ND		0.20	0.073	ug/L		04/27/20 17:28	04/28/20 16:14	1
Benzoic acid	ND		20	4.5	ug/L		04/27/20 17:28	04/28/20 16:14	1
Benzyl alcohol	ND		20	3.0	ug/L		04/27/20 17:28	04/28/20 16:14	1
Bis(2-chloroethoxy)methane	ND		2.0	0.29	ug/L		04/27/20 17:28	04/28/20 16:14	1
Bis(2-chloroethyl)ether	ND		2.0	0.34	ug/L		04/27/20 17:28	04/28/20 16:14	1
Bis(2-ethylhexyl) phthalate	ND		9.8	2.4	ug/L		04/27/20 17:28	04/28/20 16:14	1
Butyl benzyl phthalate	ND		2.0	0.26	ug/L		04/27/20 17:28	04/28/20 16:14	1
Chrysene	ND		0.49	0.14	ug/L		04/27/20 17:28	04/28/20 16:14	1
Dibenz(a,h)anthracene	ND		0.29	0.063	ug/L		04/27/20 17:28	04/28/20 16:14	1
Dibenzofuran	ND		2.0	0.34	ug/L		04/27/20 17:28	04/28/20 16:14	1
Diethyl phthalate	ND		2.0	0.43	ug/L		04/27/20 17:28	04/28/20 16:14	1
Dimethyl phthalate	ND	*	2.0	0.37	ug/L		04/27/20 17:28	04/28/20 16:14	1
Di-n-butyl phthalate	ND	*	4.9	0.78	ug/L		04/27/20 17:28	04/28/20 16:14	1
Di-n-octyl phthalate	ND		9.8	2.4	ug/L		04/27/20 17:28	04/28/20 16:14	1
2,3,5,6-Tetrachlorophenol	ND		4.9	2.5	ug/L		04/27/20 17:28	04/28/20 16:14	1
Fluoranthene	ND	*	0.98	0.31	ug/L		04/27/20 17:28	04/28/20 16:14	1
Fluorene	ND		0.98	0.37	ug/L		04/27/20 17:28	04/28/20 16:14	1

Client Sample ID: SUPE-EB-01-042220

Date Collected: 04/22/20 13:10
Date Received: 04/24/20 10:00

Lab Sample ID: 480-169009-7

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	ND	*	0.49	0.14	ug/L		04/27/20 17:28	04/28/20 16:14	1
Hexachlorobutadiene	ND		4.9	1.1	ug/L		04/27/20 17:28	04/28/20 16:14	1
Hexachlorocyclopentadiene	ND		20	3.4	ug/L		04/27/20 17:28	04/28/20 16:14	1
Hexachloroethane	ND		4.9	0.95	ug/L		04/27/20 17:28	04/28/20 16:14	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.082	ug/L		04/27/20 17:28	04/28/20 16:14	1
Isophorone	ND		2.0	0.28	ug/L		04/27/20 17:28	04/28/20 16:14	1
Nitrobenzene	ND		0.98	0.44	ug/L		04/27/20 17:28	04/28/20 16:14	1
N-Nitrosodi-n-propylamine	ND		0.49	0.14	ug/L		04/27/20 17:28	04/28/20 16:14	1
N-Nitrosodiphenylamine	ND		2.0	0.33	ug/L		04/27/20 17:28	04/28/20 16:14	1
Phenol	ND		4.9	0.35	ug/L		04/27/20 17:28	04/28/20 16:14	1
Pyrene	ND		0.98	0.47	ug/L		04/27/20 17:28	04/28/20 16:14	1
2,4-Dimethylphenol	ND		9.8	3.3	ug/L		04/27/20 17:28	04/28/20 16:14	1
Benzo[a]anthracene	ND		0.20	0.043	ug/L		04/27/20 17:28	04/28/20 16:14	1
Phenanthrene	ND		0.98	0.34	ug/L		04/27/20 17:28	04/28/20 16:14	1
3,3'-Dichlorobenzidine	ND		4.9	0.92	ug/L		04/27/20 17:28	04/28/20 16:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*135*		*40 - 145*	*04/27/20 17:28*	*04/28/20 16:14*	*1*
2-Fluorobiphenyl	*95*		*34 - 110*	*04/27/20 17:28*	*04/28/20 16:14*	*1*
2-Fluorophenol (Surr)	*55*		*27 - 110*	*04/27/20 17:28*	*04/28/20 16:14*	*1*
Nitrobenzene-d5 (Surr)	*79*		*36 - 120*	*04/27/20 17:28*	*04/28/20 16:14*	*1*
Phenol-d5 (Surr)	*22*		*20 - 100*	*04/27/20 17:28*	*04/28/20 16:14*	*1*
Terphenyl-d14 (Surr)	*115*		*40 - 145*	*04/27/20 17:28*	*04/28/20 16:14*	*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	0.17	pg/L		04/28/20 11:57	05/01/20 01:59	1
Total TCDD	ND		9.9	0.17	pg/L		04/28/20 11:57	05/01/20 01:59	1
1,2,3,7,8-PeCDD	ND		50	0.17	pg/L		04/28/20 11:57	05/01/20 01:59	1
Total PeCDD	ND		50	0.17	pg/L		04/28/20 11:57	05/01/20 01:59	1
1,2,3,4,7,8-HxCDD	ND		50	0.080	pg/L		04/28/20 11:57	05/01/20 01:59	1
1,2,3,6,7,8-HxCDD	ND		50	0.089	pg/L		04/28/20 11:57	05/01/20 01:59	1
1,2,3,7,8,9-HxCDD	ND		50	0.078	pg/L		04/28/20 11:57	05/01/20 01:59	1
Total HxCDD	**1.6**	**J I B**	50	0.082	pg/L		04/28/20 11:57	05/01/20 01:59	1
1,2,3,4,6,7,8-HpCDD	**1.1**	**J I B**	50	0.13	pg/L		04/28/20 11:57	05/01/20 01:59	1
Total HpCDD	**4.4**	**J I B**	50	0.13	pg/L		04/28/20 11:57	05/01/20 01:59	1
OCDD	**13**	**J B**	99	0.12	pg/L		04/28/20 11:57	05/01/20 01:59	1
2,3,7,8-TCDF	**0.22**	**J I**	9.9	0.098	pg/L		04/28/20 11:57	05/01/20 01:59	1
Total TCDF	**0.46**	**J I**	9.9	0.098	pg/L		04/28/20 11:57	05/01/20 01:59	1
1,2,3,7,8-PeCDF	ND		50	0.17	pg/L		04/28/20 11:57	05/01/20 01:59	1
2,3,4,7,8-PeCDF	ND		50	0.15	pg/L		04/28/20 11:57	05/01/20 01:59	1
Total PeCDF	ND		50	0.17	pg/L		04/28/20 11:57	05/01/20 01:59	1
1,2,3,4,7,8-HxCDF	ND		50	0.15	pg/L		04/28/20 11:57	05/01/20 01:59	1
1,2,3,6,7,8-HxCDF	ND		50	0.15	pg/L		04/28/20 11:57	05/01/20 01:59	1
2,3,4,6,7,8-HxCDF	ND		50	0.15	pg/L		04/28/20 11:57	05/01/20 01:59	1
1,2,3,7,8,9-HxCDF	ND		50	0.15	pg/L		04/28/20 11:57	05/01/20 01:59	1
Total HxCDF	ND		50	0.15	pg/L		04/28/20 11:57	05/01/20 01:59	1
1,2,3,4,6,7,8-HpCDF	**0.48**	**J I B**	50	0.084	pg/L		04/28/20 11:57	05/01/20 01:59	1
1,2,3,4,7,8,9-HpCDF	ND		50	0.10	pg/L		04/28/20 11:57	05/01/20 01:59	1
Total HpCDF	**0.81**	**J I B**	50	0.094	pg/L		04/28/20 11:57	05/01/20 01:59	1

Client Sample ID: SUPE-EB-01-042220

Lab Sample ID: 480-169009-7

Date Collected: 04/22/20 13:10
Matrix: Water
Date Received: 04/24/20 10:00

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
OCDF	0.95	J I B	99	0.071	pg/L		04/28/20 11:57	05/01/20 01:59	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*71*		*40 - 135*	*04/28/20 11:57*	*05/01/20 01:59*	*1*
13C-1,2,3,7,8-PeCDD	*72*		*40 - 135*	*04/28/20 11:57*	*05/01/20 01:59*	*1*
13C-1,2,3,4,7,8-HxCDD	*73*		*40 - 135*	*04/28/20 11:57*	*05/01/20 01:59*	*1*
13C-1,2,3,6,7,8-HxCDD	*71*		*40 - 135*	*04/28/20 11:57*	*05/01/20 01:59*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*95*		*40 - 135*	*04/28/20 11:57*	*05/01/20 01:59*	*1*
13C-OCDD	*79*		*40 - 135*	*04/28/20 11:57*	*05/01/20 01:59*	*1*
13C-2,3,7,8-TCDF	*74*		*40 - 135*	*04/28/20 11:57*	*05/01/20 01:59*	*1*
13C-1,2,3,7,8-PeCDF	*74*		*40 - 135*	*04/28/20 11:57*	*05/01/20 01:59*	*1*
13C-2,3,4,7,8-PeCDF	*68*		*40 - 135*	*04/28/20 11:57*	*05/01/20 01:59*	*1*
13C-1,2,3,4,7,8-HxCDF	*76*		*40 - 135*	*04/28/20 11:57*	*05/01/20 01:59*	*1*
13C-1,2,3,6,7,8-HxCDF	*69*		*40 - 135*	*04/28/20 11:57*	*05/01/20 01:59*	*1*
13C-2,3,4,6,7,8-HxCDF	*75*		*40 - 135*	*04/28/20 11:57*	*05/01/20 01:59*	*1*
13C-1,2,3,7,8,9-HxCDF	*82*		*40 - 135*	*04/28/20 11:57*	*05/01/20 01:59*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*80*		*40 - 135*	*04/28/20 11:57*	*05/01/20 01:59*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*94*		*40 - 135*	*04/28/20 11:57*	*05/01/20 01:59*	*1*
13C-OCDF	*83*		*40 - 135*	*04/28/20 11:57*	*05/01/20 01:59*	*1*

Client Sample ID: SUPE-W-30C-042120

Lab Sample ID: 480-169009-8

Date Collected: 04/21/20 13:45
Matrix: Water
Date Received: 04/24/20 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			04/26/20 02:27	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/26/20 02:27	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/26/20 02:27	1
Benzene	ND		1.0	0.41	ug/L			04/26/20 02:27	1
Chloromethane	ND		1.0	0.35	ug/L			04/26/20 02:27	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/26/20 02:27	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/26/20 02:27	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/26/20 02:27	1
Naphthalene	ND		1.0	0.43	ug/L			04/26/20 02:27	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/26/20 02:27	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/26/20 02:27	1
o-Xylene	ND		1.0	0.76	ug/L			04/26/20 02:27	1
Styrene	ND		1.0	0.73	ug/L			04/26/20 02:27	1
Toluene	ND		1.0	0.51	ug/L			04/26/20 02:27	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/26/20 02:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*04/26/20 02:27*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*04/26/20 02:27*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*04/26/20 02:27*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*04/26/20 02:27*	*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	H	1.0	0.34	ug/L		04/29/20 15:30	04/30/20 19:09	1

Client Sample ID: SUPE-W-30C-042120

Date Collected: 04/21/20 13:45
Date Received: 04/24/20 10:00

Lab Sample ID: 480-169009-8

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*107*		*24 - 146*	*04/29/20 15:30*	*04/30/20 19:09*	*1*
2-Fluorobiphenyl	*100*		*37 - 120*	*04/29/20 15:30*	*04/30/20 19:09*	*1*
2-Fluorophenol (Surr)	*48*		*10 - 120*	*04/29/20 15:30*	*04/30/20 19:09*	*1*
Nitrobenzene-d5 (Surr)	*83*		*26 - 120*	*04/29/20 15:30*	*04/30/20 19:09*	*1*
Phenol-d5 (Surr)	*32*		*11 - 120*	*04/29/20 15:30*	*04/30/20 19:09*	*1*
p-Terphenyl-d14	*104*		*64 - 127*	*04/29/20 15:30*	*04/30/20 19:09*	*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		04/27/20 17:28	04/28/20 16:42	1
1,2-Dichlorobenzene	ND		1.9	0.28	ug/L		04/27/20 17:28	04/28/20 16:42	1
1,3-Dichlorobenzene	ND		1.9	0.24	ug/L		04/27/20 17:28	04/28/20 16:42	1
1,4-Dichlorobenzene	ND		1.9	0.26	ug/L		04/27/20 17:28	04/28/20 16:42	1
1-Methylnaphthalene	ND		1.9	0.48	ug/L		04/27/20 17:28	04/28/20 16:42	1
bis(chloroisopropyl) ether	ND		1.9	0.29	ug/L		04/27/20 17:28	04/28/20 16:42	1
2,3,4,6-Tetrachlorophenol	ND		4.8	1.4	ug/L		04/27/20 17:28	04/28/20 16:42	1
2,4,5-Trichlorophenol	ND		9.5	2.2	ug/L		04/27/20 17:28	04/28/20 16:42	1
2,4,6-Trichlorophenol	ND		4.8	1.0	ug/L		04/27/20 17:28	04/28/20 16:42	1
2,4-Dichlorophenol	ND		9.5	2.2	ug/L		04/27/20 17:28	04/28/20 16:42	1
2,4-Dinitrophenol	ND		19	7.1	ug/L		04/27/20 17:28	04/28/20 16:42	1
2,4-Dinitrotoluene	ND		0.95	0.29	ug/L		04/27/20 17:28	04/28/20 16:42	1
2,6-Dinitrotoluene	ND		0.95	0.11	ug/L		04/27/20 17:28	04/28/20 16:42	1
3 & 4 Methylphenol	ND		1.9	0.42	ug/L		04/27/20 17:28	04/28/20 16:42	1
2-Chloronaphthalene	ND		1.9	0.32	ug/L		04/27/20 17:28	04/28/20 16:42	1
2-Chlorophenol	ND		4.8	0.76	ug/L		04/27/20 17:28	04/28/20 16:42	1
2-Methylnaphthalene	ND		1.9	0.12	ug/L		04/27/20 17:28	04/28/20 16:42	1
2-Methylphenol	ND		1.9	0.30	ug/L		04/27/20 17:28	04/28/20 16:42	1
2-Nitroaniline	ND		4.8	1.0	ug/L		04/27/20 17:28	04/28/20 16:42	1
2-Nitrophenol	ND		9.5	2.0	ug/L		04/27/20 17:28	04/28/20 16:42	1
3-Nitroaniline	ND		9.5	2.2	ug/L		04/27/20 17:28	04/28/20 16:42	1
4,6-Dinitro-2-methylphenol	ND		19	4.7	ug/L		04/27/20 17:28	04/28/20 16:42	1
4-Bromophenyl phenyl ether	ND		4.8	0.87	ug/L		04/27/20 17:28	04/28/20 16:42	1
4-Chloro-3-methylphenol	ND		9.5	2.1	ug/L		04/27/20 17:28	04/28/20 16:42	1
4-Chloroaniline	ND		9.5	2.0	ug/L		04/27/20 17:28	04/28/20 16:42	1
4-Chlorophenyl phenyl ether	ND		4.8	0.77	ug/L		04/27/20 17:28	04/28/20 16:42	1
4-Nitroaniline	ND		9.5	3.7	ug/L		04/27/20 17:28	04/28/20 16:42	1
4-Nitrophenol	ND		19	2.2	ug/L		04/27/20 17:28	04/28/20 16:42	1
Acenaphthene	ND		0.95	0.34	ug/L		04/27/20 17:28	04/28/20 16:42	1
Acenaphthylene	ND		0.95	0.30	ug/L		04/27/20 17:28	04/28/20 16:42	1
Anthracene	ND	*	0.95	0.30	ug/L		04/27/20 17:28	04/28/20 16:42	1
Benzo[a]pyrene	ND		0.19	0.053	ug/L		04/27/20 17:28	04/28/20 16:42	1
Benzo[b]fluoranthene	ND		0.19	0.055	ug/L		04/27/20 17:28	04/28/20 16:42	1
Benzo[g,h,i]perylene	ND		0.95	0.40	ug/L		04/27/20 17:28	04/28/20 16:42	1
Benzo[k]fluoranthene	ND		0.19	0.070	ug/L		04/27/20 17:28	04/28/20 16:42	1
Benzoic acid	ND		19	4.3	ug/L		04/27/20 17:28	04/28/20 16:42	1
Benzyl alcohol	ND		19	2.9	ug/L		04/27/20 17:28	04/28/20 16:42	1
Bis(2-chloroethoxy)methane	ND		1.9	0.29	ug/L		04/27/20 17:28	04/28/20 16:42	1
Bis(2-chloroethyl)ether	ND		1.9	0.33	ug/L		04/27/20 17:28	04/28/20 16:42	1
Bis(2-ethylhexyl) phthalate	ND		9.5	2.3	ug/L		04/27/20 17:28	04/28/20 16:42	1
Butyl benzyl phthalate	ND		1.9	0.26	ug/L		04/27/20 17:28	04/28/20 16:42	1

Client Sample ID: SUPE-W-30C-042120

Date Collected: 04/21/20 13:45
Date Received: 04/24/20 10:00

Lab Sample ID: 480-169009-8

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		0.48	0.13	ug/L		04/27/20 17:28	04/28/20 16:42	1
Dibenz(a,h)anthracene	ND		0.29	0.061	ug/L		04/27/20 17:28	04/28/20 16:42	1
Dibenzofuran	ND		1.9	0.33	ug/L		04/27/20 17:28	04/28/20 16:42	1
Diethyl phthalate	ND		1.9	0.42	ug/L		04/27/20 17:28	04/28/20 16:42	1
Dimethyl phthalate	ND	*	1.9	0.36	ug/L		04/27/20 17:28	04/28/20 16:42	1
Di-n-butyl phthalate	ND	*	4.8	0.76	ug/L		04/27/20 17:28	04/28/20 16:42	1
Di-n-octyl phthalate	ND		9.5	2.4	ug/L		04/27/20 17:28	04/28/20 16:42	1
2,3,5,6-Tetrachlorophenol	ND		4.8	2.4	ug/L		04/27/20 17:28	04/28/20 16:42	1
Fluoranthene	ND	*	0.95	0.30	ug/L		04/27/20 17:28	04/28/20 16:42	1
Fluorene	ND		0.95	0.36	ug/L		04/27/20 17:28	04/28/20 16:42	1
Hexachlorobenzene	ND	*	0.48	0.13	ug/L		04/27/20 17:28	04/28/20 16:42	1
Hexachlorobutadiene	ND		4.8	1.1	ug/L		04/27/20 17:28	04/28/20 16:42	1
Hexachlorocyclopentadiene	ND		19	3.3	ug/L		04/27/20 17:28	04/28/20 16:42	1
Hexachloroethane	ND		4.8	0.92	ug/L		04/27/20 17:28	04/28/20 16:42	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.080	ug/L		04/27/20 17:28	04/28/20 16:42	1
Isophorone	ND		1.9	0.28	ug/L		04/27/20 17:28	04/28/20 16:42	1
Nitrobenzene	ND		0.95	0.43	ug/L		04/27/20 17:28	04/28/20 16:42	1
N-Nitrosodi-n-propylamine	ND		0.48	0.13	ug/L		04/27/20 17:28	04/28/20 16:42	1
N-Nitrosodiphenylamine	ND		1.9	0.32	ug/L		04/27/20 17:28	04/28/20 16:42	1
Phenol	ND		4.8	0.34	ug/L		04/27/20 17:28	04/28/20 16:42	1
Pyrene	ND		0.95	0.46	ug/L		04/27/20 17:28	04/28/20 16:42	1
2,4-Dimethylphenol	ND		9.5	3.2	ug/L		04/27/20 17:28	04/28/20 16:42	1
Benzo[a]anthracene	ND		0.19	0.042	ug/L		04/27/20 17:28	04/28/20 16:42	1
Phenanthrene	ND		0.95	0.33	ug/L		04/27/20 17:28	04/28/20 16:42	1
3,3'-Dichlorobenzidine	ND		4.8	0.89	ug/L		04/27/20 17:28	04/28/20 16:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*137*		*40 - 145*	*04/27/20 17:28*	*04/28/20 16:42*	*1*
2-Fluorobiphenyl	*97*		*34 - 110*	*04/27/20 17:28*	*04/28/20 16:42*	*1*
2-Fluorophenol (Surr)	*55*		*27 - 110*	*04/27/20 17:28*	*04/28/20 16:42*	*1*
Nitrobenzene-d5 (Surr)	*82*		*36 - 120*	*04/27/20 17:28*	*04/28/20 16:42*	*1*
Phenol-d5 (Surr)	*23*		*20 - 100*	*04/27/20 17:28*	*04/28/20 16:42*	*1*
Terphenyl-d14 (Surr)	*117*		*40 - 145*	*04/27/20 17:28*	*04/28/20 16:42*	*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	0.18	pg/L		04/28/20 11:57	05/01/20 03:00	1
Total TCDD	**0.58**	**J I**	9.8	0.18	pg/L		04/28/20 11:57	05/01/20 03:00	1
1,2,3,7,8-PeCDD	ND		49	0.34	pg/L		04/28/20 11:57	05/01/20 03:00	1
Total PeCDD	ND		49	0.34	pg/L		04/28/20 11:57	05/01/20 03:00	1
1,2,3,4,7,8-HxCDD	ND		49	0.16	pg/L		04/28/20 11:57	05/01/20 03:00	1
1,2,3,6,7,8-HxCDD	**0.45**	**J I B**	49	0.17	pg/L		04/28/20 11:57	05/01/20 03:00	1
1,2,3,7,8,9-HxCDD	**0.53**	**J I B**	49	0.15	pg/L		04/28/20 11:57	05/01/20 03:00	1
Total HxCDD	**2.0**	**J I B**	49	0.16	pg/L		04/28/20 11:57	05/01/20 03:00	1
1,2,3,4,6,7,8-HpCDD	**5.2**	**J B**	49	0.23	pg/L		04/28/20 11:57	05/01/20 03:00	1
Total HpCDD	**9.1**	**J B**	49	0.23	pg/L		04/28/20 11:57	05/01/20 03:00	1
OCDD	**38**	**J B**	98	0.27	pg/L		04/28/20 11:57	05/01/20 03:00	1
2,3,7,8-TCDF	ND		9.8	0.14	pg/L		04/28/20 11:57	05/01/20 03:00	1
Total TCDF	**2.4**	**J I**	9.8	0.14	pg/L		04/28/20 11:57	05/01/20 03:00	1
1,2,3,7,8-PeCDF	ND		49	0.33	pg/L		04/28/20 11:57	05/01/20 03:00	1

Client Sample ID: SUPE-W-30C-042120

Lab Sample ID: 480-169009-8

Date Collected: 04/21/20 13:45
Matrix: Water
Date Received: 04/24/20 10:00

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,7,8-PeCDF	ND		49	0.30	pg/L		04/28/20 11:57	05/01/20 03:00	1
Total PeCDF	ND		49	0.33	pg/L		04/28/20 11:57	05/01/20 03:00	1
1,2,3,4,7,8-HxCDF	ND		49	0.30	pg/L		04/28/20 11:57	05/01/20 03:00	1
1,2,3,6,7,8-HxCDF	ND		49	0.32	pg/L		04/28/20 11:57	05/01/20 03:00	1
2,3,4,6,7,8-HxCDF	ND		49	0.30	pg/L		04/28/20 11:57	05/01/20 03:00	1
1,2,3,7,8,9-HxCDF	ND		49	0.30	pg/L		04/28/20 11:57	05/01/20 03:00	1
Total HxCDF	**2.6**	**J I B**	49	0.30	pg/L		04/28/20 11:57	05/01/20 03:00	1
1,2,3,4,6,7,8-HpCDF	**1.4**	**J I B**	49	0.16	pg/L		04/28/20 11:57	05/01/20 03:00	1
1,2,3,4,7,8,9-HpCDF	**0.54**	**J B**	49	0.19	pg/L		04/28/20 11:57	05/01/20 03:00	1
Total HpCDF	**5.2**	**J I B**	49	0.17	pg/L		04/28/20 11:57	05/01/20 03:00	1
OCDF	**3.7**	**J B**	98	0.22	pg/L		04/28/20 11:57	05/01/20 03:00	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*69*		*40 - 135*	*04/28/20 11:57*	*05/01/20 03:00*	*1*
13C-1,2,3,7,8-PeCDD	*69*		*40 - 135*	*04/28/20 11:57*	*05/01/20 03:00*	*1*
13C-1,2,3,4,7,8-HxCDD	*69*		*40 - 135*	*04/28/20 11:57*	*05/01/20 03:00*	*1*
13C-1,2,3,6,7,8-HxCDD	*69*		*40 - 135*	*04/28/20 11:57*	*05/01/20 03:00*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*92*		*40 - 135*	*04/28/20 11:57*	*05/01/20 03:00*	*1*
13C-OCDD	*77*		*40 - 135*	*04/28/20 11:57*	*05/01/20 03:00*	*1*
13C-2,3,7,8-TCDF	*71*		*40 - 135*	*04/28/20 11:57*	*05/01/20 03:00*	*1*
13C-1,2,3,7,8-PeCDF	*71*		*40 - 135*	*04/28/20 11:57*	*05/01/20 03:00*	*1*
13C-2,3,4,7,8-PeCDF	*66*		*40 - 135*	*04/28/20 11:57*	*05/01/20 03:00*	*1*
13C-1,2,3,4,7,8-HxCDF	*73*		*40 - 135*	*04/28/20 11:57*	*05/01/20 03:00*	*1*
13C-1,2,3,6,7,8-HxCDF	*65*		*40 - 135*	*04/28/20 11:57*	*05/01/20 03:00*	*1*
13C-2,3,4,6,7,8-HxCDF	*72*		*40 - 135*	*04/28/20 11:57*	*05/01/20 03:00*	*1*
13C-1,2,3,7,8,9-HxCDF	*80*		*40 - 135*	*04/28/20 11:57*	*05/01/20 03:00*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*78*		*40 - 135*	*04/28/20 11:57*	*05/01/20 03:00*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*92*		*40 - 135*	*04/28/20 11:57*	*05/01/20 03:00*	*1*
13C-OCDF	*78*		*40 - 135*	*04/28/20 11:57*	*05/01/20 03:00*	*1*

Client Sample ID: SUPE-W-12CR-042220

Lab Sample ID: 480-169009-9

Date Collected: 04/22/20 13:52
Matrix: Water
Date Received: 04/24/20 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			04/26/20 02:50	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/26/20 02:50	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/26/20 02:50	1
Benzene	ND		1.0	0.41	ug/L			04/26/20 02:50	1
Chloromethane	ND		1.0	0.35	ug/L			04/26/20 02:50	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/26/20 02:50	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/26/20 02:50	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/26/20 02:50	1
Naphthalene	ND		1.0	0.43	ug/L			04/26/20 02:50	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/26/20 02:50	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/26/20 02:50	1
o-Xylene	ND		1.0	0.76	ug/L			04/26/20 02:50	1
Styrene	ND		1.0	0.73	ug/L			04/26/20 02:50	1
Toluene	ND		1.0	0.51	ug/L			04/26/20 02:50	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/26/20 02:50	1

Client Sample ID: SUPE-W-12CR-042220

Date Collected: 04/22/20 13:52
Date Received: 04/24/20 10:00

Lab Sample ID: 480-169009-9

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*04/26/20 02:50*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*04/26/20 02:50*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*04/26/20 02:50*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*04/26/20 02:50*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	**0.41**	**J**	1.0	0.34	ug/L		04/29/20 15:30	04/30/20 19:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*105*		*24 - 146*	*04/29/20 15:30*	*04/30/20 19:37*	*1*
2-Fluorobiphenyl	*97*		*37 - 120*	*04/29/20 15:30*	*04/30/20 19:37*	*1*
2-Fluorophenol (Surr)	*51*		*10 - 120*	*04/29/20 15:30*	*04/30/20 19:37*	*1*
Nitrobenzene-d5 (Surr)	*83*		*26 - 120*	*04/29/20 15:30*	*04/30/20 19:37*	*1*
Phenol-d5 (Surr)	*33*		*11 - 120*	*04/29/20 15:30*	*04/30/20 19:37*	*1*
p-Terphenyl-d14	*111*		*64 - 127*	*04/29/20 15:30*	*04/30/20 19:37*	*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		04/27/20 17:28	04/28/20 18:04	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		04/27/20 17:28	04/28/20 18:04	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		04/27/20 17:28	04/28/20 18:04	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		04/27/20 17:28	04/28/20 18:04	1
1-Methylnaphthalene	ND		2.0	0.49	ug/L		04/27/20 17:28	04/28/20 18:04	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		04/27/20 17:28	04/28/20 18:04	1
2,3,4,6-Tetrachlorophenol	**1.6**	**J**	4.9	1.5	ug/L		04/27/20 17:28	04/28/20 18:04	1
2,4,5-Trichlorophenol	ND		9.8	2.3	ug/L		04/27/20 17:28	04/28/20 18:04	1
2,4,6-Trichlorophenol	**2.0**	**J**	4.9	1.1	ug/L		04/27/20 17:28	04/28/20 18:04	1
2,4-Dichlorophenol	ND		9.8	2.2	ug/L		04/27/20 17:28	04/28/20 18:04	1
2,4-Dinitrophenol	ND		20	7.3	ug/L		04/27/20 17:28	04/28/20 18:04	1
2,4-Dinitrotoluene	ND		0.98	0.30	ug/L		04/27/20 17:28	04/28/20 18:04	1
2,6-Dinitrotoluene	ND		0.98	0.12	ug/L		04/27/20 17:28	04/28/20 18:04	1
3 & 4 Methylphenol	ND		2.0	0.43	ug/L		04/27/20 17:28	04/28/20 18:04	1
2-Chloronaphthalene	ND		2.0	0.33	ug/L		04/27/20 17:28	04/28/20 18:04	1
2-Chlorophenol	ND		4.9	0.79	ug/L		04/27/20 17:28	04/28/20 18:04	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		04/27/20 17:28	04/28/20 18:04	1
2-Methylphenol	ND		2.0	0.31	ug/L		04/27/20 17:28	04/28/20 18:04	1
2-Nitroaniline	ND		4.9	1.1	ug/L		04/27/20 17:28	04/28/20 18:04	1
2-Nitrophenol	ND		9.8	2.1	ug/L		04/27/20 17:28	04/28/20 18:04	1
3-Nitroaniline	ND		9.8	2.3	ug/L		04/27/20 17:28	04/28/20 18:04	1
4,6-Dinitro-2-methylphenol	ND		20	4.8	ug/L		04/27/20 17:28	04/28/20 18:04	1
4-Bromophenyl phenyl ether	ND		4.9	0.90	ug/L		04/27/20 17:28	04/28/20 18:04	1
4-Chloro-3-methylphenol	ND		9.8	2.2	ug/L		04/27/20 17:28	04/28/20 18:04	1
4-Chloroaniline	ND		9.8	2.1	ug/L		04/27/20 17:28	04/28/20 18:04	1
4-Chlorophenyl phenyl ether	ND		4.9	0.80	ug/L		04/27/20 17:28	04/28/20 18:04	1
4-Nitroaniline	ND		9.8	3.9	ug/L		04/27/20 17:28	04/28/20 18:04	1
4-Nitrophenol	ND		20	2.3	ug/L		04/27/20 17:28	04/28/20 18:04	1
Acenaphthene	ND		0.98	0.35	ug/L		04/27/20 17:28	04/28/20 18:04	1
Acenaphthylene	ND		0.98	0.31	ug/L		04/27/20 17:28	04/28/20 18:04	1
Anthracene	ND	*	0.98	0.31	ug/L		04/27/20 17:28	04/28/20 18:04	1
Benzo[a]pyrene	ND		0.20	0.055	ug/L		04/27/20 17:28	04/28/20 18:04	1

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

Job ID: 480-169009-1

Client Sample ID: SUPE-W-12CR-042220
Date Collected: 04/22/20 13:52
Date Received: 04/24/20 10:00

Lab Sample ID: 480-169009-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	ND		0.20	0.057	ug/L		04/27/20 17:28	04/28/20 18:04	1
Benzo[g,h,i]perylene	ND		0.98	0.41	ug/L		04/27/20 17:28	04/28/20 18:04	1
Benzo[k]fluoranthene	ND		0.20	0.073	ug/L		04/27/20 17:28	04/28/20 18:04	1
Benzoic acid	ND		20	4.5	ug/L		04/27/20 17:28	04/28/20 18:04	1
Benzyl alcohol	ND		20	3.0	ug/L		04/27/20 17:28	04/28/20 18:04	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		04/27/20 17:28	04/28/20 18:04	1
Bis(2-chloroethyl)ether	ND		2.0	0.34	ug/L		04/27/20 17:28	04/28/20 18:04	1
Bis(2-ethylhexyl) phthalate	ND		9.8	2.4	ug/L		04/27/20 17:28	04/28/20 18:04	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		04/27/20 17:28	04/28/20 18:04	1
Chrysene	ND		0.49	0.14	ug/L		04/27/20 17:28	04/28/20 18:04	1
Dibenz(a,h)anthracene	ND		0.30	0.063	ug/L		04/27/20 17:28	04/28/20 18:04	1
Dibenzofuran	ND		2.0	0.34	ug/L		04/27/20 17:28	04/28/20 18:04	1
Diethyl phthalate	ND		2.0	0.43	ug/L		04/27/20 17:28	04/28/20 18:04	1
Dimethyl phthalate	ND	*	2.0	0.37	ug/L		04/27/20 17:28	04/28/20 18:04	1
Di-n-butyl phthalate	ND	*	4.9	0.79	ug/L		04/27/20 17:28	04/28/20 18:04	1
Di-n-octyl phthalate	ND		9.8	2.4	ug/L		04/27/20 17:28	04/28/20 18:04	1
2,3,5,6-Tetrachlorophenol	ND		4.9	2.5	ug/L		04/27/20 17:28	04/28/20 18:04	1
Fluoranthene	ND	*	0.98	0.31	ug/L		04/27/20 17:28	04/28/20 18:04	1
Fluorene	ND		0.98	0.37	ug/L		04/27/20 17:28	04/28/20 18:04	1
Hexachlorobenzene	ND	*	0.49	0.14	ug/L		04/27/20 17:28	04/28/20 18:04	1
Hexachlorobutadiene	ND		4.9	1.1	ug/L		04/27/20 17:28	04/28/20 18:04	1
Hexachlorocyclopentadiene	ND		20	3.4	ug/L		04/27/20 17:28	04/28/20 18:04	1
Hexachloroethane	ND		4.9	0.95	ug/L		04/27/20 17:28	04/28/20 18:04	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.083	ug/L		04/27/20 17:28	04/28/20 18:04	1
Isophorone	ND		2.0	0.29	ug/L		04/27/20 17:28	04/28/20 18:04	1
Nitrobenzene	ND		0.98	0.44	ug/L		04/27/20 17:28	04/28/20 18:04	1
N-Nitrosodi-n-propylamine	ND		0.49	0.14	ug/L		04/27/20 17:28	04/28/20 18:04	1
N-Nitrosodiphenylamine	ND		2.0	0.33	ug/L		04/27/20 17:28	04/28/20 18:04	1
Phenol	ND		4.9	0.35	ug/L		04/27/20 17:28	04/28/20 18:04	1
Pyrene	ND		0.98	0.47	ug/L		04/27/20 17:28	04/28/20 18:04	1
2,4-Dimethylphenol	ND		9.8	3.3	ug/L		04/27/20 17:28	04/28/20 18:04	1
Benzo[a]anthracene	ND		0.20	0.043	ug/L		04/27/20 17:28	04/28/20 18:04	1
Phenanthrene	ND		0.98	0.34	ug/L		04/27/20 17:28	04/28/20 18:04	1
3,3'-Dichlorobenzidine	ND		4.9	0.92	ug/L		04/27/20 17:28	04/28/20 18:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*147*	*X*	*40 - 145*	*04/27/20 17:28*	*04/28/20 18:04*	*1*
2-Fluorobiphenyl	*98*		*34 - 110*	*04/27/20 17:28*	*04/28/20 18:04*	*1*
2-Fluorophenol (Surr)	*59*		*27 - 110*	*04/27/20 17:28*	*04/28/20 18:04*	*1*
Nitrobenzene-d5 (Surr)	*84*		*36 - 120*	*04/27/20 17:28*	*04/28/20 18:04*	*1*
Phenol-d5 (Surr)	*25*		*20 - 100*	*04/27/20 17:28*	*04/28/20 18:04*	*1*
Terphenyl-d14 (Surr)	*118*		*40 - 145*	*04/27/20 17:28*	*04/28/20 18:04*	*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	0.13	pg/L		04/28/20 11:57	05/01/20 04:01	1
Total TCDD	**0.59**	**J I**	10	0.13	pg/L		04/28/20 11:57	05/01/20 04:01	1
1,2,3,7,8-PeCDD	ND		50	0.13	pg/L		04/28/20 11:57	05/01/20 04:01	1
Total PeCDD	**0.52**	**J I**	50	0.13	pg/L		04/28/20 11:57	05/01/20 04:01	1
1,2,3,4,7,8-HxCDD	ND		50	0.081	pg/L		04/28/20 11:57	05/01/20 04:01	1

Client Sample ID: SUPE-W-12CR-042220

Date Collected: 04/22/20 13:52
Date Received: 04/24/20 10:00

Lab Sample ID: 480-169009-9

Matrix: Water

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,6,7,8-HxCDD	ND		50	0.091	pg/L		04/28/20 11:57	05/01/20 04:01	1
1,2,3,7,8,9-HxCDD	**0.27**	**J I B**	50	0.080	pg/L		04/28/20 11:57	05/01/20 04:01	1
Total HxCDD	**2.6**	**J I B**	50	0.084	pg/L		04/28/20 11:57	05/01/20 04:01	1
1,2,3,4,6,7,8-HpCDD	**3.3**	**J B**	50	0.080	pg/L		04/28/20 11:57	05/01/20 04:01	1
Total HpCDD	**11**	**J B**	50	0.080	pg/L		04/28/20 11:57	05/01/20 04:01	1
OCDD	**41**	**J B**	100	0.12	pg/L		04/28/20 11:57	05/01/20 04:01	1
2,3,7,8-TCDF	ND		10	0.12	pg/L		04/28/20 11:57	05/01/20 04:01	1
Total TCDF	ND		10	0.12	pg/L		04/28/20 11:57	05/01/20 04:01	1
1,2,3,7,8-PeCDF	ND		50	0.17	pg/L		04/28/20 11:57	05/01/20 04:01	1
2,3,4,7,8-PeCDF	ND		50	0.16	pg/L		04/28/20 11:57	05/01/20 04:01	1
Total PeCDF	**0.31**	**J B**	50	0.17	pg/L		04/28/20 11:57	05/01/20 04:01	1
1,2,3,4,7,8-HxCDF	ND		50	0.19	pg/L		04/28/20 11:57	05/01/20 04:01	1
1,2,3,6,7,8-HxCDF	ND		50	0.20	pg/L		04/28/20 11:57	05/01/20 04:01	1
2,3,4,6,7,8-HxCDF	ND		50	0.18	pg/L		04/28/20 11:57	05/01/20 04:01	1
1,2,3,7,8,9-HxCDF	ND		50	0.18	pg/L		04/28/20 11:57	05/01/20 04:01	1
Total HxCDF	**1.3**	**J I B**	50	0.19	pg/L		04/28/20 11:57	05/01/20 04:01	1
1,2,3,4,6,7,8-HpCDF	**0.72**	**J B**	50	0.099	pg/L		04/28/20 11:57	05/01/20 04:01	1
1,2,3,4,7,8,9-HpCDF	ND		50	0.12	pg/L		04/28/20 11:57	05/01/20 04:01	1
Total HpCDF	**2.8**	**J B**	50	0.11	pg/L		04/28/20 11:57	05/01/20 04:01	1
OCDF	**2.7**	**J B**	100	0.12	pg/L		04/28/20 11:57	05/01/20 04:01	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*74*		*40 - 135*	*04/28/20 11:57*	*05/01/20 04:01*	*1*
13C-1,2,3,7,8-PeCDD	*78*		*40 - 135*	*04/28/20 11:57*	*05/01/20 04:01*	*1*
13C-1,2,3,4,7,8-HxCDD	*76*		*40 - 135*	*04/28/20 11:57*	*05/01/20 04:01*	*1*
13C-1,2,3,6,7,8-HxCDD	*72*		*40 - 135*	*04/28/20 11:57*	*05/01/20 04:01*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*97*		*40 - 135*	*04/28/20 11:57*	*05/01/20 04:01*	*1*
13C-OCDD	*79*		*40 - 135*	*04/28/20 11:57*	*05/01/20 04:01*	*1*
13C-2,3,7,8-TCDF	*78*		*40 - 135*	*04/28/20 11:57*	*05/01/20 04:01*	*1*
13C-1,2,3,7,8-PeCDF	*80*		*40 - 135*	*04/28/20 11:57*	*05/01/20 04:01*	*1*
13C-2,3,4,7,8-PeCDF	*72*		*40 - 135*	*04/28/20 11:57*	*05/01/20 04:01*	*1*
13C-1,2,3,4,7,8-HxCDF	*79*		*40 - 135*	*04/28/20 11:57*	*05/01/20 04:01*	*1*
13C-1,2,3,6,7,8-HxCDF	*70*		*40 - 135*	*04/28/20 11:57*	*05/01/20 04:01*	*1*
13C-2,3,4,6,7,8-HxCDF	*79*		*40 - 135*	*04/28/20 11:57*	*05/01/20 04:01*	*1*
13C-1,2,3,7,8,9-HxCDF	*88*		*40 - 135*	*04/28/20 11:57*	*05/01/20 04:01*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*81*		*40 - 135*	*04/28/20 11:57*	*05/01/20 04:01*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*99*		*40 - 135*	*04/28/20 11:57*	*05/01/20 04:01*	*1*
13C-OCDF	*83*		*40 - 135*	*04/28/20 11:57*	*05/01/20 04:01*	*1*

Client Sample ID: SUPE-W-30A-042220

Date Collected: 04/22/20 15:00
Date Received: 04/24/20 10:00

Lab Sample ID: 480-169009-10

Matrix: Water

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			04/26/20 03:14	2
1,2,4-Trimethylbenzene	**6.5**		2.0	1.5	ug/L			04/26/20 03:14	2
1,3,5-Trimethylbenzene	ND		2.0	1.5	ug/L			04/26/20 03:14	2
Benzene	**5.6**		2.0	0.82	ug/L			04/26/20 03:14	2
Chloromethane	ND		2.0	0.70	ug/L			04/26/20 03:14	2
Ethylbenzene	**17**		2.0	1.5	ug/L			04/26/20 03:14	2

Client Sample ID: SUPE-W-30A-042220
Lab Sample ID: 480-169009-10

Date Collected: 04/22/20 15:00
Matrix: Water
Date Received: 04/24/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		2.0	0.32	ug/L			04/26/20 03:14	2
m-Xylene & p-Xylene	**6.4**		4.0	1.3	ug/L			04/26/20 03:14	2
Naphthalene	**150**		2.0	0.86	ug/L			04/26/20 03:14	2
n-Butylbenzene	ND		2.0	1.3	ug/L			04/26/20 03:14	2
N-Propylbenzene	ND		2.0	1.4	ug/L			04/26/20 03:14	2
o-Xylene	**5.5**		2.0	1.5	ug/L			04/26/20 03:14	2
Styrene	ND		2.0	1.5	ug/L			04/26/20 03:14	2
Toluene	**1.5**	**J**	2.0	1.0	ug/L			04/26/20 03:14	2
Xylenes, Total	**12**		4.0	1.3	ug/L			04/26/20 03:14	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*04/26/20 03:14*	*2*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*04/26/20 03:14*	*2*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*04/26/20 03:14*	*2*
Toluene-d8 (Surr)	*99*		*80 - 120*		*04/26/20 03:14*	*2*

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		04/28/20 15:23	04/29/20 18:05	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*100*		*24 - 146*	*04/28/20 15:23*	*04/29/20 18:05*	*10*
2-Fluorobiphenyl	*94*		*37 - 120*	*04/28/20 15:23*	*04/29/20 18:05*	*10*
2-Fluorophenol (Surr)	*49*		*10 - 120*	*04/28/20 15:23*	*04/29/20 18:05*	*10*
Nitrobenzene-d5 (Surr)	*76*		*26 - 120*	*04/28/20 15:23*	*04/29/20 18:05*	*10*
Phenol-d5 (Surr)	*33*		*11 - 120*	*04/28/20 15:23*	*04/29/20 18:05*	*10*
p-Terphenyl-d14	*85*		*64 - 127*	*04/28/20 15:23*	*04/29/20 18:05*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.0	0.30	ug/L		04/27/20 17:28	04/28/20 19:00	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		04/27/20 17:28	04/28/20 19:00	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		04/27/20 17:28	04/28/20 19:00	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		04/27/20 17:28	04/28/20 19:00	1
1-Methylnaphthalene	**8.7**		2.0	0.51	ug/L		04/27/20 17:28	04/28/20 19:00	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		04/27/20 17:28	04/28/20 19:00	1
2,3,4,6-Tetrachlorophenol	ND		5.1	1.5	ug/L		04/27/20 17:28	04/28/20 19:00	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		04/27/20 17:28	04/28/20 19:00	1
2,4,6-Trichlorophenol	ND		5.1	1.1	ug/L		04/27/20 17:28	04/28/20 19:00	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		04/27/20 17:28	04/28/20 19:00	1
2,4-Dinitrophenol	ND		20	7.5	ug/L		04/27/20 17:28	04/28/20 19:00	1
2,4-Dinitrotoluene	ND		1.0	0.30	ug/L		04/27/20 17:28	04/28/20 19:00	1
2,6-Dinitrotoluene	ND		1.0	0.12	ug/L		04/27/20 17:28	04/28/20 19:00	1
3 & 4 Methylphenol	ND		2.0	0.45	ug/L		04/27/20 17:28	04/28/20 19:00	1
2-Chloronaphthalene	ND		2.0	0.35	ug/L		04/27/20 17:28	04/28/20 19:00	1
2-Chlorophenol	ND		5.1	0.81	ug/L		04/27/20 17:28	04/28/20 19:00	1
2-Methylnaphthalene	**0.22**	**J**	2.0	0.13	ug/L		04/27/20 17:28	04/28/20 19:00	1
2-Methylphenol	ND		2.0	0.31	ug/L		04/27/20 17:28	04/28/20 19:00	1
2-Nitroaniline	ND		5.1	1.1	ug/L		04/27/20 17:28	04/28/20 19:00	1
2-Nitrophenol	ND		10	2.2	ug/L		04/27/20 17:28	04/28/20 19:00	1

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

Job ID: 480-169009-1

Client Sample ID: SUPE-W-30A-042220
Date Collected: 04/22/20 15:00
Date Received: 04/24/20 10:00

Lab Sample ID: 480-169009-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Nitroaniline	ND		10	2.3	ug/L		04/27/20 17:28	04/28/20 19:00	1
4,6-Dinitro-2-methylphenol	ND		20	5.0	ug/L		04/27/20 17:28	04/28/20 19:00	1
4-Bromophenyl phenyl ether	ND		5.1	0.92	ug/L		04/27/20 17:28	04/28/20 19:00	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		04/27/20 17:28	04/28/20 19:00	1
4-Chloroaniline	ND		10	2.1	ug/L		04/27/20 17:28	04/28/20 19:00	1
4-Chlorophenyl phenyl ether	ND		5.1	0.82	ug/L		04/27/20 17:28	04/28/20 19:00	1
4-Nitroaniline	ND		10	4.0	ug/L		04/27/20 17:28	04/28/20 19:00	1
4-Nitrophenol	ND		20	2.4	ug/L		04/27/20 17:28	04/28/20 19:00	1
Acenaphthene	**23**		1.0	0.37	ug/L		04/27/20 17:28	04/28/20 19:00	1
Acenaphthylene	**0.56**	**J**	1.0	0.33	ug/L		04/27/20 17:28	04/28/20 19:00	1
Anthracene	**0.97**	**J ***	1.0	0.33	ug/L		04/27/20 17:28	04/28/20 19:00	1
Benzo[a]pyrene	ND		0.20	0.057	ug/L		04/27/20 17:28	04/28/20 19:00	1
Benzo[b]fluoranthene	**0.26**		0.20	0.059	ug/L		04/27/20 17:28	04/28/20 19:00	1
Benzo[g,h,i]perylene	ND		1.0	0.43	ug/L		04/27/20 17:28	04/28/20 19:00	1
Benzo[k]fluoranthene	**0.26**		0.20	0.075	ug/L		04/27/20 17:28	04/28/20 19:00	1
Benzoic acid	ND		20	4.6	ug/L		04/27/20 17:28	04/28/20 19:00	1
Benzyl alcohol	ND		20	3.1	ug/L		04/27/20 17:28	04/28/20 19:00	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		04/27/20 17:28	04/28/20 19:00	1
Bis(2-chloroethyl)ether	ND		2.0	0.36	ug/L		04/27/20 17:28	04/28/20 19:00	1
Bis(2-ethylhexyl) phthalate	ND		10	2.5	ug/L		04/27/20 17:28	04/28/20 19:00	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		04/27/20 17:28	04/28/20 19:00	1
Chrysene	**0.23**	**J**	0.51	0.14	ug/L		04/27/20 17:28	04/28/20 19:00	1
Dibenz(a,h)anthracene	ND		0.30	0.065	ug/L		04/27/20 17:28	04/28/20 19:00	1
Dibenzofuran	**7.5**		2.0	0.36	ug/L		04/27/20 17:28	04/28/20 19:00	1
Diethyl phthalate	ND		2.0	0.45	ug/L		04/27/20 17:28	04/28/20 19:00	1
Dimethyl phthalate	ND	*	2.0	0.39	ug/L		04/27/20 17:28	04/28/20 19:00	1
Di-n-butyl phthalate	ND	*	5.1	0.81	ug/L		04/27/20 17:28	04/28/20 19:00	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		04/27/20 17:28	04/28/20 19:00	1
2,3,5,6-Tetrachlorophenol	ND		5.1	2.5	ug/L		04/27/20 17:28	04/28/20 19:00	1
Fluoranthene	**1.4**	*****	1.0	0.33	ug/L		04/27/20 17:28	04/28/20 19:00	1
Fluorene	**6.0**		1.0	0.39	ug/L		04/27/20 17:28	04/28/20 19:00	1
Hexachlorobenzene	ND	*	0.51	0.14	ug/L		04/27/20 17:28	04/28/20 19:00	1
Hexachlorobutadiene	ND		5.1	1.1	ug/L		04/27/20 17:28	04/28/20 19:00	1
Hexachlorocyclopentadiene	ND		20	3.5	ug/L		04/27/20 17:28	04/28/20 19:00	1
Hexachloroethane	ND		5.1	0.99	ug/L		04/27/20 17:28	04/28/20 19:00	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.085	ug/L		04/27/20 17:28	04/28/20 19:00	1
Isophorone	ND		2.0	0.29	ug/L		04/27/20 17:28	04/28/20 19:00	1
Nitrobenzene	ND		1.0	0.46	ug/L		04/27/20 17:28	04/28/20 19:00	1
N-Nitrosodi-n-propylamine	ND		0.51	0.14	ug/L		04/27/20 17:28	04/28/20 19:00	1
N-Nitrosodiphenylamine	ND		2.0	0.35	ug/L		04/27/20 17:28	04/28/20 19:00	1
Phenol	ND		5.1	0.37	ug/L		04/27/20 17:28	04/28/20 19:00	1
Pyrene	**0.95**	**J**	1.0	0.49	ug/L		04/27/20 17:28	04/28/20 19:00	1
2,4-Dimethylphenol	ND		10	3.4	ug/L		04/27/20 17:28	04/28/20 19:00	1
Benzo[a]anthracene	**0.19**	**J**	0.20	0.045	ug/L		04/27/20 17:28	04/28/20 19:00	1
Phenanthrene	**1.5**		1.0	0.36	ug/L		04/27/20 17:28	04/28/20 19:00	1
3,3'-Dichlorobenzidine	ND		5.1	0.95	ug/L		04/27/20 17:28	04/28/20 19:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*133*		*40 - 145*	*04/27/20 17:28*	*04/28/20 19:00*	*1*
2-Fluorobiphenyl	*83*		*34 - 110*	*04/27/20 17:28*	*04/28/20 19:00*	*1*

Client Sample ID: SUPE-W-30A-042220
Lab Sample ID: 480-169009-10

Date Collected: 04/22/20 15:00
Matrix: Water
Date Received: 04/24/20 10:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	*57*		*27 - 110*	*04/27/20 17:28*	*04/28/20 19:00*	*1*
Nitrobenzene-d5 (Surr)	*77*		*36 - 120*	*04/27/20 17:28*	*04/28/20 19:00*	*1*
Phenol-d5 (Surr)	*27*		*20 - 100*	*04/27/20 17:28*	*04/28/20 19:00*	*1*
Terphenyl-d14 (Surr)	*107*		*40 - 145*	*04/27/20 17:28*	*04/28/20 19:00*	*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		9.7	0.19	pg/L		04/28/20 11:57	05/01/20 05:02	1
Total TCDD	ND		9.7	0.19	pg/L		04/28/20 11:57	05/01/20 05:02	1
1,2,3,7,8-PeCDD	ND		48	0.25	pg/L		04/28/20 11:57	05/01/20 05:02	1
Total PeCDD	ND		48	0.25	pg/L		04/28/20 11:57	05/01/20 05:02	1
1,2,3,4,7,8-HxCDD	**1.0**	**J**	48	0.17	pg/L		04/28/20 11:57	05/01/20 05:02	1
1,2,3,6,7,8-HxCDD	**8.5**	**J B**	48	0.17	pg/L		04/28/20 11:57	05/01/20 05:02	1
1,2,3,7,8,9-HxCDD	**1.9**	**J B**	48	0.16	pg/L		04/28/20 11:57	05/01/20 05:02	1
Total HxCDD	**35**	**J I B**	48	0.17	pg/L		04/28/20 11:57	05/01/20 05:02	1
1,2,3,4,6,7,8-HpCDD	**210**	**B**	48	0.68	pg/L		04/28/20 11:57	05/01/20 05:02	1
Total HpCDD	**460**	**B**	48	0.68	pg/L		04/28/20 11:57	05/01/20 05:02	1
OCDD	**2800**	**B**	97	0.053	pg/L		04/28/20 11:57	05/01/20 05:02	1
2,3,7,8-TCDF	ND		9.7	0.16	pg/L		04/28/20 11:57	05/01/20 05:02	1
Total TCDF	**17**	**I**	9.7	0.16	pg/L		04/28/20 11:57	05/01/20 05:02	1
1,2,3,7,8-PeCDF	**0.55**	**J B**	48	0.28	pg/L		04/28/20 11:57	05/01/20 05:02	1
2,3,4,7,8-PeCDF	**1.1**	**J I**	48	0.29	pg/L		04/28/20 11:57	05/01/20 05:02	1
Total PeCDF	**78**	**I B**	48	0.29	pg/L		04/28/20 11:57	05/01/20 05:02	1
1,2,3,4,7,8-HxCDF	**8.8**	**J B**	48	1.5	pg/L		04/28/20 11:57	05/01/20 05:02	1
1,2,3,6,7,8-HxCDF	**2.2**	**J B**	48	1.5	pg/L		04/28/20 11:57	05/01/20 05:02	1
2,3,4,6,7,8-HxCDF	ND		48	1.5	pg/L		04/28/20 11:57	05/01/20 05:02	1
1,2,3,7,8,9-HxCDF	ND		48	1.5	pg/L		04/28/20 11:57	05/01/20 05:02	1
Total HxCDF	**220**	**I B**	48	1.5	pg/L		04/28/20 11:57	05/01/20 05:02	1
1,2,3,4,6,7,8-HpCDF	**70**	**B**	48	0.17	pg/L		04/28/20 11:57	05/01/20 05:02	1
1,2,3,4,7,8,9-HpCDF	**6.8**	**J B**	48	0.23	pg/L		04/28/20 11:57	05/01/20 05:02	1
Total HpCDF	**270**	**B**	48	0.20	pg/L		04/28/20 11:57	05/01/20 05:02	1
OCDF	**200**	**B**	97	0.097	pg/L		04/28/20 11:57	05/01/20 05:02	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	*74*		*40 - 135*	*04/28/20 11:57*	*05/01/20 05:02*	*1*
13C-1,2,3,7,8-PeCDD	*76*		*40 - 135*	*04/28/20 11:57*	*05/01/20 05:02*	*1*
13C-1,2,3,4,7,8-HxCDD	*76*		*40 - 135*	*04/28/20 11:57*	*05/01/20 05:02*	*1*
13C-1,2,3,6,7,8-HxCDD	*72*		*40 - 135*	*04/28/20 11:57*	*05/01/20 05:02*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*94*		*40 - 135*	*04/28/20 11:57*	*05/01/20 05:02*	*1*
13C-OCDD	*86*		*40 - 135*	*04/28/20 11:57*	*05/01/20 05:02*	*1*
13C-2,3,7,8-TCDF	*75*		*40 - 135*	*04/28/20 11:57*	*05/01/20 05:02*	*1*
13C-1,2,3,7,8-PeCDF	*86*		*40 - 135*	*04/28/20 11:57*	*05/01/20 05:02*	*1*
13C-2,3,4,7,8-PeCDF	*72*		*40 - 135*	*04/28/20 11:57*	*05/01/20 05:02*	*1*
13C-1,2,3,4,7,8-HxCDF	*80*		*40 - 135*	*04/28/20 11:57*	*05/01/20 05:02*	*1*
13C-1,2,3,6,7,8-HxCDF	*73*		*40 - 135*	*04/28/20 11:57*	*05/01/20 05:02*	*1*
13C-2,3,4,6,7,8-HxCDF	*77*		*40 - 135*	*04/28/20 11:57*	*05/01/20 05:02*	*1*
13C-1,2,3,7,8,9-HxCDF	*87*		*40 - 135*	*04/28/20 11:57*	*05/01/20 05:02*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*83*		*40 - 135*	*04/28/20 11:57*	*05/01/20 05:02*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*97*		*40 - 135*	*04/28/20 11:57*	*05/01/20 05:02*	*1*
13C-OCDF	*83*		*40 - 135*	*04/28/20 11:57*	*05/01/20 05:02*	*1*

Client Sample ID: SUPE-W-06A-042120
Lab Sample ID: 480-169009-11

Date Collected: 04/21/20 15:35
Matrix: Water
Date Received: 04/24/20 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			04/26/20 03:37	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/26/20 03:37	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/26/20 03:37	1
Benzene	ND		1.0	0.41	ug/L			04/26/20 03:37	1
Chloromethane	ND		1.0	0.35	ug/L			04/26/20 03:37	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/26/20 03:37	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/26/20 03:37	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/26/20 03:37	1
Naphthalene	**2.1**		1.0	0.43	ug/L			04/26/20 03:37	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/26/20 03:37	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/26/20 03:37	1
o-Xylene	ND		1.0	0.76	ug/L			04/26/20 03:37	1
Styrene	ND		1.0	0.73	ug/L			04/26/20 03:37	1
Toluene	ND		1.0	0.51	ug/L			04/26/20 03:37	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/26/20 03:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*04/26/20 03:37*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*04/26/20 03:37*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*04/26/20 03:37*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*04/26/20 03:37*	*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		04/28/20 15:23	04/29/20 18:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*101*		*24 - 146*	*04/28/20 15:23*	*04/29/20 18:34*	*1*
2-Fluorobiphenyl	*103*		*37 - 120*	*04/28/20 15:23*	*04/29/20 18:34*	*1*
2-Fluorophenol (Surr)	*55*		*10 - 120*	*04/28/20 15:23*	*04/29/20 18:34*	*1*
Nitrobenzene-d5 (Surr)	*89*		*26 - 120*	*04/28/20 15:23*	*04/29/20 18:34*	*1*
Phenol-d5 (Surr)	*38*		*11 - 120*	*04/28/20 15:23*	*04/29/20 18:34*	*1*
p-Terphenyl-d14	*111*		*64 - 127*	*04/28/20 15:23*	*04/29/20 18:34*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.0	0.29	ug/L		04/27/20 17:28	04/28/20 18:32	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		04/27/20 17:28	04/28/20 18:32	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		04/27/20 17:28	04/28/20 18:32	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		04/27/20 17:28	04/28/20 18:32	1
1-Methylnaphthalene	ND		2.0	0.49	ug/L		04/27/20 17:28	04/28/20 18:32	1
bis(chloroisopropyl) ether	ND		2.0	0.29	ug/L		04/27/20 17:28	04/28/20 18:32	1
2,3,4,6-Tetrachlorophenol	ND		4.9	1.5	ug/L		04/27/20 17:28	04/28/20 18:32	1
2,4,5-Trichlorophenol	ND		9.8	2.3	ug/L		04/27/20 17:28	04/28/20 18:32	1
2,4,6-Trichlorophenol	ND		4.9	1.1	ug/L		04/27/20 17:28	04/28/20 18:32	1
2,4-Dichlorophenol	ND		9.8	2.2	ug/L		04/27/20 17:28	04/28/20 18:32	1
2,4-Dinitrophenol	ND		20	7.3	ug/L		04/27/20 17:28	04/28/20 18:32	1
2,4-Dinitrotoluene	ND		0.98	0.29	ug/L		04/27/20 17:28	04/28/20 18:32	1
2,6-Dinitrotoluene	ND		0.98	0.12	ug/L		04/27/20 17:28	04/28/20 18:32	1
3 & 4 Methylphenol	ND		2.0	0.43	ug/L		04/27/20 17:28	04/28/20 18:32	1

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

Job ID: 480-169009-1

Client Sample ID: SUPE-W-06A-042120
Date Collected: 04/21/20 15:35
Date Received: 04/24/20 10:00

Lab Sample ID: 480-169009-11
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	ND		2.0	0.33	ug/L		04/27/20 17:28	04/28/20 18:32	1
2-Chlorophenol	ND		4.9	0.79	ug/L		04/27/20 17:28	04/28/20 18:32	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		04/27/20 17:28	04/28/20 18:32	1
2-Methylphenol	ND		2.0	0.30	ug/L		04/27/20 17:28	04/28/20 18:32	1
2-Nitroaniline	ND		4.9	1.1	ug/L		04/27/20 17:28	04/28/20 18:32	1
2-Nitrophenol	ND		9.8	2.1	ug/L		04/27/20 17:28	04/28/20 18:32	1
3-Nitroaniline	ND		9.8	2.3	ug/L		04/27/20 17:28	04/28/20 18:32	1
4,6-Dinitro-2-methylphenol	ND		20	4.8	ug/L		04/27/20 17:28	04/28/20 18:32	1
4-Bromophenyl phenyl ether	ND		4.9	0.89	ug/L		04/27/20 17:28	04/28/20 18:32	1
4-Chloro-3-methylphenol	ND		9.8	2.2	ug/L		04/27/20 17:28	04/28/20 18:32	1
4-Chloroaniline	ND		9.8	2.1	ug/L		04/27/20 17:28	04/28/20 18:32	1
4-Chlorophenyl phenyl ether	ND		4.9	0.80	ug/L		04/27/20 17:28	04/28/20 18:32	1
4-Nitroaniline	ND		9.8	3.9	ug/L		04/27/20 17:28	04/28/20 18:32	1
4-Nitrophenol	ND		20	2.3	ug/L		04/27/20 17:28	04/28/20 18:32	1
Acenaphthene	ND		0.98	0.35	ug/L		04/27/20 17:28	04/28/20 18:32	1
Acenaphthylene	ND		0.98	0.31	ug/L		04/27/20 17:28	04/28/20 18:32	1
Anthracene	ND	*	0.98	0.31	ug/L		04/27/20 17:28	04/28/20 18:32	1
Benzo[a]pyrene	ND		0.20	0.055	ug/L		04/27/20 17:28	04/28/20 18:32	1
Benzo[b]fluoranthene	ND		0.20	0.057	ug/L		04/27/20 17:28	04/28/20 18:32	1
Benzo[g,h,i]perylene	ND		0.98	0.41	ug/L		04/27/20 17:28	04/28/20 18:32	1
Benzo[k]fluoranthene	ND		0.20	0.073	ug/L		04/27/20 17:28	04/28/20 18:32	1
Benzoic acid	ND		20	4.5	ug/L		04/27/20 17:28	04/28/20 18:32	1
Benzyl alcohol	ND		20	3.0	ug/L		04/27/20 17:28	04/28/20 18:32	1
Bis(2-chloroethoxy)methane	ND		2.0	0.29	ug/L		04/27/20 17:28	04/28/20 18:32	1
Bis(2-chloroethyl)ether	ND		2.0	0.34	ug/L		04/27/20 17:28	04/28/20 18:32	1
Bis(2-ethylhexyl) phthalate	**2.4**	**J**	9.8	2.4	ug/L		04/27/20 17:28	04/28/20 18:32	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		04/27/20 17:28	04/28/20 18:32	1
Chrysene	ND		0.49	0.14	ug/L		04/27/20 17:28	04/28/20 18:32	1
Dibenz(a,h)anthracene	ND		0.29	0.063	ug/L		04/27/20 17:28	04/28/20 18:32	1
Dibenzofuran	ND		2.0	0.34	ug/L		04/27/20 17:28	04/28/20 18:32	1
Diethyl phthalate	ND		2.0	0.43	ug/L		04/27/20 17:28	04/28/20 18:32	1
Dimethyl phthalate	ND	*	2.0	0.37	ug/L		04/27/20 17:28	04/28/20 18:32	1
Di-n-butyl phthalate	ND	*	4.9	0.79	ug/L		04/27/20 17:28	04/28/20 18:32	1
Di-n-octyl phthalate	ND		9.8	2.4	ug/L		04/27/20 17:28	04/28/20 18:32	1
2,3,5,6-Tetrachlorophenol	ND		4.9	2.5	ug/L		04/27/20 17:28	04/28/20 18:32	1
Fluoranthene	ND	*	0.98	0.31	ug/L		04/27/20 17:28	04/28/20 18:32	1
Fluorene	ND		0.98	0.37	ug/L		04/27/20 17:28	04/28/20 18:32	1
Hexachlorobenzene	ND	*	0.49	0.14	ug/L		04/27/20 17:28	04/28/20 18:32	1
Hexachlorobutadiene	ND		4.9	1.1	ug/L		04/27/20 17:28	04/28/20 18:32	1
Hexachlorocyclopentadiene	ND		20	3.4	ug/L		04/27/20 17:28	04/28/20 18:32	1
Hexachloroethane	ND		4.9	0.95	ug/L		04/27/20 17:28	04/28/20 18:32	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.083	ug/L		04/27/20 17:28	04/28/20 18:32	1
Isophorone	ND		2.0	0.29	ug/L		04/27/20 17:28	04/28/20 18:32	1
Nitrobenzene	ND		0.98	0.44	ug/L		04/27/20 17:28	04/28/20 18:32	1
N-Nitrosodi-n-propylamine	ND		0.49	0.14	ug/L		04/27/20 17:28	04/28/20 18:32	1
N-Nitrosodiphenylamine	ND		2.0	0.33	ug/L		04/27/20 17:28	04/28/20 18:32	1
Phenol	ND		4.9	0.35	ug/L		04/27/20 17:28	04/28/20 18:32	1
Pyrene	ND		0.98	0.47	ug/L		04/27/20 17:28	04/28/20 18:32	1
2,4-Dimethylphenol	ND		9.8	3.3	ug/L		04/27/20 17:28	04/28/20 18:32	1

Client Sample ID: SUPE-W-06A-042120

Date Collected: 04/21/20 15:35
Date Received: 04/24/20 10:00

Lab Sample ID: 480-169009-11

Matrix: Water

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	0.043	ug/L		04/27/20 17:28	04/28/20 18:32	1
Phenanthrene	ND		0.98	0.34	ug/L		04/27/20 17:28	04/28/20 18:32	1
3,3'-Dichlorobenzidine	ND		4.9	0.92	ug/L		04/27/20 17:28	04/28/20 18:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*133*		*40 - 145*	*04/27/20 17:28*	*04/28/20 18:32*	*1*
2-Fluorobiphenyl	*90*		*34 - 110*	*04/27/20 17:28*	*04/28/20 18:32*	*1*
2-Fluorophenol (Surr)	*53*		*27 - 110*	*04/27/20 17:28*	*04/28/20 18:32*	*1*
Nitrobenzene-d5 (Surr)	*76*		*36 - 120*	*04/27/20 17:28*	*04/28/20 18:32*	*1*
Phenol-d5 (Surr)	*23*		*20 - 100*	*04/27/20 17:28*	*04/28/20 18:32*	*1*
Terphenyl-d14 (Surr)	*116*		*40 - 145*	*04/27/20 17:28*	*04/28/20 18:32*	*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	0.13	pg/L		04/28/20 11:57	05/01/20 06:03	1
Total TCDD	**0.80**	**J I**	10	0.13	pg/L		04/28/20 11:57	05/01/20 06:03	1
1,2,3,7,8-PeCDD	ND		51	0.34	pg/L		04/28/20 11:57	05/01/20 06:03	1
Total PeCDD	ND		51	0.34	pg/L		04/28/20 11:57	05/01/20 06:03	1
1,2,3,4,7,8-HxCDD	ND		51	0.12	pg/L		04/28/20 11:57	05/01/20 06:03	1
1,2,3,6,7,8-HxCDD	ND		51	0.13	pg/L		04/28/20 11:57	05/01/20 06:03	1
1,2,3,7,8,9-HxCDD	ND		51	0.12	pg/L		04/28/20 11:57	05/01/20 06:03	1
Total HxCDD	**2.4**	**J I B**	51	0.12	pg/L		04/28/20 11:57	05/01/20 06:03	1
1,2,3,4,6,7,8-HpCDD	**5.0**	**J B**	51	0.28	pg/L		04/28/20 11:57	05/01/20 06:03	1
Total HpCDD	**14**	**J B**	51	0.28	pg/L		04/28/20 11:57	05/01/20 06:03	1
OCDD	**72**	**J B**	100	0.10	pg/L		04/28/20 11:57	05/01/20 06:03	1
2,3,7,8-TCDF	**0.24**	**J I**	10	0.12	pg/L		04/28/20 11:57	05/01/20 06:03	1
Total TCDF	**0.78**	**J I**	10	0.12	pg/L		04/28/20 11:57	05/01/20 06:03	1
1,2,3,7,8-PeCDF	ND		51	0.20	pg/L		04/28/20 11:57	05/01/20 06:03	1
2,3,4,7,8-PeCDF	ND		51	0.19	pg/L		04/28/20 11:57	05/01/20 06:03	1
Total PeCDF	ND		51	0.20	pg/L		04/28/20 11:57	05/01/20 06:03	1
1,2,3,4,7,8-HxCDF	ND		51	0.16	pg/L		04/28/20 11:57	05/01/20 06:03	1
1,2,3,6,7,8-HxCDF	ND		51	0.16	pg/L		04/28/20 11:57	05/01/20 06:03	1
2,3,4,6,7,8-HxCDF	**0.52**	**J I B**	51	0.16	pg/L		04/28/20 11:57	05/01/20 06:03	1
1,2,3,7,8,9-HxCDF	ND		51	0.16	pg/L		04/28/20 11:57	05/01/20 06:03	1
Total HxCDF	**0.52**	**J I B**	51	0.16	pg/L		04/28/20 11:57	05/01/20 06:03	1
1,2,3,4,6,7,8-HpCDF	**1.4**	**J I B**	51	0.18	pg/L		04/28/20 11:57	05/01/20 06:03	1
1,2,3,4,7,8,9-HpCDF	ND		51	0.23	pg/L		04/28/20 11:57	05/01/20 06:03	1
Total HpCDF	**4.6**	**J I B**	51	0.20	pg/L		04/28/20 11:57	05/01/20 06:03	1
OCDF	**5.0**	**J B**	100	0.17	pg/L		04/28/20 11:57	05/01/20 06:03	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*73*		*40 - 135*	*04/28/20 11:57*	*05/01/20 06:03*	*1*
13C-1,2,3,7,8-PeCDD	*79*		*40 - 135*	*04/28/20 11:57*	*05/01/20 06:03*	*1*
13C-1,2,3,4,7,8-HxCDD	*73*		*40 - 135*	*04/28/20 11:57*	*05/01/20 06:03*	*1*
13C-1,2,3,6,7,8-HxCDD	*72*		*40 - 135*	*04/28/20 11:57*	*05/01/20 06:03*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*93*		*40 - 135*	*04/28/20 11:57*	*05/01/20 06:03*	*1*
13C-OCDD	*80*		*40 - 135*	*04/28/20 11:57*	*05/01/20 06:03*	*1*
13C-2,3,7,8-TCDF	*78*		*40 - 135*	*04/28/20 11:57*	*05/01/20 06:03*	*1*
13C-1,2,3,7,8-PeCDF	*80*		*40 - 135*	*04/28/20 11:57*	*05/01/20 06:03*	*1*
13C-2,3,4,7,8-PeCDF	*71*		*40 - 135*	*04/28/20 11:57*	*05/01/20 06:03*	*1*
13C-1,2,3,4,7,8-HxCDF	*79*		*40 - 135*	*04/28/20 11:57*	*05/01/20 06:03*	*1*

Client Sample ID: SUPE-W-06A-042120
Lab Sample ID: 480-169009-11
Date Collected: 04/21/20 15:35
Matrix: Water
Date Received: 04/24/20 10:00

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	71		40 - 135	04/28/20 11:57	05/01/20 06:03	1
13C-2,3,4,6,7,8-HxCDF	78		40 - 135	04/28/20 11:57	05/01/20 06:03	1
13C-1,2,3,7,8,9-HxCDF	85		40 - 135	04/28/20 11:57	05/01/20 06:03	1
13C-1,2,3,4,6,7,8-HpCDF	80		40 - 135	04/28/20 11:57	05/01/20 06:03	1
13C-1,2,3,4,7,8,9-HpCDF	94		40 - 135	04/28/20 11:57	05/01/20 06:03	1
13C-OCDF	81		40 - 135	04/28/20 11:57	05/01/20 06:03	1

Client Sample ID: SUPE-W-10AR2-042220
Lab Sample ID: 480-169009-12
Date Collected: 04/22/20 17:00
Matrix: Water
Date Received: 04/24/20 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			04/26/20 04:00	1
1,2,4-Trimethylbenzene	**9.8**		1.0	0.75	ug/L			04/26/20 04:00	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/26/20 04:00	1
Benzene	**18**		1.0	0.41	ug/L			04/26/20 04:00	1
Chloromethane	ND		1.0	0.35	ug/L			04/26/20 04:00	1
Ethylbenzene	**44**		1.0	0.74	ug/L			04/26/20 04:00	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/26/20 04:00	1
m-Xylene & p-Xylene	**3.6**		2.0	0.66	ug/L			04/26/20 04:00	1
Naphthalene	**1.9**		1.0	0.43	ug/L			04/26/20 04:00	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/26/20 04:00	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/26/20 04:00	1
o-Xylene	**18**		1.0	0.76	ug/L			04/26/20 04:00	1
Styrene	ND		1.0	0.73	ug/L			04/26/20 04:00	1
Toluene	**2.4**		1.0	0.51	ug/L			04/26/20 04:00	1
Xylenes, Total	**22**		2.0	0.66	ug/L			04/26/20 04:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		77 - 120		04/26/20 04:00	1
4-Bromofluorobenzene (Surr)	100		73 - 120		04/26/20 04:00	1
Dibromofluoromethane (Surr)	102		75 - 123		04/26/20 04:00	1
Toluene-d8 (Surr)	100		80 - 120		04/26/20 04:00	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		04/28/20 15:23	04/29/20 19:02	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	115		24 - 146	04/28/20 15:23	04/29/20 19:02	5
2-Fluorobiphenyl	106		37 - 120	04/28/20 15:23	04/29/20 19:02	5
2-Fluorophenol (Surr)	54		10 - 120	04/28/20 15:23	04/29/20 19:02	5
Nitrobenzene-d5 (Surr)	88		26 - 120	04/28/20 15:23	04/29/20 19:02	5
Phenol-d5 (Surr)	35		11 - 120	04/28/20 15:23	04/29/20 19:02	5
p-Terphenyl-d14	95		64 - 127	04/28/20 15:23	04/29/20 19:02	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		04/27/20 17:28	04/28/20 19:27	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		04/27/20 17:28	04/28/20 19:27	1

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

Job ID: 480-169009-1

Client Sample ID: SUPE-W-10AR2-042220
Date Collected: 04/22/20 17:00
Date Received: 04/24/20 10:00

Lab Sample ID: 480-169009-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		04/27/20 17:28	04/28/20 19:27	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		04/27/20 17:28	04/28/20 19:27	1
1-Methylnaphthalene	**48**		2.0	0.50	ug/L		04/27/20 17:28	04/28/20 19:27	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		04/27/20 17:28	04/28/20 19:27	1
2,3,4,6-Tetrachlorophenol	ND		5.0	1.5	ug/L		04/27/20 17:28	04/28/20 19:27	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		04/27/20 17:28	04/28/20 19:27	1
2,4,6-Trichlorophenol	ND		5.0	1.1	ug/L		04/27/20 17:28	04/28/20 19:27	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		04/27/20 17:28	04/28/20 19:27	1
2,4-Dinitrophenol	ND		20	7.5	ug/L		04/27/20 17:28	04/28/20 19:27	1
2,4-Dinitrotoluene	ND		1.0	0.30	ug/L		04/27/20 17:28	04/28/20 19:27	1
2,6-Dinitrotoluene	ND		1.0	0.12	ug/L		04/27/20 17:28	04/28/20 19:27	1
3 & 4 Methylphenol	ND		2.0	0.44	ug/L		04/27/20 17:28	04/28/20 19:27	1
2-Chloronaphthalene	ND		2.0	0.34	ug/L		04/27/20 17:28	04/28/20 19:27	1
2-Chlorophenol	ND		5.0	0.80	ug/L		04/27/20 17:28	04/28/20 19:27	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		04/27/20 17:28	04/28/20 19:27	1
2-Methylphenol	ND		2.0	0.31	ug/L		04/27/20 17:28	04/28/20 19:27	1
2-Nitroaniline	ND		5.0	1.1	ug/L		04/27/20 17:28	04/28/20 19:27	1
2-Nitrophenol	ND		10	2.1	ug/L		04/27/20 17:28	04/28/20 19:27	1
3-Nitroaniline	ND		10	2.3	ug/L		04/27/20 17:28	04/28/20 19:27	1
4,6-Dinitro-2-methylphenol	ND		20	4.9	ug/L		04/27/20 17:28	04/28/20 19:27	1
4-Bromophenyl phenyl ether	ND		5.0	0.91	ug/L		04/27/20 17:28	04/28/20 19:27	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		04/27/20 17:28	04/28/20 19:27	1
4-Chloroaniline	ND		10	2.1	ug/L		04/27/20 17:28	04/28/20 19:27	1
4-Chlorophenyl phenyl ether	ND		5.0	0.81	ug/L		04/27/20 17:28	04/28/20 19:27	1
4-Nitroaniline	ND		10	3.9	ug/L		04/27/20 17:28	04/28/20 19:27	1
4-Nitrophenol	ND		20	2.3	ug/L		04/27/20 17:28	04/28/20 19:27	1
Acenaphthylene	ND		1.0	0.32	ug/L		04/27/20 17:28	04/28/20 19:27	1
Anthracene	**1.1**	*	1.0	0.32	ug/L		04/27/20 17:28	04/28/20 19:27	1
Benzo[a]pyrene	**0.30**		0.20	0.056	ug/L		04/27/20 17:28	04/28/20 19:27	1
Benzo[b]fluoranthene	**0.22**		0.20	0.058	ug/L		04/27/20 17:28	04/28/20 19:27	1
Benzo[g,h,i]perylene	ND		1.0	0.42	ug/L		04/27/20 17:28	04/28/20 19:27	1
Benzo[k]fluoranthene	**0.27**		0.20	0.074	ug/L		04/27/20 17:28	04/28/20 19:27	1
Benzoic acid	ND		20	4.6	ug/L		04/27/20 17:28	04/28/20 19:27	1
Benzyl alcohol	ND		20	3.1	ug/L		04/27/20 17:28	04/28/20 19:27	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		04/27/20 17:28	04/28/20 19:27	1
Bis(2-chloroethyl)ether	ND		2.0	0.35	ug/L		04/27/20 17:28	04/28/20 19:27	1
Bis(2-ethylhexyl) phthalate	ND		10	2.4	ug/L		04/27/20 17:28	04/28/20 19:27	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		04/27/20 17:28	04/28/20 19:27	1
Chrysene	**0.30**	**J**	0.50	0.14	ug/L		04/27/20 17:28	04/28/20 19:27	1
Dibenz(a,h)anthracene	ND		0.30	0.064	ug/L		04/27/20 17:28	04/28/20 19:27	1
Dibenzofuran	**34**		2.0	0.35	ug/L		04/27/20 17:28	04/28/20 19:27	1
Diethyl phthalate	ND		2.0	0.44	ug/L		04/27/20 17:28	04/28/20 19:27	1
Dimethyl phthalate	ND	*	2.0	0.38	ug/L		04/27/20 17:28	04/28/20 19:27	1
Di-n-butyl phthalate	ND	*	5.0	0.80	ug/L		04/27/20 17:28	04/28/20 19:27	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		04/27/20 17:28	04/28/20 19:27	1
2,3,5,6-Tetrachlorophenol	ND		5.0	2.5	ug/L		04/27/20 17:28	04/28/20 19:27	1
Fluoranthene	**3.0**	*	1.0	0.32	ug/L		04/27/20 17:28	04/28/20 19:27	1
Fluorene	**28**		1.0	0.38	ug/L		04/27/20 17:28	04/28/20 19:27	1
Hexachlorobenzene	ND	*	0.50	0.14	ug/L		04/27/20 17:28	04/28/20 19:27	1

Client Sample ID: SUPE-W-10AR2-042220

Date Collected: 04/22/20 17:00
Date Received: 04/24/20 10:00

Lab Sample ID: 480-169009-12

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		5.0	1.1	ug/L		04/27/20 17:28	04/28/20 19:27	1
Hexachlorocyclopentadiene	ND		20	3.4	ug/L		04/27/20 17:28	04/28/20 19:27	1
Hexachloroethane	ND		5.0	0.97	ug/L		04/27/20 17:28	04/28/20 19:27	1
Indeno[1,2,3-cd]pyrene	**0.13**	**J**	0.20	0.084	ug/L		04/27/20 17:28	04/28/20 19:27	1
Isophorone	ND		2.0	0.29	ug/L		04/27/20 17:28	04/28/20 19:27	1
Nitrobenzene	ND		1.0	0.45	ug/L		04/27/20 17:28	04/28/20 19:27	1
N-Nitrosodi-n-propylamine	ND		0.50	0.14	ug/L		04/27/20 17:28	04/28/20 19:27	1
N-Nitrosodiphenylamine	ND		2.0	0.34	ug/L		04/27/20 17:28	04/28/20 19:27	1
Phenol	ND		5.0	0.36	ug/L		04/27/20 17:28	04/28/20 19:27	1
Pyrene	**1.7**		1.0	0.48	ug/L		04/27/20 17:28	04/28/20 19:27	1
2,4-Dimethylphenol	ND		10	3.3	ug/L		04/27/20 17:28	04/28/20 19:27	1
Benzo[a]anthracene	**0.22**		0.20	0.044	ug/L		04/27/20 17:28	04/28/20 19:27	1
Phenanthrene	**11**		1.0	0.35	ug/L		04/27/20 17:28	04/28/20 19:27	1
3,3'-Dichlorobenzidine	ND		5.0	0.94	ug/L		04/27/20 17:28	04/28/20 19:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*132*		*40 - 145*	*04/27/20 17:28*	*04/28/20 19:27*	*1*
2-Fluorobiphenyl	*93*		*34 - 110*	*04/27/20 17:28*	*04/28/20 19:27*	*1*
2-Fluorophenol (Surr)	*60*		*27 - 110*	*04/27/20 17:28*	*04/28/20 19:27*	*1*
Nitrobenzene-d5 (Surr)	*81*		*36 - 120*	*04/27/20 17:28*	*04/28/20 19:27*	*1*
Phenol-d5 (Surr)	*30*		*20 - 100*	*04/27/20 17:28*	*04/28/20 19:27*	*1*
Terphenyl-d14 (Surr)	*105*		*40 - 145*	*04/27/20 17:28*	*04/28/20 19:27*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**120**		5.0	1.8	ug/L		04/27/20 17:28	04/28/20 22:14	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*163*	*X*	*40 - 145*	*04/27/20 17:28*	*04/28/20 22:14*	*5*
2-Fluorobiphenyl	*103*		*34 - 110*	*04/27/20 17:28*	*04/28/20 22:14*	*5*
2-Fluorophenol (Surr)	*63*		*27 - 110*	*04/27/20 17:28*	*04/28/20 22:14*	*5*
Nitrobenzene-d5 (Surr)	*83*		*36 - 120*	*04/27/20 17:28*	*04/28/20 22:14*	*5*
Phenol-d5 (Surr)	*25*		*20 - 100*	*04/27/20 17:28*	*04/28/20 22:14*	*5*
Terphenyl-d14 (Surr)	*122*		*40 - 145*	*04/27/20 17:28*	*04/28/20 22:14*	*5*

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	0.34	pg/L		04/28/20 11:57	05/01/20 12:44	1
Total TCDD	**0.70**	**J I**	10	0.34	pg/L		04/28/20 11:57	05/01/20 12:44	1
1,2,3,7,8-PeCDD	ND		52	0.19	pg/L		04/28/20 11:57	05/01/20 12:44	1
Total PeCDD	ND		52	0.19	pg/L		04/28/20 11:57	05/01/20 12:44	1
1,2,3,4,7,8-HxCDD	ND		52	0.15	pg/L		04/28/20 11:57	05/01/20 12:44	1
1,2,3,6,7,8-HxCDD	**0.80**	**J I B**	52	0.16	pg/L		04/28/20 11:57	05/01/20 12:44	1
1,2,3,7,8,9-HxCDD	**0.90**	**J B**	52	0.15	pg/L		04/28/20 11:57	05/01/20 12:44	1
Total HxCDD	**8.1**	**J I B**	52	0.15	pg/L		04/28/20 11:57	05/01/20 12:44	1
1,2,3,4,6,7,8-HpCDD	**18**	**J B**	52	0.65	pg/L		04/28/20 11:57	05/01/20 12:44	1
Total HpCDD	**69**	**B**	52	0.65	pg/L		04/28/20 11:57	05/01/20 12:44	1
OCDD	**200**	**B**	100	0.24	pg/L		04/28/20 11:57	05/01/20 12:44	1
2,3,7,8-TCDF	**0.19**	**J I**	10	0.16	pg/L		04/28/20 11:57	05/01/20 12:44	1
Total TCDF	**2.4**	**J I**	10	0.16	pg/L		04/28/20 11:57	05/01/20 12:44	1

Client Sample ID: SUPE-W-10AR2-042220

Lab Sample ID: 480-169009-12

Date Collected: 04/22/20 17:00

Matrix: Water

Date Received: 04/24/20 10:00

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,7,8-PeCDF	ND		52	0.16	pg/L		04/28/20 11:57	05/01/20 12:44	1
2,3,4,7,8-PeCDF	**0.37**	**J I**	52	0.16	pg/L		04/28/20 11:57	05/01/20 12:44	1
Total PeCDF	**4.8**	**J I B**	52	0.16	pg/L		04/28/20 11:57	05/01/20 12:44	1
1,2,3,4,7,8-HxCDF	ND		52	0.40	pg/L		04/28/20 11:57	05/01/20 12:44	1
1,2,3,6,7,8-HxCDF	ND		52	0.43	pg/L		04/28/20 11:57	05/01/20 12:44	1
2,3,4,6,7,8-HxCDF	ND		52	0.43	pg/L		04/28/20 11:57	05/01/20 12:44	1
1,2,3,7,8,9-HxCDF	ND		52	0.41	pg/L		04/28/20 11:57	05/01/20 12:44	1
Total HxCDF	**10**	**J I B**	52	0.42	pg/L		04/28/20 11:57	05/01/20 12:44	1
1,2,3,4,6,7,8-HpCDF	**2.5**	**J B**	52	0.13	pg/L		04/28/20 11:57	05/01/20 12:44	1
1,2,3,4,7,8,9-HpCDF	**0.65**	**J B**	52	0.17	pg/L		04/28/20 11:57	05/01/20 12:44	1
Total HpCDF	**9.8**	**J B**	52	0.15	pg/L		04/28/20 11:57	05/01/20 12:44	1
OCDF	**11**	**J B**	100	0.56	pg/L		04/28/20 11:57	05/01/20 12:44	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*73*		*40 - 135*	*04/28/20 11:57*	*05/01/20 12:44*	*1*
13C-1,2,3,7,8-PeCDD	*77*		*40 - 135*	*04/28/20 11:57*	*05/01/20 12:44*	*1*
13C-1,2,3,4,7,8-HxCDD	*75*		*40 - 135*	*04/28/20 11:57*	*05/01/20 12:44*	*1*
13C-1,2,3,6,7,8-HxCDD	*75*		*40 - 135*	*04/28/20 11:57*	*05/01/20 12:44*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*97*		*40 - 135*	*04/28/20 11:57*	*05/01/20 12:44*	*1*
13C-OCDD	*76*		*40 - 135*	*04/28/20 11:57*	*05/01/20 12:44*	*1*
13C-2,3,7,8-TCDF	*76*		*40 - 135*	*04/28/20 11:57*	*05/01/20 12:44*	*1*
13C-1,2,3,7,8-PeCDF	*87*		*40 - 135*	*04/28/20 11:57*	*05/01/20 12:44*	*1*
13C-2,3,4,7,8-PeCDF	*72*		*40 - 135*	*04/28/20 11:57*	*05/01/20 12:44*	*1*
13C-1,2,3,4,7,8-HxCDF	*85*		*40 - 135*	*04/28/20 11:57*	*05/01/20 12:44*	*1*
13C-1,2,3,6,7,8-HxCDF	*76*		*40 - 135*	*04/28/20 11:57*	*05/01/20 12:44*	*1*
13C-2,3,4,6,7,8-HxCDF	*80*		*40 - 135*	*04/28/20 11:57*	*05/01/20 12:44*	*1*
13C-1,2,3,7,8,9-HxCDF	*88*		*40 - 135*	*04/28/20 11:57*	*05/01/20 12:44*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*85*		*40 - 135*	*04/28/20 11:57*	*05/01/20 12:44*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*100*		*40 - 135*	*04/28/20 11:57*	*05/01/20 12:44*	*1*
13C-OCDF	*80*		*40 - 135*	*04/28/20 11:57*	*05/01/20 12:44*	*1*

Client Sample ID: SUPE-W-06C-042120

Lab Sample ID: 480-169009-13

Date Collected: 04/21/20 17:30

Matrix: Water

Date Received: 04/24/20 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			04/26/20 04:24	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/26/20 04:24	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/26/20 04:24	1
Benzene	ND		1.0	0.41	ug/L			04/26/20 04:24	1
Chloromethane	ND		1.0	0.35	ug/L			04/26/20 04:24	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/26/20 04:24	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/26/20 04:24	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/26/20 04:24	1
Naphthalene	ND		1.0	0.43	ug/L			04/26/20 04:24	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/26/20 04:24	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/26/20 04:24	1
o-Xylene	ND		1.0	0.76	ug/L			04/26/20 04:24	1
Styrene	ND		1.0	0.73	ug/L			04/26/20 04:24	1
Toluene	ND		1.0	0.51	ug/L			04/26/20 04:24	1

Client Sample ID: SUPE-W-06C-042120

Date Collected: 04/21/20 17:30
Date Received: 04/24/20 10:00

Lab Sample ID: 480-169009-13

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		2.0	0.66	ug/L			04/26/20 04:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*04/26/20 04:24*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*04/26/20 04:24*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*04/26/20 04:24*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*04/26/20 04:24*	*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		04/28/20 15:23	04/29/20 17:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*102*		*24 - 146*	*04/28/20 15:23*	*04/29/20 17:37*	*1*
2-Fluorobiphenyl	*100*		*37 - 120*	*04/28/20 15:23*	*04/29/20 17:37*	*1*
2-Fluorophenol (Surr)	*53*		*10 - 120*	*04/28/20 15:23*	*04/29/20 17:37*	*1*
Nitrobenzene-d5 (Surr)	*85*		*26 - 120*	*04/28/20 15:23*	*04/29/20 17:37*	*1*
Phenol-d5 (Surr)	*36*		*11 - 120*	*04/28/20 15:23*	*04/29/20 17:37*	*1*
p-Terphenyl-d14	*102*		*64 - 127*	*04/28/20 15:23*	*04/29/20 17:37*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND	F2	1.9	0.28	ug/L		04/27/20 17:28	04/28/20 14:23	1
1,2-Dichlorobenzene	ND		1.9	0.28	ug/L		04/27/20 17:28	04/28/20 14:23	1
1,3-Dichlorobenzene	ND		1.9	0.24	ug/L		04/27/20 17:28	04/28/20 14:23	1
1,4-Dichlorobenzene	ND		1.9	0.26	ug/L		04/27/20 17:28	04/28/20 14:23	1
1-Methylnaphthalene	ND		1.9	0.47	ug/L		04/27/20 17:28	04/28/20 14:23	1
bis(chloroisopropyl) ether	ND		1.9	0.28	ug/L		04/27/20 17:28	04/28/20 14:23	1
2,3,4,6-Tetrachlorophenol	ND		4.7	1.4	ug/L		04/27/20 17:28	04/28/20 14:23	1
2,4,5-Trichlorophenol	ND		9.5	2.2	ug/L		04/27/20 17:28	04/28/20 14:23	1
2,4,6-Trichlorophenol	ND		4.7	1.0	ug/L		04/27/20 17:28	04/28/20 14:23	1
2,4-Dichlorophenol	ND		9.5	2.2	ug/L		04/27/20 17:28	04/28/20 14:23	1
2,4-Dinitrophenol	ND		19	7.0	ug/L		04/27/20 17:28	04/28/20 14:23	1
2,4-Dinitrotoluene	ND		0.95	0.28	ug/L		04/27/20 17:28	04/28/20 14:23	1
2,6-Dinitrotoluene	ND		0.95	0.11	ug/L		04/27/20 17:28	04/28/20 14:23	1
3 & 4 Methylphenol	ND		1.9	0.42	ug/L		04/27/20 17:28	04/28/20 14:23	1
2-Chloronaphthalene	ND		1.9	0.32	ug/L		04/27/20 17:28	04/28/20 14:23	1
2-Chlorophenol	ND		4.7	0.76	ug/L		04/27/20 17:28	04/28/20 14:23	1
2-Methylnaphthalene	ND	F2	1.9	0.12	ug/L		04/27/20 17:28	04/28/20 14:23	1
2-Methylphenol	ND		1.9	0.29	ug/L		04/27/20 17:28	04/28/20 14:23	1
2-Nitroaniline	ND		4.7	1.0	ug/L		04/27/20 17:28	04/28/20 14:23	1
2-Nitrophenol	ND		9.5	2.0	ug/L		04/27/20 17:28	04/28/20 14:23	1
3-Nitroaniline	ND		9.5	2.2	ug/L		04/27/20 17:28	04/28/20 14:23	1
4,6-Dinitro-2-methylphenol	ND		19	4.7	ug/L		04/27/20 17:28	04/28/20 14:23	1
4-Bromophenyl phenyl ether	ND		4.7	0.86	ug/L		04/27/20 17:28	04/28/20 14:23	1
4-Chloro-3-methylphenol	ND		9.5	2.1	ug/L		04/27/20 17:28	04/28/20 14:23	1
4-Chloroaniline	ND		9.5	2.0	ug/L		04/27/20 17:28	04/28/20 14:23	1
4-Chlorophenyl phenyl ether	ND		4.7	0.77	ug/L		04/27/20 17:28	04/28/20 14:23	1
4-Nitroaniline	ND		9.5	3.7	ug/L		04/27/20 17:28	04/28/20 14:23	1
4-Nitrophenol	ND		19	2.2	ug/L		04/27/20 17:28	04/28/20 14:23	1

Client Sample ID: SUPE-W-06C-042120
Date Collected: 04/21/20 17:30
Date Received: 04/24/20 10:00

Lab Sample ID: 480-169009-13
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.95	0.34	ug/L		04/27/20 17:28	04/28/20 14:23	1
Acenaphthylene	ND		0.95	0.30	ug/L		04/27/20 17:28	04/28/20 14:23	1
Anthracene	ND	F1 *	0.95	0.30	ug/L		04/27/20 17:28	04/28/20 14:23	1
Benzo[a]pyrene	ND		0.19	0.053	ug/L		04/27/20 17:28	04/28/20 14:23	1
Benzo[b]fluoranthene	ND		0.19	0.055	ug/L		04/27/20 17:28	04/28/20 14:23	1
Benzo[g,h,i]perylene	ND		0.95	0.40	ug/L		04/27/20 17:28	04/28/20 14:23	1
Benzo[k]fluoranthene	ND		0.19	0.070	ug/L		04/27/20 17:28	04/28/20 14:23	1
Benzoic acid	ND		19	4.3	ug/L		04/27/20 17:28	04/28/20 14:23	1
Benzyl alcohol	ND		19	2.9	ug/L		04/27/20 17:28	04/28/20 14:23	1
Bis(2-chloroethoxy)methane	ND		1.9	0.28	ug/L		04/27/20 17:28	04/28/20 14:23	1
Bis(2-chloroethyl)ether	ND		1.9	0.33	ug/L		04/27/20 17:28	04/28/20 14:23	1
Bis(2-ethylhexyl) phthalate	ND		9.5	2.3	ug/L		04/27/20 17:28	04/28/20 14:23	1
Butyl benzyl phthalate	ND		1.9	0.26	ug/L		04/27/20 17:28	04/28/20 14:23	1
Chrysene	ND		0.47	0.13	ug/L		04/27/20 17:28	04/28/20 14:23	1
Dibenz(a,h)anthracene	ND		0.28	0.061	ug/L		04/27/20 17:28	04/28/20 14:23	1
Dibenzofuran	ND		1.9	0.33	ug/L		04/27/20 17:28	04/28/20 14:23	1
Diethyl phthalate	ND		1.9	0.42	ug/L		04/27/20 17:28	04/28/20 14:23	1
Dimethyl phthalate	ND	*	1.9	0.36	ug/L		04/27/20 17:28	04/28/20 14:23	1
Di-n-butyl phthalate	ND	*	4.7	0.76	ug/L		04/27/20 17:28	04/28/20 14:23	1
Di-n-octyl phthalate	ND		9.5	2.3	ug/L		04/27/20 17:28	04/28/20 14:23	1
2,3,5,6-Tetrachlorophenol	ND		4.7	2.4	ug/L		04/27/20 17:28	04/28/20 14:23	1
Fluoranthene	ND	*	0.95	0.30	ug/L		04/27/20 17:28	04/28/20 14:23	1
Fluorene	ND		0.95	0.36	ug/L		04/27/20 17:28	04/28/20 14:23	1
Hexachlorobenzene	ND	F1 *	0.47	0.13	ug/L		04/27/20 17:28	04/28/20 14:23	1
Hexachlorobutadiene	ND	F2	4.7	1.1	ug/L		04/27/20 17:28	04/28/20 14:23	1
Hexachlorocyclopentadiene	ND	F2	19	3.3	ug/L		04/27/20 17:28	04/28/20 14:23	1
Hexachloroethane	ND	F2	4.7	0.92	ug/L		04/27/20 17:28	04/28/20 14:23	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.080	ug/L		04/27/20 17:28	04/28/20 14:23	1
Isophorone	ND		1.9	0.28	ug/L		04/27/20 17:28	04/28/20 14:23	1
Nitrobenzene	ND		0.95	0.43	ug/L		04/27/20 17:28	04/28/20 14:23	1
N-Nitrosodi-n-propylamine	ND		0.47	0.13	ug/L		04/27/20 17:28	04/28/20 14:23	1
N-Nitrosodiphenylamine	ND		1.9	0.32	ug/L		04/27/20 17:28	04/28/20 14:23	1
Phenol	ND		4.7	0.34	ug/L		04/27/20 17:28	04/28/20 14:23	1
Pyrene	ND		0.95	0.46	ug/L		04/27/20 17:28	04/28/20 14:23	1
2,4-Dimethylphenol	ND		9.5	3.2	ug/L		04/27/20 17:28	04/28/20 14:23	1
Benzo[a]anthracene	ND		0.19	0.042	ug/L		04/27/20 17:28	04/28/20 14:23	1
Phenanthrene	ND		0.95	0.33	ug/L		04/27/20 17:28	04/28/20 14:23	1
3,3'-Dichlorobenzidine	ND		4.7	0.89	ug/L		04/27/20 17:28	04/28/20 14:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*136*		*40 - 145*	*04/27/20 17:28*	*04/28/20 14:23*	*1*
2-Fluorobiphenyl	*97*		*34 - 110*	*04/27/20 17:28*	*04/28/20 14:23*	*1*
2-Fluorophenol (Surr)	*58*		*27 - 110*	*04/27/20 17:28*	*04/28/20 14:23*	*1*
Nitrobenzene-d5 (Surr)	*78*		*36 - 120*	*04/27/20 17:28*	*04/28/20 14:23*	*1*
Phenol-d5 (Surr)	*24*		*20 - 100*	*04/27/20 17:28*	*04/28/20 14:23*	*1*
Terphenyl-d14 (Surr)	*111*		*40 - 145*	*04/27/20 17:28*	*04/28/20 14:23*	*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	0.20	pg/L		04/28/20 11:57	05/01/20 13:45	1

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

Job ID: 480-169009-1

Client Sample ID: SUPE-W-06C-042120
Date Collected: 04/21/20 17:30
Date Received: 04/24/20 10:00

Lab Sample ID: 480-169009-13
Matrix: Water

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TCDD	**0.62**	**J I**	10	0.20	pg/L		04/28/20 11:57	05/01/20 13:45	1
1,2,3,7,8-PeCDD	ND		51	0.33	pg/L		04/28/20 11:57	05/01/20 13:45	1
Total PeCDD	ND		51	0.33	pg/L		04/28/20 11:57	05/01/20 13:45	1
1,2,3,4,7,8-HxCDD	ND		51	0.16	pg/L		04/28/20 11:57	05/01/20 13:45	1
1,2,3,6,7,8-HxCDD	**0.35**	**J I B**	51	0.16	pg/L		04/28/20 11:57	05/01/20 13:45	1
1,2,3,7,8,9-HxCDD	**0.36**	**J I B**	51	0.15	pg/L		04/28/20 11:57	05/01/20 13:45	1
Total HxCDD	**2.0**	**J I B**	51	0.16	pg/L		04/28/20 11:57	05/01/20 13:45	1
1,2,3,4,6,7,8-HpCDD	**1.5**	**J I B**	51	0.23	pg/L		04/28/20 11:57	05/01/20 13:45	1
Total HpCDD	**4.4**	**J I B**	51	0.23	pg/L		04/28/20 11:57	05/01/20 13:45	1
OCDD	**12**	**J B**	100	0.16	pg/L		04/28/20 11:57	05/01/20 13:45	1
2,3,7,8-TCDF	ND		10	0.15	pg/L		04/28/20 11:57	05/01/20 13:45	1
Total TCDF	ND		10	0.15	pg/L		04/28/20 11:57	05/01/20 13:45	1
1,2,3,7,8-PeCDF	ND		51	0.36	pg/L		04/28/20 11:57	05/01/20 13:45	1
2,3,4,7,8-PeCDF	ND		51	0.32	pg/L		04/28/20 11:57	05/01/20 13:45	1
Total PeCDF	ND		51	0.36	pg/L		04/28/20 11:57	05/01/20 13:45	1
1,2,3,4,7,8-HxCDF	ND		51	0.30	pg/L		04/28/20 11:57	05/01/20 13:45	1
1,2,3,6,7,8-HxCDF	ND		51	0.30	pg/L		04/28/20 11:57	05/01/20 13:45	1
2,3,4,6,7,8-HxCDF	ND		51	0.29	pg/L		04/28/20 11:57	05/01/20 13:45	1
1,2,3,7,8,9-HxCDF	ND		51	0.29	pg/L		04/28/20 11:57	05/01/20 13:45	1
Total HxCDF	ND		51	0.30	pg/L		04/28/20 11:57	05/01/20 13:45	1
1,2,3,4,6,7,8-HpCDF	ND		51	0.10	pg/L		04/28/20 11:57	05/01/20 13:45	1
1,2,3,4,7,8,9-HpCDF	ND		51	0.13	pg/L		04/28/20 11:57	05/01/20 13:45	1
Total HpCDF	**0.27**	**J B**	51	0.11	pg/L		04/28/20 11:57	05/01/20 13:45	1
OCDF	**1.7**	**J I B**	100	0.12	pg/L		04/28/20 11:57	05/01/20 13:45	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*64*		*40 - 135*	*04/28/20 11:57*	*05/01/20 13:45*	*1*
13C-1,2,3,7,8-PeCDD	*66*		*40 - 135*	*04/28/20 11:57*	*05/01/20 13:45*	*1*
13C-1,2,3,4,7,8-HxCDD	*69*		*40 - 135*	*04/28/20 11:57*	*05/01/20 13:45*	*1*
13C-1,2,3,6,7,8-HxCDD	*65*		*40 - 135*	*04/28/20 11:57*	*05/01/20 13:45*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*87*		*40 - 135*	*04/28/20 11:57*	*05/01/20 13:45*	*1*
13C-OCDD	*72*		*40 - 135*	*04/28/20 11:57*	*05/01/20 13:45*	*1*
13C-2,3,7,8-TCDF	*67*		*40 - 135*	*04/28/20 11:57*	*05/01/20 13:45*	*1*
13C-1,2,3,7,8-PeCDF	*66*		*40 - 135*	*04/28/20 11:57*	*05/01/20 13:45*	*1*
13C-2,3,4,7,8-PeCDF	*62*		*40 - 135*	*04/28/20 11:57*	*05/01/20 13:45*	*1*
13C-1,2,3,4,7,8-HxCDF	*71*		*40 - 135*	*04/28/20 11:57*	*05/01/20 13:45*	*1*
13C-1,2,3,6,7,8-HxCDF	*65*		*40 - 135*	*04/28/20 11:57*	*05/01/20 13:45*	*1*
13C-2,3,4,6,7,8-HxCDF	*70*		*40 - 135*	*04/28/20 11:57*	*05/01/20 13:45*	*1*
13C-1,2,3,7,8,9-HxCDF	*80*		*40 - 135*	*04/28/20 11:57*	*05/01/20 13:45*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*76*		*40 - 135*	*04/28/20 11:57*	*05/01/20 13:45*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*91*		*40 - 135*	*04/28/20 11:57*	*05/01/20 13:45*	*1*
13C-OCDF	*77*		*40 - 135*	*04/28/20 11:57*	*05/01/20 13:45*	*1*

Surrogate Summary

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

Job ID: 480-169009-1

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)
480-169009-1	SUPE-M99-A-042120	103	98	103	98
480-169009-2	SUPE-TB-01-042220	103	100	102	100
480-169009-3	SUPE-W-28C-042220	104	100	102	98
480-169009-4	SUPE-W-12A-042220	103	100	104	99
480-169009-6	SUPE-W-04AR2-042220	101	100	103	99
480-169009-7	SUPE-EB-01-042220	103	100	103	98
480-169009-8	SUPE-W-30C-042120	102	101	102	99
480-169009-9	SUPE-W-12CR-042220	104	98	102	100
480-169009-10	SUPE-W-30A-042220	103	100	102	99
480-169009-11	SUPE-W-06A-042120	103	99	103	99
480-169009-12	SUPE-W-10AR2-042220	102	100	102	100
480-169009-13	SUPE-W-06C-042120	104	100	102	99
480-169009-13 MS	SUPE-W-06C-042120	103	100	103	100
480-169009-13 MSD	SUPE-W-06C-042120	99	102	101	100
LCS 480-528085/6	Lab Control Sample	102	100	103	100
MB 480-528085/9	Method Blank	103	99	102	98

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)
480-169009-1	SUPE-M99-A-042120	135	97	63	79	27	114
480-169009-3	SUPE-W-28C-042220	136	94	55	78	23	113
480-169009-4	SUPE-W-12A-042220	132	91	58	80	27	116
480-169009-5	SUPE-W-18D-042220	139	96	62	81	30	113
480-169009-6	SUPE-W-04AR2-042220	132	93	51	85	24	102
480-169009-7	SUPE-EB-01-042220	135	95	55	79	22	115
480-169009-8	SUPE-W-30C-042120	137	97	55	82	23	117
480-169009-9	SUPE-W-12CR-042220	147 X	98	59	84	25	118
480-169009-10	SUPE-W-30A-042220	133	83	57	77	27	107
480-169009-11	SUPE-W-06A-042120	133	90	53	76	23	116
480-169009-12	SUPE-W-10AR2-042220	132	93	60	81	30	105
480-169009-12 - DL	SUPE-W-10AR2-042220	163 X	103	63	83	25	122
480-169009-13	SUPE-W-06C-042120	136	97	58	78	24	111
480-169009-13 MS	SUPE-W-06C-042120	134	103	62	87	34	102
480-169009-13 MSD	SUPE-W-06C-042120	129	100	64	84	33	100
LCS 500-539931/2-A	Lab Control Sample	132	99	69	89	39	107
MB 500-539931/1-A	Method Blank	124	86	68	79	29	118

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)

Surrogate Summary

Client: Field & Technical Services LLC
Job ID: 480-169009-1
Project/Site: Superior, WI Semiannual Groundwater

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)							
Lab Sample ID	Client Sample ID	TBP (24-146)	FBP (37-120)	2FP (10-120)	NBZ (26-120)	PHL (11-120)	TPHd14 (64-127)		
480-169009-1	SUPE-M99-A-042120	100	97	49	83	33	107		
480-169009-3	SUPE-W-28C-042220	98	101	52	85	35	107		
480-169009-4	SUPE-W-12A-042220	104	105	53	88	36	116		
480-169009-5	SUPE-W-18D-042220	113	104	55	88	36	102		
480-169009-6	SUPE-W-04AR2-042220	97	106	51	83	34	81		
480-169009-7	SUPE-EB-01-042220	90	98	49	85	33	110		
480-169009-8	SUPE-W-30C-042120	107	100	48	83	32	104		
480-169009-9	SUPE-W-12CR-042220	105	97	51	83	33	111		
480-169009-10	SUPE-W-30A-042220	100	94	49	76	33	85		
480-169009-11	SUPE-W-06A-042120	101	103	55	89	38	111		
480-169009-12	SUPE-W-10AR2-042220	115	106	54	88	35	95		
480-169009-13	SUPE-W-06C-042120	102	100	53	85	36	102		
480-169009-13 MS	SUPE-W-06C-042120	116	106	56	99	40	94		
480-169009-13 MSD	SUPE-W-06C-042120	114	103	56	96	39	93		
LCS 480-528528/2-A	Lab Control Sample	115	104	57	95	40	114		
LCS 480-528777/2-A	Lab Control Sample	107	93	50	87	36	105		
LCSD 480-528777/3-A	Lab Control Sample Dup	112	98	52	92	37	109		
MB 480-528528/1-A	Method Blank	88	101	52	87	36	113		
MB 480-528777/1-A	Method Blank	88	98	50	83	34	117		

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

Isotope Dilution Summary

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

Job ID: 480-169009-1

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)
480-169009-1	SUPE-M99-A-042120	67	69	68	68	89	73	69	69
480-169009-3	SUPE-W-28C-042220	75	78	76	72	94	78	78	83
480-169009-4	SUPE-W-12A-042220	70	75	75	72	101	82	73	74
480-169009-6	SUPE-W-04AR2-042220	71	74	75	71	94	79	74	87
480-169009-7	SUPE-EB-01-042220	71	72	73	71	95	79	74	74
480-169009-8	SUPE-W-30C-042120	69	69	69	69	92	77	71	71
480-169009-9	SUPE-W-12CR-042220	74	78	76	72	97	79	78	80
480-169009-10	SUPE-W-30A-042220	74	76	76	72	94	86	75	86
480-169009-11	SUPE-W-06A-042120	73	79	73	72	93	80	78	80
480-169009-12	SUPE-W-10AR2-042220	73	77	75	75	97	76	76	87
480-169009-13	SUPE-W-06C-042120	64	66	69	65	87	72	67	66
480-169009-13 MS	SUPE-W-06C-042120	66	71	67	69	92	79	69	72
480-169009-13 MSD	SUPE-W-06C-042120	64	71	70	71	93	75	68	68
LCS 140-39332/17-A	Lab Control Sample	59	66	69	67	93	77	62	65
MB 140-39332/18-A	Method Blank	68	71	71	65	84	68	72	70

		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)
480-169009-1	SUPE-M99-A-042120	65	69	63	74	79	73	88	76
480-169009-3	SUPE-W-28C-042220	71	79	69	77	83	80	96	82
480-169009-4	SUPE-W-12A-042220	70	78	71	75	84	84	102	86
480-169009-6	SUPE-W-04AR2-042220	70	80	71	78	84	83	99	81
480-169009-7	SUPE-EB-01-042220	68	76	69	75	82	80	94	83
480-169009-8	SUPE-W-30C-042120	66	73	65	72	80	78	92	78
480-169009-9	SUPE-W-12CR-042220	72	79	70	79	88	81	99	83
480-169009-10	SUPE-W-30A-042220	72	80	73	77	87	83	97	83
480-169009-11	SUPE-W-06A-042120	71	79	71	78	85	80	94	81
480-169009-12	SUPE-W-10AR2-042220	72	85	76	80	88	85	100	80
480-169009-13	SUPE-W-06C-042120	62	71	65	70	80	76	91	77
480-169009-13 MS	SUPE-W-06C-042120	66	71	64	70	80	74	93	83
480-169009-13 MSD	SUPE-W-06C-042120	64	73	68	71	82	78	94	82
LCS 140-39332/17-A	Lab Control Sample	59	69	64	68	77	78	93	81
MB 140-39332/18-A	Method Blank	67	69	65	72	76	73	87	71

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

Isotope Dilution Summary

Client: Field & Technical Services LLC
Job ID: 480-169009-1
Project/Site: Superior, WI Semiannual Groundwater

OCDF = 13C-OCDF

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

Lab Sample ID: MB 480-528085/9
Matrix: Water
Analysis Batch: 528085

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			04/25/20 23:23	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/25/20 23:23	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/25/20 23:23	1
Benzene	ND		1.0	0.41	ug/L			04/25/20 23:23	1
Chloromethane	ND		1.0	0.35	ug/L			04/25/20 23:23	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/25/20 23:23	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/25/20 23:23	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/25/20 23:23	1
Naphthalene	ND		1.0	0.43	ug/L			04/25/20 23:23	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/25/20 23:23	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/25/20 23:23	1
o-Xylene	ND		1.0	0.76	ug/L			04/25/20 23:23	1
Styrene	ND		1.0	0.73	ug/L			04/25/20 23:23	1
Toluene	ND		1.0	0.51	ug/L			04/25/20 23:23	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/25/20 23:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*04/25/20 23:23*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*04/25/20 23:23*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*04/25/20 23:23*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*04/25/20 23:23*	*1*

Lab Sample ID: LCS 480-528085/6
Matrix: Water
Analysis Batch: 528085

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	25.6		ug/L		102	76 - 121
1,3,5-Trimethylbenzene	25.0	25.7		ug/L		103	77 - 121
Benzene	25.0	25.9		ug/L		103	71 - 124
Chloromethane	25.0	23.9		ug/L		96	68 - 124
Ethylbenzene	25.0	25.3		ug/L		101	77 - 123
Methyl tert-butyl ether	25.0	26.1		ug/L		104	77 - 120
m-Xylene & p-Xylene	25.0	25.3		ug/L		101	76 - 122
Naphthalene	25.0	26.3		ug/L		105	66 - 125
n-Butylbenzene	25.0	25.8		ug/L		103	71 - 128
N-Propylbenzene	25.0	25.3		ug/L		101	75 - 127
o-Xylene	25.0	26.0		ug/L		104	76 - 122
Styrene	25.0	25.6		ug/L		102	80 - 120
Toluene	25.0	25.4		ug/L		102	80 - 122
Xylenes, Total	50.0	51.3		ug/L		103	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*
Dibromofluoromethane (Surr)	*103*		*75 - 123*
Toluene-d8 (Surr)	*100*		*80 - 120*

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

Lab Sample ID: 480-169009-13 MS
Matrix: Water
Analysis Batch: 528085

Client Sample ID: SUPE-W-06C-042120
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	31.2		ug/L		125	73 - 126
1,2,4-Trimethylbenzene	ND		25.0	28.0		ug/L		112	76 - 121
1,3,5-Trimethylbenzene	ND		25.0	28.3		ug/L		113	77 - 121
Benzene	ND		25.0	28.8		ug/L		115	71 - 124
Chloromethane	ND		25.0	28.7		ug/L		115	68 - 124
Ethylbenzene	ND		25.0	28.4		ug/L		113	77 - 123
Methyl tert-butyl ether	ND		25.0	27.5		ug/L		110	77 - 120
m-Xylene & p-Xylene	ND		25.0	28.4		ug/L		113	76 - 122
Naphthalene	ND		25.0	27.8		ug/L		111	66 - 125
n-Butylbenzene	ND		25.0	28.8		ug/L		115	71 - 128
N-Propylbenzene	ND		25.0	28.3		ug/L		113	75 - 127
o-Xylene	ND		25.0	28.3		ug/L		113	76 - 122
Styrene	ND		25.0	27.7		ug/L		111	80 - 120
Toluene	ND		25.0	28.2		ug/L		113	80 - 122
Xylenes, Total	ND		50.0	56.7		ug/L		113	76 - 122

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*
Dibromofluoromethane (Surr)	*103*		*75 - 123*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: 480-169009-13 MSD
Matrix: Water
Analysis Batch: 528085

Client Sample ID: SUPE-W-06C-042120
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	30.4		ug/L		122	73 - 126	3	15
1,2,4-Trimethylbenzene	ND		25.0	28.0		ug/L		112	76 - 121	0	20
1,3,5-Trimethylbenzene	ND		25.0	28.3		ug/L		113	77 - 121	0	20
Benzene	ND		25.0	28.2		ug/L		113	71 - 124	2	13
Chloromethane	ND		25.0	27.2		ug/L		109	68 - 124	5	15
Ethylbenzene	ND		25.0	28.3		ug/L		113	77 - 123	0	15
Methyl tert-butyl ether	ND		25.0	28.0		ug/L		112	77 - 120	2	37
m-Xylene & p-Xylene	ND		25.0	28.3		ug/L		113	76 - 122	0	16
Naphthalene	ND		25.0	29.2		ug/L		117	66 - 125	5	20
n-Butylbenzene	ND		25.0	29.0		ug/L		116	71 - 128	1	15
N-Propylbenzene	ND		25.0	28.0		ug/L		112	75 - 127	1	15
o-Xylene	ND		25.0	28.7		ug/L		115	76 - 122	1	16
Styrene	ND		25.0	27.8		ug/L		111	80 - 120	0	20
Toluene	ND		25.0	28.2		ug/L		113	80 - 122	0	15
Xylenes, Total	ND		50.0	57.0		ug/L		114	76 - 122	1	16

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*
Dibromofluoromethane (Surr)	*101*		*75 - 123*
Toluene-d8 (Surr)	*100*		*80 - 120*

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

Lab Sample ID: MB 500-539931/1-A
Matrix: Water
Analysis Batch: 540079

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 539931

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.0	0.30	ug/L		04/27/20 17:28	04/28/20 13:55	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		04/27/20 17:28	04/28/20 13:55	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		04/27/20 17:28	04/28/20 13:55	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		04/27/20 17:28	04/28/20 13:55	1
1-Methylnaphthalene	ND		2.0	0.50	ug/L		04/27/20 17:28	04/28/20 13:55	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		04/27/20 17:28	04/28/20 13:55	1
2,3,4,6-Tetrachlorophenol	ND		5.0	1.5	ug/L		04/27/20 17:28	04/28/20 13:55	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		04/27/20 17:28	04/28/20 13:55	1
2,4,6-Trichlorophenol	ND		5.0	1.1	ug/L		04/27/20 17:28	04/28/20 13:55	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		04/27/20 17:28	04/28/20 13:55	1
2,4-Dinitrophenol	ND		20	7.4	ug/L		04/27/20 17:28	04/28/20 13:55	1
2,4-Dinitrotoluene	ND		1.0	0.30	ug/L		04/27/20 17:28	04/28/20 13:55	1
2,6-Dinitrotoluene	ND		1.0	0.12	ug/L		04/27/20 17:28	04/28/20 13:55	1
3 & 4 Methylphenol	ND		2.0	0.44	ug/L		04/27/20 17:28	04/28/20 13:55	1
2-Chloronaphthalene	ND		2.0	0.34	ug/L		04/27/20 17:28	04/28/20 13:55	1
2-Chlorophenol	ND		5.0	0.80	ug/L		04/27/20 17:28	04/28/20 13:55	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		04/27/20 17:28	04/28/20 13:55	1
2-Methylphenol	ND		2.0	0.31	ug/L		04/27/20 17:28	04/28/20 13:55	1
2-Nitroaniline	ND		5.0	1.1	ug/L		04/27/20 17:28	04/28/20 13:55	1
2-Nitrophenol	ND		10	2.1	ug/L		04/27/20 17:28	04/28/20 13:55	1
3-Nitroaniline	ND		10	2.3	ug/L		04/27/20 17:28	04/28/20 13:55	1
4,6-Dinitro-2-methylphenol	ND		20	4.9	ug/L		04/27/20 17:28	04/28/20 13:55	1
4-Bromophenyl phenyl ether	ND		5.0	0.91	ug/L		04/27/20 17:28	04/28/20 13:55	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		04/27/20 17:28	04/28/20 13:55	1
4-Chloroaniline	ND		10	2.1	ug/L		04/27/20 17:28	04/28/20 13:55	1
4-Chlorophenyl phenyl ether	ND		5.0	0.81	ug/L		04/27/20 17:28	04/28/20 13:55	1
4-Nitroaniline	ND		10	3.9	ug/L		04/27/20 17:28	04/28/20 13:55	1
4-Nitrophenol	ND		20	2.3	ug/L		04/27/20 17:28	04/28/20 13:55	1
Acenaphthene	ND		1.0	0.36	ug/L		04/27/20 17:28	04/28/20 13:55	1
Acenaphthylene	ND		1.0	0.32	ug/L		04/27/20 17:28	04/28/20 13:55	1
Anthracene	ND		1.0	0.32	ug/L		04/27/20 17:28	04/28/20 13:55	1
Benzo[a]pyrene	ND		0.20	0.056	ug/L		04/27/20 17:28	04/28/20 13:55	1
Benzo[b]fluoranthene	ND		0.20	0.058	ug/L		04/27/20 17:28	04/28/20 13:55	1
Benzo[g,h,i]perylene	ND		1.0	0.42	ug/L		04/27/20 17:28	04/28/20 13:55	1
Benzo[k]fluoranthene	ND		0.20	0.074	ug/L		04/27/20 17:28	04/28/20 13:55	1
Benzoic acid	ND		20	4.6	ug/L		04/27/20 17:28	04/28/20 13:55	1
Benzyl alcohol	ND		20	3.1	ug/L		04/27/20 17:28	04/28/20 13:55	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		04/27/20 17:28	04/28/20 13:55	1
Bis(2-chloroethyl)ether	ND		2.0	0.35	ug/L		04/27/20 17:28	04/28/20 13:55	1
Bis(2-ethylhexyl) phthalate	ND		10	2.4	ug/L		04/27/20 17:28	04/28/20 13:55	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		04/27/20 17:28	04/28/20 13:55	1
Chrysene	ND		0.50	0.14	ug/L		04/27/20 17:28	04/28/20 13:55	1
Dibenz(a,h)anthracene	ND		0.30	0.064	ug/L		04/27/20 17:28	04/28/20 13:55	1
Dibenzofuran	ND		2.0	0.35	ug/L		04/27/20 17:28	04/28/20 13:55	1
Diethyl phthalate	ND		2.0	0.44	ug/L		04/27/20 17:28	04/28/20 13:55	1
Dimethyl phthalate	ND		2.0	0.38	ug/L		04/27/20 17:28	04/28/20 13:55	1
Di-n-butyl phthalate	ND		5.0	0.80	ug/L		04/27/20 17:28	04/28/20 13:55	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		04/27/20 17:28	04/28/20 13:55	1

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

Lab Sample ID: MB 500-539931/1-A
Matrix: Water
Analysis Batch: 540079

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 539931

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		04/27/20 17:28	04/28/20 13:55	1
Fluoranthene	ND		1.0	0.32	ug/L		04/27/20 17:28	04/28/20 13:55	1
Fluorene	ND		1.0	0.38	ug/L		04/27/20 17:28	04/28/20 13:55	1
Hexachlorobenzene	ND		0.50	0.14	ug/L		04/27/20 17:28	04/28/20 13:55	1
Hexachlorobutadiene	ND		5.0	1.1	ug/L		04/27/20 17:28	04/28/20 13:55	1
Hexachlorocyclopentadiene	ND		20	3.4	ug/L		04/27/20 17:28	04/28/20 13:55	1
Hexachloroethane	ND		5.0	0.97	ug/L		04/27/20 17:28	04/28/20 13:55	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.084	ug/L		04/27/20 17:28	04/28/20 13:55	1
Isophorone	ND		2.0	0.29	ug/L		04/27/20 17:28	04/28/20 13:55	1
Naphthalene	ND		1.0	0.30	ug/L		04/27/20 17:28	04/28/20 13:55	1
Nitrobenzene	ND		1.0	0.45	ug/L		04/27/20 17:28	04/28/20 13:55	1
N-Nitrosodi-n-propylamine	ND		0.50	0.14	ug/L		04/27/20 17:28	04/28/20 13:55	1
N-Nitrosodiphenylamine	ND		2.0	0.34	ug/L		04/27/20 17:28	04/28/20 13:55	1
Phenol	ND		5.0	0.36	ug/L		04/27/20 17:28	04/28/20 13:55	1
Pyrene	ND		1.0	0.48	ug/L		04/27/20 17:28	04/28/20 13:55	1
2,4-Dimethylphenol	ND		10	3.3	ug/L		04/27/20 17:28	04/28/20 13:55	1
Benzo[a]anthracene	ND		0.20	0.044	ug/L		04/27/20 17:28	04/28/20 13:55	1
Phenanthrene	ND		1.0	0.35	ug/L		04/27/20 17:28	04/28/20 13:55	1
3,3'-Dichlorobenzidine	ND		5.0	0.94	ug/L		04/27/20 17:28	04/28/20 13:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*124*		*40 - 145*	*04/27/20 17:28*	*04/28/20 13:55*	*1*
2-Fluorobiphenyl	*86*		*34 - 110*	*04/27/20 17:28*	*04/28/20 13:55*	*1*
2-Fluorophenol (Surr)	*68*		*27 - 110*	*04/27/20 17:28*	*04/28/20 13:55*	*1*
Nitrobenzene-d5 (Surr)	*79*		*36 - 120*	*04/27/20 17:28*	*04/28/20 13:55*	*1*
Phenol-d5 (Surr)	*29*		*20 - 100*	*04/27/20 17:28*	*04/28/20 13:55*	*1*
Terphenyl-d14 (Surr)	*118*		*40 - 145*	*04/27/20 17:28*	*04/28/20 13:55*	*1*

Lab Sample ID: LCS 500-539931/2-A
Matrix: Water
Analysis Batch: 540079

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 539931

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	40.0	22.7		ug/L		57	26 - 110
1,2-Dichlorobenzene	40.0	21.9		ug/L		55	26 - 110
1,3-Dichlorobenzene	40.0	18.2		ug/L		45	22 - 110
1,4-Dichlorobenzene	40.0	18.9		ug/L		47	23 - 110
1-Methylnaphthalene	40.0	31.4		ug/L		78	38 - 110
bis(chloroisopropyl) ether	40.0	27.9		ug/L		70	38 - 110
2,3,4,6-Tetrachlorophenol	40.0	46.3		ug/L		116	44 - 118
2,4,5-Trichlorophenol	40.0	42.4		ug/L		106	63 - 120
2,4,6-Trichlorophenol	40.0	42.3		ug/L		106	62 - 110
2,4-Dichlorophenol	40.0	41.6		ug/L		104	62 - 110
2,4-Dinitrophenol	80.0	59.3		ug/L		74	37 - 130
2,4-Dinitrotoluene	40.0	44.3		ug/L		111	63 - 122
2,6-Dinitrotoluene	40.0	38.3		ug/L		96	63 - 119
3 & 4 Methylphenol	40.0	29.1		ug/L		73	53 - 110
2-Chloronaphthalene	40.0	34.0		ug/L		85	39 - 110

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

Lab Sample ID: LCS 500-539931/2-A
Matrix: Water
Analysis Batch: 540079

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 539931

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chlorophenol	40.0	37.6		ug/L		94	59 - 110
2-Methylnaphthalene	40.0	31.4		ug/L		78	34 - 110
2-Methylphenol	40.0	33.9		ug/L		85	53 - 110
2-Nitroaniline	40.0	47.7		ug/L		119	59 - 122
2-Nitrophenol	40.0	38.0		ug/L		95	58 - 110
3-Nitroaniline	40.0	30.3		ug/L		76	47 - 123
4,6-Dinitro-2-methylphenol	80.0	80.8		ug/L		101	50 - 117
4-Bromophenyl phenyl ether	40.0	45.4		ug/L		114	58 - 120
4-Chloro-3-methylphenol	40.0	44.0		ug/L		110	64 - 120
4-Chloroaniline	40.0	34.8		ug/L		87	35 - 128
4-Chlorophenyl phenyl ether	40.0	40.3		ug/L		101	47 - 112
4-Nitroaniline	40.0	22.2		ug/L		55	52 - 147
4-Nitrophenol	80.0	53.1		ug/L		66	20 - 110
Acenaphthene	40.0	38.8		ug/L		97	46 - 110
Acenaphthylene	40.0	41.1		ug/L		103	47 - 110
Anthracene	40.0	46.1	*	ug/L		115	67 - 110
Benzo[a]pyrene	40.0	43.2		ug/L		108	70 - 120
Benzo[b]fluoranthene	40.0	40.6		ug/L		101	69 - 123
Benzo[g,h,i]perylene	40.0	47.6		ug/L		119	70 - 120
Benzo[k]fluoranthene	40.0	39.0		ug/L		98	70 - 120
Benzoic acid	80.0	15.1	J	ug/L		19	10 - 100
Benzyl alcohol	40.0	33.5		ug/L		84	33 - 127
Bis(2-chloroethoxy)methane	40.0	34.4		ug/L		86	60 - 110
Bis(2-chloroethyl)ether	40.0	32.2		ug/L		81	49 - 110
Bis(2-ethylhexyl) phthalate	40.0	40.5		ug/L		101	69 - 120
Butyl benzyl phthalate	40.0	47.7		ug/L		119	68 - 120
Chrysene	40.0	44.6		ug/L		112	68 - 120
Dibenz(a,h)anthracene	40.0	41.1		ug/L		103	70 - 127
Dibenzofuran	40.0	42.1		ug/L		105	51 - 110
Diethyl phthalate	40.0	46.3		ug/L		116	62 - 120
Dimethyl phthalate	40.0	48.5	*	ug/L		121	63 - 120
Di-n-butyl phthalate	40.0	49.6	*	ug/L		124	70 - 120
Di-n-octyl phthalate	40.0	47.4		ug/L		118	70 - 122
Fluoranthene	40.0	49.1	*	ug/L		123	68 - 120
Fluorene	40.0	42.4		ug/L		106	53 - 120
Hexachlorobenzene	40.0	55.0	*	ug/L		137	61 - 120
Hexachlorobutadiene	40.0	16.9		ug/L		42	20 - 100
Hexachlorocyclopentadiene	40.0	17.5	J	ug/L		44	10 - 100
Hexachloroethane	40.0	13.9		ug/L		35	20 - 100
Indeno[1,2,3-cd]pyrene	40.0	43.7		ug/L		109	65 - 133
Isophorone	40.0	41.1		ug/L		103	57 - 110
Naphthalene	40.0	31.7		ug/L		79	36 - 110
Nitrobenzene	40.0	40.1		ug/L		100	53 - 110
N-Nitrosodi-n-propylamine	40.0	37.1		ug/L		93	58 - 110
N-Nitrosodiphenylamine	40.0	44.0		ug/L		110	66 - 110
Pentachlorophenol	80.0	69.0		ug/L		86	23 - 129
Phenol	40.0	16.3		ug/L		41	33 - 100
Pyrene	40.0	42.9		ug/L		107	70 - 110
2,4-Dimethylphenol	40.0	36.3		ug/L		91	51 - 110

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

Lab Sample ID: LCS 500-539931/2-A
Matrix: Water
Analysis Batch: 540079

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 539931

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]anthracene	40.0	42.9		ug/L		107	70 - 120
Phenanthrene	40.0	45.1		ug/L		113	65 - 120
3,3'-Dichlorobenzidine	40.0	43.9		ug/L		110	60 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*132*		*40 - 145*
2-Fluorobiphenyl	*99*		*34 - 110*
2-Fluorophenol (Surr)	*69*		*27 - 110*
Nitrobenzene-d5 (Surr)	*89*		*36 - 120*
Phenol-d5 (Surr)	*39*		*20 - 100*
Terphenyl-d14 (Surr)	*107*		*40 - 145*

Lab Sample ID: 480-169009-13 MS
Matrix: Water
Analysis Batch: 540079

Client Sample ID: SUPE-W-06C-042120
Prep Type: Total/NA
Prep Batch: 539931

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	ND	F2	39.7	23.2		ug/L		58	26 - 110
1,2-Dichlorobenzene	ND		39.7	22.0		ug/L		56	26 - 110
1,3-Dichlorobenzene	ND		39.7	18.8		ug/L		47	22 - 110
1,4-Dichlorobenzene	ND		39.7	19.3		ug/L		49	23 - 110
1-Methylnaphthalene	ND		39.7	30.0		ug/L		76	38 - 110
bis(chloroisopropyl) ether	ND		39.7	26.6		ug/L		67	38 - 110
2,3,4,6-Tetrachlorophenol	ND		39.7	45.2		ug/L		114	44 - 118
2,4,5-Trichlorophenol	ND		39.7	42.3		ug/L		107	63 - 120
2,4,6-Trichlorophenol	ND		39.7	40.6		ug/L		102	62 - 110
2,4-Dichlorophenol	ND		39.7	39.9		ug/L		101	62 - 110
2,4-Dinitrophenol	ND		79.3	50.5		ug/L		64	37 - 130
2,4-Dinitrotoluene	ND		39.7	43.2		ug/L		109	63 - 122
2,6-Dinitrotoluene	ND		39.7	38.5		ug/L		97	63 - 119
3 & 4 Methylphenol	ND		39.7	25.6		ug/L		65	53 - 110
2-Chloronaphthalene	ND		39.7	32.2		ug/L		81	39 - 110
2-Chlorophenol	ND		39.7	34.6		ug/L		87	59 - 110
2-Methylnaphthalene	ND	F2	39.7	29.9		ug/L		75	34 - 110
2-Methylphenol	ND		39.7	31.1		ug/L		79	53 - 110
2-Nitroaniline	ND		39.7	46.7		ug/L		118	59 - 122
2-Nitrophenol	ND		39.7	37.4		ug/L		94	58 - 110
3-Nitroaniline	ND		39.7	31.7		ug/L		80	47 - 123
4,6-Dinitro-2-methylphenol	ND		79.3	70.2		ug/L		89	50 - 117
4-Bromophenyl phenyl ether	ND		39.7	43.5		ug/L		110	58 - 120
4-Chloro-3-methylphenol	ND		39.7	42.4		ug/L		107	64 - 120
4-Chloroaniline	ND		39.7	34.0		ug/L		86	35 - 128
4-Chlorophenyl phenyl ether	ND		39.7	38.7		ug/L		98	47 - 112
4-Nitroaniline	ND		39.7	27.1		ug/L		68	52 - 147
4-Nitrophenol	ND		79.3	47.4		ug/L		60	20 - 110
Acenaphthene	ND		39.7	36.6		ug/L		92	46 - 110
Acenaphthylene	ND		39.7	39.3		ug/L		99	47 - 110
Anthracene	ND	F1 *	39.7	45.1	F1	ug/L		114	67 - 110

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

Lab Sample ID: 480-169009-13 MS
Matrix: Water
Analysis Batch: 540079

Client Sample ID: SUPE-W-06C-042120
Prep Type: Total/NA
Prep Batch: 539931

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]pyrene	ND		39.7	41.7		ug/L		105	70 - 120
Benzo[b]fluoranthene	ND		39.7	40.1		ug/L		101	69 - 123
Benzo[g,h,i]perylene	ND		39.7	45.5		ug/L		115	70 - 120
Benzo[k]fluoranthene	ND		39.7	39.2		ug/L		99	70 - 120
Benzoic acid	ND		79.3	21.4		ug/L		27	10 - 100
Benzyl alcohol	ND		39.7	30.8		ug/L		78	33 - 127
Bis(2-chloroethoxy)methane	ND		39.7	32.2		ug/L		81	60 - 110
Bis(2-chloroethyl)ether	ND		39.7	29.9		ug/L		75	49 - 110
Bis(2-ethylhexyl) phthalate	ND		39.7	39.2		ug/L		99	69 - 120
Butyl benzyl phthalate	ND		39.7	46.1		ug/L		116	68 - 120
Chrysene	ND		39.7	43.7		ug/L		110	68 - 120
Dibenz(a,h)anthracene	ND		39.7	39.2		ug/L		99	70 - 127
Dibenzofuran	ND		39.7	40.5		ug/L		102	51 - 110
Diethyl phthalate	ND		39.7	44.6		ug/L		112	62 - 120
Dimethyl phthalate	ND	*	39.7	46.7		ug/L		118	63 - 120
Di-n-butyl phthalate	ND	*	39.7	47.6		ug/L		120	70 - 120
Di-n-octyl phthalate	ND		39.7	45.9		ug/L		116	70 - 122
Fluoranthene	ND	*	39.7	47.6		ug/L		120	68 - 120
Fluorene	ND		39.7	39.7		ug/L		100	53 - 120
Hexachlorobenzene	ND	F1 *	39.7	53.6	F1	ug/L		135	61 - 120
Hexachlorobutadiene	ND	F2	39.7	18.9		ug/L		48	20 - 100
Hexachlorocyclopentadiene	ND	F2	39.7	18.2	J	ug/L		46	10 - 100
Hexachloroethane	ND	F2	39.7	16.3		ug/L		41	20 - 100
Indeno[1,2,3-cd]pyrene	ND		39.7	41.7		ug/L		105	65 - 133
Isophorone	ND		39.7	38.3		ug/L		96	57 - 110
Naphthalene	ND		39.7	30.6		ug/L		77	36 - 110
Nitrobenzene	ND		39.7	39.1		ug/L		99	53 - 110
N-Nitrosodi-n-propylamine	ND		39.7	34.6		ug/L		87	58 - 110
N-Nitrosodiphenylamine	ND		39.7	42.1		ug/L		106	66 - 110
Pentachlorophenol	ND		79.3	70.2		ug/L		89	23 - 129
Phenol	ND		39.7	13.5		ug/L		34	33 - 100
Pyrene	ND		39.7	41.0		ug/L		103	70 - 110
2,4-Dimethylphenol	ND		39.7	34.6		ug/L		87	51 - 110
Benzo[a]anthracene	ND		39.7	40.7		ug/L		103	70 - 120
Phenanthrene	ND		39.7	43.2		ug/L		109	65 - 120
3,3'-Dichlorobenzidine	ND		39.7	42.8		ug/L		108	60 - 132

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*134*		*40 - 145*
2-Fluorobiphenyl	*103*		*34 - 110*
2-Fluorophenol (Surr)	*62*		*27 - 110*
Nitrobenzene-d5 (Surr)	*87*		*36 - 120*
Phenol-d5 (Surr)	*34*		*20 - 100*
Terphenyl-d14 (Surr)	*102*		*40 - 145*

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

Lab Sample ID: 480-169009-13 MSD
Matrix: Water
Analysis Batch: 540079

Client Sample ID: SUPE-W-06C-042120
Prep Type: Total/NA
Prep Batch: 539931

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	ND	F2	39.6	17.8	F2	ug/L		45	26 - 110	26	20
1,2-Dichlorobenzene	ND		39.6	18.3		ug/L		46	26 - 110	19	20
1,3-Dichlorobenzene	ND		39.6	15.7		ug/L		40	22 - 110	18	20
1,4-Dichlorobenzene	ND		39.6	16.2		ug/L		41	23 - 110	17	20
1-Methylnaphthalene	ND		39.6	24.5		ug/L		62	38 - 110	20	20
bis(chloroisopropyl) ether	ND		39.6	25.5		ug/L		65	38 - 110	4	20
2,3,4,6-Tetrachlorophenol	ND		39.6	45.0		ug/L		114	44 - 118	0	20
2,4,5-Trichlorophenol	ND		39.6	42.6		ug/L		108	63 - 120	1	20
2,4,6-Trichlorophenol	ND		39.6	41.5		ug/L		105	62 - 110	2	20
2,4-Dichlorophenol	ND		39.6	38.8		ug/L		98	62 - 110	3	20
2,4-Dinitrophenol	ND		79.2	54.5		ug/L		69	37 - 130	8	20
2,4-Dinitrotoluene	ND		39.6	43.0		ug/L		109	63 - 122	0	20
2,6-Dinitrotoluene	ND		39.6	37.6		ug/L		95	63 - 119	2	20
3 & 4 Methylphenol	ND		39.6	26.0		ug/L		66	53 - 110	1	20
2-Chloronaphthalene	ND		39.6	26.4		ug/L		67	39 - 110	20	20
2-Chlorophenol	ND		39.6	35.2		ug/L		89	59 - 110	2	20
2-Methylnaphthalene	ND	F2	39.6	24.1	F2	ug/L		61	34 - 110	22	20
2-Methylphenol	ND		39.6	30.9		ug/L		78	53 - 110	1	20
2-Nitroaniline	ND		39.6	45.5		ug/L		115	59 - 122	3	20
2-Nitrophenol	ND		39.6	36.2		ug/L		91	58 - 110	3	20
3-Nitroaniline	ND		39.6	32.4		ug/L		82	47 - 123	2	20
4,6-Dinitro-2-methylphenol	ND		79.2	71.8		ug/L		91	50 - 117	2	20
4-Bromophenyl phenyl ether	ND		39.6	40.4		ug/L		102	58 - 120	7	20
4-Chloro-3-methylphenol	ND		39.6	41.4		ug/L		105	64 - 120	2	20
4-Chloroaniline	ND		39.6	33.9		ug/L		86	35 - 128	0	20
4-Chlorophenyl phenyl ether	ND		39.6	34.8		ug/L		88	47 - 112	11	20
4-Nitroaniline	ND		39.6	23.8		ug/L		60	52 - 147	13	20
4-Nitrophenol	ND		79.2	49.6		ug/L		63	20 - 110	5	20
Acenaphthene	ND		39.6	30.9		ug/L		78	46 - 110	17	20
Acenaphthylene	ND		39.6	35.1		ug/L		89	47 - 110	11	20
Anthracene	ND	F1 *	39.6	43.5		ug/L		110	67 - 110	4	20
Benzo[a]pyrene	ND		39.6	41.1		ug/L		104	70 - 120	2	20
Benzo[b]fluoranthene	ND		39.6	40.0		ug/L		101	69 - 123	0	20
Benzo[g,h,i]perylene	ND		39.6	44.3		ug/L		112	70 - 120	3	20
Benzo[k]fluoranthene	ND		39.6	37.5		ug/L		95	70 - 120	4	20
Benzoic acid	ND		79.2	24.9		ug/L		31	10 - 100	15	20
Benzyl alcohol	ND		39.6	31.6		ug/L		80	33 - 127	3	20
Bis(2-chloroethoxy)methane	ND		39.6	31.7		ug/L		80	60 - 110	2	20
Bis(2-chloroethyl)ether	ND		39.6	29.9		ug/L		76	49 - 110	0	20
Bis(2-ethylhexyl) phthalate	ND		39.6	37.9		ug/L		96	69 - 120	3	20
Butyl benzyl phthalate	ND		39.6	44.9		ug/L		113	68 - 120	3	20
Chrysene	ND		39.6	42.8		ug/L		108	68 - 120	2	20
Dibenz(a,h)anthracene	ND		39.6	37.3		ug/L		94	70 - 127	5	20
Dibenzofuran	ND		39.6	35.4		ug/L		89	51 - 110	13	20
Diethyl phthalate	ND		39.6	44.9		ug/L		113	62 - 120	1	20
Dimethyl phthalate	ND	*	39.6	46.2		ug/L		117	63 - 120	1	20
Di-n-butyl phthalate	ND	*	39.6	47.0		ug/L		119	70 - 120	1	20
Di-n-octyl phthalate	ND		39.6	44.7		ug/L		113	70 - 122	3	20

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

Lab Sample ID: 480-169009-13 MSD
Matrix: Water
Analysis Batch: 540079

Client Sample ID: SUPE-W-06C-042120
Prep Type: Total/NA
Prep Batch: 539931

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoranthene	ND	*	39.6	47.0		ug/L		119	68 - 120	1	20
Fluorene	ND		39.6	36.6		ug/L		92	53 - 120	8	20
Hexachlorobenzene	ND	F1 *	39.6	51.2	F1	ug/L		129	61 - 120	5	20
Hexachlorobutadiene	ND	F2	39.6	14.5	F2	ug/L		37	20 - 100	26	20
Hexachlorocyclopentadiene	ND	F2	39.6	13.4	J F2	ug/L		34	10 - 100	30	20
Hexachloroethane	ND	F2	39.6	13.2	F2	ug/L		33	20 - 100	21	20
Indeno[1,2,3-cd]pyrene	ND		39.6	41.1		ug/L		104	65 - 133	2	20
Isophorone	ND		39.6	38.0		ug/L		96	57 - 110	1	20
Naphthalene	ND		39.6	25.3		ug/L		64	36 - 110	19	20
Nitrobenzene	ND		39.6	38.1		ug/L		96	53 - 110	3	20
N-Nitrosodi-n-propylamine	ND		39.6	33.8		ug/L		85	58 - 110	2	20
N-Nitrosodiphenylamine	ND		39.6	41.1		ug/L		104	66 - 110	3	20
Pentachlorophenol	ND		79.2	70.2		ug/L		89	23 - 129	0	20
Phenol	ND		39.6	14.2		ug/L		36	33 - 100	5	20
Pyrene	ND		39.6	40.8		ug/L		103	70 - 110	0	20
2,4-Dimethylphenol	ND		39.6	33.5		ug/L		85	51 - 110	3	20
Benzo[a]anthracene	ND		39.6	40.8		ug/L		103	70 - 120	0	20
Phenanthrene	ND		39.6	41.5		ug/L		105	65 - 120	4	20
3,3'-Dichlorobenzidine	ND		39.6	40.8		ug/L		103	60 - 132	5	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*129*		*40 - 145*
2-Fluorobiphenyl	*100*		*34 - 110*
2-Fluorophenol (Surr)	*64*		*27 - 110*
Nitrobenzene-d5 (Surr)	*84*		*36 - 120*
Phenol-d5 (Surr)	*33*		*20 - 100*
Terphenyl-d14 (Surr)	*100*		*40 - 145*

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

Lab Sample ID: MB 480-528528/1-A
Matrix: Water
Analysis Batch: 528712

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 528528

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		1.0	0.34	ug/L		04/28/20 15:23	04/29/20 15:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*88*		*24 - 146*	*04/28/20 15:23*	*04/29/20 15:43*	*1*
2-Fluorobiphenyl	*101*		*37 - 120*	*04/28/20 15:23*	*04/29/20 15:43*	*1*
2-Fluorophenol (Surr)	*52*		*10 - 120*	*04/28/20 15:23*	*04/29/20 15:43*	*1*
Nitrobenzene-d5 (Surr)	*87*		*26 - 120*	*04/28/20 15:23*	*04/29/20 15:43*	*1*
Phenol-d5 (Surr)	*36*		*11 - 120*	*04/28/20 15:23*	*04/29/20 15:43*	*1*
p-Terphenyl-d14	*113*		*64 - 127*	*04/28/20 15:23*	*04/29/20 15:43*	*1*

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

Lab Sample ID: LCS 480-528528/2-A
Matrix: Water
Analysis Batch: 528712

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 528528

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Pentachlorophenol			16.0	17.3		ug/L		108	10 - 131		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*115*		*24 - 146*
2-Fluorobiphenyl	*104*		*37 - 120*
2-Fluorophenol (Surr)	*57*		*10 - 120*
Nitrobenzene-d5 (Surr)	*95*		*26 - 120*
Phenol-d5 (Surr)	*40*		*11 - 120*
p-Terphenyl-d14	*114*		*64 - 127*

Lab Sample ID: 480-169009-13 MS
Matrix: Water
Analysis Batch: 528712

Client Sample ID: SUPE-W-06C-042120
Prep Type: Total/NA
Prep Batch: 528528

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Pentachlorophenol	ND		16.0	17.5		ug/L		109	23 - 149		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*116*		*24 - 146*
2-Fluorobiphenyl	*106*		*37 - 120*
2-Fluorophenol (Surr)	*56*		*10 - 120*
Nitrobenzene-d5 (Surr)	*99*		*26 - 120*
Phenol-d5 (Surr)	*40*		*11 - 120*
p-Terphenyl-d14	*94*		*64 - 127*

Lab Sample ID: 480-169009-13 MSD
Matrix: Water
Analysis Batch: 528712

Client Sample ID: SUPE-W-06C-042120
Prep Type: Total/NA
Prep Batch: 528528

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Pentachlorophenol	ND		16.0	17.4		ug/L		109	23 - 149	0	37

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*114*		*24 - 146*
2-Fluorobiphenyl	*103*		*37 - 120*
2-Fluorophenol (Surr)	*56*		*10 - 120*
Nitrobenzene-d5 (Surr)	*96*		*26 - 120*
Phenol-d5 (Surr)	*39*		*11 - 120*
p-Terphenyl-d14	*93*		*64 - 127*

Lab Sample ID: MB 480-528777/1-A
Matrix: Water
Analysis Batch: 528988

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 528777

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		1.0	0.34	ug/L		04/29/20 15:30	04/30/20 14:51	1

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

Lab Sample ID: MB 480-528777/1-A
Matrix: Water
Analysis Batch: 528988

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 528777

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	88		24 - 146	04/29/20 15:30	04/30/20 14:51	1
2-Fluorobiphenyl	98		37 - 120	04/29/20 15:30	04/30/20 14:51	1
2-Fluorophenol (Surr)	50		10 - 120	04/29/20 15:30	04/30/20 14:51	1
Nitrobenzene-d5 (Surr)	83		26 - 120	04/29/20 15:30	04/30/20 14:51	1
Phenol-d5 (Surr)	34		11 - 120	04/29/20 15:30	04/30/20 14:51	1
p-Terphenyl-d14	117		64 - 127	04/29/20 15:30	04/30/20 14:51	1

Lab Sample ID: LCS 480-528777/2-A
Matrix: Water
Analysis Batch: 528988

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 528777

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Pentachlorophenol	16.0	16.5		ug/L		103	10 - 131

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	107		24 - 146
2-Fluorobiphenyl	93		37 - 120
2-Fluorophenol (Surr)	50		10 - 120
Nitrobenzene-d5 (Surr)	87		26 - 120
Phenol-d5 (Surr)	36		11 - 120
p-Terphenyl-d14	105		64 - 127

Lab Sample ID: LCSD 480-528777/3-A
Matrix: Water
Analysis Batch: 528988

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 528777

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Pentachlorophenol	16.0	17.8		ug/L		111	10 - 131	8	171

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	112		24 - 146
2-Fluorobiphenyl	98		37 - 120
2-Fluorophenol (Surr)	52		10 - 120
Nitrobenzene-d5 (Surr)	92		26 - 120
Phenol-d5 (Surr)	37		11 - 120
p-Terphenyl-d14	109		64 - 127

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

Lab Sample ID: MB 140-39332/18-A
Matrix: Water
Analysis Batch: 39381

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39332

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		10	0.21	pg/L		04/28/20 11:57	04/30/20 12:54	1
Total TCDD	ND		10	0.25	pg/L		04/28/20 11:57	04/30/20 12:54	1
1,2,3,7,8-PeCDD	ND		50	0.36	pg/L		04/28/20 11:57	04/30/20 12:54	1
Total PeCDD	ND		50	0.36	pg/L		04/28/20 11:57	04/30/20 12:54	1

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

Lab Sample ID: MB 140-39332/18-A
Matrix: Water
Analysis Batch: 39381

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39332

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,7,8-HxCDD	ND		50	0.20	pg/L		04/28/20 11:57	04/30/20 12:54	1
1,2,3,6,7,8-HxCDD	0.904	J I	50	0.20	pg/L		04/28/20 11:57	04/30/20 12:54	1
1,2,3,7,8,9-HxCDD	1.03	J I	50	0.19	pg/L		04/28/20 11:57	04/30/20 12:54	1
Total HxCDD	3.36	J I	50	0.19	pg/L		04/28/20 11:57	04/30/20 12:54	1
1,2,3,4,6,7,8-HpCDD	1.54	J I	50	0.14	pg/L		04/28/20 11:57	04/30/20 12:54	1
Total HpCDD	2.24	J I	50	0.14	pg/L		04/28/20 11:57	04/30/20 12:54	1
OCDD	9.83	J	100	0.14	pg/L		04/28/20 11:57	04/30/20 12:54	1
2,3,7,8-TCDF	ND		10	0.13	pg/L		04/28/20 11:57	04/30/20 12:54	1
Total TCDF	ND		10	0.13	pg/L		04/28/20 11:57	04/30/20 12:54	1
1,2,3,7,8-PeCDF	0.830	J	50	0.32	pg/L		04/28/20 11:57	04/30/20 12:54	1
2,3,4,7,8-PeCDF	ND		50	0.27	pg/L		04/28/20 11:57	04/30/20 12:54	1
Total PeCDF	0.830	J	50	0.29	pg/L		04/28/20 11:57	04/30/20 12:54	1
1,2,3,4,7,8-HxCDF	0.802	J I	50	0.29	pg/L		04/28/20 11:57	04/30/20 12:54	1
1,2,3,6,7,8-HxCDF	0.661	J I	50	0.29	pg/L		04/28/20 11:57	04/30/20 12:54	1
2,3,4,6,7,8-HxCDF	1.11	J I	50	0.28	pg/L		04/28/20 11:57	04/30/20 12:54	1
1,2,3,7,8,9-HxCDF	0.808	J	50	0.28	pg/L		04/28/20 11:57	04/30/20 12:54	1
Total HxCDF	3.38	J I	50	0.28	pg/L		04/28/20 11:57	04/30/20 12:54	1
1,2,3,4,6,7,8-HpCDF	1.17	J I	50	0.13	pg/L		04/28/20 11:57	04/30/20 12:54	1
1,2,3,4,7,8,9-HpCDF	0.894	J	50	0.17	pg/L		04/28/20 11:57	04/30/20 12:54	1
Total HpCDF	2.07	J I	50	0.15	pg/L		04/28/20 11:57	04/30/20 12:54	1
OCDF	4.74	J	100	0.12	pg/L		04/28/20 11:57	04/30/20 12:54	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*68*		*40 - 135*	*04/28/20 11:57*	*04/30/20 12:54*	*1*
13C-1,2,3,7,8-PeCDD	*71*		*40 - 135*	*04/28/20 11:57*	*04/30/20 12:54*	*1*
13C-1,2,3,4,7,8-HxCDD	*71*		*40 - 135*	*04/28/20 11:57*	*04/30/20 12:54*	*1*
13C-1,2,3,6,7,8-HxCDD	*65*		*40 - 135*	*04/28/20 11:57*	*04/30/20 12:54*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*84*		*40 - 135*	*04/28/20 11:57*	*04/30/20 12:54*	*1*
13C-OCDD	*68*		*40 - 135*	*04/28/20 11:57*	*04/30/20 12:54*	*1*
13C-2,3,7,8-TCDF	*72*		*40 - 135*	*04/28/20 11:57*	*04/30/20 12:54*	*1*
13C-1,2,3,7,8-PeCDF	*70*		*40 - 135*	*04/28/20 11:57*	*04/30/20 12:54*	*1*
13C-2,3,4,7,8-PeCDF	*67*		*40 - 135*	*04/28/20 11:57*	*04/30/20 12:54*	*1*
13C-1,2,3,4,7,8-HxCDF	*69*		*40 - 135*	*04/28/20 11:57*	*04/30/20 12:54*	*1*
13C-1,2,3,6,7,8-HxCDF	*65*		*40 - 135*	*04/28/20 11:57*	*04/30/20 12:54*	*1*
13C-2,3,4,6,7,8-HxCDF	*72*		*40 - 135*	*04/28/20 11:57*	*04/30/20 12:54*	*1*
13C-1,2,3,7,8,9-HxCDF	*76*		*40 - 135*	*04/28/20 11:57*	*04/30/20 12:54*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*73*		*40 - 135*	*04/28/20 11:57*	*04/30/20 12:54*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*87*		*40 - 135*	*04/28/20 11:57*	*04/30/20 12:54*	*1*
13C-OCDF	*71*		*40 - 135*	*04/28/20 11:57*	*04/30/20 12:54*	*1*

Lab Sample ID: LCS 140-39332/17-A
Matrix: Water
Analysis Batch: 39381

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 39332

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,7,8-TCDD	200	223		pg/L		111	77 - 127
1,2,3,7,8-PeCDD	1000	1060		pg/L		106	78 - 128
1,2,3,4,7,8-HxCDD	1000	1030		pg/L		103	73 - 123
1,2,3,6,7,8-HxCDD	1000	1060		pg/L		106	72 - 127

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

Lab Sample ID: LCS 140-39332/17-A
Matrix: Water
Analysis Batch: 39381

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 39332

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2,3,7,8,9-HxCDD			1000	1180		pg/L		118	76 - 126		
1,2,3,4,6,7,8-HpCDD			1000	958		pg/L		96	73 - 123		
OCDD			2000	1910		pg/L		96	75 - 125		
2,3,7,8-TCDF			200	213		pg/L		106	74 - 124		
1,2,3,7,8-PeCDF			1000	982		pg/L		98	74 - 124		
2,3,4,7,8-PeCDF			1000	1050		pg/L		105	74 - 124		
1,2,3,4,7,8-HxCDF			1000	1020		pg/L		102	75 - 125		
1,2,3,6,7,8-HxCDF			1000	1010		pg/L		101	75 - 125		
2,3,4,6,7,8-HxCDF			1000	1050		pg/L		105	76 - 126		
1,2,3,7,8,9-HxCDF			1000	975		pg/L		98	76 - 126		
1,2,3,4,6,7,8-HpCDF			1000	996		pg/L		100	71 - 121		
1,2,3,4,7,8,9-HpCDF			1000	1000		pg/L		100	73 - 123		
OCDF			2000	1700		pg/L		85	68 - 132		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C-2,3,7,8-TCDD	*59*		*40 - 135*
13C-1,2,3,7,8-PeCDD	*66*		*40 - 135*
13C-1,2,3,4,7,8-HxCDD	*69*		*40 - 135*
13C-1,2,3,6,7,8-HxCDD	*67*		*40 - 135*
13C-1,2,3,4,6,7,8-HpCDD	*93*		*40 - 135*
13C-OCDD	*77*		*40 - 135*
13C-2,3,7,8-TCDF	*62*		*40 - 135*
13C-1,2,3,7,8-PeCDF	*65*		*40 - 135*
13C-2,3,4,7,8-PeCDF	*59*		*40 - 135*
13C-1,2,3,4,7,8-HxCDF	*69*		*40 - 135*
13C-1,2,3,6,7,8-HxCDF	*64*		*40 - 135*
13C-2,3,4,6,7,8-HxCDF	*68*		*40 - 135*
13C-1,2,3,7,8,9-HxCDF	*77*		*40 - 135*
13C-1,2,3,4,6,7,8-HpCDF	*78*		*40 - 135*
13C-1,2,3,4,7,8,9-HpCDF	*93*		*40 - 135*
13C-OCDF	*81*		*40 - 135*

Lab Sample ID: 480-169009-13 MS
Matrix: Water
Analysis Batch: 39398

Client Sample ID: SUPE-W-06C-042120
Prep Type: Total/NA
Prep Batch: 39332

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
2,3,7,8-TCDD	ND		205	232		pg/L		113	77 - 127		
1,2,3,7,8-PeCDD	ND		1030	1050		pg/L		103	78 - 128		
1,2,3,4,7,8-HxCDD	ND		1030	1070		pg/L		105	73 - 123		
1,2,3,6,7,8-HxCDD	0.35	J I B	1030	1030		pg/L		101	72 - 127		
1,2,3,7,8,9-HxCDD	0.36	J I B	1030	1200		pg/L		117	76 - 126		
1,2,3,4,6,7,8-HpCDD	1.5	J I B	1030	970		pg/L		94	73 - 123		
OCDD	12	J B	2050	1920		pg/L		93	75 - 125		
2,3,7,8-TCDF	ND		205	217		pg/L		106	74 - 124		
1,2,3,7,8-PeCDF	ND		1030	999		pg/L		97	74 - 124		
2,3,4,7,8-PeCDF	ND		1030	1040		pg/L		102	74 - 124		
1,2,3,4,7,8-HxCDF	ND		1030	1020		pg/L		100	75 - 125		
1,2,3,6,7,8-HxCDF	ND		1030	1010		pg/L		99	75 - 125		

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

Lab Sample ID: 480-169009-13 MS
Client Sample ID: SUPE-W-06C-042120
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 39398
Prep Batch: 39332

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,4,6,7,8-HxCDF	ND		1030	1070		pg/L		104	76 - 126
1,2,3,7,8,9-HxCDF	ND		1030	1010		pg/L		99	76 - 126
1,2,3,4,6,7,8-HpCDF	ND		1030	1040		pg/L		101	71 - 121
1,2,3,4,7,8,9-HpCDF	ND		1030	1030		pg/L		100	73 - 123
OCDF	1.7	J I B	2050	1690		pg/L		82	49 - 134

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
13C-2,3,7,8-TCDD	*66*		*40 - 135*
13C-1,2,3,7,8-PeCDD	*71*		*40 - 135*
13C-1,2,3,4,7,8-HxCDD	*67*		*40 - 135*
13C-1,2,3,6,7,8-HxCDD	*69*		*40 - 135*
13C-1,2,3,4,6,7,8-HpCDD	*92*		*40 - 135*
13C-OCDD	*79*		*40 - 135*
13C-2,3,7,8-TCDF	*69*		*40 - 135*
13C-1,2,3,7,8-PeCDF	*72*		*40 - 135*
13C-2,3,4,7,8-PeCDF	*66*		*40 - 135*
13C-1,2,3,4,7,8-HxCDF	*71*		*40 - 135*
13C-1,2,3,6,7,8-HxCDF	*64*		*40 - 135*
13C-2,3,4,6,7,8-HxCDF	*70*		*40 - 135*
13C-1,2,3,7,8,9-HxCDF	*80*		*40 - 135*
13C-1,2,3,4,6,7,8-HpCDF	*74*		*40 - 135*
13C-1,2,3,4,7,8,9-HpCDF	*93*		*40 - 135*
13C-OCDF	*83*		*40 - 135*

Lab Sample ID: 480-169009-13 MSD
Client Sample ID: SUPE-W-06C-042120
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 39398
Prep Batch: 39332

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,3,7,8-TCDD	ND		200	226		pg/L		113	77 - 127	2	15
1,2,3,7,8-PeCDD	ND		1000	1030		pg/L		103	78 - 128	2	15
1,2,3,4,7,8-HxCDD	ND		1000	1030		pg/L		103	73 - 123	4	15
1,2,3,6,7,8-HxCDD	0.35	J I B	1000	1050		pg/L		105	72 - 127	2	15
1,2,3,7,8,9-HxCDD	0.36	J I B	1000	1150		pg/L		115	76 - 126	5	15
1,2,3,4,6,7,8-HpCDD	1.5	J I B	1000	944		pg/L		94	73 - 123	3	15
OCDD	12	J B	2000	1950		pg/L		97	75 - 125	2	15
2,3,7,8-TCDF	ND		200	215		pg/L		108	74 - 124	1	15
1,2,3,7,8-PeCDF	ND		1000	983		pg/L		98	74 - 124	2	15
2,3,4,7,8-PeCDF	ND		1000	1030		pg/L		103	74 - 124	1	15
1,2,3,4,7,8-HxCDF	ND		1000	1010		pg/L		101	75 - 125	1	15
1,2,3,6,7,8-HxCDF	ND		1000	975		pg/L		97	75 - 125	4	15
2,3,4,6,7,8-HxCDF	ND		1000	1060		pg/L		106	76 - 126	0	15
1,2,3,7,8,9-HxCDF	ND		1000	1020		pg/L		102	76 - 126	1	15
1,2,3,4,6,7,8-HpCDF	ND		1000	1020		pg/L		102	71 - 121	2	15
1,2,3,4,7,8,9-HpCDF	ND		1000	1010		pg/L		101	73 - 123	2	15
OCDF	1.7	J I B	2000	1690		pg/L		84	49 - 134	0	15

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
13C-2,3,7,8-TCDD	*64*		*40 - 135*

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

Lab Sample ID: 480-169009-13 MSD
Matrix: Water
Analysis Batch: 39398

Client Sample ID: SUPE-W-06C-042120
Prep Type: Total/NA
Prep Batch: 39332

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C-1,2,3,7,8-PeCDD	71		40 - 135
13C-1,2,3,4,7,8-HxCDD	70		40 - 135
13C-1,2,3,6,7,8-HxCDD	71		40 - 135
13C-1,2,3,4,6,7,8-HpCDD	93		40 - 135
13C-OCDD	75		40 - 135
13C-2,3,7,8-TCDF	68		40 - 135
13C-1,2,3,7,8-PeCDF	68		40 - 135
13C-2,3,4,7,8-PeCDF	64		40 - 135
13C-1,2,3,4,7,8-HxCDF	73		40 - 135
13C-1,2,3,6,7,8-HxCDF	68		40 - 135
13C-2,3,4,6,7,8-HxCDF	71		40 - 135
13C-1,2,3,7,8,9-HxCDF	82		40 - 135
13C-1,2,3,4,6,7,8-HpCDF	78		40 - 135
13C-1,2,3,4,7,8,9-HpCDF	94		40 - 135
13C-OCDF	82		40 - 135

GC/MS VOA

Analysis Batch: 528085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-169009-1	SUPE-M99-A-042120	Total/NA	Water	8260C	
480-169009-2	SUPE-TB-01-042220	Total/NA	Water	8260C	
480-169009-3	SUPE-W-28C-042220	Total/NA	Water	8260C	
480-169009-4	SUPE-W-12A-042220	Total/NA	Water	8260C	
480-169009-6	SUPE-W-04AR2-042220	Total/NA	Water	8260C	
480-169009-7	SUPE-EB-01-042220	Total/NA	Water	8260C	
480-169009-8	SUPE-W-30C-042120	Total/NA	Water	8260C	
480-169009-9	SUPE-W-12CR-042220	Total/NA	Water	8260C	
480-169009-10	SUPE-W-30A-042220	Total/NA	Water	8260C	
480-169009-11	SUPE-W-06A-042120	Total/NA	Water	8260C	
480-169009-12	SUPE-W-10AR2-042220	Total/NA	Water	8260C	
480-169009-13	SUPE-W-06C-042120	Total/NA	Water	8260C	
MB 480-528085/9	Method Blank	Total/NA	Water	8260C	
LCS 480-528085/6	Lab Control Sample	Total/NA	Water	8260C	
480-169009-13 MS	SUPE-W-06C-042120	Total/NA	Water	8260C	
480-169009-13 MSD	SUPE-W-06C-042120	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 528528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-169009-10	SUPE-W-30A-042220	Total/NA	Water	3510C	
480-169009-11	SUPE-W-06A-042120	Total/NA	Water	3510C	
480-169009-12	SUPE-W-10AR2-042220	Total/NA	Water	3510C	
480-169009-13	SUPE-W-06C-042120	Total/NA	Water	3510C	
MB 480-528528/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-528528/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-169009-13 MS	SUPE-W-06C-042120	Total/NA	Water	3510C	
480-169009-13 MSD	SUPE-W-06C-042120	Total/NA	Water	3510C	

Analysis Batch: 528712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-169009-10	SUPE-W-30A-042220	Total/NA	Water	8270D LL	528528
480-169009-11	SUPE-W-06A-042120	Total/NA	Water	8270D LL	528528
480-169009-12	SUPE-W-10AR2-042220	Total/NA	Water	8270D LL	528528
480-169009-13	SUPE-W-06C-042120	Total/NA	Water	8270D LL	528528
MB 480-528528/1-A	Method Blank	Total/NA	Water	8270D LL	528528
LCS 480-528528/2-A	Lab Control Sample	Total/NA	Water	8270D LL	528528
480-169009-13 MS	SUPE-W-06C-042120	Total/NA	Water	8270D LL	528528
480-169009-13 MSD	SUPE-W-06C-042120	Total/NA	Water	8270D LL	528528

Prep Batch: 528777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-169009-1	SUPE-M99-A-042120	Total/NA	Water	3510C	
480-169009-3	SUPE-W-28C-042220	Total/NA	Water	3510C	
480-169009-4	SUPE-W-12A-042220	Total/NA	Water	3510C	
480-169009-5	SUPE-W-18D-042220	Total/NA	Water	3510C	
480-169009-6	SUPE-W-04AR2-042220	Total/NA	Water	3510C	
480-169009-7	SUPE-EB-01-042220	Total/NA	Water	3510C	
480-169009-8	SUPE-W-30C-042120	Total/NA	Water	3510C	
480-169009-9	SUPE-W-12CR-042220	Total/NA	Water	3510C	

GC/MS Semi VOA (Continued)

Prep Batch: 528777 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-528777/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-528777/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-528777/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 528988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-169009-1	SUPE-M99-A-042120	Total/NA	Water	8270D LL	528777
480-169009-3	SUPE-W-28C-042220	Total/NA	Water	8270D LL	528777
480-169009-4	SUPE-W-12A-042220	Total/NA	Water	8270D LL	528777
480-169009-5	SUPE-W-18D-042220	Total/NA	Water	8270D LL	528777
480-169009-6	SUPE-W-04AR2-042220	Total/NA	Water	8270D LL	528777
480-169009-7	SUPE-EB-01-042220	Total/NA	Water	8270D LL	528777
480-169009-8	SUPE-W-30C-042120	Total/NA	Water	8270D LL	528777
480-169009-9	SUPE-W-12CR-042220	Total/NA	Water	8270D LL	528777
MB 480-528777/1-A	Method Blank	Total/NA	Water	8270D LL	528777
LCS 480-528777/2-A	Lab Control Sample	Total/NA	Water	8270D LL	528777
LCSD 480-528777/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	528777

Prep Batch: 539931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-169009-1	SUPE-M99-A-042120	Total/NA	Water	3510C	
480-169009-3	SUPE-W-28C-042220	Total/NA	Water	3510C	
480-169009-4	SUPE-W-12A-042220	Total/NA	Water	3510C	
480-169009-5	SUPE-W-18D-042220	Total/NA	Water	3510C	
480-169009-6	SUPE-W-04AR2-042220	Total/NA	Water	3510C	
480-169009-7	SUPE-EB-01-042220	Total/NA	Water	3510C	
480-169009-8	SUPE-W-30C-042120	Total/NA	Water	3510C	
480-169009-9	SUPE-W-12CR-042220	Total/NA	Water	3510C	
480-169009-10	SUPE-W-30A-042220	Total/NA	Water	3510C	
480-169009-11	SUPE-W-06A-042120	Total/NA	Water	3510C	
480-169009-12 - DL	SUPE-W-10AR2-042220	Total/NA	Water	3510C	
480-169009-12	SUPE-W-10AR2-042220	Total/NA	Water	3510C	
480-169009-13	SUPE-W-06C-042120	Total/NA	Water	3510C	
MB 500-539931/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-539931/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-169009-13 MS	SUPE-W-06C-042120	Total/NA	Water	3510C	
480-169009-13 MSD	SUPE-W-06C-042120	Total/NA	Water	3510C	

Analysis Batch: 540079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-169009-1	SUPE-M99-A-042120	Total/NA	Water	8270D	539931
480-169009-3	SUPE-W-28C-042220	Total/NA	Water	8270D	539931
480-169009-4	SUPE-W-12A-042220	Total/NA	Water	8270D	539931
480-169009-5	SUPE-W-18D-042220	Total/NA	Water	8270D	539931
480-169009-6	SUPE-W-04AR2-042220	Total/NA	Water	8270D	539931
480-169009-7	SUPE-EB-01-042220	Total/NA	Water	8270D	539931
480-169009-8	SUPE-W-30C-042120	Total/NA	Water	8270D	539931
480-169009-9	SUPE-W-12CR-042220	Total/NA	Water	8270D	539931
480-169009-10	SUPE-W-30A-042220	Total/NA	Water	8270D	539931
480-169009-11	SUPE-W-06A-042120	Total/NA	Water	8270D	539931
480-169009-12	SUPE-W-10AR2-042220	Total/NA	Water	8270D	539931

GC/MS Semi VOA (Continued)

Analysis Batch: 540079 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-169009-12 - DL	SUPE-W-10AR2-042220	Total/NA	Water	8270D	539931
480-169009-13	SUPE-W-06C-042120	Total/NA	Water	8270D	539931
MB 500-539931/1-A	Method Blank	Total/NA	Water	8270D	539931
LCS 500-539931/2-A	Lab Control Sample	Total/NA	Water	8270D	539931
480-169009-13 MS	SUPE-W-06C-042120	Total/NA	Water	8270D	539931
480-169009-13 MSD	SUPE-W-06C-042120	Total/NA	Water	8270D	539931

Specialty Organics

Prep Batch: 39332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-169009-1	SUPE-M99-A-042120	Total/NA	Water	8290	
480-169009-3	SUPE-W-28C-042220	Total/NA	Water	8290	
480-169009-4	SUPE-W-12A-042220	Total/NA	Water	8290	
480-169009-6	SUPE-W-04AR2-042220	Total/NA	Water	8290	
480-169009-7	SUPE-EB-01-042220	Total/NA	Water	8290	
480-169009-8	SUPE-W-30C-042120	Total/NA	Water	8290	
480-169009-9	SUPE-W-12CR-042220	Total/NA	Water	8290	
480-169009-10	SUPE-W-30A-042220	Total/NA	Water	8290	
480-169009-11	SUPE-W-06A-042120	Total/NA	Water	8290	
480-169009-12	SUPE-W-10AR2-042220	Total/NA	Water	8290	
480-169009-13	SUPE-W-06C-042120	Total/NA	Water	8290	
MB 140-39332/18-A	Method Blank	Total/NA	Water	8290	
LCS 140-39332/17-A	Lab Control Sample	Total/NA	Water	8290	
480-169009-13 MS	SUPE-W-06C-042120	Total/NA	Water	8290	
480-169009-13 MSD	SUPE-W-06C-042120	Total/NA	Water	8290	

Analysis Batch: 39381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-169009-1	SUPE-M99-A-042120	Total/NA	Water	8290A	39332
480-169009-3	SUPE-W-28C-042220	Total/NA	Water	8290A	39332
MB 140-39332/18-A	Method Blank	Total/NA	Water	8290A	39332
LCS 140-39332/17-A	Lab Control Sample	Total/NA	Water	8290A	39332

Analysis Batch: 39395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-169009-4	SUPE-W-12A-042220	Total/NA	Water	8290A	39332
480-169009-6	SUPE-W-04AR2-042220	Total/NA	Water	8290A	39332
480-169009-7	SUPE-EB-01-042220	Total/NA	Water	8290A	39332
480-169009-8	SUPE-W-30C-042120	Total/NA	Water	8290A	39332
480-169009-9	SUPE-W-12CR-042220	Total/NA	Water	8290A	39332
480-169009-10	SUPE-W-30A-042220	Total/NA	Water	8290A	39332
480-169009-11	SUPE-W-06A-042120	Total/NA	Water	8290A	39332

Analysis Batch: 39398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-169009-12	SUPE-W-10AR2-042220	Total/NA	Water	8290A	39332
480-169009-13	SUPE-W-06C-042120	Total/NA	Water	8290A	39332
480-169009-13 MS	SUPE-W-06C-042120	Total/NA	Water	8290A	39332
480-169009-13 MSD	SUPE-W-06C-042120	Total/NA	Water	8290A	39332

Lab Chronicle

Client: Field & Technical Services LLC
Job ID: 480-169009-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-M99-A-042120
Lab Sample ID: 480-169009-1
Date Collected: 04/21/20 00:00
Matrix: Water
Date Received: 04/24/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	528085	04/26/20 00:09	AMM	TAL BUF
Total/NA	Prep	3510C			539931	04/27/20 17:28	CMC	TAL CHI
Total/NA	Analysis	8270D		1	540079	04/28/20 14:51	NRJ	TAL CHI
Total/NA	Prep	3510C			528777	04/29/20 15:30	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	528988	04/30/20 16:17	PJQ	TAL BUF
Total/NA	Prep	8290			39332	04/28/20 11:57	SMA	TAL KNX
Total/NA	Analysis	8290A		1	39381	04/30/20 16:58	MSD	TAL KNX

Client Sample ID: SUPE-TB-01-042220
Lab Sample ID: 480-169009-2
Date Collected: 04/22/20 07:25
Matrix: Water
Date Received: 04/24/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	528085	04/26/20 00:32	AMM	TAL BUF

Client Sample ID: SUPE-W-28C-042220
Lab Sample ID: 480-169009-3
Date Collected: 04/22/20 07:55
Matrix: Water
Date Received: 04/24/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	528085	04/26/20 00:55	AMM	TAL BUF
Total/NA	Prep	3510C			539931	04/27/20 17:28	CMC	TAL CHI
Total/NA	Analysis	8270D		1	540079	04/28/20 15:19	NRJ	TAL CHI
Total/NA	Prep	3510C			528777	04/29/20 15:30	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	528988	04/30/20 16:45	PJQ	TAL BUF
Total/NA	Prep	8290			39332	04/28/20 11:57	SMA	TAL KNX
Total/NA	Analysis	8290A		1	39381	04/30/20 17:59	MSD	TAL KNX

Client Sample ID: SUPE-W-12A-042220
Lab Sample ID: 480-169009-4
Date Collected: 04/22/20 09:20
Matrix: Water
Date Received: 04/24/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	528085	04/26/20 01:18	AMM	TAL BUF
Total/NA	Prep	3510C			539931	04/27/20 17:28	CMC	TAL CHI
Total/NA	Analysis	8270D		1	540079	04/28/20 15:46	NRJ	TAL CHI
Total/NA	Prep	3510C			528777	04/29/20 15:30	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	528988	04/30/20 17:14	PJQ	TAL BUF
Total/NA	Prep	8290			39332	04/28/20 11:57	SMA	TAL KNX
Total/NA	Analysis	8290A		1	39395	04/30/20 23:57	PMP	TAL KNX

Lab Chronicle

Client: Field & Technical Services LLC
Job ID: 480-169009-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-18D-042220
Lab Sample ID: 480-169009-5
Date Collected: 04/22/20 11:12
Matrix: Water
Date Received: 04/24/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			539931	04/27/20 17:28	CMC	TAL CHI
Total/NA	Analysis	8270D		1	540079	04/28/20 19:55	NRJ	TAL CHI
Total/NA	Prep	3510C			528777	04/29/20 15:30	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	528988	04/30/20 17:42	PJQ	TAL BUF

Client Sample ID: SUPE-W-04AR2-042220
Lab Sample ID: 480-169009-6
Date Collected: 04/22/20 12:25
Matrix: Water
Date Received: 04/24/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	528085	04/26/20 01:41	AMM	TAL BUF
Total/NA	Prep	3510C			539931	04/27/20 17:28	CMC	TAL CHI
Total/NA	Analysis	8270D		1	540079	04/28/20 20:23	NRJ	TAL CHI
Total/NA	Prep	3510C			528777	04/29/20 15:30	ATG	TAL BUF
Total/NA	Analysis	8270D LL		5	528988	04/30/20 18:11	PJQ	TAL BUF
Total/NA	Prep	8290			39332	04/28/20 11:57	SMA	TAL KNX
Total/NA	Analysis	8290A		1	39395	05/01/20 00:58	PMP	TAL KNX

Client Sample ID: SUPE-EB-01-042220
Lab Sample ID: 480-169009-7
Date Collected: 04/22/20 13:10
Matrix: Water
Date Received: 04/24/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	528085	04/26/20 02:04	AMM	TAL BUF
Total/NA	Prep	3510C			539931	04/27/20 17:28	CMC	TAL CHI
Total/NA	Analysis	8270D		1	540079	04/28/20 16:14	NRJ	TAL CHI
Total/NA	Prep	3510C			528777	04/29/20 15:30	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	528988	04/30/20 18:40	PJQ	TAL BUF
Total/NA	Prep	8290			39332	04/28/20 11:57	SMA	TAL KNX
Total/NA	Analysis	8290A		1	39395	05/01/20 01:59	PMP	TAL KNX

Client Sample ID: SUPE-W-30C-042120
Lab Sample ID: 480-169009-8
Date Collected: 04/21/20 13:45
Matrix: Water
Date Received: 04/24/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	528085	04/26/20 02:27	AMM	TAL BUF
Total/NA	Prep	3510C			539931	04/27/20 17:28	CMC	TAL CHI
Total/NA	Analysis	8270D		1	540079	04/28/20 16:42	NRJ	TAL CHI
Total/NA	Prep	3510C			528777	04/29/20 15:30	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	528988	04/30/20 19:09	PJQ	TAL BUF
Total/NA	Prep	8290			39332	04/28/20 11:57	SMA	TAL KNX
Total/NA	Analysis	8290A		1	39395	05/01/20 03:00	PMP	TAL KNX

Client Sample ID: SUPE-W-12CR-042220
Lab Sample ID: 480-169009-9

Date Collected: 04/22/20 13:52
Matrix: Water
Date Received: 04/24/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	528085	04/26/20 02:50	AMM	TAL BUF
Total/NA	Prep	3510C			539931	04/27/20 17:28	CMC	TAL CHI
Total/NA	Analysis	8270D		1	540079	04/28/20 18:04	NRJ	TAL CHI
Total/NA	Prep	3510C			528777	04/29/20 15:30	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	528988	04/30/20 19:37	PJQ	TAL BUF
Total/NA	Prep	8290			39332	04/28/20 11:57	SMA	TAL KNX
Total/NA	Analysis	8290A		1	39395	05/01/20 04:01	PMP	TAL KNX

Client Sample ID: SUPE-W-30A-042220
Lab Sample ID: 480-169009-10

Date Collected: 04/22/20 15:00
Matrix: Water
Date Received: 04/24/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	528085	04/26/20 03:14	AMM	TAL BUF
Total/NA	Prep	3510C			539931	04/27/20 17:28	CMC	TAL CHI
Total/NA	Analysis	8270D		1	540079	04/28/20 19:00	NRJ	TAL CHI
Total/NA	Prep	3510C			528528	04/28/20 15:23	ATG	TAL BUF
Total/NA	Analysis	8270D LL		10	528712	04/29/20 18:05	PJQ	TAL BUF
Total/NA	Prep	8290			39332	04/28/20 11:57	SMA	TAL KNX
Total/NA	Analysis	8290A		1	39395	05/01/20 05:02	PMP	TAL KNX

Client Sample ID: SUPE-W-06A-042120
Lab Sample ID: 480-169009-11

Date Collected: 04/21/20 15:35
Matrix: Water
Date Received: 04/24/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	528085	04/26/20 03:37	AMM	TAL BUF
Total/NA	Prep	3510C			539931	04/27/20 17:28	CMC	TAL CHI
Total/NA	Analysis	8270D		1	540079	04/28/20 18:32	NRJ	TAL CHI
Total/NA	Prep	3510C			528528	04/28/20 15:23	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	528712	04/29/20 18:34	PJQ	TAL BUF
Total/NA	Prep	8290			39332	04/28/20 11:57	SMA	TAL KNX
Total/NA	Analysis	8290A		1	39395	05/01/20 06:03	PMP	TAL KNX

Client Sample ID: SUPE-W-10AR2-042220
Lab Sample ID: 480-169009-12

Date Collected: 04/22/20 17:00
Matrix: Water
Date Received: 04/24/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	528085	04/26/20 04:00	AMM	TAL BUF
Total/NA	Prep	3510C			539931	04/27/20 17:28	CMC	TAL CHI
Total/NA	Analysis	8270D		1	540079	04/28/20 19:27	NRJ	TAL CHI
Total/NA	Prep	3510C	DL		539931	04/27/20 17:28	CMC	TAL CHI
Total/NA	Analysis	8270D	DL	5	540079	04/28/20 22:14	NRJ	TAL CHI

Lab Chronicle

Client: Field & Technical Services LLC
Job ID: 480-169009-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-10AR2-042220
Lab Sample ID: 480-169009-12

Date Collected: 04/22/20 17:00
Matrix: Water
Date Received: 04/24/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			528528	04/28/20 15:23	ATG	TAL BUF
Total/NA	Analysis	8270D LL		5	528712	04/29/20 19:02	PJQ	TAL BUF
Total/NA	Prep	8290			39332	04/28/20 11:57	SMA	TAL KNX
Total/NA	Analysis	8290A		1	39398	05/01/20 12:44	MSD	TAL KNX

Client Sample ID: SUPE-W-06C-042120
Lab Sample ID: 480-169009-13

Date Collected: 04/21/20 17:30
Matrix: Water
Date Received: 04/24/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	528085	04/26/20 04:24	AMM	TAL BUF
Total/NA	Prep	3510C			539931	04/27/20 17:28	CMC	TAL CHI
Total/NA	Analysis	8270D		1	540079	04/28/20 14:23	NRJ	TAL CHI
Total/NA	Prep	3510C			528528	04/28/20 15:23	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	528712	04/29/20 17:37	PJQ	TAL BUF
Total/NA	Prep	8290			39332	04/28/20 11:57	SMA	TAL KNX
Total/NA	Analysis	8290A		1	39398	05/01/20 13:45	MSD	TAL KNX

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: 480-169009-1
Project/Site: Superior, WI Semiannual Groundwater

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704412-18-10	08-01-20

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
8260C		Water	m-Xylene & p-Xylene
8260C		Water	o-Xylene

Laboratory: Eurofins TestAmerica, Chicago

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2903	04-30-20
Georgia	State	N/A	04-30-20
Georgia (DW)	State	939	04-30-20
Hawaii	State	NA	04-30-20
Illinois	NELAP	IL00035	04-30-20
Indiana	State	C-IL-02	04-30-20
Iowa	State	082	05-01-20
Kansas	NELAP	E-10161	11-01-20
Kentucky (UST)	State	AI # 108083	04-30-20
Kentucky (WW)	State	KY90023	12-31-20
Louisiana	NELAP	02046	06-30-20
Mississippi	State	NA	04-30-20
New York	NELAP	12019	04-01-21
North Carolina (WW/SW)	State	291	12-31-20
North Dakota	State	R-194	04-30-20
Oklahoma	State	8908	08-31-20
South Carolina	State	77001003	04-30-20
USDA	US Federal Programs	P330-18-00018	02-11-21
Wisconsin	State	999580010	08-31-20
Wyoming	State	8TMS-Q	04-30-20

Accreditation/Certification Summary

Client: Field & Technical Services LLC
Job ID: 480-169009-1
Project/Site: Superior, WI Semiannual Groundwater

Laboratory: Eurofins TestAmerica, Knoxville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
	AFCEE	N/A	
ANAB	Dept. of Defense ELAP	L2311	02-13-22
ANAB	Dept. of Energy	L2311.01	02-13-22
ANAB	ISO/IEC 17025	L2311	02-13-22
ANAB	ISO/IEC 17025	L2311	02-14-22
Arkansas DEQ	State	88-0688	06-16-20
California	State	2423	06-30-20
Colorado	State	TN00009	02-28-21
Connecticut	State	PH-0223	09-30-21
Florida	NELAP	E87177	06-30-20
Georgia (DW)	State	906	12-11-22
Hawaii	State	NA	12-11-21
Kansas	NELAP	E-10349	11-01-20
Kentucky (DW)	State	90101	01-01-21
Louisiana	NELAP	83979	07-02-20
Louisiana (DW)	State	LA019	12-31-20
Maryland	State	277	03-31-21
Michigan	State	9933	12-11-22
Nevada	State	TN00009	07-31-20
New Hampshire	NELAP	299919	01-17-21
New Jersey	NELAP	TN001	06-30-20
New York	NELAP	10781	03-31-21
North Carolina (DW)	State	21705	07-31-20
North Carolina (WW/SW)	State	64	12-31-20
Ohio VAP	State	CL0059	08-28-20
Oklahoma	State	9415	09-01-20
Oregon	NELAP	TNI0189	01-02-21
Pennsylvania	NELAP	68-00576	12-31-20
Tennessee	State	02014	12-11-22
Texas	NELAP	T104704380-18-12	08-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-19-00236	08-20-22
Utah	NELAP	TN00009	07-31-20
Virginia	NELAP	460176	09-15-20
Washington	State	C593	01-19-21
West Virginia (DW)	State	9955C	01-01-21
West Virginia DEP	State	345	05-01-21
Wisconsin	State	998044300	08-31-20

Accreditation/Certification Summary

Client: Field & Technical Services LLC
Job ID: 480-169009-1
Project/Site: Superior, WI Semiannual Groundwater

Laboratory: Eurofins TestAmerica, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-20
California	State	2891	04-30-21
Connecticut	State	PH-0688	09-30-20
Florida	NELAP	E871008	06-30-20
Georgia	State	PA 02-00416	04-30-21
Illinois	NELAP	004375	06-30-20
Kansas	NELAP	E-10350	01-31-21
Kentucky (UST)	State	162013	04-30-21
Kentucky (WW)	State	KY98043	12-31-20
Louisiana	NELAP	04041	06-30-20
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-20
Nevada	State	PA00164	07-31-20
New Hampshire	NELAP	2030	04-05-21
New Jersey	NELAP	PA005	06-30-20
New York	NELAP	11182	04-01-21
North Carolina (WW/SW)	State	434	01-01-21
North Dakota	State	R-227	04-30-20 *
Oregon	NELAP	PA-2151	02-06-21
Pennsylvania	NELAP	02-00416	04-30-21
Rhode Island	State	LAO00362	12-31-20
South Carolina	State	89014	04-30-20 *
Texas	NELAP	T104704528	03-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-20
Virginia	NELAP	10043	09-15-20
West Virginia DEP	State	142	02-01-21
Wisconsin	State	998027800	08-31-20

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Field & Technical Services LLC
Job ID: 480-169009-1
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
Project/Site: Superior, WI Semiannual Groundwater

Job ID: 480-169009-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-169009-1	SUPE-M99-A-042120	Water	04/21/20 00:00	04/24/20 10:00	
480-169009-2	SUPE-TB-01-042220	Water	04/22/20 07:25	04/24/20 10:00	
480-169009-3	SUPE-W-28C-042220	Water	04/22/20 07:55	04/24/20 10:00	
480-169009-4	SUPE-W-12A-042220	Water	04/22/20 09:20	04/24/20 10:00	
480-169009-5	SUPE-W-18D-042220	Water	04/22/20 11:12	04/24/20 10:00	
480-169009-6	SUPE-W-04AR2-042220	Water	04/22/20 12:25	04/24/20 10:00	
480-169009-7	SUPE-EB-01-042220	Water	04/22/20 13:10	04/24/20 10:00	
480-169009-8	SUPE-W-30C-042120	Water	04/21/20 13:45	04/24/20 10:00	
480-169009-9	SUPE-W-12CR-042220	Water	04/22/20 13:52	04/24/20 10:00	
480-169009-10	SUPE-W-30A-042220	Water	04/22/20 15:00	04/24/20 10:00	
480-169009-11	SUPE-W-06A-042120	Water	04/21/20 15:35	04/24/20 10:00	
480-169009-12	SUPE-W-10AR2-042220	Water	04/22/20 17:00	04/24/20 10:00	
480-169009-13	SUPE-W-06C-042120	Water	04/21/20 17:30	04/24/20 10:00	

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 754

TestAmerica Duluth SC
269

754

Project Name:	Superior 2020 1SA Sampling	Company:	Field & Technical Services	Client:	Beazer East, Inc.
Project Number:	OM-0556-20	Address:	200 Third Avenue	Contact:	(21) 4 4-9876
Laboratory:	TABUF		Carnegie, PA 15106		kmcmullen.2006@f-ts.com
Shipment Method	FEDEX		(412) 279-3363		
Program:	Superior 2020 1SA Sampling_001				

480-169009 Chain of Custody

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8260B_VOA+naphtha	8270C_SVOC (less naphtha)	8270C_SVOC+naphtha													Notes:
				Preservative	HCL	None														
				Total Bottle Count																
04/21/2020	0000	GW	SUPE-M99-A-042120	6	3	3														
04/22/2020	0725	GW	SUPE-TB-01-042220	2	2	0														
04/22/2020	0755	GW	SUPE-W-28C-042220	6	3	3														
04/22/2020	0920	GW	SUPE-W-12A-042220	6	3	3														
04/22/2020	1112	GW	SUPE-W-18D-042220	3	0	0	3													
04/22/2020	1225	GW	SUPE-W-04AR2-042220	6	3	3	0													
04/22/2020	1310	GW	SUPE-EB-01-042220	6	3	3	0													
04/21/2020	1345	GW	SUPE-W-30C-042120	6	3	3														
04/22/2020	1352	GW	SUPE-W-12CR-042220	6	3	3	0													
04/22/2020	1500	GW	SUPE-W-30A-042220	6	3	3	0													
04/21/2020	1535	GW	SUPE-W-06A-042120	6	3	3														

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: Katie McMullen	Signature: Melissa Gascon	Signature: Melissa Gascon	Signature: Ewallace	
Printed Name: Katie McMullen	Printed Name: Melissa Gascon	Printed Name: Melissa Gascon	Printed Name: Ewallace	☐ Rush
Firm: FTS	Firm: Eurofins	Firm: Eurofins	Firm: TAB	☒ Standard
Date/Time: 04/22/2020 1809	Date/Time: 4/23/20 0830	Date/Time: 4/23/20 1430	Date/Time: 4/24/20 1000	

#1 3,4,3,1,3,0
2,0,3,7,2,4
3,3

TestAmerica Duluth SC
269

Page 1 of 1

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 754

TestAmerica Duluth SC 269

754

Project Name:	Superior 2020 1SA Sampling	Company:	Field & Technical Services	Client:	Beazer East, Inc.
Project Number:	OM-0556-20	Address:	200 Third Avenue	Contact:	(21) 4 4-9876
Laboratory:	TABUF		Carnegie, PA 15106		kmcmullen.2006@f-ts.com
Shipment Method	FEDEX		(412) 279-3363		
Program:	Superior 2020 1SA Sampling_001				

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																Notes:
04/22/2020	1700	GW	SUPE-W-10AR2-042220	6	3	3	0													
04/21/2020	1730	GW	SUPE-W-06C-MS/MSD-042120	12	6	6														
04/21/2020	1730	GW	SUPE-W-06C-042120	6	3	3														

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: KM McMullen	Signature: Melissa Gascon	Signature: Melissa Gascon	Signature: Cwallace	[ ] Rush
Printed Name: Katie McMullen	Printed Name: Melissa Gascon	Printed Name: Melissa Gascon	Printed Name: Cwallace	
Firm: FTS	Firm: Eurofins	Firm: Eurofins	Firm: TAB	[X] Standard
Date/Time: 04/22/2020 1809	Date/Time: 4/23/20 0830	Date/Time: 4/23/20 1430	Date/Time: 4/24/20 1000	

TestAmerica Duluth SC 269

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 755

TestAmerica Duluth SC 269 *755*

Project Name:	Superior 2020 1SA Sampling	Company:	Field & Technical Services	Client:	Beazer East, Inc.
Project Number:	OM-0556-20	Address:	200 Third Avenue	Contact:	(21) 4 4-9876
Laboratory:	TAKNOX		Carnegie, PA 15106		kmcmullen.2006@f-ts.com
Shipment Method	FEDEX		(412) 279-3363		
Program:	Superior 2020 1SA Sampling_001				

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8290_Dioxins/Furans																
				Preservative	None																
				Total Bottle Count																	Notes:
04/21/2020	0000	GW	SUPE-M99-A-042120	2	2																
04/22/2020	0755	GW	SUPE-W-28C-042220	2	2																
04/22/2020	0920	GW	SUPE-W-12A-042220	2	2																
04/22/2020	1225	GW	SUPE-W-04AR2-042220	2	2																
04/22/2020	1310	GW	SUPE-EB-01-042220	2	2																
04/21/2020	1345	GW	SUPE-W-30C-042120	2	2																
04/22/2020	1352	GW	SUPE-W-12CR-042220	2	2																
04/22/2020	1500	GW	SUPE-W-30A-042220	2	2																
04/21/2020	1535	GW	SUPE-W-06A-042120	2	2																
04/22/2020	1700	GW	SUPE-W-10AR2-042220	2	2																

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: Kat McMullen	Signature: Melissa Gascon	Signature: Melissa Gascon	Signature: Cwallace	☐ Rush
Printed Name: Katie McMullen	Printed Name: Melissa Gascon	Printed Name: Melissa Gascon	Printed Name: Cwallace	
Firm: FTS	Firm: Eurofins	Firm: Eurofins	Firm: TAB	☒ Standard
Date/Time: 04/22/2020 1809	Date/Time: 4/23/20 0830	Date/Time: 4/23/20 1430	Date/Time: 4/24/20 1000	

TestAmerica Duluth SC 269

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 755

TestAmerica Duluth SC *755*
269

Project Name:	Superior 2020 1SA Sampling	Company:	Field & Technical Services	Client:	Beazer East, Inc.
Project Number:	OM-0556-20	Address:	200 Third Avenue	Contact:	(21) 4 4-9876
Laboratory:	TAKNOX		Carnegie, PA 15106		kmcmullen.2006@f-ts.com
Shipment Method	FEDEX		(412) 279-3363		
Program:	Superior 2020 1SA Sampling_001				

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8290_Dioxins/Furans																Notes:
				Preservative	None																
				Total Bottle Count																	
04/21/2020	1730	GW	SUPE-W-06C-MS/MSD-042120	4	4																
04/21/2020	1730	GW	SUPE-W-06C-042120	2	2																

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: Kat McMu	Signature: Melissa Gascon	Signature: Melissa Gascon	Signature: Cwallace	☐ Rush
Printed Name: Katie McMullen	Printed Name: Melissa Gascon	Printed Name: Melissa Gascon	Printed Name: Cwallace	
Firm: FTS	Firm: Eurofins	Firm: Eurofins	Firm: TAB	☒ Standard
Date/Time: 04/22/2020 1809	Date/Time: 4/23/20 0830	Date/Time: 4/23/20 1430	Date/Time: 4/24/20 1000	

TestAmerica Duluth SC
269

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone: 865-291-3000 Fax: 865-584-4315

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Bortot, Veronica	Carrier Tracking No(s):	COC No: 140-7520.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: veronica.bortot@testamericainc.com	State of Origin: Texas	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Texas		Job #: 480-169009-1
Address: 10 Hazelwood Drive, ,	Due Date Requested: 5/12/2020			
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#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, 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)	8260C/5030C (MOD) Volatiles, project list	8270D_LL/3510C_LL (MOD) Pentachlorophenol	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SUPE-M99-A-042120 (480-169009-1)	4/21/20	Central		Water			X		1	1x hx; Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-28C-042220 (480-169009-3)	4/22/20	07:55 Central		Water			X		1	1x hx; Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-12A-042220 (480-169009-4)	4/22/20	09:20 Central		Water			X		1	1x hx; Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-04AR2-042220 (480-169009-6)	4/22/20	12:25 Central		Water			X		1	1x hx; Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-EB-01-042220 (480-169009-7)	4/22/20	13:10 Central		Water			X		1	1x EB; Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-30C-042120 (480-169009-8)	4/21/20	13:45 Central		Water			X		1	1x hx; Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-12CR-042220 (480-169009-9)	4/22/20	13:52 Central		Water			X		1	1x hx; Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-30A-042220 (480-169009-10)	4/22/20	15:00 Central		Water			X	X	1	2x hx; Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-06A-042120 (480-169009-11)	4/21/20	15:35 Central		Water			X	X	1	1x hx; 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
[signature]	4-28-20 11:50	ETA KN X	[signature]	04/29/20 1600	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: 3.7 4.1 # 1 ICE

Ver: 01/16/2019

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone: 865-291-3000 Fax: 865-584-4315

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Bortot, Veronica	Carrier Tracking No(s):	COC No: 140-7520.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: veronica.bortot@testamericainc.com	State of Origin: Texas	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Texas		Job #: 480-169009-1
Address: 10 Hazelwood Drive, ,	Due Date Requested: 5/12/2020			
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#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, 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)	8260C/5030C (MOD) Volatiles, project list	8270D_LL/3510C_LL (MOD) Pentachlorophenol	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SUPE-W-10AR2-042220 (480-169009-12)	4/22/20	17:00 Central		Water			X	X	1	1x hx; Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-06C-042120 (480-169009-13)	4/21/20	17:30 Central		Water			X	X	1	1x hx; Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-06C-042120 (480-169009-13MS)	4/21/20	17:30 Central	MS	Water			X	X	1	1x hx MS; Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-06C-042120 (480-169009-13MSD)	4/21/20	17:30 Central	MSD	Water			X	X	1	1x hx MSD; 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 labo

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

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	4-28-20 11:30	ETA Knox	[signature]	04/29/20 1000	TA
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: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

480-169009 Chain of Custody

Eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Bortot, Veronica		60.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: veronica.bortot@testamericainc.com	State of Origin: Texas	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Texas		Job #: 480-169009-1
Address: 5815 Middlebrook Pike,	Due Date Requested: 5/1/2020			
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-M99-A-042120 (480-169009-1)	4/21/20	Central		Water			X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-28C-042220 (480-169009-3)	4/22/20	07:55 Central		Water			X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-12A-042220 (480-169009-4)	4/22/20	09:20 Central		Water			X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-18D-042220 (480-169009-5)	4/22/20	11:12 Central		Water			X	3	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-04AR2-042220 (480-169009-6)	4/22/20	12:25 Central		Water			X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-EB-01-042220 (480-169009-7)	4/22/20	13:10 Central		Water			X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-30C-042120 (480-169009-8)	4/21/20	13:45 Central		Water			X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-12CR-042220 (480-169009-9)	4/22/20	13:52 Central		Water			X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-30A-042220 (480-169009-10)	4/22/20	15:00 Central		Water			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*	***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: Jennifer Nikolb	Date/Time: 4/24/20 1700	Company TA	Received by:	Date/Time: 4/25/20 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: 01/16/2019

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Bortot, Veronica	Carrier Tracking No(s):	COC No: 480-55560.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: veronica.bortot@testamericainc.com	State of Origin: Texas	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Texas		Job #: 480-169009-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 5/1/2020			
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-W-06A-042120 (480-169009-11)	4/21/20	15:35 Central		Water			X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-10AR2-042220 (480-169009-12)	4/21/20	17:00 Central		Water			X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-06C-042120 (480-169009-13)	4/21/20	17:30 Central		Water			X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-06C-042120 (480-169009-13MS)	4/21/20	17:30 Central	MS	Water			X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-06C-042120 (480-169009-13MSD)	4/21/20	17:30 Central	MSD	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 labo

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: Thomas Cikolb	Date/Time: 4/24/20 1744	Company TA	Received by:		Date/Time: 4/25/20 0950	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: 01/16/2019

Loc: 480
169009

EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST **Log In Number:**

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	/			☐ **Containers, Broken**
2. Were ambient air containers received intact?			/	☐ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	/			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6°C, VOST: 10°C) Thermometer ID : IC68 Correction factor: 0.0	/			☐ **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: 2.8°C, 3.0°C, 2.8°C
CT: 2.8°C, 3.0°C, 2.8°C
2 Coolers, Fedex P2
Custody seal intact
TrK# 4276 0723 1507
" " 1518
" " 1492
KLW 4/25/20

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: KLW Date: 4/25/20

QA026R32.doc, 062719

5/20/2020 (Rev. 2)

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 754

TestAmerica Duluth SC
269

754

Project Name:	Superior 2020 1SA Sampling		Company:	Field & Technical Services	Client:	Beazer East, Inc.
Project Number:	OM-0556-20	480-169009 COC	Address:	200 Third Avenue	Contact:	(21) 4 4-9876
Laboratory:	TABUF			Carnegie, PA 15106		kmcmullen.2006@f-ts.com
Shipment Method	FEDEX			(412) 279-3363		
Program:	Superior 2020 1SA Sampling_001					

480-169009

	Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8260B_VOA+naphtha	8270C_SVOC (less naphtha)	8270C_SVOC+naphtha													Notes:
					Preservative	HCL	None														
					Total Bottle Count																
i	04/21/2020	0000	GW	SUPE-M99-A-042120	6	3	3														
2	04/22/2020	0725	GW	SUPE-TB-01-042220	2	2	0														
3	04/22/2020	0755	GW	SUPE-W-28C-042220	6	3	3														
4	04/22/2020	0920	GW	SUPE-W-12A-042220	6	3	3														
5	04/22/2020	1112	GW	SUPE-W-18D-042220	3	0	0	3													
6	04/22/2020	1225	GW	SUPE-W-04AR2-042220	6	3	3	0													
7	04/22/2020	1310	GW	SUPE-EB-01-042220	6	3	3	0													
8	04/21/2020	1345	GW	SUPE-W-30C-042120	6	3	3														
9	04/22/2020	1352	GW	SUPE-W-12CR-042220	6	3	3	0													
10	04/22/2020	1500	GW	SUPE-W-30A-042220	6	3	3	0													
11	04/21/2020	1535	GW	SUPE-W-06A-042120	6	3	3														

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: Katie McMullen	Signature: Melissa Gascon	Signature: Melissa Gascon	Signature: Sherri Scott	
Printed Name: Katie McMullen	Printed Name: Melissa Gascon	Printed Name: Melissa Gascon	Printed Name: Sherri Scott	
Firm: FTS	Firm: Eurofins Duluth	Firm: Eurofins Duluth	Firm: TA CHT	☐ Rush
Date/Time: 04/22/2020 1809	Date/Time: 4/23/20 0830	Date/Time: 4/23/20 1400	Date/Time: 4/24/20 0930	☒ Standard

1-4,6

TestAmerica Duluth SC
269

FTS Field & Technical Services, LLC

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 754

TestAmerica Duluth SC 269

754

Project Name:	Superior 2020 1SA Sampling	Company:	Field & Technical Services	Client:	Beazer East, Inc.
Project Number:	OM-0556-20	Address:	200 Third Avenue	Contact:	(21) 4 4-9876
Laboratory:	TABUF		Carnegie, PA 15106		kmcmullen.2006@f-ts.com
Shipment Method	FEDEX		(412) 279-3363		480-169009
Program:	Superior 2020 1SA Sampling_001				

	Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8260B_VOA+naphtha	8270C_SVOC (less naphtha)	8270C_SVOC+naphtha													Notes:
					Preservative	HCL	None	None													
					Total Bottle Count																
12	04/22/2020	1700	GW	SUPE-W-10AR2-042220	6	3	3	0													
13	04/21/2020	1730	GW	SUPE-W-06C-MS/MSD-042120	12	6	6														
	04/21/2020	1730	GW	SUPE-W-06C-042120	6	3	3														

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: Kat McMu	Signature: Melissa Gascon	Signature: Melissa Gascon	Signature: Sherri Scott	[ ] Rush
Printed Name: Katie McMullen	Printed Name: Melissa Gascon	Printed Name: Melissa Gascon	Printed Name: Sherri Scott	
Firm: FTS	Firm: Eurofins Duluth	Firm: Eurofins Duluth	Firm: TA-CHI	[X] Standard
Date/Time: 04/22/2020 1809	Date/Time: 4/23/20 0830	Date/Time: 4/23/20 1400	Date/Time: 4/24/20 0930	

TestAmerica Duluth SC 269

Page 1 of 1

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler	Lab PM: Bortot, Veronica	Carrier Tracking No(s):	COC No.: 480-55558.1
Client Contact: Shipping/Receiving	Phone	E-Mail: veronica.bortot@testamericainc.com	State of Origin: Texas	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Texas		Job #: 480-169009-1
Address: 2417 Bond Street, ,	Due Date Requested: 5/1/2020			
City: University Park	TAT Requested (days):			
State, Zip: IL, 60484				
Phone: 708-534-5200(Tel) 708-534-5211(Fax)	PO #:			
Email:	WO #:			
Project Name: Superior, WI Semiannual Groundwater	Project #: 18015916			
Site:	SSOW#:			

Analysis Requested

480-169009 COC

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)	8270D/3510C (MOD) Semivolatiles, project list with n	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SUPE-M99-A-042120 (480-169009-1)	4/21/20	Central		Water			X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-28C-042220 (480-169009-3)	4/22/20	07:55 Central		Water			X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-12A-042220 (480-169009-4)	4/22/20	09:20 Central		Water			X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-04AR2-042220 (480-169009-6)	4/22/20	12:25 Central		Water			X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-EB-01-042220 (480-169009-7)	4/22/20	13:10 Central		Water			X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-30C-042120 (480-169009-8)	4/21/20	13.45 Central		Water			X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-12CR-042220 (480-169009-9)	4/22/20	13:52 Central		Water			X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-30A-042220 (480-169009-10)	4/22/20	15:00 Central		Water			X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-06A-042120 (480-169009-11)	4/21/20	15:35 Central		Water			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 laboratones 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	Unwow Circle	04/24/20 1744	TA	Stephanie Hernandez	4/25/20 1040	TA-CHI
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: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.1, -0.3 → 0.9, 0.1

Ver: 01/16/2019

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Bortot, Veronica	Carrier Tracking No(s):	COC No: 480-55558.2
Client Contact: Shipping/Receiving	Phone	E-Mail: veronica.bortot@testamericainc.com	State of Origin: Texas	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - Texas		Job #: 480-169009-1
Address: 2417 Bond Street, ,	Due Date Requested: 5/1/2020			
City: University Park	TAT Requested (days):			
State, Zip: IL, 60484				
Phone: 708-534-5200(Tel) 708-534-5211(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)	8270D/3510C (MOD) Semivolatiles, project list with n	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SUPE-W-10AR2-042220 (480-169009-12)	4/21/20	17:00 Central		Water			X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-06C-042120 (480-169009-13)	4/21/20	17:30 Central		Water			X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-06C-042120 (480-169009-13MS)	4/21/20	17:30 Central	MS	Water			X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-06C-042120 (480-169009-13MSD)	4/21/20	17:30 Central	MSD	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 labo

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	Matthew Carlo	04/24/20 1745	TA	Stephanie Hernandez	4/25/20 1040	TA-CHI
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: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.1, -0.3 → 0.9, 0.1

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Field & Technical Services LLC

Job Number: 480-169009-1

Login Number: 169009
List Number: 1
Creator: Yeager, Brian A

List Source: Eurofins TestAmerica, Buffalo

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	
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	field techinical
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Field & Technical Services LLC

Job Number: 480-169009-1

Login Number: 169009
List Number: 2
Creator: Scott, Sherri L

List Source: Eurofins TestAmerica, Chicago
List Creation: 04/24/20 02:36 PM

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	1.4,0.6
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	

FTS, LLC

DATE: November 6, 2020

FROM: Kendra Chintella

SUBJECT: Superior GW

SAMPLE DELIVERY GROUP (SDG): 500-189014-1

SAMPLES: SUPE-TB-01-100720, SUPE-W-28C-100720, SUPE-EB-01-100720, SUPE-W-18D-100720, SUPE-W-04AR2-100720, SUPE-W-10AR2-100720, SUPE-W-99-100720(W-28C), SUPE-W-30C-100720, SUPE-W-06A-100720, SUPE-W-06C-100720, SUPE-W-12A-100720, SUPE-W-12CR-100720

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

LABORATORY: Eurofins TestAmerica Laboratories, Buffalo, 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: See attached page for details.

□ Surrogate Recoveries
Noncompliance: The surrogate recovery of p-terphenyl-d14 fell below the recovery limits in samples W-04AR2 and W-10AR2. No action was taken on this basis.

□ Matrix Spike/Matrix Spike Duplicate
Noncompliance: None

□ Laboratory Control Sample
Noncompliance: None

Field Duplicate Precision:

FIELD DUPLICATE PRECISION					
ANALYTE	W-28C	QUAL	W-99	QUAL	RPD
Benzo(a)anthracene	0.056	J	0.043	U	NC

NC – not calculated due to nondetect result

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 500-189014-1
Client Project/Site: Superior, WI Semiannual Groundwater
Revision: 1

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

Attn: Ms. Angie Gatchie

Authorized for release by:
11/12/2020 11:21:17 AM

Veronica Bortot, Senior Project Manager
(412)963-2435
Veronica.Bortot@Eurofinset.com

Table of Contents

Job ID: 500-189014-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-189014-1

Revised: to remove PCP from full SVOC list & correct the 1-methylnaphalene for sample 6

Comments
No additional comments.

Receipt
The samples were received on 10/8/2020 9:30 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were -0.9º C, -0.3º C, 0.4º C, 0.6º C and 0.8º 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 the abundance of non-target analytes: SUPE-W-04AR2-100720 and SUPE-W-10AR2-100720. 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-04AR2-100720 and SUPE-W-10AR2-100720. 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
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-TB-01-100720 — Lab Sample ID: 500-189014-1

No Detections.

Client Sample ID: SUPE-W-28C-100720 — Lab Sample ID: 500-189014-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.056	J	0.20	0.044	ug/L	1		8270D	Total/NA

Client Sample ID: SUPE-EB-01-100720 — Lab Sample ID: 500-189014-3

No Detections.

Client Sample ID: SUPE-W-18D-100720 — Lab Sample ID: 500-189014-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pentachlorophenol	0.88	J	1.0	0.34	ug/L	1		8270D LL	Total/NA

Client Sample ID: SUPE-W-04AR2-100720 — Lab Sample ID: 500-189014-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	2.1		0.99	0.32	ug/L	1		8270D	Total/NA
Benzo[a]pyrene	0.43		0.20	0.055	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	0.94		0.20	0.057	ug/L	1		8270D	Total/NA
Benzo[k]fluoranthene	0.37		0.20	0.073	ug/L	1		8270D	Total/NA
Chrysene	1.4		0.49	0.14	ug/L	1		8270D	Total/NA
Dibenz(a,h)anthracene	0.088	J	0.30	0.063	ug/L	1		8270D	Total/NA
Fluoranthene	3.0		0.99	0.32	ug/L	1		8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.26		0.20	0.083	ug/L	1		8270D	Total/NA
Pyrene	2.3		0.99	0.47	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.76		0.20	0.043	ug/L	1		8270D	Total/NA
Phenanthrene	0.73	J	0.99	0.35	ug/L	1		8270D	Total/NA

Client Sample ID: SUPE-W-10AR2-100720 — Lab Sample ID: 500-189014-6

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	18		1.0	0.41	ug/L	1		8260C	Total/NA
Ethylbenzene	42		1.0	0.74	ug/L	1		8260C	Total/NA
m-Xylene & p-Xylene	3.8		2.0	0.66	ug/L	1		8260C	Total/NA
Naphthalene	2.3		1.0	0.43	ug/L	1		8260C	Total/NA
o-Xylene	19		1.0	0.76	ug/L	1		8260C	Total/NA
Toluene	2.3		1.0	0.51	ug/L	1		8260C	Total/NA
Xylenes, Total	23		2.0	0.66	ug/L	1		8260C	Total/NA
1-Methylnaphthalene	19		2.1	0.51	ug/L	1		8270D	Total/NA
Acenaphthylene	1.9		1.0	0.33	ug/L	1		8270D	Total/NA
Dibenzofuran	12		2.1	0.36	ug/L	1		8270D	Total/NA
Fluoranthene	2.8		1.0	0.33	ug/L	1		8270D	Total/NA
Fluorene	15		1.0	0.39	ug/L	1		8270D	Total/NA
Pyrene	1.9		1.0	0.49	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.13	J	0.21	0.045	ug/L	1		8270D	Total/NA
Phenanthrene	0.65	J	1.0	0.36	ug/L	1		8270D	Total/NA
Acenaphthene - DL	87		5.1	1.9	ug/L	5		8270D	Total/NA

Client Sample ID: SUPE-W-99-100720 — Lab Sample ID: 500-189014-7

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-30C-100720 — Lab Sample ID: 500-189014-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	0.11	J	0.20	0.058	ug/L	1		8270D	Total/NA
Chrysene	0.14	J	0.50	0.14	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.050	J	0.20	0.044	ug/L	1		8270D	Total/NA

Client Sample ID: SUPE-W-06A-100720 — Lab Sample ID: 500-189014-9

No Detections.

Client Sample ID: SUPE-W-06C-100720 — Lab Sample ID: 500-189014-10

No Detections.

Client Sample ID: SUPE-W-12A-100720 — Lab Sample ID: 500-189014-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pentachlorophenol	0.87	J	1.0	0.34	ug/L	1		8270D LL	Total/NA

Client Sample ID: SUPE-W-12CR-100720 — Lab Sample ID: 500-189014-12

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Field & Technical Services LLC
Job ID: 500-189014-1
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
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

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

Sample Summary

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-189014-1	SUPE-TB-01-100720	Water	10/07/20 00:00	10/08/20 09:30	
500-189014-2	SUPE-W-28C-100720	Water	10/07/20 09:45	10/08/20 09:30	
500-189014-3	SUPE-EB-01-100720	Water	10/07/20 10:15	10/08/20 09:30	
500-189014-4	SUPE-W-18D-100720	Water	10/07/20 11:10	10/08/20 09:30	
500-189014-5	SUPE-W-04AR2-100720	Water	10/07/20 12:35	10/08/20 09:30	
500-189014-6	SUPE-W-10AR2-100720	Water	10/07/20 14:25	10/08/20 09:30	
500-189014-7	SUPE-W-99-100720	Water	10/07/20 01:00	10/08/20 09:30	
500-189014-8	SUPE-W-30C-100720	Water	10/07/20 09:40	10/08/20 09:30	
500-189014-9	SUPE-W-06A-100720	Water	10/07/20 10:45	10/08/20 09:30	
500-189014-10	SUPE-W-06C-100720	Water	10/07/20 12:35	10/08/20 09:30	
500-189014-11	SUPE-W-12A-100720	Water	10/07/20 14:30	10/08/20 09:30	
500-189014-12	SUPE-W-12CR-100720	Water	10/07/20 16:05	10/08/20 09:30	

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-TB-01-100720
Lab Sample ID: 500-189014-1
Date Collected: 10/07/20 00:00
Matrix: Water
Date Received: 10/08/20 09:30

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			10/14/20 13:05	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/14/20 13:05	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/14/20 13:05	1
Benzene	ND		1.0	0.41	ug/L			10/14/20 13:05	1
Chloromethane	ND		1.0	0.35	ug/L			10/14/20 13:05	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/14/20 13:05	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/14/20 13:05	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/14/20 13:05	1
Naphthalene	ND		1.0	0.43	ug/L			10/14/20 13:05	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/14/20 13:05	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/14/20 13:05	1
o-Xylene	ND		1.0	0.76	ug/L			10/14/20 13:05	1
Styrene	ND		1.0	0.73	ug/L			10/14/20 13:05	1
Toluene	ND		1.0	0.51	ug/L			10/14/20 13:05	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/14/20 13:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*		*10/14/20 13:05*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*10/14/20 13:05*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*10/14/20 13:05*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*10/14/20 13:05*	*1*

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-28C-100720
Lab Sample ID: 500-189014-2
Date Collected: 10/07/20 09:45
Matrix: Water
Date Received: 10/08/20 09:30

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			10/14/20 13:29	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/14/20 13:29	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/14/20 13:29	1
Benzene	ND		1.0	0.41	ug/L			10/14/20 13:29	1
Chloromethane	ND		1.0	0.35	ug/L			10/14/20 13:29	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/14/20 13:29	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/14/20 13:29	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/14/20 13:29	1
Naphthalene	ND		1.0	0.43	ug/L			10/14/20 13:29	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/14/20 13:29	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/14/20 13:29	1
o-Xylene	ND		1.0	0.76	ug/L			10/14/20 13:29	1
Styrene	ND		1.0	0.73	ug/L			10/14/20 13:29	1
Toluene	ND		1.0	0.51	ug/L			10/14/20 13:29	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/14/20 13:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*10/14/20 13:29*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*10/14/20 13:29*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*10/14/20 13:29*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*10/14/20 13:29*	*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		1.0	0.34	ug/L		10/13/20 14:32	10/14/20 18:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*120*		*24 - 146*	*10/13/20 14:32*	*10/14/20 18:01*	*1*
2-Fluorobiphenyl	*98*		*37 - 120*	*10/13/20 14:32*	*10/14/20 18:01*	*1*
2-Fluorophenol (Surr)	*54*		*10 - 120*	*10/13/20 14:32*	*10/14/20 18:01*	*1*
Nitrobenzene-d5 (Surr)	*91*		*26 - 120*	*10/13/20 14:32*	*10/14/20 18:01*	*1*
Phenol-d5 (Surr)	*35*		*11 - 120*	*10/13/20 14:32*	*10/14/20 18:01*	*1*
p-Terphenyl-d14	*106*		*64 - 127*	*10/13/20 14:32*	*10/14/20 18:01*	*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		10/14/20 12:55	10/15/20 15:20	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		10/14/20 12:55	10/15/20 15:20	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		10/14/20 12:55	10/15/20 15:20	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		10/14/20 12:55	10/15/20 15:20	1
1-Methylnaphthalene	ND		2.0	0.50	ug/L		10/14/20 12:55	10/15/20 15:20	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		10/14/20 12:55	10/15/20 15:20	1
2,3,4,6-Tetrachlorophenol	ND		5.0	1.5	ug/L		10/14/20 12:55	10/15/20 15:20	1
2,4,5-Trichlorophenol	ND		9.9	2.3	ug/L		10/14/20 12:55	10/15/20 15:20	1
2,4,6-Trichlorophenol	ND		5.0	1.1	ug/L		10/14/20 12:55	10/15/20 15:20	1
2,4-Dichlorophenol	ND		9.9	2.3	ug/L		10/14/20 12:55	10/15/20 15:20	1
2,4-Dinitrophenol	ND		20	7.4	ug/L		10/14/20 12:55	10/15/20 15:20	1
2,4-Dinitrotoluene	ND		0.99	0.30	ug/L		10/14/20 12:55	10/15/20 15:20	1
2,6-Dinitrotoluene	ND		0.99	0.12	ug/L		10/14/20 12:55	10/15/20 15:20	1
3 & 4 Methylphenol	ND		2.0	0.44	ug/L		10/14/20 12:55	10/15/20 15:20	1

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-28C-100720
Lab Sample ID: 500-189014-2
Date Collected: 10/07/20 09:45
Matrix: Water
Date Received: 10/08/20 09:30

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		10/14/20 12:55	10/15/20 15:20	1
2-Chlorophenol	ND		5.0	0.80	ug/L		10/14/20 12:55	10/15/20 15:20	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/14/20 12:55	10/15/20 15:20	1
2-Methylphenol	ND		2.0	0.31	ug/L		10/14/20 12:55	10/15/20 15:20	1
2-Nitroaniline	ND		5.0	1.1	ug/L		10/14/20 12:55	10/15/20 15:20	1
2-Nitrophenol	ND		9.9	2.1	ug/L		10/14/20 12:55	10/15/20 15:20	1
3-Nitroaniline	ND		9.9	2.3	ug/L		10/14/20 12:55	10/15/20 15:20	1
4,6-Dinitro-2-methylphenol	ND		20	4.9	ug/L		10/14/20 12:55	10/15/20 15:20	1
4-Bromophenyl phenyl ether	ND		5.0	0.91	ug/L		10/14/20 12:55	10/15/20 15:20	1
4-Chloro-3-methylphenol	ND		9.9	2.2	ug/L		10/14/20 12:55	10/15/20 15:20	1
4-Chloroaniline	ND		9.9	2.1	ug/L		10/14/20 12:55	10/15/20 15:20	1
4-Chlorophenyl phenyl ether	ND		5.0	0.81	ug/L		10/14/20 12:55	10/15/20 15:20	1
4-Nitroaniline	ND		9.9	3.9	ug/L		10/14/20 12:55	10/15/20 15:20	1
4-Nitrophenol	ND		20	2.3	ug/L		10/14/20 12:55	10/15/20 15:20	1
Acenaphthene	ND		0.99	0.36	ug/L		10/14/20 12:55	10/15/20 15:20	1
Acenaphthylene	ND		0.99	0.32	ug/L		10/14/20 12:55	10/15/20 15:20	1
Anthracene	ND		0.99	0.32	ug/L		10/14/20 12:55	10/15/20 15:20	1
Benzo[a]pyrene	ND		0.20	0.056	ug/L		10/14/20 12:55	10/15/20 15:20	1
Benzo[b]fluoranthene	ND		0.20	0.058	ug/L		10/14/20 12:55	10/15/20 15:20	1
Benzo[g,h,i]perylene	ND		0.99	0.42	ug/L		10/14/20 12:55	10/15/20 15:20	1
Benzo[k]fluoranthene	ND		0.20	0.074	ug/L		10/14/20 12:55	10/15/20 15:20	1
Benzoic acid	ND		20	4.5	ug/L		10/14/20 12:55	10/15/20 15:20	1
Benzyl alcohol	ND		20	3.0	ug/L		10/14/20 12:55	10/15/20 15:20	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		10/14/20 12:55	10/15/20 15:20	1
Bis(2-chloroethyl)ether	ND		2.0	0.35	ug/L		10/14/20 12:55	10/15/20 15:20	1
Bis(2-ethylhexyl) phthalate	ND		9.9	2.4	ug/L		10/14/20 12:55	10/15/20 15:20	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		10/14/20 12:55	10/15/20 15:20	1
Chrysene	ND		0.50	0.14	ug/L		10/14/20 12:55	10/15/20 15:20	1
Dibenz(a,h)anthracene	ND		0.30	0.064	ug/L		10/14/20 12:55	10/15/20 15:20	1
Dibenzofuran	ND		2.0	0.35	ug/L		10/14/20 12:55	10/15/20 15:20	1
Diethyl phthalate	ND		2.0	0.44	ug/L		10/14/20 12:55	10/15/20 15:20	1
Dimethyl phthalate	ND		2.0	0.38	ug/L		10/14/20 12:55	10/15/20 15:20	1
Di-n-butyl phthalate	ND		5.0	0.80	ug/L		10/14/20 12:55	10/15/20 15:20	1
Di-n-octyl phthalate	ND		9.9	2.5	ug/L		10/14/20 12:55	10/15/20 15:20	1
2,3,5,6-Tetrachlorophenol	ND		5.0	2.5	ug/L		10/14/20 12:55	10/15/20 15:20	1
Fluoranthene	ND		0.99	0.32	ug/L		10/14/20 12:55	10/15/20 15:20	1
Fluorene	ND		0.99	0.38	ug/L		10/14/20 12:55	10/15/20 15:20	1
Hexachlorobenzene	ND		0.50	0.14	ug/L		10/14/20 12:55	10/15/20 15:20	1
Hexachlorobutadiene	ND		5.0	1.1	ug/L		10/14/20 12:55	10/15/20 15:20	1
Hexachlorocyclopentadiene	ND		20	3.4	ug/L		10/14/20 12:55	10/15/20 15:20	1
Hexachloroethane	ND		5.0	0.96	ug/L		10/14/20 12:55	10/15/20 15:20	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.084	ug/L		10/14/20 12:55	10/15/20 15:20	1
Isophorone	ND		2.0	0.29	ug/L		10/14/20 12:55	10/15/20 15:20	1
Nitrobenzene	ND		0.99	0.45	ug/L		10/14/20 12:55	10/15/20 15:20	1
N-Nitrosodi-n-propylamine	ND		0.50	0.14	ug/L		10/14/20 12:55	10/15/20 15:20	1
N-Nitrosodiphenylamine	ND		2.0	0.34	ug/L		10/14/20 12:55	10/15/20 15:20	1
Phenol	ND		5.0	0.36	ug/L		10/14/20 12:55	10/15/20 15:20	1
Pyrene	ND		0.99	0.48	ug/L		10/14/20 12:55	10/15/20 15:20	1
2,4-Dimethylphenol	ND		9.9	3.3	ug/L		10/14/20 12:55	10/15/20 15:20	1

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-28C-100720
Lab Sample ID: 500-189014-2
Date Collected: 10/07/20 09:45
Matrix: Water
Date Received: 10/08/20 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	**0.056**	**J**	0.20	0.044	ug/L		10/14/20 12:55	10/15/20 15:20	1
Phenanthrene	ND		0.99	0.35	ug/L		10/14/20 12:55	10/15/20 15:20	1
3,3'-Dichlorobenzidine	ND		5.0	0.94	ug/L		10/14/20 12:55	10/15/20 15:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*103*		*40 - 145*	*10/14/20 12:55*	*10/15/20 15:20*	*1*
2-Fluorobiphenyl	*87*		*34 - 110*	*10/14/20 12:55*	*10/15/20 15:20*	*1*
2-Fluorophenol (Surr)	*51*		*27 - 110*	*10/14/20 12:55*	*10/15/20 15:20*	*1*
Nitrobenzene-d5 (Surr)	*85*		*36 - 120*	*10/14/20 12:55*	*10/15/20 15:20*	*1*
Phenol-d5 (Surr)	*33*		*20 - 100*	*10/14/20 12:55*	*10/15/20 15:20*	*1*
Terphenyl-d14 (Surr)	*89*		*40 - 145*	*10/14/20 12:55*	*10/15/20 15:20*	*1*

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-EB-01-100720
Lab Sample ID: 500-189014-3
Date Collected: 10/07/20 10:15
Matrix: Water
Date Received: 10/08/20 09:30

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			10/14/20 13:53	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/14/20 13:53	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/14/20 13:53	1
Benzene	ND		1.0	0.41	ug/L			10/14/20 13:53	1
Chloromethane	ND		1.0	0.35	ug/L			10/14/20 13:53	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/14/20 13:53	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/14/20 13:53	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/14/20 13:53	1
Naphthalene	ND		1.0	0.43	ug/L			10/14/20 13:53	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/14/20 13:53	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/14/20 13:53	1
o-Xylene	ND		1.0	0.76	ug/L			10/14/20 13:53	1
Styrene	ND		1.0	0.73	ug/L			10/14/20 13:53	1
Toluene	ND		1.0	0.51	ug/L			10/14/20 13:53	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/14/20 13:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*10/14/20 13:53*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*10/14/20 13:53*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 123*		*10/14/20 13:53*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*10/14/20 13:53*	*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		10/13/20 14:32	10/14/20 18:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*113*		*24 - 146*	*10/13/20 14:32*	*10/14/20 18:29*	*1*
2-Fluorobiphenyl	*105*		*37 - 120*	*10/13/20 14:32*	*10/14/20 18:29*	*1*
2-Fluorophenol (Surr)	*59*		*10 - 120*	*10/13/20 14:32*	*10/14/20 18:29*	*1*
Nitrobenzene-d5 (Surr)	*98*		*26 - 120*	*10/13/20 14:32*	*10/14/20 18:29*	*1*
Phenol-d5 (Surr)	*38*		*11 - 120*	*10/13/20 14:32*	*10/14/20 18:29*	*1*
p-Terphenyl-d14	*122*		*64 - 127*	*10/13/20 14:32*	*10/14/20 18:29*	*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		10/14/20 12:55	10/15/20 15:45	1
1,2-Dichlorobenzene	ND		1.9	0.28	ug/L		10/14/20 12:55	10/15/20 15:45	1
1,3-Dichlorobenzene	ND		1.9	0.24	ug/L		10/14/20 12:55	10/15/20 15:45	1
1,4-Dichlorobenzene	ND		1.9	0.26	ug/L		10/14/20 12:55	10/15/20 15:45	1
1-Methylnaphthalene	ND		1.9	0.49	ug/L		10/14/20 12:55	10/15/20 15:45	1
bis(chloroisopropyl) ether	ND		1.9	0.29	ug/L		10/14/20 12:55	10/15/20 15:45	1
2,3,4,6-Tetrachlorophenol	ND		4.9	1.5	ug/L		10/14/20 12:55	10/15/20 15:45	1
2,4,5-Trichlorophenol	ND		9.7	2.2	ug/L		10/14/20 12:55	10/15/20 15:45	1
2,4,6-Trichlorophenol	ND		4.9	1.1	ug/L		10/14/20 12:55	10/15/20 15:45	1
2,4-Dichlorophenol	ND		9.7	2.2	ug/L		10/14/20 12:55	10/15/20 15:45	1
2,4-Dinitrophenol	ND		19	7.2	ug/L		10/14/20 12:55	10/15/20 15:45	1
2,4-Dinitrotoluene	ND		0.97	0.29	ug/L		10/14/20 12:55	10/15/20 15:45	1
2,6-Dinitrotoluene	ND		0.97	0.12	ug/L		10/14/20 12:55	10/15/20 15:45	1
3 & 4 Methylphenol	ND		1.9	0.43	ug/L		10/14/20 12:55	10/15/20 15:45	1

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-EB-01-100720
Lab Sample ID: 500-189014-3
Date Collected: 10/07/20 10:15
Matrix: Water
Date Received: 10/08/20 09:30

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		10/14/20 12:55	10/15/20 15:45	1
2-Chlorophenol	ND		4.9	0.78	ug/L		10/14/20 12:55	10/15/20 15:45	1
2-Methylnaphthalene	ND		1.9	0.13	ug/L		10/14/20 12:55	10/15/20 15:45	1
2-Methylphenol	ND		1.9	0.30	ug/L		10/14/20 12:55	10/15/20 15:45	1
2-Nitroaniline	ND		4.9	1.1	ug/L		10/14/20 12:55	10/15/20 15:45	1
2-Nitrophenol	ND		9.7	2.1	ug/L		10/14/20 12:55	10/15/20 15:45	1
3-Nitroaniline	ND		9.7	2.2	ug/L		10/14/20 12:55	10/15/20 15:45	1
4,6-Dinitro-2-methylphenol	ND		19	4.8	ug/L		10/14/20 12:55	10/15/20 15:45	1
4-Bromophenyl phenyl ether	ND		4.9	0.89	ug/L		10/14/20 12:55	10/15/20 15:45	1
4-Chloro-3-methylphenol	ND		9.7	2.1	ug/L		10/14/20 12:55	10/15/20 15:45	1
4-Chloroaniline	ND		9.7	2.0	ug/L		10/14/20 12:55	10/15/20 15:45	1
4-Chlorophenyl phenyl ether	ND		4.9	0.79	ug/L		10/14/20 12:55	10/15/20 15:45	1
4-Nitroaniline	ND		9.7	3.8	ug/L		10/14/20 12:55	10/15/20 15:45	1
4-Nitrophenol	ND		19	2.3	ug/L		10/14/20 12:55	10/15/20 15:45	1
Acenaphthene	ND		0.97	0.35	ug/L		10/14/20 12:55	10/15/20 15:45	1
Acenaphthylene	ND		0.97	0.31	ug/L		10/14/20 12:55	10/15/20 15:45	1
Anthracene	ND		0.97	0.31	ug/L		10/14/20 12:55	10/15/20 15:45	1
Benzo[a]pyrene	ND		0.19	0.055	ug/L		10/14/20 12:55	10/15/20 15:45	1
Benzo[b]fluoranthene	ND		0.19	0.057	ug/L		10/14/20 12:55	10/15/20 15:45	1
Benzo[g,h,i]perylene	ND		0.97	0.41	ug/L		10/14/20 12:55	10/15/20 15:45	1
Benzo[k]fluoranthene	ND		0.19	0.072	ug/L		10/14/20 12:55	10/15/20 15:45	1
Benzoic acid	ND		19	4.4	ug/L		10/14/20 12:55	10/15/20 15:45	1
Benzyl alcohol	ND		19	3.0	ug/L		10/14/20 12:55	10/15/20 15:45	1
Bis(2-chloroethoxy)methane	ND		1.9	0.29	ug/L		10/14/20 12:55	10/15/20 15:45	1
Bis(2-chloroethyl)ether	ND		1.9	0.34	ug/L		10/14/20 12:55	10/15/20 15:45	1
Bis(2-ethylhexyl) phthalate	ND		9.7	2.4	ug/L		10/14/20 12:55	10/15/20 15:45	1
Butyl benzyl phthalate	ND		1.9	0.26	ug/L		10/14/20 12:55	10/15/20 15:45	1
Chrysene	ND		0.49	0.14	ug/L		10/14/20 12:55	10/15/20 15:45	1
Dibenz(a,h)anthracene	ND		0.29	0.062	ug/L		10/14/20 12:55	10/15/20 15:45	1
Dibenzofuran	ND		1.9	0.34	ug/L		10/14/20 12:55	10/15/20 15:45	1
Diethyl phthalate	ND		1.9	0.43	ug/L		10/14/20 12:55	10/15/20 15:45	1
Dimethyl phthalate	ND		1.9	0.37	ug/L		10/14/20 12:55	10/15/20 15:45	1
Di-n-butyl phthalate	ND		4.9	0.78	ug/L		10/14/20 12:55	10/15/20 15:45	1
Di-n-octyl phthalate	ND		9.7	2.4	ug/L		10/14/20 12:55	10/15/20 15:45	1
2,3,5,6-Tetrachlorophenol	ND		4.9	2.4	ug/L		10/14/20 12:55	10/15/20 15:45	1
Fluoranthene	ND		0.97	0.31	ug/L		10/14/20 12:55	10/15/20 15:45	1
Fluorene	ND		0.97	0.37	ug/L		10/14/20 12:55	10/15/20 15:45	1
Hexachlorobenzene	ND		0.49	0.14	ug/L		10/14/20 12:55	10/15/20 15:45	1
Hexachlorobutadiene	ND		4.9	1.1	ug/L		10/14/20 12:55	10/15/20 15:45	1
Hexachlorocyclopentadiene	ND		19	3.4	ug/L		10/14/20 12:55	10/15/20 15:45	1
Hexachloroethane	ND		4.9	0.95	ug/L		10/14/20 12:55	10/15/20 15:45	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.082	ug/L		10/14/20 12:55	10/15/20 15:45	1
Isophorone	ND		1.9	0.28	ug/L		10/14/20 12:55	10/15/20 15:45	1
Nitrobenzene	ND		0.97	0.44	ug/L		10/14/20 12:55	10/15/20 15:45	1
N-Nitrosodi-n-propylamine	ND		0.49	0.14	ug/L		10/14/20 12:55	10/15/20 15:45	1
N-Nitrosodiphenylamine	ND		1.9	0.33	ug/L		10/14/20 12:55	10/15/20 15:45	1
Phenol	ND		4.9	0.35	ug/L		10/14/20 12:55	10/15/20 15:45	1
Pyrene	ND		0.97	0.47	ug/L		10/14/20 12:55	10/15/20 15:45	1
2,4-Dimethylphenol	ND		9.7	3.3	ug/L		10/14/20 12:55	10/15/20 15:45	1

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-EB-01-100720
Lab Sample ID: 500-189014-3
Date Collected: 10/07/20 10:15
Matrix: Water
Date Received: 10/08/20 09:30

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	0.043	ug/L		10/14/20 12:55	10/15/20 15:45	1
Phenanthrene	ND		0.97	0.34	ug/L		10/14/20 12:55	10/15/20 15:45	1
3,3'-Dichlorobenzidine	ND		4.9	0.92	ug/L		10/14/20 12:55	10/15/20 15:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*94*		*40 - 145*	*10/14/20 12:55*	*10/15/20 15:45*	*1*
2-Fluorobiphenyl	*83*		*34 - 110*	*10/14/20 12:55*	*10/15/20 15:45*	*1*
2-Fluorophenol (Surr)	*58*		*27 - 110*	*10/14/20 12:55*	*10/15/20 15:45*	*1*
Nitrobenzene-d5 (Surr)	*86*		*36 - 120*	*10/14/20 12:55*	*10/15/20 15:45*	*1*
Phenol-d5 (Surr)	*31*		*20 - 100*	*10/14/20 12:55*	*10/15/20 15:45*	*1*
Terphenyl-d14 (Surr)	*97*		*40 - 145*	*10/14/20 12:55*	*10/15/20 15:45*	*1*

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

Job ID: 500-189014-1

Client Sample ID: SUPE-W-18D-100720

Date Collected: 10/07/20 11:10
Date Received: 10/08/20 09:30

Lab Sample ID: 500-189014-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.88	J	1.0	0.34	ug/L		10/13/20 14:32	10/14/20 18:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*122*		*24 - 146*	*10/13/20 14:32*	*10/14/20 18:57*	*1*
2-Fluorobiphenyl	*92*		*37 - 120*	*10/13/20 14:32*	*10/14/20 18:57*	*1*
2-Fluorophenol (Surr)	*53*		*10 - 120*	*10/13/20 14:32*	*10/14/20 18:57*	*1*
Nitrobenzene-d5 (Surr)	*86*		*26 - 120*	*10/13/20 14:32*	*10/14/20 18:57*	*1*
Phenol-d5 (Surr)	*34*		*11 - 120*	*10/13/20 14:32*	*10/14/20 18:57*	*1*
p-Terphenyl-d14	*93*		*64 - 127*	*10/13/20 14:32*	*10/14/20 18:57*	*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		10/14/20 12:55	10/15/20 16:09	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		10/14/20 12:55	10/15/20 16:09	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		10/14/20 12:55	10/15/20 16:09	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		10/14/20 12:55	10/15/20 16:09	1
1-Methylnaphthalene	ND		2.0	0.51	ug/L		10/14/20 12:55	10/15/20 16:09	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		10/14/20 12:55	10/15/20 16:09	1
2,3,4,6-Tetrachlorophenol	ND		5.1	1.5	ug/L		10/14/20 12:55	10/15/20 16:09	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		10/14/20 12:55	10/15/20 16:09	1
2,4,6-Trichlorophenol	ND		5.1	1.1	ug/L		10/14/20 12:55	10/15/20 16:09	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		10/14/20 12:55	10/15/20 16:09	1
2,4-Dinitrophenol	ND		20	7.5	ug/L		10/14/20 12:55	10/15/20 16:09	1
2,4-Dinitrotoluene	ND		1.0	0.30	ug/L		10/14/20 12:55	10/15/20 16:09	1
2,6-Dinitrotoluene	ND		1.0	0.12	ug/L		10/14/20 12:55	10/15/20 16:09	1
3 & 4 Methylphenol	ND		2.0	0.45	ug/L		10/14/20 12:55	10/15/20 16:09	1
2-Chloronaphthalene	ND		2.0	0.35	ug/L		10/14/20 12:55	10/15/20 16:09	1
2-Chlorophenol	ND		5.1	0.81	ug/L		10/14/20 12:55	10/15/20 16:09	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/14/20 12:55	10/15/20 16:09	1
2-Methylphenol	ND		2.0	0.31	ug/L		10/14/20 12:55	10/15/20 16:09	1
2-Nitroaniline	ND		5.1	1.1	ug/L		10/14/20 12:55	10/15/20 16:09	1
2-Nitrophenol	ND		10	2.2	ug/L		10/14/20 12:55	10/15/20 16:09	1
3-Nitroaniline	ND		10	2.3	ug/L		10/14/20 12:55	10/15/20 16:09	1
4,6-Dinitro-2-methylphenol	ND		20	5.0	ug/L		10/14/20 12:55	10/15/20 16:09	1
4-Bromophenyl phenyl ether	ND		5.1	0.92	ug/L		10/14/20 12:55	10/15/20 16:09	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		10/14/20 12:55	10/15/20 16:09	1
4-Chloroaniline	ND		10	2.1	ug/L		10/14/20 12:55	10/15/20 16:09	1
4-Chlorophenyl phenyl ether	ND		5.1	0.82	ug/L		10/14/20 12:55	10/15/20 16:09	1
4-Nitroaniline	ND		10	4.0	ug/L		10/14/20 12:55	10/15/20 16:09	1
4-Nitrophenol	ND		20	2.4	ug/L		10/14/20 12:55	10/15/20 16:09	1
Acenaphthene	ND		1.0	0.37	ug/L		10/14/20 12:55	10/15/20 16:09	1
Acenaphthylene	ND		1.0	0.32	ug/L		10/14/20 12:55	10/15/20 16:09	1
Anthracene	ND		1.0	0.32	ug/L		10/14/20 12:55	10/15/20 16:09	1
Benzo[a]pyrene	ND		0.20	0.057	ug/L		10/14/20 12:55	10/15/20 16:09	1
Benzo[b]fluoranthene	ND		0.20	0.059	ug/L		10/14/20 12:55	10/15/20 16:09	1
Benzo[g,h,i]perylene	ND		1.0	0.43	ug/L		10/14/20 12:55	10/15/20 16:09	1
Benzo[k]fluoranthene	ND		0.20	0.075	ug/L		10/14/20 12:55	10/15/20 16:09	1
Benzoic acid	ND		20	4.6	ug/L		10/14/20 12:55	10/15/20 16:09	1
Benzyl alcohol	ND		20	3.1	ug/L		10/14/20 12:55	10/15/20 16:09	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		10/14/20 12:55	10/15/20 16:09	1

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-18D-100720
Lab Sample ID: 500-189014-4
Date Collected: 10/07/20 11:10
Matrix: Water
Date Received: 10/08/20 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethyl)ether	ND		2.0	0.36	ug/L		10/14/20 12:55	10/15/20 16:09	1
Bis(2-ethylhexyl) phthalate	ND		10	2.5	ug/L		10/14/20 12:55	10/15/20 16:09	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		10/14/20 12:55	10/15/20 16:09	1
Chrysene	ND		0.51	0.14	ug/L		10/14/20 12:55	10/15/20 16:09	1
Dibenz(a,h)anthracene	ND		0.30	0.065	ug/L		10/14/20 12:55	10/15/20 16:09	1
Dibenzofuran	ND		2.0	0.36	ug/L		10/14/20 12:55	10/15/20 16:09	1
Diethyl phthalate	ND		2.0	0.45	ug/L		10/14/20 12:55	10/15/20 16:09	1
Dimethyl phthalate	ND		2.0	0.39	ug/L		10/14/20 12:55	10/15/20 16:09	1
Di-n-butyl phthalate	ND		5.1	0.81	ug/L		10/14/20 12:55	10/15/20 16:09	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		10/14/20 12:55	10/15/20 16:09	1
2,3,5,6-Tetrachlorophenol	ND		5.1	2.5	ug/L		10/14/20 12:55	10/15/20 16:09	1
Fluoranthene	ND		1.0	0.32	ug/L		10/14/20 12:55	10/15/20 16:09	1
Fluorene	ND		1.0	0.39	ug/L		10/14/20 12:55	10/15/20 16:09	1
Hexachlorobenzene	ND		0.51	0.14	ug/L		10/14/20 12:55	10/15/20 16:09	1
Hexachlorobutadiene	ND		5.1	1.1	ug/L		10/14/20 12:55	10/15/20 16:09	1
Hexachlorocyclopentadiene	ND		20	3.5	ug/L		10/14/20 12:55	10/15/20 16:09	1
Hexachloroethane	ND		5.1	0.98	ug/L		10/14/20 12:55	10/15/20 16:09	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.085	ug/L		10/14/20 12:55	10/15/20 16:09	1
Isophorone	ND		2.0	0.29	ug/L		10/14/20 12:55	10/15/20 16:09	1
Naphthalene	ND		1.0	0.30	ug/L		10/14/20 12:55	10/15/20 16:09	1
Nitrobenzene	ND		1.0	0.46	ug/L		10/14/20 12:55	10/15/20 16:09	1
N-Nitrosodi-n-propylamine	ND		0.51	0.14	ug/L		10/14/20 12:55	10/15/20 16:09	1
N-Nitrosodiphenylamine	ND		2.0	0.35	ug/L		10/14/20 12:55	10/15/20 16:09	1
Phenol	ND		5.1	0.37	ug/L		10/14/20 12:55	10/15/20 16:09	1
Pyrene	ND		1.0	0.49	ug/L		10/14/20 12:55	10/15/20 16:09	1
2,4-Dimethylphenol	ND		10	3.4	ug/L		10/14/20 12:55	10/15/20 16:09	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		10/14/20 12:55	10/15/20 16:09	1
Phenanthrene	ND		1.0	0.36	ug/L		10/14/20 12:55	10/15/20 16:09	1
3,3'-Dichlorobenzidine	ND		5.1	0.95	ug/L		10/14/20 12:55	10/15/20 16:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*112*		*40 - 145*	*10/14/20 12:55*	*10/15/20 16:09*	*1*
2-Fluorobiphenyl	*72*		*34 - 110*	*10/14/20 12:55*	*10/15/20 16:09*	*1*
2-Fluorophenol (Surr)	*46*		*27 - 110*	*10/14/20 12:55*	*10/15/20 16:09*	*1*
Nitrobenzene-d5 (Surr)	*88*		*36 - 120*	*10/14/20 12:55*	*10/15/20 16:09*	*1*
Phenol-d5 (Surr)	*22*		*20 - 100*	*10/14/20 12:55*	*10/15/20 16:09*	*1*
Terphenyl-d14 (Surr)	*109*		*40 - 145*	*10/14/20 12:55*	*10/15/20 16:09*	*1*

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-04AR2-100720
Lab Sample ID: 500-189014-5
Date Collected: 10/07/20 12:35
Matrix: Water
Date Received: 10/08/20 09:30

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			10/14/20 14:16	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/14/20 14:16	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/14/20 14:16	1
Benzene	ND		1.0	0.41	ug/L			10/14/20 14:16	1
Chloromethane	ND		1.0	0.35	ug/L			10/14/20 14:16	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/14/20 14:16	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/14/20 14:16	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/14/20 14:16	1
Naphthalene	ND		1.0	0.43	ug/L			10/14/20 14:16	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/14/20 14:16	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/14/20 14:16	1
o-Xylene	ND		1.0	0.76	ug/L			10/14/20 14:16	1
Styrene	ND		1.0	0.73	ug/L			10/14/20 14:16	1
Toluene	ND		1.0	0.51	ug/L			10/14/20 14:16	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/14/20 14:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*10/14/20 14:16*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*10/14/20 14:16*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*10/14/20 14:16*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*10/14/20 14:16*	*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		10/13/20 14:32	10/14/20 19:25	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*101*		*24 - 146*	*10/13/20 14:32*	*10/14/20 19:25*	*5*
2-Fluorobiphenyl	*92*		*37 - 120*	*10/13/20 14:32*	*10/14/20 19:25*	*5*
2-Fluorophenol (Surr)	*52*		*10 - 120*	*10/13/20 14:32*	*10/14/20 19:25*	*5*
Nitrobenzene-d5 (Surr)	*81*		*26 - 120*	*10/13/20 14:32*	*10/14/20 19:25*	*5*
Phenol-d5 (Surr)	*33*		*11 - 120*	*10/13/20 14:32*	*10/14/20 19:25*	*5*
p-Terphenyl-d14	*52*	*X*	*64 - 127*	*10/13/20 14:32*	*10/14/20 19:25*	*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		10/14/20 12:55	10/15/20 20:36	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		10/14/20 12:55	10/15/20 20:36	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		10/14/20 12:55	10/15/20 20:36	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		10/14/20 12:55	10/15/20 20:36	1
1-Methylnaphthalene	ND		2.0	0.49	ug/L		10/14/20 12:55	10/15/20 20:36	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		10/14/20 12:55	10/15/20 20:36	1
2,3,4,6-Tetrachlorophenol	ND		4.9	1.5	ug/L		10/14/20 12:55	10/15/20 20:36	1
2,4,5-Trichlorophenol	ND		9.9	2.3	ug/L		10/14/20 12:55	10/15/20 20:36	1
2,4,6-Trichlorophenol	ND		4.9	1.1	ug/L		10/14/20 12:55	10/15/20 20:36	1
2,4-Dichlorophenol	ND		9.9	2.3	ug/L		10/14/20 12:55	10/15/20 20:36	1
2,4-Dinitrophenol	ND		20	7.3	ug/L		10/14/20 12:55	10/15/20 20:36	1
2,4-Dinitrotoluene	ND		0.99	0.30	ug/L		10/14/20 12:55	10/15/20 20:36	1
2,6-Dinitrotoluene	ND		0.99	0.12	ug/L		10/14/20 12:55	10/15/20 20:36	1
3 & 4 Methylphenol	ND		2.0	0.43	ug/L		10/14/20 12:55	10/15/20 20:36	1

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-04AR2-100720
Lab Sample ID: 500-189014-5
Date Collected: 10/07/20 12:35
Matrix: Water
Date Received: 10/08/20 09:30

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		10/14/20 12:55	10/15/20 20:36	1
2-Chlorophenol	ND		4.9	0.79	ug/L		10/14/20 12:55	10/15/20 20:36	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/14/20 12:55	10/15/20 20:36	1
2-Methylphenol	ND		2.0	0.31	ug/L		10/14/20 12:55	10/15/20 20:36	1
2-Nitroaniline	ND		4.9	1.1	ug/L		10/14/20 12:55	10/15/20 20:36	1
2-Nitrophenol	ND		9.9	2.1	ug/L		10/14/20 12:55	10/15/20 20:36	1
3-Nitroaniline	ND		9.9	2.3	ug/L		10/14/20 12:55	10/15/20 20:36	1
4,6-Dinitro-2-methylphenol	ND		20	4.9	ug/L		10/14/20 12:55	10/15/20 20:36	1
4-Bromophenyl phenyl ether	ND		4.9	0.90	ug/L		10/14/20 12:55	10/15/20 20:36	1
4-Chloro-3-methylphenol	ND		9.9	2.2	ug/L		10/14/20 12:55	10/15/20 20:36	1
4-Chloroaniline	ND		9.9	2.1	ug/L		10/14/20 12:55	10/15/20 20:36	1
4-Chlorophenyl phenyl ether	ND		4.9	0.80	ug/L		10/14/20 12:55	10/15/20 20:36	1
4-Nitroaniline	ND		9.9	3.9	ug/L		10/14/20 12:55	10/15/20 20:36	1
4-Nitrophenol	ND		20	2.3	ug/L		10/14/20 12:55	10/15/20 20:36	1
Acenaphthene	ND		0.99	0.36	ug/L		10/14/20 12:55	10/15/20 20:36	1
Acenaphthylene	ND		0.99	0.32	ug/L		10/14/20 12:55	10/15/20 20:36	1
Anthracene	**2.1**		0.99	0.32	ug/L		10/14/20 12:55	10/15/20 20:36	1
Benzo[a]pyrene	**0.43**		0.20	0.055	ug/L		10/14/20 12:55	10/15/20 20:36	1
Benzo[b]fluoranthene	**0.94**		0.20	0.057	ug/L		10/14/20 12:55	10/15/20 20:36	1
Benzo[g,h,i]perylene	ND		0.99	0.41	ug/L		10/14/20 12:55	10/15/20 20:36	1
Benzo[k]fluoranthene	**0.37**		0.20	0.073	ug/L		10/14/20 12:55	10/15/20 20:36	1
Benzoic acid	ND		20	4.5	ug/L		10/14/20 12:55	10/15/20 20:36	1
Benzyl alcohol	ND		20	3.0	ug/L		10/14/20 12:55	10/15/20 20:36	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		10/14/20 12:55	10/15/20 20:36	1
Bis(2-chloroethyl)ether	ND		2.0	0.35	ug/L		10/14/20 12:55	10/15/20 20:36	1
Bis(2-ethylhexyl) phthalate	ND		9.9	2.4	ug/L		10/14/20 12:55	10/15/20 20:36	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		10/14/20 12:55	10/15/20 20:36	1
Chrysene	**1.4**		0.49	0.14	ug/L		10/14/20 12:55	10/15/20 20:36	1
Dibenz(a,h)anthracene	**0.088**	**J**	0.30	0.063	ug/L		10/14/20 12:55	10/15/20 20:36	1
Dibenzofuran	ND		2.0	0.35	ug/L		10/14/20 12:55	10/15/20 20:36	1
Diethyl phthalate	ND		2.0	0.43	ug/L		10/14/20 12:55	10/15/20 20:36	1
Dimethyl phthalate	ND		2.0	0.38	ug/L		10/14/20 12:55	10/15/20 20:36	1
Di-n-butyl phthalate	ND		4.9	0.79	ug/L		10/14/20 12:55	10/15/20 20:36	1
Di-n-octyl phthalate	ND		9.9	2.4	ug/L		10/14/20 12:55	10/15/20 20:36	1
2,3,5,6-Tetrachlorophenol	ND		4.9	2.5	ug/L		10/14/20 12:55	10/15/20 20:36	1
Fluoranthene	**3.0**		0.99	0.32	ug/L		10/14/20 12:55	10/15/20 20:36	1
Fluorene	ND		0.99	0.38	ug/L		10/14/20 12:55	10/15/20 20:36	1
Hexachlorobenzene	ND		0.49	0.14	ug/L		10/14/20 12:55	10/15/20 20:36	1
Hexachlorobutadiene	ND		4.9	1.1	ug/L		10/14/20 12:55	10/15/20 20:36	1
Hexachlorocyclopentadiene	ND		20	3.4	ug/L		10/14/20 12:55	10/15/20 20:36	1
Hexachloroethane	ND		4.9	0.96	ug/L		10/14/20 12:55	10/15/20 20:36	1
Indeno[1,2,3-cd]pyrene	**0.26**		0.20	0.083	ug/L		10/14/20 12:55	10/15/20 20:36	1
Isophorone	ND		2.0	0.29	ug/L		10/14/20 12:55	10/15/20 20:36	1
Nitrobenzene	ND		0.99	0.44	ug/L		10/14/20 12:55	10/15/20 20:36	1
N-Nitrosodi-n-propylamine	ND		0.49	0.14	ug/L		10/14/20 12:55	10/15/20 20:36	1
N-Nitrosodiphenylamine	ND		2.0	0.34	ug/L		10/14/20 12:55	10/15/20 20:36	1
Phenol	ND		4.9	0.36	ug/L		10/14/20 12:55	10/15/20 20:36	1
Pyrene	**2.3**		0.99	0.47	ug/L		10/14/20 12:55	10/15/20 20:36	1
2,4-Dimethylphenol	ND		9.9	3.3	ug/L		10/14/20 12:55	10/15/20 20:36	1

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-04AR2-100720
Lab Sample ID: 500-189014-5
Date Collected: 10/07/20 12:35
Matrix: Water
Date Received: 10/08/20 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	**0.76**		0.20	0.043	ug/L		10/14/20 12:55	10/15/20 20:36	1
Phenanthrene	**0.73**	**J**	0.99	0.35	ug/L		10/14/20 12:55	10/15/20 20:36	1
3,3'-Dichlorobenzidine	ND		4.9	0.93	ug/L		10/14/20 12:55	10/15/20 20:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*91*		*40 - 145*	*10/14/20 12:55*	*10/15/20 20:36*	*1*
2-Fluorobiphenyl	*79*		*34 - 110*	*10/14/20 12:55*	*10/15/20 20:36*	*1*
2-Fluorophenol (Surr)	*48*		*27 - 110*	*10/14/20 12:55*	*10/15/20 20:36*	*1*
Nitrobenzene-d5 (Surr)	*79*		*36 - 120*	*10/14/20 12:55*	*10/15/20 20:36*	*1*
Phenol-d5 (Surr)	*27*		*20 - 100*	*10/14/20 12:55*	*10/15/20 20:36*	*1*
Terphenyl-d14 (Surr)	*61*		*40 - 145*	*10/14/20 12:55*	*10/15/20 20:36*	*1*

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-10AR2-100720
Lab Sample ID: 500-189014-6
Date Collected: 10/07/20 14:25
Matrix: Water
Date Received: 10/08/20 09:30

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			10/14/20 14:40	1
1,2,4-Trimethylbenzene	**11**		1.0	0.75	ug/L			10/14/20 14:40	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/14/20 14:40	1
Benzene	**18**		1.0	0.41	ug/L			10/14/20 14:40	1
Chloromethane	ND		1.0	0.35	ug/L			10/14/20 14:40	1
Ethylbenzene	**42**		1.0	0.74	ug/L			10/14/20 14:40	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/14/20 14:40	1
m-Xylene & p-Xylene	**3.8**		2.0	0.66	ug/L			10/14/20 14:40	1
Naphthalene	**2.3**		1.0	0.43	ug/L			10/14/20 14:40	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/14/20 14:40	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/14/20 14:40	1
o-Xylene	**19**		1.0	0.76	ug/L			10/14/20 14:40	1
Styrene	ND		1.0	0.73	ug/L			10/14/20 14:40	1
Toluene	**2.3**		1.0	0.51	ug/L			10/14/20 14:40	1
Xylenes, Total	**23**		2.0	0.66	ug/L			10/14/20 14:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*		*10/14/20 14:40*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*10/14/20 14:40*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 123*		*10/14/20 14:40*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*10/14/20 14:40*	*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		10/13/20 14:32	10/14/20 19:54	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*133*		*24 - 146*	*10/13/20 14:32*	*10/14/20 19:54*	*5*
2-Fluorobiphenyl	*97*		*37 - 120*	*10/13/20 14:32*	*10/14/20 19:54*	*5*
2-Fluorophenol (Surr)	*51*		*10 - 120*	*10/13/20 14:32*	*10/14/20 19:54*	*5*
Nitrobenzene-d5 (Surr)	*86*		*26 - 120*	*10/13/20 14:32*	*10/14/20 19:54*	*5*
Phenol-d5 (Surr)	*33*		*11 - 120*	*10/13/20 14:32*	*10/14/20 19:54*	*5*
p-Terphenyl-d14	*54*	*X*	*64 - 127*	*10/13/20 14:32*	*10/14/20 19:54*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.1	0.31	ug/L		10/14/20 12:55	10/15/20 21:00	1
1,2-Dichlorobenzene	ND		2.1	0.30	ug/L		10/14/20 12:55	10/15/20 21:00	1
1,3-Dichlorobenzene	ND		2.1	0.26	ug/L		10/14/20 12:55	10/15/20 21:00	1
1,4-Dichlorobenzene	ND		2.1	0.28	ug/L		10/14/20 12:55	10/15/20 21:00	1
1-Methylnaphthalene	**19**		2.1	0.51	ug/L		10/14/20 12:55	10/15/20 21:00	1
bis(chloroisopropyl) ether	ND		2.1	0.31	ug/L		10/14/20 12:55	10/15/20 21:00	1
2,3,4,6-Tetrachlorophenol	ND		5.1	1.6	ug/L		10/14/20 12:55	10/15/20 21:00	1
2,4,5-Trichlorophenol	ND		10	2.4	ug/L		10/14/20 12:55	10/15/20 21:00	1
2,4,6-Trichlorophenol	ND		5.1	1.1	ug/L		10/14/20 12:55	10/15/20 21:00	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		10/14/20 12:55	10/15/20 21:00	1
2,4-Dinitrophenol	ND		21	7.6	ug/L		10/14/20 12:55	10/15/20 21:00	1
2,4-Dinitrotoluene	ND		1.0	0.31	ug/L		10/14/20 12:55	10/15/20 21:00	1
2,6-Dinitrotoluene	ND		1.0	0.12	ug/L		10/14/20 12:55	10/15/20 21:00	1
3 & 4 Methylphenol	ND		2.1	0.45	ug/L		10/14/20 12:55	10/15/20 21:00	1

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

Job ID: 500-189014-1

Client Sample ID: SUPE-W-10AR2-100720
Date Collected: 10/07/20 14:25
Date Received: 10/08/20 09:30

Lab Sample ID: 500-189014-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	ND		2.1	0.35	ug/L		10/14/20 12:55	10/15/20 21:00	1
2-Chlorophenol	ND		5.1	0.82	ug/L		10/14/20 12:55	10/15/20 21:00	1
2-Methylnaphthalene	ND		2.1	0.13	ug/L		10/14/20 12:55	10/15/20 21:00	1
2-Methylphenol	ND		2.1	0.32	ug/L		10/14/20 12:55	10/15/20 21:00	1
2-Nitroaniline	ND		5.1	1.1	ug/L		10/14/20 12:55	10/15/20 21:00	1
2-Nitrophenol	ND		10	2.2	ug/L		10/14/20 12:55	10/15/20 21:00	1
3-Nitroaniline	ND		10	2.4	ug/L		10/14/20 12:55	10/15/20 21:00	1
4,6-Dinitro-2-methylphenol	ND		21	5.1	ug/L		10/14/20 12:55	10/15/20 21:00	1
4-Bromophenyl phenyl ether	ND		5.1	0.94	ug/L		10/14/20 12:55	10/15/20 21:00	1
4-Chloro-3-methylphenol	ND		10	2.3	ug/L		10/14/20 12:55	10/15/20 21:00	1
4-Chloroaniline	ND		10	2.2	ug/L		10/14/20 12:55	10/15/20 21:00	1
4-Chlorophenyl phenyl ether	ND		5.1	0.83	ug/L		10/14/20 12:55	10/15/20 21:00	1
4-Nitroaniline	ND		10	4.0	ug/L		10/14/20 12:55	10/15/20 21:00	1
4-Nitrophenol	ND		21	2.4	ug/L		10/14/20 12:55	10/15/20 21:00	1
Acenaphthylene	**1.9**		1.0	0.33	ug/L		10/14/20 12:55	10/15/20 21:00	1
Anthracene	ND		1.0	0.33	ug/L		10/14/20 12:55	10/15/20 21:00	1
Benzo[a]pyrene	ND		0.21	0.058	ug/L		10/14/20 12:55	10/15/20 21:00	1
Benzo[b]fluoranthene	ND		0.21	0.060	ug/L		10/14/20 12:55	10/15/20 21:00	1
Benzo[g,h,i]perylene	ND		1.0	0.43	ug/L		10/14/20 12:55	10/15/20 21:00	1
Benzo[k]fluoranthene	ND		0.21	0.076	ug/L		10/14/20 12:55	10/15/20 21:00	1
Benzoic acid	ND		21	4.7	ug/L		10/14/20 12:55	10/15/20 21:00	1
Benzyl alcohol	ND		21	3.1	ug/L		10/14/20 12:55	10/15/20 21:00	1
Bis(2-chloroethoxy)methane	ND		2.1	0.31	ug/L		10/14/20 12:55	10/15/20 21:00	1
Bis(2-chloroethyl)ether	ND		2.1	0.36	ug/L		10/14/20 12:55	10/15/20 21:00	1
Bis(2-ethylhexyl) phthalate	ND		10	2.5	ug/L		10/14/20 12:55	10/15/20 21:00	1
Butyl benzyl phthalate	ND		2.1	0.28	ug/L		10/14/20 12:55	10/15/20 21:00	1
Chrysene	ND		0.51	0.14	ug/L		10/14/20 12:55	10/15/20 21:00	1
Dibenz(a,h)anthracene	ND		0.31	0.066	ug/L		10/14/20 12:55	10/15/20 21:00	1
Dibenzofuran	**12**		2.1	0.36	ug/L		10/14/20 12:55	10/15/20 21:00	1
Diethyl phthalate	ND		2.1	0.45	ug/L		10/14/20 12:55	10/15/20 21:00	1
Dimethyl phthalate	ND		2.1	0.39	ug/L		10/14/20 12:55	10/15/20 21:00	1
Di-n-butyl phthalate	ND		5.1	0.82	ug/L		10/14/20 12:55	10/15/20 21:00	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		10/14/20 12:55	10/15/20 21:00	1
2,3,5,6-Tetrachlorophenol	ND		5.1	2.6	ug/L		10/14/20 12:55	10/15/20 21:00	1
Fluoranthene	**2.8**		1.0	0.33	ug/L		10/14/20 12:55	10/15/20 21:00	1
Fluorene	**15**		1.0	0.39	ug/L		10/14/20 12:55	10/15/20 21:00	1
Hexachlorobenzene	ND		0.51	0.14	ug/L		10/14/20 12:55	10/15/20 21:00	1
Hexachlorobutadiene	ND		5.1	1.1	ug/L		10/14/20 12:55	10/15/20 21:00	1
Hexachlorocyclopentadiene	ND		21	3.5	ug/L		10/14/20 12:55	10/15/20 21:00	1
Hexachloroethane	ND		5.1	1.0	ug/L		10/14/20 12:55	10/15/20 21:00	1
Indeno[1,2,3-cd]pyrene	ND		0.21	0.086	ug/L		10/14/20 12:55	10/15/20 21:00	1
Isophorone	ND		2.1	0.30	ug/L		10/14/20 12:55	10/15/20 21:00	1
Nitrobenzene	ND		1.0	0.46	ug/L		10/14/20 12:55	10/15/20 21:00	1
N-Nitrosodi-n-propylamine	ND		0.51	0.14	ug/L		10/14/20 12:55	10/15/20 21:00	1
N-Nitrosodiphenylamine	ND		2.1	0.35	ug/L		10/14/20 12:55	10/15/20 21:00	1
Phenol	ND		5.1	0.37	ug/L		10/14/20 12:55	10/15/20 21:00	1
Pyrene	**1.9**		1.0	0.49	ug/L		10/14/20 12:55	10/15/20 21:00	1
2,4-Dimethylphenol	ND		10	3.4	ug/L		10/14/20 12:55	10/15/20 21:00	1
Benzo[a]anthracene	**0.13**	**J**	0.21	0.045	ug/L		10/14/20 12:55	10/15/20 21:00	1

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-10AR2-100720
Lab Sample ID: 500-189014-6
Date Collected: 10/07/20 14:25
Matrix: Water
Date Received: 10/08/20 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	0.65	J	1.0	0.36	ug/L		10/14/20 12:55	10/15/20 21:00	1
3,3'-Dichlorobenzidine	ND		5.1	0.97	ug/L		10/14/20 12:55	10/15/20 21:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*123*		*40 - 145*	*10/14/20 12:55*	*10/15/20 21:00*	*1*
2-Fluorobiphenyl	*71*		*34 - 110*	*10/14/20 12:55*	*10/15/20 21:00*	*1*
2-Fluorophenol (Surr)	*53*		*27 - 110*	*10/14/20 12:55*	*10/15/20 21:00*	*1*
Nitrobenzene-d5 (Surr)	*87*		*36 - 120*	*10/14/20 12:55*	*10/15/20 21:00*	*1*
Phenol-d5 (Surr)	*35*		*20 - 100*	*10/14/20 12:55*	*10/15/20 21:00*	*1*
Terphenyl-d14 (Surr)	*73*		*40 - 145*	*10/14/20 12:55*	*10/15/20 21:00*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	87		5.1	1.9	ug/L		10/14/20 12:55	10/15/20 22:13	5

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-99-100720
Lab Sample ID: 500-189014-7
Date Collected: 10/07/20 01:00
Matrix: Water
Date Received: 10/08/20 09:30

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			10/14/20 15:04	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/14/20 15:04	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/14/20 15:04	1
Benzene	ND		1.0	0.41	ug/L			10/14/20 15:04	1
Chloromethane	ND		1.0	0.35	ug/L			10/14/20 15:04	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/14/20 15:04	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/14/20 15:04	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/14/20 15:04	1
Naphthalene	ND		1.0	0.43	ug/L			10/14/20 15:04	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/14/20 15:04	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/14/20 15:04	1
o-Xylene	ND		1.0	0.76	ug/L			10/14/20 15:04	1
Styrene	ND		1.0	0.73	ug/L			10/14/20 15:04	1
Toluene	ND		1.0	0.51	ug/L			10/14/20 15:04	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/14/20 15:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*10/14/20 15:04*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*10/14/20 15:04*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 123*		*10/14/20 15:04*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*10/14/20 15:04*	*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		10/13/20 14:32	10/14/20 20:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*123*		*24 - 146*	*10/13/20 14:32*	*10/14/20 20:22*	*1*
2-Fluorobiphenyl	*101*		*37 - 120*	*10/13/20 14:32*	*10/14/20 20:22*	*1*
2-Fluorophenol (Surr)	*58*		*10 - 120*	*10/13/20 14:32*	*10/14/20 20:22*	*1*
Nitrobenzene-d5 (Surr)	*96*		*26 - 120*	*10/13/20 14:32*	*10/14/20 20:22*	*1*
Phenol-d5 (Surr)	*37*		*11 - 120*	*10/13/20 14:32*	*10/14/20 20:22*	*1*
p-Terphenyl-d14	*115*		*64 - 127*	*10/13/20 14:32*	*10/14/20 20:22*	*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	0.29	ug/L		10/14/20 12:55	10/15/20 16:33	1
1,2-Dichlorobenzene	ND		2.0	0.28	ug/L		10/14/20 12:55	10/15/20 16:33	1
1,3-Dichlorobenzene	ND		2.0	0.24	ug/L		10/14/20 12:55	10/15/20 16:33	1
1,4-Dichlorobenzene	ND		2.0	0.26	ug/L		10/14/20 12:55	10/15/20 16:33	1
1-Methylnaphthalene	ND		2.0	0.49	ug/L		10/14/20 12:55	10/15/20 16:33	1
bis(chloroisopropyl) ether	ND		2.0	0.29	ug/L		10/14/20 12:55	10/15/20 16:33	1
2,3,4,6-Tetrachlorophenol	ND		4.9	1.5	ug/L		10/14/20 12:55	10/15/20 16:33	1
2,4,5-Trichlorophenol	ND		9.8	2.2	ug/L		10/14/20 12:55	10/15/20 16:33	1
2,4,6-Trichlorophenol	ND		4.9	1.1	ug/L		10/14/20 12:55	10/15/20 16:33	1
2,4-Dichlorophenol	ND		9.8	2.2	ug/L		10/14/20 12:55	10/15/20 16:33	1
2,4-Dinitrophenol	ND		20	7.3	ug/L		10/14/20 12:55	10/15/20 16:33	1
2,4-Dinitrotoluene	ND		0.98	0.29	ug/L		10/14/20 12:55	10/15/20 16:33	1
2,6-Dinitrotoluene	ND		0.98	0.12	ug/L		10/14/20 12:55	10/15/20 16:33	1
3 & 4 Methylphenol	ND		2.0	0.43	ug/L		10/14/20 12:55	10/15/20 16:33	1

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-99-100720
Lab Sample ID: 500-189014-7
Date Collected: 10/07/20 01:00
Matrix: Water
Date Received: 10/08/20 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	ND		2.0	0.33	ug/L		10/14/20 12:55	10/15/20 16:33	1
2-Chlorophenol	ND		4.9	0.78	ug/L		10/14/20 12:55	10/15/20 16:33	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/14/20 12:55	10/15/20 16:33	1
2-Methylphenol	ND		2.0	0.30	ug/L		10/14/20 12:55	10/15/20 16:33	1
2-Nitroaniline	ND		4.9	1.1	ug/L		10/14/20 12:55	10/15/20 16:33	1
2-Nitrophenol	ND		9.8	2.1	ug/L		10/14/20 12:55	10/15/20 16:33	1
3-Nitroaniline	ND		9.8	2.2	ug/L		10/14/20 12:55	10/15/20 16:33	1
4,6-Dinitro-2-methylphenol	ND		20	4.8	ug/L		10/14/20 12:55	10/15/20 16:33	1
4-Bromophenyl phenyl ether	ND		4.9	0.89	ug/L		10/14/20 12:55	10/15/20 16:33	1
4-Chloro-3-methylphenol	ND		9.8	2.2	ug/L		10/14/20 12:55	10/15/20 16:33	1
4-Chloroaniline	ND		9.8	2.1	ug/L		10/14/20 12:55	10/15/20 16:33	1
4-Chlorophenyl phenyl ether	ND		4.9	0.79	ug/L		10/14/20 12:55	10/15/20 16:33	1
4-Nitroaniline	ND		9.8	3.8	ug/L		10/14/20 12:55	10/15/20 16:33	1
4-Nitrophenol	ND		20	2.3	ug/L		10/14/20 12:55	10/15/20 16:33	1
Acenaphthene	ND		0.98	0.35	ug/L		10/14/20 12:55	10/15/20 16:33	1
Acenaphthylene	ND		0.98	0.31	ug/L		10/14/20 12:55	10/15/20 16:33	1
Anthracene	ND		0.98	0.31	ug/L		10/14/20 12:55	10/15/20 16:33	1
Benzo[a]pyrene	ND		0.20	0.055	ug/L		10/14/20 12:55	10/15/20 16:33	1
Benzo[b]fluoranthene	ND		0.20	0.057	ug/L		10/14/20 12:55	10/15/20 16:33	1
Benzo[g,h,i]perylene	ND		0.98	0.41	ug/L		10/14/20 12:55	10/15/20 16:33	1
Benzo[k]fluoranthene	ND		0.20	0.072	ug/L		10/14/20 12:55	10/15/20 16:33	1
Benzoic acid	ND		20	4.5	ug/L		10/14/20 12:55	10/15/20 16:33	1
Benzyl alcohol	ND		20	3.0	ug/L		10/14/20 12:55	10/15/20 16:33	1
Bis(2-chloroethoxy)methane	ND		2.0	0.29	ug/L		10/14/20 12:55	10/15/20 16:33	1
Bis(2-chloroethyl)ether	ND		2.0	0.34	ug/L		10/14/20 12:55	10/15/20 16:33	1
Bis(2-ethylhexyl) phthalate	ND		9.8	2.4	ug/L		10/14/20 12:55	10/15/20 16:33	1
Butyl benzyl phthalate	ND		2.0	0.26	ug/L		10/14/20 12:55	10/15/20 16:33	1
Chrysene	ND		0.49	0.14	ug/L		10/14/20 12:55	10/15/20 16:33	1
Dibenz(a,h)anthracene	ND		0.29	0.063	ug/L		10/14/20 12:55	10/15/20 16:33	1
Dibenzofuran	ND		2.0	0.34	ug/L		10/14/20 12:55	10/15/20 16:33	1
Diethyl phthalate	ND		2.0	0.43	ug/L		10/14/20 12:55	10/15/20 16:33	1
Dimethyl phthalate	ND		2.0	0.37	ug/L		10/14/20 12:55	10/15/20 16:33	1
Di-n-butyl phthalate	ND		4.9	0.78	ug/L		10/14/20 12:55	10/15/20 16:33	1
Di-n-octyl phthalate	ND		9.8	2.4	ug/L		10/14/20 12:55	10/15/20 16:33	1
2,3,5,6-Tetrachlorophenol	ND		4.9	2.4	ug/L		10/14/20 12:55	10/15/20 16:33	1
Fluoranthene	ND		0.98	0.31	ug/L		10/14/20 12:55	10/15/20 16:33	1
Fluorene	ND		0.98	0.37	ug/L		10/14/20 12:55	10/15/20 16:33	1
Hexachlorobenzene	ND		0.49	0.14	ug/L		10/14/20 12:55	10/15/20 16:33	1
Hexachlorobutadiene	ND		4.9	1.1	ug/L		10/14/20 12:55	10/15/20 16:33	1
Hexachlorocyclopentadiene	ND		20	3.4	ug/L		10/14/20 12:55	10/15/20 16:33	1
Hexachloroethane	ND		4.9	0.95	ug/L		10/14/20 12:55	10/15/20 16:33	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.082	ug/L		10/14/20 12:55	10/15/20 16:33	1
Isophorone	ND		2.0	0.28	ug/L		10/14/20 12:55	10/15/20 16:33	1
Nitrobenzene	ND		0.98	0.44	ug/L		10/14/20 12:55	10/15/20 16:33	1
N-Nitrosodi-n-propylamine	ND		0.49	0.14	ug/L		10/14/20 12:55	10/15/20 16:33	1
N-Nitrosodiphenylamine	ND		2.0	0.33	ug/L		10/14/20 12:55	10/15/20 16:33	1
Phenol	ND		4.9	0.35	ug/L		10/14/20 12:55	10/15/20 16:33	1
Pyrene	ND		0.98	0.47	ug/L		10/14/20 12:55	10/15/20 16:33	1
2,4-Dimethylphenol	ND		9.8	3.3	ug/L		10/14/20 12:55	10/15/20 16:33	1

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-99-100720
Lab Sample ID: 500-189014-7
Date Collected: 10/07/20 01:00
Matrix: Water
Date Received: 10/08/20 09:30

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	0.043	ug/L		10/14/20 12:55	10/15/20 16:33	1
Phenanthrene	ND		0.98	0.34	ug/L		10/14/20 12:55	10/15/20 16:33	1
3,3'-Dichlorobenzidine	ND		4.9	0.92	ug/L		10/14/20 12:55	10/15/20 16:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*90*		*40 - 145*	*10/14/20 12:55*	*10/15/20 16:33*	*1*
2-Fluorobiphenyl	*68*		*34 - 110*	*10/14/20 12:55*	*10/15/20 16:33*	*1*
2-Fluorophenol (Surr)	*43*		*27 - 110*	*10/14/20 12:55*	*10/15/20 16:33*	*1*
Nitrobenzene-d5 (Surr)	*79*		*36 - 120*	*10/14/20 12:55*	*10/15/20 16:33*	*1*
Phenol-d5 (Surr)	*23*		*20 - 100*	*10/14/20 12:55*	*10/15/20 16:33*	*1*
Terphenyl-d14 (Surr)	*89*		*40 - 145*	*10/14/20 12:55*	*10/15/20 16:33*	*1*

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-30C-100720
Lab Sample ID: 500-189014-8
Date Collected: 10/07/20 09:40
Matrix: Water
Date Received: 10/08/20 09:30

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			10/14/20 15:28	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/14/20 15:28	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/14/20 15:28	1
Benzene	ND		1.0	0.41	ug/L			10/14/20 15:28	1
Chloromethane	ND		1.0	0.35	ug/L			10/14/20 15:28	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/14/20 15:28	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/14/20 15:28	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/14/20 15:28	1
Naphthalene	ND		1.0	0.43	ug/L			10/14/20 15:28	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/14/20 15:28	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/14/20 15:28	1
o-Xylene	ND		1.0	0.76	ug/L			10/14/20 15:28	1
Styrene	ND		1.0	0.73	ug/L			10/14/20 15:28	1
Toluene	ND		1.0	0.51	ug/L			10/14/20 15:28	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/14/20 15:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*		*10/14/20 15:28*	*1*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*10/14/20 15:28*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 123*		*10/14/20 15:28*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*10/14/20 15:28*	*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		10/13/20 14:32	10/14/20 20:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*127*		*24 - 146*	*10/13/20 14:32*	*10/14/20 20:50*	*1*
2-Fluorobiphenyl	*101*		*37 - 120*	*10/13/20 14:32*	*10/14/20 20:50*	*1*
2-Fluorophenol (Surr)	*58*		*10 - 120*	*10/13/20 14:32*	*10/14/20 20:50*	*1*
Nitrobenzene-d5 (Surr)	*97*		*26 - 120*	*10/13/20 14:32*	*10/14/20 20:50*	*1*
Phenol-d5 (Surr)	*37*		*11 - 120*	*10/13/20 14:32*	*10/14/20 20:50*	*1*
p-Terphenyl-d14	*106*		*64 - 127*	*10/13/20 14:32*	*10/14/20 20:50*	*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		10/14/20 12:55	10/15/20 16:57	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		10/14/20 12:55	10/15/20 16:57	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		10/14/20 12:55	10/15/20 16:57	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		10/14/20 12:55	10/15/20 16:57	1
1-Methylnaphthalene	ND		2.0	0.50	ug/L		10/14/20 12:55	10/15/20 16:57	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		10/14/20 12:55	10/15/20 16:57	1
2,3,4,6-Tetrachlorophenol	ND		5.0	1.5	ug/L		10/14/20 12:55	10/15/20 16:57	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		10/14/20 12:55	10/15/20 16:57	1
2,4,6-Trichlorophenol	ND		5.0	1.1	ug/L		10/14/20 12:55	10/15/20 16:57	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		10/14/20 12:55	10/15/20 16:57	1
2,4-Dinitrophenol	ND		20	7.5	ug/L		10/14/20 12:55	10/15/20 16:57	1
2,4-Dinitrotoluene	ND		1.0	0.30	ug/L		10/14/20 12:55	10/15/20 16:57	1
2,6-Dinitrotoluene	ND		1.0	0.12	ug/L		10/14/20 12:55	10/15/20 16:57	1
3 & 4 Methylphenol	ND		2.0	0.44	ug/L		10/14/20 12:55	10/15/20 16:57	1

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

Job ID: 500-189014-1

Client Sample ID: SUPE-W-30C-100720
Date Collected: 10/07/20 09:40
Date Received: 10/08/20 09:30

Lab Sample ID: 500-189014-8
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		10/14/20 12:55	10/15/20 16:57	1
2-Chlorophenol	ND		5.0	0.81	ug/L		10/14/20 12:55	10/15/20 16:57	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/14/20 12:55	10/15/20 16:57	1
2-Methylphenol	ND		2.0	0.31	ug/L		10/14/20 12:55	10/15/20 16:57	1
2-Nitroaniline	ND		5.0	1.1	ug/L		10/14/20 12:55	10/15/20 16:57	1
2-Nitrophenol	ND		10	2.2	ug/L		10/14/20 12:55	10/15/20 16:57	1
3-Nitroaniline	ND		10	2.3	ug/L		10/14/20 12:55	10/15/20 16:57	1
4,6-Dinitro-2-methylphenol	ND		20	5.0	ug/L		10/14/20 12:55	10/15/20 16:57	1
4-Bromophenyl phenyl ether	ND		5.0	0.92	ug/L		10/14/20 12:55	10/15/20 16:57	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		10/14/20 12:55	10/15/20 16:57	1
4-Chloroaniline	ND		10	2.1	ug/L		10/14/20 12:55	10/15/20 16:57	1
4-Chlorophenyl phenyl ether	ND		5.0	0.82	ug/L		10/14/20 12:55	10/15/20 16:57	1
4-Nitroaniline	ND		10	4.0	ug/L		10/14/20 12:55	10/15/20 16:57	1
4-Nitrophenol	ND		20	2.4	ug/L		10/14/20 12:55	10/15/20 16:57	1
Acenaphthene	ND		1.0	0.36	ug/L		10/14/20 12:55	10/15/20 16:57	1
Acenaphthylene	ND		1.0	0.32	ug/L		10/14/20 12:55	10/15/20 16:57	1
Anthracene	ND		1.0	0.32	ug/L		10/14/20 12:55	10/15/20 16:57	1
Benzo[a]pyrene	ND		0.20	0.056	ug/L		10/14/20 12:55	10/15/20 16:57	1
Benzo[b]fluoranthene	**0.11**	**J**	0.20	0.058	ug/L		10/14/20 12:55	10/15/20 16:57	1
Benzo[g,h,i]perylene	ND		1.0	0.42	ug/L		10/14/20 12:55	10/15/20 16:57	1
Benzo[k]fluoranthene	ND		0.20	0.075	ug/L		10/14/20 12:55	10/15/20 16:57	1
Benzoic acid	ND		20	4.6	ug/L		10/14/20 12:55	10/15/20 16:57	1
Benzyl alcohol	ND		20	3.1	ug/L		10/14/20 12:55	10/15/20 16:57	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		10/14/20 12:55	10/15/20 16:57	1
Bis(2-chloroethyl)ether	ND		2.0	0.35	ug/L		10/14/20 12:55	10/15/20 16:57	1
Bis(2-ethylhexyl) phthalate	ND		10	2.5	ug/L		10/14/20 12:55	10/15/20 16:57	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		10/14/20 12:55	10/15/20 16:57	1
Chrysene	**0.14**	**J**	0.50	0.14	ug/L		10/14/20 12:55	10/15/20 16:57	1
Dibenz(a,h)anthracene	ND		0.30	0.065	ug/L		10/14/20 12:55	10/15/20 16:57	1
Dibenzofuran	ND		2.0	0.35	ug/L		10/14/20 12:55	10/15/20 16:57	1
Diethyl phthalate	ND		2.0	0.44	ug/L		10/14/20 12:55	10/15/20 16:57	1
Dimethyl phthalate	ND		2.0	0.38	ug/L		10/14/20 12:55	10/15/20 16:57	1
Di-n-butyl phthalate	ND		5.0	0.81	ug/L		10/14/20 12:55	10/15/20 16:57	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		10/14/20 12:55	10/15/20 16:57	1
2,3,5,6-Tetrachlorophenol	ND		5.0	2.5	ug/L		10/14/20 12:55	10/15/20 16:57	1
Fluoranthene	ND		1.0	0.32	ug/L		10/14/20 12:55	10/15/20 16:57	1
Fluorene	ND		1.0	0.38	ug/L		10/14/20 12:55	10/15/20 16:57	1
Hexachlorobenzene	ND		0.50	0.14	ug/L		10/14/20 12:55	10/15/20 16:57	1
Hexachlorobutadiene	ND		5.0	1.1	ug/L		10/14/20 12:55	10/15/20 16:57	1
Hexachlorocyclopentadiene	ND		20	3.5	ug/L		10/14/20 12:55	10/15/20 16:57	1
Hexachloroethane	ND		5.0	0.98	ug/L		10/14/20 12:55	10/15/20 16:57	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.085	ug/L		10/14/20 12:55	10/15/20 16:57	1
Isophorone	ND		2.0	0.29	ug/L		10/14/20 12:55	10/15/20 16:57	1
Nitrobenzene	ND		1.0	0.45	ug/L		10/14/20 12:55	10/15/20 16:57	1
N-Nitrosodi-n-propylamine	ND		0.50	0.14	ug/L		10/14/20 12:55	10/15/20 16:57	1
N-Nitrosodiphenylamine	ND		2.0	0.34	ug/L		10/14/20 12:55	10/15/20 16:57	1
Phenol	ND		5.0	0.36	ug/L		10/14/20 12:55	10/15/20 16:57	1
Pyrene	ND		1.0	0.48	ug/L		10/14/20 12:55	10/15/20 16:57	1
2,4-Dimethylphenol	ND		10	3.4	ug/L		10/14/20 12:55	10/15/20 16:57	1

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-30C-100720
Lab Sample ID: 500-189014-8
Date Collected: 10/07/20 09:40
Matrix: Water
Date Received: 10/08/20 09:30

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**	0.20	0.044	ug/L		10/14/20 12:55	10/15/20 16:57	1
Phenanthrene	ND		1.0	0.35	ug/L		10/14/20 12:55	10/15/20 16:57	1
3,3'-Dichlorobenzidine	ND		5.0	0.95	ug/L		10/14/20 12:55	10/15/20 16:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*92*		*40 - 145*	*10/14/20 12:55*	*10/15/20 16:57*	*1*
2-Fluorobiphenyl	*86*		*34 - 110*	*10/14/20 12:55*	*10/15/20 16:57*	*1*
2-Fluorophenol (Surr)	*52*		*27 - 110*	*10/14/20 12:55*	*10/15/20 16:57*	*1*
Nitrobenzene-d5 (Surr)	*89*		*36 - 120*	*10/14/20 12:55*	*10/15/20 16:57*	*1*
Phenol-d5 (Surr)	*30*		*20 - 100*	*10/14/20 12:55*	*10/15/20 16:57*	*1*
Terphenyl-d14 (Surr)	*87*		*40 - 145*	*10/14/20 12:55*	*10/15/20 16:57*	*1*

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-06A-100720
Lab Sample ID: 500-189014-9
Date Collected: 10/07/20 10:45
Matrix: Water
Date Received: 10/08/20 09:30

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			10/14/20 15:52	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/14/20 15:52	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/14/20 15:52	1
Benzene	ND		1.0	0.41	ug/L			10/14/20 15:52	1
Chloromethane	ND		1.0	0.35	ug/L			10/14/20 15:52	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/14/20 15:52	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/14/20 15:52	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/14/20 15:52	1
Naphthalene	ND		1.0	0.43	ug/L			10/14/20 15:52	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/14/20 15:52	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/14/20 15:52	1
o-Xylene	ND		1.0	0.76	ug/L			10/14/20 15:52	1
Styrene	ND		1.0	0.73	ug/L			10/14/20 15:52	1
Toluene	ND		1.0	0.51	ug/L			10/14/20 15:52	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/14/20 15:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*10/14/20 15:52*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*10/14/20 15:52*	*1*
Dibromofluoromethane (Surr)	*96*		*75 - 123*		*10/14/20 15:52*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*10/14/20 15:52*	*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		1.0	0.34	ug/L		10/13/20 14:32	10/14/20 21:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*129*		*24 - 146*	*10/13/20 14:32*	*10/14/20 21:18*	*1*
2-Fluorobiphenyl	*98*		*37 - 120*	*10/13/20 14:32*	*10/14/20 21:18*	*1*
2-Fluorophenol (Surr)	*57*		*10 - 120*	*10/13/20 14:32*	*10/14/20 21:18*	*1*
Nitrobenzene-d5 (Surr)	*91*		*26 - 120*	*10/13/20 14:32*	*10/14/20 21:18*	*1*
Phenol-d5 (Surr)	*36*		*11 - 120*	*10/13/20 14:32*	*10/14/20 21:18*	*1*
p-Terphenyl-d14	*86*		*64 - 127*	*10/13/20 14:32*	*10/14/20 21:18*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.0	0.30	ug/L		10/14/20 12:55	10/15/20 17:22	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		10/14/20 12:55	10/15/20 17:22	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		10/14/20 12:55	10/15/20 17:22	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		10/14/20 12:55	10/15/20 17:22	1
1-Methylnaphthalene	ND		2.0	0.49	ug/L		10/14/20 12:55	10/15/20 17:22	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		10/14/20 12:55	10/15/20 17:22	1
2,3,4,6-Tetrachlorophenol	ND		4.9	1.5	ug/L		10/14/20 12:55	10/15/20 17:22	1
2,4,5-Trichlorophenol	ND		9.9	2.3	ug/L		10/14/20 12:55	10/15/20 17:22	1
2,4,6-Trichlorophenol	ND		4.9	1.1	ug/L		10/14/20 12:55	10/15/20 17:22	1
2,4-Dichlorophenol	ND		9.9	2.2	ug/L		10/14/20 12:55	10/15/20 17:22	1
2,4-Dinitrophenol	ND		20	7.3	ug/L		10/14/20 12:55	10/15/20 17:22	1
2,4-Dinitrotoluene	ND		0.99	0.30	ug/L		10/14/20 12:55	10/15/20 17:22	1
2,6-Dinitrotoluene	ND		0.99	0.12	ug/L		10/14/20 12:55	10/15/20 17:22	1
3 & 4 Methylphenol	ND		2.0	0.43	ug/L		10/14/20 12:55	10/15/20 17:22	1

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-06A-100720
Lab Sample ID: 500-189014-9
Date Collected: 10/07/20 10:45
Matrix: Water
Date Received: 10/08/20 09:30

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		10/14/20 12:55	10/15/20 17:22	1
2-Chlorophenol	ND		4.9	0.79	ug/L		10/14/20 12:55	10/15/20 17:22	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/14/20 12:55	10/15/20 17:22	1
2-Methylphenol	ND		2.0	0.31	ug/L		10/14/20 12:55	10/15/20 17:22	1
2-Nitroaniline	ND		4.9	1.1	ug/L		10/14/20 12:55	10/15/20 17:22	1
2-Nitrophenol	ND		9.9	2.1	ug/L		10/14/20 12:55	10/15/20 17:22	1
3-Nitroaniline	ND		9.9	2.3	ug/L		10/14/20 12:55	10/15/20 17:22	1
4,6-Dinitro-2-methylphenol	ND		20	4.9	ug/L		10/14/20 12:55	10/15/20 17:22	1
4-Bromophenyl phenyl ether	ND		4.9	0.90	ug/L		10/14/20 12:55	10/15/20 17:22	1
4-Chloro-3-methylphenol	ND		9.9	2.2	ug/L		10/14/20 12:55	10/15/20 17:22	1
4-Chloroaniline	ND		9.9	2.1	ug/L		10/14/20 12:55	10/15/20 17:22	1
4-Chlorophenyl phenyl ether	ND		4.9	0.80	ug/L		10/14/20 12:55	10/15/20 17:22	1
4-Nitroaniline	ND		9.9	3.9	ug/L		10/14/20 12:55	10/15/20 17:22	1
4-Nitrophenol	ND		20	2.3	ug/L		10/14/20 12:55	10/15/20 17:22	1
Acenaphthene	ND		0.99	0.36	ug/L		10/14/20 12:55	10/15/20 17:22	1
Acenaphthylene	ND		0.99	0.32	ug/L		10/14/20 12:55	10/15/20 17:22	1
Anthracene	ND		0.99	0.32	ug/L		10/14/20 12:55	10/15/20 17:22	1
Benzo[a]pyrene	ND		0.20	0.055	ug/L		10/14/20 12:55	10/15/20 17:22	1
Benzo[b]fluoranthene	ND		0.20	0.057	ug/L		10/14/20 12:55	10/15/20 17:22	1
Benzo[g,h,i]perylene	ND		0.99	0.41	ug/L		10/14/20 12:55	10/15/20 17:22	1
Benzo[k]fluoranthene	ND		0.20	0.073	ug/L		10/14/20 12:55	10/15/20 17:22	1
Benzoic acid	ND		20	4.5	ug/L		10/14/20 12:55	10/15/20 17:22	1
Benzyl alcohol	ND		20	3.0	ug/L		10/14/20 12:55	10/15/20 17:22	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		10/14/20 12:55	10/15/20 17:22	1
Bis(2-chloroethyl)ether	ND		2.0	0.35	ug/L		10/14/20 12:55	10/15/20 17:22	1
Bis(2-ethylhexyl) phthalate	ND		9.9	2.4	ug/L		10/14/20 12:55	10/15/20 17:22	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		10/14/20 12:55	10/15/20 17:22	1
Chrysene	ND		0.49	0.14	ug/L		10/14/20 12:55	10/15/20 17:22	1
Dibenz(a,h)anthracene	ND		0.30	0.063	ug/L		10/14/20 12:55	10/15/20 17:22	1
Dibenzofuran	ND		2.0	0.35	ug/L		10/14/20 12:55	10/15/20 17:22	1
Diethyl phthalate	ND		2.0	0.43	ug/L		10/14/20 12:55	10/15/20 17:22	1
Dimethyl phthalate	ND		2.0	0.37	ug/L		10/14/20 12:55	10/15/20 17:22	1
Di-n-butyl phthalate	ND		4.9	0.79	ug/L		10/14/20 12:55	10/15/20 17:22	1
Di-n-octyl phthalate	ND		9.9	2.4	ug/L		10/14/20 12:55	10/15/20 17:22	1
2,3,5,6-Tetrachlorophenol	ND		4.9	2.5	ug/L		10/14/20 12:55	10/15/20 17:22	1
Fluoranthene	ND		0.99	0.32	ug/L		10/14/20 12:55	10/15/20 17:22	1
Fluorene	ND		0.99	0.37	ug/L		10/14/20 12:55	10/15/20 17:22	1
Hexachlorobenzene	ND		0.49	0.14	ug/L		10/14/20 12:55	10/15/20 17:22	1
Hexachlorobutadiene	ND		4.9	1.1	ug/L		10/14/20 12:55	10/15/20 17:22	1
Hexachlorocyclopentadiene	ND		20	3.4	ug/L		10/14/20 12:55	10/15/20 17:22	1
Hexachloroethane	ND		4.9	0.96	ug/L		10/14/20 12:55	10/15/20 17:22	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.083	ug/L		10/14/20 12:55	10/15/20 17:22	1
Isophorone	ND		2.0	0.29	ug/L		10/14/20 12:55	10/15/20 17:22	1
Nitrobenzene	ND		0.99	0.44	ug/L		10/14/20 12:55	10/15/20 17:22	1
N-Nitrosodi-n-propylamine	ND		0.49	0.14	ug/L		10/14/20 12:55	10/15/20 17:22	1
N-Nitrosodiphenylamine	ND		2.0	0.34	ug/L		10/14/20 12:55	10/15/20 17:22	1
Phenol	ND		4.9	0.36	ug/L		10/14/20 12:55	10/15/20 17:22	1
Pyrene	ND		0.99	0.47	ug/L		10/14/20 12:55	10/15/20 17:22	1
2,4-Dimethylphenol	ND		9.9	3.3	ug/L		10/14/20 12:55	10/15/20 17:22	1

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-06A-100720
Lab Sample ID: 500-189014-9
Date Collected: 10/07/20 10:45
Matrix: Water
Date Received: 10/08/20 09:30

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	0.043	ug/L		10/14/20 12:55	10/15/20 17:22	1
Phenanthrene	ND		0.99	0.35	ug/L		10/14/20 12:55	10/15/20 17:22	1
3,3'-Dichlorobenzidine	ND		4.9	0.93	ug/L		10/14/20 12:55	10/15/20 17:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*111*		*40 - 145*	*10/14/20 12:55*	*10/15/20 17:22*	*1*
2-Fluorobiphenyl	*90*		*34 - 110*	*10/14/20 12:55*	*10/15/20 17:22*	*1*
2-Fluorophenol (Surr)	*54*		*27 - 110*	*10/14/20 12:55*	*10/15/20 17:22*	*1*
Nitrobenzene-d5 (Surr)	*95*		*36 - 120*	*10/14/20 12:55*	*10/15/20 17:22*	*1*
Phenol-d5 (Surr)	*30*		*20 - 100*	*10/14/20 12:55*	*10/15/20 17:22*	*1*
Terphenyl-d14 (Surr)	*86*		*40 - 145*	*10/14/20 12:55*	*10/15/20 17:22*	*1*

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

Job ID: 500-189014-1

Client Sample ID: SUPE-W-06C-100720

Date Collected: 10/07/20 12:35
Date Received: 10/08/20 09:30

Lab Sample ID: 500-189014-10

Matrix: Water

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			10/14/20 16:16	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/14/20 16:16	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/14/20 16:16	1
Benzene	ND		1.0	0.41	ug/L			10/14/20 16:16	1
Chloromethane	ND		1.0	0.35	ug/L			10/14/20 16:16	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/14/20 16:16	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/14/20 16:16	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/14/20 16:16	1
Naphthalene	ND		1.0	0.43	ug/L			10/14/20 16:16	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/14/20 16:16	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/14/20 16:16	1
o-Xylene	ND		1.0	0.76	ug/L			10/14/20 16:16	1
Styrene	ND		1.0	0.73	ug/L			10/14/20 16:16	1
Toluene	ND		1.0	0.51	ug/L			10/14/20 16:16	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/14/20 16:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*		*10/14/20 16:16*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*10/14/20 16:16*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*10/14/20 16:16*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*10/14/20 16:16*	*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		10/13/20 14:32	10/14/20 17:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*129*		*24 - 146*	*10/13/20 14:32*	*10/14/20 17:33*	*1*
2-Fluorobiphenyl	*100*		*37 - 120*	*10/13/20 14:32*	*10/14/20 17:33*	*1*
2-Fluorophenol (Surr)	*56*		*10 - 120*	*10/13/20 14:32*	*10/14/20 17:33*	*1*
Nitrobenzene-d5 (Surr)	*95*		*26 - 120*	*10/13/20 14:32*	*10/14/20 17:33*	*1*
Phenol-d5 (Surr)	*37*		*11 - 120*	*10/13/20 14:32*	*10/14/20 17:33*	*1*
p-Terphenyl-d14	*101*		*64 - 127*	*10/13/20 14:32*	*10/14/20 17:33*	*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		10/14/20 12:55	10/15/20 14:56	1
1,2-Dichlorobenzene	ND		2.1	0.30	ug/L		10/14/20 12:55	10/15/20 14:56	1
1,3-Dichlorobenzene	ND		2.1	0.26	ug/L		10/14/20 12:55	10/15/20 14:56	1
1,4-Dichlorobenzene	ND		2.1	0.28	ug/L		10/14/20 12:55	10/15/20 14:56	1
1-Methylnaphthalene	ND		2.1	0.52	ug/L		10/14/20 12:55	10/15/20 14:56	1
bis(chloroisopropyl) ether	ND		2.1	0.31	ug/L		10/14/20 12:55	10/15/20 14:56	1
2,3,4,6-Tetrachlorophenol	ND		5.2	1.6	ug/L		10/14/20 12:55	10/15/20 14:56	1
2,4,5-Trichlorophenol	ND		10	2.4	ug/L		10/14/20 12:55	10/15/20 14:56	1
2,4,6-Trichlorophenol	ND		5.2	1.1	ug/L		10/14/20 12:55	10/15/20 14:56	1
2,4-Dichlorophenol	ND		10	2.4	ug/L		10/14/20 12:55	10/15/20 14:56	1
2,4-Dinitrophenol	ND		21	7.7	ug/L		10/14/20 12:55	10/15/20 14:56	1
2,4-Dinitrotoluene	ND		1.0	0.31	ug/L		10/14/20 12:55	10/15/20 14:56	1
2,6-Dinitrotoluene	ND		1.0	0.12	ug/L		10/14/20 12:55	10/15/20 14:56	1
3 & 4 Methylphenol	ND		2.1	0.45	ug/L		10/14/20 12:55	10/15/20 14:56	1

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

Job ID: 500-189014-1

Client Sample ID: SUPE-W-06C-100720
Date Collected: 10/07/20 12:35
Date Received: 10/08/20 09:30

Lab Sample ID: 500-189014-10
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		10/14/20 12:55	10/15/20 14:56	1
2-Chlorophenol	ND		5.2	0.82	ug/L		10/14/20 12:55	10/15/20 14:56	1
2-Methylnaphthalene	ND		2.1	0.13	ug/L		10/14/20 12:55	10/15/20 14:56	1
2-Methylphenol	ND		2.1	0.32	ug/L		10/14/20 12:55	10/15/20 14:56	1
2-Nitroaniline	ND		5.2	1.1	ug/L		10/14/20 12:55	10/15/20 14:56	1
2-Nitrophenol	ND		10	2.2	ug/L		10/14/20 12:55	10/15/20 14:56	1
3-Nitroaniline	ND		10	2.4	ug/L		10/14/20 12:55	10/15/20 14:56	1
4,6-Dinitro-2-methylphenol	ND		21	5.1	ug/L		10/14/20 12:55	10/15/20 14:56	1
4-Bromophenyl phenyl ether	ND		5.2	0.94	ug/L		10/14/20 12:55	10/15/20 14:56	1
4-Chloro-3-methylphenol	ND		10	2.3	ug/L		10/14/20 12:55	10/15/20 14:56	1
4-Chloroaniline	ND		10	2.2	ug/L		10/14/20 12:55	10/15/20 14:56	1
4-Chlorophenyl phenyl ether	ND		5.2	0.83	ug/L		10/14/20 12:55	10/15/20 14:56	1
4-Nitroaniline	ND		10	4.1	ug/L		10/14/20 12:55	10/15/20 14:56	1
4-Nitrophenol	ND		21	2.4	ug/L		10/14/20 12:55	10/15/20 14:56	1
Acenaphthene	ND		1.0	0.37	ug/L		10/14/20 12:55	10/15/20 14:56	1
Acenaphthylene	ND		1.0	0.33	ug/L		10/14/20 12:55	10/15/20 14:56	1
Anthracene	ND		1.0	0.33	ug/L		10/14/20 12:55	10/15/20 14:56	1
Benzo[a]pyrene	ND		0.21	0.058	ug/L		10/14/20 12:55	10/15/20 14:56	1
Benzo[b]fluoranthene	ND		0.21	0.060	ug/L		10/14/20 12:55	10/15/20 14:56	1
Benzo[g,h,i]perylene	ND		1.0	0.43	ug/L		10/14/20 12:55	10/15/20 14:56	1
Benzo[k]fluoranthene	ND		0.21	0.076	ug/L		10/14/20 12:55	10/15/20 14:56	1
Benzoic acid	ND		21	4.7	ug/L		10/14/20 12:55	10/15/20 14:56	1
Benzyl alcohol	ND		21	3.1	ug/L		10/14/20 12:55	10/15/20 14:56	1
Bis(2-chloroethoxy)methane	ND		2.1	0.31	ug/L		10/14/20 12:55	10/15/20 14:56	1
Bis(2-chloroethyl)ether	ND		2.1	0.36	ug/L		10/14/20 12:55	10/15/20 14:56	1
Bis(2-ethylhexyl) phthalate	ND		10	2.5	ug/L		10/14/20 12:55	10/15/20 14:56	1
Butyl benzyl phthalate	ND		2.1	0.28	ug/L		10/14/20 12:55	10/15/20 14:56	1
Chrysene	ND		0.52	0.14	ug/L		10/14/20 12:55	10/15/20 14:56	1
Dibenz(a,h)anthracene	ND		0.31	0.066	ug/L		10/14/20 12:55	10/15/20 14:56	1
Dibenzofuran	ND		2.1	0.36	ug/L		10/14/20 12:55	10/15/20 14:56	1
Diethyl phthalate	ND		2.1	0.45	ug/L		10/14/20 12:55	10/15/20 14:56	1
Dimethyl phthalate	ND		2.1	0.39	ug/L		10/14/20 12:55	10/15/20 14:56	1
Di-n-butyl phthalate	ND		5.2	0.82	ug/L		10/14/20 12:55	10/15/20 14:56	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		10/14/20 12:55	10/15/20 14:56	1
2,3,5,6-Tetrachlorophenol	ND		5.2	2.6	ug/L		10/14/20 12:55	10/15/20 14:56	1
Fluoranthene	ND		1.0	0.33	ug/L		10/14/20 12:55	10/15/20 14:56	1
Fluorene	ND		1.0	0.39	ug/L		10/14/20 12:55	10/15/20 14:56	1
Hexachlorobenzene	ND		0.52	0.14	ug/L		10/14/20 12:55	10/15/20 14:56	1
Hexachlorobutadiene	ND		5.2	1.1	ug/L		10/14/20 12:55	10/15/20 14:56	1
Hexachlorocyclopentadiene	ND		21	3.5	ug/L		10/14/20 12:55	10/15/20 14:56	1
Hexachloroethane	ND		5.2	1.0	ug/L		10/14/20 12:55	10/15/20 14:56	1
Indeno[1,2,3-cd]pyrene	ND		0.21	0.087	ug/L		10/14/20 12:55	10/15/20 14:56	1
Isophorone	ND		2.1	0.30	ug/L		10/14/20 12:55	10/15/20 14:56	1
Nitrobenzene	ND		1.0	0.46	ug/L		10/14/20 12:55	10/15/20 14:56	1
N-Nitrosodi-n-propylamine	ND		0.52	0.14	ug/L		10/14/20 12:55	10/15/20 14:56	1
N-Nitrosodiphenylamine	ND		2.1	0.35	ug/L		10/14/20 12:55	10/15/20 14:56	1
Phenol	ND		5.2	0.37	ug/L		10/14/20 12:55	10/15/20 14:56	1
Pyrene	ND		1.0	0.49	ug/L		10/14/20 12:55	10/15/20 14:56	1
2,4-Dimethylphenol	ND		10	3.4	ug/L		10/14/20 12:55	10/15/20 14:56	1

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-06C-100720
Lab Sample ID: 500-189014-10
Date Collected: 10/07/20 12:35
Matrix: Water
Date Received: 10/08/20 09:30

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	0.045	ug/L		10/14/20 12:55	10/15/20 14:56	1
Phenanthrene	ND		1.0	0.36	ug/L		10/14/20 12:55	10/15/20 14:56	1
3,3'-Dichlorobenzidine	ND		5.2	0.97	ug/L		10/14/20 12:55	10/15/20 14:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*114*		*40 - 145*	*10/14/20 12:55*	*10/15/20 14:56*	*1*
2-Fluorobiphenyl	*83*		*34 - 110*	*10/14/20 12:55*	*10/15/20 14:56*	*1*
2-Fluorophenol (Surr)	*53*		*27 - 110*	*10/14/20 12:55*	*10/15/20 14:56*	*1*
Nitrobenzene-d5 (Surr)	*88*		*36 - 120*	*10/14/20 12:55*	*10/15/20 14:56*	*1*
Phenol-d5 (Surr)	*32*		*20 - 100*	*10/14/20 12:55*	*10/15/20 14:56*	*1*
Terphenyl-d14 (Surr)	*94*		*40 - 145*	*10/14/20 12:55*	*10/15/20 14:56*	*1*

Client Sample ID: SUPE-W-12A-100720
Lab Sample ID: 500-189014-11

Date Collected: 10/07/20 14:30
Matrix: Water
Date Received: 10/08/20 09:30

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			10/14/20 16:40	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/14/20 16:40	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/14/20 16:40	1
Benzene	ND		1.0	0.41	ug/L			10/14/20 16:40	1
Chloromethane	ND		1.0	0.35	ug/L			10/14/20 16:40	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/14/20 16:40	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/14/20 16:40	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/14/20 16:40	1
Naphthalene	ND		1.0	0.43	ug/L			10/14/20 16:40	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/14/20 16:40	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/14/20 16:40	1
o-Xylene	ND		1.0	0.76	ug/L			10/14/20 16:40	1
Styrene	ND		1.0	0.73	ug/L			10/14/20 16:40	1
Toluene	ND		1.0	0.51	ug/L			10/14/20 16:40	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/14/20 16:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*10/14/20 16:40*	*1*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*10/14/20 16:40*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*10/14/20 16:40*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*10/14/20 16:40*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	**0.87**	**J**	1.0	0.34	ug/L		10/13/20 14:32	10/14/20 21:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*129*		*24 - 146*	*10/13/20 14:32*	*10/14/20 21:46*	*1*
2-Fluorobiphenyl	*102*		*37 - 120*	*10/13/20 14:32*	*10/14/20 21:46*	*1*
2-Fluorophenol (Surr)	*58*		*10 - 120*	*10/13/20 14:32*	*10/14/20 21:46*	*1*
Nitrobenzene-d5 (Surr)	*93*		*26 - 120*	*10/13/20 14:32*	*10/14/20 21:46*	*1*
Phenol-d5 (Surr)	*38*		*11 - 120*	*10/13/20 14:32*	*10/14/20 21:46*	*1*
p-Terphenyl-d14	*80*		*64 - 127*	*10/13/20 14:32*	*10/14/20 21:46*	*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		10/14/20 12:55	10/15/20 17:46	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		10/14/20 12:55	10/15/20 17:46	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		10/14/20 12:55	10/15/20 17:46	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		10/14/20 12:55	10/15/20 17:46	1
1-Methylnaphthalene	ND		2.0	0.50	ug/L		10/14/20 12:55	10/15/20 17:46	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		10/14/20 12:55	10/15/20 17:46	1
2,3,4,6-Tetrachlorophenol	ND		5.0	1.5	ug/L		10/14/20 12:55	10/15/20 17:46	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		10/14/20 12:55	10/15/20 17:46	1
2,4,6-Trichlorophenol	ND		5.0	1.1	ug/L		10/14/20 12:55	10/15/20 17:46	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		10/14/20 12:55	10/15/20 17:46	1
2,4-Dinitrophenol	ND		20	7.5	ug/L		10/14/20 12:55	10/15/20 17:46	1
2,4-Dinitrotoluene	ND		1.0	0.30	ug/L		10/14/20 12:55	10/15/20 17:46	1
2,6-Dinitrotoluene	ND		1.0	0.12	ug/L		10/14/20 12:55	10/15/20 17:46	1
3 & 4 Methylphenol	ND		2.0	0.44	ug/L		10/14/20 12:55	10/15/20 17:46	1

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

Job ID: 500-189014-1

Client Sample ID: SUPE-W-12A-100720
Date Collected: 10/07/20 14:30
Date Received: 10/08/20 09:30

Lab Sample ID: 500-189014-11
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	ND		2.0	0.34	ug/L		10/14/20 12:55	10/15/20 17:46	1
2-Chlorophenol	ND		5.0	0.81	ug/L		10/14/20 12:55	10/15/20 17:46	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/14/20 12:55	10/15/20 17:46	1
2-Methylphenol	ND		2.0	0.31	ug/L		10/14/20 12:55	10/15/20 17:46	1
2-Nitroaniline	ND		5.0	1.1	ug/L		10/14/20 12:55	10/15/20 17:46	1
2-Nitrophenol	ND		10	2.2	ug/L		10/14/20 12:55	10/15/20 17:46	1
3-Nitroaniline	ND		10	2.3	ug/L		10/14/20 12:55	10/15/20 17:46	1
4,6-Dinitro-2-methylphenol	ND		20	5.0	ug/L		10/14/20 12:55	10/15/20 17:46	1
4-Bromophenyl phenyl ether	ND		5.0	0.92	ug/L		10/14/20 12:55	10/15/20 17:46	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		10/14/20 12:55	10/15/20 17:46	1
4-Chloroaniline	ND		10	2.1	ug/L		10/14/20 12:55	10/15/20 17:46	1
4-Chlorophenyl phenyl ether	ND		5.0	0.82	ug/L		10/14/20 12:55	10/15/20 17:46	1
4-Nitroaniline	ND		10	4.0	ug/L		10/14/20 12:55	10/15/20 17:46	1
4-Nitrophenol	ND		20	2.4	ug/L		10/14/20 12:55	10/15/20 17:46	1
Acenaphthene	ND		1.0	0.36	ug/L		10/14/20 12:55	10/15/20 17:46	1
Acenaphthylene	ND		1.0	0.32	ug/L		10/14/20 12:55	10/15/20 17:46	1
Anthracene	ND		1.0	0.32	ug/L		10/14/20 12:55	10/15/20 17:46	1
Benzo[a]pyrene	ND		0.20	0.057	ug/L		10/14/20 12:55	10/15/20 17:46	1
Benzo[b]fluoranthene	ND		0.20	0.059	ug/L		10/14/20 12:55	10/15/20 17:46	1
Benzo[g,h,i]perylene	ND		1.0	0.42	ug/L		10/14/20 12:55	10/15/20 17:46	1
Benzo[k]fluoranthene	ND		0.20	0.075	ug/L		10/14/20 12:55	10/15/20 17:46	1
Benzoic acid	ND		20	4.6	ug/L		10/14/20 12:55	10/15/20 17:46	1
Benzyl alcohol	ND		20	3.1	ug/L		10/14/20 12:55	10/15/20 17:46	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		10/14/20 12:55	10/15/20 17:46	1
Bis(2-chloroethyl)ether	ND		2.0	0.35	ug/L		10/14/20 12:55	10/15/20 17:46	1
Bis(2-ethylhexyl) phthalate	ND		10	2.5	ug/L		10/14/20 12:55	10/15/20 17:46	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		10/14/20 12:55	10/15/20 17:46	1
Chrysene	ND		0.50	0.14	ug/L		10/14/20 12:55	10/15/20 17:46	1
Dibenz(a,h)anthracene	ND		0.30	0.065	ug/L		10/14/20 12:55	10/15/20 17:46	1
Dibenzofuran	ND		2.0	0.35	ug/L		10/14/20 12:55	10/15/20 17:46	1
Diethyl phthalate	ND		2.0	0.44	ug/L		10/14/20 12:55	10/15/20 17:46	1
Dimethyl phthalate	ND		2.0	0.38	ug/L		10/14/20 12:55	10/15/20 17:46	1
Di-n-butyl phthalate	ND		5.0	0.81	ug/L		10/14/20 12:55	10/15/20 17:46	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		10/14/20 12:55	10/15/20 17:46	1
2,3,5,6-Tetrachlorophenol	ND		5.0	2.5	ug/L		10/14/20 12:55	10/15/20 17:46	1
Fluoranthene	ND		1.0	0.32	ug/L		10/14/20 12:55	10/15/20 17:46	1
Fluorene	ND		1.0	0.38	ug/L		10/14/20 12:55	10/15/20 17:46	1
Hexachlorobenzene	ND		0.50	0.14	ug/L		10/14/20 12:55	10/15/20 17:46	1
Hexachlorobutadiene	ND		5.0	1.1	ug/L		10/14/20 12:55	10/15/20 17:46	1
Hexachlorocyclopentadiene	ND		20	3.5	ug/L		10/14/20 12:55	10/15/20 17:46	1
Hexachloroethane	ND		5.0	0.98	ug/L		10/14/20 12:55	10/15/20 17:46	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.085	ug/L		10/14/20 12:55	10/15/20 17:46	1
Isophorone	ND		2.0	0.29	ug/L		10/14/20 12:55	10/15/20 17:46	1
Nitrobenzene	ND		1.0	0.45	ug/L		10/14/20 12:55	10/15/20 17:46	1
N-Nitrosodi-n-propylamine	ND		0.50	0.14	ug/L		10/14/20 12:55	10/15/20 17:46	1
N-Nitrosodiphenylamine	ND		2.0	0.34	ug/L		10/14/20 12:55	10/15/20 17:46	1
Phenol	ND		5.0	0.36	ug/L		10/14/20 12:55	10/15/20 17:46	1
Pyrene	ND		1.0	0.48	ug/L		10/14/20 12:55	10/15/20 17:46	1
2,4-Dimethylphenol	ND		10	3.4	ug/L		10/14/20 12:55	10/15/20 17:46	1

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-12A-100720
Lab Sample ID: 500-189014-11
Date Collected: 10/07/20 14:30
Matrix: Water
Date Received: 10/08/20 09:30

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		10/14/20 12:55	10/15/20 17:46	1
Phenanthrene	ND		1.0	0.35	ug/L		10/14/20 12:55	10/15/20 17:46	1
3,3'-Dichlorobenzidine	ND		5.0	0.95	ug/L		10/14/20 12:55	10/15/20 17:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*121*		*40 - 145*	*10/14/20 12:55*	*10/15/20 17:46*	*1*
2-Fluorobiphenyl	*84*		*34 - 110*	*10/14/20 12:55*	*10/15/20 17:46*	*1*
2-Fluorophenol (Surr)	*56*		*27 - 110*	*10/14/20 12:55*	*10/15/20 17:46*	*1*
Nitrobenzene-d5 (Surr)	*94*		*36 - 120*	*10/14/20 12:55*	*10/15/20 17:46*	*1*
Phenol-d5 (Surr)	*30*		*20 - 100*	*10/14/20 12:55*	*10/15/20 17:46*	*1*
Terphenyl-d14 (Surr)	*65*		*40 - 145*	*10/14/20 12:55*	*10/15/20 17:46*	*1*

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-12CR-100720
Lab Sample ID: 500-189014-12
Date Collected: 10/07/20 16:05
Matrix: Water
Date Received: 10/08/20 09:30

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			10/14/20 17:04	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/14/20 17:04	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/14/20 17:04	1
Benzene	ND		1.0	0.41	ug/L			10/14/20 17:04	1
Chloromethane	ND		1.0	0.35	ug/L			10/14/20 17:04	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/14/20 17:04	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/14/20 17:04	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/14/20 17:04	1
Naphthalene	ND		1.0	0.43	ug/L			10/14/20 17:04	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/14/20 17:04	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/14/20 17:04	1
o-Xylene	ND		1.0	0.76	ug/L			10/14/20 17:04	1
Styrene	ND		1.0	0.73	ug/L			10/14/20 17:04	1
Toluene	ND		1.0	0.51	ug/L			10/14/20 17:04	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/14/20 17:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*10/14/20 17:04*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*10/14/20 17:04*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*10/14/20 17:04*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*10/14/20 17:04*	*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		10/13/20 14:32	10/14/20 22:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*134*		*24 - 146*	*10/13/20 14:32*	*10/14/20 22:14*	*1*
2-Fluorobiphenyl	*99*		*37 - 120*	*10/13/20 14:32*	*10/14/20 22:14*	*1*
2-Fluorophenol (Surr)	*57*		*10 - 120*	*10/13/20 14:32*	*10/14/20 22:14*	*1*
Nitrobenzene-d5 (Surr)	*93*		*26 - 120*	*10/13/20 14:32*	*10/14/20 22:14*	*1*
Phenol-d5 (Surr)	*36*		*11 - 120*	*10/13/20 14:32*	*10/14/20 22:14*	*1*
p-Terphenyl-d14	*113*		*64 - 127*	*10/13/20 14:32*	*10/14/20 22:14*	*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		10/14/20 12:55	10/15/20 18:10	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		10/14/20 12:55	10/15/20 18:10	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		10/14/20 12:55	10/15/20 18:10	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		10/14/20 12:55	10/15/20 18:10	1
1-Methylnaphthalene	ND		2.0	0.50	ug/L		10/14/20 12:55	10/15/20 18:10	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		10/14/20 12:55	10/15/20 18:10	1
2,3,4,6-Tetrachlorophenol	ND		5.0	1.5	ug/L		10/14/20 12:55	10/15/20 18:10	1
2,4,5-Trichlorophenol	ND		9.9	2.3	ug/L		10/14/20 12:55	10/15/20 18:10	1
2,4,6-Trichlorophenol	ND		5.0	1.1	ug/L		10/14/20 12:55	10/15/20 18:10	1
2,4-Dichlorophenol	ND		9.9	2.3	ug/L		10/14/20 12:55	10/15/20 18:10	1
2,4-Dinitrophenol	ND		20	7.4	ug/L		10/14/20 12:55	10/15/20 18:10	1
2,4-Dinitrotoluene	ND		0.99	0.30	ug/L		10/14/20 12:55	10/15/20 18:10	1
2,6-Dinitrotoluene	ND		0.99	0.12	ug/L		10/14/20 12:55	10/15/20 18:10	1
3 & 4 Methylphenol	ND		2.0	0.44	ug/L		10/14/20 12:55	10/15/20 18:10	1

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

Job ID: 500-189014-1

Client Sample ID: SUPE-W-12CR-100720
Date Collected: 10/07/20 16:05
Date Received: 10/08/20 09:30

Lab Sample ID: 500-189014-12
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		10/14/20 12:55	10/15/20 18:10	1
2-Chlorophenol	ND		5.0	0.79	ug/L		10/14/20 12:55	10/15/20 18:10	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/14/20 12:55	10/15/20 18:10	1
2-Methylphenol	ND		2.0	0.31	ug/L		10/14/20 12:55	10/15/20 18:10	1
2-Nitroaniline	ND		5.0	1.1	ug/L		10/14/20 12:55	10/15/20 18:10	1
2-Nitrophenol	ND		9.9	2.1	ug/L		10/14/20 12:55	10/15/20 18:10	1
3-Nitroaniline	ND		9.9	2.3	ug/L		10/14/20 12:55	10/15/20 18:10	1
4,6-Dinitro-2-methylphenol	ND		20	4.9	ug/L		10/14/20 12:55	10/15/20 18:10	1
4-Bromophenyl phenyl ether	ND		5.0	0.90	ug/L		10/14/20 12:55	10/15/20 18:10	1
4-Chloro-3-methylphenol	ND		9.9	2.2	ug/L		10/14/20 12:55	10/15/20 18:10	1
4-Chloroaniline	ND		9.9	2.1	ug/L		10/14/20 12:55	10/15/20 18:10	1
4-Chlorophenyl phenyl ether	ND		5.0	0.80	ug/L		10/14/20 12:55	10/15/20 18:10	1
4-Nitroaniline	ND		9.9	3.9	ug/L		10/14/20 12:55	10/15/20 18:10	1
4-Nitrophenol	ND		20	2.3	ug/L		10/14/20 12:55	10/15/20 18:10	1
Acenaphthene	ND		0.99	0.36	ug/L		10/14/20 12:55	10/15/20 18:10	1
Acenaphthylene	ND		0.99	0.32	ug/L		10/14/20 12:55	10/15/20 18:10	1
Anthracene	ND		0.99	0.32	ug/L		10/14/20 12:55	10/15/20 18:10	1
Benzo[a]pyrene	ND		0.20	0.056	ug/L		10/14/20 12:55	10/15/20 18:10	1
Benzo[b]fluoranthene	ND		0.20	0.058	ug/L		10/14/20 12:55	10/15/20 18:10	1
Benzo[g,h,i]perylene	ND		0.99	0.42	ug/L		10/14/20 12:55	10/15/20 18:10	1
Benzo[k]fluoranthene	ND		0.20	0.073	ug/L		10/14/20 12:55	10/15/20 18:10	1
Benzoic acid	ND		20	4.5	ug/L		10/14/20 12:55	10/15/20 18:10	1
Benzyl alcohol	ND		20	3.0	ug/L		10/14/20 12:55	10/15/20 18:10	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		10/14/20 12:55	10/15/20 18:10	1
Bis(2-chloroethyl)ether	ND		2.0	0.35	ug/L		10/14/20 12:55	10/15/20 18:10	1
Bis(2-ethylhexyl) phthalate	ND		9.9	2.4	ug/L		10/14/20 12:55	10/15/20 18:10	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		10/14/20 12:55	10/15/20 18:10	1
Chrysene	ND		0.50	0.14	ug/L		10/14/20 12:55	10/15/20 18:10	1
Dibenz(a,h)anthracene	ND		0.30	0.064	ug/L		10/14/20 12:55	10/15/20 18:10	1
Dibenzofuran	ND		2.0	0.35	ug/L		10/14/20 12:55	10/15/20 18:10	1
Diethyl phthalate	ND		2.0	0.44	ug/L		10/14/20 12:55	10/15/20 18:10	1
Dimethyl phthalate	ND		2.0	0.38	ug/L		10/14/20 12:55	10/15/20 18:10	1
Di-n-butyl phthalate	ND		5.0	0.79	ug/L		10/14/20 12:55	10/15/20 18:10	1
Di-n-octyl phthalate	ND		9.9	2.5	ug/L		10/14/20 12:55	10/15/20 18:10	1
2,3,5,6-Tetrachlorophenol	ND		5.0	2.5	ug/L		10/14/20 12:55	10/15/20 18:10	1
Fluoranthene	ND		0.99	0.32	ug/L		10/14/20 12:55	10/15/20 18:10	1
Fluorene	ND		0.99	0.38	ug/L		10/14/20 12:55	10/15/20 18:10	1
Hexachlorobenzene	ND		0.50	0.14	ug/L		10/14/20 12:55	10/15/20 18:10	1
Hexachlorobutadiene	ND		5.0	1.1	ug/L		10/14/20 12:55	10/15/20 18:10	1
Hexachlorocyclopentadiene	ND		20	3.4	ug/L		10/14/20 12:55	10/15/20 18:10	1
Hexachloroethane	ND		5.0	0.96	ug/L		10/14/20 12:55	10/15/20 18:10	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.083	ug/L		10/14/20 12:55	10/15/20 18:10	1
Isophorone	ND		2.0	0.29	ug/L		10/14/20 12:55	10/15/20 18:10	1
Nitrobenzene	ND		0.99	0.45	ug/L		10/14/20 12:55	10/15/20 18:10	1
N-Nitrosodi-n-propylamine	ND		0.50	0.14	ug/L		10/14/20 12:55	10/15/20 18:10	1
N-Nitrosodiphenylamine	ND		2.0	0.34	ug/L		10/14/20 12:55	10/15/20 18:10	1
Phenol	ND		5.0	0.36	ug/L		10/14/20 12:55	10/15/20 18:10	1
Pyrene	ND		0.99	0.48	ug/L		10/14/20 12:55	10/15/20 18:10	1
2,4-Dimethylphenol	ND		9.9	3.3	ug/L		10/14/20 12:55	10/15/20 18:10	1

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-12CR-100720
Lab Sample ID: 500-189014-12
Date Collected: 10/07/20 16:05
Matrix: Water
Date Received: 10/08/20 09:30

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		10/14/20 12:55	10/15/20 18:10	1
Phenanthrene	ND		0.99	0.35	ug/L		10/14/20 12:55	10/15/20 18:10	1
3,3'-Dichlorobenzidine	ND		5.0	0.93	ug/L		10/14/20 12:55	10/15/20 18:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*122*		*40 - 145*	*10/14/20 12:55*	*10/15/20 18:10*	*1*
2-Fluorobiphenyl	*90*		*34 - 110*	*10/14/20 12:55*	*10/15/20 18:10*	*1*
2-Fluorophenol (Surr)	*56*		*27 - 110*	*10/14/20 12:55*	*10/15/20 18:10*	*1*
Nitrobenzene-d5 (Surr)	*92*		*36 - 120*	*10/14/20 12:55*	*10/15/20 18:10*	*1*
Phenol-d5 (Surr)	*32*		*20 - 100*	*10/14/20 12:55*	*10/15/20 18:10*	*1*
Terphenyl-d14 (Surr)	*97*		*40 - 145*	*10/14/20 12:55*	*10/15/20 18:10*	*1*

Definitions/Glossary

Client: Field & Technical Services LLC
Job ID: 500-189014-1
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.
X	Surrogate recovery exceeds control limits

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: 553822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-189014-1	SUPE-TB-01-100720	Total/NA	Water	8260C	
500-189014-2	SUPE-W-28C-100720	Total/NA	Water	8260C	
500-189014-3	SUPE-EB-01-100720	Total/NA	Water	8260C	
500-189014-5	SUPE-W-04AR2-100720	Total/NA	Water	8260C	
500-189014-6	SUPE-W-10AR2-100720	Total/NA	Water	8260C	
500-189014-7	SUPE-W-99-100720	Total/NA	Water	8260C	
500-189014-8	SUPE-W-30C-100720	Total/NA	Water	8260C	
500-189014-9	SUPE-W-06A-100720	Total/NA	Water	8260C	
500-189014-10	SUPE-W-06C-100720	Total/NA	Water	8260C	
500-189014-11	SUPE-W-12A-100720	Total/NA	Water	8260C	
500-189014-12	SUPE-W-12CR-100720	Total/NA	Water	8260C	
MB 480-553822/8	Method Blank	Total/NA	Water	8260C	
LCS 480-553822/6	Lab Control Sample	Total/NA	Water	8260C	
500-189014-10 MS	SUPE-W-06C-100720	Total/NA	Water	8260C	
500-189014-10 MSD	SUPE-W-06C-100720	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 553716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-189014-2	SUPE-W-28C-100720	Total/NA	Water	3510C	
500-189014-3	SUPE-EB-01-100720	Total/NA	Water	3510C	
500-189014-4	SUPE-W-18D-100720	Total/NA	Water	3510C	
500-189014-5	SUPE-W-04AR2-100720	Total/NA	Water	3510C	
500-189014-6	SUPE-W-10AR2-100720	Total/NA	Water	3510C	
500-189014-7	SUPE-W-99-100720	Total/NA	Water	3510C	
500-189014-8	SUPE-W-30C-100720	Total/NA	Water	3510C	
500-189014-9	SUPE-W-06A-100720	Total/NA	Water	3510C	
500-189014-10	SUPE-W-06C-100720	Total/NA	Water	3510C	
500-189014-11	SUPE-W-12A-100720	Total/NA	Water	3510C	
500-189014-12	SUPE-W-12CR-100720	Total/NA	Water	3510C	
MB 480-553716/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-553716/2-A	Lab Control Sample	Total/NA	Water	3510C	
500-189014-10 MS	SUPE-W-06C-100720	Total/NA	Water	3510C	
500-189014-10 MSD	SUPE-W-06C-100720	Total/NA	Water	3510C	

Analysis Batch: 553902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-189014-2	SUPE-W-28C-100720	Total/NA	Water	8270D LL	553716
500-189014-3	SUPE-EB-01-100720	Total/NA	Water	8270D LL	553716
500-189014-4	SUPE-W-18D-100720	Total/NA	Water	8270D LL	553716
500-189014-5	SUPE-W-04AR2-100720	Total/NA	Water	8270D LL	553716
500-189014-6	SUPE-W-10AR2-100720	Total/NA	Water	8270D LL	553716
500-189014-7	SUPE-W-99-100720	Total/NA	Water	8270D LL	553716
500-189014-8	SUPE-W-30C-100720	Total/NA	Water	8270D LL	553716
500-189014-9	SUPE-W-06A-100720	Total/NA	Water	8270D LL	553716
500-189014-10	SUPE-W-06C-100720	Total/NA	Water	8270D LL	553716
500-189014-11	SUPE-W-12A-100720	Total/NA	Water	8270D LL	553716
500-189014-12	SUPE-W-12CR-100720	Total/NA	Water	8270D LL	553716
MB 480-553716/1-A	Method Blank	Total/NA	Water	8270D LL	553716
LCS 480-553716/2-A	Lab Control Sample	Total/NA	Water	8270D LL	553716

GC/MS Semi VOA (Continued)

Analysis Batch: 553902 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-189014-10 MS	SUPE-W-06C-100720	Total/NA	Water	8270D LL	553716
500-189014-10 MSD	SUPE-W-06C-100720	Total/NA	Water	8270D LL	553716

Prep Batch: 566535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-189014-2	SUPE-W-28C-100720	Total/NA	Water	3510C	
500-189014-3	SUPE-EB-01-100720	Total/NA	Water	3510C	
500-189014-4	SUPE-W-18D-100720	Total/NA	Water	3510C	
500-189014-5	SUPE-W-04AR2-100720	Total/NA	Water	3510C	
500-189014-6 - DL	SUPE-W-10AR2-100720	Total/NA	Water	3510C	
500-189014-6	SUPE-W-10AR2-100720	Total/NA	Water	3510C	
500-189014-7	SUPE-W-99-100720	Total/NA	Water	3510C	
500-189014-8	SUPE-W-30C-100720	Total/NA	Water	3510C	
500-189014-9	SUPE-W-06A-100720	Total/NA	Water	3510C	
500-189014-10	SUPE-W-06C-100720	Total/NA	Water	3510C	
500-189014-11	SUPE-W-12A-100720	Total/NA	Water	3510C	
500-189014-12	SUPE-W-12CR-100720	Total/NA	Water	3510C	
MB 500-566535/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-566535/2-A	Lab Control Sample	Total/NA	Water	3510C	
500-189014-10 MS	SUPE-W-06C-100720	Total/NA	Water	3510C	
500-189014-10 MSD	SUPE-W-06C-100720	Total/NA	Water	3510C	

Analysis Batch: 566736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-189014-2	SUPE-W-28C-100720	Total/NA	Water	8270D	566535
500-189014-3	SUPE-EB-01-100720	Total/NA	Water	8270D	566535
500-189014-4	SUPE-W-18D-100720	Total/NA	Water	8270D	566535
500-189014-5	SUPE-W-04AR2-100720	Total/NA	Water	8270D	566535
500-189014-6	SUPE-W-10AR2-100720	Total/NA	Water	8270D	566535
500-189014-6 - DL	SUPE-W-10AR2-100720	Total/NA	Water	8270D	566535
500-189014-7	SUPE-W-99-100720	Total/NA	Water	8270D	566535
500-189014-8	SUPE-W-30C-100720	Total/NA	Water	8270D	566535
500-189014-9	SUPE-W-06A-100720	Total/NA	Water	8270D	566535
500-189014-10	SUPE-W-06C-100720	Total/NA	Water	8270D	566535
500-189014-11	SUPE-W-12A-100720	Total/NA	Water	8270D	566535
500-189014-12	SUPE-W-12CR-100720	Total/NA	Water	8270D	566535
MB 500-566535/1-A	Method Blank	Total/NA	Water	8270D	566535
LCS 500-566535/2-A	Lab Control Sample	Total/NA	Water	8270D	566535
500-189014-10 MS	SUPE-W-06C-100720	Total/NA	Water	8270D	566535
500-189014-10 MSD	SUPE-W-06C-100720	Total/NA	Water	8270D	566535

Surrogate Summary

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

Job ID: 500-189014-1

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)
500-189014-1	SUPE-TB-01-100720	101	97	99	97
500-189014-2	SUPE-W-28C-100720	104	98	104	100
500-189014-3	SUPE-EB-01-100720	99	100	98	100
500-189014-5	SUPE-W-04AR2-100720	104	97	101	98
500-189014-6	SUPE-W-10AR2-100720	101	98	98	99
500-189014-7	SUPE-W-99-100720	102	98	98	99
500-189014-8	SUPE-W-30C-100720	101	102	98	101
500-189014-9	SUPE-W-06A-100720	103	97	96	98
500-189014-10	SUPE-W-06C-100720	105	98	102	100
500-189014-10 MS	SUPE-W-06C-100720	103	99	103	101
500-189014-10 MSD	SUPE-W-06C-100720	101	101	102	100
500-189014-11	SUPE-W-12A-100720	103	96	99	97
500-189014-12	SUPE-W-12CR-100720	104	97	101	100
LCS 480-553822/6	Lab Control Sample	98	98	100	101
MB 480-553822/8	Method Blank	102	99	101	102

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)
500-189014-2	SUPE-W-28C-100720	103	87	51	85	33	89
500-189014-3	SUPE-EB-01-100720	94	83	58	86	31	97
500-189014-4	SUPE-W-18D-100720	112	72	46	88	22	109
500-189014-5	SUPE-W-04AR2-100720	91	79	48	79	27	61
500-189014-6	SUPE-W-10AR2-100720	123	71	53	87	35	73
500-189014-7	SUPE-W-99-100720	90	68	43	79	23	89
500-189014-8	SUPE-W-30C-100720	92	86	52	89	30	87
500-189014-9	SUPE-W-06A-100720	111	90	54	95	30	86
500-189014-10	SUPE-W-06C-100720	114	83	53	88	32	94
500-189014-10 MS	SUPE-W-06C-100720	101	101	69	96	42	97
500-189014-10 MSD	SUPE-W-06C-100720	101	97	67	100	40	95
500-189014-11	SUPE-W-12A-100720	121	84	56	94	30	65
500-189014-12	SUPE-W-12CR-100720	122	90	56	92	32	97
LCS 500-566535/2-A	Lab Control Sample	97	91	67	94	42	101
MB 500-566535/1-A	Method Blank	99	77	58	90	34	122

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)

Surrogate Summary

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

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)		
500-189014-2	SUPE-W-28C-100720	120	98	54	91	35	106		
500-189014-3	SUPE-EB-01-100720	113	105	59	98	38	122		
500-189014-4	SUPE-W-18D-100720	122	92	53	86	34	93		
500-189014-5	SUPE-W-04AR2-100720	101	92	52	81	33	52 X		
500-189014-6	SUPE-W-10AR2-100720	133	97	51	86	33	54 X		
500-189014-7	SUPE-W-99-100720	123	101	58	96	37	115		
500-189014-8	SUPE-W-30C-100720	127	101	58	97	37	106		
500-189014-9	SUPE-W-06A-100720	129	98	57	91	36	86		
500-189014-10	SUPE-W-06C-100720	129	100	56	95	37	101		
500-189014-10 MS	SUPE-W-06C-100720	128	100	56	102	39	89		
500-189014-10 MSD	SUPE-W-06C-100720	133	103	58	100	40	97		
500-189014-11	SUPE-W-12A-100720	129	102	58	93	38	80		
500-189014-12	SUPE-W-12CR-100720	134	99	57	93	36	113		
LCS 480-553716/2-A	Lab Control Sample	129	102	60	104	42	114		
MB 480-553716/1-A	Method Blank	112	103	62	96	41	120		

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 480-553822/8
Matrix: Water
Analysis Batch: 553822

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			10/14/20 11:18	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/14/20 11:18	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/14/20 11:18	1
Benzene	ND		1.0	0.41	ug/L			10/14/20 11:18	1
Chloromethane	ND		1.0	0.35	ug/L			10/14/20 11:18	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/14/20 11:18	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/14/20 11:18	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/14/20 11:18	1
Naphthalene	ND		1.0	0.43	ug/L			10/14/20 11:18	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/14/20 11:18	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/14/20 11:18	1
o-Xylene	ND		1.0	0.76	ug/L			10/14/20 11:18	1
Styrene	ND		1.0	0.73	ug/L			10/14/20 11:18	1
Toluene	ND		1.0	0.51	ug/L			10/14/20 11:18	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/14/20 11:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*10/14/20 11:18*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*10/14/20 11:18*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*10/14/20 11:18*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*10/14/20 11:18*	*1*

Lab Sample ID: LCS 480-553822/6
Matrix: Water
Analysis Batch: 553822

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	22.6		ug/L		91	73 - 126
1,2,4-Trimethylbenzene	25.0	23.9		ug/L		96	76 - 121
1,3,5-Trimethylbenzene	25.0	24.1		ug/L		97	77 - 121
Benzene	25.0	22.8		ug/L		91	71 - 124
Chloromethane	25.0	21.6		ug/L		86	68 - 124
Ethylbenzene	25.0	23.3		ug/L		93	77 - 123
Methyl tert-butyl ether	25.0	23.0		ug/L		92	77 - 120
m-Xylene & p-Xylene	25.0	23.3		ug/L		93	76 - 122
Naphthalene	25.0	23.9		ug/L		96	66 - 125
n-Butylbenzene	25.0	24.0		ug/L		96	71 - 128
N-Propylbenzene	25.0	23.3		ug/L		93	75 - 127
o-Xylene	25.0	23.1		ug/L		92	76 - 122
Styrene	25.0	24.3		ug/L		97	80 - 120
Toluene	25.0	22.7		ug/L		91	80 - 122
Xylenes, Total	50.0	46.4		ug/L		93	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*
Dibromofluoromethane (Surr)	*100*		*75 - 123*
Toluene-d8 (Surr)	*101*		*80 - 120*

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

Lab Sample ID: 500-189014-10 MS
Matrix: Water
Analysis Batch: 553822

Client Sample ID: SUPE-W-06C-100720
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	27.2		ug/L		109	73 - 126
1,2,4-Trimethylbenzene	ND		25.0	27.2		ug/L		109	76 - 121
1,3,5-Trimethylbenzene	ND		25.0	27.5		ug/L		110	77 - 121
Benzene	ND		25.0	27.2		ug/L		109	71 - 124
Chloromethane	ND		25.0	26.5		ug/L		106	68 - 124
Ethylbenzene	ND		25.0	26.9		ug/L		108	77 - 123
Methyl tert-butyl ether	ND		25.0	25.6		ug/L		102	77 - 120
m-Xylene & p-Xylene	ND		25.0	26.7		ug/L		107	76 - 122
Naphthalene	ND		25.0	25.9		ug/L		103	66 - 125
n-Butylbenzene	ND		25.0	28.0		ug/L		112	71 - 128
N-Propylbenzene	ND		25.0	27.1		ug/L		109	75 - 127
o-Xylene	ND		25.0	26.3		ug/L		105	76 - 122
Styrene	ND		25.0	26.6		ug/L		106	80 - 120
Toluene	ND		25.0	26.1		ug/L		104	80 - 122
Xylenes, Total	ND		50.0	53.0		ug/L		106	76 - 122

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*
Dibromofluoromethane (Surr)	*103*		*75 - 123*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: 500-189014-10 MSD
Matrix: Water
Analysis Batch: 553822

Client Sample ID: SUPE-W-06C-100720
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	27.9		ug/L		111	73 - 126	2	15
1,2,4-Trimethylbenzene	ND		25.0	27.3		ug/L		109	76 - 121	0	20
1,3,5-Trimethylbenzene	ND		25.0	27.5		ug/L		110	77 - 121	0	20
Benzene	ND		25.0	27.5		ug/L		110	71 - 124	1	13
Chloromethane	ND		25.0	23.6		ug/L		95	68 - 124	11	15
Ethylbenzene	ND		25.0	27.9		ug/L		112	77 - 123	4	15
Methyl tert-butyl ether	ND		25.0	25.9		ug/L		103	77 - 120	1	37
m-Xylene & p-Xylene	ND		25.0	27.4		ug/L		110	76 - 122	3	16
Naphthalene	ND		25.0	25.8		ug/L		103	66 - 125	0	20
n-Butylbenzene	ND		25.0	27.3		ug/L		109	71 - 128	3	15
N-Propylbenzene	ND		25.0	27.4		ug/L		110	75 - 127	1	15
o-Xylene	ND		25.0	27.0		ug/L		108	76 - 122	2	16
Styrene	ND		25.0	28.1		ug/L		112	80 - 120	5	20
Toluene	ND		25.0	26.9		ug/L		108	80 - 122	3	15
Xylenes, Total	ND		50.0	54.4		ug/L		109	76 - 122	3	16

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*
Dibromofluoromethane (Surr)	*102*		*75 - 123*
Toluene-d8 (Surr)	*100*		*80 - 120*

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

Lab Sample ID: MB 500-566535/1-A
Matrix: Water
Analysis Batch: 566736

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 566535

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.0	0.30	ug/L		10/14/20 12:55	10/15/20 14:32	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		10/14/20 12:55	10/15/20 14:32	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		10/14/20 12:55	10/15/20 14:32	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		10/14/20 12:55	10/15/20 14:32	1
1-Methylnaphthalene	ND		2.0	0.50	ug/L		10/14/20 12:55	10/15/20 14:32	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		10/14/20 12:55	10/15/20 14:32	1
2,3,4,6-Tetrachlorophenol	ND		5.0	1.5	ug/L		10/14/20 12:55	10/15/20 14:32	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		10/14/20 12:55	10/15/20 14:32	1
2,4,6-Trichlorophenol	ND		5.0	1.1	ug/L		10/14/20 12:55	10/15/20 14:32	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		10/14/20 12:55	10/15/20 14:32	1
2,4-Dinitrophenol	ND		20	7.4	ug/L		10/14/20 12:55	10/15/20 14:32	1
2,4-Dinitrotoluene	ND		1.0	0.30	ug/L		10/14/20 12:55	10/15/20 14:32	1
2,6-Dinitrotoluene	ND		1.0	0.12	ug/L		10/14/20 12:55	10/15/20 14:32	1
3 & 4 Methylphenol	ND		2.0	0.44	ug/L		10/14/20 12:55	10/15/20 14:32	1
2-Chloronaphthalene	ND		2.0	0.34	ug/L		10/14/20 12:55	10/15/20 14:32	1
2-Chlorophenol	ND		5.0	0.80	ug/L		10/14/20 12:55	10/15/20 14:32	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/14/20 12:55	10/15/20 14:32	1
2-Methylphenol	ND		2.0	0.31	ug/L		10/14/20 12:55	10/15/20 14:32	1
2-Nitroaniline	ND		5.0	1.1	ug/L		10/14/20 12:55	10/15/20 14:32	1
2-Nitrophenol	ND		10	2.1	ug/L		10/14/20 12:55	10/15/20 14:32	1
3-Nitroaniline	ND		10	2.3	ug/L		10/14/20 12:55	10/15/20 14:32	1
4,6-Dinitro-2-methylphenol	ND		20	4.9	ug/L		10/14/20 12:55	10/15/20 14:32	1
4-Bromophenyl phenyl ether	ND		5.0	0.91	ug/L		10/14/20 12:55	10/15/20 14:32	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		10/14/20 12:55	10/15/20 14:32	1
4-Chloroaniline	ND		10	2.1	ug/L		10/14/20 12:55	10/15/20 14:32	1
4-Chlorophenyl phenyl ether	ND		5.0	0.81	ug/L		10/14/20 12:55	10/15/20 14:32	1
4-Nitroaniline	ND		10	3.9	ug/L		10/14/20 12:55	10/15/20 14:32	1
4-Nitrophenol	ND		20	2.3	ug/L		10/14/20 12:55	10/15/20 14:32	1
Acenaphthene	ND		1.0	0.36	ug/L		10/14/20 12:55	10/15/20 14:32	1
Acenaphthylene	ND		1.0	0.32	ug/L		10/14/20 12:55	10/15/20 14:32	1
Anthracene	ND		1.0	0.32	ug/L		10/14/20 12:55	10/15/20 14:32	1
Benzo[a]pyrene	ND		0.20	0.056	ug/L		10/14/20 12:55	10/15/20 14:32	1
Benzo[b]fluoranthene	ND		0.20	0.058	ug/L		10/14/20 12:55	10/15/20 14:32	1
Benzo[g,h,i]perylene	ND		1.0	0.42	ug/L		10/14/20 12:55	10/15/20 14:32	1
Benzo[k]fluoranthene	ND		0.20	0.074	ug/L		10/14/20 12:55	10/15/20 14:32	1
Benzoic acid	ND		20	4.6	ug/L		10/14/20 12:55	10/15/20 14:32	1
Benzyl alcohol	ND		20	3.1	ug/L		10/14/20 12:55	10/15/20 14:32	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		10/14/20 12:55	10/15/20 14:32	1
Bis(2-chloroethyl)ether	ND		2.0	0.35	ug/L		10/14/20 12:55	10/15/20 14:32	1
Bis(2-ethylhexyl) phthalate	ND		10	2.4	ug/L		10/14/20 12:55	10/15/20 14:32	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		10/14/20 12:55	10/15/20 14:32	1
Chrysene	ND		0.50	0.14	ug/L		10/14/20 12:55	10/15/20 14:32	1
Dibenz(a,h)anthracene	ND		0.30	0.064	ug/L		10/14/20 12:55	10/15/20 14:32	1
Dibenzofuran	ND		2.0	0.35	ug/L		10/14/20 12:55	10/15/20 14:32	1
Diethyl phthalate	ND		2.0	0.44	ug/L		10/14/20 12:55	10/15/20 14:32	1
Dimethyl phthalate	ND		2.0	0.38	ug/L		10/14/20 12:55	10/15/20 14:32	1
Di-n-butyl phthalate	ND		5.0	0.80	ug/L		10/14/20 12:55	10/15/20 14:32	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		10/14/20 12:55	10/15/20 14:32	1

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

Lab Sample ID: MB 500-566535/1-A
Matrix: Water
Analysis Batch: 566736

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 566535

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		10/14/20 12:55	10/15/20 14:32	1
Fluoranthene	ND		1.0	0.32	ug/L		10/14/20 12:55	10/15/20 14:32	1
Fluorene	ND		1.0	0.38	ug/L		10/14/20 12:55	10/15/20 14:32	1
Hexachlorobenzene	ND		0.50	0.14	ug/L		10/14/20 12:55	10/15/20 14:32	1
Hexachlorobutadiene	ND		5.0	1.1	ug/L		10/14/20 12:55	10/15/20 14:32	1
Hexachlorocyclopentadiene	ND		20	3.4	ug/L		10/14/20 12:55	10/15/20 14:32	1
Hexachloroethane	ND		5.0	0.97	ug/L		10/14/20 12:55	10/15/20 14:32	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.084	ug/L		10/14/20 12:55	10/15/20 14:32	1
Isophorone	ND		2.0	0.29	ug/L		10/14/20 12:55	10/15/20 14:32	1
Naphthalene	ND		1.0	0.30	ug/L		10/14/20 12:55	10/15/20 14:32	1
Nitrobenzene	ND		1.0	0.45	ug/L		10/14/20 12:55	10/15/20 14:32	1
N-Nitrosodi-n-propylamine	ND		0.50	0.14	ug/L		10/14/20 12:55	10/15/20 14:32	1
N-Nitrosodiphenylamine	ND		2.0	0.34	ug/L		10/14/20 12:55	10/15/20 14:32	1
Phenol	ND		5.0	0.36	ug/L		10/14/20 12:55	10/15/20 14:32	1
Pyrene	ND		1.0	0.48	ug/L		10/14/20 12:55	10/15/20 14:32	1
2,4-Dimethylphenol	ND		10	3.3	ug/L		10/14/20 12:55	10/15/20 14:32	1
Benzo[a]anthracene	ND		0.20	0.044	ug/L		10/14/20 12:55	10/15/20 14:32	1
Phenanthrene	ND		1.0	0.35	ug/L		10/14/20 12:55	10/15/20 14:32	1
3,3'-Dichlorobenzidine	ND		5.0	0.94	ug/L		10/14/20 12:55	10/15/20 14:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*99*		*40 - 145*	*10/14/20 12:55*	*10/15/20 14:32*	*1*
2-Fluorobiphenyl	*77*		*34 - 110*	*10/14/20 12:55*	*10/15/20 14:32*	*1*
2-Fluorophenol (Surr)	*58*		*27 - 110*	*10/14/20 12:55*	*10/15/20 14:32*	*1*
Nitrobenzene-d5 (Surr)	*90*		*36 - 120*	*10/14/20 12:55*	*10/15/20 14:32*	*1*
Phenol-d5 (Surr)	*34*		*20 - 100*	*10/14/20 12:55*	*10/15/20 14:32*	*1*
Terphenyl-d14 (Surr)	*122*		*40 - 145*	*10/14/20 12:55*	*10/15/20 14:32*	*1*

Lab Sample ID: LCS 500-566535/2-A
Matrix: Water
Analysis Batch: 566736

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 566535

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	40.0	27.2		ug/L		68	26 - 110
1,2-Dichlorobenzene	40.0	26.7		ug/L		67	26 - 110
1,3-Dichlorobenzene	40.0	25.7		ug/L		64	22 - 110
1,4-Dichlorobenzene	40.0	25.9		ug/L		65	23 - 110
1-Methylnaphthalene	40.0	31.2		ug/L		78	38 - 110
bis(chloroisopropyl) ether	40.0	29.7		ug/L		74	38 - 110
2,3,4,6-Tetrachlorophenol	40.0	36.2		ug/L		90	44 - 118
2,4,5-Trichlorophenol	40.0	38.3		ug/L		96	63 - 120
2,4,6-Trichlorophenol	40.0	37.0		ug/L		92	62 - 110
2,4-Dichlorophenol	40.0	35.1		ug/L		88	62 - 110
2,4-Dinitrophenol	80.0	75.0		ug/L		94	37 - 130
2,4-Dinitrotoluene	40.0	39.9		ug/L		100	63 - 122
2,6-Dinitrotoluene	40.0	38.8		ug/L		97	63 - 119
3 & 4 Methylphenol	40.0	23.7		ug/L		59	53 - 110
2-Chloronaphthalene	40.0	32.0		ug/L		80	39 - 110

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

Lab Sample ID: LCS 500-566535/2-A
Matrix: Water
Analysis Batch: 566736

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 566535

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chlorophenol	40.0	33.9		ug/L		85	59 - 110
2-Methylnaphthalene	40.0	31.1		ug/L		78	34 - 110
2-Methylphenol	40.0	32.9		ug/L		82	53 - 110
2-Nitroaniline	40.0	37.9		ug/L		95	59 - 122
2-Nitrophenol	40.0	35.6		ug/L		89	58 - 110
3-Nitroaniline	40.0	30.5		ug/L		76	47 - 123
4,6-Dinitro-2-methylphenol	80.0	80.0		ug/L		100	50 - 117
4-Bromophenyl phenyl ether	40.0	38.0		ug/L		95	58 - 120
4-Chloro-3-methylphenol	40.0	35.9		ug/L		90	64 - 120
4-Chloroaniline	40.0	35.6		ug/L		89	35 - 128
4-Chlorophenyl phenyl ether	40.0	34.9		ug/L		87	47 - 112
4-Nitroaniline	40.0	27.2		ug/L		68	52 - 147
4-Nitrophenol	80.0	30.1		ug/L		38	20 - 110
Acenaphthene	40.0	34.6		ug/L		86	46 - 110
Acenaphthylene	40.0	34.8		ug/L		87	47 - 110
Anthracene	40.0	38.0		ug/L		95	67 - 110
Benzo[a]pyrene	40.0	40.6		ug/L		102	70 - 120
Benzo[b]fluoranthene	40.0	39.9		ug/L		100	69 - 123
Benzo[g,h,i]perylene	40.0	39.8		ug/L		99	70 - 120
Benzo[k]fluoranthene	40.0	41.7		ug/L		104	70 - 120
Benzoic acid	80.0	24.9		ug/L		31	10 - 100
Benzyl alcohol	40.0	25.3		ug/L		63	33 - 127
Bis(2-chloroethoxy)methane	40.0	37.3		ug/L		93	60 - 110
Bis(2-chloroethyl)ether	40.0	33.5		ug/L		84	49 - 110
Bis(2-ethylhexyl) phthalate	40.0	39.4		ug/L		99	69 - 120
Butyl benzyl phthalate	40.0	38.6		ug/L		97	68 - 120
Chrysene	40.0	39.4		ug/L		98	68 - 120
Dibenz(a,h)anthracene	40.0	41.2		ug/L		103	70 - 127
Dibenzofuran	40.0	35.2		ug/L		88	51 - 110
Diethyl phthalate	40.0	40.7		ug/L		102	62 - 120
Dimethyl phthalate	40.0	40.0		ug/L		100	63 - 120
Di-n-butyl phthalate	40.0	38.7		ug/L		97	70 - 120
Di-n-octyl phthalate	40.0	39.8		ug/L		100	70 - 122
Fluoranthene	40.0	40.6		ug/L		102	68 - 120
Fluorene	40.0	36.9		ug/L		92	53 - 120
Hexachlorobenzene	40.0	40.3		ug/L		101	61 - 120
Hexachlorobutadiene	40.0	26.3		ug/L		66	20 - 100
Hexachlorocyclopentadiene	40.0	21.7		ug/L		54	10 - 100
Hexachloroethane	40.0	21.8		ug/L		54	20 - 100
Indeno[1,2,3-cd]pyrene	40.0	41.4		ug/L		103	65 - 133
Isophorone	40.0	38.9		ug/L		97	57 - 110
Naphthalene	40.0	30.2		ug/L		76	36 - 110
Nitrobenzene	40.0	35.9		ug/L		90	53 - 110
N-Nitrosodi-n-propylamine	40.0	31.6		ug/L		79	58 - 110
N-Nitrosodiphenylamine	40.0	38.7		ug/L		97	66 - 110
Pentachlorophenol	80.0	63.7		ug/L		80	23 - 129
Phenol	40.0	17.8		ug/L		45	33 - 100
Pyrene	40.0	39.0		ug/L		98	70 - 110
2,4-Dimethylphenol	40.0	36.2		ug/L		91	51 - 110

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

Lab Sample ID: LCS 500-566535/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 566736
Prep Batch: 566535

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]anthracene	40.0	39.6		ug/L		99	70 - 120
Phenanthrene	40.0	39.3		ug/L		98	65 - 120
3,3'-Dichlorobenzidine	40.0	33.8		ug/L		85	60 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*97*		*40 - 145*
2-Fluorobiphenyl	*91*		*34 - 110*
2-Fluorophenol (Surr)	*67*		*27 - 110*
Nitrobenzene-d5 (Surr)	*94*		*36 - 120*
Phenol-d5 (Surr)	*42*		*20 - 100*
Terphenyl-d14 (Surr)	*101*		*40 - 145*

Lab Sample ID: 500-189014-10 MS
Client Sample ID: SUPE-W-06C-100720
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 566736
Prep Batch: 566535

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	ND		40.1	32.3		ug/L		80	26 - 110
1,2-Dichlorobenzene	ND		40.1	31.8		ug/L		79	26 - 110
1,3-Dichlorobenzene	ND		40.1	29.4		ug/L		73	22 - 110
1,4-Dichlorobenzene	ND		40.1	30.6		ug/L		76	23 - 110
1-Methylnaphthalene	ND		40.1	37.1		ug/L		93	38 - 110
bis(chloroisopropyl) ether	ND		40.1	34.6		ug/L		86	38 - 110
2,3,4,6-Tetrachlorophenol	ND		40.1	37.2		ug/L		93	44 - 118
2,4,5-Trichlorophenol	ND		40.1	39.1		ug/L		97	63 - 120
2,4,6-Trichlorophenol	ND		40.1	39.6		ug/L		99	62 - 110
2,4-Dichlorophenol	ND		40.1	38.0		ug/L		95	62 - 110
2,4-Dinitrophenol	ND		80.2	81.6		ug/L		102	37 - 130
2,4-Dinitrotoluene	ND		40.1	43.6		ug/L		109	63 - 122
2,6-Dinitrotoluene	ND		40.1	41.8		ug/L		104	63 - 119
3 & 4 Methylphenol	ND		40.1	26.5		ug/L		66	53 - 110
2-Chloronaphthalene	ND		40.1	37.5		ug/L		93	39 - 110
2-Chlorophenol	ND		40.1	37.1		ug/L		93	59 - 110
2-Methylnaphthalene	ND		40.1	36.4		ug/L		91	34 - 110
2-Methylphenol	ND		40.1	36.2		ug/L		90	53 - 110
2-Nitroaniline	ND		40.1	38.0		ug/L		95	59 - 122
2-Nitrophenol	ND		40.1	38.0		ug/L		95	58 - 110
3-Nitroaniline	ND		40.1	29.8		ug/L		74	47 - 123
4,6-Dinitro-2-methylphenol	ND		80.2	86.8		ug/L		108	50 - 117
4-Bromophenyl phenyl ether	ND		40.1	41.9		ug/L		105	58 - 120
4-Chloro-3-methylphenol	ND		40.1	37.0		ug/L		92	64 - 120
4-Chloroaniline	ND		40.1	34.8		ug/L		87	35 - 128
4-Chlorophenyl phenyl ether	ND		40.1	39.0		ug/L		97	47 - 112
4-Nitroaniline	ND		40.1	26.9		ug/L		67	52 - 147
4-Nitrophenol	ND		80.2	29.3		ug/L		37	20 - 110
Acenaphthene	ND		40.1	39.0		ug/L		97	46 - 110
Acenaphthylene	ND		40.1	38.7		ug/L		97	47 - 110
Anthracene	ND		40.1	40.7		ug/L		102	67 - 110

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

Lab Sample ID: 500-189014-10 MS
Client Sample ID: SUPE-W-06C-100720
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 566736
Prep Batch: 566535

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]pyrene	ND		40.1	42.7		ug/L		107	70 - 120
Benzo[b]fluoranthene	ND		40.1	42.7		ug/L		106	69 - 123
Benzo[g,h,i]perylene	ND		40.1	42.6		ug/L		106	70 - 120
Benzo[k]fluoranthene	ND		40.1	43.6		ug/L		109	70 - 120
Benzoic acid	ND		80.2	25.8		ug/L		32	10 - 100
Benzyl alcohol	ND		40.1	29.9		ug/L		75	33 - 127
Bis(2-chloroethoxy)methane	ND		40.1	38.1		ug/L		95	60 - 110
Bis(2-chloroethyl)ether	ND		40.1	37.4		ug/L		93	49 - 110
Bis(2-ethylhexyl) phthalate	ND		40.1	41.2		ug/L		103	69 - 120
Butyl benzyl phthalate	ND		40.1	39.2		ug/L		98	68 - 120
Chrysene	ND		40.1	40.9		ug/L		102	68 - 120
Dibenz(a,h)anthracene	ND		40.1	44.9		ug/L		112	70 - 127
Dibenzofuran	ND		40.1	39.0		ug/L		97	51 - 110
Diethyl phthalate	ND		40.1	43.9		ug/L		110	62 - 120
Dimethyl phthalate	ND		40.1	42.2		ug/L		105	63 - 120
Di-n-butyl phthalate	ND		40.1	40.5		ug/L		101	70 - 120
Di-n-octyl phthalate	ND		40.1	40.8		ug/L		102	70 - 122
Fluoranthene	ND		40.1	41.7		ug/L		104	68 - 120
Fluorene	ND		40.1	40.0		ug/L		100	53 - 120
Hexachlorobenzene	ND		40.1	43.9		ug/L		109	61 - 120
Hexachlorobutadiene	ND		40.1	28.9		ug/L		72	20 - 100
Hexachlorocyclopentadiene	ND		40.1	24.2		ug/L		60	10 - 100
Hexachloroethane	ND		40.1	27.1		ug/L		68	20 - 100
Indeno[1,2,3-cd]pyrene	ND		40.1	43.6		ug/L		109	65 - 133
Isophorone	ND		40.1	40.1		ug/L		100	57 - 110
Naphthalene	ND		40.1	35.8		ug/L		89	36 - 110
Nitrobenzene	ND		40.1	38.1		ug/L		95	53 - 110
N-Nitrosodi-n-propylamine	ND		40.1	35.2		ug/L		88	58 - 110
N-Nitrosodiphenylamine	ND		40.1	42.3		ug/L		105	66 - 110
Pentachlorophenol	ND		80.2	69.2		ug/L		86	23 - 129
Phenol	ND		40.1	18.0		ug/L		45	33 - 100
Pyrene	ND		40.1	42.0		ug/L		105	70 - 110
2,4-Dimethylphenol	ND		40.1	37.7		ug/L		94	51 - 110
Benzo[a]anthracene	ND		40.1	41.8		ug/L		104	70 - 120
Phenanthrene	ND		40.1	42.0		ug/L		105	65 - 120
3,3'-Dichlorobenzidine	ND		40.1	34.7		ug/L		86	60 - 132

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*101*		*40 - 145*
2-Fluorobiphenyl	*101*		*34 - 110*
2-Fluorophenol (Surr)	*69*		*27 - 110*
Nitrobenzene-d5 (Surr)	*96*		*36 - 120*
Phenol-d5 (Surr)	*42*		*20 - 100*
Terphenyl-d14 (Surr)	*97*		*40 - 145*

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

Lab Sample ID: 500-189014-10 MSD
Client Sample ID: SUPE-W-06C-100720
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 566736
Prep Batch: 566535

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	ND		40.5	33.0		ug/L		82	26 - 110	2	20
1,2-Dichlorobenzene	ND		40.5	31.4		ug/L		77	26 - 110	1	20
1,3-Dichlorobenzene	ND		40.5	31.2		ug/L		77	22 - 110	6	20
1,4-Dichlorobenzene	ND		40.5	31.3		ug/L		77	23 - 110	2	20
1-Methylnaphthalene	ND		40.5	36.5		ug/L		90	38 - 110	2	20
bis(chloroisopropyl) ether	ND		40.5	30.8		ug/L		76	38 - 110	12	20
2,3,4,6-Tetrachlorophenol	ND		40.5	38.7		ug/L		96	44 - 118	4	20
2,4,5-Trichlorophenol	ND		40.5	40.4		ug/L		100	63 - 120	3	20
2,4,6-Trichlorophenol	ND		40.5	39.1		ug/L		97	62 - 110	1	20
2,4-Dichlorophenol	ND		40.5	37.5		ug/L		93	62 - 110	1	20
2,4-Dinitrophenol	ND		81.0	80.0		ug/L		99	37 - 130	2	20
2,4-Dinitrotoluene	ND		40.5	41.8		ug/L		103	63 - 122	4	20
2,6-Dinitrotoluene	ND		40.5	41.5		ug/L		103	63 - 119	1	20
3 & 4 Methylphenol	ND		40.5	26.6		ug/L		66	53 - 110	0	20
2-Chloronaphthalene	ND		40.5	37.2		ug/L		92	39 - 110	1	20
2-Chlorophenol	ND		40.5	36.6		ug/L		90	59 - 110	2	20
2-Methylnaphthalene	ND		40.5	36.6		ug/L		90	34 - 110	1	20
2-Methylphenol	ND		40.5	34.3		ug/L		85	53 - 110	5	20
2-Nitroaniline	ND		40.5	38.5		ug/L		95	59 - 122	1	20
2-Nitrophenol	ND		40.5	37.7		ug/L		93	58 - 110	1	20
3-Nitroaniline	ND		40.5	33.6		ug/L		83	47 - 123	12	20
4,6-Dinitro-2-methylphenol	ND		81.0	84.9		ug/L		105	50 - 117	2	20
4-Bromophenyl phenyl ether	ND		40.5	41.1		ug/L		101	58 - 120	2	20
4-Chloro-3-methylphenol	ND		40.5	37.1		ug/L		92	64 - 120	0	20
4-Chloroaniline	ND		40.5	36.4		ug/L		90	35 - 128	4	20
4-Chlorophenyl phenyl ether	ND		40.5	39.0		ug/L		96	47 - 112	0	20
4-Nitroaniline	ND		40.5	28.5		ug/L		70	52 - 147	6	20
4-Nitrophenol	ND		81.0	31.2		ug/L		39	20 - 110	6	20
Acenaphthene	ND		40.5	38.9		ug/L		96	46 - 110	0	20
Acenaphthylene	ND		40.5	38.7		ug/L		95	47 - 110	0	20
Anthracene	ND		40.5	40.3		ug/L		99	67 - 110	1	20
Benzo[a]pyrene	ND		40.5	42.6		ug/L		105	70 - 120	0	20
Benzo[b]fluoranthene	ND		40.5	42.6		ug/L		105	69 - 123	0	20
Benzo[g,h,i]perylene	ND		40.5	47.4		ug/L		117	70 - 120	11	20
Benzo[k]fluoranthene	ND		40.5	42.9		ug/L		106	70 - 120	1	20
Benzoic acid	ND		81.0	27.8		ug/L		34	10 - 100	7	20
Benzyl alcohol	ND		40.5	25.5		ug/L		63	33 - 127	16	20
Bis(2-chloroethoxy)methane	ND		40.5	37.7		ug/L		93	60 - 110	1	20
Bis(2-chloroethyl)ether	ND		40.5	35.2		ug/L		87	49 - 110	6	20
Bis(2-ethylhexyl) phthalate	ND		40.5	40.0		ug/L		99	69 - 120	3	20
Butyl benzyl phthalate	ND		40.5	39.9		ug/L		98	68 - 120	2	20
Chrysene	ND		40.5	40.9		ug/L		101	68 - 120	0	20
Dibenz(a,h)anthracene	ND		40.5	40.4		ug/L		100	70 - 127	11	20
Dibenzofuran	ND		40.5	38.8		ug/L		96	51 - 110	1	20
Diethyl phthalate	ND		40.5	42.9		ug/L		106	62 - 120	2	20
Dimethyl phthalate	ND		40.5	41.1		ug/L		101	63 - 120	3	20
Di-n-butyl phthalate	ND		40.5	40.2		ug/L		99	70 - 120	1	20
Di-n-octyl phthalate	ND		40.5	41.4		ug/L		102	70 - 122	1	20

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

Lab Sample ID: 500-189014-10 MSD
Matrix: Water
Analysis Batch: 566736

Client Sample ID: SUPE-W-06C-100720
Prep Type: Total/NA
Prep Batch: 566535

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoranthene	ND		40.5	42.7		ug/L		105	68 - 120	2	20
Fluorene	ND		40.5	40.2		ug/L		99	53 - 120	1	20
Hexachlorobenzene	ND		40.5	43.6		ug/L		108	61 - 120	1	20
Hexachlorobutadiene	ND		40.5	31.5		ug/L		78	20 - 100	9	20
Hexachlorocyclopentadiene	ND		40.5	26.0		ug/L		64	10 - 100	7	20
Hexachloroethane	ND		40.5	30.7		ug/L		76	20 - 100	12	20
Indeno[1,2,3-cd]pyrene	ND		40.5	40.3		ug/L		100	65 - 133	8	20
Isophorone	ND		40.5	39.8		ug/L		98	57 - 110	1	20
Naphthalene	ND		40.5	36.1		ug/L		89	36 - 110	1	20
Nitrobenzene	ND		40.5	38.9		ug/L		96	53 - 110	2	20
N-Nitrosodi-n-propylamine	ND		40.5	35.5		ug/L		88	58 - 110	1	20
N-Nitrosodiphenylamine	ND		40.5	41.6		ug/L		103	66 - 110	1	20
Pentachlorophenol	ND		81.0	68.9		ug/L		85	23 - 129	0	20
Phenol	ND		40.5	17.1		ug/L		42	33 - 100	5	20
Pyrene	ND		40.5	40.4		ug/L		100	70 - 110	4	20
2,4-Dimethylphenol	ND		40.5	35.7		ug/L		88	51 - 110	5	20
Benzo[a]anthracene	ND		40.5	40.9		ug/L		101	70 - 120	2	20
Phenanthrene	ND		40.5	40.8		ug/L		101	65 - 120	3	20
3,3'-Dichlorobenzidine	ND		40.5	38.1		ug/L		94	60 - 132	10	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*101*		*40 - 145*
2-Fluorobiphenyl	*97*		*34 - 110*
2-Fluorophenol (Surr)	*67*		*27 - 110*
Nitrobenzene-d5 (Surr)	*100*		*36 - 120*
Phenol-d5 (Surr)	*40*		*20 - 100*
Terphenyl-d14 (Surr)	*95*		*40 - 145*

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

Lab Sample ID: MB 480-553716/1-A
Matrix: Water
Analysis Batch: 553902

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 553716

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		1.0	0.34	ug/L		10/13/20 14:32	10/14/20 15:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*112*		*24 - 146*	*10/13/20 14:32*	*10/14/20 15:40*	*1*
2-Fluorobiphenyl	*103*		*37 - 120*	*10/13/20 14:32*	*10/14/20 15:40*	*1*
2-Fluorophenol (Surr)	*62*		*10 - 120*	*10/13/20 14:32*	*10/14/20 15:40*	*1*
Nitrobenzene-d5 (Surr)	*96*		*26 - 120*	*10/13/20 14:32*	*10/14/20 15:40*	*1*
Phenol-d5 (Surr)	*41*		*11 - 120*	*10/13/20 14:32*	*10/14/20 15:40*	*1*
p-Terphenyl-d14	*120*		*64 - 127*	*10/13/20 14:32*	*10/14/20 15:40*	*1*

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

Lab Sample ID: LCS 480-553716/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 553902
Prep Batch: 553716

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Pentachlorophenol			16.0	16.9		ug/L		105	10 - 131		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*129*		*24 - 146*
2-Fluorobiphenyl	*102*		*37 - 120*
2-Fluorophenol (Surr)	*60*		*10 - 120*
Nitrobenzene-d5 (Surr)	*104*		*26 - 120*
Phenol-d5 (Surr)	*42*		*11 - 120*
p-Terphenyl-d14	*114*		*64 - 127*

Lab Sample ID: 500-189014-10 MS
Client Sample ID: SUPE-W-06C-100720
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 553902
Prep Batch: 553716

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Pentachlorophenol	ND		16.0	17.4		ug/L		109	23 - 149		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*128*		*24 - 146*
2-Fluorobiphenyl	*100*		*37 - 120*
2-Fluorophenol (Surr)	*56*		*10 - 120*
Nitrobenzene-d5 (Surr)	*102*		*26 - 120*
Phenol-d5 (Surr)	*39*		*11 - 120*
p-Terphenyl-d14	*89*		*64 - 127*

Lab Sample ID: 500-189014-10 MSD
Client Sample ID: SUPE-W-06C-100720
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 553902
Prep Batch: 553716

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Pentachlorophenol	ND		16.0	17.9		ug/L		112	23 - 149	3	37

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*133*		*24 - 146*
2-Fluorobiphenyl	*103*		*37 - 120*
2-Fluorophenol (Surr)	*58*		*10 - 120*
Nitrobenzene-d5 (Surr)	*100*		*26 - 120*
Phenol-d5 (Surr)	*40*		*11 - 120*
p-Terphenyl-d14	*97*		*64 - 127*

Lab Chronicle

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-TB-01-100720
Lab Sample ID: 500-189014-1
Date Collected: 10/07/20 00:00
Matrix: Water
Date Received: 10/08/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	553822	10/14/20 13:05	RJF	TAL BUF

Client Sample ID: SUPE-W-28C-100720
Lab Sample ID: 500-189014-2
Date Collected: 10/07/20 09:45
Matrix: Water
Date Received: 10/08/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	553822	10/14/20 13:29	RJF	TAL BUF
Total/NA	Prep	3510C			566535	10/14/20 12:55	BSO	TAL CHI
Total/NA	Analysis	8270D		1	566736	10/15/20 15:20	AJD	TAL CHI
Total/NA	Prep	3510C			553716	10/13/20 14:32	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	553902	10/14/20 18:01	PJQ	TAL BUF

Client Sample ID: SUPE-EB-01-100720
Lab Sample ID: 500-189014-3
Date Collected: 10/07/20 10:15
Matrix: Water
Date Received: 10/08/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	553822	10/14/20 13:53	RJF	TAL BUF
Total/NA	Prep	3510C			566535	10/14/20 12:55	BSO	TAL CHI
Total/NA	Analysis	8270D		1	566736	10/15/20 15:45	AJD	TAL CHI
Total/NA	Prep	3510C			553716	10/13/20 14:32	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	553902	10/14/20 18:29	PJQ	TAL BUF

Client Sample ID: SUPE-W-18D-100720
Lab Sample ID: 500-189014-4
Date Collected: 10/07/20 11:10
Matrix: Water
Date Received: 10/08/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			566535	10/14/20 12:55	BSO	TAL CHI
Total/NA	Analysis	8270D		1	566736	10/15/20 16:09	AJD	TAL CHI
Total/NA	Prep	3510C			553716	10/13/20 14:32	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	553902	10/14/20 18:57	PJQ	TAL BUF

Client Sample ID: SUPE-W-04AR2-100720
Lab Sample ID: 500-189014-5
Date Collected: 10/07/20 12:35
Matrix: Water
Date Received: 10/08/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	553822	10/14/20 14:16	RJF	TAL BUF
Total/NA	Prep	3510C			566535	10/14/20 12:55	BSO	TAL CHI
Total/NA	Analysis	8270D		1	566736	10/15/20 20:36	AJD	TAL CHI
Total/NA	Prep	3510C			553716	10/13/20 14:32	ATG	TAL BUF
Total/NA	Analysis	8270D LL		5	553902	10/14/20 19:25	PJQ	TAL BUF

Client Sample ID: SUPE-W-10AR2-100720
Lab Sample ID: 500-189014-6

Date Collected: 10/07/20 14:25
Matrix: Water
Date Received: 10/08/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	553822	10/14/20 14:40	RJF	TAL BUF
Total/NA	Prep	3510C			566535	10/14/20 12:55	BSO	TAL CHI
Total/NA	Analysis	8270D		1	566736	10/15/20 21:00	AJD	TAL CHI
Total/NA	Prep	3510C	DL		566535	10/14/20 12:55	BSO	TAL CHI
Total/NA	Analysis	8270D	DL	5	566736	10/15/20 22:13	AJD	TAL CHI
Total/NA	Prep	3510C			553716	10/13/20 14:32	ATG	TAL BUF
Total/NA	Analysis	8270D LL		5	553902	10/14/20 19:54	PJQ	TAL BUF

Client Sample ID: SUPE-W-99-100720
Lab Sample ID: 500-189014-7

Date Collected: 10/07/20 01:00
Matrix: Water
Date Received: 10/08/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	553822	10/14/20 15:04	RJF	TAL BUF
Total/NA	Prep	3510C			566535	10/14/20 12:55	BSO	TAL CHI
Total/NA	Analysis	8270D		1	566736	10/15/20 16:33	AJD	TAL CHI
Total/NA	Prep	3510C			553716	10/13/20 14:32	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	553902	10/14/20 20:22	PJQ	TAL BUF

Client Sample ID: SUPE-W-30C-100720
Lab Sample ID: 500-189014-8

Date Collected: 10/07/20 09:40
Matrix: Water
Date Received: 10/08/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	553822	10/14/20 15:28	RJF	TAL BUF
Total/NA	Prep	3510C			566535	10/14/20 12:55	BSO	TAL CHI
Total/NA	Analysis	8270D		1	566736	10/15/20 16:57	AJD	TAL CHI
Total/NA	Prep	3510C			553716	10/13/20 14:32	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	553902	10/14/20 20:50	PJQ	TAL BUF

Client Sample ID: SUPE-W-06A-100720
Lab Sample ID: 500-189014-9

Date Collected: 10/07/20 10:45
Matrix: Water
Date Received: 10/08/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	553822	10/14/20 15:52	RJF	TAL BUF
Total/NA	Prep	3510C			566535	10/14/20 12:55	BSO	TAL CHI
Total/NA	Analysis	8270D		1	566736	10/15/20 17:22	AJD	TAL CHI
Total/NA	Prep	3510C			553716	10/13/20 14:32	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	553902	10/14/20 21:18	PJQ	TAL BUF

Lab Chronicle

Client: Field & Technical Services LLC
Job ID: 500-189014-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-06C-100720
Lab Sample ID: 500-189014-10
Date Collected: 10/07/20 12:35
Matrix: Water
Date Received: 10/08/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	553822	10/14/20 16:16	RJF	TAL BUF
Total/NA	Prep	3510C			566535	10/14/20 12:55	BSO	TAL CHI
Total/NA	Analysis	8270D		1	566736	10/15/20 14:56	AJD	TAL CHI
Total/NA	Prep	3510C			553716	10/13/20 14:32	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	553902	10/14/20 17:33	PJQ	TAL BUF

Client Sample ID: SUPE-W-12A-100720
Lab Sample ID: 500-189014-11
Date Collected: 10/07/20 14:30
Matrix: Water
Date Received: 10/08/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	553822	10/14/20 16:40	RJF	TAL BUF
Total/NA	Prep	3510C			566535	10/14/20 12:55	BSO	TAL CHI
Total/NA	Analysis	8270D		1	566736	10/15/20 17:46	AJD	TAL CHI
Total/NA	Prep	3510C			553716	10/13/20 14:32	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	553902	10/14/20 21:46	PJQ	TAL BUF

Client Sample ID: SUPE-W-12CR-100720
Lab Sample ID: 500-189014-12
Date Collected: 10/07/20 16:05
Matrix: Water
Date Received: 10/08/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	553822	10/14/20 17:04	RJF	TAL BUF
Total/NA	Prep	3510C			566535	10/14/20 12:55	BSO	TAL CHI
Total/NA	Analysis	8270D		1	566736	10/15/20 18:10	AJD	TAL CHI
Total/NA	Prep	3510C			553716	10/13/20 14:32	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	553902	10/14/20 22:14	PJQ	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

Accreditation/Certification Summary

Client: Field & Technical Services LLC
Job ID: 500-189014-1
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

Eurofins TestAmerica, Chicago
2417 Bond Street

University Park, IL 60484-3101
phone 708.534.5200 fax 708.534.5211

Chain of Custody Record

eurofins Environment Testing America

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

500-189014 COC

Client Contact	Project Manager: AClark	Site Contact:	Date: 10/7/20	COC No: 1 of 2 COCs
Field & Technical Services	Email: AClark.2006@f-ts.com	Lab Contact: V. Bartot	Carrier: FedEx	TALS Project #:
200 3rd Ave	Tel/Fax:	Analysis Turnaround Time		Sampler:
Carnegie, PA 15106		☐CALENDAR DAYS ☐WORKING DAYS		For Lab Use Only:
(412) 429-2694 Phone		TAT if different from Below STD		Walk-in Client:
(xxx) xxx-xxxx FAX		☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Lab Sampling:
Project Name: Superior 2020 2SA Sampling				Job / SDG No.: 500-189014
Site: Superior, WI				
P O # OM055620-091				

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	8260B_VOA+naphtha	8270C_SVOC (less naphtha)	8270C_SVOC+naphtha	Sample Specific Notes:
1	SUPE-TB-01-100720	10/7/20	0000	G	GW	2	N	N	2	0	0	
2	SUPE-W-28C-100720	10/7/20	0945	G	GW	6	N	N	3	3	0	
3	SUPE-EB-01-100720	10/7/20	1015	G	GW	6	N	N	3	3	6	
4	SUPE-W-18D-100720	10/7/20	1110	G	GW	3	N	N	0	0	3	
5	SUPE-W-04AR2-100720	10/7/20	1235	G	GW	6	N	N	3	3	0	
6	SUPE-W-10AR2-100720	10/7/20	1425	G	GW	6	N	N	3	3	0	
7	SUPE-W-99-100720	10/7/20	0100	G	GW	6	N	N	3	3	6	

KM 10/7

KM 10/7

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison B ☒Unknown

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 & Comments:

0.6 ss 10/8/20
-0.9, -0.3, 0.8, ~~0.0~~, 0.4

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____			
Relinquished by: Kat McM	Company: FTS	Date/Time: 10/7/20 1700	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time: 10/8/20 0930

Form No. CA-C-WI-002, Rev. 4.34, dated 8/3/2020

Eurofins TestAmerica, Chicago
2417 Bond Street

University Park, IL 60484-3101
phone 708.534.5200 fax 708.534.5211

Chain of Custody Record

eurofins | Environment Testing America

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	Project Manager: A. Clark	Site Contact:	Date: 10/7/20	COC No: 2 of 2 COCs
Field & Technical Services	Email: a.clark@fts.com	Lab Contact:	Carrier: FedEx	TALS Project #:
200 3rd Ave	Tel/Fax:			Sampler:
Carnegie, PA 15106	Analysis Turnaround Time: ☐CALENDAR DAYS ☐WORKING DAYS			For Lab Use Only: Walk-in Client:
(412) 429-2694 Phone	TAT if different from Below STD			Lab Sampling:
(xxx) xxx-xxxx FAX	☐ 2 weeks			
Project Name: Superior 2020 2SA Sampling	☐ 1 week			Job / SDG No.: 500-189014
Site: Superior, WI	☐ 2 days			
P O # OM055620-091	☐ 1 day			

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	8260B_VOA+naphtha	8270C_SVOC (less naphtha)	8270C_SVOC+naphtha	Sample Specific Notes:
8	SUPE-W-30C-100720	10/07/20	0940	G	GW	6	N	N	3	3	0	
9	SUPE-W-06A-100720	10/7/20	1045	G	GW	6	N	N	3	3	0	
10	SUPE-W-06C-100720	10/7/20	1235	G	GW	6	N	Y	3	3	0	
V	SUPE-W-06C-MS/MSD-100720	10/7/20	1235	G	GW	12	N	-	6	6	0	
11	SUPE-W-12A-100720	10/7/20	1430	G	GW	6	N	N	3	3	0	
12	SUPE-W-12CR-100720	10/7/20	1605	G	GW	6	N	N	3	3	0	

amm 10/7/20

amm 10/8/20

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison B ☐Unknown

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 & Comments:

Custody Seals Intact: ☐Yes ☐No	Custody Seal No.:	Cooler Temp. (°C): Obs'd:_____ Corr'd:_____	Therm ID No.:_____

	Company	Date/Time		Company	Date/Time
Relinquished by: Aaron M. Nuckles	FTS	10/7/20 1700	Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received in Laboratory by:	TA-CHI	10/8/20 0930


500-189014 Wayb
EUROFINS TESTAMERICA CANTON
4101 SHUFFEL STREET NW
NORTH CANTON OH 44720
ORIGIN ID:DLHA (814) 244-3654
KATIE MCMULEN
200 3RD AVE
CARNEGIE, PA 15106
UNITED STATES US
CAD: 0562071/CAFE3406
BILL 3rd PARTY
SHIP DATE: 07OCT20
ACTWGT: 57.00 LB
CAD: 6994000/SSFE2121
DIMS: 20x14x14 IN
BILL THIRD PARTY
TO
TESTAMERICA CHICAGO
2417 BOND ST
UNIVERSITY PARK IL 60484
(708) 534-5200
REF:
INV:
PO:
DEPT:
FedEx
Express
2 of 5
MPS# 3976 0995 4113
0263
Mstr# 3976 0995 4102
0201
THU - 08 OCT 10:30A
PRIORITY OVERNIGHT
XH JOTA
60484
IL-US ORD
Ground
Remove label before delivering
package to recipient.
Part # 156297-435 RRDE EXP 04/21
ORIGIN ID:DLHA (814) 244-3654
KATIE MCMULEN
200 3RD AVE
CARNEGIE, PA 15106
UNITED STATES US
SHIP DATE: 07OCT20
ACTWGT: 63.00 LB
CAD: 6994000/SSFE2121
DIMS: 23x14x14 IN
BILL THIRD PARTY
TO
TESTAMERICA CHICAGO
2417 BOND ST
UNIVERSITY PARK IL 60484
(708) 534-5200
REF:
INV:
PO:
DEPT:
FedEx
Express
1 of 5
TRK# 3976 0995 4102
0201
MASTER
THU - 08 OCT 10:30A
PRIORITY OVERNIGHT
XH JOTA
AHS
60484
IL-US ORD
Part # 156297-435 RRDE EXP 04/21

FROM:
EUROFINS TESTAMERICA
4101 SHUEFEL STREET

ORIGIN ID:DLHA (814) 244-3654
KATIE MCMULEN
200 3RD AVE
CARNEGIE, PA 15106
UNITED STATES US

SHIP DATE: 07OCT20
ACTWGT: 64.00 LB
CAD: 6884000/SSFE2121
DIMS: 23x14x14 IN
BILL THIRD PARTY

TO
TESTAMERICA CHICAGO
2417 BOND ST
UNIVERSITY PARK IL 60484
(708) 534-5200
REF:
INV:
PO:
DEPT:

FedEx Express

4 of 5
MPS# 0263 3976 0995 4135
Mstr# 3976 0995 4102
0201
XH JOTA

THU - 08 OCT 10:30A
PRIORITY OVERNIGHT
60484
IL-US ORD

FROM:
EUROFINS TESTAMERICA
4101 SHUFFEL STREET
NORTH CANTON OH 4472
US

ORIGIN ID:DLHA (814) 244-3654
KATIE MCMULEN
200 3RD AVE
CARNEGIE, PA 15106
UNITED STATES US

SHIP DATE: 07OCT20
ACTWGT: 58.00 LB
CAD: 6884000/SSFE2121
DIMS: 23x14x14 IN
BILL THIRD PARTY

TO
TESTAMERICA CHICAGO
2417 BOND ST
UNIVERSITY PARK IL 60484
(708) 534-5200
REF:
INV:
PO:
DEPT:

FedEx Express

3 of 5
MPS# 0263 3976 0995 4124
Mstr# 3976 0995 4102
0201
XH JOTA

THU - 08 OCT 10:30A
PRIORITY OVERNIGHT
60484
IL-US ORD


ORIGIN ID:DLHA (814) 244-3654
KATIE MCMULEN
200 3RD AVE
CARNEGIE, PA 15106
UNITED STATES US
SHIP DATE: 07OCT20
ACTWGT: 64.00 LB
CAD: 6984000/SSFE2121
DIMS: 23x14x14 IN
BILL THIRD PARTY
TO
TESTAMERICA CHICAGO
2417 BOND ST
UNIVERSITY PARK IL 60484
(708) 534-5200
REF:
DEPT:
FedEx
Express
5 of 5
MPS# 3976 0995 4146
Mstr# 3976 0995 4102
THU - 08 OCT 10:30A
PRIORITY OVERNIGHT
XH JOTA
60484
IL-US ORD

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: Bortot, Veronica	Carrier Tracking No(s):	COC No: 500-140755.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Veronica.Bortot@Eurofinset.com	State of Origin: Wisconsin	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Wisconsin		Job #: 500-189014-1
Address: 10 Hazelwood Drive, ,	Due Date Requested: 10/26/2020			
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#:			

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)	8260C/5030C (MOD) Volatiles, project list	8270D_LL/3510C_LL (MOD) Pentachlorophenol	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SUPE-TB-01-100720 (500-189014-1)	10/7/20	Central		Water			X		2	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-28C-100720 (500-189014-2)	10/7/20	09:45 Central		Water			X	X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-EB-01-100720 (500-189014-3)	10/7/20	10:15 Central		Water			X	X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-18D-100720 (500-189014-4)	10/7/20	11:10 Central		Water				X	1	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-04AR2-100720 (500-189014-5)	10/7/20	12:35 Central		Water			X	X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-10AR2-100720 (500-189014-6)	10/7/20	14:25 Central		Water			X	X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-99-100720 (500-189014-7)	10/7/20	01:00 Central		Water			X	X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-30C-100720 (500-189014-8)	10/7/20	09:40 Central		Water			X	X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-06A-100720 (500-189014-9)	10/7/20	10:45 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	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	10/9/20 1700	TA	[signature]	10/10/20 1000	TA
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: 3.6 4.2 #1 ICE

Ver: 01/16/2019

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: Bortot, Veronica	Carrier Tracking No(s):	COC No: 500-140755.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Veronica.Bortot@Eurofinset.com	State of Origin: Wisconsin	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Wisconsin		Job #: 500-189014-1
Address: 10 Hazelwood Drive, ,	Due Date Requested: 10/26/2020			
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#:			

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)	8260C/5030C (MOD) Volatiles, project list	8270D_LL/3510C_LL (MOD) Pentachlorophenol	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X			X	
SUPE-W-06C-100720 (500-189014-10)	10/7/20	12:35 Central		Water			X	X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-06C-100720 (500-189014-10MS)	10/7/20	12:35 Central	MS	Water			X	X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-06C-100720 (500-189014-10MSD)	10/7/20	12:35 Central	MSD	Water			X	X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-12A-100720 (500-189014-11)	10/7/20	14:30 Central		Water			X	X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-W-12CR-100720 (500-189014-12)	10/7/20	16:05 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	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	10/9/20 1700	TA	[signature]	10/10/20 1000	TA
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: 01/16/2019

Login Sample Receipt Checklist

Client: Field & Technical Services LLC

Job Number: 500-189014-1

Login Number: 189014
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	-0.9,-0.3,0.8,0.6,0.4 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: 500-189014-1

Login Number: 189014
List Number: 2
Creator: Yeager, Brian A

List Source: Eurofins TestAmerica, Buffalo
List Creation: 10/12/20 01:47 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	3.6 4.2 ICE IR GUN #1
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	

FTS, LLC

DATE: November 6, 2020

FROM: Kendra Chintella

SUBJECT: Superior GW

SAMPLE DELIVERY GROUP (SDG): 500-189125-1

SAMPLES: SUPE-W-30A-100820, SUPE-EB-02-100820, SUPE-TB-02-100820

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

LABORATORY: Eurofins TestAmerica Laboratories, Buffalo, 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

□ Surrogate Recoveries
Noncompliance: None

□ Laboratory Control Sample
Noncompliance: None

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ANALYTICAL REPORT

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

Laboratory Job ID: 500-189125-1
Client Project/Site: Superior, WI Semiannual Groundwater
Revision: 1

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

Attn: Ms. Angie Gatchie

Veronica Bortot

Authorized for release by:
11/12/2020 9:12:41 AM

Veronica Bortot, Senior Project Manager
(412)963-2435
Veronica.Bortot@Eurofinset.com

Table of Contents

Case Narrative

Client: Field & Technical Services LLC
Job ID: 500-189125-1
Project/Site: Superior, WI Semiannual Groundwater

Job ID: 500-189125-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-189125-1

Revised: to remove PCP from full SVOC list

Comments
No additional comments.

Receipt
The samples were received on 10/9/2020 9:40 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.2º 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-100820. 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 sample was diluted due to the abundance of non-target analytes: SUPE-W-30A-100820. 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.

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: 500-189125-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-30A-100820 — Lab Sample ID: 500-189125-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	4.9		2.0	1.5	ug/L	2		8260C	Total/NA
Benzene	9.6		2.0	0.82	ug/L	2		8260C	Total/NA
Ethylbenzene	14		2.0	1.5	ug/L	2		8260C	Total/NA
m-Xylene & p-Xylene	3.6	J	4.0	1.3	ug/L	2		8260C	Total/NA
Naphthalene	43		2.0	0.86	ug/L	2		8260C	Total/NA
o-Xylene	5.4		2.0	1.5	ug/L	2		8260C	Total/NA
Toluene	1.6	J	2.0	1.0	ug/L	2		8260C	Total/NA
Xylenes, Total	9.0		4.0	1.3	ug/L	2		8260C	Total/NA
1-Methylnaphthalene	24		2.0	0.51	ug/L	1		8270D	Total/NA
2-Chloronaphthalene	1.6	J	2.0	0.35	ug/L	1		8270D	Total/NA
2-Methylnaphthalene	0.18	J	2.0	0.13	ug/L	1		8270D	Total/NA
Acenaphthene	58		1.0	0.37	ug/L	1		8270D	Total/NA
Acenaphthylene	0.57	J	1.0	0.33	ug/L	1		8270D	Total/NA
Anthracene	0.87	J	1.0	0.33	ug/L	1		8270D	Total/NA
Dibenzofuran	21		2.0	0.36	ug/L	1		8270D	Total/NA
Fluoranthene	1.1		1.0	0.33	ug/L	1		8270D	Total/NA
Fluorene	15		1.0	0.39	ug/L	1		8270D	Total/NA
Pyrene	0.68	J	1.0	0.49	ug/L	1		8270D	Total/NA
Phenanthrene	5.7		1.0	0.36	ug/L	1		8270D	Total/NA

Client Sample ID: SUPE-EB-02-100820 — Lab Sample ID: 500-189125-2

No Detections.

Client Sample ID: SUPE-TB-02-100820 — Lab Sample ID: 500-189125-3

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Field & Technical Services LLC
Job ID: 500-189125-1
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
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

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

Sample Summary

Client: Field & Technical Services LLC
Job ID: 500-189125-1
Project/Site: Superior, WI Semiannual Groundwater

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-189125-1	SUPE-W-30A-100820	Water	10/08/20 08:15	10/09/20 09:40	
500-189125-2	SUPE-EB-02-100820	Water	10/08/20 09:07	10/09/20 09:40	
500-189125-3	SUPE-TB-02-100820	Water	10/08/20 00:00	10/09/20 09:40	

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

Job ID: 500-189125-1

Client Sample ID: SUPE-W-30A-100820
Date Collected: 10/08/20 08:15
Date Received: 10/09/20 09:40

Lab Sample ID: 500-189125-1
Matrix: Water

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			10/14/20 17:27	2
1,2,4-Trimethylbenzene	**4.9**		2.0	1.5	ug/L			10/14/20 17:27	2
1,3,5-Trimethylbenzene	ND		2.0	1.5	ug/L			10/14/20 17:27	2
Benzene	**9.6**		2.0	0.82	ug/L			10/14/20 17:27	2
Chloromethane	ND		2.0	0.70	ug/L			10/14/20 17:27	2
Ethylbenzene	**14**		2.0	1.5	ug/L			10/14/20 17:27	2
Methyl tert-butyl ether	ND		2.0	0.32	ug/L			10/14/20 17:27	2
m-Xylene & p-Xylene	**3.6**	**J**	4.0	1.3	ug/L			10/14/20 17:27	2
Naphthalene	**43**		2.0	0.86	ug/L			10/14/20 17:27	2
n-Butylbenzene	ND		2.0	1.3	ug/L			10/14/20 17:27	2
N-Propylbenzene	ND		2.0	1.4	ug/L			10/14/20 17:27	2
o-Xylene	**5.4**		2.0	1.5	ug/L			10/14/20 17:27	2
Styrene	ND		2.0	1.5	ug/L			10/14/20 17:27	2
Toluene	**1.6**	**J**	2.0	1.0	ug/L			10/14/20 17:27	2
Xylenes, Total	**9.0**		4.0	1.3	ug/L			10/14/20 17:27	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*10/14/20 17:27*	*2*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*10/14/20 17:27*	*2*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*10/14/20 17:27*	*2*
Toluene-d8 (Surr)	*98*		*80 - 120*		*10/14/20 17:27*	*2*

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		10/13/20 14:32	10/14/20 22:43	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*133*		*24 - 146*	*10/13/20 14:32*	*10/14/20 22:43*	*10*
2-Fluorobiphenyl	*99*		*37 - 120*	*10/13/20 14:32*	*10/14/20 22:43*	*10*
2-Fluorophenol (Surr)	*54*		*10 - 120*	*10/13/20 14:32*	*10/14/20 22:43*	*10*
Nitrobenzene-d5 (Surr)	*86*		*26 - 120*	*10/13/20 14:32*	*10/14/20 22:43*	*10*
Phenol-d5 (Surr)	*35*		*11 - 120*	*10/13/20 14:32*	*10/14/20 22:43*	*10*
p-Terphenyl-d14	*90*		*64 - 127*	*10/13/20 14:32*	*10/14/20 22:43*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.0	0.31	ug/L		10/14/20 12:55	10/15/20 18:34	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		10/14/20 12:55	10/15/20 18:34	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		10/14/20 12:55	10/15/20 18:34	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		10/14/20 12:55	10/15/20 18:34	1
1-Methylnaphthalene	**24**		2.0	0.51	ug/L		10/14/20 12:55	10/15/20 18:34	1
bis(chloroisopropyl) ether	ND		2.0	0.31	ug/L		10/14/20 12:55	10/15/20 18:34	1
2,3,4,6-Tetrachlorophenol	ND		5.1	1.5	ug/L		10/14/20 12:55	10/15/20 18:34	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		10/14/20 12:55	10/15/20 18:34	1
2,4,6-Trichlorophenol	ND		5.1	1.1	ug/L		10/14/20 12:55	10/15/20 18:34	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		10/14/20 12:55	10/15/20 18:34	1
2,4-Dinitrophenol	ND		20	7.6	ug/L		10/14/20 12:55	10/15/20 18:34	1
2,4-Dinitrotoluene	ND		1.0	0.31	ug/L		10/14/20 12:55	10/15/20 18:34	1
2,6-Dinitrotoluene	ND		1.0	0.12	ug/L		10/14/20 12:55	10/15/20 18:34	1
3 & 4 Methylphenol	ND		2.0	0.45	ug/L		10/14/20 12:55	10/15/20 18:34	1

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

Job ID: 500-189125-1

Client Sample ID: SUPE-W-30A-100820
Date Collected: 10/08/20 08:15
Date Received: 10/09/20 09:40

Lab Sample ID: 500-189125-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	**1.6**	**J**	2.0	0.35	ug/L		10/14/20 12:55	10/15/20 18:34	1
2-Chlorophenol	ND		5.1	0.81	ug/L		10/14/20 12:55	10/15/20 18:34	1
2-Methylnaphthalene	**0.18**	**J**	2.0	0.13	ug/L		10/14/20 12:55	10/15/20 18:34	1
2-Methylphenol	ND		2.0	0.32	ug/L		10/14/20 12:55	10/15/20 18:34	1
2-Nitroaniline	ND		5.1	1.1	ug/L		10/14/20 12:55	10/15/20 18:34	1
2-Nitrophenol	ND		10	2.2	ug/L		10/14/20 12:55	10/15/20 18:34	1
3-Nitroaniline	ND		10	2.3	ug/L		10/14/20 12:55	10/15/20 18:34	1
4,6-Dinitro-2-methylphenol	ND		20	5.0	ug/L		10/14/20 12:55	10/15/20 18:34	1
4-Bromophenyl phenyl ether	ND		5.1	0.93	ug/L		10/14/20 12:55	10/15/20 18:34	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		10/14/20 12:55	10/15/20 18:34	1
4-Chloroaniline	ND		10	2.1	ug/L		10/14/20 12:55	10/15/20 18:34	1
4-Chlorophenyl phenyl ether	ND		5.1	0.82	ug/L		10/14/20 12:55	10/15/20 18:34	1
4-Nitroaniline	ND		10	4.0	ug/L		10/14/20 12:55	10/15/20 18:34	1
4-Nitrophenol	ND		20	2.4	ug/L		10/14/20 12:55	10/15/20 18:34	1
Acenaphthene	**58**		1.0	0.37	ug/L		10/14/20 12:55	10/15/20 18:34	1
Acenaphthylene	**0.57**	**J**	1.0	0.33	ug/L		10/14/20 12:55	10/15/20 18:34	1
Anthracene	**0.87**	**J**	1.0	0.33	ug/L		10/14/20 12:55	10/15/20 18:34	1
Benzo[a]pyrene	ND		0.20	0.057	ug/L		10/14/20 12:55	10/15/20 18:34	1
Benzo[b]fluoranthene	ND		0.20	0.059	ug/L		10/14/20 12:55	10/15/20 18:34	1
Benzo[g,h,i]perylene	ND		1.0	0.43	ug/L		10/14/20 12:55	10/15/20 18:34	1
Benzo[k]fluoranthene	ND		0.20	0.075	ug/L		10/14/20 12:55	10/15/20 18:34	1
Benzoic acid	ND		20	4.6	ug/L		10/14/20 12:55	10/15/20 18:34	1
Benzyl alcohol	ND		20	3.1	ug/L		10/14/20 12:55	10/15/20 18:34	1
Bis(2-chloroethoxy)methane	ND		2.0	0.31	ug/L		10/14/20 12:55	10/15/20 18:34	1
Bis(2-chloroethyl)ether	ND		2.0	0.36	ug/L		10/14/20 12:55	10/15/20 18:34	1
Bis(2-ethylhexyl) phthalate	ND		10	2.5	ug/L		10/14/20 12:55	10/15/20 18:34	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		10/14/20 12:55	10/15/20 18:34	1
Chrysene	ND		0.51	0.14	ug/L		10/14/20 12:55	10/15/20 18:34	1
Dibenz(a,h)anthracene	ND		0.31	0.065	ug/L		10/14/20 12:55	10/15/20 18:34	1
Dibenzofuran	**21**		2.0	0.36	ug/L		10/14/20 12:55	10/15/20 18:34	1
Diethyl phthalate	ND		2.0	0.45	ug/L		10/14/20 12:55	10/15/20 18:34	1
Dimethyl phthalate	ND		2.0	0.39	ug/L		10/14/20 12:55	10/15/20 18:34	1
Di-n-butyl phthalate	ND		5.1	0.81	ug/L		10/14/20 12:55	10/15/20 18:34	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		10/14/20 12:55	10/15/20 18:34	1
2,3,5,6-Tetrachlorophenol	ND		5.1	2.5	ug/L		10/14/20 12:55	10/15/20 18:34	1
Fluoranthene	**1.1**		1.0	0.33	ug/L		10/14/20 12:55	10/15/20 18:34	1
Fluorene	**15**		1.0	0.39	ug/L		10/14/20 12:55	10/15/20 18:34	1
Hexachlorobenzene	ND		0.51	0.14	ug/L		10/14/20 12:55	10/15/20 18:34	1
Hexachlorobutadiene	ND		5.1	1.1	ug/L		10/14/20 12:55	10/15/20 18:34	1
Hexachlorocyclopentadiene	ND		20	3.5	ug/L		10/14/20 12:55	10/15/20 18:34	1
Hexachloroethane	ND		5.1	0.99	ug/L		10/14/20 12:55	10/15/20 18:34	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.085	ug/L		10/14/20 12:55	10/15/20 18:34	1
Isophorone	ND		2.0	0.29	ug/L		10/14/20 12:55	10/15/20 18:34	1
Nitrobenzene	ND		1.0	0.46	ug/L		10/14/20 12:55	10/15/20 18:34	1
N-Nitrosodi-n-propylamine	ND		0.51	0.14	ug/L		10/14/20 12:55	10/15/20 18:34	1
N-Nitrosodiphenylamine	ND		2.0	0.35	ug/L		10/14/20 12:55	10/15/20 18:34	1
Phenol	ND		5.1	0.37	ug/L		10/14/20 12:55	10/15/20 18:34	1
Pyrene	**0.68**	**J**	1.0	0.49	ug/L		10/14/20 12:55	10/15/20 18:34	1
2,4-Dimethylphenol	ND		10	3.4	ug/L		10/14/20 12:55	10/15/20 18:34	1

Client: Field & Technical Services LLC
Job ID: 500-189125-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-30A-100820
Lab Sample ID: 500-189125-1
Date Collected: 10/08/20 08:15
Matrix: Water
Date Received: 10/09/20 09:40

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	0.045	ug/L		10/14/20 12:55	10/15/20 18:34	1
Phenanthrene	**5.7**		1.0	0.36	ug/L		10/14/20 12:55	10/15/20 18:34	1
3,3'-Dichlorobenzidine	ND		5.1	0.96	ug/L		10/14/20 12:55	10/15/20 18:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*104*		*40 - 145*	*10/14/20 12:55*	*10/15/20 18:34*	*1*
2-Fluorobiphenyl	*80*		*34 - 110*	*10/14/20 12:55*	*10/15/20 18:34*	*1*
2-Fluorophenol (Surr)	*52*		*27 - 110*	*10/14/20 12:55*	*10/15/20 18:34*	*1*
Nitrobenzene-d5 (Surr)	*93*		*36 - 120*	*10/14/20 12:55*	*10/15/20 18:34*	*1*
Phenol-d5 (Surr)	*32*		*20 - 100*	*10/14/20 12:55*	*10/15/20 18:34*	*1*
Terphenyl-d14 (Surr)	*74*		*40 - 145*	*10/14/20 12:55*	*10/15/20 18:34*	*1*

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

Job ID: 500-189125-1

Client Sample ID: SUPE-EB-02-100820

Date Collected: 10/08/20 09:07
Date Received: 10/09/20 09:40

Lab Sample ID: 500-189125-2

Matrix: Water

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			10/14/20 17:52	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/14/20 17:52	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/14/20 17:52	1
Benzene	ND		1.0	0.41	ug/L			10/14/20 17:52	1
Chloromethane	ND		1.0	0.35	ug/L			10/14/20 17:52	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/14/20 17:52	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/14/20 17:52	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/14/20 17:52	1
Naphthalene	ND		1.0	0.43	ug/L			10/14/20 17:52	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/14/20 17:52	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/14/20 17:52	1
o-Xylene	ND		1.0	0.76	ug/L			10/14/20 17:52	1
Styrene	ND		1.0	0.73	ug/L			10/14/20 17:52	1
Toluene	ND		1.0	0.51	ug/L			10/14/20 17:52	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/14/20 17:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*10/14/20 17:52*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*10/14/20 17:52*	*1*
Dibromofluoromethane (Surr)	*96*		*75 - 123*		*10/14/20 17:52*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*10/14/20 17:52*	*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		1.0	0.34	ug/L		10/13/20 14:32	10/14/20 23:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*93*		*24 - 146*	*10/13/20 14:32*	*10/14/20 23:11*	*1*
2-Fluorobiphenyl	*92*		*37 - 120*	*10/13/20 14:32*	*10/14/20 23:11*	*1*
2-Fluorophenol (Surr)	*51*		*10 - 120*	*10/13/20 14:32*	*10/14/20 23:11*	*1*
Nitrobenzene-d5 (Surr)	*87*		*26 - 120*	*10/13/20 14:32*	*10/14/20 23:11*	*1*
Phenol-d5 (Surr)	*34*		*11 - 120*	*10/13/20 14:32*	*10/14/20 23:11*	*1*
p-Terphenyl-d14	*106*		*64 - 127*	*10/13/20 14:32*	*10/14/20 23:11*	*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		10/14/20 12:55	10/15/20 18:59	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		10/14/20 12:55	10/15/20 18:59	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		10/14/20 12:55	10/15/20 18:59	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		10/14/20 12:55	10/15/20 18:59	1
1-Methylnaphthalene	ND		2.0	0.49	ug/L		10/14/20 12:55	10/15/20 18:59	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		10/14/20 12:55	10/15/20 18:59	1
2,3,4,6-Tetrachlorophenol	ND		4.9	1.5	ug/L		10/14/20 12:55	10/15/20 18:59	1
2,4,5-Trichlorophenol	ND		9.9	2.3	ug/L		10/14/20 12:55	10/15/20 18:59	1
2,4,6-Trichlorophenol	ND		4.9	1.1	ug/L		10/14/20 12:55	10/15/20 18:59	1
2,4-Dichlorophenol	ND		9.9	2.3	ug/L		10/14/20 12:55	10/15/20 18:59	1
2,4-Dinitrophenol	ND		20	7.3	ug/L		10/14/20 12:55	10/15/20 18:59	1
2,4-Dinitrotoluene	ND		0.99	0.30	ug/L		10/14/20 12:55	10/15/20 18:59	1
2,6-Dinitrotoluene	ND		0.99	0.12	ug/L		10/14/20 12:55	10/15/20 18:59	1
3 & 4 Methylphenol	ND		2.0	0.43	ug/L		10/14/20 12:55	10/15/20 18:59	1

Client: Field & Technical Services LLC
Job ID: 500-189125-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-EB-02-100820
Lab Sample ID: 500-189125-2
Date Collected: 10/08/20 09:07
Matrix: Water
Date Received: 10/09/20 09:40

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		10/14/20 12:55	10/15/20 18:59	1
2-Chlorophenol	ND		4.9	0.79	ug/L		10/14/20 12:55	10/15/20 18:59	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/14/20 12:55	10/15/20 18:59	1
2-Methylphenol	ND		2.0	0.31	ug/L		10/14/20 12:55	10/15/20 18:59	1
2-Nitroaniline	ND		4.9	1.1	ug/L		10/14/20 12:55	10/15/20 18:59	1
2-Nitrophenol	ND		9.9	2.1	ug/L		10/14/20 12:55	10/15/20 18:59	1
3-Nitroaniline	ND		9.9	2.3	ug/L		10/14/20 12:55	10/15/20 18:59	1
4,6-Dinitro-2-methylphenol	ND		20	4.9	ug/L		10/14/20 12:55	10/15/20 18:59	1
4-Bromophenyl phenyl ether	ND		4.9	0.90	ug/L		10/14/20 12:55	10/15/20 18:59	1
4-Chloro-3-methylphenol	ND		9.9	2.2	ug/L		10/14/20 12:55	10/15/20 18:59	1
4-Chloroaniline	ND		9.9	2.1	ug/L		10/14/20 12:55	10/15/20 18:59	1
4-Chlorophenyl phenyl ether	ND		4.9	0.80	ug/L		10/14/20 12:55	10/15/20 18:59	1
4-Nitroaniline	ND		9.9	3.9	ug/L		10/14/20 12:55	10/15/20 18:59	1
4-Nitrophenol	ND		20	2.3	ug/L		10/14/20 12:55	10/15/20 18:59	1
Acenaphthene	ND		0.99	0.36	ug/L		10/14/20 12:55	10/15/20 18:59	1
Acenaphthylene	ND		0.99	0.32	ug/L		10/14/20 12:55	10/15/20 18:59	1
Anthracene	ND		0.99	0.32	ug/L		10/14/20 12:55	10/15/20 18:59	1
Benzo[a]pyrene	ND		0.20	0.055	ug/L		10/14/20 12:55	10/15/20 18:59	1
Benzo[b]fluoranthene	ND		0.20	0.057	ug/L		10/14/20 12:55	10/15/20 18:59	1
Benzo[g,h,i]perylene	ND		0.99	0.41	ug/L		10/14/20 12:55	10/15/20 18:59	1
Benzo[k]fluoranthene	ND		0.20	0.073	ug/L		10/14/20 12:55	10/15/20 18:59	1
Benzoic acid	ND		20	4.5	ug/L		10/14/20 12:55	10/15/20 18:59	1
Benzyl alcohol	ND		20	3.0	ug/L		10/14/20 12:55	10/15/20 18:59	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		10/14/20 12:55	10/15/20 18:59	1
Bis(2-chloroethyl)ether	ND		2.0	0.35	ug/L		10/14/20 12:55	10/15/20 18:59	1
Bis(2-ethylhexyl) phthalate	ND		9.9	2.4	ug/L		10/14/20 12:55	10/15/20 18:59	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		10/14/20 12:55	10/15/20 18:59	1
Chrysene	ND		0.49	0.14	ug/L		10/14/20 12:55	10/15/20 18:59	1
Dibenz(a,h)anthracene	ND		0.30	0.063	ug/L		10/14/20 12:55	10/15/20 18:59	1
Dibenzofuran	ND		2.0	0.35	ug/L		10/14/20 12:55	10/15/20 18:59	1
Diethyl phthalate	ND		2.0	0.43	ug/L		10/14/20 12:55	10/15/20 18:59	1
Dimethyl phthalate	ND		2.0	0.38	ug/L		10/14/20 12:55	10/15/20 18:59	1
Di-n-butyl phthalate	ND		4.9	0.79	ug/L		10/14/20 12:55	10/15/20 18:59	1
Di-n-octyl phthalate	ND		9.9	2.4	ug/L		10/14/20 12:55	10/15/20 18:59	1
2,3,5,6-Tetrachlorophenol	ND		4.9	2.5	ug/L		10/14/20 12:55	10/15/20 18:59	1
Fluoranthene	ND		0.99	0.32	ug/L		10/14/20 12:55	10/15/20 18:59	1
Fluorene	ND		0.99	0.38	ug/L		10/14/20 12:55	10/15/20 18:59	1
Hexachlorobenzene	ND		0.49	0.14	ug/L		10/14/20 12:55	10/15/20 18:59	1
Hexachlorobutadiene	ND		4.9	1.1	ug/L		10/14/20 12:55	10/15/20 18:59	1
Hexachlorocyclopentadiene	ND		20	3.4	ug/L		10/14/20 12:55	10/15/20 18:59	1
Hexachloroethane	ND		4.9	0.96	ug/L		10/14/20 12:55	10/15/20 18:59	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.083	ug/L		10/14/20 12:55	10/15/20 18:59	1
Isophorone	ND		2.0	0.29	ug/L		10/14/20 12:55	10/15/20 18:59	1
Nitrobenzene	ND		0.99	0.44	ug/L		10/14/20 12:55	10/15/20 18:59	1
N-Nitrosodi-n-propylamine	ND		0.49	0.14	ug/L		10/14/20 12:55	10/15/20 18:59	1
N-Nitrosodiphenylamine	ND		2.0	0.34	ug/L		10/14/20 12:55	10/15/20 18:59	1
Phenol	ND		4.9	0.36	ug/L		10/14/20 12:55	10/15/20 18:59	1
Pyrene	ND		0.99	0.47	ug/L		10/14/20 12:55	10/15/20 18:59	1
2,4-Dimethylphenol	ND		9.9	3.3	ug/L		10/14/20 12:55	10/15/20 18:59	1

Client: Field & Technical Services LLC
Job ID: 500-189125-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-EB-02-100820
Lab Sample ID: 500-189125-2
Date Collected: 10/08/20 09:07
Matrix: Water
Date Received: 10/09/20 09:40

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	0.043	ug/L		10/14/20 12:55	10/15/20 18:59	1
Phenanthrene	ND		0.99	0.35	ug/L		10/14/20 12:55	10/15/20 18:59	1
3,3'-Dichlorobenzidine	ND		4.9	0.93	ug/L		10/14/20 12:55	10/15/20 18:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*85*		*40 - 145*	*10/14/20 12:55*	*10/15/20 18:59*	*1*
2-Fluorobiphenyl	*78*		*34 - 110*	*10/14/20 12:55*	*10/15/20 18:59*	*1*
2-Fluorophenol (Surr)	*50*		*27 - 110*	*10/14/20 12:55*	*10/15/20 18:59*	*1*
Nitrobenzene-d5 (Surr)	*85*		*36 - 120*	*10/14/20 12:55*	*10/15/20 18:59*	*1*
Phenol-d5 (Surr)	*27*		*20 - 100*	*10/14/20 12:55*	*10/15/20 18:59*	*1*
Terphenyl-d14 (Surr)	*80*		*40 - 145*	*10/14/20 12:55*	*10/15/20 18:59*	*1*

Client: Field & Technical Services LLC
Job ID: 500-189125-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-TB-02-100820
Lab Sample ID: 500-189125-3
Date Collected: 10/08/20 00:00
Matrix: Water
Date Received: 10/09/20 09:40

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			10/14/20 18:15	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/14/20 18:15	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/14/20 18:15	1
Benzene	ND		1.0	0.41	ug/L			10/14/20 18:15	1
Chloromethane	ND		1.0	0.35	ug/L			10/14/20 18:15	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/14/20 18:15	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/14/20 18:15	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/14/20 18:15	1
Naphthalene	ND		1.0	0.43	ug/L			10/14/20 18:15	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/14/20 18:15	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/14/20 18:15	1
o-Xylene	ND		1.0	0.76	ug/L			10/14/20 18:15	1
Styrene	ND		1.0	0.73	ug/L			10/14/20 18:15	1
Toluene	ND		1.0	0.51	ug/L			10/14/20 18:15	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/14/20 18:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*10/14/20 18:15*	*1*
4-Bromofluorobenzene (Surr)	*94*		*73 - 120*		*10/14/20 18:15*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*10/14/20 18:15*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*10/14/20 18:15*	*1*

Definitions/Glossary

Client: Field & Technical Services LLC
Job ID: 500-189125-1
Project/Site: Superior, WI Semiannual Groundwater

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

Qualifier	Qualifier Description
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

QC Association Summary

Client: Field & Technical Services LLC
Job ID: 500-189125-1
Project/Site: Superior, WI Semiannual Groundwater

GC/MS VOA

Analysis Batch: 553822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-189125-1	SUPE-W-30A-100820	Total/NA	Water	8260C	
500-189125-2	SUPE-EB-02-100820	Total/NA	Water	8260C	
500-189125-3	SUPE-TB-02-100820	Total/NA	Water	8260C	
MB 480-553822/8	Method Blank	Total/NA	Water	8260C	
LCS 480-553822/6	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 553716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-189125-1	SUPE-W-30A-100820	Total/NA	Water	3510C	
500-189125-2	SUPE-EB-02-100820	Total/NA	Water	3510C	
MB 480-553716/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-553716/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 553902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-189125-1	SUPE-W-30A-100820	Total/NA	Water	8270D LL	553716
500-189125-2	SUPE-EB-02-100820	Total/NA	Water	8270D LL	553716
MB 480-553716/1-A	Method Blank	Total/NA	Water	8270D LL	553716
LCS 480-553716/2-A	Lab Control Sample	Total/NA	Water	8270D LL	553716

Prep Batch: 566535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-189125-1	SUPE-W-30A-100820	Total/NA	Water	3510C	
500-189125-2	SUPE-EB-02-100820	Total/NA	Water	3510C	
MB 500-566535/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-566535/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 566736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-189125-1	SUPE-W-30A-100820	Total/NA	Water	8270D	566535
500-189125-2	SUPE-EB-02-100820	Total/NA	Water	8270D	566535
MB 500-566535/1-A	Method Blank	Total/NA	Water	8270D	566535
LCS 500-566535/2-A	Lab Control Sample	Total/NA	Water	8270D	566535

Surrogate Summary

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

Job ID: 500-189125-1

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)
500-189125-1	SUPE-W-30A-100820	102	97	100	98
500-189125-2	SUPE-EB-02-100820	100	97	96	99
500-189125-3	SUPE-TB-02-100820	104	94	103	96
LCS 480-553822/6	Lab Control Sample	98	98	100	101
MB 480-553822/8	Method Blank	102	99	101	102

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)
500-189125-1	SUPE-W-30A-100820	104	80	52	93	32	74
500-189125-2	SUPE-EB-02-100820	85	78	50	85	27	80
LCS 500-566535/2-A	Lab Control Sample	97	91	67	94	42	101
MB 500-566535/1-A	Method Blank	99	77	58	90	34	122

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)
500-189125-1	SUPE-W-30A-100820	133	99	54	86	35	90
500-189125-2	SUPE-EB-02-100820	93	92	51	87	34	106
LCS 480-553716/2-A	Lab Control Sample	129	102	60	104	42	114
MB 480-553716/1-A	Method Blank	112	103	62	96	41	120

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 480-553822/8
Matrix: Water
Analysis Batch: 553822

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			10/14/20 11:18	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/14/20 11:18	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/14/20 11:18	1
Benzene	ND		1.0	0.41	ug/L			10/14/20 11:18	1
Chloromethane	ND		1.0	0.35	ug/L			10/14/20 11:18	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/14/20 11:18	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/14/20 11:18	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/14/20 11:18	1
Naphthalene	ND		1.0	0.43	ug/L			10/14/20 11:18	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/14/20 11:18	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/14/20 11:18	1
o-Xylene	ND		1.0	0.76	ug/L			10/14/20 11:18	1
Styrene	ND		1.0	0.73	ug/L			10/14/20 11:18	1
Toluene	ND		1.0	0.51	ug/L			10/14/20 11:18	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/14/20 11:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*10/14/20 11:18*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*10/14/20 11:18*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*10/14/20 11:18*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*10/14/20 11:18*	*1*

Lab Sample ID: LCS 480-553822/6
Matrix: Water
Analysis Batch: 553822

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	22.6		ug/L		91	73 - 126
1,2,4-Trimethylbenzene	25.0	23.9		ug/L		96	76 - 121
1,3,5-Trimethylbenzene	25.0	24.1		ug/L		97	77 - 121
Benzene	25.0	22.8		ug/L		91	71 - 124
Chloromethane	25.0	21.6		ug/L		86	68 - 124
Ethylbenzene	25.0	23.3		ug/L		93	77 - 123
Methyl tert-butyl ether	25.0	23.0		ug/L		92	77 - 120
m-Xylene & p-Xylene	25.0	23.3		ug/L		93	76 - 122
Naphthalene	25.0	23.9		ug/L		96	66 - 125
n-Butylbenzene	25.0	24.0		ug/L		96	71 - 128
N-Propylbenzene	25.0	23.3		ug/L		93	75 - 127
o-Xylene	25.0	23.1		ug/L		92	76 - 122
Styrene	25.0	24.3		ug/L		97	80 - 120
Toluene	25.0	22.7		ug/L		91	80 - 122
Xylenes, Total	50.0	46.4		ug/L		93	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*
Dibromofluoromethane (Surr)	*100*		*75 - 123*
Toluene-d8 (Surr)	*101*		*80 - 120*

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

Lab Sample ID: MB 500-566535/1-A
Matrix: Water
Analysis Batch: 566736

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 566535

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.0	0.30	ug/L		10/14/20 12:55	10/15/20 14:32	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		10/14/20 12:55	10/15/20 14:32	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		10/14/20 12:55	10/15/20 14:32	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		10/14/20 12:55	10/15/20 14:32	1
1-Methylnaphthalene	ND		2.0	0.50	ug/L		10/14/20 12:55	10/15/20 14:32	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		10/14/20 12:55	10/15/20 14:32	1
2,3,4,6-Tetrachlorophenol	ND		5.0	1.5	ug/L		10/14/20 12:55	10/15/20 14:32	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		10/14/20 12:55	10/15/20 14:32	1
2,4,6-Trichlorophenol	ND		5.0	1.1	ug/L		10/14/20 12:55	10/15/20 14:32	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		10/14/20 12:55	10/15/20 14:32	1
2,4-Dinitrophenol	ND		20	7.4	ug/L		10/14/20 12:55	10/15/20 14:32	1
2,4-Dinitrotoluene	ND		1.0	0.30	ug/L		10/14/20 12:55	10/15/20 14:32	1
2,6-Dinitrotoluene	ND		1.0	0.12	ug/L		10/14/20 12:55	10/15/20 14:32	1
3 & 4 Methylphenol	ND		2.0	0.44	ug/L		10/14/20 12:55	10/15/20 14:32	1
2-Chloronaphthalene	ND		2.0	0.34	ug/L		10/14/20 12:55	10/15/20 14:32	1
2-Chlorophenol	ND		5.0	0.80	ug/L		10/14/20 12:55	10/15/20 14:32	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/14/20 12:55	10/15/20 14:32	1
2-Methylphenol	ND		2.0	0.31	ug/L		10/14/20 12:55	10/15/20 14:32	1
2-Nitroaniline	ND		5.0	1.1	ug/L		10/14/20 12:55	10/15/20 14:32	1
2-Nitrophenol	ND		10	2.1	ug/L		10/14/20 12:55	10/15/20 14:32	1
3-Nitroaniline	ND		10	2.3	ug/L		10/14/20 12:55	10/15/20 14:32	1
4,6-Dinitro-2-methylphenol	ND		20	4.9	ug/L		10/14/20 12:55	10/15/20 14:32	1
4-Bromophenyl phenyl ether	ND		5.0	0.91	ug/L		10/14/20 12:55	10/15/20 14:32	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		10/14/20 12:55	10/15/20 14:32	1
4-Chloroaniline	ND		10	2.1	ug/L		10/14/20 12:55	10/15/20 14:32	1
4-Chlorophenyl phenyl ether	ND		5.0	0.81	ug/L		10/14/20 12:55	10/15/20 14:32	1
4-Nitroaniline	ND		10	3.9	ug/L		10/14/20 12:55	10/15/20 14:32	1
4-Nitrophenol	ND		20	2.3	ug/L		10/14/20 12:55	10/15/20 14:32	1
Acenaphthene	ND		1.0	0.36	ug/L		10/14/20 12:55	10/15/20 14:32	1
Acenaphthylene	ND		1.0	0.32	ug/L		10/14/20 12:55	10/15/20 14:32	1
Anthracene	ND		1.0	0.32	ug/L		10/14/20 12:55	10/15/20 14:32	1
Benzo[a]pyrene	ND		0.20	0.056	ug/L		10/14/20 12:55	10/15/20 14:32	1
Benzo[b]fluoranthene	ND		0.20	0.058	ug/L		10/14/20 12:55	10/15/20 14:32	1
Benzo[g,h,i]perylene	ND		1.0	0.42	ug/L		10/14/20 12:55	10/15/20 14:32	1
Benzo[k]fluoranthene	ND		0.20	0.074	ug/L		10/14/20 12:55	10/15/20 14:32	1
Benzoic acid	ND		20	4.6	ug/L		10/14/20 12:55	10/15/20 14:32	1
Benzyl alcohol	ND		20	3.1	ug/L		10/14/20 12:55	10/15/20 14:32	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		10/14/20 12:55	10/15/20 14:32	1
Bis(2-chloroethyl)ether	ND		2.0	0.35	ug/L		10/14/20 12:55	10/15/20 14:32	1
Bis(2-ethylhexyl) phthalate	ND		10	2.4	ug/L		10/14/20 12:55	10/15/20 14:32	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		10/14/20 12:55	10/15/20 14:32	1
Chrysene	ND		0.50	0.14	ug/L		10/14/20 12:55	10/15/20 14:32	1
Dibenz(a,h)anthracene	ND		0.30	0.064	ug/L		10/14/20 12:55	10/15/20 14:32	1
Dibenzofuran	ND		2.0	0.35	ug/L		10/14/20 12:55	10/15/20 14:32	1
Diethyl phthalate	ND		2.0	0.44	ug/L		10/14/20 12:55	10/15/20 14:32	1
Dimethyl phthalate	ND		2.0	0.38	ug/L		10/14/20 12:55	10/15/20 14:32	1
Di-n-butyl phthalate	ND		5.0	0.80	ug/L		10/14/20 12:55	10/15/20 14:32	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		10/14/20 12:55	10/15/20 14:32	1

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

Lab Sample ID: MB 500-566535/1-A
Matrix: Water
Analysis Batch: 566736

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 566535

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		10/14/20 12:55	10/15/20 14:32	1
Fluoranthene	ND		1.0	0.32	ug/L		10/14/20 12:55	10/15/20 14:32	1
Fluorene	ND		1.0	0.38	ug/L		10/14/20 12:55	10/15/20 14:32	1
Hexachlorobenzene	ND		0.50	0.14	ug/L		10/14/20 12:55	10/15/20 14:32	1
Hexachlorobutadiene	ND		5.0	1.1	ug/L		10/14/20 12:55	10/15/20 14:32	1
Hexachlorocyclopentadiene	ND		20	3.4	ug/L		10/14/20 12:55	10/15/20 14:32	1
Hexachloroethane	ND		5.0	0.97	ug/L		10/14/20 12:55	10/15/20 14:32	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.084	ug/L		10/14/20 12:55	10/15/20 14:32	1
Isophorone	ND		2.0	0.29	ug/L		10/14/20 12:55	10/15/20 14:32	1
Nitrobenzene	ND		1.0	0.45	ug/L		10/14/20 12:55	10/15/20 14:32	1
N-Nitrosodi-n-propylamine	ND		0.50	0.14	ug/L		10/14/20 12:55	10/15/20 14:32	1
N-Nitrosodiphenylamine	ND		2.0	0.34	ug/L		10/14/20 12:55	10/15/20 14:32	1
Phenol	ND		5.0	0.36	ug/L		10/14/20 12:55	10/15/20 14:32	1
Pyrene	ND		1.0	0.48	ug/L		10/14/20 12:55	10/15/20 14:32	1
2,4-Dimethylphenol	ND		10	3.3	ug/L		10/14/20 12:55	10/15/20 14:32	1
Benzo[a]anthracene	ND		0.20	0.044	ug/L		10/14/20 12:55	10/15/20 14:32	1
Phenanthrene	ND		1.0	0.35	ug/L		10/14/20 12:55	10/15/20 14:32	1
3,3'-Dichlorobenzidine	ND		5.0	0.94	ug/L		10/14/20 12:55	10/15/20 14:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*99*		*40 - 145*	*10/14/20 12:55*	*10/15/20 14:32*	*1*
2-Fluorobiphenyl	*77*		*34 - 110*	*10/14/20 12:55*	*10/15/20 14:32*	*1*
2-Fluorophenol (Surr)	*58*		*27 - 110*	*10/14/20 12:55*	*10/15/20 14:32*	*1*
Nitrobenzene-d5 (Surr)	*90*		*36 - 120*	*10/14/20 12:55*	*10/15/20 14:32*	*1*
Phenol-d5 (Surr)	*34*		*20 - 100*	*10/14/20 12:55*	*10/15/20 14:32*	*1*
Terphenyl-d14 (Surr)	*122*		*40 - 145*	*10/14/20 12:55*	*10/15/20 14:32*	*1*

Lab Sample ID: LCS 500-566535/2-A
Matrix: Water
Analysis Batch: 566736

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 566535

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	40.0	27.2		ug/L		68	26 - 110
1,2-Dichlorobenzene	40.0	26.7		ug/L		67	26 - 110
1,3-Dichlorobenzene	40.0	25.7		ug/L		64	22 - 110
1,4-Dichlorobenzene	40.0	25.9		ug/L		65	23 - 110
1-Methylnaphthalene	40.0	31.2		ug/L		78	38 - 110
bis(chloroisopropyl) ether	40.0	29.7		ug/L		74	38 - 110
2,3,4,6-Tetrachlorophenol	40.0	36.2		ug/L		90	44 - 118
2,4,5-Trichlorophenol	40.0	38.3		ug/L		96	63 - 120
2,4,6-Trichlorophenol	40.0	37.0		ug/L		92	62 - 110
2,4-Dichlorophenol	40.0	35.1		ug/L		88	62 - 110
2,4-Dinitrophenol	80.0	75.0		ug/L		94	37 - 130
2,4-Dinitrotoluene	40.0	39.9		ug/L		100	63 - 122
2,6-Dinitrotoluene	40.0	38.8		ug/L		97	63 - 119
3 & 4 Methylphenol	40.0	23.7		ug/L		59	53 - 110
2-Chloronaphthalene	40.0	32.0		ug/L		80	39 - 110
2-Chlorophenol	40.0	33.9		ug/L		85	59 - 110

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

Lab Sample ID: LCS 500-566535/2-A
Matrix: Water
Analysis Batch: 566736

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 566535

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Methylnaphthalene	40.0	31.1		ug/L		78	34 - 110
2-Methylphenol	40.0	32.9		ug/L		82	53 - 110
2-Nitroaniline	40.0	37.9		ug/L		95	59 - 122
2-Nitrophenol	40.0	35.6		ug/L		89	58 - 110
3-Nitroaniline	40.0	30.5		ug/L		76	47 - 123
4,6-Dinitro-2-methylphenol	80.0	80.0		ug/L		100	50 - 117
4-Bromophenyl phenyl ether	40.0	38.0		ug/L		95	58 - 120
4-Chloro-3-methylphenol	40.0	35.9		ug/L		90	64 - 120
4-Chloroaniline	40.0	35.6		ug/L		89	35 - 128
4-Chlorophenyl phenyl ether	40.0	34.9		ug/L		87	47 - 112
4-Nitroaniline	40.0	27.2		ug/L		68	52 - 147
4-Nitrophenol	80.0	30.1		ug/L		38	20 - 110
Acenaphthene	40.0	34.6		ug/L		86	46 - 110
Acenaphthylene	40.0	34.8		ug/L		87	47 - 110
Anthracene	40.0	38.0		ug/L		95	67 - 110
Benzo[a]pyrene	40.0	40.6		ug/L		102	70 - 120
Benzo[b]fluoranthene	40.0	39.9		ug/L		100	69 - 123
Benzo[g,h,i]perylene	40.0	39.8		ug/L		99	70 - 120
Benzo[k]fluoranthene	40.0	41.7		ug/L		104	70 - 120
Benzoic acid	80.0	24.9		ug/L		31	10 - 100
Benzyl alcohol	40.0	25.3		ug/L		63	33 - 127
Bis(2-chloroethoxy)methane	40.0	37.3		ug/L		93	60 - 110
Bis(2-chloroethyl)ether	40.0	33.5		ug/L		84	49 - 110
Bis(2-ethylhexyl) phthalate	40.0	39.4		ug/L		99	69 - 120
Butyl benzyl phthalate	40.0	38.6		ug/L		97	68 - 120
Chrysene	40.0	39.4		ug/L		98	68 - 120
Dibenz(a,h)anthracene	40.0	41.2		ug/L		103	70 - 127
Dibenzofuran	40.0	35.2		ug/L		88	51 - 110
Diethyl phthalate	40.0	40.7		ug/L		102	62 - 120
Dimethyl phthalate	40.0	40.0		ug/L		100	63 - 120
Di-n-butyl phthalate	40.0	38.7		ug/L		97	70 - 120
Di-n-octyl phthalate	40.0	39.8		ug/L		100	70 - 122
Fluoranthene	40.0	40.6		ug/L		102	68 - 120
Fluorene	40.0	36.9		ug/L		92	53 - 120
Hexachlorobenzene	40.0	40.3		ug/L		101	61 - 120
Hexachlorobutadiene	40.0	26.3		ug/L		66	20 - 100
Hexachlorocyclopentadiene	40.0	21.7		ug/L		54	10 - 100
Hexachloroethane	40.0	21.8		ug/L		54	20 - 100
Indeno[1,2,3-cd]pyrene	40.0	41.4		ug/L		103	65 - 133
Isophorone	40.0	38.9		ug/L		97	57 - 110
Naphthalene	40.0	30.2		ug/L		76	36 - 110
Nitrobenzene	40.0	35.9		ug/L		90	53 - 110
N-Nitrosodi-n-propylamine	40.0	31.6		ug/L		79	58 - 110
N-Nitrosodiphenylamine	40.0	38.7		ug/L		97	66 - 110
Pentachlorophenol	80.0	63.7		ug/L		80	23 - 129
Phenol	40.0	17.8		ug/L		45	33 - 100
Pyrene	40.0	39.0		ug/L		98	70 - 110
2,4-Dimethylphenol	40.0	36.2		ug/L		91	51 - 110
Benzo[a]anthracene	40.0	39.6		ug/L		99	70 - 120

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

Lab Sample ID: LCS 500-566535/2-A
Matrix: Water
Analysis Batch: 566736

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 566535

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenanthrene	40.0	39.3		ug/L		98	65 - 120
3,3'-Dichlorobenzidine	40.0	33.8		ug/L		85	60 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*97*		*40 - 145*
2-Fluorobiphenyl	*91*		*34 - 110*
2-Fluorophenol (Surr)	*67*		*27 - 110*
Nitrobenzene-d5 (Surr)	*94*		*36 - 120*
Phenol-d5 (Surr)	*42*		*20 - 100*
Terphenyl-d14 (Surr)	*101*		*40 - 145*

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

Lab Sample ID: MB 480-553716/1-A
Matrix: Water
Analysis Batch: 553902

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 553716

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		1.0	0.34	ug/L		10/13/20 14:32	10/14/20 15:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*112*		*24 - 146*	*10/13/20 14:32*	*10/14/20 15:40*	*1*
2-Fluorobiphenyl	*103*		*37 - 120*	*10/13/20 14:32*	*10/14/20 15:40*	*1*
2-Fluorophenol (Surr)	*62*		*10 - 120*	*10/13/20 14:32*	*10/14/20 15:40*	*1*
Nitrobenzene-d5 (Surr)	*96*		*26 - 120*	*10/13/20 14:32*	*10/14/20 15:40*	*1*
Phenol-d5 (Surr)	*41*		*11 - 120*	*10/13/20 14:32*	*10/14/20 15:40*	*1*
p-Terphenyl-d14	*120*		*64 - 127*	*10/13/20 14:32*	*10/14/20 15:40*	*1*

Lab Sample ID: LCS 480-553716/2-A
Matrix: Water
Analysis Batch: 553902

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 553716

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Pentachlorophenol	16.0	16.9		ug/L		105	10 - 131

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*129*		*24 - 146*
2-Fluorobiphenyl	*102*		*37 - 120*
2-Fluorophenol (Surr)	*60*		*10 - 120*
Nitrobenzene-d5 (Surr)	*104*		*26 - 120*
Phenol-d5 (Surr)	*42*		*11 - 120*
p-Terphenyl-d14	*114*		*64 - 127*

Lab Chronicle

Client: Field & Technical Services LLC
Job ID: 500-189125-1
Project/Site: Superior, WI Semiannual Groundwater

Client Sample ID: SUPE-W-30A-100820
Lab Sample ID: 500-189125-1
Date Collected: 10/08/20 08:15
Matrix: Water
Date Received: 10/09/20 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	553822	10/14/20 17:27	RJF	TAL BUF
Total/NA	Prep	3510C			566535	10/14/20 12:55	BSO	TAL CHI
Total/NA	Analysis	8270D		1	566736	10/15/20 18:34	AJD	TAL CHI
Total/NA	Prep	3510C			553716	10/13/20 14:32	ATG	TAL BUF
Total/NA	Analysis	8270D LL		10	553902	10/14/20 22:43	PJQ	TAL BUF

Client Sample ID: SUPE-EB-02-100820
Lab Sample ID: 500-189125-2
Date Collected: 10/08/20 09:07
Matrix: Water
Date Received: 10/09/20 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	553822	10/14/20 17:52	RJF	TAL BUF
Total/NA	Prep	3510C			566535	10/14/20 12:55	BSO	TAL CHI
Total/NA	Analysis	8270D		1	566736	10/15/20 18:59	AJD	TAL CHI
Total/NA	Prep	3510C			553716	10/13/20 14:32	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	553902	10/14/20 23:11	PJQ	TAL BUF

Client Sample ID: SUPE-TB-02-100820
Lab Sample ID: 500-189125-3
Date Collected: 10/08/20 00:00
Matrix: Water
Date Received: 10/09/20 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	553822	10/14/20 18:15	RJF	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

Accreditation/Certification Summary

Client: Field & Technical Services LLC
Job ID: 500-189125-1
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

Eurofins TestAmerica, Chicago
2417 Bond Street

University Park, IL 60484-3101
phone 708.534.5200 fax 708.534.5211

Chain of Custody Record

eurofins Environment Testing America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	**Project Manager:** Andrew Clark			COC No:
Field & Technical Services	**Email:** ~~A.Ck aclark@~~ aclark.2006@fts	**Site Contact:**	**Date:** 10/8/20	1 of 1 COCs
200 3rd Ave	**Tel/Fax:**	**Lab Contact:** V. Bartot	**Carrier: FedEx**	TALS Project #:
Carnegie, PA 15106	**Analysis Turnaround Time**			Sampler:
(412) 429-2694 Phone	☐ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(xxx) xxx-xxxx FAX	TAT if different from Below ______			Walk-in Client:
Project Name: Superior 2020 2SA Samp	☐ 2 weeks			Lab Sampling:
Site: Superior, WI	☐ 1 week			
P O # OM055620-091	☐ 2 days			Job / SDG No.: 500-189125
500-189125 COC	☐ 1 day			

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	8260B_VOA+naphtha	8270C_SVOC (less naphtha)	8270C_SVOC+naphtha	Sample Specific Notes:
1	SUPE-W-30A-100820	10/8/20	0815	G	GW	6	N	N	3	3	0	
2	SUPE-EB-02-100820	10/8/20	0907	G	GW	6	N	N	3	3	0	
3	SUPE-TB-02-100820	10/8/20	0000	G	GW	2	N	N	2	0	0	

amm 10/8/20

amm 10/8/20

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ______

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

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 & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: 0.2 Corr'd: ______		Therm ID No.: ______
Relinquished by: [signature]	Company: FTS	Date/Time: 10/8/20 1000	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: TA CHI	Date/Time: 10/9/20 0940

Form No. CA-C-WI-002, Rev. 4.34, dated 8/3/2020


FROM:
(330)
ORIGIN ID:DLHA (814) 244-3654
KATIE MCMULLEN
SEE CHEERS 5 BEFORE BILL
301 ALPHA DR
PITTSBURGH, PA 15238
UNITED STATES US
SHIP DATE: 08OCT20
ACTWGT: 61.00 LB
CAD: 6994000/SSFE2121
DIMS: 24x13x13 IN
BILL THIRD PARTY
TO TEST AMERICA
TEST AMERICA
2417 BOND ST
201
UNIVERSITY PARK IL 60484
(708) 534-6200
REF:
DEPT:
500-189125 Wayb
FedEx
Express
TRK# 0201 3976 3867 970
XH JOT
09 OCT 10:30A
ORD

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: Bortot, Veronica	Carrier Tracking No(s):	COC No: 500-140759.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Veronica.Bortot@Eurofinset.com	State of Origin: Wisconsin	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Wisconsin		Job #: 500-189125-1
Address: 10 Hazelwood Drive, ,	Due Date Requested: 10/27/2020			
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#:			

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)	8260C/5030C (MOD) Volatiles, project list	8270D_LL/3510C_LL (MOD) Pentachlorophenol	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SUPE-W-30A-100820 (500-189125-1)	10/8/20	08:15 Central		Water			X	X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-EB-02-100820 (500-189125-2)	10/8/20	09:07 Central		Water			X	X	4	Refer to PT-PM-WI-006 for Wisconsin Protocol
SUPE-TB-02-100820 (500-189125-3)	10/8/20	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
[signature]	10/9/20 1700	TA	[signature]	10/10/20 0800	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.4 # ICE

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Field & Technical Services LLC

Job Number: 500-189125-1

Login Number: 189125
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	0.2
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: 500-189125-1

Login Number: 189125
List Number: 2
Creator: Yeager, Brian A

List Source: Eurofins TestAmerica, Buffalo
List Creation: 10/12/20 01:25 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	3.4 ICE IR GUN #1
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	

APPENDIX D

Data Summary Tables

First Semi-Annual Event

Table D1
Summary of Detected Constituents
First Semi-Annual 2020 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	48	NA	NA	NA
W-30A	1-Methylnaphthalene	8.7	NA	NA	NA
W-12CR	2,3,4,6-Tetrachlorophenol	1.6 J	NA	NA	NA
W-12CR	2,4,6-Trichlorophenol	2 J	NA	NA	NA
W-30A	2-Methylnaphthalene	0.22 J	NA	NA	NA
W-04AR2	Acenaphthene	0.38 J	NA	NA	NA
W-10AR2	Acenaphthene	120	NA	NA	NA
W-30A	Acenaphthene	23	NA	NA	NA
W-30A	Acenaphthylene	0.56 J	NA	NA	NA
W-04AR2	Anthracene	3.5	600	3000	NA
W-10AR2	Anthracene	1.1	600	3000	NA
W-30A	Anthracene	0.97 J	600	3000	NA
W-04AR2	Benzo(a)anthracene	0.85	NA	NA	NA
W-10AR2	Benzo(a)anthracene	0.22	NA	NA	NA
W-28C	Benzo(a)anthracene	0.12 J	NA	NA	NA
W-30A	Benzo(a)anthracene	0.19 J	NA	NA	NA
W-04AR2	Benzo(a)pyrene	0.67	0.02	0.2	0.2
W-10AR2	Benzo(a)pyrene	0.3	0.02	0.2	0.2
W-04AR2	Benzo(b)fluoranthene	1.3	0.02	0.2	NA
W-10AR2	Benzo(b)fluoranthene	0.22	0.02	0.2	NA
W-30A	Benzo(b)fluoranthene	0.26	0.02	0.2	NA
W-04AR2	Benzo(k)fluoranthene	0.49	NA	NA	NA
W-10AR2	Benzo(k)fluoranthene	0.27	NA	NA	NA
W-30A	Benzo(k)fluoranthene	0.26	NA	NA	NA
W-06A	Bis(2-ethylhexyl)phthalate	0.24 J	0.6	6	6
W-04AR2	Chrysene	1.6	0.02	0.2	NA
W-10AR2	Chrysene	0.3 J	0.02	0.2	NA
W-30A	Chrysene	0.23 J	0.02	0.2	NA
W-04AR2	Dibenzofuran	0.44 J	NA	NA	NA
W-10AR2	Dibenzofuran	34	NA	NA	NA
W-30A	Dibenzofuran	7.5	NA	NA	NA
W-04AR2	Fluoranthene	4.4	80	400	NA
W-10AR2	Fluoranthene	3	80	400	NA
W-30A	Fluoranthene	1.4	80	400	NA
W-04AR2	Fluorene	0.76 J	80	400	NA
W-10AR2	Fluorene	28	80	400	NA
W-30A	Fluorene	6	80	400	NA
W-04AR2	Indeno(1,2,3-cd)pyrene	0.37	NA	NA	NA
W-10AR2	Indeno(1,2,3-cd)pyrene	0.13 J	NA	NA	NA
W-12CR	Pentachlorophenol	0.41 J	0.1	1	1
W-18D	Pentachlorophenol	0.43 J	0.1	1	1
W-04AR2	Phenanthrene	2.3	NA	NA	NA
W-10AR2	Phenanthrene	11	NA	NA	NA
W-30A	Phenanthrene	1.5	NA	NA	NA
W-04AR2	Pyrene	2.6	50	250	NA
W-10AR2	Pyrene	1.7	50	250	NA
W-30A	Pyrene	0.95 J	50	250	NA

Table D1
Summary of Detected Constituents
First Semi-Annual 2020 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	9.8	96*	480*	NA
W-30A	1,2,4-Trimethylbenzene	6.5	96*	480*	NA
W-10AR2	Benzene	18	0.5	5	5
W-30A	Benzene	5.6	0.5	5	5
W-10AR2	Ethylbenzene	44	140	700	700
W-30A	Ethylbenzene	17	140	700	700
W-06A	Naphthalene	2.1	10	100	NA
W-10AR2	Naphthalene	1.9	10	100	NA
W-30A	Naphthalene	150	10	100	NA
W-10AR2	Toluene	2.4	160	800	1000
W-30A	Toluene	1.5 J	160	800	1000
W-10AR2	Xylene, Meta & Para	3.6	400**	2000**	10000**
W-30A	Xylene, Meta & Para	6.4	400**	2000**	10000**
W-10AR2	Xylene, Ortho	18	400**	2000**	10000**
W-30A	Xylene, Ortho	5.5	400**	2000**	10000**
8290A					
W-04AR2	1,2,3,4,6,7,8-HPCDD	0.00006	NA	NA	NA
W-10AR2	1,2,3,4,6,7,8-HPCDD	0.000018 J	NA	NA	NA
W-28C	1,2,3,4,6,7,8-HPCDD	0.0000095 J	NA	NA	NA
W-30A	1,2,3,4,6,7,8-HPCDD	0.00021	NA	NA	NA
W-04AR2	1,2,3,4,6,7,8-HPCDF	0.0000092 J	NA	NA	NA
W-30A	1,2,3,4,6,7,8-HPCDF	0.00007	NA	NA	NA
W-30A	1,2,3,4,7,8,9-HPCDF	0.0000068 J	NA	NA	NA
W-04AR2	1,2,3,4,7,8-HXCDD	0.00000062 JI	NA	NA	NA
W-28C	1,2,3,4,7,8-HXCDD	0.00000027 JI	NA	NA	NA
W-30A	1,2,3,4,7,8-HXCDD	0.000001 J	NA	NA	NA
W-30A	1,2,3,4,7,8-HXCDF	0.0000088 J	NA	NA	NA
W-30A	1,2,3,6,7,8-HXCDD	0.0000085 J	NA	NA	NA
W-10AR2	2,3,4,7,8-PECDF	0.00000037 JI	NA	NA	NA
W-30A	2,3,4,7,8-PECDF	0.0000011 JI	NA	NA	NA
W-04AR2	OCDD	0.00067	NA	NA	NA
W-06A	OCDD	0.00072 J	NA	NA	NA
W-10AR2	OCDD	0.0002	NA	NA	NA
W-28C	OCDD	0.00015	NA	NA	NA
W-30A	OCDD	0.0028	NA	NA	NA
W-04AR2	OCDF	0.000029 J	NA	NA	NA
W-30A	OCDF	0.0002	NA	NA	NA
W-04AR2	Total HPCDD	0.00028	NA	NA	NA
W-10AR2	Total HPCDD	0.000069	NA	NA	NA
W-28C	Total HPCDD	0.000038 J	NA	NA	NA
W-30A	Total HPCDD	0.00046	NA	NA	NA
W-04AR2	Total HPCDF	0.000034 J	NA	NA	NA
W-30A	Total HPCDF	0.00027	NA	NA	NA
W-04AR2	Total HXCDD	0.000026 JI	NA	NA	NA
W-30A	Total HXCDD	0.000035 JI	NA	NA	NA
W-04AR2	Total HXCDF	0.00003 JI	NA	NA	NA
W-30A	Total HXCDF	0.00022 I	NA	NA	NA
W-12CR	Total PECDD	0.00000052 JI	NA	NA	NA
W-04AR2	Total PECDF	0.0000062 JI	NA	NA	NA
W-10AR2	Total PECDF	0.0000048 JI	NA	NA	NA
W-30A	Total PECDF	0.000078 I	NA	NA	NA
W-04AR2	Total TCDD	0.0000006 JI	NA	NA	NA

Table D1
Summary of Detected Constituents
First Semi-Annual 2020 Sampling Event
Superior Facility
Superior, Wisconsin

Location	Parameter	Results ug/L	PAL ug/L	ES ug/L	MCL ug/L
W-06A	Total TCDD	0.0000008 JI	NA	NA	NA
W-06C	Total TCDD	0.00000062 JI	NA	NA	NA
W-10AR2	Total TCDD	0.0000007 JI	NA	NA	NA
W-12CR	Total TCDD	0.00000059 JI	NA	NA	NA
W-30C	Total TCDD	0.00000058 JI	NA	NA	NA
W-04AR2	Total TCDF	0.0000027 JI	NA	NA	NA
W-10AR2	Total TCDF	0.0000024 JI	NA	NA	NA
W-30A	Total TCDF	0.000017 I	NA	NA	NA
W-30C	Total TCDF	0.0000024 JI	NA	NA	NA
W-04AR2	2,3,7,8-TCDD TEQ	9.64E-07	0.000003	0.00003	0.00003
W-06A	2,3,7,8-TCDD TEQ	2.16E-08	0.000003	0.00003	0.00003
W-10AR2	2,3,7,8-TCDD TEQ	3.51E-07	0.000003	0.00003	0.00003
W-28C	2,3,7,8-TCDD TEQ	1.67E-07	0.000003	0.00003	0.00003
W-30A	2,3,7,8-TCDD TEQ	5.93E-06	0.000003	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

* - 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 2020 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	19	NA	NA	NA
W-30A	1-Methylnaphthalene	24	NA	NA	NA
W-30A	2-Chloronaphthalene	1.6 J	NA	NA	NA
W-30A	2-Methylnaphthalene	0.18 J	NA	NA	NA
W-10AR2	Acenaphthene	87	NA	NA	NA
W-30A	Acenaphthene	58	NA	NA	NA
W-10AR2	Acenaphthylene	1.9	NA	NA	NA
W-30A	Acenaphthylene	0.57 J	NA	NA	NA
W-04AR2	Anthracene	2.1	600	3000	NA
W-30A	Anthracene	0.87 J	600	3000	NA
W-04AR2	Benzo(a)anthracene	0.76	NA	NA	NA
W-10AR2	Benzo(a)anthracene	0.13 J	NA	NA	NA
W-28C	Benzo(a)anthracene	0.056 J	NA	NA	NA
W-30C	Benzo(a)anthracene	0.05 J	NA	NA	NA
W-04AR2	Benzo(a)pyrene	0.43	0.02	0.2	0.2
W-04AR2	Benzo(b)fluoranthene	0.94	0.02	0.2	NA
W-30C	Benzo(b)fluoranthene	0.11 J	0.02	0.2	NA
W-04AR2	Benzo(k)fluoranthene	0.37	NA	NA	NA
W-04AR2	Chrysene	1.4	0.02	0.2	NA
W-30C	Chrysene	0.14 J	0.02	0.2	NA
W-04AR2	Dibenzo(a,h)anthracene	0.088 J	NA	NA	NA
W-10AR2	Dibenzofuran	12	NA	NA	NA
W-30A	Dibenzofuran	21	NA	NA	NA
W-04AR2	Fluoranthene	3	80	400	NA
W-10AR2	Fluoranthene	2.8	80	400	NA
W-30A	Fluoranthene	1.1	80	400	NA
W-10AR2	Fluorene	15	80	400	NA
W-30A	Fluorene	15	80	400	NA
W-04AR2	Indeno(1,2,3-cd)pyrene	0.26	NA	NA	NA
W-12A	Pentachlorophenol	0.87 J	0.1	1	1
W-18D	Pentachlorophenol	0.88 J	0.1	1	1
W-04AR2	Phenanthrene	0.73 J	NA	NA	NA
W-10AR2	Phenanthrene	0.65 J	NA	NA	NA
W-30A	Phenanthrene	5.7	NA	NA	NA
W-04AR2	Pyrene	2.3	50	250	NA
W-10AR2	Pyrene	1.9	50	250	NA
W-30A	Pyrene	0.68 J	50	250	NA

Table D2
Summary of Detected Constituents
Second Semi-Annual 2020 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	4.9	96*	480*	NA
W-10AR2	Benzene	18	0.5	5	5
W-30A	Benzene	9.6	0.5	5	5
W-10AR2	Ethylbenzene	42	140	700	700
W-30A	Ethylbenzene	14	140	700	700
W-10AR2	Naphthalene	2.3	10	100	NA
W-30A	Naphthalene	43	10	100	NA
W-10AR2	Toluene	2.3	160	800	1000
W-30A	Toluene	1.6 J	160	800	1000
W-10AR2	Xylene, Meta & Para	3.8	400**	2000**	10000**
W-30A	Xylene, Meta & Para	3.6 J	400**	2000**	10000**
W-10AR2	Xylene, Ortho	19	400**	2000**	10000**
W-30A	Xylene, Ortho	5.4	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

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 2020)

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.638279694
R Square	0.407400967
Adjusted R Square	0.394518379
Standard Error	31.53256341
Observations	48

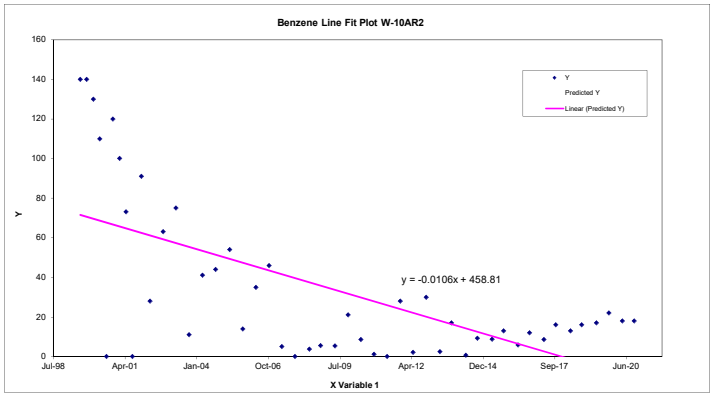
ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	31443.97951	31443.97951	31.62415639	1.05772E-06
Residual	46	45737.91755	994.3025555		
Total	47	77181.89707			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	458.8073201	75.71108125	6.059975799	2.35414E-07	306.4088179	611.2058223	306.4088179	611.2058223
X Variable 1	-0.010646548	0.001893212	-5.623535933	1.05772E-06	-0.014457386	-0.006835709	-0.014457386	-0.006835709

RESIDUAL OUTPUT

Observation	*Predicted Y*	*Residuals*
1	71.56044589	68.43955411
2	70.58096351	69.41903649
3	69.60148114	60.39851886
4	68.64329186	41.35670814
5	67.66380948	-67.66380948
6	66.68432711	53.31567289
7	65.70484473	34.29515527
8	64.757302	8.242698001
9	63.77781962	-63.77781962
10	62.47894082	28.52105918
11	61.19070857	-33.19070857
12	59.24239037	3.757609635
13	57.30471871	17.69528129
14	55.35640051	-44.35640051
15	53.37614266	-12.37614266
16	51.42782446	-7.42782446
17	49.33045459	4.669545408
18	47.38213639	-33.38213639
19	45.44446473	-10.44446473
20	43.49614653	2.503853468
21	41.57976797	-36.57976797
22	39.64209632	-39.64209632
23	37.48084716	-33.78084716
24	35.83063229	-30.33063229
25	33.68002969	-28.28002969
26	31.73171148	-10.73171148
27	29.81533292	-21.21533292
28	27.85636817	-26.65636817
29	25.92934307	-25.92934307
30	23.98102486	4.018975137
31	22.0646463	-19.8646463
32	20.10568155	9.894318447
33	18.09348407	-15.69348407
34	16.36874336	0.631256639
35	14.21814076	-13.57814076
36	12.5040466	-3.204046599
37	10.3321509	-1.632150898
38	8.618056741	4.381943259
39	6.478100683	-0.678100683
40	4.753359979	7.246640021
41	2.581464278	6.018535722
42	0.867370121	15.13262988
43	-1.368404865	14.36840487
44	-2.997326641	18.99732664
45	-5.22245508	22.22245508
46	-7.032368164	29.03236816
47	-9.033919105	27.0339191
48	-10.82253909	28.82253909



BENZENE STATISTICAL ANALYSIS

SUMMARY OUTPUT FOR W-30A (February 1999 - October 2020)

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.079345624
R Square	0.006295728
Adjusted R Square	-0.014406444
Standard Error	15.28236921
Observations	50

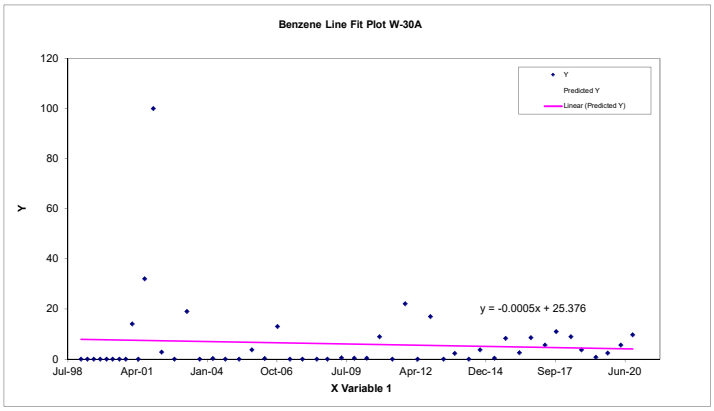
ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	71.0250289	71.0250289	0.304109539	0.583875718
Residual	48	11210.43882	233.5508088		
Total	49	11281.46385			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	25.37639717	34.95852796	0.72590005	0.471424807	-44.91243421	95.66522856	-44.91243421	95.66522856
X Variable 1	-0.000483802	0.00087731	-0.551461277	0.583875718	-0.002247751	0.001280147	-0.002247751	0.001280147

RESIDUAL OUTPUT

Observation	*Predicted Y*	*Residuals*
1	7.866625115	-7.866625115
2	7.823566712	-7.823566712
3	7.779056902	-7.779056902
4	7.734547093	-7.734547093
5	7.690037283	-7.690037283
6	7.646495078	-7.646495078
7	7.601985269	-7.601985269
8	7.557475459	-7.557475459
9	7.512965649	6.487034351
10	7.469907247	-7.469907247
11	7.425397437	24.57460256
12	7.366373559	92.63362644
13	7.307833483	-4.507833483
14	7.219297666	-7.219297666
15	7.131245652	11.86875435
16	7.042709835	-7.042709835
17	6.952722611	-6.772722611
18	6.864186794	-6.864186794
19	6.768877745	-6.768877745
20	6.680341928	-2.980341928
21	6.592289914	-6.452289914
22	6.503754097	6.496245903
23	6.416669686	-6.416669686
24	6.328617672	-6.328617672
25	6.230405809	-6.230405809
26	6.155416456	-6.155416456
27	6.057688396	-5.657688396
28	5.969152579	-5.679152579
29	5.882068169	-5.532068169
30	5.79304855	3.10695145
31	5.705480337	-5.705480337
32	5.61694452	16.38305548
33	5.52986011	-5.52986011
34	5.440840491	11.55915951
35	5.34940186	-5.34940186
36	5.271025891	-2.971025891
37	5.173297831	-5.173297831
38	5.095405664	-1.395405664
39	4.996709999	-4.666709999
40	4.918817833	3.281182167
41	4.821573575	-2.321573575
42	4.743197605	3.756802395
43	4.644501941	0.955498059
44	4.566609774	6.433390226
45	4.465011295	4.434988705
46	4.390989547	-0.790989547
47	4.289874871	-3.529874871
48	4.207628483	-1.807628483
49	4.116673655	1.483326345
50	4.035394872	5.564605128



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

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 2020)

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.163636356
R Square	0.026776857
Adjusted R Square	0.005619832
Standard Error	0.699711677
Observations	48

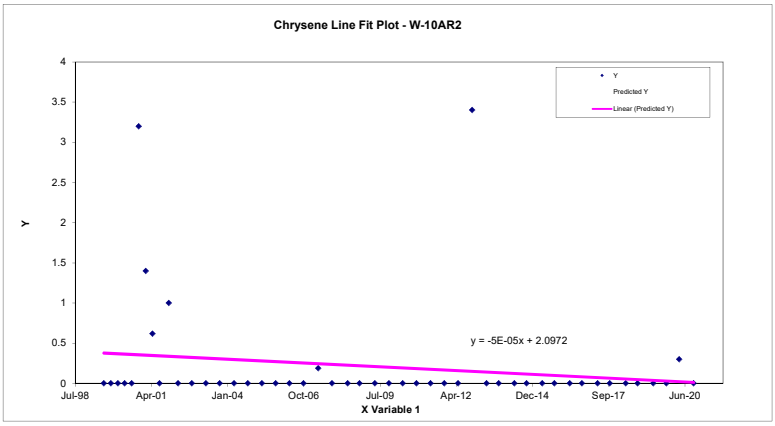
ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.619645424	0.619645424	1.265624879	0.26642502
Residual	46	22.52143583	0.489596431		
Total	47	23.14108125			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	2.09722265	1.680014183	1.248336277	0.218224504	-1.284470505	5.478915804	-1.284470505	5.478915804
X Variable 1	-4.72633E-05	4.20118E-05	-1.124999946	0.26642502	-0.000131829	3.73021E-05	-0.000131829	3.73021E-05

RESIDUAL OUTPUT

Observation	*Predicted Y*	*Residuals*
1	0.378115245	-0.378115245
2	0.373767023	-0.373767023
3	0.369418801	-0.369418801
4	0.365165105	-0.365165105
5	0.360816883	-0.360816883
6	0.356468661	2.843531339
7	0.352120439	1.047879561
8	0.347914007	0.272085993
9	0.343565785	-0.343565785
10	0.337799664	0.662200336
11	0.332080807	-0.332080807
12	0.323431626	-0.323431626
13	0.314829709	-0.314829709
14	0.306180528	-0.306180528
15	0.297389557	-0.297389557
16	0.288740376	-0.288740376
17	0.280138459	-0.280138459
18	0.271489278	-0.271489278
19	0.26288736	-0.26288736
20	0.254238179	-0.254238179
21	0.245021839	-0.055021839
22	0.236514448	-0.236514448
23	0.226825475	-0.226825475
24	0.219499666	-0.219499666
25	0.209952483	-0.209952483
26	0.201303302	-0.201303302
27	0.192795911	-0.192795911
28	0.184099467	-0.184099467
29	0.175544813	-0.175544813
30	0.166895632	-0.166895632
31	0.158388241	-0.158388241
32	0.149691797	3.250308203
33	0.140759036	-0.140759036
34	0.133102384	-0.133102384
35	0.123555201	-0.123555201
36	0.115945812	-0.115945812
37	0.106304103	-0.106304103
38	0.098694714	-0.098694714
39	0.089194794	-0.089194794
40	0.081538142	-0.081538142
41	0.071896432	-0.071896432
42	0.064287044	-0.064287044
43	0.054361754	-0.054361754
44	0.047130472	-0.047130472
45	0.037252446	-0.037252446
46	0.029217687	-0.029217687
47	0.021277456	0.278722544
48	0.012391959	-0.012391959



CHRYSENE STATISTICAL ANALYSIS

SUMMARY OUTPUT FOR W-30A (February 1999 - October 2020)

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.410880545
R Square	0.168822822
Adjusted R Square	0.151506631
Standard Error	5.984452914
Observations	50

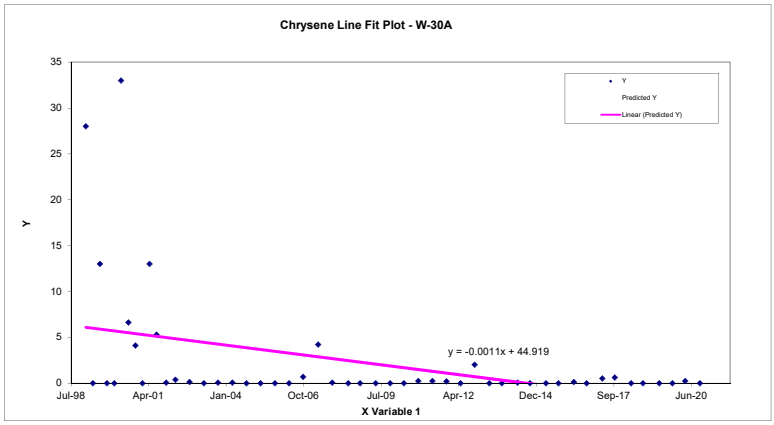
ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	349.1625778	349.1625778	9.74942006	0.003036769
Residual	48	1719.05648	35.81367667		
Total	49	2068.219058			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	44.91880246	13.68980958	3.281185337	0.001930368	17.39359549	72.44400942	17.39359549	72.44400942
X Variable 1	-0.001072765	0.00034357	-3.122406133	0.003036769	-0.001763558	-0.000381971	-0.001763558	-0.000381971

RESIDUAL OUTPUT

Observation	*Predicted Y*	*Residuals*
1	6.093300292	21.90669971
2	5.997824228	-5.997824228
3	5.89912987	7.10087013
4	5.800435513	-5.800435513
5	5.701741155	-5.701741155
6	5.605192326	27.39480767
7	5.506497969	1.093502031
8	5.407803611	-1.307803611
9	5.309109253	-5.309109253
10	5.213633189	7.786366811
11	5.114938831	0.185061169
12	4.984061531	-4.925061531
13	4.854256995	-4.494256995
14	4.657941044	-4.537941044
15	4.462697858	-4.462697858
16	4.266381907	-4.199381907
17	4.066847662	-4.025847662
18	3.870531711	-3.870531711
19	3.675288525	-3.675288525
20	3.478972574	-3.478972574
21	3.283729388	-3.283729388
22	3.087413437	-2.407413437
23	2.878224309	1.321775691
24	2.685126652	-2.611126652
25	2.465209876	-2.465209876
26	2.298931339	-2.298931339
27	2.082232857	-2.082232857
28	1.885916906	-1.885916906
29	1.69281925	-1.69281925
30	1.495430534	-1.275430534
31	1.301260113	-1.081260113
32	1.104944162	-0.904944162
33	0.911846505	-0.911846505
34	0.714457789	1.285542211
35	0.51170525	-0.51170525
36	0.337917359	-0.337917359
37	0.121218877	-0.071218877
38	-0.051496249	0.051496249
39	-0.27034026	0.27034026
40	-0.443055386	0.443055386
41	-0.658681102	0.788681102
42	-0.832468993	0.832468993
43	-1.051313004	1.551313004
44	-1.224028131	1.844028131
45	-1.44930873	1.44930873
46	-1.613441738	1.613441738
47	-1.837649573	1.837649573
48	-2.020019582	2.020019582
49	-2.200244061	2.430244061
50	-2.401923836	2.401923836



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

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 2020)

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.758318807
R Square	0.575047413
Adjusted R Square	0.565809313
Standard Error	951.2168171
Observations	48

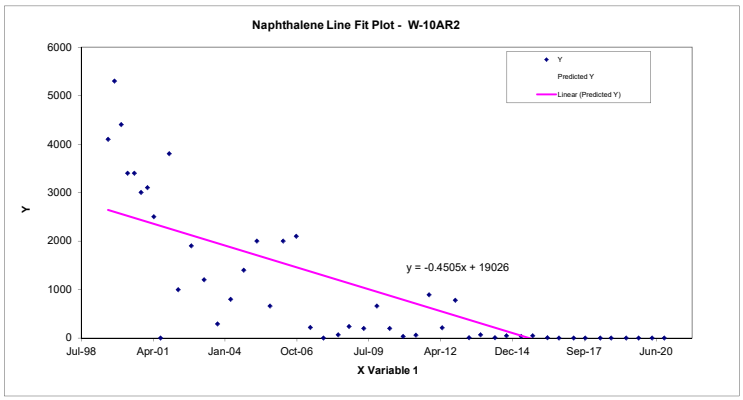
ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	56322256.68	56322256.68	62.24737014	4.30253E-10
Residual	46	41621417.92	904813.4331		
Total	47	97943674.6			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	19026.38067	2283.245456	8.33304217	9.59482E-11	14430.44594	23622.3154	14430.44594	23622.3154
X Variable 1	-0.450470726	0.057096051	-7.889700257	4.30253E-10	-0.565399115	-0.335542337	-0.565399115	-0.335542337

RESIDUAL OUTPUT

Observation	*Predicted Y*	*Residuals*
1	2641.408965	1458.591035
2	2599.965658	2700.034342
3	2558.522352	1841.477648
4	2517.979986	882.0200138
5	2476.536679	923.4633206
6	2435.093373	564.9066273
7	2393.650066	706.3499341
8	2353.558171	146.4418287
9	2312.114865	-2312.114865
10	2257.157436	1542.842564
11	2202.650478	-1202.650478
12	2120.214335	-220.2143354
13	2038.228663	-838.2286634
14	1955.792521	-1665.792521
15	1872.004966	-1072.004966
16	1789.568823	-389.5688228
17	1707.583151	292.4168493
18	1625.147008	-965.1470079
19	1543.161336	456.8386641
20	1460.725193	639.2748069
21	1372.883402	-1152.883402
22	1291.798671	-1291.798671
23	1199.452172	-1129.452172
24	1129.62921	-889.6292097
25	1038.634123	-838.6341231
26	956.1979803	-296.1979803
27	875.1132497	-675.1132497
28	792.2266362	-759.2266362
29	710.6914348	-650.6914348
30	628.255292	261.744708
31	547.1705614	-337.1705614
32	464.2839479	315.7160521
33	379.1449807	-368.1449807
34	306.1687232	-237.1687232
35	215.1736366	-210.2736366
36	142.6478497	-95.64784974
37	50.7518217	-13.7518217
38	-21.77396513	70.77396513
39	-112.318581	119.518581
40	-185.2948385	186.7948385
41	-277.1908666	279.1908666
42	-349.7166534	351.4166534
43	-444.3155058	445.8155058
44	-513.2375268	515.1375268
45	-607.3859085	609.5859085
46	-683.9659319	683.9659319
47	-768.6544283	770.5544283
48	-844.3335102	846.6335102



NAPHTHALENE STATISTICAL ANALYSIS

SUMMARY OUTPUT FOR W-30A (February 1999 - October 2020)

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.617325505
R Square	0.381090779
Adjusted R Square	0.368196836
Standard Error	1666.530113
Observations	50

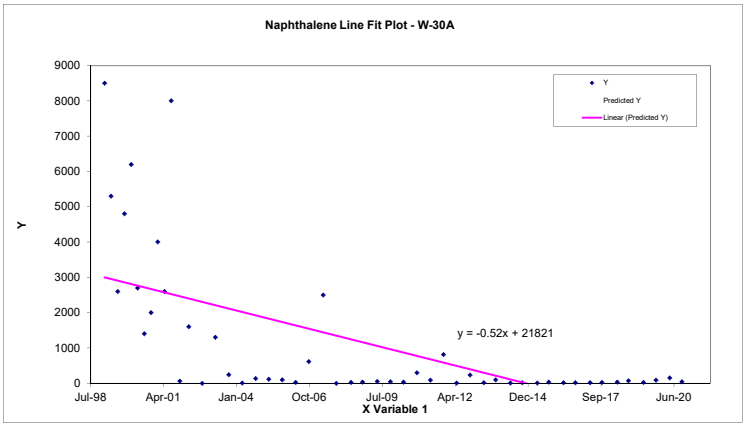
ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	82085992.77	82085992.77	29.55580033	1.79656E-06
Residual	48	133311485.7	2777322.619		
Total	49	215397478.5			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	21820.92695	3811.288037	5.725341864	6.56951E-07	14157.81875	29484.03515	14157.81875	29484.03515
X Variable 1	-0.520003212	0.095649932	-5.436524655	1.79656E-06	-0.71232029	-0.327686135	-0.71232029	-0.327686135

RESIDUAL OUTPUT

Observation	*Predicted Y*	*Residuals*
1	3000.970693	5499.029307
2	2954.690407	2345.309593
3	2906.850112	-306.8501119
4	2859.009816	1940.990184
5	2811.169521	3388.830479
6	2764.369232	-64.36923176
7	2716.528936	-1316.528936
8	2668.688641	-668.6886407
9	2620.848345	1379.151655
10	2574.568059	25.43194072
11	2526.727764	5473.272236
12	2463.287372	-2407.287372
13	2400.366983	-800.3669832
14	2305.206395	-2305.206395
15	2210.565811	-910.5658107
16	2115.405223	-1875.405223
17	2018.684625	-2011.584625
18	1923.524038	-1793.524038
19	1828.883453	-1718.883453
20	1733.722865	-1641.722865
21	1639.08228	-1617.08228
22	1543.921693	-933.9216926
23	1442.521066	1057.478934
24	1348.920488	-1348.920488
25	1242.319829	-1222.319829
26	1161.719332	-1124.719332
27	1056.678683	-1002.678683
28	961.5180949	-917.5180949
29	867.9175166	-832.9175166
30	772.2369256	-472.2369256
31	678.1163442	-594.1163442
32	582.9557563	227.0442437
33	489.3551781	-479.4551781
34	393.6745871	-163.6745871
35	295.3939799	-280.3939799
36	211.1534596	-115.1534596
37	106.1128107	-101.9128107
38	22.39229351	-11.39229351
39	-83.68836179	85.48836179
40	-167.408879	204.408879
41	-271.9295246	282.9295246
42	-356.170045	368.170045
43	-462.2507003	476.2507003
44	-545.9712175	571.9712175
45	-655.1718921	684.1718921
46	-734.7323835	801.7323835
47	-843.4130549	865.4130549
48	-931.813601	1022.813601
49	-1029.574205	1179.574205
50	-1116.934745	1159.934745



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
		Oct-20	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 2020)

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.648112351
R Square	0.42004962
Adjusted R Square	0.407161833
Standard Error	98.63855409
Observations	47

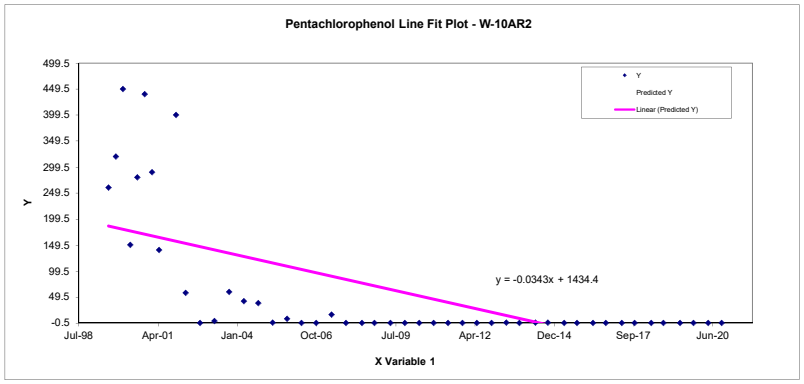
ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	317114.1833	317114.1833	32.59284505	8.42554E-07
Residual	45	437830.3959	9729.564353		
Total	46	754944.5792			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	1434.364372	240.6489772	5.960400864	3.57483E-07	949.6724513	1919.056292	949.6724513	1919.056292
X Variable 1	-0.034304976	0.006008914	-5.709014367	8.42554E-07	-0.04640755	-0.022202402	-0.04640755	-0.022202402

RESIDUAL OUTPUT

Observation	*Predicted Y*	*Residuals*
1	186.5894804	73.41051964
2	183.4334226	136.5665774
3	180.2773648	269.7226352
4	177.1899169	-27.18991694
5	174.0338592	105.9661408
6	170.8778014	269.1221986
7	167.7217436	122.2782564
8	164.6686007	-24.66860071
9	157.3273358	242.6726642
10	153.1764338	-95.17643375
11	146.8986231	-146.8731231
12	140.6551175	-136.8551175
13	134.3773069	-74.37730691
14	127.9965814	-85.99658138
15	121.7187708	-83.71877078
16	115.4752651	-115.0057651
17	109.1974545	-100.8974545
18	102.9539489	-102.9539489
19	96.67613831	-96.37113831
20	89.98666799	-73.98666799
21	83.81177231	-83.81177231
22	76.77925224	-76.77925224
23	71.46198096	-71.46198096
24	64.53237581	-64.53237581
25	58.2545652	-58.2545652
26	52.07966953	-52.07966953
27	45.76755395	-45.76755395
28	39.55835329	-39.55835329
29	33.28054269	-33.28054269
30	27.10564701	-27.10564701
31	20.79353143	-20.79353143
32	14.30989097	-13.49989097
33	8.75248486	-8.75248486
34	1.822879711	-1.062879711
35	-3.700221423	4.050221423
36	-10.69843652	10.69843652
37	-16.22153766	16.22153766
38	-23.11683783	23.11683783
39	-28.67424394	28.67424394
40	-35.67245904	35.67245904
41	-41.19556017	41.19556017
42	-48.39960513	48.39960513
43	-53.61396148	53.61396148
44	-60.81800644	60.81800644
45	-66.64985235	66.64985235
46	-73.09918784	73.09918784
47	-78.8624238	78.8624238



PENTACHLOROPHENOL STATISTICAL ANALYSIS

SUMMARY OUTPUT FOR W-30A (February 1999 - October 2020)

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.482293555
R Square	0.232607073
Adjusted R Square	0.216619721
Standard Error	1.728020754
Observations	50

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	43.44544711	43.44544711	14.54944284	0.000389993
Residual	48	143.3306749	2.986055727		
Total	49	186.776122			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	15.79843038	3.951862838	3.997717286	0.000219592	7.852677601	23.74418316	7.852677601	23.74418316
X Variable 1	-0.000378301	9.91779E-05	-3.814373191	0.000389993	-0.000577712	-0.000178891	-0.000577712	-0.000178891

RESIDUAL OUTPUT

Observation	*Predicted Y*	*Residuals*
1	2.106947172	-2.106947172
2	2.07327835	3.92672165
3	2.038474624	3.961525376
4	2.003670898	7.996329102
5	1.968867172	1.131132828
6	1.934820049	-1.934820049
7	1.900016322	-1.900016322
8	1.865212596	-0.765212596
9	1.83040887	1.86959113
10	1.796740048	-1.796740048
11	1.761936322	2.038063678
12	1.715783555	-1.715783555
13	1.670009089	0.029990911
14	1.600779938	-1.420779938
15	1.531929089	-0.581929089
16	1.462699938	-1.062699938
17	1.392335883	-1.392335883
18	1.323106732	-1.323106732
19	1.254255883	-1.254255883
20	1.185026732	-1.075026732
21	1.116175882	-1.116175882
22	1.046946732	-0.806946732
23	0.973177964	-0.973177964
24	0.905083718	-0.905083718
25	0.827531937	-0.827531937
26	0.768895224	-0.768895224
27	0.692478347	-0.692478347
28	0.623627498	-0.623627498
29	0.55515495	-0.55515495
30	0.485547498	-0.485547498
31	0.417074949	-0.417074949
32	0.347845799	-0.347845799
33	0.279751552	-0.279751552
34	0.2101441	-0.2101441
35	0.138645141	-0.138645141
36	0.077360319	-0.077360319
37	0.000943442	-0.000943442
38	-0.059963079	0.059963079
39	-0.137136559	0.527136559
40	-0.198043079	0.198043079
41	-0.274081655	0.274081655
42	-0.335366477	0.335366477
43	-0.412539956	0.412539956
44	-0.473446477	0.473446477
45	-0.552889765	0.552889765
46	-0.610769875	0.610769875
47	-0.689834861	0.689834861
48	-0.754146094	0.754146094
49	-0.825266752	0.825266752
50	-0.889199684	0.889199684