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

November 26, 2018

Mr. Chris Saari
Wisconsin Department of Natural Resources
2501 Golf Course Road
Ashland, WI 54806

RE: Second Semi-Annual 2018 RCRA Groundwater Monitoring Results
Former Koppers Inc. Superior, Wisconsin Facility
WID 006 179 493

Dear Mr. Saari:

On behalf of Beazer East, Inc. (Beazer), Field & Technical Services, LLC (FTS) is submitting to the Wisconsin Department of Natural Resources (WDNR) the Second Semi-Annual 2018 Resource Conservation and Recovery Act (RCRA) Groundwater Monitoring Results for the referenced facility. Appendix A includes one copy of the groundwater monitoring data certification for the subject groundwater monitoring event.

BACKGROUND

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

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

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

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

Groundwater samples were collected and analyzed for volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) from monitoring wells W-04AR2, W-06A, W-06C, W-10AR2, W-12A, W-12CR, W-28C, W-30A, and W-30C during the second semi-annual 2018 event.

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

The locations of the wells included in the groundwater monitoring program are shown on Figure B-1, provided in Appendix B. The subject sampling event was conducted from October 1, 2018 through October 3, 2018. The sampling effort was led by Mr. Brendan Rick, FTS Field Technician.

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

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

SUMMARY OF ANALYTICAL RESULTS

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

Parameter	Regulatory Standard (ug/L)	Wells
MCL Exceedance		
Benzene	5	W-10AR2
ES Exceedance		
Benzene	5	W-10AR2
PAL Exceedance		
Benzene	0.5	W-10AR2, W-30A, W-30A DUP
Naphthalene	10	W-30A, W-30A DUP
Benzo(a)pyrene	0.02	W-30A
Benzo(b)fluoranthene	0.02	W-30A

Based on these results, two wells (W-10AR2, and W-30A) had concentrations of one or more constituents above a regulatory standard. The Groundwater Monitoring Data Certification form, provided as Appendix A, indicates that some of the data associated with the second semi-annual 2018 sampling event exceeded the Wisconsin PALs and ESs.

The data evaluation performed by FTS for the second semi-annual 2018 sampling event (Appendix D) indicated that certain data required qualification. However, the overall data quality was acceptable.

In general, the groundwater standard exceedances should continue to be viewed in light of the ongoing Site-wide RCRA corrective action program and the approved natural attenuation remedy for groundwater. Therefore, in reviewing the second semi-annual 2018 data in reference to NR 140.24 and NR 140.26, no additional action beyond continued monitoring is necessary.

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

Sincerely,

Field & Technical Services LLC

Angela Gatchie
Project Scientist

Attachments (Original Report and electronic copy)

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

APPENDIX A

GROUNDWATER MONITORING DATA CERTIFICATION

State of Wisconsin
Department of Natural Resources

Environmental Monitoring Data Certification

Form 4400-231(R 1/04)

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

Instructions:

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

Monitoring Data Submittal Information

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

Field & Technical Services, LLC

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

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

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

Facility name:	License # / Monitoring ID	Facility ID [FID]	Actual sampling dates (e.g., July 2-6, 2003)
Former Koppers, Inc. Facility	03046		October 2 - October 3, 2018

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

October 2018

Type of Data Submitted (Check all that apply)

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

Notification attached?

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

Certification

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

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

[signature]	11-20-18
Signature	Date

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

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

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

APPENDIX B

WELL LOCATION MAP

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
- SAMPLED WELL LOCATION

W-05CR
W-02C
W-31C
W-12A
W-12CR
W-09C
W-29A
DESIGN MANAGEMENT ZONE
W-10AR2
W-30A
W-30C
CLOSED RCRA SURFACE IMPOUNDMENTS
W-08A
W-04AR2
W-06A
W-06C
W-21B
W-21A
W-26B
W-26A
W-32C
W-38A
W-39A
W-25A
W-37A
W-11A
W-36A
W-40A
W-28C
W-14A
W-14B
W-34D
W-26AR
W-33D
W-16AR
FORMER CONTAINER STORAGE FACILITY
CONCRETE BERM
W-19C
W-19A
OFFICE
GATE
W-35A
W-18D
COUNTY ROAD A
COUNTY ROAD Z
RAILROAD AVENUE
SHOP
FLOW

0 300 600 FEET

BEAZER EAST, INC.
PITTSBURGH, PENNSYLVANIA

DRWN: KC	DATE: 06/04/18	FIELD & TECHNICAL SERVICES, LLC 200 THIRD AVENUE CARNEGIE, PA 15106	
CHKD: AMQ	DATE: 06/04/18		
APPD: JSZ	DATE: 06/11/18		
SCALE: AS SHOWN			
ISSUE DATE:			

FORMER KOPPERS INC. FACILITY
SUPERIOR, WISCONSIN

WELL LOCATIONS

PROJECT NO: 0M055618
DRAWING NUMBER
FIGURE B-1

REV #	DATE	DESCRIPTION	APPD
3			
2			
1			

REFERENCE: WISCONSIN STATE PLANNER COORDINATE SYSTEM.
NOTE: MONITORING WELL W-04AR WAS NOT SAMPLED DURING THIS EVENT DUE TO INNER CASING DAMAGE.

APPENDIX C

TABLES

Table 1
Summary of Detected Constituents
Second Semi-Annual 2018 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	14	NA	NA	NA
W-30A DUP	1-Methylnaphthalene	2.1	NA	NA	NA
W-10AR2	Acenaphthene	67	NA	NA	NA
W-30A	Acenaphthene	8.6 J	NA	NA	NA
W-30A DUP	Acenaphthene	17 J	NA	NA	NA
W-10AR2	Acenaphthylene	2.1	NA	NA	NA
W-30A DUP	Acenaphthylene	0.38 J	NA	NA	NA
W-10AR2	Anthracene	0.72 J	600	3000	NA
W-30A	Anthracene	0.65 J	600	3000	NA
W-30A DUP	Anthracene	0.69 J	600	3000	NA
W-30A	Benzo(a)pyrene	0.15 J	0.02	0.2	NA
W-30A	Benzo(b)fluoranthene	0.17 J	0.02	0.2	NA
W-30A	Benzo(k)fluoranthene	0.098 J	NA	NA	NA
W-10AR2	Dibenzofuran	5.2	NA	NA	NA
W-30A	Dibenzofuran	1.1 J	NA	NA	NA
W-30A DUP	Dibenzofuran	4.5 J	NA	NA	NA
W-04AR2	Fluoranthene	0.45 J	80	400	NA
W-10AR2	Fluoranthene	2.5	80	400	NA
W-30A	Fluoranthene	1.4 J	80	400	NA
W-30A DUP	Fluoranthene	0.9 J	80	400	NA
W-10AR2	Fluorene	11	80	400	NA
W-30A DUP	Fluorene	1.7	80	400	NA
W-10AR2	Phenanthrene	0.45 J	NA	NA	NA
W-10AR2	Phenol	0.47 J	400	2000	NA
W-10AR2	Pyrene	1.6	50	250	NA
W-30A	Pyrene	0.92 J	50	250	NA
W-30A DUP	Pyrene	0.55 J	50	250	NA
8260C					
W-10AR2	1,2,4-Trimethylbenzene	6.4	96*	480*	NA
W-30A	1,2,4-Trimethylbenzene	2.1	96*	480*	NA
W-30A DUP	1,2,4-Trimethylbenzene	2.4	96*	480*	NA
W-10AR2	Benzene	16	0.5	5	5
W-30A	Benzene	3.6	0.5	5	5
W-30A DUP	Benzene	3.5	0.5	5	5
W-10AR2	Ethylbenzene	30	140	700	700
W-30A	Ethylbenzene	9	140	700	700
W-30A DUP	Ethylbenzene	8.6	140	700	700
W-10AR2	Naphthalene	1.9	10	100	NA
W-30A	Naphthalene	67	10	100	NA

Table 1
Summary of Detected Constituents
Second Semi-Annual 2018 Sampling Event
Superior Facility
Superior, Wisconsin

Location	Parameter	Results ug/L	PAL ug/L	ES ug/L	MCL ug/L
W-30A DUP	Naphthalene	70	10	100	NA
W-10AR2	Toluene	2.7	160	800	1000
W-30A	Toluene	1.2 J	160	800	1000
W-30A DUP	Toluene	1 J	160	800	1000
W-10AR2	Xylene, Meta & Para	3.3	400**	2000**	10000**
W-30A	Xylene, Meta & Para	3.2 J	400**	2000**	10000**
W-30A DUP	Xylene, Meta & Para	3.1 J	400**	2000**	10000**
W-10AR2	Xylene, Ortho	14	400**	2000**	10000**
W-30A	Xylene, Ortho	2.5	400**	2000**	10000**
W-30A DUP	Xylene, Ortho	2.4	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

Table 2
Analytical Summary - Second Semi-Annual 2018 Groundwater Data
Second Semi-Annual 2018 Sampling Event
Superior Facility
Superior, Wisconsin

ANALYTE NAME	UNITS	W-04AR2 10/2/2018	W-06A 10/2/2018	W-06C 10/2/2018	W-10AR2 10/2/2018	W-12A 10/2/2018	W-12CR 10/2/2018	W-18D 10/2/2018	W-28C 10/2/2018	W-30A 10/3/2018	W-30A-DUP 10/3/2018	W-30C 10/2/2018	Equipment Blank 10/2/2018	Equipment Blank 10/3/2018	Trip Blank 10/2/2018	Trip Blank 10/3/2018
8260C																
1,1,1-TRICHLOROETHANE	UG/L	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	NA	0.82 U	1.6 U	1.6 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U
1,2,4-TRIMETHYLBENZENE	UG/L	0.75 U	0.75 U	0.75 U	**6.4**	0.75 U	0.75 U	NA	0.75 U	**2.1**	**2.4**	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U
1,3,5-TRIMETHYLBENZENE	UG/L	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	NA	0.77 U	1.5 U	1.5 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U
BENZENE	UG/L	0.41 U	0.41 U	0.41 U	**16**	0.41 U	0.41 U	NA	0.41 U	**3.6**	**3.5**	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
CHLOROMETHANE	UG/L	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	NA	0.35 U	0.7 U	0.7 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
ETHYLBENZENE	UG/L	0.74 U	0.74 U	0.74 U	**30**	0.74 U	0.74 U	NA	0.74 U	**9**	**8.6**	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U
METHYL(TERT)BUTYL ETHER	UG/L	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.32 U	0.32 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
NAPHTHALENE	UG/L	0.43 U	0.43 U	0.43 U	**1.9**	0.43 U	0.43 U	NA	0.43 U	**67**	**70**	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
N-BUTYLBENZENE	UG/L	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	NA	0.64 U	1.3 U	1.3 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U
N-PROPYLBENZENE	UG/L	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	NA	0.69 U	1.4 U	1.4 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U
STYRENE	UG/L	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	NA	0.73 U	1.5 U	1.5 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U
TOLUENE	UG/L	0.51 U	0.51 U	0.51 U	**2.7**	0.51 U	0.51 U	NA	0.51 U	**1.2 J**	**1 J**	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
XYLENE, META & PARA	UG/L	0.66 U	0.66 U	0.66 U	**3.3**	0.66 U	0.66 U	NA	0.66 U	**3.2 J**	**3.1 J**	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U
O-XYLENE	UG/L	0.76 U	0.76 U	0.76 U	**14**	0.76 U	0.76 U	NA	0.76 U	**2.5**	**2.4**	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
8270D LL																
1,2,4-TRICHLOROBENZENE	UG/L	0.31 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.31 U	0.31 U	0.31 U	0.3 U	NA	NA
1,2-DICHLOROBENZENE	UG/L	0.3 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.3 U	0.3 U	0.3 U	0.29 U	NA	NA
1,3-DICHLOROBENZENE	UG/L	0.26 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.26 U	0.26 U	0.25 U	NA	NA
1,4-DICHLOROBENZENE	UG/L	0.28 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.28 U	0.28 U	0.28 U	0.27 U	NA	NA
1-METHYLNAPHTHALENE	UG/L	0.52 U	0.5 U	0.51 U	**14**	0.5 U	0.5 U	0.5 U	0.51 U	0.5 U	**2.1**	0.51 U	0.52 U	0.5 U	NA	NA
2,3,4,6-TETRACHLOROPHENOL	UG/L	1.6 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.6 U	1.5 U	NA	NA
2,3,5,6-TETRACHLOROPHENOL	UG/L	2.6 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.6 U	2.6 U	2.5 U	NA	NA
2,4,5-TRICHLOROPHENOL	UG/L	2.4 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.4 U	2.3 U	NA	NA
2,4,6-TRICHLOROPHENOL	UG/L	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	NA	NA
2,4-DICHLOROPHENOL	UG/L	2.4 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	NA	NA
2,4-DIMETHYLPHENOL	UG/L	3.5 U	3.3 U	3.4 U	3.3 U	3.3 U	3.3 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.3 U	NA	NA
2,4-DINITROPHENOL	UG/L	7.8 U	7.4 U	7.5 U	7.4 U	7.4 U	7.5 U	7.5 U	7.5 U	7.5 U	7.6 U	7.6 U	7.7 U	7.4 U	NA	NA
2,4-DINITROTOLUENE	UG/L	0.31 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.31 U	0.31 U	0.31 U	0.3 U	NA	NA
2,6-DINITROTOLUENE	UG/L	0.13 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	NA	NA
2-CHLORONAPHTHALENE	UG/L	0.36 U	0.34 U	0.35 U	0.34 U	0.34 U	0.34 U	0.34 U	0.35 U	0.34 U	0.35 U	0.35 U	0.35 U	0.34 U	NA	NA
2-CHLOROPHENOL	UG/L	0.84 U	0.8 U	0.81 U	0.8 U	0.8 U	0.8 U	0.8 U	0.81 U	0.81 U	0.82 U	0.82 U	0.82 U	0.8 U	NA	NA
2-METHYLNAPHTHALENE	UG/L	0.14 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	NA	NA
2-METHYLPHENOL	UG/L	0.32 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.32 U	0.32 U	0.32 U	0.31 U	NA	NA
2-NITROANILINE	UG/L	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	NA	NA
2-NITROPHENOL	UG/L	2.2 U	2.1 U	2.2 U	2.1 U	2.1 U	2.1 U	2.1 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.1 U	NA	NA
3,3'-DICHLOROBENZIDINE	UG/L	0.98 U	0.94 U	0.95 U	0.94 U	0.94 U	0.94 U	0.94 U	0.95 U	0.95 U	0.96 U	0.96 U	0.97 U	0.94 U	NA	NA
3-NITROANILINE	UG/L	2.4 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.4 U	2.3 U	NA	NA
4,6-DINITRO-2-METHYLPHENOL	UG/L	5.1 U	4.9 U	5 U	4.9 U	4.9 U	4.9 U	4.9 U	5 U	5 U	5 U	5 U	5.1 U	4.9 U	NA	NA
4-BROMOPHENYL PHENYLETHER	UG/L	0.95 U	0.91 U	0.92 U	0.91 U	0.91 U	0.91 U	0.91 U	0.92 U	0.92 U	0.93 U	0.93 U	0.94 U	0.91 U	NA	NA

Table 2
Analytical Summary - Second Semi-Annual 2018 Groundwater Data
Second Semi-Annual 2018 Sampling Event
Superior Facility
Superior, Wisconsin

ANALYTE NAME	UNITS	W-04AR2 10/2/2018	W-06A 10/2/2018	W-06C 10/2/2018	W-10AR2 10/2/2018	W-12A 10/2/2018	W-12CR 10/2/2018	W-18D 10/2/2018	W-28C 10/2/2018	W-30A 10/3/2018	W-30A-DUP 10/3/2018	W-30C 10/2/2018	Equipment Blank 10/2/2018	Equipment Blank 10/3/2018	Trip Blank 10/2/2018	Trip Blank 10/3/2018
4-CHLORO-3-METHYLPHENOL	UG/L	2.3 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.3 U	2.3 U	2.2 U	NA	NA
4-CHLOROANILINE	UG/L	2.2 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.2 U	2.2 U	2.1 U	NA	NA
4-CHLOROPHENYLPHENYL-ETHER	UG/L	0.85 U	0.81 U	0.82 U	0.81 U	0.81 U	0.81 U	0.81 U	0.82 U	0.82 U	0.83 U	0.83 U	0.83 U	0.81 U	NA	NA
4-METHYLPHENOL	UG/L	0.46 U	0.44 U	0.45 U	0.44 U	0.44 U	0.44 U	0.44 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.44 U	NA	NA
4-NITROANILINE	UG/L	4.1 U	3.9 U	4 U	3.9 U	3.9 U	3.9 U	3.9 U	4 U	4 U	4 U	4 U	4 U	3.9 U	NA	NA
4-NITROPHENOL	UG/L	2.4 U	2.3 U	2.4 U	2.3 U	2.3 U	2.3 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.3 U	NA	NA
ACENAPHTHENE	UG/L	0.38 U	0.36 U	0.37 U	**67**	0.36 U	0.36 U	0.36 U	0.37 U	**8.6 J**	**17 J**	0.37 U	0.37 U	0.36 U	NA	NA
ACENAPHTHYLENE	UG/L	0.33 U	0.32 U	0.33 U	**2.1**	0.32 U	0.32 U	0.32 U	0.33 U	0.32 U	**0.38 J**	0.33 U	0.33 U	0.32 U	NA	NA
ANTHRACENE	UG/L	0.33 U	0.32 U	0.33 U	**0.72 J**	0.32 U	0.32 U	0.32 U	0.33 U	**0.65 J**	**0.69 J**	0.33 U	0.33 U	0.32 U	NA	NA
BENZO (A) ANTHRACENE	UG/L	0.046 U	0.044 U	0.045 U	0.044 U	0.044 U	0.044 U	0.044 U	0.045 U	0.044 U	0.045 U	0.045 U	0.045 U	0.056 U	NA	NA
BENZO (A) PYRENE	UG/L	0.059 U	0.056 U	0.057 U	0.056 U	0.056 U	0.056 U	0.056 U	0.057 U	**0.15 J**	0.057 U	0.057 U	0.058 U	0.058 U	NA	NA
BENZO (B) FLUORANTHENE	UG/L	0.061 U	0.058 U	0.059 U	0.058 U	0.058 U	0.058 U	0.058 U	0.059 U	**0.17 J**	0.059 U	0.059 U	0.06 U	0.42 U	NA	NA
BENZO (G,H,I) PERYLENE	UG/L	0.44 U	0.42 U	0.43 U	0.42 U	0.42 U	0.42 U	0.42 U	0.43 U	0.42 U	0.43 U	0.43 U	0.43 U	0.074 U	NA	NA
BENZO (K) FLUORANTHENE	UG/L	0.077 U	0.074 U	0.075 U	0.074 U	0.074 U	0.074 U	0.074 U	0.075 U	**0.098 J**	0.075 U	0.076 U	0.076 U	0.074 U	NA	NA
BENZOIC ACID	UG/L	4.8 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	56 U	4.7 U	4.7 U	**20**	NA	NA
BENZYL ALCOHOL	UG/L	3.2 U	3.1 U	3.1 U	3.1 U	3 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3 U	NA	NA
BIS (2-CHLOROETHOXY)- METHANE	UG/L	0.31 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.31 U	0.31 U	0.31 U	0.3 U	NA	NA
BIS (2-CHLOROETHYL) ETHER	UG/L	0.37 U	0.35 U	0.36 U	0.35 U	0.35 U	0.35 U	0.35 U	0.36 U	0.35 U	0.36 U	0.36 U	0.36 U	0.35 U	NA	NA
BIS (2-CHLOROISOPROPYL)-ETHER	UG/L	0.31 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.31 U	0.31 U	0.31 U	0.3 U	NA	NA
BIS (2-ETHYLHEXYL)- PHTHALATE	UG/L	2.5 U	2.4 U	2.5 U	2.4 U	2.4 U	2.4 U	2.4 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.4 U	NA	NA
BUTYL BENZYL PHTHALATE	UG/L	0.28 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.28 U	0.28 U	0.28 U	0.27 U	NA	NA
CHRYSENE	UG/L	0.15 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	NA	NA
DIBENZO (A,H) ANTHRACENE	UG/L	0.067 U	0.064 U	0.065 U	0.064 U	0.064 U	0.064 U	0.064 U	0.065 U	0.065 U	0.065 U	0.066 U	0.066 U	0.064 U	NA	NA
DIBENZOFURAN	UG/L	0.37 U	0.35 U	0.36 U	**5.2**	0.35 U	0.35 U	0.35 U	0.36 U	**1.1 J**	**4.5 J**	0.36 U	0.36 U	0.35 U	NA	NA
DIETHYLPHTHALATE	UG/L	0.46 U	0.44 U	0.45 U	0.44 U	0.44 U	0.44 U	0.44 U	0.45 U	0.44 U	0.45 U	0.45 U	0.45 U	0.44 U	NA	NA
DIMETHYLPHTHALATE	UG/L	0.4 U	0.38 U	0.39 U	0.38 U	0.38 U	0.38 U	0.38 U	0.39 U	0.38 U	0.39 U	0.39 U	0.39 U	0.38 U	NA	NA
DI-N-BUTYLPHTHALATE	UG/L	0.84 U	0.8 U	0.81 U	0.8 U	0.8 U	0.8 U	0.8 U	0.81 U	0.81 U	0.82 U	0.82 U	0.82 U	0.8 U	NA	NA
DI-N-OCTYLPHTHALATE	UG/L	2.6 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	NA	NA
FLUORANTHENE	UG/L	**0.45 J**	0.32 U	0.33 U	**2.5**	0.32 U	0.32 U	0.32 U	0.33 U	**1.4 J**	**0.9 J**	0.33 U	0.33 U	0.32 U	NA	NA
FLUORENE	UG/L	0.4 U	0.38 U	0.39 U	**11**	0.38 U	0.38 U	0.38 U	0.39 U	0.38 U	**1.7**	0.39 U	0.39 U	0.38 U	NA	NA
HEXACHLOROBENZENE	UG/L	0.15 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	NA	NA
HEXACHLOROBUTADIENE	UG/L	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	NA	NA
HEXACHLOROCYCLOPENTADIENE	UG/L	3.6 U	3.4 U	3.5 U	3.4 U	3.4 U	3.4 U	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U	3.4 U	NA	NA
HEXACHLOROETHANE	UG/L	1 U	0.97 U	0.99 U	0.97 U	0.97 U	0.97 U	0.97 U	0.99 U	0.98 U	0.99 U	0.99 U	1 U	0.97 U	NA	NA
INDENO (1,2,3-CD) PYRENE	UG/L	0.088 U	0.084 U	0.085 U	0.084 U	0.084 U	0.084 U	0.084 U	0.085 U	0.085 U	0.086 U	0.086 U	0.087 U	0.084 U	NA	NA
ISOPHORONE	UG/L	0.3 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.3 U	0.3 U	0.3 U	0.29 U	NA	NA
NAPHTHALENE	UG/L	NA	NA	NA	NA	NA	NA	0.3 U	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	UG/L	0.47 U	0.45 U	0.46 U	0.45 U	0.45 U	0.45 U	0.45 U	0.46 U	0.45 U	0.46 U	0.46 U	0.46 U	0.45 U	NA	NA
N-NITROSODI-N-PROPYLAMINE	UG/L	0.15 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	NA	NA
N-NITROSO-DI-PHENYLAMINE	UG/L	0.36 U	0.34 U	0.35 U	0.34 U	0.34 U	0.34 U	0.34 U	0.35 U	0.34 U	0.35 U	0.35 U	0.35 U	0.34 U	NA	NA
PENTACHLOROPHENOL	UG/L	0.34 U	0.34 U	0.34 U	1.7 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	NA	NA
PHENANTHRENE	UG/L	0.37 U	0.35 U	0.36 U	**0.45 J**	0.35 U	0.35 U	0.35 U	0.36 U	0.35 U	0.36 U	0.36 U	0.36 U	0.35 U	NA	NA
PHENOL	UG/L	0.38 U	0.36 U	0.37 U	**0.47 J**	0.36 U	0.36 U	0.36 U	0.37 U	0.36 U	4.5 U	0.37 U	0.37 U	**1.1 J**	NA	NA
PYRENE	UG/L	0.5 U	0.48 U	0.49 U	**1.6**	0.48 U	0.48 U	0.48 U	0.49 U	**0.92 J**	**0.55 J**	0.49 U	0.49 U	0.48 U	NA	NA

Notes:
Bold values represent detections.
DUP indicates duplicate sample.
NA indicates not analyzed.
U indicates compound was not detected.
J indicates an estimated value.

APPENDIX D

DATA EVALUATION SUMMARY

FTS, LLC

DATE: October 29, 2018

FROM: Kendra Chintella

SUBJECT: Superior GW

SAMPLE DELIVERY GROUP (SDG): 480-142837-1

SAMPLES: SUPE-TB-01-100218, SUPE-W-28C-100218, SUPE-W-18D-100218, SUPE-W-10AR2-100218, SUPE-W-30C-100218, SUPE-W-06A-100218, SUPE-W-06C-100218, SUPE-EB--01-100218, SUPE-W-12A-100218, SUPE-W-12CR-100218, SUPE-W-4AR2-100218

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

LABORATORY: TestAmerica Laboratories, Inc., 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: Benzoic acid was detected in the method blank. See attached page for details.

□ Field Blank Contamination
Noncompliance: None

□ Surrogate Recoveries
Noncompliance: The surrogate recovery of 2-fluorobiphenyl was above the recovery limits in samples W-18D, W-30C, W-06A, W-06C, and W-12A. The surrogate recovery of p-terphenyl-d14 fell below the recovery limits in sample W-10AR2. No action was taken on this basis.

□ Matrix Spike/Matrix Spike Duplicate
Noncompliance: The MS/MSD recoveries of chloromethane and several SVOCs were above the recovery limits. No action was taken on this basis.

□ Laboratory Control Sample
Noncompliance: The LCS recoveries of chloromethane, 2,6-dinitrotoluene, and benzo(a)pyrene were above the recovery limits. No action was taken on this basis.

Laboratory Blank Contamination:

The following analyte was detected in the aqueous method blank at the following concentration:

Analyte	Maximum Concentration	Blank Action Level
Benzoic acid	27.2 ug/l	136 ug/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.

FTS, LLC

DATE: October 29, 2018

FROM: Kendra Chintella

SUBJECT: Superior GW

SAMPLE DELIVERY GROUP (SDG): 480-142888-1

SAMPLES: SUPE-TB-02-100318, SUPE-W-30A-100318, SUPE-EB-02-100318, SUPE-M-99-100318(W-30A)

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

LABORATORY: TestAmerica Laboratories, Inc., Buffalo, Chicago

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

□ Data Completeness
Noncompliance: None

□ Holding Times
Noncompliance: The laboratory re-extracted for benzoic acid outside of 2X the holding time to confirm that benzoic acid is not detected. The initial results will be used and qualified not detected in the samples.

□ Laboratory Blank Contamination
Noncompliance: Benzoic acid was detected in the method blank. See attached page for details.

□ Field Blank Contamination
Noncompliance: Benzoic acid and phenol were detected in the equipment blank. See attached page for details.

□ Field Duplicate Precision
Noncompliance: None

□ Surrogate Recoveries
Noncompliance: The surrogate recovery of 2-fluorobiphenyl was above the recovery limits in sample M-99. No action was taken on this basis.

□ Laboratory Control Sample
Noncompliance: The LCS recoveries of 2,6-dinitrotoluene and benzo(a)pyrene were above the recovery limits. No action was taken on this basis.

Laboratory Blank Contamination:

The following analyte was detected in the aqueous method blank at the following concentration:

Analyte	Maximum Concentration	Blank Action Level
Benzoic acid	27.2 ug/l	136 ug/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-02-100318, at the following concentrations:

Analyte	Maximum Concentration	Blank Action Level
Benzoic acid	20 B ug/l	120 ug/l
Phenol	1.1 J ug/l	5.5 ug/l

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

Field Duplicate Precision:

FIELD DUPLICATE PRECISION					
ANALYTE	W-30A	QUAL	M-99	QUAL	RPD
1,2,4-Trimethylbenzene	2.1		2.4		13.33
1-Methylnaphthalene	0.5	U	2.1		NC
Acenaphthene	8.6		17		65.63*
Acenaphthylene	0.32	U	0.38	J	NC
Anthracene	0.65	J	0.69	J	5.97
Benzene	3.6		3.5		2.82
Benzo(a)pyrene	0.15	J	0.057	U	NC
Benzo(b)fluoranthene	0.17	J	0.059	U	NC
Benzo(k)fluoranthene	0.098	J	0.075	U	NC
Benzoic acid	4.9	U	56		NC
Dibenzofuran	1.1	J	4.5		121.43*
Ethylbenzene	9		8.6		4.55
Fluoranthene	1.4		0.9	J	43.48*
Fluorene	0.38	U	1.7		NC
m-Xylene & p-xylene	3.2	J	3.1	J	3.17
Naphthalene	67		70		4.38
o-Xylene	2.5		2.4		4.08
Toluene	1.2	J	1	J	18.18
Phenol	0.36	U	4.5	J	NC
Pyrene	0.92	J	0.55	J	50.34*
Xylenes, total	5.7		5.5		3.57

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

APPENDIX E

LABORATORY ANALYTICAL DATA

(C.D. AND PRINTOUT)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 480-142837-1
Client Project/Site: Superior, WI Semiannual Groundwater

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

Attn: Ms. Angie Gatchie

Authorized for release by:
10/24/2018 10:01:05 PM

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

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
X	Surrogate is outside 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
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)
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: 480-142837-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-142837-1

Comments
No additional comments.

Receipt
The samples were received on 10/3/2018 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.4º C, 2.6º C, 3.6º C and 4.4º C.

Receipt Exceptions
Sample SUPE-W4AR2-100218 was included in the shipment, however it was not listed on the COC .

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-438768 recovered above the upper control limit for Chloromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: SUPE-TB-01-100218, SUPE-W-28C-100218, SUPE-W-10AR2-100218, SUPE-W-30C-100218, SUPE-W-06A-100218 and SUPE-W-06C-100218.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-438802 recovered above the upper control limit for Chloromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: SUPE-W-12A-100218 and SUPE-W-12CR-100218.

Method(s) 8260C: The laboratory control sample (LCS) for analytical batch 480-438802 recovered outside control limits for the following analytes: Chloromethane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-438997 recovered above the upper control limit for Chloromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: SUPE-W-4AR2-100218.

Method(s) 8260C: The laboratory control sample (LCS) for analytical batch 480-438997 recovered outside control limits for the following analyte: Chloromethane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported. The following sample is impacted: SUPE-W-4AR2-100218.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-439047 recovered above the upper control limit for Chloromethane. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following sample is impacted: SUPE-EB--01-100218.

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

GC/MS Semi VOA
Method(s) 8270D LL: The following sample was diluted due to the nature of the sample matrix: SUPE-W-10AR2-100218. Elevated reporting limits (RLs) are provided.

Method(s) 8270D LL: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: SUPE-W-10AR2-100218. These results have been reported and qualified.

Method(s) 8270D: The laboratory control sample (LCS) for preparation batch 500-453886 and analytical batch 500-454447 recovered outside control limits for the following analytes: 2,6-Dinitrotoluene and Benzo[a]pyrene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Job ID: 480-142837-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

Method(s) 8270D: The method blank for preparation batch 500-453886 contained Benzoic acid above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

Method(s) 8270D: The following samples contained one base surrogate outside acceptance limits: SUPE-W-28C-100218, SUPE-W-18D-100218, SUPE-W-30C-100218, SUPE-W-06A-100218, SUPE-W-06C-100218 and SUPE-W-12A-100218. The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

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

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

Detection Summary

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

TestAmerica Job ID: 480-142837-1

Client Sample ID: SUPE-TB-01-100218 — Lab Sample ID: 480-142837-1

No Detections.

Client Sample ID: SUPE-W-28C-100218 — Lab Sample ID: 480-142837-2

No Detections.

Client Sample ID: SUPE-W-18D-100218 — Lab Sample ID: 480-142837-3

No Detections.

Client Sample ID: SUPE-W-10AR2-100218 — Lab Sample ID: 480-142837-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	6.4		1.0	0.75	ug/L	1		8260C	Total/NA
Benzene	16		1.0	0.41	ug/L	1		8260C	Total/NA
Ethylbenzene	30		1.0	0.74	ug/L	1		8260C	Total/NA
m-Xylene & p-Xylene	3.3		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	14		1.0	0.76	ug/L	1		8260C	Total/NA
Toluene	2.7		1.0	0.51	ug/L	1		8260C	Total/NA
Xylenes, Total	17		2.0	0.66	ug/L	1		8260C	Total/NA
1-Methylnaphthalene	14		2.0	0.50	ug/L	1		8270D	Total/NA
Acenaphthene	67		1.0	0.36	ug/L	1		8270D	Total/NA
Acenaphthylene	2.1		1.0	0.32	ug/L	1		8270D	Total/NA
Anthracene	0.72	J	1.0	0.32	ug/L	1		8270D	Total/NA
Dibenzofuran	5.2		2.0	0.35	ug/L	1		8270D	Total/NA
Fluoranthene	2.5		1.0	0.32	ug/L	1		8270D	Total/NA
Fluorene	11		1.0	0.38	ug/L	1		8270D	Total/NA
Phenol	0.47	J	5.0	0.36	ug/L	1		8270D	Total/NA
Pyrene	1.6		1.0	0.48	ug/L	1		8270D	Total/NA
Phenanthrene	0.45	J	1.0	0.35	ug/L	1		8270D	Total/NA

Client Sample ID: SUPE-W-30C-100218 — Lab Sample ID: 480-142837-5

No Detections.

Client Sample ID: SUPE-W-06A-100218 — Lab Sample ID: 480-142837-6

No Detections.

Client Sample ID: SUPE-W-06C-100218 — Lab Sample ID: 480-142837-7

No Detections.

Client Sample ID: SUPE-EB--01-100218 — Lab Sample ID: 480-142837-8

No Detections.

Client Sample ID: SUPE-W-12A-100218 — Lab Sample ID: 480-142837-9

No Detections.

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 480-142837-1

Client Sample ID: SUPE-W-12CR-100218 — Lab Sample ID: 480-142837-10

No Detections.

Client Sample ID: SUPE-W-4AR2-100218 — Lab Sample ID: 480-142837-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	0.45	J	1.0	0.33	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SUPE-TB-01-100218

Lab Sample ID: 480-142837-1

Date Collected: 10/02/18 00:00

Matrix: Water

Date Received: 10/03/18 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/11/18 03:09	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/11/18 03:09	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/11/18 03:09	1
Benzene	ND		1.0	0.41	ug/L			10/11/18 03:09	1
Chloromethane	ND		1.0	0.35	ug/L			10/11/18 03:09	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/11/18 03:09	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/11/18 03:09	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/11/18 03:09	1
Naphthalene	ND		1.0	0.43	ug/L			10/11/18 03:09	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/11/18 03:09	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/11/18 03:09	1
o-Xylene	ND		1.0	0.76	ug/L			10/11/18 03:09	1
Styrene	ND		1.0	0.73	ug/L			10/11/18 03:09	1
Toluene	ND		1.0	0.51	ug/L			10/11/18 03:09	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/11/18 03:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*77 - 120*		*10/11/18 03:09*	*1*
4-Bromofluorobenzene (Surr)	*93*		*73 - 120*		*10/11/18 03:09*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*10/11/18 03:09*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*10/11/18 03:09*	*1*

Client Sample ID: SUPE-W-28C-100218

Lab Sample ID: 480-142837-2

Date Collected: 10/02/18 10:04

Matrix: Water

Date Received: 10/03/18 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/11/18 03:36	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/11/18 03:36	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/11/18 03:36	1
Benzene	ND		1.0	0.41	ug/L			10/11/18 03:36	1
Chloromethane	ND		1.0	0.35	ug/L			10/11/18 03:36	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/11/18 03:36	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/11/18 03:36	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/11/18 03:36	1
Naphthalene	ND		1.0	0.43	ug/L			10/11/18 03:36	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/11/18 03:36	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/11/18 03:36	1
o-Xylene	ND		1.0	0.76	ug/L			10/11/18 03:36	1
Styrene	ND		1.0	0.73	ug/L			10/11/18 03:36	1
Toluene	ND		1.0	0.51	ug/L			10/11/18 03:36	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/11/18 03:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*77 - 120*		*10/11/18 03:36*	*1*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*10/11/18 03:36*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*10/11/18 03:36*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*10/11/18 03:36*	*1*

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

TestAmerica Job ID: 480-142837-1

Client Sample ID: SUPE-W-28C-100218
Date Collected: 10/02/18 10:04
Date Received: 10/03/18 10:00

Lab Sample ID: 480-142837-2
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	ND		1.0	0.34	ug/L		10/06/18 15:14	10/08/18 12:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*94*		*24 - 146*	*10/06/18 15:14*	*10/08/18 12:23*	*1*
2-Fluorobiphenyl	*104*		*37 - 120*	*10/06/18 15:14*	*10/08/18 12:23*	*1*
2-Fluorophenol (Surr)	*59*		*10 - 120*	*10/06/18 15:14*	*10/08/18 12:23*	*1*
Nitrobenzene-d5 (Surr)	*97*		*26 - 120*	*10/06/18 15:14*	*10/08/18 12:23*	*1*
Phenol-d5 (Surr)	*40*		*11 - 120*	*10/06/18 15:14*	*10/08/18 12:23*	*1*
p-Terphenyl-d14	*93*		*64 - 127*	*10/06/18 15:14*	*10/08/18 12:23*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.0	0.30	ug/L		10/09/18 08:04	10/10/18 22:58	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		10/09/18 08:04	10/10/18 22:58	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		10/09/18 08:04	10/10/18 22:58	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		10/09/18 08:04	10/10/18 22:58	1
1-Methylnaphthalene	ND		2.0	0.51	ug/L		10/09/18 08:04	10/10/18 22:58	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		10/09/18 08:04	10/10/18 22:58	1
2,3,4,6-Tetrachlorophenol	ND	F1	5.1	1.5	ug/L		10/09/18 08:04	10/10/18 22:58	1
2,4,5-Trichlorophenol	ND	F1	10	2.3	ug/L		10/09/18 08:04	10/10/18 22:58	1
2,4,6-Trichlorophenol	ND	F1	5.1	1.1	ug/L		10/09/18 08:04	10/10/18 22:58	1
2,4-Dichlorophenol	ND	F1	10	2.3	ug/L		10/09/18 08:04	10/10/18 22:58	1
2,4-Dinitrophenol	ND		20	7.5	ug/L		10/09/18 08:04	10/10/18 22:58	1
2,4-Dinitrotoluene	ND	F1	1.0	0.30	ug/L		10/09/18 08:04	10/10/18 22:58	1
2,6-Dinitrotoluene	ND	F1 *	1.0	0.12	ug/L		10/09/18 08:04	10/10/18 22:58	1
3 & 4 Methylphenol	ND		2.0	0.45	ug/L		10/09/18 08:04	10/10/18 22:58	1
2-Chloronaphthalene	ND		2.0	0.35	ug/L		10/09/18 08:04	10/10/18 22:58	1
2-Chlorophenol	ND		5.1	0.81	ug/L		10/09/18 08:04	10/10/18 22:58	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/09/18 08:04	10/10/18 22:58	1
2-Methylphenol	ND		2.0	0.31	ug/L		10/09/18 08:04	10/10/18 22:58	1
2-Nitroaniline	ND		5.1	1.1	ug/L		10/09/18 08:04	10/10/18 22:58	1
2-Nitrophenol	ND	F1	10	2.2	ug/L		10/09/18 08:04	10/10/18 22:58	1
3-Nitroaniline	ND		10	2.3	ug/L		10/09/18 08:04	10/10/18 22:58	1
4,6-Dinitro-2-methylphenol	ND	F1	20	5.0	ug/L		10/09/18 08:04	10/10/18 22:58	1
4-Bromophenyl phenyl ether	ND		5.1	0.92	ug/L		10/09/18 08:04	10/10/18 22:58	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		10/09/18 08:04	10/10/18 22:58	1
4-Chloroaniline	ND		10	2.1	ug/L		10/09/18 08:04	10/10/18 22:58	1
4-Chlorophenyl phenyl ether	ND	F1	5.1	0.82	ug/L		10/09/18 08:04	10/10/18 22:58	1
4-Nitroaniline	ND		10	4.0	ug/L		10/09/18 08:04	10/10/18 22:58	1
4-Nitrophenol	ND		20	2.4	ug/L		10/09/18 08:04	10/10/18 22:58	1
Acenaphthene	ND		1.0	0.37	ug/L		10/09/18 08:04	10/10/18 22:58	1
Acenaphthylene	ND		1.0	0.33	ug/L		10/09/18 08:04	10/10/18 22:58	1
Anthracene	ND	F1	1.0	0.33	ug/L		10/09/18 08:04	10/10/18 22:58	1
Benzo[a]pyrene	ND	F1 *	0.20	0.057	ug/L		10/09/18 08:04	10/10/18 22:58	1
Benzo[b]fluoranthene	ND	F1	0.20	0.059	ug/L		10/09/18 08:04	10/10/18 22:58	1
Benzo[g,h,i]perylene	ND	F1	1.0	0.43	ug/L		10/09/18 08:04	10/10/18 22:58	1
Benzo[k]fluoranthene	ND	F1	0.20	0.075	ug/L		10/09/18 08:04	10/10/18 22:58	1
Benzoic acid	ND		20	4.6	ug/L		10/09/18 08:04	10/10/18 22:58	1
Benzyl alcohol	ND		20	3.1	ug/L		10/09/18 08:04	10/10/18 22:58	1
Bis(2-chloroethoxy)methane	ND	F1	2.0	0.30	ug/L		10/09/18 08:04	10/10/18 22:58	1

Client Sample ID: SUPE-W-28C-100218

Lab Sample ID: 480-142837-2

Date Collected: 10/02/18 10:04

Matrix: Water

Date Received: 10/03/18 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethyl)ether	ND	F1	2.0	0.36	ug/L		10/09/18 08:04	10/10/18 22:58	1
Bis(2-ethylhexyl) phthalate	ND	F1	10	2.5	ug/L		10/09/18 08:04	10/10/18 22:58	1
Butyl benzyl phthalate	ND	F1	2.0	0.27	ug/L		10/09/18 08:04	10/10/18 22:58	1
Chrysene	ND	F1	0.51	0.14	ug/L		10/09/18 08:04	10/10/18 22:58	1
Dibenz(a,h)anthracene	ND	F1	0.30	0.065	ug/L		10/09/18 08:04	10/10/18 22:58	1
Dibenzofuran	ND		2.0	0.36	ug/L		10/09/18 08:04	10/10/18 22:58	1
Diethyl phthalate	ND		2.0	0.45	ug/L		10/09/18 08:04	10/10/18 22:58	1
Dimethyl phthalate	ND	F1	2.0	0.39	ug/L		10/09/18 08:04	10/10/18 22:58	1
Di-n-butyl phthalate	ND	F1	5.1	0.81	ug/L		10/09/18 08:04	10/10/18 22:58	1
Di-n-octyl phthalate	ND	F1	10	2.5	ug/L		10/09/18 08:04	10/10/18 22:58	1
2,3,5,6-Tetrachlorophenol	ND		5.1	2.5	ug/L		10/09/18 08:04	10/10/18 22:58	1
Fluoranthene	ND	F1	1.0	0.33	ug/L		10/09/18 08:04	10/10/18 22:58	1
Fluorene	ND		1.0	0.39	ug/L		10/09/18 08:04	10/10/18 22:58	1
Hexachlorobenzene	ND		0.51	0.14	ug/L		10/09/18 08:04	10/10/18 22:58	1
Hexachlorobutadiene	ND		5.1	1.1	ug/L		10/09/18 08:04	10/10/18 22:58	1
Hexachlorocyclopentadiene	ND		20	3.5	ug/L		10/09/18 08:04	10/10/18 22:58	1
Hexachloroethane	ND		5.1	0.99	ug/L		10/09/18 08:04	10/10/18 22:58	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.085	ug/L		10/09/18 08:04	10/10/18 22:58	1
Isophorone	ND	F1	2.0	0.29	ug/L		10/09/18 08:04	10/10/18 22:58	1
Nitrobenzene	ND	F1	1.0	0.46	ug/L		10/09/18 08:04	10/10/18 22:58	1
N-Nitrosodi-n-propylamine	ND	F1	0.51	0.14	ug/L		10/09/18 08:04	10/10/18 22:58	1
N-Nitrosodiphenylamine	ND	F1	2.0	0.35	ug/L		10/09/18 08:04	10/10/18 22:58	1
Pentachlorophenol	ND		20	5.7	ug/L		10/09/18 08:04	10/10/18 22:58	1
Phenol	ND		5.1	0.37	ug/L		10/09/18 08:04	10/10/18 22:58	1
Pyrene	ND	F1	1.0	0.49	ug/L		10/09/18 08:04	10/10/18 22:58	1
2,4-Dimethylphenol	ND	F1	10	3.4	ug/L		10/09/18 08:04	10/10/18 22:58	1
Benzo[a]anthracene	ND	F1	0.20	0.045	ug/L		10/09/18 08:04	10/10/18 22:58	1
Phenanthrene	ND	F1	1.0	0.36	ug/L		10/09/18 08:04	10/10/18 22:58	1
3,3'-Dichlorobenzidine	ND		5.1	0.95	ug/L		10/09/18 08:04	10/10/18 22:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*115*		*40 - 145*	*10/09/18 08:04*	*10/10/18 22:58*	*1*
2-Fluorobiphenyl	*105*		*34 - 110*	*10/09/18 08:04*	*10/10/18 22:58*	*1*
2-Fluorophenol (Surr)	*59*		*27 - 110*	*10/09/18 08:04*	*10/10/18 22:58*	*1*
Nitrobenzene-d5 (Surr)	*98*		*36 - 120*	*10/09/18 08:04*	*10/10/18 22:58*	*1*
Phenol-d5 (Surr)	*35*		*20 - 100*	*10/09/18 08:04*	*10/10/18 22:58*	*1*
Terphenyl-d14 (Surr)	*127*		*40 - 145*	*10/09/18 08:04*	*10/10/18 22:58*	*1*

Client Sample ID: SUPE-W-18D-100218

Lab Sample ID: 480-142837-3

Date Collected: 10/02/18 13:51

Matrix: Water

Date Received: 10/03/18 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		1.0	0.34	ug/L		10/08/18 14:31	10/15/18 19:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*89*		*24 - 146*	*10/08/18 14:31*	*10/15/18 19:03*	*1*
2-Fluorobiphenyl	*67*		*37 - 120*	*10/08/18 14:31*	*10/15/18 19:03*	*1*
2-Fluorophenol (Surr)	*36*		*10 - 120*	*10/08/18 14:31*	*10/15/18 19:03*	*1*

Client Sample ID: SUPE-W-18D-100218
Date Collected: 10/02/18 13:51
Date Received: 10/03/18 10:00

Lab Sample ID: 480-142837-3
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	*53*		*26 - 120*	*10/08/18 14:31*	*10/15/18 19:03*	*1*
Phenol-d5 (Surr)	*28*		*11 - 120*	*10/08/18 14:31*	*10/15/18 19:03*	*1*
p-Terphenyl-d14	*78*		*64 - 127*	*10/08/18 14:31*	*10/15/18 19:03*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		10/09/18 08:04	10/10/18 23:27	1
1,2,4-Trichlorobenzene	ND		2.0	0.30	ug/L		10/09/18 08:04	10/10/18 23:27	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		10/09/18 08:04	10/10/18 23:27	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		10/09/18 08:04	10/10/18 23:27	1
1-Methylnaphthalene	ND		2.0	0.50	ug/L		10/09/18 08:04	10/10/18 23:27	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		10/09/18 08:04	10/10/18 23:27	1
2,3,4,6-Tetrachlorophenol	ND		5.0	1.5	ug/L		10/09/18 08:04	10/10/18 23:27	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		10/09/18 08:04	10/10/18 23:27	1
2,4,6-Trichlorophenol	ND		5.0	1.1	ug/L		10/09/18 08:04	10/10/18 23:27	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		10/09/18 08:04	10/10/18 23:27	1
2,4-Dinitrophenol	ND		20	7.5	ug/L		10/09/18 08:04	10/10/18 23:27	1
2,4-Dinitrotoluene	ND		1.0	0.30	ug/L		10/09/18 08:04	10/10/18 23:27	1
2,6-Dinitrotoluene	ND	*	1.0	0.12	ug/L		10/09/18 08:04	10/10/18 23:27	1
3 & 4 Methylphenol	ND		2.0	0.44	ug/L		10/09/18 08:04	10/10/18 23:27	1
2-Chloronaphthalene	ND		2.0	0.34	ug/L		10/09/18 08:04	10/10/18 23:27	1
2-Chlorophenol	ND		5.0	0.80	ug/L		10/09/18 08:04	10/10/18 23:27	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/09/18 08:04	10/10/18 23:27	1
2-Methylphenol	ND		2.0	0.31	ug/L		10/09/18 08:04	10/10/18 23:27	1
2-Nitroaniline	ND		5.0	1.1	ug/L		10/09/18 08:04	10/10/18 23:27	1
2-Nitrophenol	ND		10	2.1	ug/L		10/09/18 08:04	10/10/18 23:27	1
3-Nitroaniline	ND		10	2.3	ug/L		10/09/18 08:04	10/10/18 23:27	1
4,6-Dinitro-2-methylphenol	ND		20	4.9	ug/L		10/09/18 08:04	10/10/18 23:27	1
4-Bromophenyl phenyl ether	ND		5.0	0.91	ug/L		10/09/18 08:04	10/10/18 23:27	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		10/09/18 08:04	10/10/18 23:27	1
4-Chloroaniline	ND		10	2.1	ug/L		10/09/18 08:04	10/10/18 23:27	1
4-Chlorophenyl phenyl ether	ND		5.0	0.81	ug/L		10/09/18 08:04	10/10/18 23:27	1
4-Nitroaniline	ND		10	3.9	ug/L		10/09/18 08:04	10/10/18 23:27	1
4-Nitrophenol	ND		20	2.4	ug/L		10/09/18 08:04	10/10/18 23:27	1
Acenaphthene	ND		1.0	0.36	ug/L		10/09/18 08:04	10/10/18 23:27	1
Acenaphthylene	ND		1.0	0.32	ug/L		10/09/18 08:04	10/10/18 23:27	1
Anthracene	ND		1.0	0.32	ug/L		10/09/18 08:04	10/10/18 23:27	1
Benzo[a]pyrene	ND	*	0.20	0.056	ug/L		10/09/18 08:04	10/10/18 23:27	1
Benzo[b]fluoranthene	ND		0.20	0.058	ug/L		10/09/18 08:04	10/10/18 23:27	1
Benzo[g,h,i]perylene	ND		1.0	0.42	ug/L		10/09/18 08:04	10/10/18 23:27	1
Benzo[k]fluoranthene	ND		0.20	0.074	ug/L		10/09/18 08:04	10/10/18 23:27	1
Benzoic acid	ND		20	4.6	ug/L		10/09/18 08:04	10/10/18 23:27	1
Benzyl alcohol	ND		20	3.1	ug/L		10/09/18 08:04	10/10/18 23:27	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		10/09/18 08:04	10/10/18 23:27	1
Bis(2-chloroethyl)ether	ND		2.0	0.35	ug/L		10/09/18 08:04	10/10/18 23:27	1
Bis(2-ethylhexyl) phthalate	ND		10	2.4	ug/L		10/09/18 08:04	10/10/18 23:27	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		10/09/18 08:04	10/10/18 23:27	1
Chrysene	ND		0.50	0.14	ug/L		10/09/18 08:04	10/10/18 23:27	1
Dibenz(a,h)anthracene	ND		0.30	0.064	ug/L		10/09/18 08:04	10/10/18 23:27	1

Client Sample ID: SUPE-W-18D-100218

Lab Sample ID: 480-142837-3

Date Collected: 10/02/18 13:51

Matrix: Water

Date Received: 10/03/18 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	ND		2.0	0.35	ug/L		10/09/18 08:04	10/10/18 23:27	1
Diethyl phthalate	ND		2.0	0.44	ug/L		10/09/18 08:04	10/10/18 23:27	1
Dimethyl phthalate	ND		2.0	0.38	ug/L		10/09/18 08:04	10/10/18 23:27	1
Di-n-butyl phthalate	ND		5.0	0.80	ug/L		10/09/18 08:04	10/10/18 23:27	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		10/09/18 08:04	10/10/18 23:27	1
2,3,5,6-Tetrachlorophenol	ND		5.0	2.5	ug/L		10/09/18 08:04	10/10/18 23:27	1
Fluoranthene	ND		1.0	0.32	ug/L		10/09/18 08:04	10/10/18 23:27	1
Fluorene	ND		1.0	0.38	ug/L		10/09/18 08:04	10/10/18 23:27	1
Hexachlorobenzene	ND		0.50	0.14	ug/L		10/09/18 08:04	10/10/18 23:27	1
Hexachlorobutadiene	ND		5.0	1.1	ug/L		10/09/18 08:04	10/10/18 23:27	1
Hexachlorocyclopentadiene	ND		20	3.5	ug/L		10/09/18 08:04	10/10/18 23:27	1
Hexachloroethane	ND		5.0	0.97	ug/L		10/09/18 08:04	10/10/18 23:27	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.084	ug/L		10/09/18 08:04	10/10/18 23:27	1
Isophorone	ND		2.0	0.29	ug/L		10/09/18 08:04	10/10/18 23:27	1
Nitrobenzene	ND		1.0	0.45	ug/L		10/09/18 08:04	10/10/18 23:27	1
N-Nitrosodi-n-propylamine	ND		0.50	0.14	ug/L		10/09/18 08:04	10/10/18 23:27	1
N-Nitrosodiphenylamine	ND		2.0	0.34	ug/L		10/09/18 08:04	10/10/18 23:27	1
Pentachlorophenol	ND		20	5.6	ug/L		10/09/18 08:04	10/10/18 23:27	1
Phenol	ND		5.0	0.36	ug/L		10/09/18 08:04	10/10/18 23:27	1
Pyrene	ND		1.0	0.48	ug/L		10/09/18 08:04	10/10/18 23:27	1
2,4-Dimethylphenol	ND		10	3.4	ug/L		10/09/18 08:04	10/10/18 23:27	1
Benzo[a]anthracene	ND		0.20	0.044	ug/L		10/09/18 08:04	10/10/18 23:27	1
Phenanthrene	ND		1.0	0.35	ug/L		10/09/18 08:04	10/10/18 23:27	1
3,3'-Dichlorobenzidine	ND		5.0	0.94	ug/L		10/09/18 08:04	10/10/18 23:27	1
Naphthalene	ND		1.0	0.30	ug/L		10/09/18 08:04	10/10/18 23:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*127*		*40 - 145*	*10/09/18 08:04*	*10/10/18 23:27*	*1*
2-Fluorobiphenyl	*111*	*X*	*34 - 110*	*10/09/18 08:04*	*10/10/18 23:27*	*1*
2-Fluorophenol (Surr)	*58*		*27 - 110*	*10/09/18 08:04*	*10/10/18 23:27*	*1*
Nitrobenzene-d5 (Surr)	*100*		*36 - 120*	*10/09/18 08:04*	*10/10/18 23:27*	*1*
Phenol-d5 (Surr)	*33*		*20 - 100*	*10/09/18 08:04*	*10/10/18 23:27*	*1*
Terphenyl-d14 (Surr)	*122*		*40 - 145*	*10/09/18 08:04*	*10/10/18 23:27*	*1*

Client Sample ID: SUPE-W-10AR2-100218

Lab Sample ID: 480-142837-4

Date Collected: 10/02/18 16:14

Matrix: Water

Date Received: 10/03/18 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/11/18 04:03	1
1,2,4-Trimethylbenzene	**6.4**		1.0	0.75	ug/L			10/11/18 04:03	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/11/18 04:03	1
Benzene	**16**		1.0	0.41	ug/L			10/11/18 04:03	1
Chloromethane	ND		1.0	0.35	ug/L			10/11/18 04:03	1
Ethylbenzene	**30**		1.0	0.74	ug/L			10/11/18 04:03	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/11/18 04:03	1
m-Xylene & p-Xylene	**3.3**		2.0	0.66	ug/L			10/11/18 04:03	1
Naphthalene	**1.9**		1.0	0.43	ug/L			10/11/18 04:03	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/11/18 04:03	1

Client Sample ID: SUPE-W-10AR2-100218
Date Collected: 10/02/18 16:14
Date Received: 10/03/18 10:00

Lab Sample ID: 480-142837-4
Matrix: Water

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			10/11/18 04:03	1
o-Xylene	**14**		1.0	0.76	ug/L			10/11/18 04:03	1
Styrene	ND		1.0	0.73	ug/L			10/11/18 04:03	1
Toluene	**2.7**		1.0	0.51	ug/L			10/11/18 04:03	1
Xylenes, Total	**17**		2.0	0.66	ug/L			10/11/18 04:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*77 - 120*		*10/11/18 04:03*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*10/11/18 04:03*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 123*		*10/11/18 04:03*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*10/11/18 04:03*	*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		10/06/18 15:14	10/08/18 12:52	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*91*		*24 - 146*	*10/06/18 15:14*	*10/08/18 12:52*	*5*
2-Fluorobiphenyl	*88*		*37 - 120*	*10/06/18 15:14*	*10/08/18 12:52*	*5*
2-Fluorophenol (Surr)	*44*		*10 - 120*	*10/06/18 15:14*	*10/08/18 12:52*	*5*
Nitrobenzene-d5 (Surr)	*86*		*26 - 120*	*10/06/18 15:14*	*10/08/18 12:52*	*5*
Phenol-d5 (Surr)	*36*		*11 - 120*	*10/06/18 15:14*	*10/08/18 12:52*	*5*
p-Terphenyl-d14	*61*	*X*	*64 - 127*	*10/06/18 15:14*	*10/08/18 12:52*	*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		10/09/18 08:04	10/10/18 23:56	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		10/09/18 08:04	10/10/18 23:56	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		10/09/18 08:04	10/10/18 23:56	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		10/09/18 08:04	10/10/18 23:56	1
1-Methylnaphthalene	**14**		2.0	0.50	ug/L		10/09/18 08:04	10/10/18 23:56	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		10/09/18 08:04	10/10/18 23:56	1
2,3,4,6-Tetrachlorophenol	ND		5.0	1.5	ug/L		10/09/18 08:04	10/10/18 23:56	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		10/09/18 08:04	10/10/18 23:56	1
2,4,6-Trichlorophenol	ND		5.0	1.1	ug/L		10/09/18 08:04	10/10/18 23:56	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		10/09/18 08:04	10/10/18 23:56	1
2,4-Dinitrophenol	ND		20	7.4	ug/L		10/09/18 08:04	10/10/18 23:56	1
2,4-Dinitrotoluene	ND		1.0	0.30	ug/L		10/09/18 08:04	10/10/18 23:56	1
2,6-Dinitrotoluene	ND	*	1.0	0.12	ug/L		10/09/18 08:04	10/10/18 23:56	1
3 & 4 Methylphenol	ND		2.0	0.44	ug/L		10/09/18 08:04	10/10/18 23:56	1
2-Chloronaphthalene	ND		2.0	0.34	ug/L		10/09/18 08:04	10/10/18 23:56	1
2-Chlorophenol	ND		5.0	0.80	ug/L		10/09/18 08:04	10/10/18 23:56	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/09/18 08:04	10/10/18 23:56	1
2-Methylphenol	ND		2.0	0.31	ug/L		10/09/18 08:04	10/10/18 23:56	1
2-Nitroaniline	ND		5.0	1.1	ug/L		10/09/18 08:04	10/10/18 23:56	1
2-Nitrophenol	ND		10	2.1	ug/L		10/09/18 08:04	10/10/18 23:56	1
3-Nitroaniline	ND		10	2.3	ug/L		10/09/18 08:04	10/10/18 23:56	1
4,6-Dinitro-2-methylphenol	ND		20	4.9	ug/L		10/09/18 08:04	10/10/18 23:56	1
4-Bromophenyl phenyl ether	ND		5.0	0.91	ug/L		10/09/18 08:04	10/10/18 23:56	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		10/09/18 08:04	10/10/18 23:56	1

Client Sample ID: SUPE-W-10AR2-100218
Date Collected: 10/02/18 16:14
Date Received: 10/03/18 10:00

Lab Sample ID: 480-142837-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloroaniline	ND		10	2.1	ug/L		10/09/18 08:04	10/10/18 23:56	1
4-Chlorophenyl phenyl ether	ND		5.0	0.81	ug/L		10/09/18 08:04	10/10/18 23:56	1
4-Nitroaniline	ND		10	3.9	ug/L		10/09/18 08:04	10/10/18 23:56	1
4-Nitrophenol	ND		20	2.3	ug/L		10/09/18 08:04	10/10/18 23:56	1
Acenaphthene	**67**		1.0	0.36	ug/L		10/09/18 08:04	10/10/18 23:56	1
Acenaphthylene	**2.1**		1.0	0.32	ug/L		10/09/18 08:04	10/10/18 23:56	1
Anthracene	**0.72**	**J**	1.0	0.32	ug/L		10/09/18 08:04	10/10/18 23:56	1
Benzo[a]pyrene	ND	*	0.20	0.056	ug/L		10/09/18 08:04	10/10/18 23:56	1
Benzo[b]fluoranthene	ND		0.20	0.058	ug/L		10/09/18 08:04	10/10/18 23:56	1
Benzo[g,h,i]perylene	ND		1.0	0.42	ug/L		10/09/18 08:04	10/10/18 23:56	1
Benzo[k]fluoranthene	ND		0.20	0.074	ug/L		10/09/18 08:04	10/10/18 23:56	1
Benzoic acid	ND		20	4.6	ug/L		10/09/18 08:04	10/10/18 23:56	1
Benzyl alcohol	ND		20	3.1	ug/L		10/09/18 08:04	10/10/18 23:56	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		10/09/18 08:04	10/10/18 23:56	1
Bis(2-chloroethyl)ether	ND		2.0	0.35	ug/L		10/09/18 08:04	10/10/18 23:56	1
Bis(2-ethylhexyl) phthalate	ND		10	2.4	ug/L		10/09/18 08:04	10/10/18 23:56	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		10/09/18 08:04	10/10/18 23:56	1
Chrysene	ND		0.50	0.14	ug/L		10/09/18 08:04	10/10/18 23:56	1
Dibenz(a,h)anthracene	ND		0.30	0.064	ug/L		10/09/18 08:04	10/10/18 23:56	1
Dibenzofuran	**5.2**		2.0	0.35	ug/L		10/09/18 08:04	10/10/18 23:56	1
Diethyl phthalate	ND		2.0	0.44	ug/L		10/09/18 08:04	10/10/18 23:56	1
Dimethyl phthalate	ND		2.0	0.38	ug/L		10/09/18 08:04	10/10/18 23:56	1
Di-n-butyl phthalate	ND		5.0	0.80	ug/L		10/09/18 08:04	10/10/18 23:56	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		10/09/18 08:04	10/10/18 23:56	1
2,3,5,6-Tetrachlorophenol	ND		5.0	2.5	ug/L		10/09/18 08:04	10/10/18 23:56	1
Fluoranthene	**2.5**		1.0	0.32	ug/L		10/09/18 08:04	10/10/18 23:56	1
Fluorene	**11**		1.0	0.38	ug/L		10/09/18 08:04	10/10/18 23:56	1
Hexachlorobenzene	ND		0.50	0.14	ug/L		10/09/18 08:04	10/10/18 23:56	1
Hexachlorobutadiene	ND		5.0	1.1	ug/L		10/09/18 08:04	10/10/18 23:56	1
Hexachlorocyclopentadiene	ND		20	3.4	ug/L		10/09/18 08:04	10/10/18 23:56	1
Hexachloroethane	ND		5.0	0.97	ug/L		10/09/18 08:04	10/10/18 23:56	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.084	ug/L		10/09/18 08:04	10/10/18 23:56	1
Isophorone	ND		2.0	0.29	ug/L		10/09/18 08:04	10/10/18 23:56	1
Nitrobenzene	ND		1.0	0.45	ug/L		10/09/18 08:04	10/10/18 23:56	1
N-Nitrosodi-n-propylamine	ND		0.50	0.14	ug/L		10/09/18 08:04	10/10/18 23:56	1
N-Nitrosodiphenylamine	ND		2.0	0.34	ug/L		10/09/18 08:04	10/10/18 23:56	1
Pentachlorophenol	ND		20	5.6	ug/L		10/09/18 08:04	10/10/18 23:56	1
Phenol	**0.47**	**J**	5.0	0.36	ug/L		10/09/18 08:04	10/10/18 23:56	1
Pyrene	**1.6**		1.0	0.48	ug/L		10/09/18 08:04	10/10/18 23:56	1
2,4-Dimethylphenol	ND		10	3.3	ug/L		10/09/18 08:04	10/10/18 23:56	1
Benzo[a]anthracene	ND		0.20	0.044	ug/L		10/09/18 08:04	10/10/18 23:56	1
Phenanthrene	**0.45**	**J**	1.0	0.35	ug/L		10/09/18 08:04	10/10/18 23:56	1
3,3'-Dichlorobenzidine	ND		5.0	0.94	ug/L		10/09/18 08:04	10/10/18 23:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*128*		*40 - 145*	*10/09/18 08:04*	*10/10/18 23:56*	*1*
2-Fluorobiphenyl	*102*		*34 - 110*	*10/09/18 08:04*	*10/10/18 23:56*	*1*
2-Fluorophenol (Surr)	*49*		*27 - 110*	*10/09/18 08:04*	*10/10/18 23:56*	*1*
Nitrobenzene-d5 (Surr)	*88*		*36 - 120*	*10/09/18 08:04*	*10/10/18 23:56*	*1*
Phenol-d5 (Surr)	*42*		*20 - 100*	*10/09/18 08:04*	*10/10/18 23:56*	*1*

Client Sample ID: SUPE-W-10AR2-100218

Lab Sample ID: 480-142837-4
Date Collected: 10/02/18 16:14
Matrix: Water
Date Received: 10/03/18 10:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14 (Surr)	*108*		*40 - 145*	*10/09/18 08:04*	*10/10/18 23:56*	*1*

Client Sample ID: SUPE-W-30C-100218

Lab Sample ID: 480-142837-5
Date Collected: 10/02/18 10:13
Matrix: Water
Date Received: 10/03/18 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/11/18 04:31	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/11/18 04:31	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/11/18 04:31	1
Benzene	ND		1.0	0.41	ug/L			10/11/18 04:31	1
Chloromethane	ND		1.0	0.35	ug/L			10/11/18 04:31	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/11/18 04:31	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/11/18 04:31	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/11/18 04:31	1
Naphthalene	ND		1.0	0.43	ug/L			10/11/18 04:31	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/11/18 04:31	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/11/18 04:31	1
o-Xylene	ND		1.0	0.76	ug/L			10/11/18 04:31	1
Styrene	ND		1.0	0.73	ug/L			10/11/18 04:31	1
Toluene	ND		1.0	0.51	ug/L			10/11/18 04:31	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/11/18 04:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*95*		*77 - 120*		*10/11/18 04:31*	*1*
4-Bromofluorobenzene (Surr)	*93*		*73 - 120*		*10/11/18 04:31*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*10/11/18 04:31*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*10/11/18 04:31*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		1.0	0.34	ug/L		10/06/18 15:14	10/08/18 13:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	*99*		*24 - 146*	*10/06/18 15:14*	*10/08/18 13:21*	*1*
2-Fluorobiphenyl	*96*		*37 - 120*	*10/06/18 15:14*	*10/08/18 13:21*	*1*
2-Fluorophenol (Surr)	*63*		*10 - 120*	*10/06/18 15:14*	*10/08/18 13:21*	*1*
Nitrobenzene-d5 (Surr)	*94*		*26 - 120*	*10/06/18 15:14*	*10/08/18 13:21*	*1*
Phenol-d5 (Surr)	*38*		*11 - 120*	*10/06/18 15:14*	*10/08/18 13:21*	*1*
p-Terphenyl-d14	*94*		*64 - 127*	*10/06/18 15:14*	*10/08/18 13:21*	*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		10/09/18 08:04	10/11/18 00:25	1
1,2-Dichlorobenzene	ND		2.0	0.30	ug/L		10/09/18 08:04	10/11/18 00:25	1
1,3-Dichlorobenzene	ND		2.0	0.26	ug/L		10/09/18 08:04	10/11/18 00:25	1
1,4-Dichlorobenzene	ND		2.0	0.28	ug/L		10/09/18 08:04	10/11/18 00:25	1
1-Methylnaphthalene	ND		2.0	0.51	ug/L		10/09/18 08:04	10/11/18 00:25	1
bis(chloroisopropyl) ether	ND		2.0	0.31	ug/L		10/09/18 08:04	10/11/18 00:25	1

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

TestAmerica Job ID: 480-142837-1

Client Sample ID: SUPE-W-30C-100218
Date Collected: 10/02/18 10:13
Date Received: 10/03/18 10:00

Lab Sample ID: 480-142837-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,6-Tetrachlorophenol	ND		5.1	1.5	ug/L		10/09/18 08:04	10/11/18 00:25	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 00:25	1
2,4,6-Trichlorophenol	ND		5.1	1.1	ug/L		10/09/18 08:04	10/11/18 00:25	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 00:25	1
2,4-Dinitrophenol	ND		20	7.6	ug/L		10/09/18 08:04	10/11/18 00:25	1
2,4-Dinitrotoluene	ND		1.0	0.31	ug/L		10/09/18 08:04	10/11/18 00:25	1
2,6-Dinitrotoluene	ND	*	1.0	0.12	ug/L		10/09/18 08:04	10/11/18 00:25	1
3 & 4 Methylphenol	ND		2.0	0.45	ug/L		10/09/18 08:04	10/11/18 00:25	1
2-Chloronaphthalene	ND		2.0	0.35	ug/L		10/09/18 08:04	10/11/18 00:25	1
2-Chlorophenol	ND		5.1	0.82	ug/L		10/09/18 08:04	10/11/18 00:25	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/09/18 08:04	10/11/18 00:25	1
2-Methylphenol	ND		2.0	0.32	ug/L		10/09/18 08:04	10/11/18 00:25	1
2-Nitroaniline	ND		5.1	1.1	ug/L		10/09/18 08:04	10/11/18 00:25	1
2-Nitrophenol	ND		10	2.2	ug/L		10/09/18 08:04	10/11/18 00:25	1
3-Nitroaniline	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 00:25	1
4,6-Dinitro-2-methylphenol	ND		20	5.0	ug/L		10/09/18 08:04	10/11/18 00:25	1
4-Bromophenyl phenyl ether	ND		5.1	0.93	ug/L		10/09/18 08:04	10/11/18 00:25	1
4-Chloro-3-methylphenol	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 00:25	1
4-Chloroaniline	ND		10	2.2	ug/L		10/09/18 08:04	10/11/18 00:25	1
4-Chlorophenyl phenyl ether	ND		5.1	0.83	ug/L		10/09/18 08:04	10/11/18 00:25	1
4-Nitroaniline	ND		10	4.0	ug/L		10/09/18 08:04	10/11/18 00:25	1
4-Nitrophenol	ND		20	2.4	ug/L		10/09/18 08:04	10/11/18 00:25	1
Acenaphthene	ND		1.0	0.37	ug/L		10/09/18 08:04	10/11/18 00:25	1
Acenaphthylene	ND		1.0	0.33	ug/L		10/09/18 08:04	10/11/18 00:25	1
Anthracene	ND		1.0	0.33	ug/L		10/09/18 08:04	10/11/18 00:25	1
Benzo[a]pyrene	ND	*	0.20	0.057	ug/L		10/09/18 08:04	10/11/18 00:25	1
Benzo[b]fluoranthene	ND		0.20	0.059	ug/L		10/09/18 08:04	10/11/18 00:25	1
Benzo[g,h,i]perylene	ND		1.0	0.43	ug/L		10/09/18 08:04	10/11/18 00:25	1
Benzo[k]fluoranthene	ND		0.20	0.076	ug/L		10/09/18 08:04	10/11/18 00:25	1
Benzoic acid	ND		20	4.7	ug/L		10/09/18 08:04	10/11/18 00:25	1
Benzyl alcohol	ND		20	3.1	ug/L		10/09/18 08:04	10/11/18 00:25	1
Bis(2-chloroethoxy)methane	ND		2.0	0.31	ug/L		10/09/18 08:04	10/11/18 00:25	1
Bis(2-chloroethyl)ether	ND		2.0	0.36	ug/L		10/09/18 08:04	10/11/18 00:25	1
Bis(2-ethylhexyl) phthalate	ND		10	2.5	ug/L		10/09/18 08:04	10/11/18 00:25	1
Butyl benzyl phthalate	ND		2.0	0.28	ug/L		10/09/18 08:04	10/11/18 00:25	1
Chrysene	ND		0.51	0.14	ug/L		10/09/18 08:04	10/11/18 00:25	1
Dibenz(a,h)anthracene	ND		0.31	0.066	ug/L		10/09/18 08:04	10/11/18 00:25	1
Dibenzofuran	ND		2.0	0.36	ug/L		10/09/18 08:04	10/11/18 00:25	1
Diethyl phthalate	ND		2.0	0.45	ug/L		10/09/18 08:04	10/11/18 00:25	1
Dimethyl phthalate	ND		2.0	0.39	ug/L		10/09/18 08:04	10/11/18 00:25	1
Di-n-butyl phthalate	ND		5.1	0.82	ug/L		10/09/18 08:04	10/11/18 00:25	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		10/09/18 08:04	10/11/18 00:25	1
2,3,5,6-Tetrachlorophenol	ND		5.1	2.6	ug/L		10/09/18 08:04	10/11/18 00:25	1
Fluoranthene	ND		1.0	0.33	ug/L		10/09/18 08:04	10/11/18 00:25	1
Fluorene	ND		1.0	0.39	ug/L		10/09/18 08:04	10/11/18 00:25	1
Hexachlorobenzene	ND		0.51	0.14	ug/L		10/09/18 08:04	10/11/18 00:25	1
Hexachlorobutadiene	ND		5.1	1.1	ug/L		10/09/18 08:04	10/11/18 00:25	1
Hexachlorocyclopentadiene	ND		20	3.5	ug/L		10/09/18 08:04	10/11/18 00:25	1
Hexachloroethane	ND		5.1	0.99	ug/L		10/09/18 08:04	10/11/18 00:25	1

Client Sample ID: SUPE-W-30C-100218

Lab Sample ID: 480-142837-5

Date Collected: 10/02/18 10:13

Matrix: Water

Date Received: 10/03/18 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	ND		0.20	0.086	ug/L		10/09/18 08:04	10/11/18 00:25	1
Isophorone	ND		2.0	0.30	ug/L		10/09/18 08:04	10/11/18 00:25	1
Nitrobenzene	ND		1.0	0.46	ug/L		10/09/18 08:04	10/11/18 00:25	1
N-Nitrosodi-n-propylamine	ND		0.51	0.14	ug/L		10/09/18 08:04	10/11/18 00:25	1
N-Nitrosodiphenylamine	ND		2.0	0.35	ug/L		10/09/18 08:04	10/11/18 00:25	1
Pentachlorophenol	ND		20	5.7	ug/L		10/09/18 08:04	10/11/18 00:25	1
Phenol	ND		5.1	0.37	ug/L		10/09/18 08:04	10/11/18 00:25	1
Pyrene	ND		1.0	0.49	ug/L		10/09/18 08:04	10/11/18 00:25	1
2,4-Dimethylphenol	ND		10	3.4	ug/L		10/09/18 08:04	10/11/18 00:25	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		10/09/18 08:04	10/11/18 00:25	1
Phenanthrene	ND		1.0	0.36	ug/L		10/09/18 08:04	10/11/18 00:25	1
3,3'-Dichlorobenzidine	ND		5.1	0.96	ug/L		10/09/18 08:04	10/11/18 00:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*130*		*40 - 145*	*10/09/18 08:04*	*10/11/18 00:25*	*1*
2-Fluorobiphenyl	*118*	*X*	*34 - 110*	*10/09/18 08:04*	*10/11/18 00:25*	*1*
2-Fluorophenol (Surr)	*63*		*27 - 110*	*10/09/18 08:04*	*10/11/18 00:25*	*1*
Nitrobenzene-d5 (Surr)	*110*		*36 - 120*	*10/09/18 08:04*	*10/11/18 00:25*	*1*
Phenol-d5 (Surr)	*38*		*20 - 100*	*10/09/18 08:04*	*10/11/18 00:25*	*1*
Terphenyl-d14 (Surr)	*131*		*40 - 145*	*10/09/18 08:04*	*10/11/18 00:25*	*1*

Client Sample ID: SUPE-W-06A-100218

Lab Sample ID: 480-142837-6

Date Collected: 10/02/18 11:44

Matrix: Water

Date Received: 10/03/18 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/11/18 04:58	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/11/18 04:58	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/11/18 04:58	1
Benzene	ND		1.0	0.41	ug/L			10/11/18 04:58	1
Chloromethane	ND		1.0	0.35	ug/L			10/11/18 04:58	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/11/18 04:58	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/11/18 04:58	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/11/18 04:58	1
Naphthalene	ND		1.0	0.43	ug/L			10/11/18 04:58	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/11/18 04:58	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/11/18 04:58	1
o-Xylene	ND		1.0	0.76	ug/L			10/11/18 04:58	1
Styrene	ND		1.0	0.73	ug/L			10/11/18 04:58	1
Toluene	ND		1.0	0.51	ug/L			10/11/18 04:58	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/11/18 04:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*		*10/11/18 04:58*	*1*
4-Bromofluorobenzene (Surr)	*93*		*73 - 120*		*10/11/18 04:58*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*10/11/18 04:58*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*10/11/18 04:58*	*1*

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

TestAmerica Job ID: 480-142837-1

Client Sample ID: SUPE-W-06A-100218
Date Collected: 10/02/18 11:44
Date Received: 10/03/18 10:00

Lab Sample ID: 480-142837-6
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	ND		1.0	0.34	ug/L		10/06/18 15:14	10/08/18 13:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*96*		*24 - 146*	*10/06/18 15:14*	*10/08/18 13:49*	*1*
2-Fluorobiphenyl	*95*		*37 - 120*	*10/06/18 15:14*	*10/08/18 13:49*	*1*
2-Fluorophenol (Surr)	*59*		*10 - 120*	*10/06/18 15:14*	*10/08/18 13:49*	*1*
Nitrobenzene-d5 (Surr)	*88*		*26 - 120*	*10/06/18 15:14*	*10/08/18 13:49*	*1*
Phenol-d5 (Surr)	*36*		*11 - 120*	*10/06/18 15:14*	*10/08/18 13:49*	*1*
p-Terphenyl-d14	*82*		*64 - 127*	*10/06/18 15:14*	*10/08/18 13:49*	*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		10/09/18 08:04	10/11/18 00:54	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		10/09/18 08:04	10/11/18 00:54	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		10/09/18 08:04	10/11/18 00:54	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		10/09/18 08:04	10/11/18 00:54	1
1-Methylnaphthalene	ND		2.0	0.50	ug/L		10/09/18 08:04	10/11/18 00:54	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		10/09/18 08:04	10/11/18 00:54	1
2,3,4,6-Tetrachlorophenol	ND		5.0	1.5	ug/L		10/09/18 08:04	10/11/18 00:54	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 00:54	1
2,4,6-Trichlorophenol	ND		5.0	1.1	ug/L		10/09/18 08:04	10/11/18 00:54	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 00:54	1
2,4-Dinitrophenol	ND		20	7.4	ug/L		10/09/18 08:04	10/11/18 00:54	1
2,4-Dinitrotoluene	ND		1.0	0.30	ug/L		10/09/18 08:04	10/11/18 00:54	1
2,6-Dinitrotoluene	ND	*	1.0	0.12	ug/L		10/09/18 08:04	10/11/18 00:54	1
3 & 4 Methylphenol	ND		2.0	0.44	ug/L		10/09/18 08:04	10/11/18 00:54	1
2-Chloronaphthalene	ND		2.0	0.34	ug/L		10/09/18 08:04	10/11/18 00:54	1
2-Chlorophenol	ND		5.0	0.80	ug/L		10/09/18 08:04	10/11/18 00:54	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/09/18 08:04	10/11/18 00:54	1
2-Methylphenol	ND		2.0	0.31	ug/L		10/09/18 08:04	10/11/18 00:54	1
2-Nitroaniline	ND		5.0	1.1	ug/L		10/09/18 08:04	10/11/18 00:54	1
2-Nitrophenol	ND		10	2.1	ug/L		10/09/18 08:04	10/11/18 00:54	1
3-Nitroaniline	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 00:54	1
4,6-Dinitro-2-methylphenol	ND		20	4.9	ug/L		10/09/18 08:04	10/11/18 00:54	1
4-Bromophenyl phenyl ether	ND		5.0	0.91	ug/L		10/09/18 08:04	10/11/18 00:54	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		10/09/18 08:04	10/11/18 00:54	1
4-Chloroaniline	ND		10	2.1	ug/L		10/09/18 08:04	10/11/18 00:54	1
4-Chlorophenyl phenyl ether	ND		5.0	0.81	ug/L		10/09/18 08:04	10/11/18 00:54	1
4-Nitroaniline	ND		10	3.9	ug/L		10/09/18 08:04	10/11/18 00:54	1
4-Nitrophenol	ND		20	2.3	ug/L		10/09/18 08:04	10/11/18 00:54	1
Acenaphthene	ND		1.0	0.36	ug/L		10/09/18 08:04	10/11/18 00:54	1
Acenaphthylene	ND		1.0	0.32	ug/L		10/09/18 08:04	10/11/18 00:54	1
Anthracene	ND		1.0	0.32	ug/L		10/09/18 08:04	10/11/18 00:54	1
Benzo[a]pyrene	ND	*	0.20	0.056	ug/L		10/09/18 08:04	10/11/18 00:54	1
Benzo[b]fluoranthene	ND		0.20	0.058	ug/L		10/09/18 08:04	10/11/18 00:54	1
Benzo[g,h,i]perylene	ND		1.0	0.42	ug/L		10/09/18 08:04	10/11/18 00:54	1
Benzo[k]fluoranthene	ND		0.20	0.074	ug/L		10/09/18 08:04	10/11/18 00:54	1
Benzoic acid	ND		20	4.6	ug/L		10/09/18 08:04	10/11/18 00:54	1
Benzyl alcohol	ND		20	3.1	ug/L		10/09/18 08:04	10/11/18 00:54	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		10/09/18 08:04	10/11/18 00:54	1

Client Sample ID: SUPE-W-06A-100218

Lab Sample ID: 480-142837-6

Date Collected: 10/02/18 11:44

Matrix: Water

Date Received: 10/03/18 10:00

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	0.35	ug/L		10/09/18 08:04	10/11/18 00:54	1
Bis(2-ethylhexyl) phthalate	ND		10	2.4	ug/L		10/09/18 08:04	10/11/18 00:54	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		10/09/18 08:04	10/11/18 00:54	1
Chrysene	ND		0.50	0.14	ug/L		10/09/18 08:04	10/11/18 00:54	1
Dibenz(a,h)anthracene	ND		0.30	0.064	ug/L		10/09/18 08:04	10/11/18 00:54	1
Dibenzofuran	ND		2.0	0.35	ug/L		10/09/18 08:04	10/11/18 00:54	1
Diethyl phthalate	ND		2.0	0.44	ug/L		10/09/18 08:04	10/11/18 00:54	1
Dimethyl phthalate	ND		2.0	0.38	ug/L		10/09/18 08:04	10/11/18 00:54	1
Di-n-butyl phthalate	ND		5.0	0.80	ug/L		10/09/18 08:04	10/11/18 00:54	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		10/09/18 08:04	10/11/18 00:54	1
2,3,5,6-Tetrachlorophenol	ND		5.0	2.5	ug/L		10/09/18 08:04	10/11/18 00:54	1
Fluoranthene	ND		1.0	0.32	ug/L		10/09/18 08:04	10/11/18 00:54	1
Fluorene	ND		1.0	0.38	ug/L		10/09/18 08:04	10/11/18 00:54	1
Hexachlorobenzene	ND		0.50	0.14	ug/L		10/09/18 08:04	10/11/18 00:54	1
Hexachlorobutadiene	ND		5.0	1.1	ug/L		10/09/18 08:04	10/11/18 00:54	1
Hexachlorocyclopentadiene	ND		20	3.4	ug/L		10/09/18 08:04	10/11/18 00:54	1
Hexachloroethane	ND		5.0	0.97	ug/L		10/09/18 08:04	10/11/18 00:54	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.084	ug/L		10/09/18 08:04	10/11/18 00:54	1
Isophorone	ND		2.0	0.29	ug/L		10/09/18 08:04	10/11/18 00:54	1
Nitrobenzene	ND		1.0	0.45	ug/L		10/09/18 08:04	10/11/18 00:54	1
N-Nitrosodi-n-propylamine	ND		0.50	0.14	ug/L		10/09/18 08:04	10/11/18 00:54	1
N-Nitrosodiphenylamine	ND		2.0	0.34	ug/L		10/09/18 08:04	10/11/18 00:54	1
Pentachlorophenol	ND		20	5.6	ug/L		10/09/18 08:04	10/11/18 00:54	1
Phenol	ND		5.0	0.36	ug/L		10/09/18 08:04	10/11/18 00:54	1
Pyrene	ND		1.0	0.48	ug/L		10/09/18 08:04	10/11/18 00:54	1
2,4-Dimethylphenol	ND		10	3.3	ug/L		10/09/18 08:04	10/11/18 00:54	1
Benzo[a]anthracene	ND		0.20	0.044	ug/L		10/09/18 08:04	10/11/18 00:54	1
Phenanthrene	ND		1.0	0.35	ug/L		10/09/18 08:04	10/11/18 00:54	1
3,3'-Dichlorobenzidine	ND		5.0	0.94	ug/L		10/09/18 08:04	10/11/18 00:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*124*		*40 - 145*	*10/09/18 08:04*	*10/11/18 00:54*	*1*
2-Fluorobiphenyl	*113*	*X*	*34 - 110*	*10/09/18 08:04*	*10/11/18 00:54*	*1*
2-Fluorophenol (Surr)	*56*		*27 - 110*	*10/09/18 08:04*	*10/11/18 00:54*	*1*
Nitrobenzene-d5 (Surr)	*107*		*36 - 120*	*10/09/18 08:04*	*10/11/18 00:54*	*1*
Phenol-d5 (Surr)	*40*		*20 - 100*	*10/09/18 08:04*	*10/11/18 00:54*	*1*
Terphenyl-d14 (Surr)	*124*		*40 - 145*	*10/09/18 08:04*	*10/11/18 00:54*	*1*

Client Sample ID: SUPE-W-06C-100218

Lab Sample ID: 480-142837-7

Date Collected: 10/02/18 12:57

Matrix: Water

Date Received: 10/03/18 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/11/18 05:26	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/11/18 05:26	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/11/18 05:26	1
Benzene	ND		1.0	0.41	ug/L			10/11/18 05:26	1
Chloromethane	ND		1.0	0.35	ug/L			10/11/18 05:26	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/11/18 05:26	1

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

TestAmerica Job ID: 480-142837-1

Client Sample ID: SUPE-W-06C-100218
Date Collected: 10/02/18 12:57
Date Received: 10/03/18 10:00

Lab Sample ID: 480-142837-7
Matrix: Water

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		1.0	0.16	ug/L			10/11/18 05:26	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/11/18 05:26	1
Naphthalene	ND		1.0	0.43	ug/L			10/11/18 05:26	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/11/18 05:26	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/11/18 05:26	1
o-Xylene	ND		1.0	0.76	ug/L			10/11/18 05:26	1
Styrene	ND		1.0	0.73	ug/L			10/11/18 05:26	1
Toluene	ND		1.0	0.51	ug/L			10/11/18 05:26	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/11/18 05:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*77 - 120*		*10/11/18 05:26*	*1*
4-Bromofluorobenzene (Surr)	*91*		*73 - 120*		*10/11/18 05:26*	*1*
Dibromofluoromethane (Surr)	*97*		*75 - 123*		*10/11/18 05:26*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*10/11/18 05:26*	*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		10/06/18 15:14	10/08/18 14:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*100*		*24 - 146*	*10/06/18 15:14*	*10/08/18 14:18*	*1*
2-Fluorobiphenyl	*96*		*37 - 120*	*10/06/18 15:14*	*10/08/18 14:18*	*1*
2-Fluorophenol (Surr)	*66*		*10 - 120*	*10/06/18 15:14*	*10/08/18 14:18*	*1*
Nitrobenzene-d5 (Surr)	*93*		*26 - 120*	*10/06/18 15:14*	*10/08/18 14:18*	*1*
Phenol-d5 (Surr)	*40*		*11 - 120*	*10/06/18 15:14*	*10/08/18 14:18*	*1*
p-Terphenyl-d14	*92*		*64 - 127*	*10/06/18 15:14*	*10/08/18 14:18*	*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		10/09/18 08:04	10/11/18 01:23	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		10/09/18 08:04	10/11/18 01:23	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		10/09/18 08:04	10/11/18 01:23	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		10/09/18 08:04	10/11/18 01:23	1
1-Methylnaphthalene	ND		2.0	0.51	ug/L		10/09/18 08:04	10/11/18 01:23	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		10/09/18 08:04	10/11/18 01:23	1
2,3,4,6-Tetrachlorophenol	ND		5.1	1.5	ug/L		10/09/18 08:04	10/11/18 01:23	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 01:23	1
2,4,6-Trichlorophenol	ND		5.1	1.1	ug/L		10/09/18 08:04	10/11/18 01:23	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 01:23	1
2,4-Dinitrophenol	ND		20	7.5	ug/L		10/09/18 08:04	10/11/18 01:23	1
2,4-Dinitrotoluene	ND		1.0	0.30	ug/L		10/09/18 08:04	10/11/18 01:23	1
2,6-Dinitrotoluene	ND	*	1.0	0.12	ug/L		10/09/18 08:04	10/11/18 01:23	1
3 & 4 Methylphenol	ND		2.0	0.45	ug/L		10/09/18 08:04	10/11/18 01:23	1
2-Chloronaphthalene	ND		2.0	0.35	ug/L		10/09/18 08:04	10/11/18 01:23	1
2-Chlorophenol	ND		5.1	0.81	ug/L		10/09/18 08:04	10/11/18 01:23	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/09/18 08:04	10/11/18 01:23	1
2-Methylphenol	ND		2.0	0.31	ug/L		10/09/18 08:04	10/11/18 01:23	1
2-Nitroaniline	ND		5.1	1.1	ug/L		10/09/18 08:04	10/11/18 01:23	1
2-Nitrophenol	ND		10	2.2	ug/L		10/09/18 08:04	10/11/18 01:23	1

Client Sample ID: SUPE-W-06C-100218
Date Collected: 10/02/18 12:57
Date Received: 10/03/18 10:00

Lab Sample ID: 480-142837-7
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		10/09/18 08:04	10/11/18 01:23	1
4,6-Dinitro-2-methylphenol	ND		20	5.0	ug/L		10/09/18 08:04	10/11/18 01:23	1
4-Bromophenyl phenyl ether	ND		5.1	0.92	ug/L		10/09/18 08:04	10/11/18 01:23	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		10/09/18 08:04	10/11/18 01:23	1
4-Chloroaniline	ND		10	2.1	ug/L		10/09/18 08:04	10/11/18 01:23	1
4-Chlorophenyl phenyl ether	ND		5.1	0.82	ug/L		10/09/18 08:04	10/11/18 01:23	1
4-Nitroaniline	ND		10	4.0	ug/L		10/09/18 08:04	10/11/18 01:23	1
4-Nitrophenol	ND		20	2.4	ug/L		10/09/18 08:04	10/11/18 01:23	1
Acenaphthene	ND		1.0	0.37	ug/L		10/09/18 08:04	10/11/18 01:23	1
Acenaphthylene	ND		1.0	0.33	ug/L		10/09/18 08:04	10/11/18 01:23	1
Anthracene	ND		1.0	0.33	ug/L		10/09/18 08:04	10/11/18 01:23	1
Benzo[a]pyrene	ND	*	0.20	0.057	ug/L		10/09/18 08:04	10/11/18 01:23	1
Benzo[b]fluoranthene	ND		0.20	0.059	ug/L		10/09/18 08:04	10/11/18 01:23	1
Benzo[g,h,i]perylene	ND		1.0	0.43	ug/L		10/09/18 08:04	10/11/18 01:23	1
Benzo[k]fluoranthene	ND		0.20	0.075	ug/L		10/09/18 08:04	10/11/18 01:23	1
Benzoic acid	ND		20	4.6	ug/L		10/09/18 08:04	10/11/18 01:23	1
Benzyl alcohol	ND		20	3.1	ug/L		10/09/18 08:04	10/11/18 01:23	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		10/09/18 08:04	10/11/18 01:23	1
Bis(2-chloroethyl)ether	ND		2.0	0.36	ug/L		10/09/18 08:04	10/11/18 01:23	1
Bis(2-ethylhexyl) phthalate	ND		10	2.5	ug/L		10/09/18 08:04	10/11/18 01:23	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		10/09/18 08:04	10/11/18 01:23	1
Chrysene	ND		0.51	0.14	ug/L		10/09/18 08:04	10/11/18 01:23	1
Dibenz(a,h)anthracene	ND		0.30	0.065	ug/L		10/09/18 08:04	10/11/18 01:23	1
Dibenzofuran	ND		2.0	0.36	ug/L		10/09/18 08:04	10/11/18 01:23	1
Diethyl phthalate	ND		2.0	0.45	ug/L		10/09/18 08:04	10/11/18 01:23	1
Dimethyl phthalate	ND		2.0	0.39	ug/L		10/09/18 08:04	10/11/18 01:23	1
Di-n-butyl phthalate	ND		5.1	0.81	ug/L		10/09/18 08:04	10/11/18 01:23	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		10/09/18 08:04	10/11/18 01:23	1
2,3,5,6-Tetrachlorophenol	ND		5.1	2.5	ug/L		10/09/18 08:04	10/11/18 01:23	1
Fluoranthene	ND		1.0	0.33	ug/L		10/09/18 08:04	10/11/18 01:23	1
Fluorene	ND		1.0	0.39	ug/L		10/09/18 08:04	10/11/18 01:23	1
Hexachlorobenzene	ND		0.51	0.14	ug/L		10/09/18 08:04	10/11/18 01:23	1
Hexachlorobutadiene	ND		5.1	1.1	ug/L		10/09/18 08:04	10/11/18 01:23	1
Hexachlorocyclopentadiene	ND		20	3.5	ug/L		10/09/18 08:04	10/11/18 01:23	1
Hexachloroethane	ND		5.1	0.99	ug/L		10/09/18 08:04	10/11/18 01:23	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.085	ug/L		10/09/18 08:04	10/11/18 01:23	1
Isophorone	ND		2.0	0.29	ug/L		10/09/18 08:04	10/11/18 01:23	1
Nitrobenzene	ND		1.0	0.46	ug/L		10/09/18 08:04	10/11/18 01:23	1
N-Nitrosodi-n-propylamine	ND		0.51	0.14	ug/L		10/09/18 08:04	10/11/18 01:23	1
N-Nitrosodiphenylamine	ND		2.0	0.35	ug/L		10/09/18 08:04	10/11/18 01:23	1
Pentachlorophenol	ND		20	5.7	ug/L		10/09/18 08:04	10/11/18 01:23	1
Phenol	ND		5.1	0.37	ug/L		10/09/18 08:04	10/11/18 01:23	1
Pyrene	ND		1.0	0.49	ug/L		10/09/18 08:04	10/11/18 01:23	1
2,4-Dimethylphenol	ND		10	3.4	ug/L		10/09/18 08:04	10/11/18 01:23	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		10/09/18 08:04	10/11/18 01:23	1
Phenanthrene	ND		1.0	0.36	ug/L		10/09/18 08:04	10/11/18 01:23	1
3,3'-Dichlorobenzidine	ND		5.1	0.95	ug/L		10/09/18 08:04	10/11/18 01:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*125*		*40 - 145*	*10/09/18 08:04*	*10/11/18 01:23*	*1*

Client Sample ID: SUPE-W-06C-100218

Lab Sample ID: 480-142837-7
Date Collected: 10/02/18 12:57
Matrix: Water
Date Received: 10/03/18 10:00

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*115*	*X*	*34 - 110*	*10/09/18 08:04*	*10/11/18 01:23*	*1*
2-Fluorophenol (Surr)	*61*		*27 - 110*	*10/09/18 08:04*	*10/11/18 01:23*	*1*
Nitrobenzene-d5 (Surr)	*106*		*36 - 120*	*10/09/18 08:04*	*10/11/18 01:23*	*1*
Phenol-d5 (Surr)	*39*		*20 - 100*	*10/09/18 08:04*	*10/11/18 01:23*	*1*
Terphenyl-d14 (Surr)	*124*		*40 - 145*	*10/09/18 08:04*	*10/11/18 01:23*	*1*

Client Sample ID: SUPE-EB--01-100218

Lab Sample ID: 480-142837-8
Date Collected: 10/02/18 13:15
Matrix: Water
Date Received: 10/03/18 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/12/18 12:24	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/12/18 12:24	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/12/18 12:24	1
Benzene	ND		1.0	0.41	ug/L			10/12/18 12:24	1
Chloromethane	ND		1.0	0.35	ug/L			10/12/18 12:24	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/12/18 12:24	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/12/18 12:24	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/12/18 12:24	1
Naphthalene	ND		1.0	0.43	ug/L			10/12/18 12:24	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/12/18 12:24	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/12/18 12:24	1
o-Xylene	ND		1.0	0.76	ug/L			10/12/18 12:24	1
Styrene	ND		1.0	0.73	ug/L			10/12/18 12:24	1
Toluene	ND		1.0	0.51	ug/L			10/12/18 12:24	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/12/18 12:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*77 - 120*		*10/12/18 12:24*	*1*
4-Bromofluorobenzene (Surr)	*90*		*73 - 120*		*10/12/18 12:24*	*1*
Dibromofluoromethane (Surr)	*95*		*75 - 123*		*10/12/18 12:24*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*10/12/18 12:24*	*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		10/06/18 15:14	10/08/18 14:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*75*		*24 - 146*	*10/06/18 15:14*	*10/08/18 14:47*	*1*
2-Fluorobiphenyl	*94*		*37 - 120*	*10/06/18 15:14*	*10/08/18 14:47*	*1*
2-Fluorophenol (Surr)	*56*		*10 - 120*	*10/06/18 15:14*	*10/08/18 14:47*	*1*
Nitrobenzene-d5 (Surr)	*98*		*26 - 120*	*10/06/18 15:14*	*10/08/18 14:47*	*1*
Phenol-d5 (Surr)	*38*		*11 - 120*	*10/06/18 15:14*	*10/08/18 14:47*	*1*
p-Terphenyl-d14	*108*		*64 - 127*	*10/06/18 15:14*	*10/08/18 14:47*	*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		10/09/18 08:04	10/11/18 01:52	1
1,2-Dichlorobenzene	ND		2.1	0.30	ug/L		10/09/18 08:04	10/11/18 01:52	1

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

TestAmerica Job ID: 480-142837-1

Client Sample ID: SUPE-EB--01-100218
Date Collected: 10/02/18 13:15
Date Received: 10/03/18 10:00

Lab Sample ID: 480-142837-8
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		2.1	0.26	ug/L		10/09/18 08:04	10/11/18 01:52	1
1,4-Dichlorobenzene	ND		2.1	0.28	ug/L		10/09/18 08:04	10/11/18 01:52	1
1-Methylnaphthalene	ND		2.1	0.52	ug/L		10/09/18 08:04	10/11/18 01:52	1
bis(chloroisopropyl) ether	ND		2.1	0.31	ug/L		10/09/18 08:04	10/11/18 01:52	1
2,3,4,6-Tetrachlorophenol	ND		5.2	1.6	ug/L		10/09/18 08:04	10/11/18 01:52	1
2,4,5-Trichlorophenol	ND		10	2.4	ug/L		10/09/18 08:04	10/11/18 01:52	1
2,4,6-Trichlorophenol	ND		5.2	1.1	ug/L		10/09/18 08:04	10/11/18 01:52	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 01:52	1
2,4-Dinitrophenol	ND		21	7.7	ug/L		10/09/18 08:04	10/11/18 01:52	1
2,4-Dinitrotoluene	ND		1.0	0.31	ug/L		10/09/18 08:04	10/11/18 01:52	1
2,6-Dinitrotoluene	ND	*	1.0	0.12	ug/L		10/09/18 08:04	10/11/18 01:52	1
3 & 4 Methylphenol	ND		2.1	0.45	ug/L		10/09/18 08:04	10/11/18 01:52	1
2-Chloronaphthalene	ND		2.1	0.35	ug/L		10/09/18 08:04	10/11/18 01:52	1
2-Chlorophenol	ND		5.2	0.82	ug/L		10/09/18 08:04	10/11/18 01:52	1
2-Methylnaphthalene	ND		2.1	0.13	ug/L		10/09/18 08:04	10/11/18 01:52	1
2-Methylphenol	ND		2.1	0.32	ug/L		10/09/18 08:04	10/11/18 01:52	1
2-Nitroaniline	ND		5.2	1.1	ug/L		10/09/18 08:04	10/11/18 01:52	1
2-Nitrophenol	ND		10	2.2	ug/L		10/09/18 08:04	10/11/18 01:52	1
3-Nitroaniline	ND		10	2.4	ug/L		10/09/18 08:04	10/11/18 01:52	1
4,6-Dinitro-2-methylphenol	ND		21	5.1	ug/L		10/09/18 08:04	10/11/18 01:52	1
4-Bromophenyl phenyl ether	ND		5.2	0.94	ug/L		10/09/18 08:04	10/11/18 01:52	1
4-Chloro-3-methylphenol	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 01:52	1
4-Chloroaniline	ND		10	2.2	ug/L		10/09/18 08:04	10/11/18 01:52	1
4-Chlorophenyl phenyl ether	ND		5.2	0.83	ug/L		10/09/18 08:04	10/11/18 01:52	1
4-Nitroaniline	ND		10	4.0	ug/L		10/09/18 08:04	10/11/18 01:52	1
4-Nitrophenol	ND		21	2.4	ug/L		10/09/18 08:04	10/11/18 01:52	1
Acenaphthene	ND		1.0	0.37	ug/L		10/09/18 08:04	10/11/18 01:52	1
Acenaphthylene	ND		1.0	0.33	ug/L		10/09/18 08:04	10/11/18 01:52	1
Anthracene	ND		1.0	0.33	ug/L		10/09/18 08:04	10/11/18 01:52	1
Benzo[a]pyrene	ND	*	0.21	0.058	ug/L		10/09/18 08:04	10/11/18 01:52	1
Benzo[b]fluoranthene	ND		0.21	0.060	ug/L		10/09/18 08:04	10/11/18 01:52	1
Benzo[g,h,i]perylene	ND		1.0	0.43	ug/L		10/09/18 08:04	10/11/18 01:52	1
Benzo[k]fluoranthene	ND		0.21	0.076	ug/L		10/09/18 08:04	10/11/18 01:52	1
Benzoic acid	ND		21	4.7	ug/L		10/09/18 08:04	10/11/18 01:52	1
Benzyl alcohol	ND		21	3.1	ug/L		10/09/18 08:04	10/11/18 01:52	1
Bis(2-chloroethoxy)methane	ND		2.1	0.31	ug/L		10/09/18 08:04	10/11/18 01:52	1
Bis(2-chloroethyl)ether	ND		2.1	0.36	ug/L		10/09/18 08:04	10/11/18 01:52	1
Bis(2-ethylhexyl) phthalate	ND		10	2.5	ug/L		10/09/18 08:04	10/11/18 01:52	1
Butyl benzyl phthalate	ND		2.1	0.28	ug/L		10/09/18 08:04	10/11/18 01:52	1
Chrysene	ND		0.52	0.14	ug/L		10/09/18 08:04	10/11/18 01:52	1
Dibenz(a,h)anthracene	ND		0.31	0.066	ug/L		10/09/18 08:04	10/11/18 01:52	1
Dibenzofuran	ND		2.1	0.36	ug/L		10/09/18 08:04	10/11/18 01:52	1
Diethyl phthalate	ND		2.1	0.45	ug/L		10/09/18 08:04	10/11/18 01:52	1
Dimethyl phthalate	ND		2.1	0.39	ug/L		10/09/18 08:04	10/11/18 01:52	1
Di-n-butyl phthalate	ND		5.2	0.82	ug/L		10/09/18 08:04	10/11/18 01:52	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		10/09/18 08:04	10/11/18 01:52	1
2,3,5,6-Tetrachlorophenol	ND		5.2	2.6	ug/L		10/09/18 08:04	10/11/18 01:52	1
Fluoranthene	ND		1.0	0.33	ug/L		10/09/18 08:04	10/11/18 01:52	1
Fluorene	ND		1.0	0.39	ug/L		10/09/18 08:04	10/11/18 01:52	1

Client Sample ID: SUPE-EB--01-100218

Lab Sample ID: 480-142837-8

Date Collected: 10/02/18 13:15

Matrix: Water

Date Received: 10/03/18 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	ND		0.52	0.14	ug/L		10/09/18 08:04	10/11/18 01:52	1
Hexachlorobutadiene	ND		5.2	1.1	ug/L		10/09/18 08:04	10/11/18 01:52	1
Hexachlorocyclopentadiene	ND		21	3.5	ug/L		10/09/18 08:04	10/11/18 01:52	1
Hexachloroethane	ND		5.2	1.0	ug/L		10/09/18 08:04	10/11/18 01:52	1
Indeno[1,2,3-cd]pyrene	ND		0.21	0.087	ug/L		10/09/18 08:04	10/11/18 01:52	1
Isophorone	ND		2.1	0.30	ug/L		10/09/18 08:04	10/11/18 01:52	1
Nitrobenzene	ND		1.0	0.46	ug/L		10/09/18 08:04	10/11/18 01:52	1
N-Nitrosodi-n-propylamine	ND		0.52	0.14	ug/L		10/09/18 08:04	10/11/18 01:52	1
N-Nitrosodiphenylamine	ND		2.1	0.35	ug/L		10/09/18 08:04	10/11/18 01:52	1
Pentachlorophenol	ND		21	5.8	ug/L		10/09/18 08:04	10/11/18 01:52	1
Phenol	ND		5.2	0.37	ug/L		10/09/18 08:04	10/11/18 01:52	1
Pyrene	ND		1.0	0.49	ug/L		10/09/18 08:04	10/11/18 01:52	1
2,4-Dimethylphenol	ND		10	3.4	ug/L		10/09/18 08:04	10/11/18 01:52	1
Benzo[a]anthracene	ND		0.21	0.045	ug/L		10/09/18 08:04	10/11/18 01:52	1
Phenanthrene	ND		1.0	0.36	ug/L		10/09/18 08:04	10/11/18 01:52	1
3,3'-Dichlorobenzidine	ND		5.2	0.97	ug/L		10/09/18 08:04	10/11/18 01:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*109*		*40 - 145*	*10/09/18 08:04*	*10/11/18 01:52*	*1*
2-Fluorobiphenyl	*107*		*34 - 110*	*10/09/18 08:04*	*10/11/18 01:52*	*1*
2-Fluorophenol (Surr)	*62*		*27 - 110*	*10/09/18 08:04*	*10/11/18 01:52*	*1*
Nitrobenzene-d5 (Surr)	*99*		*36 - 120*	*10/09/18 08:04*	*10/11/18 01:52*	*1*
Phenol-d5 (Surr)	*36*		*20 - 100*	*10/09/18 08:04*	*10/11/18 01:52*	*1*
Terphenyl-d14 (Surr)	*127*		*40 - 145*	*10/09/18 08:04*	*10/11/18 01:52*	*1*

Client Sample ID: SUPE-W-12A-100218

Lab Sample ID: 480-142837-9

Date Collected: 10/02/18 14:08

Matrix: Water

Date Received: 10/03/18 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/11/18 14:33	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/11/18 14:33	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/11/18 14:33	1
Benzene	ND		1.0	0.41	ug/L			10/11/18 14:33	1
Chloromethane	ND	*	1.0	0.35	ug/L			10/11/18 14:33	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/11/18 14:33	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/11/18 14:33	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/11/18 14:33	1
Naphthalene	ND		1.0	0.43	ug/L			10/11/18 14:33	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/11/18 14:33	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/11/18 14:33	1
o-Xylene	ND		1.0	0.76	ug/L			10/11/18 14:33	1
Styrene	ND		1.0	0.73	ug/L			10/11/18 14:33	1
Toluene	ND		1.0	0.51	ug/L			10/11/18 14:33	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/11/18 14:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*		*10/11/18 14:33*	*1*
4-Bromofluorobenzene (Surr)	*91*		*73 - 120*		*10/11/18 14:33*	*1*

Client Sample ID: SUPE-W-12A-100218
Date Collected: 10/02/18 14:08
Date Received: 10/03/18 10:00

Lab Sample ID: 480-142837-9
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*10/11/18 14:33*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*10/11/18 14:33*	*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		10/06/18 15:14	10/08/18 15:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	*109*		*24 - 146*	*10/06/18 15:14*	*10/08/18 15:16*	*1*
2-Fluorobiphenyl	*97*		*37 - 120*	*10/06/18 15:14*	*10/08/18 15:16*	*1*
2-Fluorophenol (Surr)	*54*		*10 - 120*	*10/06/18 15:14*	*10/08/18 15:16*	*1*
Nitrobenzene-d5 (Surr)	*93*		*26 - 120*	*10/06/18 15:14*	*10/08/18 15:16*	*1*
Phenol-d5 (Surr)	*39*		*11 - 120*	*10/06/18 15:14*	*10/08/18 15:16*	*1*
p-Terphenyl-d14	*100*		*64 - 127*	*10/06/18 15:14*	*10/08/18 15:16*	*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		10/09/18 08:04	10/11/18 02:21	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		10/09/18 08:04	10/11/18 02:21	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		10/09/18 08:04	10/11/18 02:21	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		10/09/18 08:04	10/11/18 02:21	1
1-Methylnaphthalene	ND		2.0	0.50	ug/L		10/09/18 08:04	10/11/18 02:21	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		10/09/18 08:04	10/11/18 02:21	1
2,3,4,6-Tetrachlorophenol	ND		5.0	1.5	ug/L		10/09/18 08:04	10/11/18 02:21	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 02:21	1
2,4,6-Trichlorophenol	ND		5.0	1.1	ug/L		10/09/18 08:04	10/11/18 02:21	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 02:21	1
2,4-Dinitrophenol	ND		20	7.4	ug/L		10/09/18 08:04	10/11/18 02:21	1
2,4-Dinitrotoluene	ND		1.0	0.30	ug/L		10/09/18 08:04	10/11/18 02:21	1
2,6-Dinitrotoluene	ND	*	1.0	0.12	ug/L		10/09/18 08:04	10/11/18 02:21	1
3 & 4 Methylphenol	ND		2.0	0.44	ug/L		10/09/18 08:04	10/11/18 02:21	1
2-Chloronaphthalene	ND		2.0	0.34	ug/L		10/09/18 08:04	10/11/18 02:21	1
2-Chlorophenol	ND		5.0	0.80	ug/L		10/09/18 08:04	10/11/18 02:21	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/09/18 08:04	10/11/18 02:21	1
2-Methylphenol	ND		2.0	0.31	ug/L		10/09/18 08:04	10/11/18 02:21	1
2-Nitroaniline	ND		5.0	1.1	ug/L		10/09/18 08:04	10/11/18 02:21	1
2-Nitrophenol	ND		10	2.1	ug/L		10/09/18 08:04	10/11/18 02:21	1
3-Nitroaniline	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 02:21	1
4,6-Dinitro-2-methylphenol	ND		20	4.9	ug/L		10/09/18 08:04	10/11/18 02:21	1
4-Bromophenyl phenyl ether	ND		5.0	0.91	ug/L		10/09/18 08:04	10/11/18 02:21	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		10/09/18 08:04	10/11/18 02:21	1
4-Chloroaniline	ND		10	2.1	ug/L		10/09/18 08:04	10/11/18 02:21	1
4-Chlorophenyl phenyl ether	ND		5.0	0.81	ug/L		10/09/18 08:04	10/11/18 02:21	1
4-Nitroaniline	ND		10	3.9	ug/L		10/09/18 08:04	10/11/18 02:21	1
4-Nitrophenol	ND		20	2.3	ug/L		10/09/18 08:04	10/11/18 02:21	1
Acenaphthene	ND		1.0	0.36	ug/L		10/09/18 08:04	10/11/18 02:21	1
Acenaphthylene	ND		1.0	0.32	ug/L		10/09/18 08:04	10/11/18 02:21	1
Anthracene	ND		1.0	0.32	ug/L		10/09/18 08:04	10/11/18 02:21	1
Benzo[a]pyrene	ND	*	0.20	0.056	ug/L		10/09/18 08:04	10/11/18 02:21	1
Benzo[b]fluoranthene	ND		0.20	0.058	ug/L		10/09/18 08:04	10/11/18 02:21	1

Client Sample ID: SUPE-W-12A-100218

Lab Sample ID: 480-142837-9

Date Collected: 10/02/18 14:08

Matrix: Water

Date Received: 10/03/18 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	ND		1.0	0.42	ug/L		10/09/18 08:04	10/11/18 02:21	1
Benzo[k]fluoranthene	ND		0.20	0.074	ug/L		10/09/18 08:04	10/11/18 02:21	1
Benzoic acid	ND		20	4.6	ug/L		10/09/18 08:04	10/11/18 02:21	1
Benzyl alcohol	ND		20	3.0	ug/L		10/09/18 08:04	10/11/18 02:21	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		10/09/18 08:04	10/11/18 02:21	1
Bis(2-chloroethyl)ether	ND		2.0	0.35	ug/L		10/09/18 08:04	10/11/18 02:21	1
Bis(2-ethylhexyl) phthalate	ND		10	2.4	ug/L		10/09/18 08:04	10/11/18 02:21	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		10/09/18 08:04	10/11/18 02:21	1
Chrysene	ND		0.50	0.14	ug/L		10/09/18 08:04	10/11/18 02:21	1
Dibenz(a,h)anthracene	ND		0.30	0.064	ug/L		10/09/18 08:04	10/11/18 02:21	1
Dibenzofuran	ND		2.0	0.35	ug/L		10/09/18 08:04	10/11/18 02:21	1
Diethyl phthalate	ND		2.0	0.44	ug/L		10/09/18 08:04	10/11/18 02:21	1
Dimethyl phthalate	ND		2.0	0.38	ug/L		10/09/18 08:04	10/11/18 02:21	1
Di-n-butyl phthalate	ND		5.0	0.80	ug/L		10/09/18 08:04	10/11/18 02:21	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		10/09/18 08:04	10/11/18 02:21	1
2,3,5,6-Tetrachlorophenol	ND		5.0	2.5	ug/L		10/09/18 08:04	10/11/18 02:21	1
Fluoranthene	ND		1.0	0.32	ug/L		10/09/18 08:04	10/11/18 02:21	1
Fluorene	ND		1.0	0.38	ug/L		10/09/18 08:04	10/11/18 02:21	1
Hexachlorobenzene	ND		0.50	0.14	ug/L		10/09/18 08:04	10/11/18 02:21	1
Hexachlorobutadiene	ND		5.0	1.1	ug/L		10/09/18 08:04	10/11/18 02:21	1
Hexachlorocyclopentadiene	ND		20	3.4	ug/L		10/09/18 08:04	10/11/18 02:21	1
Hexachloroethane	ND		5.0	0.97	ug/L		10/09/18 08:04	10/11/18 02:21	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.084	ug/L		10/09/18 08:04	10/11/18 02:21	1
Isophorone	ND		2.0	0.29	ug/L		10/09/18 08:04	10/11/18 02:21	1
Nitrobenzene	ND		1.0	0.45	ug/L		10/09/18 08:04	10/11/18 02:21	1
N-Nitrosodi-n-propylamine	ND		0.50	0.14	ug/L		10/09/18 08:04	10/11/18 02:21	1
N-Nitrosodiphenylamine	ND		2.0	0.34	ug/L		10/09/18 08:04	10/11/18 02:21	1
Pentachlorophenol	ND		20	5.6	ug/L		10/09/18 08:04	10/11/18 02:21	1
Phenol	ND		5.0	0.36	ug/L		10/09/18 08:04	10/11/18 02:21	1
Pyrene	ND		1.0	0.48	ug/L		10/09/18 08:04	10/11/18 02:21	1
2,4-Dimethylphenol	ND		10	3.3	ug/L		10/09/18 08:04	10/11/18 02:21	1
Benzo[a]anthracene	ND		0.20	0.044	ug/L		10/09/18 08:04	10/11/18 02:21	1
Phenanthrene	ND		1.0	0.35	ug/L		10/09/18 08:04	10/11/18 02:21	1
3,3'-Dichlorobenzidine	ND		5.0	0.94	ug/L		10/09/18 08:04	10/11/18 02:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*136*		*40 - 145*	*10/09/18 08:04*	*10/11/18 02:21*	*1*
2-Fluorobiphenyl	*120*	*X*	*34 - 110*	*10/09/18 08:04*	*10/11/18 02:21*	*1*
2-Fluorophenol (Surr)	*61*		*27 - 110*	*10/09/18 08:04*	*10/11/18 02:21*	*1*
Nitrobenzene-d5 (Surr)	*110*		*36 - 120*	*10/09/18 08:04*	*10/11/18 02:21*	*1*
Phenol-d5 (Surr)	*39*		*20 - 100*	*10/09/18 08:04*	*10/11/18 02:21*	*1*
Terphenyl-d14 (Surr)	*141*		*40 - 145*	*10/09/18 08:04*	*10/11/18 02:21*	*1*

Client Sample ID: SUPE-W-12CR-100218

Lab Sample ID: 480-142837-10

Date Collected: 10/02/18 15:23

Matrix: Water

Date Received: 10/03/18 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/11/18 15:01	1

Client Sample ID: SUPE-W-12CR-100218
Date Collected: 10/02/18 15:23
Date Received: 10/03/18 10:00

Lab Sample ID: 480-142837-10
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			10/11/18 15:01	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/11/18 15:01	1
Benzene	ND		1.0	0.41	ug/L			10/11/18 15:01	1
Chloromethane	ND	*	1.0	0.35	ug/L			10/11/18 15:01	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/11/18 15:01	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/11/18 15:01	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/11/18 15:01	1
Naphthalene	ND		1.0	0.43	ug/L			10/11/18 15:01	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/11/18 15:01	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/11/18 15:01	1
o-Xylene	ND		1.0	0.76	ug/L			10/11/18 15:01	1
Styrene	ND		1.0	0.73	ug/L			10/11/18 15:01	1
Toluene	ND		1.0	0.51	ug/L			10/11/18 15:01	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/11/18 15:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*77 - 120*		*10/11/18 15:01*	*1*
4-Bromofluorobenzene (Surr)	*90*		*73 - 120*		*10/11/18 15:01*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*10/11/18 15:01*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*10/11/18 15:01*	*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		10/06/18 15:14	10/08/18 15:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*105*		*24 - 146*	*10/06/18 15:14*	*10/08/18 15:44*	*1*
2-Fluorobiphenyl	*101*		*37 - 120*	*10/06/18 15:14*	*10/08/18 15:44*	*1*
2-Fluorophenol (Surr)	*56*		*10 - 120*	*10/06/18 15:14*	*10/08/18 15:44*	*1*
Nitrobenzene-d5 (Surr)	*96*		*26 - 120*	*10/06/18 15:14*	*10/08/18 15:44*	*1*
Phenol-d5 (Surr)	*38*		*11 - 120*	*10/06/18 15:14*	*10/08/18 15:44*	*1*
p-Terphenyl-d14	*106*		*64 - 127*	*10/06/18 15:14*	*10/08/18 15:44*	*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		10/09/18 08:04	10/11/18 02:51	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		10/09/18 08:04	10/11/18 02:51	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		10/09/18 08:04	10/11/18 02:51	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		10/09/18 08:04	10/11/18 02:51	1
1-Methylnaphthalene	ND		2.0	0.50	ug/L		10/09/18 08:04	10/11/18 02:51	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		10/09/18 08:04	10/11/18 02:51	1
2,3,4,6-Tetrachlorophenol	ND		5.0	1.5	ug/L		10/09/18 08:04	10/11/18 02:51	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 02:51	1
2,4,6-Trichlorophenol	ND		5.0	1.1	ug/L		10/09/18 08:04	10/11/18 02:51	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 02:51	1
2,4-Dinitrophenol	ND		20	7.5	ug/L		10/09/18 08:04	10/11/18 02:51	1
2,4-Dinitrotoluene	ND		1.0	0.30	ug/L		10/09/18 08:04	10/11/18 02:51	1
2,6-Dinitrotoluene	ND	*	1.0	0.12	ug/L		10/09/18 08:04	10/11/18 02:51	1
3 & 4 Methylphenol	ND		2.0	0.44	ug/L		10/09/18 08:04	10/11/18 02:51	1
2-Chloronaphthalene	ND		2.0	0.34	ug/L		10/09/18 08:04	10/11/18 02:51	1

Client Sample ID: SUPE-W-12CR-100218
Date Collected: 10/02/18 15:23
Date Received: 10/03/18 10:00

Lab Sample ID: 480-142837-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorophenol	ND		5.0	0.80	ug/L		10/09/18 08:04	10/11/18 02:51	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/09/18 08:04	10/11/18 02:51	1
2-Methylphenol	ND		2.0	0.31	ug/L		10/09/18 08:04	10/11/18 02:51	1
2-Nitroaniline	ND		5.0	1.1	ug/L		10/09/18 08:04	10/11/18 02:51	1
2-Nitrophenol	ND		10	2.1	ug/L		10/09/18 08:04	10/11/18 02:51	1
3-Nitroaniline	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 02:51	1
4,6-Dinitro-2-methylphenol	ND		20	4.9	ug/L		10/09/18 08:04	10/11/18 02:51	1
4-Bromophenyl phenyl ether	ND		5.0	0.91	ug/L		10/09/18 08:04	10/11/18 02:51	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		10/09/18 08:04	10/11/18 02:51	1
4-Chloroaniline	ND		10	2.1	ug/L		10/09/18 08:04	10/11/18 02:51	1
4-Chlorophenyl phenyl ether	ND		5.0	0.81	ug/L		10/09/18 08:04	10/11/18 02:51	1
4-Nitroaniline	ND		10	3.9	ug/L		10/09/18 08:04	10/11/18 02:51	1
4-Nitrophenol	ND		20	2.3	ug/L		10/09/18 08:04	10/11/18 02:51	1
Acenaphthene	ND		1.0	0.36	ug/L		10/09/18 08:04	10/11/18 02:51	1
Acenaphthylene	ND		1.0	0.32	ug/L		10/09/18 08:04	10/11/18 02:51	1
Anthracene	ND		1.0	0.32	ug/L		10/09/18 08:04	10/11/18 02:51	1
Benzo[a]pyrene	ND	*	0.20	0.056	ug/L		10/09/18 08:04	10/11/18 02:51	1
Benzo[b]fluoranthene	ND		0.20	0.058	ug/L		10/09/18 08:04	10/11/18 02:51	1
Benzo[g,h,i]perylene	ND		1.0	0.42	ug/L		10/09/18 08:04	10/11/18 02:51	1
Benzo[k]fluoranthene	ND		0.20	0.074	ug/L		10/09/18 08:04	10/11/18 02:51	1
Benzoic acid	ND		20	4.6	ug/L		10/09/18 08:04	10/11/18 02:51	1
Benzyl alcohol	ND		20	3.1	ug/L		10/09/18 08:04	10/11/18 02:51	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		10/09/18 08:04	10/11/18 02:51	1
Bis(2-chloroethyl)ether	ND		2.0	0.35	ug/L		10/09/18 08:04	10/11/18 02:51	1
Bis(2-ethylhexyl) phthalate	ND		10	2.4	ug/L		10/09/18 08:04	10/11/18 02:51	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		10/09/18 08:04	10/11/18 02:51	1
Chrysene	ND		0.50	0.14	ug/L		10/09/18 08:04	10/11/18 02:51	1
Dibenz(a,h)anthracene	ND		0.30	0.064	ug/L		10/09/18 08:04	10/11/18 02:51	1
Dibenzofuran	ND		2.0	0.35	ug/L		10/09/18 08:04	10/11/18 02:51	1
Diethyl phthalate	ND		2.0	0.44	ug/L		10/09/18 08:04	10/11/18 02:51	1
Dimethyl phthalate	ND		2.0	0.38	ug/L		10/09/18 08:04	10/11/18 02:51	1
Di-n-butyl phthalate	ND		5.0	0.80	ug/L		10/09/18 08:04	10/11/18 02:51	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		10/09/18 08:04	10/11/18 02:51	1
2,3,5,6-Tetrachlorophenol	ND		5.0	2.5	ug/L		10/09/18 08:04	10/11/18 02:51	1
Fluoranthene	ND		1.0	0.32	ug/L		10/09/18 08:04	10/11/18 02:51	1
Fluorene	ND		1.0	0.38	ug/L		10/09/18 08:04	10/11/18 02:51	1
Hexachlorobenzene	ND		0.50	0.14	ug/L		10/09/18 08:04	10/11/18 02:51	1
Hexachlorobutadiene	ND		5.0	1.1	ug/L		10/09/18 08:04	10/11/18 02:51	1
Hexachlorocyclopentadiene	ND		20	3.4	ug/L		10/09/18 08:04	10/11/18 02:51	1
Hexachloroethane	ND		5.0	0.97	ug/L		10/09/18 08:04	10/11/18 02:51	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.084	ug/L		10/09/18 08:04	10/11/18 02:51	1
Isophorone	ND		2.0	0.29	ug/L		10/09/18 08:04	10/11/18 02:51	1
Nitrobenzene	ND		1.0	0.45	ug/L		10/09/18 08:04	10/11/18 02:51	1
N-Nitrosodi-n-propylamine	ND		0.50	0.14	ug/L		10/09/18 08:04	10/11/18 02:51	1
N-Nitrosodiphenylamine	ND		2.0	0.34	ug/L		10/09/18 08:04	10/11/18 02:51	1
Pentachlorophenol	ND		20	5.6	ug/L		10/09/18 08:04	10/11/18 02:51	1
Phenol	ND		5.0	0.36	ug/L		10/09/18 08:04	10/11/18 02:51	1
Pyrene	ND		1.0	0.48	ug/L		10/09/18 08:04	10/11/18 02:51	1
2,4-Dimethylphenol	ND		10	3.3	ug/L		10/09/18 08:04	10/11/18 02:51	1

Client Sample ID: SUPE-W-12CR-100218

Lab Sample ID: 480-142837-10
Date Collected: 10/02/18 15:23
Matrix: Water
Date Received: 10/03/18 10:00

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		10/09/18 08:04	10/11/18 02:51	1
Phenanthrene	ND		1.0	0.35	ug/L		10/09/18 08:04	10/11/18 02:51	1
3,3'-Dichlorobenzidine	ND		5.0	0.94	ug/L		10/09/18 08:04	10/11/18 02:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*122*		*40 - 145*	*10/09/18 08:04*	*10/11/18 02:51*	*1*
2-Fluorobiphenyl	*106*		*34 - 110*	*10/09/18 08:04*	*10/11/18 02:51*	*1*
2-Fluorophenol (Surr)	*58*		*27 - 110*	*10/09/18 08:04*	*10/11/18 02:51*	*1*
Nitrobenzene-d5 (Surr)	*100*		*36 - 120*	*10/09/18 08:04*	*10/11/18 02:51*	*1*
Phenol-d5 (Surr)	*37*		*20 - 100*	*10/09/18 08:04*	*10/11/18 02:51*	*1*
Terphenyl-d14 (Surr)	*124*		*40 - 145*	*10/09/18 08:04*	*10/11/18 02:51*	*1*

Client Sample ID: SUPE-W-4AR2-100218

Lab Sample ID: 480-142837-11
Date Collected: 10/02/18 00:00
Matrix: Water
Date Received: 10/03/18 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/12/18 00:04	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/12/18 00:04	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/12/18 00:04	1
Benzene	ND		1.0	0.41	ug/L			10/12/18 00:04	1
Chloromethane	ND	*	1.0	0.35	ug/L			10/12/18 00:04	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/12/18 00:04	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/12/18 00:04	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/12/18 00:04	1
Naphthalene	ND		1.0	0.43	ug/L			10/12/18 00:04	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/12/18 00:04	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/12/18 00:04	1
o-Xylene	ND		1.0	0.76	ug/L			10/12/18 00:04	1
Styrene	ND		1.0	0.73	ug/L			10/12/18 00:04	1
Toluene	ND		1.0	0.51	ug/L			10/12/18 00:04	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/12/18 00:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*77 - 120*		*10/12/18 00:04*	*1*
4-Bromofluorobenzene (Surr)	*90*		*73 - 120*		*10/12/18 00:04*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 123*		*10/12/18 00:04*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*10/12/18 00:04*	*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		10/06/18 15:14	10/09/18 20:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*100*		*24 - 146*	*10/06/18 15:14*	*10/09/18 20:32*	*1*
2-Fluorobiphenyl	*96*		*37 - 120*	*10/06/18 15:14*	*10/09/18 20:32*	*1*
2-Fluorophenol (Surr)	*59*		*10 - 120*	*10/06/18 15:14*	*10/09/18 20:32*	*1*
Nitrobenzene-d5 (Surr)	*83*		*26 - 120*	*10/06/18 15:14*	*10/09/18 20:32*	*1*
Phenol-d5 (Surr)	*38*		*11 - 120*	*10/06/18 15:14*	*10/09/18 20:32*	*1*
p-Terphenyl-d14	*64*		*64 - 127*	*10/06/18 15:14*	*10/09/18 20:32*	*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		10/09/18 08:04	10/11/18 03:20	1
1,2-Dichlorobenzene	ND		2.1	0.30	ug/L		10/09/18 08:04	10/11/18 03:20	1
1,3-Dichlorobenzene	ND		2.1	0.26	ug/L		10/09/18 08:04	10/11/18 03:20	1
1,4-Dichlorobenzene	ND		2.1	0.28	ug/L		10/09/18 08:04	10/11/18 03:20	1
1-Methylnaphthalene	ND		2.1	0.52	ug/L		10/09/18 08:04	10/11/18 03:20	1
bis(chloroisopropyl) ether	ND		2.1	0.31	ug/L		10/09/18 08:04	10/11/18 03:20	1
2,3,4,6-Tetrachlorophenol	ND		5.2	1.6	ug/L		10/09/18 08:04	10/11/18 03:20	1
2,4,5-Trichlorophenol	ND		10	2.4	ug/L		10/09/18 08:04	10/11/18 03:20	1
2,4,6-Trichlorophenol	ND		5.2	1.2	ug/L		10/09/18 08:04	10/11/18 03:20	1
2,4-Dichlorophenol	ND		10	2.4	ug/L		10/09/18 08:04	10/11/18 03:20	1
2,4-Dinitrophenol	ND		21	7.8	ug/L		10/09/18 08:04	10/11/18 03:20	1
2,4-Dinitrotoluene	ND		1.0	0.31	ug/L		10/09/18 08:04	10/11/18 03:20	1
2,6-Dinitrotoluene	ND	*	1.0	0.13	ug/L		10/09/18 08:04	10/11/18 03:20	1
3 & 4 Methylphenol	ND		2.1	0.46	ug/L		10/09/18 08:04	10/11/18 03:20	1
2-Chloronaphthalene	ND		2.1	0.36	ug/L		10/09/18 08:04	10/11/18 03:20	1
2-Chlorophenol	ND		5.2	0.84	ug/L		10/09/18 08:04	10/11/18 03:20	1
2-Methylnaphthalene	ND		2.1	0.14	ug/L		10/09/18 08:04	10/11/18 03:20	1
2-Methylphenol	ND		2.1	0.32	ug/L		10/09/18 08:04	10/11/18 03:20	1
2-Nitroaniline	ND		5.2	1.1	ug/L		10/09/18 08:04	10/11/18 03:20	1
2-Nitrophenol	ND		10	2.2	ug/L		10/09/18 08:04	10/11/18 03:20	1
3-Nitroaniline	ND		10	2.4	ug/L		10/09/18 08:04	10/11/18 03:20	1
4,6-Dinitro-2-methylphenol	ND		21	5.1	ug/L		10/09/18 08:04	10/11/18 03:20	1
4-Bromophenyl phenyl ether	ND		5.2	0.95	ug/L		10/09/18 08:04	10/11/18 03:20	1
4-Chloro-3-methylphenol	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 03:20	1
4-Chloroaniline	ND		10	2.2	ug/L		10/09/18 08:04	10/11/18 03:20	1
4-Chlorophenyl phenyl ether	ND		5.2	0.85	ug/L		10/09/18 08:04	10/11/18 03:20	1
4-Nitroaniline	ND		10	4.1	ug/L		10/09/18 08:04	10/11/18 03:20	1
4-Nitrophenol	ND		21	2.4	ug/L		10/09/18 08:04	10/11/18 03:20	1
Acenaphthene	ND		1.0	0.38	ug/L		10/09/18 08:04	10/11/18 03:20	1
Acenaphthylene	ND		1.0	0.33	ug/L		10/09/18 08:04	10/11/18 03:20	1
Anthracene	ND		1.0	0.33	ug/L		10/09/18 08:04	10/11/18 03:20	1
Benzo[a]pyrene	ND	*	0.21	0.059	ug/L		10/09/18 08:04	10/11/18 03:20	1
Benzo[b]fluoranthene	ND		0.21	0.061	ug/L		10/09/18 08:04	10/11/18 03:20	1
Benzo[g,h,i]perylene	ND		1.0	0.44	ug/L		10/09/18 08:04	10/11/18 03:20	1
Benzo[k]fluoranthene	ND		0.21	0.077	ug/L		10/09/18 08:04	10/11/18 03:20	1
Benzoic acid	ND		21	4.8	ug/L		10/09/18 08:04	10/11/18 03:20	1
Benzyl alcohol	ND		21	3.2	ug/L		10/09/18 08:04	10/11/18 03:20	1
Bis(2-chloroethoxy)methane	ND		2.1	0.31	ug/L		10/09/18 08:04	10/11/18 03:20	1
Bis(2-chloroethyl)ether	ND		2.1	0.37	ug/L		10/09/18 08:04	10/11/18 03:20	1
Bis(2-ethylhexyl) phthalate	ND		10	2.5	ug/L		10/09/18 08:04	10/11/18 03:20	1
Butyl benzyl phthalate	ND		2.1	0.28	ug/L		10/09/18 08:04	10/11/18 03:20	1
Chrysene	ND		0.52	0.15	ug/L		10/09/18 08:04	10/11/18 03:20	1
Dibenz(a,h)anthracene	ND		0.31	0.067	ug/L		10/09/18 08:04	10/11/18 03:20	1
Dibenzofuran	ND		2.1	0.37	ug/L		10/09/18 08:04	10/11/18 03:20	1
Diethyl phthalate	ND		2.1	0.46	ug/L		10/09/18 08:04	10/11/18 03:20	1
Dimethyl phthalate	ND		2.1	0.40	ug/L		10/09/18 08:04	10/11/18 03:20	1
Di-n-butyl phthalate	ND		5.2	0.84	ug/L		10/09/18 08:04	10/11/18 03:20	1
Di-n-octyl phthalate	ND		10	2.6	ug/L		10/09/18 08:04	10/11/18 03:20	1
2,3,5,6-Tetrachlorophenol	ND		5.2	2.6	ug/L		10/09/18 08:04	10/11/18 03:20	1
Fluoranthene	**0.45**	**J**	1.0	0.33	ug/L		10/09/18 08:04	10/11/18 03:20	1
Fluorene	ND		1.0	0.40	ug/L		10/09/18 08:04	10/11/18 03:20	1
Hexachlorobenzene	ND		0.52	0.15	ug/L		10/09/18 08:04	10/11/18 03:20	1
Hexachlorobutadiene	ND		5.2	1.2	ug/L		10/09/18 08:04	10/11/18 03:20	1

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

TestAmerica Job ID: 480-142837-1

Client Sample ID: SUPE-W-4AR2-100218
Date Collected: 10/02/18 00:00
Date Received: 10/03/18 10:00

Lab Sample ID: 480-142837-11
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	ND		21	3.6	ug/L		10/09/18 08:04	10/11/18 03:20	1
Hexachloroethane	ND		5.2	1.0	ug/L		10/09/18 08:04	10/11/18 03:20	1
Indeno[1,2,3-cd]pyrene	ND		0.21	0.088	ug/L		10/09/18 08:04	10/11/18 03:20	1
Isophorone	ND		2.1	0.30	ug/L		10/09/18 08:04	10/11/18 03:20	1
Nitrobenzene	ND		1.0	0.47	ug/L		10/09/18 08:04	10/11/18 03:20	1
N-Nitrosodi-n-propylamine	ND		0.52	0.15	ug/L		10/09/18 08:04	10/11/18 03:20	1
N-Nitrosodiphenylamine	ND		2.1	0.36	ug/L		10/09/18 08:04	10/11/18 03:20	1
Pentachlorophenol	ND		21	5.9	ug/L		10/09/18 08:04	10/11/18 03:20	1
Phenol	ND		5.2	0.38	ug/L		10/09/18 08:04	10/11/18 03:20	1
Pyrene	ND		1.0	0.50	ug/L		10/09/18 08:04	10/11/18 03:20	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		10/09/18 08:04	10/11/18 03:20	1
Benzo[a]anthracene	ND		0.21	0.046	ug/L		10/09/18 08:04	10/11/18 03:20	1
Phenanthrene	ND		1.0	0.37	ug/L		10/09/18 08:04	10/11/18 03:20	1
3,3'-Dichlorobenzidine	ND		5.2	0.98	ug/L		10/09/18 08:04	10/11/18 03:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*122*		*40 - 145*	*10/09/18 08:04*	*10/11/18 03:20*	*1*
2-Fluorobiphenyl	*109*		*34 - 110*	*10/09/18 08:04*	*10/11/18 03:20*	*1*
2-Fluorophenol (Surr)	*57*		*27 - 110*	*10/09/18 08:04*	*10/11/18 03:20*	*1*
Nitrobenzene-d5 (Surr)	*98*		*36 - 120*	*10/09/18 08:04*	*10/11/18 03:20*	*1*
Phenol-d5 (Surr)	*34*		*20 - 100*	*10/09/18 08:04*	*10/11/18 03:20*	*1*
Terphenyl-d14 (Surr)	*119*		*40 - 145*	*10/09/18 08:04*	*10/11/18 03:20*	*1*

Surrogate Summary

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

TestAmerica Job ID: 480-142837-1

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)
480-142837-1	SUPE-TB-01-100218	97	93	101	101
480-142837-2	SUPE-W-28C-100218	95	96	99	101
480-142837-2 MS	SUPE-W-28C-100218	95	98	102	103
480-142837-2 MSD	SUPE-W-28C-100218	92	96	98	103
480-142837-4	SUPE-W-10AR2-100218	93	97	98	103
480-142837-5	SUPE-W-30C-100218	95	93	99	99
480-142837-6	SUPE-W-06A-100218	98	93	99	101
480-142837-7	SUPE-W-06C-100218	97	91	97	99
480-142837-8	SUPE-EB--01-100218	91	90	95	97
480-142837-9	SUPE-W-12A-100218	98	91	101	98
480-142837-10	SUPE-W-12CR-100218	97	90	99	101
480-142837-11	SUPE-W-4AR2-100218	93	90	98	100
LCS 480-438768/5	Lab Control Sample	96	97	100	102
LCS 480-438802/5	Lab Control Sample	91	94	96	104
LCS 480-438997/5	Lab Control Sample	94	98	97	103
LCS 480-439047/5	Lab Control Sample	90	98	98	102
MB 480-438768/7	Method Blank	97	95	98	102
MB 480-438802/7	Method Blank	98	94	97	99
MB 480-438997/7	Method Blank	101	93	103	99
MB 480-439047/7	Method Blank	97	93	98	101

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)
480-142837-2	SUPE-W-28C-100218	115	105	59	98	35	127
480-142837-2 MS	SUPE-W-28C-100218	143	122 X	68	117	50	130
480-142837-2 MSD	SUPE-W-28C-100218	135	117 X	66	116	49	124
480-142837-3	SUPE-W-18D-100218	127	111 X	58	100	33	122
480-142837-4	SUPE-W-10AR2-100218	128	102	49	88	42	108
480-142837-5	SUPE-W-30C-100218	130	118 X	63	110	38	131
480-142837-6	SUPE-W-06A-100218	124	113 X	56	107	40	124
480-142837-7	SUPE-W-06C-100218	125	115 X	61	106	39	124
480-142837-8	SUPE-EB--01-100218	109	107	62	99	36	127
480-142837-9	SUPE-W-12A-100218	136	120 X	61	110	39	141
480-142837-10	SUPE-W-12CR-100218	122	106	58	100	37	124
480-142837-11	SUPE-W-4AR2-100218	122	109	57	98	34	119
LCS 500-453886/2-A	Lab Control Sample	120	101	73	109	50	114
MB 500-453886/1-A	Method Blank	104	100	69	99	38	121

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)					
Lab Sample ID	Client Sample ID	TBP (24-146)	FBP (37-120)	2FP (10-120)	NBZ (26-120)	PHL (11-120)	TPHd14 (64-127)
480-142837-2	SUPE-W-28C-100218	94	104	59	97	40	93
480-142837-2 MS	SUPE-W-28C-100218	93	95	61	99	44	91
480-142837-2 MSD	SUPE-W-28C-100218	105	99	65	94	46	97
480-142837-3	SUPE-W-18D-100218	89	67	36	53	28	78
480-142837-4	SUPE-W-10AR2-100218	91	88	44	86	36	61 X
480-142837-5	SUPE-W-30C-100218	99	96	63	94	38	94
480-142837-6	SUPE-W-06A-100218	96	95	59	88	36	82
480-142837-7	SUPE-W-06C-100218	100	96	66	93	40	92
480-142837-8	SUPE-EB--01-100218	75	94	56	98	38	108
480-142837-9	SUPE-W-12A-100218	109	97	54	93	39	100
480-142837-10	SUPE-W-12CR-100218	105	101	56	96	38	106
480-142837-11	SUPE-W-4AR2-100218	100	96	59	83	38	64
LCS 480-438068/2-A	Lab Control Sample	106	97	59	97	46	107
LCS 480-438261/2-A	Lab Control Sample	86	92	60	94	42	103
LCSD 480-438261/3-A	Lab Control Sample Dup	81	87	57	92	40	97
MB 480-438068/1-A	Method Blank	92	97	59	92	41	113
MB 480-438261/1-A	Method Blank	77	84	65	101	41	106

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 480-438768/7
Matrix: Water
Analysis Batch: 438768

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			10/10/18 23:39	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/10/18 23:39	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/10/18 23:39	1
Benzene	ND		1.0	0.41	ug/L			10/10/18 23:39	1
Chloromethane	ND		1.0	0.35	ug/L			10/10/18 23:39	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/10/18 23:39	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/10/18 23:39	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/10/18 23:39	1
Naphthalene	ND		1.0	0.43	ug/L			10/10/18 23:39	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/10/18 23:39	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/10/18 23:39	1
o-Xylene	ND		1.0	0.76	ug/L			10/10/18 23:39	1
Styrene	ND		1.0	0.73	ug/L			10/10/18 23:39	1
Toluene	ND		1.0	0.51	ug/L			10/10/18 23:39	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/10/18 23:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*77 - 120*		*10/10/18 23:39*	*1*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*10/10/18 23:39*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 123*		*10/10/18 23:39*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*10/10/18 23:39*	*1*

Lab Sample ID: LCS 480-438768/5
Matrix: Water
Analysis Batch: 438768

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	22.9		ug/L		92	73 - 126
1,2,4-Trimethylbenzene	25.0	24.8		ug/L		99	76 - 121
1,3,5-Trimethylbenzene	25.0	24.0		ug/L		96	77 - 121
Benzene	25.0	25.2		ug/L		101	71 - 124
Chloromethane	25.0	30.9		ug/L		124	68 - 124
Ethylbenzene	25.0	24.4		ug/L		98	77 - 123
Methyl tert-butyl ether	25.0	22.5		ug/L		90	77 - 120
m-Xylene & p-Xylene	25.0	23.9		ug/L		95	76 - 122
Naphthalene	25.0	20.5		ug/L		82	66 - 125
n-Butylbenzene	25.0	23.8		ug/L		95	71 - 128
N-Propylbenzene	25.0	24.4		ug/L		98	75 - 127
o-Xylene	25.0	24.3		ug/L		97	76 - 122
Styrene	25.0	24.0		ug/L		96	80 - 120
Toluene	25.0	24.9		ug/L		100	80 - 122
Xylenes, Total	50.0	48.2		ug/L		96	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*77 - 120*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*
Dibromofluoromethane (Surr)	*100*		*75 - 123*

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

Lab Sample ID: LCS 480-438768/5
Matrix: Water
Analysis Batch: 438768

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	102		80 - 120

Lab Sample ID: MB 480-438802/7
Matrix: Water
Analysis Batch: 438802

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			10/11/18 13:47	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/11/18 13:47	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/11/18 13:47	1
Benzene	ND		1.0	0.41	ug/L			10/11/18 13:47	1
Chloromethane	ND		1.0	0.35	ug/L			10/11/18 13:47	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/11/18 13:47	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/11/18 13:47	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/11/18 13:47	1
Naphthalene	ND		1.0	0.43	ug/L			10/11/18 13:47	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/11/18 13:47	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/11/18 13:47	1
o-Xylene	ND		1.0	0.76	ug/L			10/11/18 13:47	1
Styrene	ND		1.0	0.73	ug/L			10/11/18 13:47	1
Toluene	ND		1.0	0.51	ug/L			10/11/18 13:47	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/11/18 13:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		77 - 120		10/11/18 13:47	1
4-Bromofluorobenzene (Surr)	94		73 - 120		10/11/18 13:47	1
Dibromofluoromethane (Surr)	97		75 - 123		10/11/18 13:47	1
Toluene-d8 (Surr)	99		80 - 120		10/11/18 13:47	1

Lab Sample ID: LCS 480-438802/5
Matrix: Water
Analysis Batch: 438802

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	22.4		ug/L		90	73 - 126
1,2,4-Trimethylbenzene	25.0	27.9		ug/L		111	76 - 121
1,3,5-Trimethylbenzene	25.0	26.5		ug/L		106	77 - 121
Benzene	25.0	25.7		ug/L		103	71 - 124
Chloromethane	25.0	32.2	*	ug/L		129	68 - 124
Ethylbenzene	25.0	25.4		ug/L		102	77 - 123
Methyl tert-butyl ether	25.0	22.6		ug/L		90	77 - 120
m-Xylene & p-Xylene	25.0	24.8		ug/L		99	76 - 122
Naphthalene	25.0	24.2		ug/L		97	66 - 125
n-Butylbenzene	25.0	26.1		ug/L		105	71 - 128
N-Propylbenzene	25.0	26.4		ug/L		106	75 - 127
o-Xylene	25.0	25.0		ug/L		100	76 - 122
Styrene	25.0	26.2		ug/L		105	80 - 120
Toluene	25.0	25.9		ug/L		103	80 - 122

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

Lab Sample ID: LCS 480-438802/5
Matrix: Water
Analysis Batch: 438802

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	50.0	49.8		ug/L		100	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*77 - 120*
4-Bromofluorobenzene (Surr)	*94*		*73 - 120*
Dibromofluoromethane (Surr)	*96*		*75 - 123*
Toluene-d8 (Surr)	*104*		*80 - 120*

Lab Sample ID: MB 480-438997/7
Matrix: Water
Analysis Batch: 438997

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			10/11/18 22:28	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/11/18 22:28	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/11/18 22:28	1
Benzene	ND		1.0	0.41	ug/L			10/11/18 22:28	1
Chloromethane	ND		1.0	0.35	ug/L			10/11/18 22:28	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/11/18 22:28	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/11/18 22:28	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/11/18 22:28	1
Naphthalene	ND		1.0	0.43	ug/L			10/11/18 22:28	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/11/18 22:28	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/11/18 22:28	1
o-Xylene	ND		1.0	0.76	ug/L			10/11/18 22:28	1
Styrene	ND		1.0	0.73	ug/L			10/11/18 22:28	1
Toluene	ND		1.0	0.51	ug/L			10/11/18 22:28	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/11/18 22:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*		*10/11/18 22:28*	*1*
4-Bromofluorobenzene (Surr)	*93*		*73 - 120*		*10/11/18 22:28*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*10/11/18 22:28*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*10/11/18 22:28*	*1*

Lab Sample ID: LCS 480-438997/5
Matrix: Water
Analysis Batch: 438997

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	23.5		ug/L		94	73 - 126
1,2,4-Trimethylbenzene	25.0	25.5		ug/L		102	76 - 121
1,3,5-Trimethylbenzene	25.0	24.5		ug/L		98	77 - 121
Benzene	25.0	25.7		ug/L		103	71 - 124
Chloromethane	25.0	32.2	*	ug/L		129	68 - 124
Ethylbenzene	25.0	25.7		ug/L		103	77 - 123
Methyl tert-butyl ether	25.0	21.1		ug/L		85	77 - 120
m-Xylene & p-Xylene	25.0	24.5		ug/L		98	76 - 122

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

Lab Sample ID: LCS 480-438997/5
Matrix: Water
Analysis Batch: 438997

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	25.0	21.2		ug/L		85	66 - 125
n-Butylbenzene	25.0	25.1		ug/L		100	71 - 128
N-Propylbenzene	25.0	24.9		ug/L		99	75 - 127
o-Xylene	25.0	24.8		ug/L		99	76 - 122
Styrene	25.0	25.3		ug/L		101	80 - 120
Toluene	25.0	25.6		ug/L		103	80 - 122
Xylenes, Total	50.0	49.3		ug/L		99	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*94*		*77 - 120*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*
Dibromofluoromethane (Surr)	*97*		*75 - 123*
Toluene-d8 (Surr)	*103*		*80 - 120*

Lab Sample ID: 480-142837-2 MS
Matrix: Water
Analysis Batch: 438997

Client Sample ID: SUPE-W-28C-100218
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	24.5		ug/L		98	73 - 126
1,2,4-Trimethylbenzene	ND		25.0	25.5		ug/L		102	76 - 121
1,3,5-Trimethylbenzene	ND		25.0	24.4		ug/L		98	77 - 121
Benzene	ND		25.0	26.8		ug/L		107	71 - 124
Chloromethane	ND		25.0	33.6	F1	ug/L		135	68 - 124
Ethylbenzene	ND		25.0	25.5		ug/L		102	77 - 123
Methyl tert-butyl ether	ND		25.0	20.9		ug/L		84	77 - 120
m-Xylene & p-Xylene	ND		25.0	25.4		ug/L		101	76 - 122
Naphthalene	ND		25.0	19.2		ug/L		77	66 - 125
n-Butylbenzene	ND		25.0	24.0		ug/L		96	71 - 128
N-Propylbenzene	ND		25.0	24.9		ug/L		100	75 - 127
o-Xylene	ND		25.0	24.5		ug/L		98	76 - 122
Styrene	ND		25.0	25.1		ug/L		101	80 - 120
Toluene	ND		25.0	25.5		ug/L		102	80 - 122
Xylenes, Total	ND		50.0	49.9		ug/L		100	76 - 122

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*77 - 120*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*
Dibromofluoromethane (Surr)	*102*		*75 - 123*
Toluene-d8 (Surr)	*103*		*80 - 120*

Lab Sample ID: 480-142837-2 MSD
Matrix: Water
Analysis Batch: 438997

Client Sample ID: SUPE-W-28C-100218
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	26.2		ug/L		105	73 - 126	7	15
1,2,4-Trimethylbenzene	ND		25.0	27.5		ug/L		110	76 - 121	7	20

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

Lab Sample ID: 480-142837-2 MSD
Matrix: Water
Analysis Batch: 438997

Client Sample ID: SUPE-W-28C-100218
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,3,5-Trimethylbenzene	ND		25.0	26.8		ug/L		107	77 - 121	9	20
Benzene	ND		25.0	28.2		ug/L		113	71 - 124	5	13
Chloromethane	ND		25.0	36.0	F1	ug/L		144	68 - 124	7	15
Ethylbenzene	ND		25.0	27.8		ug/L		111	77 - 123	9	15
Methyl tert-butyl ether	ND		25.0	23.5		ug/L		94	77 - 120	12	37
m-Xylene & p-Xylene	ND		25.0	27.1		ug/L		108	76 - 122	7	16
Naphthalene	ND		25.0	21.9		ug/L		88	66 - 125	14	20
n-Butylbenzene	ND		25.0	26.8		ug/L		107	71 - 128	11	15
N-Propylbenzene	ND		25.0	27.0		ug/L		108	75 - 127	8	15
o-Xylene	ND		25.0	27.1		ug/L		108	76 - 122	10	16
Styrene	ND		25.0	27.4		ug/L		110	80 - 120	9	20
Toluene	ND		25.0	27.8		ug/L		111	80 - 122	8	15
Xylenes, Total	ND		50.0	54.2		ug/L		108	76 - 122	8	16

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*77 - 120*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*
Dibromofluoromethane (Surr)	*98*		*75 - 123*
Toluene-d8 (Surr)	*103*		*80 - 120*

Lab Sample ID: MB 480-439047/7
Matrix: Water
Analysis Batch: 439047

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/12/18 11:39	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/12/18 11:39	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/12/18 11:39	1
Benzene	ND		1.0	0.41	ug/L			10/12/18 11:39	1
Chloromethane	ND		1.0	0.35	ug/L			10/12/18 11:39	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/12/18 11:39	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/12/18 11:39	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/12/18 11:39	1
Naphthalene	ND		1.0	0.43	ug/L			10/12/18 11:39	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/12/18 11:39	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/12/18 11:39	1
o-Xylene	ND		1.0	0.76	ug/L			10/12/18 11:39	1
Styrene	ND		1.0	0.73	ug/L			10/12/18 11:39	1
Toluene	ND		1.0	0.51	ug/L			10/12/18 11:39	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/12/18 11:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*77 - 120*		*10/12/18 11:39*	*1*
4-Bromofluorobenzene (Surr)	*93*		*73 - 120*		*10/12/18 11:39*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 123*		*10/12/18 11:39*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*10/12/18 11:39*	*1*

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

Lab Sample ID: LCS 480-439047/5
Matrix: Water
Analysis Batch: 439047

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	19.8		ug/L		79	73 - 126
1,2,4-Trimethylbenzene	25.0	25.1		ug/L		100	76 - 121
1,3,5-Trimethylbenzene	25.0	23.6		ug/L		94	77 - 121
Benzene	25.0	23.6		ug/L		94	71 - 124
Chloromethane	25.0	29.6		ug/L		118	68 - 124
Ethylbenzene	25.0	23.3		ug/L		93	77 - 123
Methyl tert-butyl ether	25.0	21.6		ug/L		87	77 - 120
m-Xylene & p-Xylene	25.0	23.2		ug/L		93	76 - 122
Naphthalene	25.0	21.8		ug/L		87	66 - 125
n-Butylbenzene	25.0	22.6		ug/L		90	71 - 128
N-Propylbenzene	25.0	23.0		ug/L		92	75 - 127
o-Xylene	25.0	23.7		ug/L		95	76 - 122
Styrene	25.0	24.5		ug/L		98	80 - 120
Toluene	25.0	23.6		ug/L		94	80 - 122
Xylenes, Total	50.0	46.9		ug/L		94	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*77 - 120*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*
Dibromofluoromethane (Surr)	*98*		*75 - 123*
Toluene-d8 (Surr)	*102*		*80 - 120*

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

Lab Sample ID: MB 500-453886/1-A
Matrix: Water
Analysis Batch: 454447

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 453886

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.0	0.30	ug/L		10/09/18 08:04	10/11/18 20:43	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		10/09/18 08:04	10/11/18 20:43	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		10/09/18 08:04	10/11/18 20:43	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		10/09/18 08:04	10/11/18 20:43	1
1-Methylnaphthalene	ND		2.0	0.50	ug/L		10/09/18 08:04	10/11/18 20:43	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		10/09/18 08:04	10/11/18 20:43	1
2,3,4,6-Tetrachlorophenol	ND		5.0	1.5	ug/L		10/09/18 08:04	10/11/18 20:43	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 20:43	1
2,4,6-Trichlorophenol	ND		5.0	1.1	ug/L		10/09/18 08:04	10/11/18 20:43	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 20:43	1
2,4-Dinitrophenol	ND		20	7.4	ug/L		10/09/18 08:04	10/11/18 20:43	1
2,4-Dinitrotoluene	ND		1.0	0.30	ug/L		10/09/18 08:04	10/11/18 20:43	1
2,6-Dinitrotoluene	ND		1.0	0.12	ug/L		10/09/18 08:04	10/11/18 20:43	1
3 & 4 Methylphenol	ND		2.0	0.44	ug/L		10/09/18 08:04	10/11/18 20:43	1
2-Chloronaphthalene	ND		2.0	0.34	ug/L		10/09/18 08:04	10/11/18 20:43	1
2-Chlorophenol	ND		5.0	0.80	ug/L		10/09/18 08:04	10/11/18 20:43	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/09/18 08:04	10/11/18 20:43	1
2-Methylphenol	ND		2.0	0.31	ug/L		10/09/18 08:04	10/11/18 20:43	1

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

Lab Sample ID: MB 500-453886/1-A
Matrix: Water
Analysis Batch: 454447

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 453886

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		5.0	1.1	ug/L		10/09/18 08:04	10/11/18 20:43	1
2-Nitrophenol	ND		10	2.1	ug/L		10/09/18 08:04	10/11/18 20:43	1
3-Nitroaniline	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 20:43	1
4,6-Dinitro-2-methylphenol	ND		20	4.9	ug/L		10/09/18 08:04	10/11/18 20:43	1
4-Bromophenyl phenyl ether	ND		5.0	0.91	ug/L		10/09/18 08:04	10/11/18 20:43	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		10/09/18 08:04	10/11/18 20:43	1
4-Chloroaniline	ND		10	2.1	ug/L		10/09/18 08:04	10/11/18 20:43	1
4-Chlorophenyl phenyl ether	ND		5.0	0.81	ug/L		10/09/18 08:04	10/11/18 20:43	1
4-Nitroaniline	ND		10	3.9	ug/L		10/09/18 08:04	10/11/18 20:43	1
4-Nitrophenol	ND		20	2.3	ug/L		10/09/18 08:04	10/11/18 20:43	1
Acenaphthene	ND		1.0	0.36	ug/L		10/09/18 08:04	10/11/18 20:43	1
Acenaphthylene	ND		1.0	0.32	ug/L		10/09/18 08:04	10/11/18 20:43	1
Anthracene	ND		1.0	0.32	ug/L		10/09/18 08:04	10/11/18 20:43	1
Benzo[a]pyrene	ND		0.20	0.056	ug/L		10/09/18 08:04	10/11/18 20:43	1
Benzo[b]fluoranthene	ND		0.20	0.058	ug/L		10/09/18 08:04	10/11/18 20:43	1
Benzo[g,h,i]perylene	ND		1.0	0.42	ug/L		10/09/18 08:04	10/11/18 20:43	1
Benzo[k]fluoranthene	ND		0.20	0.074	ug/L		10/09/18 08:04	10/11/18 20:43	1
Benzoic acid	27.2		20	4.6	ug/L		10/09/18 08:04	10/11/18 20:43	1
Benzyl alcohol	ND		20	3.1	ug/L		10/09/18 08:04	10/11/18 20:43	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		10/09/18 08:04	10/11/18 20:43	1
Bis(2-chloroethyl)ether	ND		2.0	0.35	ug/L		10/09/18 08:04	10/11/18 20:43	1
Bis(2-ethylhexyl) phthalate	ND		10	2.4	ug/L		10/09/18 08:04	10/11/18 20:43	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		10/09/18 08:04	10/11/18 20:43	1
Chrysene	ND		0.50	0.14	ug/L		10/09/18 08:04	10/11/18 20:43	1
Dibenz(a,h)anthracene	ND		0.30	0.064	ug/L		10/09/18 08:04	10/11/18 20:43	1
Dibenzofuran	ND		2.0	0.35	ug/L		10/09/18 08:04	10/11/18 20:43	1
Diethyl phthalate	ND		2.0	0.44	ug/L		10/09/18 08:04	10/11/18 20:43	1
Dimethyl phthalate	ND		2.0	0.38	ug/L		10/09/18 08:04	10/11/18 20:43	1
Di-n-butyl phthalate	ND		5.0	0.80	ug/L		10/09/18 08:04	10/11/18 20:43	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		10/09/18 08:04	10/11/18 20:43	1
2,3,5,6-Tetrachlorophenol	ND		5.0	2.5	ug/L		10/09/18 08:04	10/11/18 20:43	1
Fluoranthene	ND		1.0	0.32	ug/L		10/09/18 08:04	10/11/18 20:43	1
Fluorene	ND		1.0	0.38	ug/L		10/09/18 08:04	10/11/18 20:43	1
Hexachlorobenzene	ND		0.50	0.14	ug/L		10/09/18 08:04	10/11/18 20:43	1
Hexachlorobutadiene	ND		5.0	1.1	ug/L		10/09/18 08:04	10/11/18 20:43	1
Hexachlorocyclopentadiene	ND		20	3.4	ug/L		10/09/18 08:04	10/11/18 20:43	1
Hexachloroethane	ND		5.0	0.97	ug/L		10/09/18 08:04	10/11/18 20:43	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.084	ug/L		10/09/18 08:04	10/11/18 20:43	1
Isophorone	ND		2.0	0.29	ug/L		10/09/18 08:04	10/11/18 20:43	1
Nitrobenzene	ND		1.0	0.45	ug/L		10/09/18 08:04	10/11/18 20:43	1
N-Nitrosodi-n-propylamine	ND		0.50	0.14	ug/L		10/09/18 08:04	10/11/18 20:43	1
N-Nitrosodiphenylamine	ND		2.0	0.34	ug/L		10/09/18 08:04	10/11/18 20:43	1
Pentachlorophenol	ND		20	5.6	ug/L		10/09/18 08:04	10/11/18 20:43	1
Phenol	ND		5.0	0.36	ug/L		10/09/18 08:04	10/11/18 20:43	1
Pyrene	ND		1.0	0.48	ug/L		10/09/18 08:04	10/11/18 20:43	1
2,4-Dimethylphenol	ND		10	3.3	ug/L		10/09/18 08:04	10/11/18 20:43	1
Benzo[a]anthracene	ND		0.20	0.044	ug/L		10/09/18 08:04	10/11/18 20:43	1
Phenanthrene	ND		1.0	0.35	ug/L		10/09/18 08:04	10/11/18 20:43	1

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

Lab Sample ID: MB 500-453886/1-A
Matrix: Water
Analysis Batch: 454447

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 453886

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	ND		5.0	0.94	ug/L		10/09/18 08:04	10/11/18 20:43	1
Naphthalene	ND		1.0	0.30	ug/L		10/09/18 08:04	10/11/18 20:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*104*		*40 - 145*	*10/09/18 08:04*	*10/11/18 20:43*	*1*
2-Fluorobiphenyl	*100*		*34 - 110*	*10/09/18 08:04*	*10/11/18 20:43*	*1*
2-Fluorophenol (Surr)	*69*		*27 - 110*	*10/09/18 08:04*	*10/11/18 20:43*	*1*
Nitrobenzene-d5 (Surr)	*99*		*36 - 120*	*10/09/18 08:04*	*10/11/18 20:43*	*1*
Phenol-d5 (Surr)	*38*		*20 - 100*	*10/09/18 08:04*	*10/11/18 20:43*	*1*
Terphenyl-d14 (Surr)	*121*		*40 - 145*	*10/09/18 08:04*	*10/11/18 20:43*	*1*

Lab Sample ID: LCS 500-453886/2-A
Matrix: Water
Analysis Batch: 454447

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 453886

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	40.0	31.7		ug/L		79	26 - 110
1,2-Dichlorobenzene	40.0	31.4		ug/L		78	26 - 110
1,3-Dichlorobenzene	40.0	30.4		ug/L		76	22 - 110
1,4-Dichlorobenzene	40.0	30.5		ug/L		76	23 - 110
1-Methylnaphthalene	40.0	33.9		ug/L		85	38 - 110
bis(chloroisopropyl) ether	40.0	34.0		ug/L		85	38 - 110
2,3,4,6-Tetrachlorophenol	40.0	43.6		ug/L		109	44 - 118
2,4,5-Trichlorophenol	40.0	44.5		ug/L		111	63 - 120
2,4,6-Trichlorophenol	40.0	42.5		ug/L		106	62 - 110
2,4-Dichlorophenol	40.0	42.0		ug/L		105	62 - 110
2,4-Dinitrophenol	80.0	84.6		ug/L		106	37 - 130
2,4-Dinitrotoluene	40.0	47.4		ug/L		119	63 - 122
2,6-Dinitrotoluene	40.0	48.1	*	ug/L		120	63 - 119
3 & 4 Methylphenol	40.0	36.1		ug/L		90	53 - 110
2-Chloronaphthalene	40.0	34.9		ug/L		87	39 - 110
2-Chlorophenol	40.0	39.6		ug/L		99	59 - 110
2-Methylnaphthalene	40.0	33.6		ug/L		84	34 - 110
2-Methylphenol	40.0	38.9		ug/L		97	53 - 110
2-Nitroaniline	40.0	40.0		ug/L		100	59 - 122
2-Nitrophenol	40.0	41.9		ug/L		105	58 - 110
3-Nitroaniline	40.0	27.5		ug/L		69	47 - 123
4,6-Dinitro-2-methylphenol	80.0	90.1		ug/L		113	50 - 117
4-Bromophenyl phenyl ether	40.0	38.2		ug/L		96	58 - 120
4-Chloro-3-methylphenol	40.0	41.4		ug/L		103	64 - 120
4-Chloroaniline	40.0	34.1		ug/L		85	35 - 128
4-Chlorophenyl phenyl ether	40.0	37.4		ug/L		93	47 - 112
4-Nitroaniline	40.0	32.1		ug/L		80	52 - 147
4-Nitrophenol	80.0	38.6		ug/L		48	20 - 110
Acenaphthene	40.0	37.0		ug/L		93	46 - 110
Acenaphthylene	40.0	38.0		ug/L		95	47 - 110
Anthracene	40.0	41.9		ug/L		105	67 - 110
Benzo[a]pyrene	40.0	48.6	*	ug/L		121	70 - 120

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

Lab Sample ID: LCS 500-453886/2-A
Matrix: Water
Analysis Batch: 454447

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 453886

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[b]fluoranthene	40.0	46.5		ug/L		116	69 - 123
Benzo[g,h,i]perylene	40.0	47.7		ug/L		119	70 - 120
Benzo[k]fluoranthene	40.0	46.0		ug/L		115	70 - 120
Benzoic acid	80.0	33.8		ug/L		42	10 - 100
Benzyl alcohol	40.0	36.4		ug/L		91	33 - 127
Bis(2-chloroethoxy)methane	40.0	41.3		ug/L		103	60 - 110
Bis(2-chloroethyl)ether	40.0	40.0		ug/L		100	49 - 110
Bis(2-ethylhexyl) phthalate	40.0	45.5		ug/L		114	69 - 120
Butyl benzyl phthalate	40.0	44.9		ug/L		112	68 - 120
Chrysene	40.0	43.2		ug/L		108	68 - 120
Dibenz(a,h)anthracene	40.0	48.7		ug/L		122	70 - 127
Dibenzofuran	40.0	38.0		ug/L		95	51 - 110
Diethyl phthalate	40.0	41.6		ug/L		104	62 - 120
Dimethyl phthalate	40.0	42.9		ug/L		107	63 - 120
Di-n-butyl phthalate	40.0	43.6		ug/L		109	70 - 120
Di-n-octyl phthalate	40.0	45.3		ug/L		113	70 - 122
Fluoranthene	40.0	44.0		ug/L		110	68 - 120
Fluorene	40.0	38.9		ug/L		97	53 - 120
Hexachlorobenzene	40.0	40.0		ug/L		100	61 - 120
Hexachlorobutadiene	40.0	30.2		ug/L		76	20 - 100
Hexachlorocyclopentadiene	40.0	24.8		ug/L		62	10 - 100
Hexachloroethane	40.0	28.1		ug/L		70	20 - 100
Indeno[1,2,3-cd]pyrene	40.0	47.9		ug/L		120	65 - 133
Isophorone	40.0	41.4		ug/L		103	57 - 110
Nitrobenzene	40.0	42.0		ug/L		105	53 - 110
N-Nitrosodi-n-propylamine	40.0	39.3		ug/L		98	58 - 110
N-Nitrosodiphenylamine	40.0	42.8		ug/L		107	66 - 110
Pentachlorophenol	80.0	85.7		ug/L		107	23 - 129
Phenol	40.0	19.6		ug/L		49	33 - 100
Pyrene	40.0	43.5		ug/L		109	70 - 110
2,4-Dimethylphenol	40.0	42.2		ug/L		105	51 - 110
Benzo[a]anthracene	40.0	43.2		ug/L		108	70 - 120
Phenanthrene	40.0	42.3		ug/L		106	65 - 120
3,3'-Dichlorobenzidine	40.0	40.3		ug/L		101	60 - 132
Naphthalene	40.0	34.8		ug/L		87	36 - 110

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*120*		*40 - 145*
2-Fluorobiphenyl	*101*		*34 - 110*
2-Fluorophenol (Surr)	*73*		*27 - 110*
Nitrobenzene-d5 (Surr)	*109*		*36 - 120*
Phenol-d5 (Surr)	*50*		*20 - 100*
Terphenyl-d14 (Surr)	*114*		*40 - 145*

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

Lab Sample ID: 480-142837-2 MS
Matrix: Water
Analysis Batch: 454239

Client Sample ID: SUPE-W-28C-100218
Prep Type: Total/NA
Prep Batch: 453886

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	ND		41.1	37.1		ug/L		90	26 - 110
1,2-Dichlorobenzene	ND		41.1	36.3		ug/L		88	26 - 110
1,3-Dichlorobenzene	ND		41.1	34.7		ug/L		84	22 - 110
1,4-Dichlorobenzene	ND		41.1	35.1		ug/L		85	23 - 110
1-Methylnaphthalene	ND		41.1	41.3		ug/L		100	38 - 110
bis(chloroisopropyl) ether	ND		41.1	40.8		ug/L		99	38 - 110
2,3,4,6-Tetrachlorophenol	ND	F1	41.1	52.1	F1	ug/L		127	44 - 118
2,4,5-Trichlorophenol	ND	F1	41.1	51.5	F1	ug/L		125	63 - 120
2,4,6-Trichlorophenol	ND	F1	41.1	49.3	F1	ug/L		120	62 - 110
2,4-Dichlorophenol	ND	F1	41.1	48.1	F1	ug/L		117	62 - 110
2,4-Dinitrophenol	ND		82.2	96.8		ug/L		118	37 - 130
2,4-Dinitrotoluene	ND	F1	41.1	56.0	F1	ug/L		136	63 - 122
2,6-Dinitrotoluene	ND	F1 *	41.1	56.7	F1	ug/L		138	63 - 119
3 & 4 Methylphenol	ND		41.1	40.0		ug/L		97	53 - 110
2-Chloronaphthalene	ND		41.1	41.1		ug/L		100	39 - 110
2-Chlorophenol	ND		41.1	45.1		ug/L		110	59 - 110
2-Methylnaphthalene	ND		41.1	40.5		ug/L		98	34 - 110
2-Methylphenol	ND		41.1	43.5		ug/L		106	53 - 110
2-Nitroaniline	ND		41.1	48.2		ug/L		117	59 - 122
2-Nitrophenol	ND	F1	41.1	48.8	F1	ug/L		119	58 - 110
3-Nitroaniline	ND		41.1	36.4		ug/L		89	47 - 123
4,6-Dinitro-2-methylphenol	ND	F1	82.2	102	F1	ug/L		124	50 - 117
4-Bromophenyl phenyl ether	ND		41.1	47.2		ug/L		115	58 - 120
4-Chloro-3-methylphenol	ND		41.1	49.1		ug/L		119	64 - 120
4-Chloroaniline	ND		41.1	42.1		ug/L		102	35 - 128
4-Chlorophenyl phenyl ether	ND	F1	41.1	46.4	F1	ug/L		113	47 - 112
4-Nitroaniline	ND		41.1	36.6		ug/L		89	52 - 147
4-Nitrophenol	ND		82.2	45.9		ug/L		56	20 - 110
Acenaphthene	ND		41.1	43.7		ug/L		106	46 - 110
Acenaphthylene	ND		41.1	44.7		ug/L		109	47 - 110
Anthracene	ND	F1	41.1	49.7	F1	ug/L		121	67 - 110
Benzo[a]pyrene	ND	F1 *	41.1	55.8	F1	ug/L		136	70 - 120
Benzo[b]fluoranthene	ND	F1	41.1	54.6	F1	ug/L		133	69 - 123
Benzo[g,h,i]perylene	ND	F1	41.1	54.3	F1	ug/L		132	70 - 120
Benzo[k]fluoranthene	ND	F1	41.1	53.0	F1	ug/L		129	70 - 120
Benzoic acid	ND		82.2	48.2		ug/L		59	10 - 100
Benzyl alcohol	ND		41.1	42.8		ug/L		104	33 - 127
Bis(2-chloroethoxy)methane	ND	F1	41.1	47.6	F1	ug/L		116	60 - 110
Bis(2-chloroethyl)ether	ND	F1	41.1	45.7	F1	ug/L		111	49 - 110
Bis(2-ethylhexyl) phthalate	ND	F1	41.1	52.1	F1	ug/L		127	69 - 120
Butyl benzyl phthalate	ND	F1	41.1	53.2	F1	ug/L		129	68 - 120
Chrysene	ND	F1	41.1	50.4	F1	ug/L		123	68 - 120
Dibenz(a,h)anthracene	ND	F1	41.1	55.6	F1	ug/L		135	70 - 127
Dibenzofuran	ND		41.1	45.2		ug/L		110	51 - 110
Diethyl phthalate	ND		41.1	49.2		ug/L		120	62 - 120
Dimethyl phthalate	ND	F1	41.1	49.6	F1	ug/L		121	63 - 120
Di-n-butyl phthalate	ND	F1	41.1	50.1	F1	ug/L		122	70 - 120
Di-n-octyl phthalate	ND	F1	41.1	54.0	F1	ug/L		131	70 - 122

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

Lab Sample ID: 480-142837-2 MS
Matrix: Water
Analysis Batch: 454239

Client Sample ID: SUPE-W-28C-100218
Prep Type: Total/NA
Prep Batch: 453886

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoranthene	ND	F1	41.1	51.1	F1	ug/L		124	68 - 120
Fluorene	ND		41.1	47.4		ug/L		115	53 - 120
Hexachlorobenzene	ND		41.1	47.9		ug/L		117	61 - 120
Hexachlorobutadiene	ND		41.1	32.5		ug/L		79	20 - 100
Hexachlorocyclopentadiene	ND		41.1	32.8		ug/L		80	10 - 100
Hexachloroethane	ND		41.1	32.1		ug/L		78	20 - 100
Indeno[1,2,3-cd]pyrene	ND		41.1	54.7		ug/L		133	65 - 133
Isophorone	ND	F1	41.1	48.0	F1	ug/L		117	57 - 110
Nitrobenzene	ND	F1	41.1	48.1	F1	ug/L		117	53 - 110
N-Nitrosodi-n-propylamine	ND	F1	41.1	46.5	F1	ug/L		113	58 - 110
N-Nitrosodiphenylamine	ND	F1	41.1	49.5	F1	ug/L		120	66 - 110
Pentachlorophenol	ND		82.2	105		ug/L		127	23 - 129
Phenol	ND		41.1	20.2		ug/L		49	33 - 100
Pyrene	ND	F1	41.1	49.8	F1	ug/L		121	70 - 110
2,4-Dimethylphenol	ND	F1	41.1	47.7	F1	ug/L		116	51 - 110
Benzo[a]anthracene	ND	F1	41.1	50.4	F1	ug/L		122	70 - 120
Phenanthrene	ND	F1	41.1	49.8	F1	ug/L		121	65 - 120
3,3'-Dichlorobenzidine	ND		41.1	48.2		ug/L		117	60 - 132

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*143*		*40 - 145*
2-Fluorobiphenyl	*122*	*X*	*34 - 110*
2-Fluorophenol (Surr)	*68*		*27 - 110*
Nitrobenzene-d5 (Surr)	*117*		*36 - 120*
Phenol-d5 (Surr)	*50*		*20 - 100*
Terphenyl-d14 (Surr)	*130*		*40 - 145*

Lab Sample ID: 480-142837-2 MSD
Matrix: Water
Analysis Batch: 454239

Client Sample ID: SUPE-W-28C-100218
Prep Type: Total/NA
Prep Batch: 453886

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	ND		41.3	39.2		ug/L		95	26 - 110	6	20
1,2-Dichlorobenzene	ND		41.3	37.6		ug/L		91	26 - 110	3	20
1,3-Dichlorobenzene	ND		41.3	35.9		ug/L		87	22 - 110	3	20
1,4-Dichlorobenzene	ND		41.3	35.8		ug/L		87	23 - 110	2	20
1-Methylnaphthalene	ND		41.3	41.4		ug/L		100	38 - 110	0	20
bis(chloroisopropyl) ether	ND		41.3	39.9		ug/L		97	38 - 110	2	20
2,3,4,6-Tetrachlorophenol	ND	F1	41.3	50.4	F1	ug/L		122	44 - 118	3	20
2,4,5-Trichlorophenol	ND	F1	41.3	49.2		ug/L		119	63 - 120	5	20
2,4,6-Trichlorophenol	ND	F1	41.3	48.3	F1	ug/L		117	62 - 110	2	20
2,4-Dichlorophenol	ND	F1	41.3	47.5	F1	ug/L		115	62 - 110	1	20
2,4-Dinitrophenol	ND		82.5	95.8		ug/L		116	37 - 130	1	20
2,4-Dinitrotoluene	ND	F1	41.3	55.2	F1	ug/L		134	63 - 122	1	20
2,6-Dinitrotoluene	ND	F1 *	41.3	54.6	F1	ug/L		132	63 - 119	4	20
3 & 4 Methylphenol	ND		41.3	38.9		ug/L		94	53 - 110	3	20
2-Chloronaphthalene	ND		41.3	42.0		ug/L		102	39 - 110	2	20
2-Chlorophenol	ND		41.3	44.6		ug/L		108	59 - 110	1	20

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

Lab Sample ID: 480-142837-2 MSD | **Client Sample ID: SUPE-W-28C-100218**
Matrix: Water | **Prep Type: Total/NA**
Analysis Batch: 454239 | **Prep Batch: 453886**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Methylnaphthalene	ND		41.3	41.5		ug/L		100	34 - 110	2	20
2-Methylphenol	ND		41.3	42.4		ug/L		103	53 - 110	2	20
2-Nitroaniline	ND		41.3	46.1		ug/L		112	59 - 122	4	20
2-Nitrophenol	ND	F1	41.3	48.6	F1	ug/L		118	58 - 110	0	20
3-Nitroaniline	ND		41.3	36.9		ug/L		89	47 - 123	1	20
4,6-Dinitro-2-methylphenol	ND	F1	82.5	99.1	F1	ug/L		120	50 - 117	3	20
4-Bromophenyl phenyl ether	ND		41.3	45.5		ug/L		110	58 - 120	4	20
4-Chloro-3-methylphenol	ND		41.3	48.1		ug/L		117	64 - 120	2	20
4-Chloroaniline	ND		41.3	43.0		ug/L		104	35 - 128	2	20
4-Chlorophenyl phenyl ether	ND	F1	41.3	46.1		ug/L		112	47 - 112	1	20
4-Nitroaniline	ND		41.3	35.9		ug/L		87	52 - 147	2	20
4-Nitrophenol	ND		82.5	42.1		ug/L		51	20 - 110	9	20
Acenaphthene	ND		41.3	43.7		ug/L		106	46 - 110	0	20
Acenaphthylene	ND		41.3	44.3		ug/L		107	47 - 110	1	20
Anthracene	ND	F1	41.3	48.0	F1	ug/L		116	67 - 110	3	20
Benzo[a]pyrene	ND	F1 *	41.3	55.3	F1	ug/L		134	70 - 120	1	20
Benzo[b]fluoranthene	ND	F1	41.3	54.3	F1	ug/L		132	69 - 123	1	20
Benzo[g,h,i]perylene	ND	F1	41.3	53.3	F1	ug/L		129	70 - 120	2	20
Benzo[k]fluoranthene	ND	F1	41.3	51.6	F1	ug/L		125	70 - 120	3	20
Benzoic acid	ND		82.5	48.6		ug/L		59	10 - 100	1	20
Benzyl alcohol	ND		41.3	40.9		ug/L		99	33 - 127	4	20
Bis(2-chloroethoxy)methane	ND	F1	41.3	46.1	F1	ug/L		112	60 - 110	3	20
Bis(2-chloroethyl)ether	ND	F1	41.3	45.2		ug/L		109	49 - 110	1	20
Bis(2-ethylhexyl) phthalate	ND	F1	41.3	52.1	F1	ug/L		126	69 - 120	0	20
Butyl benzyl phthalate	ND	F1	41.3	51.8	F1	ug/L		126	68 - 120	3	20
Chrysene	ND	F1	41.3	49.2		ug/L		119	68 - 120	3	20
Dibenz(a,h)anthracene	ND	F1	41.3	54.6	F1	ug/L		132	70 - 127	2	20
Dibenzofuran	ND		41.3	44.4		ug/L		108	51 - 110	2	20
Diethyl phthalate	ND		41.3	47.9		ug/L		116	62 - 120	3	20
Dimethyl phthalate	ND	F1	41.3	48.0		ug/L		116	63 - 120	3	20
Di-n-butyl phthalate	ND	F1	41.3	49.2		ug/L		119	70 - 120	2	20
Di-n-octyl phthalate	ND	F1	41.3	52.3	F1	ug/L		127	70 - 122	3	20
Fluoranthene	ND	F1	41.3	49.2		ug/L		119	68 - 120	4	20
Fluorene	ND		41.3	46.4		ug/L		113	53 - 120	2	20
Hexachlorobenzene	ND		41.3	46.7		ug/L		113	61 - 120	2	20
Hexachlorobutadiene	ND		41.3	34.2		ug/L		83	20 - 100	5	20
Hexachlorocyclopentadiene	ND		41.3	34.7		ug/L		84	10 - 100	6	20
Hexachloroethane	ND		41.3	33.8		ug/L		82	20 - 100	5	20
Indeno[1,2,3-cd]pyrene	ND		41.3	53.7		ug/L		130	65 - 133	2	20
Isophorone	ND	F1	41.3	47.6	F1	ug/L		115	57 - 110	1	20
Nitrobenzene	ND	F1	41.3	47.6	F1	ug/L		115	53 - 110	1	20
N-Nitrosodi-n-propylamine	ND	F1	41.3	45.0		ug/L		109	58 - 110	3	20
N-Nitrosodiphenylamine	ND	F1	41.3	48.3	F1	ug/L		117	66 - 110	2	20
Pentachlorophenol	ND		82.5	101		ug/L		123	23 - 129	3	20
Phenol	ND		41.3	19.7		ug/L		48	33 - 100	2	20
Pyrene	ND	F1	41.3	49.0	F1	ug/L		119	70 - 110	2	20
2,4-Dimethylphenol	ND	F1	41.3	48.0	F1	ug/L		116	51 - 110	1	20
Benzo[a]anthracene	ND	F1	41.3	48.8		ug/L		118	70 - 120	3	20

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

Lab Sample ID: 480-142837-2 MSD
Matrix: Water
Analysis Batch: 454239

Client Sample ID: SUPE-W-28C-100218
Prep Type: Total/NA
Prep Batch: 453886

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenanthrene	ND	F1	41.3	48.8		ug/L		118	65 - 120	2	20
3,3'-Dichlorobenzidine	ND		41.3	48.1		ug/L		117	60 - 132	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*135*		*40 - 145*
2-Fluorobiphenyl	*117*	*X*	*34 - 110*
2-Fluorophenol (Surr)	*66*		*27 - 110*
Nitrobenzene-d5 (Surr)	*116*		*36 - 120*
Phenol-d5 (Surr)	*49*		*20 - 100*
Terphenyl-d14 (Surr)	*124*		*40 - 145*

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

Lab Sample ID: MB 480-438068/1-A
Matrix: Water
Analysis Batch: 438143

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 438068

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		1.0	0.34	ug/L		10/06/18 15:14	10/08/18 10:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*92*		*24 - 146*	*10/06/18 15:14*	*10/08/18 10:29*	*1*
2-Fluorobiphenyl	*97*		*37 - 120*	*10/06/18 15:14*	*10/08/18 10:29*	*1*
2-Fluorophenol (Surr)	*59*		*10 - 120*	*10/06/18 15:14*	*10/08/18 10:29*	*1*
Nitrobenzene-d5 (Surr)	*92*		*26 - 120*	*10/06/18 15:14*	*10/08/18 10:29*	*1*
Phenol-d5 (Surr)	*41*		*11 - 120*	*10/06/18 15:14*	*10/08/18 10:29*	*1*
p-Terphenyl-d14	*113*		*64 - 127*	*10/06/18 15:14*	*10/08/18 10:29*	*1*

Lab Sample ID: LCS 480-438068/2-A
Matrix: Water
Analysis Batch: 438143

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 438068

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Pentachlorophenol			16.0	18.1		ug/L		113	10 - 131		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*106*		*24 - 146*
2-Fluorobiphenyl	*97*		*37 - 120*
2-Fluorophenol (Surr)	*59*		*10 - 120*
Nitrobenzene-d5 (Surr)	*97*		*26 - 120*
Phenol-d5 (Surr)	*46*		*11 - 120*
p-Terphenyl-d14	*107*		*64 - 127*

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

Lab Sample ID: 480-142837-2 MS
Matrix: Water
Analysis Batch: 438143

Client Sample ID: SUPE-W-28C-100218
Prep Type: Total/NA
Prep Batch: 438068

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	10 - 131

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*93*		*24 - 146*
2-Fluorobiphenyl	*95*		*37 - 120*
2-Fluorophenol (Surr)	*61*		*10 - 120*
Nitrobenzene-d5 (Surr)	*99*		*26 - 120*
Phenol-d5 (Surr)	*44*		*11 - 120*
p-Terphenyl-d14	*91*		*64 - 127*

Lab Sample ID: 480-142837-2 MSD
Matrix: Water
Analysis Batch: 438143

Client Sample ID: SUPE-W-28C-100218
Prep Type: Total/NA
Prep Batch: 438068

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Pentachlorophenol	ND		16.0	19.9		ug/L		125	10 - 131	13	37

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*105*		*24 - 146*
2-Fluorobiphenyl	*99*		*37 - 120*
2-Fluorophenol (Surr)	*65*		*10 - 120*
Nitrobenzene-d5 (Surr)	*94*		*26 - 120*
Phenol-d5 (Surr)	*46*		*11 - 120*
p-Terphenyl-d14	*97*		*64 - 127*

Lab Sample ID: MB 480-438261/1-A
Matrix: Water
Analysis Batch: 438866

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 438261

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		1.0	0.34	ug/L		10/08/18 14:31	10/12/18 08:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*77*		*24 - 146*	*10/08/18 14:31*	*10/12/18 08:48*	*1*
2-Fluorobiphenyl	*84*		*37 - 120*	*10/08/18 14:31*	*10/12/18 08:48*	*1*
2-Fluorophenol (Surr)	*65*		*10 - 120*	*10/08/18 14:31*	*10/12/18 08:48*	*1*
Nitrobenzene-d5 (Surr)	*101*		*26 - 120*	*10/08/18 14:31*	*10/12/18 08:48*	*1*
Phenol-d5 (Surr)	*41*		*11 - 120*	*10/08/18 14:31*	*10/12/18 08:48*	*1*
p-Terphenyl-d14	*106*		*64 - 127*	*10/08/18 14:31*	*10/12/18 08:48*	*1*

Lab Sample ID: LCS 480-438261/2-A
Matrix: Water
Analysis Batch: 438649

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 438261

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Pentachlorophenol	16.0	15.9		ug/L		99	10 - 131

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

Lab Sample ID: LCS 480-438261/2-A
Matrix: Water
Analysis Batch: 438649

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 438261

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*86*		*24 - 146*
2-Fluorobiphenyl	*92*		*37 - 120*
2-Fluorophenol (Surr)	*60*		*10 - 120*
Nitrobenzene-d5 (Surr)	*94*		*26 - 120*
Phenol-d5 (Surr)	*42*		*11 - 120*
p-Terphenyl-d14	*103*		*64 - 127*

Lab Sample ID: LCSD 480-438261/3-A
Matrix: Water
Analysis Batch: 438649

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 438261

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Pentachlorophenol			16.0	14.8		ug/L		93	10 - 131	7	171

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*81*		*24 - 146*
2-Fluorobiphenyl	*87*		*37 - 120*
2-Fluorophenol (Surr)	*57*		*10 - 120*
Nitrobenzene-d5 (Surr)	*92*		*26 - 120*
Phenol-d5 (Surr)	*40*		*11 - 120*
p-Terphenyl-d14	*97*		*64 - 127*

GC/MS VOA

Analysis Batch: 438768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-142837-1	SUPE-TB-01-100218	Total/NA	Water	8260C	
480-142837-2	SUPE-W-28C-100218	Total/NA	Water	8260C	
480-142837-4	SUPE-W-10AR2-100218	Total/NA	Water	8260C	
480-142837-5	SUPE-W-30C-100218	Total/NA	Water	8260C	
480-142837-6	SUPE-W-06A-100218	Total/NA	Water	8260C	
480-142837-7	SUPE-W-06C-100218	Total/NA	Water	8260C	
MB 480-438768/7	Method Blank	Total/NA	Water	8260C	
LCS 480-438768/5	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 438802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-142837-9	SUPE-W-12A-100218	Total/NA	Water	8260C	
480-142837-10	SUPE-W-12CR-100218	Total/NA	Water	8260C	
MB 480-438802/7	Method Blank	Total/NA	Water	8260C	
LCS 480-438802/5	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 438997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-142837-11	SUPE-W-4AR2-100218	Total/NA	Water	8260C	
MB 480-438997/7	Method Blank	Total/NA	Water	8260C	
LCS 480-438997/5	Lab Control Sample	Total/NA	Water	8260C	
480-142837-2 MS	SUPE-W-28C-100218	Total/NA	Water	8260C	
480-142837-2 MSD	SUPE-W-28C-100218	Total/NA	Water	8260C	

Analysis Batch: 439047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-142837-8	SUPE-EB--01-100218	Total/NA	Water	8260C	
MB 480-439047/7	Method Blank	Total/NA	Water	8260C	
LCS 480-439047/5	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 438068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-142837-2	SUPE-W-28C-100218	Total/NA	Water	3510C	
480-142837-4	SUPE-W-10AR2-100218	Total/NA	Water	3510C	
480-142837-5	SUPE-W-30C-100218	Total/NA	Water	3510C	
480-142837-6	SUPE-W-06A-100218	Total/NA	Water	3510C	
480-142837-7	SUPE-W-06C-100218	Total/NA	Water	3510C	
480-142837-8	SUPE-EB--01-100218	Total/NA	Water	3510C	
480-142837-9	SUPE-W-12A-100218	Total/NA	Water	3510C	
480-142837-10	SUPE-W-12CR-100218	Total/NA	Water	3510C	
480-142837-11	SUPE-W-4AR2-100218	Total/NA	Water	3510C	
MB 480-438068/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-438068/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-142837-2 MS	SUPE-W-28C-100218	Total/NA	Water	3510C	
480-142837-2 MSD	SUPE-W-28C-100218	Total/NA	Water	3510C	

GC/MS Semi VOA (Continued)

Analysis Batch: 438143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-142837-2	SUPE-W-28C-100218	Total/NA	Water	8270D LL	438068
480-142837-4	SUPE-W-10AR2-100218	Total/NA	Water	8270D LL	438068
480-142837-5	SUPE-W-30C-100218	Total/NA	Water	8270D LL	438068
480-142837-6	SUPE-W-06A-100218	Total/NA	Water	8270D LL	438068
480-142837-7	SUPE-W-06C-100218	Total/NA	Water	8270D LL	438068
480-142837-8	SUPE-EB--01-100218	Total/NA	Water	8270D LL	438068
480-142837-9	SUPE-W-12A-100218	Total/NA	Water	8270D LL	438068
480-142837-10	SUPE-W-12CR-100218	Total/NA	Water	8270D LL	438068
MB 480-438068/1-A	Method Blank	Total/NA	Water	8270D LL	438068
LCS 480-438068/2-A	Lab Control Sample	Total/NA	Water	8270D LL	438068
480-142837-2 MS	SUPE-W-28C-100218	Total/NA	Water	8270D LL	438068
480-142837-2 MSD	SUPE-W-28C-100218	Total/NA	Water	8270D LL	438068

Prep Batch: 438261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-142837-3	SUPE-W-18D-100218	Total/NA	Water	3510C	
MB 480-438261/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-438261/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-438261/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 438470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-142837-11	SUPE-W-4AR2-100218	Total/NA	Water	8270D LL	438068

Analysis Batch: 438649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-438261/2-A	Lab Control Sample	Total/NA	Water	8270D LL	438261
LCSD 480-438261/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	438261

Analysis Batch: 438866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-438261/1-A	Method Blank	Total/NA	Water	8270D LL	438261

Analysis Batch: 439490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-142837-3	SUPE-W-18D-100218	Total/NA	Water	8270D LL	438261

Prep Batch: 453886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-142837-2	SUPE-W-28C-100218	Total/NA	Water	3510C	
480-142837-3	SUPE-W-18D-100218	Total/NA	Water	3510C	
480-142837-4	SUPE-W-10AR2-100218	Total/NA	Water	3510C	
480-142837-5	SUPE-W-30C-100218	Total/NA	Water	3510C	
480-142837-6	SUPE-W-06A-100218	Total/NA	Water	3510C	
480-142837-7	SUPE-W-06C-100218	Total/NA	Water	3510C	
480-142837-8	SUPE-EB--01-100218	Total/NA	Water	3510C	
480-142837-9	SUPE-W-12A-100218	Total/NA	Water	3510C	
480-142837-10	SUPE-W-12CR-100218	Total/NA	Water	3510C	
480-142837-11	SUPE-W-4AR2-100218	Total/NA	Water	3510C	
MB 500-453886/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-453886/2-A	Lab Control Sample	Total/NA	Water	3510C	

GC/MS Semi VOA (Continued)

Prep Batch: 453886 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-142837-2 MS	SUPE-W-28C-100218	Total/NA	Water	3510C	
480-142837-2 MSD	SUPE-W-28C-100218	Total/NA	Water	3510C	

Analysis Batch: 454239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-142837-2	SUPE-W-28C-100218	Total/NA	Water	8270D	453886
480-142837-3	SUPE-W-18D-100218	Total/NA	Water	8270D	453886
480-142837-4	SUPE-W-10AR2-100218	Total/NA	Water	8270D	453886
480-142837-5	SUPE-W-30C-100218	Total/NA	Water	8270D	453886
480-142837-6	SUPE-W-06A-100218	Total/NA	Water	8270D	453886
480-142837-7	SUPE-W-06C-100218	Total/NA	Water	8270D	453886
480-142837-8	SUPE-EB--01-100218	Total/NA	Water	8270D	453886
480-142837-9	SUPE-W-12A-100218	Total/NA	Water	8270D	453886
480-142837-10	SUPE-W-12CR-100218	Total/NA	Water	8270D	453886
480-142837-11	SUPE-W-4AR2-100218	Total/NA	Water	8270D	453886
480-142837-2 MS	SUPE-W-28C-100218	Total/NA	Water	8270D	453886
480-142837-2 MSD	SUPE-W-28C-100218	Total/NA	Water	8270D	453886

Analysis Batch: 454447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-453886/1-A	Method Blank	Total/NA	Water	8270D	453886
LCS 500-453886/2-A	Lab Control Sample	Total/NA	Water	8270D	453886

Lab Chronicle

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

TestAmerica Job ID: 480-142837-1

Client Sample ID: SUPE-TB-01-100218
Lab Sample ID: 480-142837-1
Date Collected: 10/02/18 00:00
Matrix: Water
Date Received: 10/03/18 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	438768	10/11/18 03:09	OMI	TAL BUF

Client Sample ID: SUPE-W-28C-100218
Lab Sample ID: 480-142837-2
Date Collected: 10/02/18 10:04
Matrix: Water
Date Received: 10/03/18 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	438768	10/11/18 03:36	OMI	TAL BUF
Total/NA	Prep	3510C			453886	10/09/18 08:04	DAK	TAL CHI
Total/NA	Analysis	8270D		1	454239	10/10/18 22:58	GES	TAL CHI
Total/NA	Prep	3510C			438068	10/06/18 15:14	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	438143	10/08/18 12:23	RJS	TAL BUF

Client Sample ID: SUPE-W-18D-100218
Lab Sample ID: 480-142837-3
Date Collected: 10/02/18 13:51
Matrix: Water
Date Received: 10/03/18 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			453886	10/09/18 08:04	DAK	TAL CHI
Total/NA	Analysis	8270D		1	454239	10/10/18 23:27	GES	TAL CHI
Total/NA	Prep	3510C			438261	10/08/18 14:31	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	439490	10/15/18 19:03	PJQ	TAL BUF

Client Sample ID: SUPE-W-10AR2-100218
Lab Sample ID: 480-142837-4
Date Collected: 10/02/18 16:14
Matrix: Water
Date Received: 10/03/18 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	438768	10/11/18 04:03	OMI	TAL BUF
Total/NA	Prep	3510C			453886	10/09/18 08:04	DAK	TAL CHI
Total/NA	Analysis	8270D		1	454239	10/10/18 23:56	GES	TAL CHI
Total/NA	Prep	3510C			438068	10/06/18 15:14	ATG	TAL BUF
Total/NA	Analysis	8270D LL		5	438143	10/08/18 12:52	RJS	TAL BUF

Client Sample ID: SUPE-W-30C-100218
Lab Sample ID: 480-142837-5
Date Collected: 10/02/18 10:13
Matrix: Water
Date Received: 10/03/18 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	438768	10/11/18 04:31	OMI	TAL BUF
Total/NA	Prep	3510C			453886	10/09/18 08:04	DAK	TAL CHI
Total/NA	Analysis	8270D		1	454239	10/11/18 00:25	GES	TAL CHI

Lab Chronicle

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

TestAmerica Job ID: 480-142837-1

Client Sample ID: SUPE-W-30C-100218
Lab Sample ID: 480-142837-5
Date Collected: 10/02/18 10:13
Matrix: Water
Date Received: 10/03/18 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			438068	10/06/18 15:14	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	438143	10/08/18 13:21	RJS	TAL BUF

Client Sample ID: SUPE-W-06A-100218
Lab Sample ID: 480-142837-6
Date Collected: 10/02/18 11:44
Matrix: Water
Date Received: 10/03/18 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	438768	10/11/18 04:58	OMI	TAL BUF
Total/NA	Prep	3510C			453886	10/09/18 08:04	DAK	TAL CHI
Total/NA	Analysis	8270D		1	454239	10/11/18 00:54	GES	TAL CHI
Total/NA	Prep	3510C			438068	10/06/18 15:14	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	438143	10/08/18 13:49	RJS	TAL BUF

Client Sample ID: SUPE-W-06C-100218
Lab Sample ID: 480-142837-7
Date Collected: 10/02/18 12:57
Matrix: Water
Date Received: 10/03/18 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	438768	10/11/18 05:26	OMI	TAL BUF
Total/NA	Prep	3510C			453886	10/09/18 08:04	DAK	TAL CHI
Total/NA	Analysis	8270D		1	454239	10/11/18 01:23	GES	TAL CHI
Total/NA	Prep	3510C			438068	10/06/18 15:14	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	438143	10/08/18 14:18	RJS	TAL BUF

Client Sample ID: SUPE-EB--01-100218
Lab Sample ID: 480-142837-8
Date Collected: 10/02/18 13:15
Matrix: Water
Date Received: 10/03/18 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	439047	10/12/18 12:24	RLB	TAL BUF
Total/NA	Prep	3510C			453886	10/09/18 08:04	DAK	TAL CHI
Total/NA	Analysis	8270D		1	454239	10/11/18 01:52	GES	TAL CHI
Total/NA	Prep	3510C			438068	10/06/18 15:14	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	438143	10/08/18 14:47	RJS	TAL BUF

Client Sample ID: SUPE-W-12A-100218
Lab Sample ID: 480-142837-9
Date Collected: 10/02/18 14:08
Matrix: Water
Date Received: 10/03/18 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	438802	10/11/18 14:33	RLB	TAL BUF

Lab Chronicle

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

TestAmerica Job ID: 480-142837-1

Client Sample ID: SUPE-W-12A-100218

Lab Sample ID: 480-142837-9

Date Collected: 10/02/18 14:08
Matrix: Water
Date Received: 10/03/18 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			453886	10/09/18 08:04	DAK	TAL CHI
Total/NA	Analysis	8270D		1	454239	10/11/18 02:21	GES	TAL CHI
Total/NA	Prep	3510C			438068	10/06/18 15:14	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	438143	10/08/18 15:16	RJS	TAL BUF

Client Sample ID: SUPE-W-12CR-100218

Lab Sample ID: 480-142837-10

Date Collected: 10/02/18 15:23
Matrix: Water
Date Received: 10/03/18 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	438802	10/11/18 15:01	RLB	TAL BUF
Total/NA	Prep	3510C			453886	10/09/18 08:04	DAK	TAL CHI
Total/NA	Analysis	8270D		1	454239	10/11/18 02:51	GES	TAL CHI
Total/NA	Prep	3510C			438068	10/06/18 15:14	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	438143	10/08/18 15:44	RJS	TAL BUF

Client Sample ID: SUPE-W-4AR2-100218

Lab Sample ID: 480-142837-11

Date Collected: 10/02/18 00:00
Matrix: Water
Date Received: 10/03/18 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	438997	10/12/18 00:04	OMI	TAL BUF
Total/NA	Prep	3510C			453886	10/09/18 08:04	DAK	TAL CHI
Total/NA	Analysis	8270D		1	454239	10/11/18 03:20	GES	TAL CHI
Total/NA	Prep	3510C			438068	10/06/18 15:14	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	438470	10/09/18 20:32	PJQ	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

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

TestAmerica Job ID: 480-142837-1

Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	998310390	08-31-19

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	999580010	08-31-19

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-19
California	State Program	9	2891	04-30-19
Connecticut	State Program	1	PH-0688	09-30-20
Florida	NELAP	4	E871008	06-30-19
Illinois	NELAP	5	200005	06-30-19
Kansas	NELAP	7	E-10350	01-31-19
Louisiana	NELAP	6	04041	06-30-19
Nevada	State Program	9	PA00164	07-31-19
New Hampshire	NELAP	1	2030	04-04-19
New Jersey	NELAP	2	PA005	06-30-19
New York	NELAP	2	11182	03-31-19
North Carolina (WW/SW)	State Program	4	434	12-31-18
Oregon	NELAP	10	PA-2151	01-28-19
Pennsylvania	NELAP	3	02-00416	04-30-19
South Carolina	State Program	4	89014	04-30-19
Texas	NELAP	6	T104704528-15-2	03-31-19
US Fish & Wildlife	Federal		LE94312A-1	07-31-19
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-19
Virginia	NELAP	3	460189	09-14-19
West Virginia DEP	State Program	3	142	01-31-19
Wisconsin	State Program	5	998027800	08-31-19

Method Summary

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

TestAmerica Job ID: 480-142837-1

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

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

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

TestAmerica Job ID: 480-142837-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-142837-1	SUPE-TB-01-100218	Water	10/02/18 00:00	10/03/18 10:00
480-142837-2	SUPE-W-28C-100218	Water	10/02/18 10:04	10/03/18 10:00
480-142837-3	SUPE-W-18D-100218	Water	10/02/18 13:51	10/03/18 10:00
480-142837-4	SUPE-W-10AR2-100218	Water	10/02/18 16:14	10/03/18 10:00
480-142837-5	SUPE-W-30C-100218	Water	10/02/18 10:13	10/03/18 10:00
480-142837-6	SUPE-W-06A-100218	Water	10/02/18 11:44	10/03/18 10:00
480-142837-7	SUPE-W-06C-100218	Water	10/02/18 12:57	10/03/18 10:00
480-142837-8	SUPE-EB--01-100218	Water	10/02/18 13:15	10/03/18 10:00
480-142837-9	SUPE-W-12A-100218	Water	10/02/18 14:08	10/03/18 10:00
480-142837-10	SUPE-W-12CR-100218	Water	10/02/18 15:23	10/03/18 10:00
480-142837-11	SUPE-W-4AR2-100218	Water	10/02/18 00:00	10/03/18 10:00

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 500816

Project Name:	Superior 2018 2SA Sampling	Company:	Field & Technical Services	Client:	Beazer East, Inc.
Project Number:	OM-0556-18	Address:	200 Third Avenue	Contact:	(412) 680-4312
Laboratory:	TABUF		Carnegie, PA 15106		brick.2006@f-ts.com
Shipment Method	FEDEX		(412) 279-3363		
Program:	Superior 2018 2SA Sampling_001				

480-142837 CO(

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																
10/02/2018	0000	GW	SUPE-TB-01-100218	2	2	0	0													
10/02/2018	1004	GW	SUPE-W-28C-100218	6	3	3	0													
10/02/2018	1004	GW	SUPE-W-28C-MS/MSD-100218	12	6	6	0													
10/02/2018	1351	GW	SUPE-W-18D-100218	3	0	0	3													
10/02/2018	1614	GW	SUPE-W-10AR2-100218	6	3	3	0													

Temp 3.6 4.4 2.4 2.6 #1 ICE

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: Brendan Rick	Signature:	Signature:	Signature:	☐ Rush
Printed Name: Brendan Rick	Printed Name:	Printed Name:	Printed Name:	
Firm: FTS	Firm: TA	Firm:	Firm:	☒ Standard
Date/Time: 10/02/2018 1655	Date/Time: 10/03/18 1000	Date/Time:	Date/Time:	

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CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 500816

Project Name:	Superior 2018 2SA Sampling	Company:	Field & Technical Services	Client:	Beazer East, Inc.
Project Number:	OM-0556-18	Address:	200 Third Avenue	Contact:	(412) 680-4312
Laboratory:	TABUF		Carnegie, PA 15106		brick.2006@f-ts.com
Shipment Method	FEDEX		(412) 279-3363		
Program:	Superior 2018 2SA Sampling_001				

480-142837 CO(

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																
10/02/2018	0000	GW	SUPE-TB-01-100218	2	2	0	0													
10/02/2018	1004	GW	SUPE-W-28C-100218	6	3	3	0													
10/02/2018	1004	GW	SUPE-W-28C-MS/MSD-100218	12	6	6	0													
10/02/2018	1351	GW	SUPE-W-18D-100218	3	0	0	3													
10/02/2018	1614	GW	SUPE-W-10AR2-100218	6	3	3	0													

Temp 3.6 4.4 2.4 2.6 #1 ICE

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: Brendan Rick	Signature: Tina Kow	Signature:	Signature:	☐ Rush
Printed Name: Brendan Rick	Printed Name: Tikolb	Printed Name:	Printed Name:	
Firm: FTS	Firm: TA	Firm:	Firm:	☒ Standard
Date/Time: 10/02/2018 1655	Date/Time: 10/03/18 1000	Date/Time:	Date/Time:	

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CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 1354

Project Name: Superior 2018 2SA Sampling
Project Number: OM-0556-18
Laboratory: TABUF
Shipment Method FEDEX
Program: Superior 2018 2SA Sampling_001

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

Client: Beazer East, Inc.
Contact: (724) 207-0014
jlexie.2006@f-ts.com

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8260B_VOA+naphtha	8270C_SVOC (less naphtha)														
				Preservative	HCL	None														
				Total Bottle Count																Notes:
10/02/2018	1013	GW	SUPE-W-30C-100218	6	3	3														
10/02/2018	1144	GW	SUPE-W-06A-100218	6	3	3														
10/02/2018	1257	GW	SUPE-W-06C-100218	6	3	3														
10/02/2018	1315	GW	SUPE-EB-01-100218	6	3	3														
10/02/2018	1408	GW	SUPE-W-12A-100218	6	3	3														
10/02/2018	1523	GW	SUPE-W-12CR-100218	6	3	3														

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature:	Signature:	Signature:	Signature:	☐ Rush
Printed Name: Jena Lexie	Printed Name: Cikolb	Printed Name:	Printed Name:	
Firm FTS	Firm TA	Firm	Firm	☒ Standard
Date/Time: 10/02/2018 1700	Date/Time: 10/03/18 1000	Date/Time:	Date/Time:	

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Login Sample Receipt Checklist

Client: Field & Technical Services LLC

Job Number: 480-142837-1

Login Number: 142837
List Number: 1
Creator: Harper, Marcus D

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

Login Sample Receipt Checklist

Client: Field & Technical Services LLC

Job Number: 480-142837-1

Login Number: 142837
List Number: 2
Creator: Harper, Marcus D

List Source: TestAmerica Buffalo

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

Login Sample Receipt Checklist

Client: Field & Technical Services LLC

Job Number: 480-142837-1

Login Number: 142837
List Number: 3
Creator: James, Jeff A

List Source: TestAmerica Chicago
List Creation: 10/07/18 02:50 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	1.3
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	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 480-142888-1
Client Project/Site: Superior, WI Semiannual Groundwater

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

Attn: Ms. Angie Gatchie

Authorized for release by:
10/30/2018 4:16:11 PM

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

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Definitions/Glossary

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

TestAmerica Job ID: 480-142888-1

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.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits
B	Compound was found in the blank and sample.

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)
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: 480-142888-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-142888-1

Comments
No additional comments.

Receipt
The samples were received on 10/4/2018 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.3º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-439282 recovered above the upper control limit for n-Butylbenzene. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: SUPE-TB-02-100318, SUPE-W-30A-100318, SUPE-EB-02-100318 and SUPE-M-99-100318.

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: SUPE-W-30A-100318 and SUPE-M-99-100318. 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(s) 8270D: The laboratory control sample (LCS) for preparation batch 500-453886 and analytical batch 500-454447 recovered outside control limits for the following analytes: 2,6-Dinitrotoluene and Benzo[a]pyrene. These analytes were biased high in the LCS and were not detected above the reporting limit in the associated samples; therefore, the data have been reported.

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

Organic Prep
Method(s) 3510C: 3510 8270

There is insufficient volume to re-extract samples 480-142888-3 and 4.

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

TestAmerica Job ID: 480-142888-1

Client Sample ID: SUPE-TB-02-100318 — Lab Sample ID: 480-142888-1

No Detections.

Client Sample ID: SUPE-W-30A-100318 — Lab Sample ID: 480-142888-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	2.1		2.0	1.5	ug/L	2		8260C	Total/NA
Benzene	3.6		2.0	0.82	ug/L	2		8260C	Total/NA
Ethylbenzene	9.0		2.0	1.5	ug/L	2		8260C	Total/NA
m-Xylene & p-Xylene	3.2	J	4.0	1.3	ug/L	2		8260C	Total/NA
Naphthalene	67		2.0	0.86	ug/L	2		8260C	Total/NA
o-Xylene	2.5		2.0	1.5	ug/L	2		8260C	Total/NA
Toluene	1.2	J	2.0	1.0	ug/L	2		8260C	Total/NA
Xylenes, Total	5.7		4.0	1.3	ug/L	2		8260C	Total/NA
Acenaphthene	8.6		1.0	0.36	ug/L	1		8270D	Total/NA
Anthracene	0.65	J	1.0	0.32	ug/L	1		8270D	Total/NA
Benzo[a]pyrene	0.15	J *	0.20	0.057	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	0.17	J	0.20	0.059	ug/L	1		8270D	Total/NA
Benzo[k]fluoranthene	0.098	J	0.20	0.075	ug/L	1		8270D	Total/NA
Dibenzofuran	1.1	J	2.0	0.35	ug/L	1		8270D	Total/NA
Fluoranthene	1.4		1.0	0.32	ug/L	1		8270D	Total/NA
Pyrene	0.92	J	1.0	0.48	ug/L	1		8270D	Total/NA

Client Sample ID: SUPE-EB-02-100318 — Lab Sample ID: 480-142888-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzoic acid	20	B	20	4.5	ug/L	1		8270D	Total/NA
Phenol	1.1	J	5.0	0.36	ug/L	1		8270D	Total/NA

Client Sample ID: SUPE-M-99-100318 — Lab Sample ID: 480-142888-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	2.4		2.0	1.5	ug/L	2		8260C	Total/NA
Benzene	3.5		2.0	0.82	ug/L	2		8260C	Total/NA
Ethylbenzene	8.6		2.0	1.5	ug/L	2		8260C	Total/NA
m-Xylene & p-Xylene	3.1	J	4.0	1.3	ug/L	2		8260C	Total/NA
Naphthalene	70		2.0	0.86	ug/L	2		8260C	Total/NA
o-Xylene	2.4		2.0	1.5	ug/L	2		8260C	Total/NA
Toluene	1.0	J	2.0	1.0	ug/L	2		8260C	Total/NA
Xylenes, Total	5.5		4.0	1.3	ug/L	2		8260C	Total/NA
1-Methylnaphthalene	2.1		2.0	0.51	ug/L	1		8270D	Total/NA
Acenaphthene	17		1.0	0.37	ug/L	1		8270D	Total/NA
Acenaphthylene	0.38	J	1.0	0.33	ug/L	1		8270D	Total/NA
Anthracene	0.69	J	1.0	0.33	ug/L	1		8270D	Total/NA
Benzoic acid	56	B	20	4.6	ug/L	1		8270D	Total/NA
Dibenzofuran	4.5		2.0	0.36	ug/L	1		8270D	Total/NA
Fluoranthene	0.90	J	1.0	0.33	ug/L	1		8270D	Total/NA
Fluorene	1.7		1.0	0.39	ug/L	1		8270D	Total/NA
Phenol	4.5	J	5.1	0.37	ug/L	1		8270D	Total/NA
Pyrene	0.55	J	1.0	0.49	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SUPE-TB-02-100318

Lab Sample ID: 480-142888-1

Date Collected: 10/03/18 00:00

Matrix: Water

Date Received: 10/04/18 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/13/18 18:19	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/13/18 18:19	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/13/18 18:19	1
Benzene	ND		1.0	0.41	ug/L			10/13/18 18:19	1
Chloromethane	ND		1.0	0.35	ug/L			10/13/18 18:19	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/13/18 18:19	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/13/18 18:19	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/13/18 18:19	1
Naphthalene	ND		1.0	0.43	ug/L			10/13/18 18:19	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/13/18 18:19	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/13/18 18:19	1
o-Xylene	ND		1.0	0.76	ug/L			10/13/18 18:19	1
Styrene	ND		1.0	0.73	ug/L			10/13/18 18:19	1
Toluene	ND		1.0	0.51	ug/L			10/13/18 18:19	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/13/18 18:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*79*		*77 - 120*		*10/13/18 18:19*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*10/13/18 18:19*	*1*
Dibromofluoromethane (Surr)	*86*		*75 - 123*		*10/13/18 18:19*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*10/13/18 18:19*	*1*

Client Sample ID: SUPE-W-30A-100318

Lab Sample ID: 480-142888-2

Date Collected: 10/03/18 09:15

Matrix: Water

Date Received: 10/04/18 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	1.6	ug/L			10/13/18 18:46	2
1,2,4-Trimethylbenzene	**2.1**		2.0	1.5	ug/L			10/13/18 18:46	2
1,3,5-Trimethylbenzene	ND		2.0	1.5	ug/L			10/13/18 18:46	2
Benzene	**3.6**		2.0	0.82	ug/L			10/13/18 18:46	2
Chloromethane	ND		2.0	0.70	ug/L			10/13/18 18:46	2
Ethylbenzene	**9.0**		2.0	1.5	ug/L			10/13/18 18:46	2
Methyl tert-butyl ether	ND		2.0	0.32	ug/L			10/13/18 18:46	2
m-Xylene & p-Xylene	**3.2**	**J**	4.0	1.3	ug/L			10/13/18 18:46	2
Naphthalene	**67**		2.0	0.86	ug/L			10/13/18 18:46	2
n-Butylbenzene	ND		2.0	1.3	ug/L			10/13/18 18:46	2
N-Propylbenzene	ND		2.0	1.4	ug/L			10/13/18 18:46	2
o-Xylene	**2.5**		2.0	1.5	ug/L			10/13/18 18:46	2
Styrene	ND		2.0	1.5	ug/L			10/13/18 18:46	2
Toluene	**1.2**	**J**	2.0	1.0	ug/L			10/13/18 18:46	2
Xylenes, Total	**5.7**		4.0	1.3	ug/L			10/13/18 18:46	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*81*		*77 - 120*		*10/13/18 18:46*	*2*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*10/13/18 18:46*	*2*
Dibromofluoromethane (Surr)	*83*		*75 - 123*		*10/13/18 18:46*	*2*
Toluene-d8 (Surr)	*90*		*80 - 120*		*10/13/18 18:46*	*2*

Client Sample ID: SUPE-W-30A-100318
Date Collected: 10/03/18 09:15
Date Received: 10/04/18 10:00

Lab Sample ID: 480-142888-2
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	ND		1.0	0.34	ug/L		10/06/18 15:14	10/09/18 19:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*112*		*24 - 146*	*10/06/18 15:14*	*10/09/18 19:34*	*1*
2-Fluorobiphenyl	*90*		*37 - 120*	*10/06/18 15:14*	*10/09/18 19:34*	*1*
2-Fluorophenol (Surr)	*54*		*10 - 120*	*10/06/18 15:14*	*10/09/18 19:34*	*1*
Nitrobenzene-d5 (Surr)	*76*		*26 - 120*	*10/06/18 15:14*	*10/09/18 19:34*	*1*
Phenol-d5 (Surr)	*36*		*11 - 120*	*10/06/18 15:14*	*10/09/18 19:34*	*1*
p-Terphenyl-d14	*75*		*64 - 127*	*10/06/18 15:14*	*10/09/18 19:34*	*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	0.30	ug/L		10/09/18 08:04	10/11/18 03:49	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		10/09/18 08:04	10/11/18 03:49	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		10/09/18 08:04	10/11/18 03:49	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		10/09/18 08:04	10/11/18 03:49	1
1-Methylnaphthalene	ND		2.0	0.50	ug/L		10/09/18 08:04	10/11/18 03:49	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		10/09/18 08:04	10/11/18 03:49	1
2,3,4,6-Tetrachlorophenol	ND		5.0	1.5	ug/L		10/09/18 08:04	10/11/18 03:49	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 03:49	1
2,4,6-Trichlorophenol	ND		5.0	1.1	ug/L		10/09/18 08:04	10/11/18 03:49	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 03:49	1
2,4-Dinitrophenol	ND		20	7.5	ug/L		10/09/18 08:04	10/11/18 03:49	1
2,4-Dinitrotoluene	ND		1.0	0.30	ug/L		10/09/18 08:04	10/11/18 03:49	1
2,6-Dinitrotoluene	ND	*	1.0	0.12	ug/L		10/09/18 08:04	10/11/18 03:49	1
3 & 4 Methylphenol	ND		2.0	0.44	ug/L		10/09/18 08:04	10/11/18 03:49	1
2-Chloronaphthalene	ND		2.0	0.34	ug/L		10/09/18 08:04	10/11/18 03:49	1
2-Chlorophenol	ND		5.0	0.81	ug/L		10/09/18 08:04	10/11/18 03:49	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/09/18 08:04	10/11/18 03:49	1
2-Methylphenol	ND		2.0	0.31	ug/L		10/09/18 08:04	10/11/18 03:49	1
2-Nitroaniline	ND		5.0	1.1	ug/L		10/09/18 08:04	10/11/18 03:49	1
2-Nitrophenol	ND		10	2.2	ug/L		10/09/18 08:04	10/11/18 03:49	1
3-Nitroaniline	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 03:49	1
4,6-Dinitro-2-methylphenol	ND		20	5.0	ug/L		10/09/18 08:04	10/11/18 03:49	1
4-Bromophenyl phenyl ether	ND		5.0	0.92	ug/L		10/09/18 08:04	10/11/18 03:49	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		10/09/18 08:04	10/11/18 03:49	1
4-Chloroaniline	ND		10	2.1	ug/L		10/09/18 08:04	10/11/18 03:49	1
4-Chlorophenyl phenyl ether	ND		5.0	0.82	ug/L		10/09/18 08:04	10/11/18 03:49	1
4-Nitroaniline	ND		10	4.0	ug/L		10/09/18 08:04	10/11/18 03:49	1
4-Nitrophenol	ND		20	2.4	ug/L		10/09/18 08:04	10/11/18 03:49	1
Acenaphthene	**8.6**		1.0	0.36	ug/L		10/09/18 08:04	10/11/18 03:49	1
Acenaphthylene	ND		1.0	0.32	ug/L		10/09/18 08:04	10/11/18 03:49	1
Anthracene	**0.65**	**J**	1.0	0.32	ug/L		10/09/18 08:04	10/11/18 03:49	1
Benzo[a]pyrene	**0.15**	**J ***	0.20	0.057	ug/L		10/09/18 08:04	10/11/18 03:49	1
Benzo[b]fluoranthene	**0.17**	**J**	0.20	0.059	ug/L		10/09/18 08:04	10/11/18 03:49	1
Benzo[g,h,i]perylene	ND		1.0	0.42	ug/L		10/09/18 08:04	10/11/18 03:49	1
Benzo[k]fluoranthene	**0.098**	**J**	0.20	0.075	ug/L		10/09/18 08:04	10/11/18 03:49	1
Benzoic acid	ND		20	4.6	ug/L		10/09/18 08:04	10/11/18 03:49	1
Benzyl alcohol	ND		20	3.1	ug/L		10/09/18 08:04	10/11/18 03:49	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		10/09/18 08:04	10/11/18 03:49	1

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

TestAmerica Job ID: 480-142888-1

Client Sample ID: SUPE-W-30A-100318

Date Collected: 10/03/18 09:15
Date Received: 10/04/18 10:00

Lab Sample ID: 480-142888-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethyl)ether	ND		2.0	0.35	ug/L		10/09/18 08:04	10/11/18 03:49	1
Bis(2-ethylhexyl) phthalate	ND		10	2.5	ug/L		10/09/18 08:04	10/11/18 03:49	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		10/09/18 08:04	10/11/18 03:49	1
Chrysene	ND		0.50	0.14	ug/L		10/09/18 08:04	10/11/18 03:49	1
Dibenz(a,h)anthracene	ND		0.30	0.065	ug/L		10/09/18 08:04	10/11/18 03:49	1
Dibenzofuran	**1.1**	**J**	2.0	0.35	ug/L		10/09/18 08:04	10/11/18 03:49	1
Diethyl phthalate	ND		2.0	0.44	ug/L		10/09/18 08:04	10/11/18 03:49	1
Dimethyl phthalate	ND		2.0	0.38	ug/L		10/09/18 08:04	10/11/18 03:49	1
Di-n-butyl phthalate	ND		5.0	0.81	ug/L		10/09/18 08:04	10/11/18 03:49	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		10/09/18 08:04	10/11/18 03:49	1
2,3,5,6-Tetrachlorophenol	ND		5.0	2.5	ug/L		10/09/18 08:04	10/11/18 03:49	1
Fluoranthene	**1.4**		1.0	0.32	ug/L		10/09/18 08:04	10/11/18 03:49	1
Fluorene	ND		1.0	0.38	ug/L		10/09/18 08:04	10/11/18 03:49	1
Hexachlorobenzene	ND		0.50	0.14	ug/L		10/09/18 08:04	10/11/18 03:49	1
Hexachlorobutadiene	ND		5.0	1.1	ug/L		10/09/18 08:04	10/11/18 03:49	1
Hexachlorocyclopentadiene	ND		20	3.5	ug/L		10/09/18 08:04	10/11/18 03:49	1
Hexachloroethane	ND		5.0	0.98	ug/L		10/09/18 08:04	10/11/18 03:49	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.085	ug/L		10/09/18 08:04	10/11/18 03:49	1
Isophorone	ND		2.0	0.29	ug/L		10/09/18 08:04	10/11/18 03:49	1
Nitrobenzene	ND		1.0	0.45	ug/L		10/09/18 08:04	10/11/18 03:49	1
N-Nitrosodi-n-propylamine	ND		0.50	0.14	ug/L		10/09/18 08:04	10/11/18 03:49	1
N-Nitrosodiphenylamine	ND		2.0	0.34	ug/L		10/09/18 08:04	10/11/18 03:49	1
Pentachlorophenol	ND		20	5.7	ug/L		10/09/18 08:04	10/11/18 03:49	1
Phenol	ND		5.0	0.36	ug/L		10/09/18 08:04	10/11/18 03:49	1
Pyrene	**0.92**	**J**	1.0	0.48	ug/L		10/09/18 08:04	10/11/18 03:49	1
2,4-Dimethylphenol	ND		10	3.4	ug/L		10/09/18 08:04	10/11/18 03:49	1
Benzo[a]anthracene	ND		0.20	0.044	ug/L		10/09/18 08:04	10/11/18 03:49	1
Phenanthrene	ND		1.0	0.35	ug/L		10/09/18 08:04	10/11/18 03:49	1
3,3'-Dichlorobenzidine	ND		5.0	0.95	ug/L		10/09/18 08:04	10/11/18 03:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*122*		*40 - 145*	*10/09/18 08:04*	*10/11/18 03:49*	*1*
2-Fluorobiphenyl	*100*		*34 - 110*	*10/09/18 08:04*	*10/11/18 03:49*	*1*
2-Fluorophenol (Surr)	*51*		*27 - 110*	*10/09/18 08:04*	*10/11/18 03:49*	*1*
Nitrobenzene-d5 (Surr)	*91*		*36 - 120*	*10/09/18 08:04*	*10/11/18 03:49*	*1*
Phenol-d5 (Surr)	*36*		*20 - 100*	*10/09/18 08:04*	*10/11/18 03:49*	*1*
Terphenyl-d14 (Surr)	*106*		*40 - 145*	*10/09/18 08:04*	*10/11/18 03:49*	*1*

Client Sample ID: SUPE-EB-02-100318

Date Collected: 10/03/18 10:30
Date Received: 10/04/18 10:00

Lab Sample ID: 480-142888-3

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			10/13/18 19:13	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/13/18 19:13	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/13/18 19:13	1
Benzene	ND		1.0	0.41	ug/L			10/13/18 19:13	1
Chloromethane	ND		1.0	0.35	ug/L			10/13/18 19:13	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/13/18 19:13	1

Client Sample ID: SUPE-EB-02-100318
Date Collected: 10/03/18 10:30
Date Received: 10/04/18 10:00

Lab Sample ID: 480-142888-3
Matrix: Water

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		1.0	0.16	ug/L			10/13/18 19:13	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/13/18 19:13	1
Naphthalene	ND		1.0	0.43	ug/L			10/13/18 19:13	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/13/18 19:13	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/13/18 19:13	1
o-Xylene	ND		1.0	0.76	ug/L			10/13/18 19:13	1
Styrene	ND		1.0	0.73	ug/L			10/13/18 19:13	1
Toluene	ND		1.0	0.51	ug/L			10/13/18 19:13	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/13/18 19:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*77 - 120*		*10/13/18 19:13*	*1*
4-Bromofluorobenzene (Surr)	*111*		*73 - 120*		*10/13/18 19:13*	*1*
Dibromofluoromethane (Surr)	*96*		*75 - 123*		*10/13/18 19:13*	*1*
Toluene-d8 (Surr)	*93*		*80 - 120*		*10/13/18 19:13*	*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		10/06/18 15:14	10/08/18 17:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*79*		*24 - 146*	*10/06/18 15:14*	*10/08/18 17:11*	*1*
2-Fluorobiphenyl	*96*		*37 - 120*	*10/06/18 15:14*	*10/08/18 17:11*	*1*
2-Fluorophenol (Surr)	*57*		*10 - 120*	*10/06/18 15:14*	*10/08/18 17:11*	*1*
Nitrobenzene-d5 (Surr)	*98*		*26 - 120*	*10/06/18 15:14*	*10/08/18 17:11*	*1*
Phenol-d5 (Surr)	*39*		*11 - 120*	*10/06/18 15:14*	*10/08/18 17:11*	*1*
p-Terphenyl-d14	*106*		*64 - 127*	*10/06/18 15:14*	*10/08/18 17:11*	*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		10/09/18 08:04	10/11/18 04:18	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		10/09/18 08:04	10/11/18 04:18	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		10/09/18 08:04	10/11/18 04:18	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		10/09/18 08:04	10/11/18 04:18	1
1-Methylnaphthalene	ND		2.0	0.50	ug/L		10/09/18 08:04	10/11/18 04:18	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		10/09/18 08:04	10/11/18 04:18	1
2,3,4,6-Tetrachlorophenol	ND		5.0	1.5	ug/L		10/09/18 08:04	10/11/18 04:18	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 04:18	1
2,4,6-Trichlorophenol	ND		5.0	1.1	ug/L		10/09/18 08:04	10/11/18 04:18	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 04:18	1
2,4-Dinitrophenol	ND		20	7.4	ug/L		10/09/18 08:04	10/11/18 04:18	1
2,4-Dinitrotoluene	ND		1.0	0.30	ug/L		10/09/18 08:04	10/11/18 04:18	1
2,6-Dinitrotoluene	ND	*	1.0	0.12	ug/L		10/09/18 08:04	10/11/18 04:18	1
3 & 4 Methylphenol	ND		2.0	0.44	ug/L		10/09/18 08:04	10/11/18 04:18	1
2-Chloronaphthalene	ND		2.0	0.34	ug/L		10/09/18 08:04	10/11/18 04:18	1
2-Chlorophenol	ND		5.0	0.80	ug/L		10/09/18 08:04	10/11/18 04:18	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/09/18 08:04	10/11/18 04:18	1
2-Methylphenol	ND		2.0	0.31	ug/L		10/09/18 08:04	10/11/18 04:18	1
2-Nitroaniline	ND		5.0	1.1	ug/L		10/09/18 08:04	10/11/18 04:18	1
2-Nitrophenol	ND		10	2.1	ug/L		10/09/18 08:04	10/11/18 04:18	1

Client Sample ID: SUPE-EB-02-100318
Date Collected: 10/03/18 10:30
Date Received: 10/04/18 10:00

Lab Sample ID: 480-142888-3
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		10/09/18 08:04	10/11/18 04:18	1
4,6-Dinitro-2-methylphenol	ND		20	4.9	ug/L		10/09/18 08:04	10/11/18 04:18	1
4-Bromophenyl phenyl ether	ND		5.0	0.91	ug/L		10/09/18 08:04	10/11/18 04:18	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		10/09/18 08:04	10/11/18 04:18	1
4-Chloroaniline	ND		10	2.1	ug/L		10/09/18 08:04	10/11/18 04:18	1
4-Chlorophenyl phenyl ether	ND		5.0	0.81	ug/L		10/09/18 08:04	10/11/18 04:18	1
4-Nitroaniline	ND		10	3.9	ug/L		10/09/18 08:04	10/11/18 04:18	1
4-Nitrophenol	ND		20	2.3	ug/L		10/09/18 08:04	10/11/18 04:18	1
Acenaphthene	ND		1.0	0.36	ug/L		10/09/18 08:04	10/11/18 04:18	1
Acenaphthylene	ND		1.0	0.32	ug/L		10/09/18 08:04	10/11/18 04:18	1
Anthracene	ND		1.0	0.32	ug/L		10/09/18 08:04	10/11/18 04:18	1
Benzo[a]pyrene	ND	*	0.20	0.056	ug/L		10/09/18 08:04	10/11/18 04:18	1
Benzo[b]fluoranthene	ND		0.20	0.058	ug/L		10/09/18 08:04	10/11/18 04:18	1
Benzo[g,h,i]perylene	ND		1.0	0.42	ug/L		10/09/18 08:04	10/11/18 04:18	1
Benzo[k]fluoranthene	ND		0.20	0.074	ug/L		10/09/18 08:04	10/11/18 04:18	1
Benzoic acid	**20**	**B**	20	4.5	ug/L		10/09/18 08:04	10/11/18 04:18	1
Benzyl alcohol	ND		20	3.0	ug/L		10/09/18 08:04	10/11/18 04:18	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		10/09/18 08:04	10/11/18 04:18	1
Bis(2-chloroethyl)ether	ND		2.0	0.35	ug/L		10/09/18 08:04	10/11/18 04:18	1
Bis(2-ethylhexyl) phthalate	ND		10	2.4	ug/L		10/09/18 08:04	10/11/18 04:18	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		10/09/18 08:04	10/11/18 04:18	1
Chrysene	ND		0.50	0.14	ug/L		10/09/18 08:04	10/11/18 04:18	1
Dibenz(a,h)anthracene	ND		0.30	0.064	ug/L		10/09/18 08:04	10/11/18 04:18	1
Dibenzofuran	ND		2.0	0.35	ug/L		10/09/18 08:04	10/11/18 04:18	1
Diethyl phthalate	ND		2.0	0.44	ug/L		10/09/18 08:04	10/11/18 04:18	1
Dimethyl phthalate	ND		2.0	0.38	ug/L		10/09/18 08:04	10/11/18 04:18	1
Di-n-butyl phthalate	ND		5.0	0.80	ug/L		10/09/18 08:04	10/11/18 04:18	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		10/09/18 08:04	10/11/18 04:18	1
2,3,5,6-Tetrachlorophenol	ND		5.0	2.5	ug/L		10/09/18 08:04	10/11/18 04:18	1
Fluoranthene	ND		1.0	0.32	ug/L		10/09/18 08:04	10/11/18 04:18	1
Fluorene	ND		1.0	0.38	ug/L		10/09/18 08:04	10/11/18 04:18	1
Hexachlorobenzene	ND		0.50	0.14	ug/L		10/09/18 08:04	10/11/18 04:18	1
Hexachlorobutadiene	ND		5.0	1.1	ug/L		10/09/18 08:04	10/11/18 04:18	1
Hexachlorocyclopentadiene	ND		20	3.4	ug/L		10/09/18 08:04	10/11/18 04:18	1
Hexachloroethane	ND		5.0	0.97	ug/L		10/09/18 08:04	10/11/18 04:18	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.084	ug/L		10/09/18 08:04	10/11/18 04:18	1
Isophorone	ND		2.0	0.29	ug/L		10/09/18 08:04	10/11/18 04:18	1
Nitrobenzene	ND		1.0	0.45	ug/L		10/09/18 08:04	10/11/18 04:18	1
N-Nitrosodi-n-propylamine	ND		0.50	0.14	ug/L		10/09/18 08:04	10/11/18 04:18	1
N-Nitrosodiphenylamine	ND		2.0	0.34	ug/L		10/09/18 08:04	10/11/18 04:18	1
Pentachlorophenol	ND		20	5.6	ug/L		10/09/18 08:04	10/11/18 04:18	1
Phenol	**1.1**	**J**	5.0	0.36	ug/L		10/09/18 08:04	10/11/18 04:18	1
Pyrene	ND		1.0	0.48	ug/L		10/09/18 08:04	10/11/18 04:18	1
2,4-Dimethylphenol	ND		10	3.3	ug/L		10/09/18 08:04	10/11/18 04:18	1
Benzo[a]anthracene	ND		0.20	0.044	ug/L		10/09/18 08:04	10/11/18 04:18	1
Phenanthrene	ND		1.0	0.35	ug/L		10/09/18 08:04	10/11/18 04:18	1
3,3'-Dichlorobenzidine	ND		5.0	0.94	ug/L		10/09/18 08:04	10/11/18 04:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*122*		*40 - 145*	*10/09/18 08:04*	*10/11/18 04:18*	*1*

Client Sample ID: SUPE-EB-02-100318

Lab Sample ID: 480-142888-3
Date Collected: 10/03/18 10:30
Matrix: Water
Date Received: 10/04/18 10:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	114	X	34 - 110	10/09/18 08:04	10/11/18 04:18	1
2-Fluorophenol (Surr)	55		27 - 110	10/09/18 08:04	10/11/18 04:18	1
Nitrobenzene-d5 (Surr)	107		36 - 120	10/09/18 08:04	10/11/18 04:18	1
Phenol-d5 (Surr)	42		20 - 100	10/09/18 08:04	10/11/18 04:18	1
Terphenyl-d14 (Surr)	129		40 - 145	10/09/18 08:04	10/11/18 04:18	1

Client Sample ID: SUPE-M-99-100318

Lab Sample ID: 480-142888-4
Date Collected: 10/03/18 20:00
Matrix: Water
Date Received: 10/04/18 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	1.6	ug/L			10/13/18 19:40	2
1,2,4-Trimethylbenzene	**2.4**		2.0	1.5	ug/L			10/13/18 19:40	2
1,3,5-Trimethylbenzene	ND		2.0	1.5	ug/L			10/13/18 19:40	2
Benzene	**3.5**		2.0	0.82	ug/L			10/13/18 19:40	2
Chloromethane	ND		2.0	0.70	ug/L			10/13/18 19:40	2
Ethylbenzene	**8.6**		2.0	1.5	ug/L			10/13/18 19:40	2
Methyl tert-butyl ether	ND		2.0	0.32	ug/L			10/13/18 19:40	2
m-Xylene & p-Xylene	**3.1**	**J**	4.0	1.3	ug/L			10/13/18 19:40	2
Naphthalene	**70**		2.0	0.86	ug/L			10/13/18 19:40	2
n-Butylbenzene	ND		2.0	1.3	ug/L			10/13/18 19:40	2
N-Propylbenzene	ND		2.0	1.4	ug/L			10/13/18 19:40	2
o-Xylene	**2.4**		2.0	1.5	ug/L			10/13/18 19:40	2
Styrene	ND		2.0	1.5	ug/L			10/13/18 19:40	2
Toluene	**1.0**	**J**	2.0	1.0	ug/L			10/13/18 19:40	2
Xylenes, Total	**5.5**		4.0	1.3	ug/L			10/13/18 19:40	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	81		77 - 120		10/13/18 19:40	2
4-Bromofluorobenzene (Surr)	102		73 - 120		10/13/18 19:40	2
Dibromofluoromethane (Surr)	85		75 - 123		10/13/18 19:40	2
Toluene-d8 (Surr)	90		80 - 120		10/13/18 19:40	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		1.0	0.34	ug/L		10/06/18 15:14	10/09/18 20:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	94		24 - 146	10/06/18 15:14	10/09/18 20:03	1
2-Fluorobiphenyl	84		37 - 120	10/06/18 15:14	10/09/18 20:03	1
2-Fluorophenol (Surr)	52		10 - 120	10/06/18 15:14	10/09/18 20:03	1
Nitrobenzene-d5 (Surr)	71		26 - 120	10/06/18 15:14	10/09/18 20:03	1
Phenol-d5 (Surr)	34		11 - 120	10/06/18 15:14	10/09/18 20:03	1
p-Terphenyl-d14	73		64 - 127	10/06/18 15:14	10/09/18 20:03	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		10/09/18 08:04	10/11/18 04:48	1
1,2-Dichlorobenzene	ND		2.0	0.30	ug/L		10/09/18 08:04	10/11/18 04:48	1

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

TestAmerica Job ID: 480-142888-1

Client Sample ID: SUPE-M-99-100318
Date Collected: 10/03/18 20:00
Date Received: 10/04/18 10:00

Lab Sample ID: 480-142888-4
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		10/09/18 08:04	10/11/18 04:48	1
1,4-Dichlorobenzene	ND		2.0	0.28	ug/L		10/09/18 08:04	10/11/18 04:48	1
1-Methylnaphthalene	**2.1**		2.0	0.51	ug/L		10/09/18 08:04	10/11/18 04:48	1
bis(chloroisopropyl) ether	ND		2.0	0.31	ug/L		10/09/18 08:04	10/11/18 04:48	1
2,3,4,6-Tetrachlorophenol	ND		5.1	1.5	ug/L		10/09/18 08:04	10/11/18 04:48	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 04:48	1
2,4,6-Trichlorophenol	ND		5.1	1.1	ug/L		10/09/18 08:04	10/11/18 04:48	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 04:48	1
2,4-Dinitrophenol	ND		20	7.6	ug/L		10/09/18 08:04	10/11/18 04:48	1
2,4-Dinitrotoluene	ND		1.0	0.31	ug/L		10/09/18 08:04	10/11/18 04:48	1
2,6-Dinitrotoluene	ND	*	1.0	0.12	ug/L		10/09/18 08:04	10/11/18 04:48	1
3 & 4 Methylphenol	ND		2.0	0.45	ug/L		10/09/18 08:04	10/11/18 04:48	1
2-Chloronaphthalene	ND		2.0	0.35	ug/L		10/09/18 08:04	10/11/18 04:48	1
2-Chlorophenol	ND		5.1	0.82	ug/L		10/09/18 08:04	10/11/18 04:48	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/09/18 08:04	10/11/18 04:48	1
2-Methylphenol	ND		2.0	0.32	ug/L		10/09/18 08:04	10/11/18 04:48	1
2-Nitroaniline	ND		5.1	1.1	ug/L		10/09/18 08:04	10/11/18 04:48	1
2-Nitrophenol	ND		10	2.2	ug/L		10/09/18 08:04	10/11/18 04:48	1
3-Nitroaniline	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 04:48	1
4,6-Dinitro-2-methylphenol	ND		20	5.0	ug/L		10/09/18 08:04	10/11/18 04:48	1
4-Bromophenyl phenyl ether	ND		5.1	0.93	ug/L		10/09/18 08:04	10/11/18 04:48	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		10/09/18 08:04	10/11/18 04:48	1
4-Chloroaniline	ND		10	2.1	ug/L		10/09/18 08:04	10/11/18 04:48	1
4-Chlorophenyl phenyl ether	ND		5.1	0.83	ug/L		10/09/18 08:04	10/11/18 04:48	1
4-Nitroaniline	ND		10	4.0	ug/L		10/09/18 08:04	10/11/18 04:48	1
4-Nitrophenol	ND		20	2.4	ug/L		10/09/18 08:04	10/11/18 04:48	1
Acenaphthene	**17**		1.0	0.37	ug/L		10/09/18 08:04	10/11/18 04:48	1
Acenaphthylene	**0.38**	**J**	1.0	0.33	ug/L		10/09/18 08:04	10/11/18 04:48	1
Anthracene	**0.69**	**J**	1.0	0.33	ug/L		10/09/18 08:04	10/11/18 04:48	1
Benzo[a]pyrene	ND	*	0.20	0.057	ug/L		10/09/18 08:04	10/11/18 04:48	1
Benzo[b]fluoranthene	ND		0.20	0.059	ug/L		10/09/18 08:04	10/11/18 04:48	1
Benzo[g,h,i]perylene	ND		1.0	0.43	ug/L		10/09/18 08:04	10/11/18 04:48	1
Benzo[k]fluoranthene	ND		0.20	0.075	ug/L		10/09/18 08:04	10/11/18 04:48	1
Benzoic acid	**56**	**B**	20	4.6	ug/L		10/09/18 08:04	10/11/18 04:48	1
Benzyl alcohol	ND		20	3.1	ug/L		10/09/18 08:04	10/11/18 04:48	1
Bis(2-chloroethoxy)methane	ND		2.0	0.31	ug/L		10/09/18 08:04	10/11/18 04:48	1
Bis(2-chloroethyl)ether	ND		2.0	0.36	ug/L		10/09/18 08:04	10/11/18 04:48	1
Bis(2-ethylhexyl) phthalate	ND		10	2.5	ug/L		10/09/18 08:04	10/11/18 04:48	1
Butyl benzyl phthalate	ND		2.0	0.28	ug/L		10/09/18 08:04	10/11/18 04:48	1
Chrysene	ND		0.51	0.14	ug/L		10/09/18 08:04	10/11/18 04:48	1
Dibenz(a,h)anthracene	ND		0.31	0.065	ug/L		10/09/18 08:04	10/11/18 04:48	1
Dibenzofuran	**4.5**		2.0	0.36	ug/L		10/09/18 08:04	10/11/18 04:48	1
Diethyl phthalate	ND		2.0	0.45	ug/L		10/09/18 08:04	10/11/18 04:48	1
Dimethyl phthalate	ND		2.0	0.39	ug/L		10/09/18 08:04	10/11/18 04:48	1
Di-n-butyl phthalate	ND		5.1	0.82	ug/L		10/09/18 08:04	10/11/18 04:48	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		10/09/18 08:04	10/11/18 04:48	1
2,3,5,6-Tetrachlorophenol	ND		5.1	2.5	ug/L		10/09/18 08:04	10/11/18 04:48	1
Fluoranthene	**0.90**	**J**	1.0	0.33	ug/L		10/09/18 08:04	10/11/18 04:48	1
Fluorene	**1.7**		1.0	0.39	ug/L		10/09/18 08:04	10/11/18 04:48	1

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

TestAmerica Job ID: 480-142888-1

Client Sample ID: SUPE-M-99-100318
Date Collected: 10/03/18 20:00
Date Received: 10/04/18 10:00

Lab Sample ID: 480-142888-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	ND		0.51	0.14	ug/L		10/09/18 08:04	10/11/18 04:48	1
Hexachlorobutadiene	ND		5.1	1.1	ug/L		10/09/18 08:04	10/11/18 04:48	1
Hexachlorocyclopentadiene	ND		20	3.5	ug/L		10/09/18 08:04	10/11/18 04:48	1
Hexachloroethane	ND		5.1	0.99	ug/L		10/09/18 08:04	10/11/18 04:48	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.086	ug/L		10/09/18 08:04	10/11/18 04:48	1
Isophorone	ND		2.0	0.30	ug/L		10/09/18 08:04	10/11/18 04:48	1
Nitrobenzene	ND		1.0	0.46	ug/L		10/09/18 08:04	10/11/18 04:48	1
N-Nitrosodi-n-propylamine	ND		0.51	0.14	ug/L		10/09/18 08:04	10/11/18 04:48	1
N-Nitrosodiphenylamine	ND		2.0	0.35	ug/L		10/09/18 08:04	10/11/18 04:48	1
Pentachlorophenol	ND		20	5.7	ug/L		10/09/18 08:04	10/11/18 04:48	1
Phenol	**4.5**	**J**	5.1	0.37	ug/L		10/09/18 08:04	10/11/18 04:48	1
Pyrene	**0.55**	**J**	1.0	0.49	ug/L		10/09/18 08:04	10/11/18 04:48	1
2,4-Dimethylphenol	ND		10	3.4	ug/L		10/09/18 08:04	10/11/18 04:48	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		10/09/18 08:04	10/11/18 04:48	1
Phenanthrene	ND		1.0	0.36	ug/L		10/09/18 08:04	10/11/18 04:48	1
3,3'-Dichlorobenzidine	ND		5.1	0.96	ug/L		10/09/18 08:04	10/11/18 04:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*130*		*40 - 145*	*10/09/18 08:04*	*10/11/18 04:48*	*1*
2-Fluorobiphenyl	*116*	*X*	*34 - 110*	*10/09/18 08:04*	*10/11/18 04:48*	*1*
2-Fluorophenol (Surr)	*45*		*27 - 110*	*10/09/18 08:04*	*10/11/18 04:48*	*1*
Nitrobenzene-d5 (Surr)	*109*		*36 - 120*	*10/09/18 08:04*	*10/11/18 04:48*	*1*
Phenol-d5 (Surr)	*48*		*20 - 100*	*10/09/18 08:04*	*10/11/18 04:48*	*1*
Terphenyl-d14 (Surr)	*121*		*40 - 145*	*10/09/18 08:04*	*10/11/18 04:48*	*1*

Surrogate Summary

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

TestAmerica Job ID: 480-142888-1

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)
480-142888-1	SUPE-TB-02-100318	79	100	86	94
480-142888-2	SUPE-W-30A-100318	81	98	83	90
480-142888-3	SUPE-EB-02-100318	88	111	96	93
480-142888-4	SUPE-M-99-100318	81	102	85	90
LCS 480-439282/9	Lab Control Sample	85	98	81	91
MB 480-439282/7	Method Blank	84	110	87	94

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)
480-142888-2	SUPE-W-30A-100318	122	100	51	91	36	106
480-142888-3	SUPE-EB-02-100318	122	114 X	55	107	42	129
480-142888-4	SUPE-M-99-100318	130	116 X	45	109	48	121
LCS 500-453886/2-A	Lab Control Sample	120	101	73	109	50	114
MB 500-453886/1-A	Method Blank	104	100	69	99	38	121

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)
480-142888-2	SUPE-W-30A-100318	112	90	54	76	36	75
480-142888-3	SUPE-EB-02-100318	79	96	57	98	39	106
480-142888-4	SUPE-M-99-100318	94	84	52	71	34	73
LCS 480-438068/2-A	Lab Control Sample	106	97	59	97	46	107
MB 480-438068/1-A	Method Blank	92	97	59	92	41	113

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)

Surrogate Summary

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

TestAmerica Job ID: 480-142888-1

PHL = Phenol-d5 (Surr)
TPHd14 = p-Terphenyl-d14

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

Lab Sample ID: MB 480-439282/7
Matrix: Water
Analysis Batch: 439282

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			10/13/18 14:07	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/13/18 14:07	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/13/18 14:07	1
Benzene	ND		1.0	0.41	ug/L			10/13/18 14:07	1
Chloromethane	ND		1.0	0.35	ug/L			10/13/18 14:07	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/13/18 14:07	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/13/18 14:07	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/13/18 14:07	1
Naphthalene	ND		1.0	0.43	ug/L			10/13/18 14:07	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/13/18 14:07	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/13/18 14:07	1
o-Xylene	ND		1.0	0.76	ug/L			10/13/18 14:07	1
Styrene	ND		1.0	0.73	ug/L			10/13/18 14:07	1
Toluene	ND		1.0	0.51	ug/L			10/13/18 14:07	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/13/18 14:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*84*		*77 - 120*		*10/13/18 14:07*	*1*
4-Bromofluorobenzene (Surr)	*110*		*73 - 120*		*10/13/18 14:07*	*1*
Dibromofluoromethane (Surr)	*87*		*75 - 123*		*10/13/18 14:07*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*10/13/18 14:07*	*1*

Lab Sample ID: LCS 480-439282/9
Matrix: Water
Analysis Batch: 439282

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	25.8		ug/L		103	73 - 126
1,2,4-Trimethylbenzene	25.0	26.1		ug/L		104	76 - 121
1,3,5-Trimethylbenzene	25.0	27.0		ug/L		108	77 - 121
Benzene	25.0	24.9		ug/L		100	71 - 124
Chloromethane	25.0	20.6		ug/L		82	68 - 124
Ethylbenzene	25.0	25.7		ug/L		103	77 - 123
Methyl tert-butyl ether	25.0	23.5		ug/L		94	77 - 120
m-Xylene & p-Xylene	25.0	25.9		ug/L		104	76 - 122
Naphthalene	25.0	26.0		ug/L		104	66 - 125
n-Butylbenzene	25.0	30.4		ug/L		122	71 - 128
N-Propylbenzene	25.0	29.3		ug/L		117	75 - 127
o-Xylene	25.0	23.6		ug/L		94	76 - 122
Styrene	25.0	26.1		ug/L		104	80 - 120
Toluene	25.0	24.5		ug/L		98	80 - 122
Xylenes, Total	50.0	49.5		ug/L		99	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*85*		*77 - 120*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*
Dibromofluoromethane (Surr)	*81*		*75 - 123*

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

Lab Sample ID: LCS 480-439282/9
Matrix: Water
Analysis Batch: 439282

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

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*91*		*80 - 120*

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

Lab Sample ID: MB 500-453886/1-A
Matrix: Water
Analysis Batch: 454447

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 453886

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.0	0.30	ug/L		10/09/18 08:04	10/11/18 20:43	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		10/09/18 08:04	10/11/18 20:43	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		10/09/18 08:04	10/11/18 20:43	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		10/09/18 08:04	10/11/18 20:43	1
1-Methylnaphthalene	ND		2.0	0.50	ug/L		10/09/18 08:04	10/11/18 20:43	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		10/09/18 08:04	10/11/18 20:43	1
2,3,4,6-Tetrachlorophenol	ND		5.0	1.5	ug/L		10/09/18 08:04	10/11/18 20:43	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 20:43	1
2,4,6-Trichlorophenol	ND		5.0	1.1	ug/L		10/09/18 08:04	10/11/18 20:43	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 20:43	1
2,4-Dinitrophenol	ND		20	7.4	ug/L		10/09/18 08:04	10/11/18 20:43	1
2,4-Dinitrotoluene	ND		1.0	0.30	ug/L		10/09/18 08:04	10/11/18 20:43	1
2,6-Dinitrotoluene	ND		1.0	0.12	ug/L		10/09/18 08:04	10/11/18 20:43	1
3 & 4 Methylphenol	ND		2.0	0.44	ug/L		10/09/18 08:04	10/11/18 20:43	1
2-Chloronaphthalene	ND		2.0	0.34	ug/L		10/09/18 08:04	10/11/18 20:43	1
2-Chlorophenol	ND		5.0	0.80	ug/L		10/09/18 08:04	10/11/18 20:43	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/09/18 08:04	10/11/18 20:43	1
2-Methylphenol	ND		2.0	0.31	ug/L		10/09/18 08:04	10/11/18 20:43	1
2-Nitroaniline	ND		5.0	1.1	ug/L		10/09/18 08:04	10/11/18 20:43	1
2-Nitrophenol	ND		10	2.1	ug/L		10/09/18 08:04	10/11/18 20:43	1
3-Nitroaniline	ND		10	2.3	ug/L		10/09/18 08:04	10/11/18 20:43	1
4,6-Dinitro-2-methylphenol	ND		20	4.9	ug/L		10/09/18 08:04	10/11/18 20:43	1
4-Bromophenyl phenyl ether	ND		5.0	0.91	ug/L		10/09/18 08:04	10/11/18 20:43	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		10/09/18 08:04	10/11/18 20:43	1
4-Chloroaniline	ND		10	2.1	ug/L		10/09/18 08:04	10/11/18 20:43	1
4-Chlorophenyl phenyl ether	ND		5.0	0.81	ug/L		10/09/18 08:04	10/11/18 20:43	1
4-Nitroaniline	ND		10	3.9	ug/L		10/09/18 08:04	10/11/18 20:43	1
4-Nitrophenol	ND		20	2.3	ug/L		10/09/18 08:04	10/11/18 20:43	1
Acenaphthene	ND		1.0	0.36	ug/L		10/09/18 08:04	10/11/18 20:43	1
Acenaphthylene	ND		1.0	0.32	ug/L		10/09/18 08:04	10/11/18 20:43	1
Anthracene	ND		1.0	0.32	ug/L		10/09/18 08:04	10/11/18 20:43	1
Benzo[a]pyrene	ND		0.20	0.056	ug/L		10/09/18 08:04	10/11/18 20:43	1
Benzo[b]fluoranthene	ND		0.20	0.058	ug/L		10/09/18 08:04	10/11/18 20:43	1
Benzo[g,h,i]perylene	ND		1.0	0.42	ug/L		10/09/18 08:04	10/11/18 20:43	1
Benzo[k]fluoranthene	ND		0.20	0.074	ug/L		10/09/18 08:04	10/11/18 20:43	1
Benzoic acid	27.2		20	4.6	ug/L		10/09/18 08:04	10/11/18 20:43	1
Benzyl alcohol	ND		20	3.1	ug/L		10/09/18 08:04	10/11/18 20:43	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		10/09/18 08:04	10/11/18 20:43	1
Bis(2-chloroethyl)ether	ND		2.0	0.35	ug/L		10/09/18 08:04	10/11/18 20:43	1

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

Lab Sample ID: MB 500-453886/1-A
Matrix: Water
Analysis Batch: 454447

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 453886

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		10	2.4	ug/L		10/09/18 08:04	10/11/18 20:43	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		10/09/18 08:04	10/11/18 20:43	1
Chrysene	ND		0.50	0.14	ug/L		10/09/18 08:04	10/11/18 20:43	1
Dibenz(a,h)anthracene	ND		0.30	0.064	ug/L		10/09/18 08:04	10/11/18 20:43	1
Dibenzofuran	ND		2.0	0.35	ug/L		10/09/18 08:04	10/11/18 20:43	1
Diethyl phthalate	ND		2.0	0.44	ug/L		10/09/18 08:04	10/11/18 20:43	1
Dimethyl phthalate	ND		2.0	0.38	ug/L		10/09/18 08:04	10/11/18 20:43	1
Di-n-butyl phthalate	ND		5.0	0.80	ug/L		10/09/18 08:04	10/11/18 20:43	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		10/09/18 08:04	10/11/18 20:43	1
2,3,5,6-Tetrachlorophenol	ND		5.0	2.5	ug/L		10/09/18 08:04	10/11/18 20:43	1
Fluoranthene	ND		1.0	0.32	ug/L		10/09/18 08:04	10/11/18 20:43	1
Fluorene	ND		1.0	0.38	ug/L		10/09/18 08:04	10/11/18 20:43	1
Hexachlorobenzene	ND		0.50	0.14	ug/L		10/09/18 08:04	10/11/18 20:43	1
Hexachlorobutadiene	ND		5.0	1.1	ug/L		10/09/18 08:04	10/11/18 20:43	1
Hexachlorocyclopentadiene	ND		20	3.4	ug/L		10/09/18 08:04	10/11/18 20:43	1
Hexachloroethane	ND		5.0	0.97	ug/L		10/09/18 08:04	10/11/18 20:43	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.084	ug/L		10/09/18 08:04	10/11/18 20:43	1
Isophorone	ND		2.0	0.29	ug/L		10/09/18 08:04	10/11/18 20:43	1
Nitrobenzene	ND		1.0	0.45	ug/L		10/09/18 08:04	10/11/18 20:43	1
N-Nitrosodi-n-propylamine	ND		0.50	0.14	ug/L		10/09/18 08:04	10/11/18 20:43	1
N-Nitrosodiphenylamine	ND		2.0	0.34	ug/L		10/09/18 08:04	10/11/18 20:43	1
Pentachlorophenol	ND		20	5.6	ug/L		10/09/18 08:04	10/11/18 20:43	1
Phenol	ND		5.0	0.36	ug/L		10/09/18 08:04	10/11/18 20:43	1
Pyrene	ND		1.0	0.48	ug/L		10/09/18 08:04	10/11/18 20:43	1
2,4-Dimethylphenol	ND		10	3.3	ug/L		10/09/18 08:04	10/11/18 20:43	1
Benzo[a]anthracene	ND		0.20	0.044	ug/L		10/09/18 08:04	10/11/18 20:43	1
Phenanthrene	ND		1.0	0.35	ug/L		10/09/18 08:04	10/11/18 20:43	1
3,3'-Dichlorobenzidine	ND		5.0	0.94	ug/L		10/09/18 08:04	10/11/18 20:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*104*		*40 - 145*	*10/09/18 08:04*	*10/11/18 20:43*	*1*
2-Fluorobiphenyl	*100*		*34 - 110*	*10/09/18 08:04*	*10/11/18 20:43*	*1*
2-Fluorophenol (Surr)	*69*		*27 - 110*	*10/09/18 08:04*	*10/11/18 20:43*	*1*
Nitrobenzene-d5 (Surr)	*99*		*36 - 120*	*10/09/18 08:04*	*10/11/18 20:43*	*1*
Phenol-d5 (Surr)	*38*		*20 - 100*	*10/09/18 08:04*	*10/11/18 20:43*	*1*
Terphenyl-d14 (Surr)	*121*		*40 - 145*	*10/09/18 08:04*	*10/11/18 20:43*	*1*

Lab Sample ID: LCS 500-453886/2-A
Matrix: Water
Analysis Batch: 454447

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 453886

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	40.0	31.7		ug/L		79	26 - 110
1,2-Dichlorobenzene	40.0	31.4		ug/L		78	26 - 110
1,3-Dichlorobenzene	40.0	30.4		ug/L		76	22 - 110
1,4-Dichlorobenzene	40.0	30.5		ug/L		76	23 - 110
1-Methylnaphthalene	40.0	33.9		ug/L		85	38 - 110
bis(chloroisopropyl) ether	40.0	34.0		ug/L		85	38 - 110

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

Lab Sample ID: LCS 500-453886/2-A
Matrix: Water
Analysis Batch: 454447

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 453886

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,4,6-Tetrachlorophenol	40.0	43.6		ug/L		109	44 - 118
2,4,5-Trichlorophenol	40.0	44.5		ug/L		111	63 - 120
2,4,6-Trichlorophenol	40.0	42.5		ug/L		106	62 - 110
2,4-Dichlorophenol	40.0	42.0		ug/L		105	62 - 110
2,4-Dinitrophenol	80.0	84.6		ug/L		106	37 - 130
2,4-Dinitrotoluene	40.0	47.4		ug/L		119	63 - 122
2,6-Dinitrotoluene	40.0	48.1	*	ug/L		120	63 - 119
3 & 4 Methylphenol	40.0	36.1		ug/L		90	53 - 110
2-Chloronaphthalene	40.0	34.9		ug/L		87	39 - 110
2-Chlorophenol	40.0	39.6		ug/L		99	59 - 110
2-Methylnaphthalene	40.0	33.6		ug/L		84	34 - 110
2-Methylphenol	40.0	38.9		ug/L		97	53 - 110
2-Nitroaniline	40.0	40.0		ug/L		100	59 - 122
2-Nitrophenol	40.0	41.9		ug/L		105	58 - 110
3-Nitroaniline	40.0	27.5		ug/L		69	47 - 123
4,6-Dinitro-2-methylphenol	80.0	90.1		ug/L		113	50 - 117
4-Bromophenyl phenyl ether	40.0	38.2		ug/L		96	58 - 120
4-Chloro-3-methylphenol	40.0	41.4		ug/L		103	64 - 120
4-Chloroaniline	40.0	34.1		ug/L		85	35 - 128
4-Chlorophenyl phenyl ether	40.0	37.4		ug/L		93	47 - 112
4-Nitroaniline	40.0	32.1		ug/L		80	52 - 147
4-Nitrophenol	80.0	38.6		ug/L		48	20 - 110
Acenaphthene	40.0	37.0		ug/L		93	46 - 110
Acenaphthylene	40.0	38.0		ug/L		95	47 - 110
Anthracene	40.0	41.9		ug/L		105	67 - 110
Benzo[a]pyrene	40.0	48.6	*	ug/L		121	70 - 120
Benzo[b]fluoranthene	40.0	46.5		ug/L		116	69 - 123
Benzo[g,h,i]perylene	40.0	47.7		ug/L		119	70 - 120
Benzo[k]fluoranthene	40.0	46.0		ug/L		115	70 - 120
Benzoic acid	80.0	33.8		ug/L		42	10 - 100
Benzyl alcohol	40.0	36.4		ug/L		91	33 - 127
Bis(2-chloroethoxy)methane	40.0	41.3		ug/L		103	60 - 110
Bis(2-chloroethyl)ether	40.0	40.0		ug/L		100	49 - 110
Bis(2-ethylhexyl) phthalate	40.0	45.5		ug/L		114	69 - 120
Butyl benzyl phthalate	40.0	44.9		ug/L		112	68 - 120
Chrysene	40.0	43.2		ug/L		108	68 - 120
Dibenz(a,h)anthracene	40.0	48.7		ug/L		122	70 - 127
Dibenzofuran	40.0	38.0		ug/L		95	51 - 110
Diethyl phthalate	40.0	41.6		ug/L		104	62 - 120
Dimethyl phthalate	40.0	42.9		ug/L		107	63 - 120
Di-n-butyl phthalate	40.0	43.6		ug/L		109	70 - 120
Di-n-octyl phthalate	40.0	45.3		ug/L		113	70 - 122
Fluoranthene	40.0	44.0		ug/L		110	68 - 120
Fluorene	40.0	38.9		ug/L		97	53 - 120
Hexachlorobenzene	40.0	40.0		ug/L		100	61 - 120
Hexachlorobutadiene	40.0	30.2		ug/L		76	20 - 100
Hexachlorocyclopentadiene	40.0	24.8		ug/L		62	10 - 100
Hexachloroethane	40.0	28.1		ug/L		70	20 - 100

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

Lab Sample ID: LCS 500-453886/2-A
Matrix: Water
Analysis Batch: 454447

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 453886

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Indeno[1,2,3-cd]pyrene	40.0	47.9		ug/L		120	65 - 133
Isophorone	40.0	41.4		ug/L		103	57 - 110
Nitrobenzene	40.0	42.0		ug/L		105	53 - 110
N-Nitrosodi-n-propylamine	40.0	39.3		ug/L		98	58 - 110
N-Nitrosodiphenylamine	40.0	42.8		ug/L		107	66 - 110
Pentachlorophenol	80.0	85.7		ug/L		107	23 - 129
Phenol	40.0	19.6		ug/L		49	33 - 100
Pyrene	40.0	43.5		ug/L		109	70 - 110
2,4-Dimethylphenol	40.0	42.2		ug/L		105	51 - 110
Benzo[a]anthracene	40.0	43.2		ug/L		108	70 - 120
Phenanthrene	40.0	42.3		ug/L		106	65 - 120
3,3'-Dichlorobenzidine	40.0	40.3		ug/L		101	60 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*120*		*40 - 145*
2-Fluorobiphenyl	*101*		*34 - 110*
2-Fluorophenol (Surr)	*73*		*27 - 110*
Nitrobenzene-d5 (Surr)	*109*		*36 - 120*
Phenol-d5 (Surr)	*50*		*20 - 100*
Terphenyl-d14 (Surr)	*114*		*40 - 145*

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

Lab Sample ID: MB 480-438068/1-A
Matrix: Water
Analysis Batch: 438143

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 438068

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		1.0	0.34	ug/L		10/06/18 15:14	10/08/18 10:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*92*		*24 - 146*	*10/06/18 15:14*	*10/08/18 10:29*	*1*
2-Fluorobiphenyl	*97*		*37 - 120*	*10/06/18 15:14*	*10/08/18 10:29*	*1*
2-Fluorophenol (Surr)	*59*		*10 - 120*	*10/06/18 15:14*	*10/08/18 10:29*	*1*
Nitrobenzene-d5 (Surr)	*92*		*26 - 120*	*10/06/18 15:14*	*10/08/18 10:29*	*1*
Phenol-d5 (Surr)	*41*		*11 - 120*	*10/06/18 15:14*	*10/08/18 10:29*	*1*
p-Terphenyl-d14	*113*		*64 - 127*	*10/06/18 15:14*	*10/08/18 10:29*	*1*

Lab Sample ID: LCS 480-438068/2-A
Matrix: Water
Analysis Batch: 438143

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 438068

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Pentachlorophenol	16.0	18.1		ug/L		113	10 - 131

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*106*		*24 - 146*

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

TestAmerica Job ID: 480-142888-1

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

Lab Sample ID: LCS 480-438068/2-A
Matrix: Water
Analysis Batch: 438143

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 438068

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	97		37 - 120
2-Fluorophenol (Surr)	59		10 - 120
Nitrobenzene-d5 (Surr)	97		26 - 120
Phenol-d5 (Surr)	46		11 - 120
p-Terphenyl-d14	107		64 - 127

QC Association Summary

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

TestAmerica Job ID: 480-142888-1

GC/MS VOA

Analysis Batch: 439282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-142888-1	SUPE-TB-02-100318	Total/NA	Water	8260C	
480-142888-2	SUPE-W-30A-100318	Total/NA	Water	8260C	
480-142888-3	SUPE-EB-02-100318	Total/NA	Water	8260C	
480-142888-4	SUPE-M-99-100318	Total/NA	Water	8260C	
MB 480-439282/7	Method Blank	Total/NA	Water	8260C	
LCS 480-439282/9	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 438068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-142888-2	SUPE-W-30A-100318	Total/NA	Water	3510C	
480-142888-3	SUPE-EB-02-100318	Total/NA	Water	3510C	
480-142888-4	SUPE-M-99-100318	Total/NA	Water	3510C	
MB 480-438068/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-438068/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 438143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-142888-3	SUPE-EB-02-100318	Total/NA	Water	8270D LL	438068
MB 480-438068/1-A	Method Blank	Total/NA	Water	8270D LL	438068
LCS 480-438068/2-A	Lab Control Sample	Total/NA	Water	8270D LL	438068

Analysis Batch: 438470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-142888-2	SUPE-W-30A-100318	Total/NA	Water	8270D LL	438068
480-142888-4	SUPE-M-99-100318	Total/NA	Water	8270D LL	438068

Prep Batch: 453886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-142888-2	SUPE-W-30A-100318	Total/NA	Water	3510C	
480-142888-3	SUPE-EB-02-100318	Total/NA	Water	3510C	
480-142888-4	SUPE-M-99-100318	Total/NA	Water	3510C	
MB 500-453886/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-453886/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 454239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-142888-2	SUPE-W-30A-100318	Total/NA	Water	8270D	453886
480-142888-3	SUPE-EB-02-100318	Total/NA	Water	8270D	453886
480-142888-4	SUPE-M-99-100318	Total/NA	Water	8270D	453886

Analysis Batch: 454447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-453886/1-A	Method Blank	Total/NA	Water	8270D	453886
LCS 500-453886/2-A	Lab Control Sample	Total/NA	Water	8270D	453886

Lab Chronicle

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

TestAmerica Job ID: 480-142888-1

Client Sample ID: SUPE-TB-02-100318
Lab Sample ID: 480-142888-1
Date Collected: 10/03/18 00:00
Matrix: Water
Date Received: 10/04/18 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	439282	10/13/18 18:19	AMM	TAL BUF

Client Sample ID: SUPE-W-30A-100318
Lab Sample ID: 480-142888-2
Date Collected: 10/03/18 09:15
Matrix: Water
Date Received: 10/04/18 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	439282	10/13/18 18:46	AMM	TAL BUF
Total/NA	Prep	3510C			453886	10/09/18 08:04	DAK	TAL CHI
Total/NA	Analysis	8270D		1	454239	10/11/18 03:49	GES	TAL CHI
Total/NA	Prep	3510C			438068	10/06/18 15:14	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	438470	10/09/18 19:34	PJQ	TAL BUF

Client Sample ID: SUPE-EB-02-100318
Lab Sample ID: 480-142888-3
Date Collected: 10/03/18 10:30
Matrix: Water
Date Received: 10/04/18 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	439282	10/13/18 19:13	AMM	TAL BUF
Total/NA	Prep	3510C			453886	10/09/18 08:04	DAK	TAL CHI
Total/NA	Analysis	8270D		1	454239	10/11/18 04:18	GES	TAL CHI
Total/NA	Prep	3510C			438068	10/06/18 15:14	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	438143	10/08/18 17:11	RJS	TAL BUF

Client Sample ID: SUPE-M-99-100318
Lab Sample ID: 480-142888-4
Date Collected: 10/03/18 20:00
Matrix: Water
Date Received: 10/04/18 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	439282	10/13/18 19:40	AMM	TAL BUF
Total/NA	Prep	3510C			453886	10/09/18 08:04	DAK	TAL CHI
Total/NA	Analysis	8270D		1	454239	10/11/18 04:48	GES	TAL CHI
Total/NA	Prep	3510C			438068	10/06/18 15:14	ATG	TAL BUF
Total/NA	Analysis	8270D LL		1	438470	10/09/18 20:03	PJQ	TAL BUF

Laboratory References:

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

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

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

TestAmerica Job ID: 480-142888-1

Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	998310390	08-31-19

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	999580010	08-31-19

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-19
California	State Program	9	2891	04-30-19
Connecticut	State Program	1	PH-0688	09-30-20
Florida	NELAP	4	E871008	06-30-19
Illinois	NELAP	5	200005	06-30-19
Kansas	NELAP	7	E-10350	01-31-19
Louisiana	NELAP	6	04041	06-30-19
Nevada	State Program	9	PA00164	07-31-19
New Hampshire	NELAP	1	2030	04-04-19
New Jersey	NELAP	2	PA005	06-30-19
New York	NELAP	2	11182	03-31-19
North Carolina (WW/SW)	State Program	4	434	12-31-18
Oregon	NELAP	10	PA-2151	01-28-19
Pennsylvania	NELAP	3	02-00416	04-30-19
South Carolina	State Program	4	89014	04-30-19
Texas	NELAP	6	T104704528-15-2	03-31-19
US Fish & Wildlife	Federal		LE94312A-1	07-31-19
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-19
Virginia	NELAP	3	460189	09-14-19
West Virginia DEP	State Program	3	142	01-31-19
Wisconsin	State Program	5	998027800	08-31-19

Method Summary

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

TestAmerica Job ID: 480-142888-1

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

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

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

TestAmerica Job ID: 480-142888-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-142888-1	SUPE-TB-02-100318	Water	10/03/18 00:00	10/04/18 10:00
480-142888-2	SUPE-W-30A-100318	Water	10/03/18 09:15	10/04/18 10:00
480-142888-3	SUPE-EB-02-100318	Water	10/03/18 10:30	10/04/18 10:00
480-142888-4	SUPE-M-99-100318	Water	10/03/18 20:00	10/04/18 10:00

CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

REF.# 1356

Field & Technical Services, LLC

Project Name:	Superior 2018 2SA Sampling	Company:	Field & Technical Services	Client:	Beazer East, Inc.
Project Number:	OM-0556-18	Address:	200 Third Avenue	Contact:	(724) 207-0014
Laboratory:	TABUF		Carnegie, PA 15106		jlexie.2006@f-ts.com
Shipment Method	FEDEX		(412) 279-3363		
Program:	Superior 2018 2SA Sampling_001				

480-142888 COC

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	8260B_VOA+naphtha	8270C_SVOC (less naphtha)														Notes:
				Preservative	HCL	None														
				Total Bottle Count																
10/03/2018	0000	GW	SUPE-TB-02-100318	2	2	0														
10/03/2018	0915	GW	SUPE-W-30A-100318	6	3	3														
10/03/2018	0950 1030	GW	SUPE-EB-02-100318	6	3	3														
10/03/2018	2000	GW	SUPE-M-99-100318	6	3	3														

JL 10/3/18

1.3 #1

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature:	Signature:	Signature:	Signature:	☐ Rush
Printed Name: Jena Lexie	Printed Name: Marcy Harder	Printed Name:	Printed Name:	
Firm FTS	Firm	Firm	Firm	☒ Standard
Date/Time: 10/03/2018 1109	Date/Time: 10/4/18 1000	Date/Time:	Date/Time:	

Page 1 of 1

Login Sample Receipt Checklist

Client: Field & Technical Services LLC

Job Number: 480-142888-1

Login Number: 142888
List Number: 1
Creator: Harper, Marcus D

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

Login Sample Receipt Checklist

Client: Field & Technical Services LLC

Job Number: 480-142888-1

Login Number: 142888
List Number: 2
Creator: Harper, Marcus D

List Source: TestAmerica Buffalo

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

Login Sample Receipt Checklist

Client: Field & Technical Services LLC

Job Number: 480-142888-1

Login Number: 142888
List Number: 3
Creator: James, Jeff A

List Source: TestAmerica Chicago
List Creation: 10/07/18 02:52 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	1.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX F

ASCII DATA

(C.D.)