



Global Operations, Environment, Health & Safety

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*Transmitted via Overnight Delivery*

February 12, 2018

Mr. Richard Fisher  
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**Re: GE-Pittsfield/Housatonic River Site  
On-Plant Consolidation Areas (GECD210/220) and Groundwater Management Area 4  
(GECD340)  
GMA 4 Long-Term Monitoring Program / OPCA Post-Closure Groundwater Monitoring  
Trend Evaluation Report for Fall 2017**

Dear Mr. Fisher:

Enclosed is the General Electric Company's (GE's) *GMA 4 Long-Term Monitoring Program / OPCA Post-Closure Groundwater Monitoring Trend Evaluation Report for Fall 2017* for Groundwater Management Area (GMA) 4 (also known as the Plant Site 3 GMA) and the Hill 78 and Building 71 On-Plant Consolidation Areas (OPCAs). This report was prepared in accordance with GE's *Post-Closure Groundwater Monitoring Plan*, which was Attachment C to the final *Revised Post-Removal Site Control Plan for Hill 78 and Building 71 On-Plant Consolidation Areas*, which was Appendix H to the September 15, 2011 *Final Completion Report* for the OPCAs and Attachment H to the *Statement of Work for Removal Actions Outside the River* and in accordance with GE's March 2012 *Baseline Assessment Final Report and Long-Term Monitoring Program Proposal for Groundwater Management Area 4*, as approved by EPA. As required by Condition 1 of the Environmental Protection Agency's (EPA) May 23, 2017 conditional approval of GE's On-Plant Consolidation Areas, *Post-Closure Groundwater Monitoring Event Evaluation Report - Fall 2016* and Condition 1 of EPA's May 23, 2017 conditional approval of GE's *Long-Term Monitoring Event Evaluation Report - Fall 2016*, the enclosed report combines the Fall 2017 GMA 4 report with the Fall 2017 OPCA post-closure groundwater monitoring report.

The enclosed report summarizes the activities performed under the GMA 4 long-term groundwater monitoring program and the OPCA post-closure groundwater monitoring program in Fall 2017. It includes the results of the latest round of sampling and analysis of groundwater from GMA 4 and OPCA monitoring wells and an assessment of those results.

Please feel free to contact me with any questions or comments.

Sincerely,



Matthew Calacone  
Senior Project Manager - Environmental Remediation

Enclosure

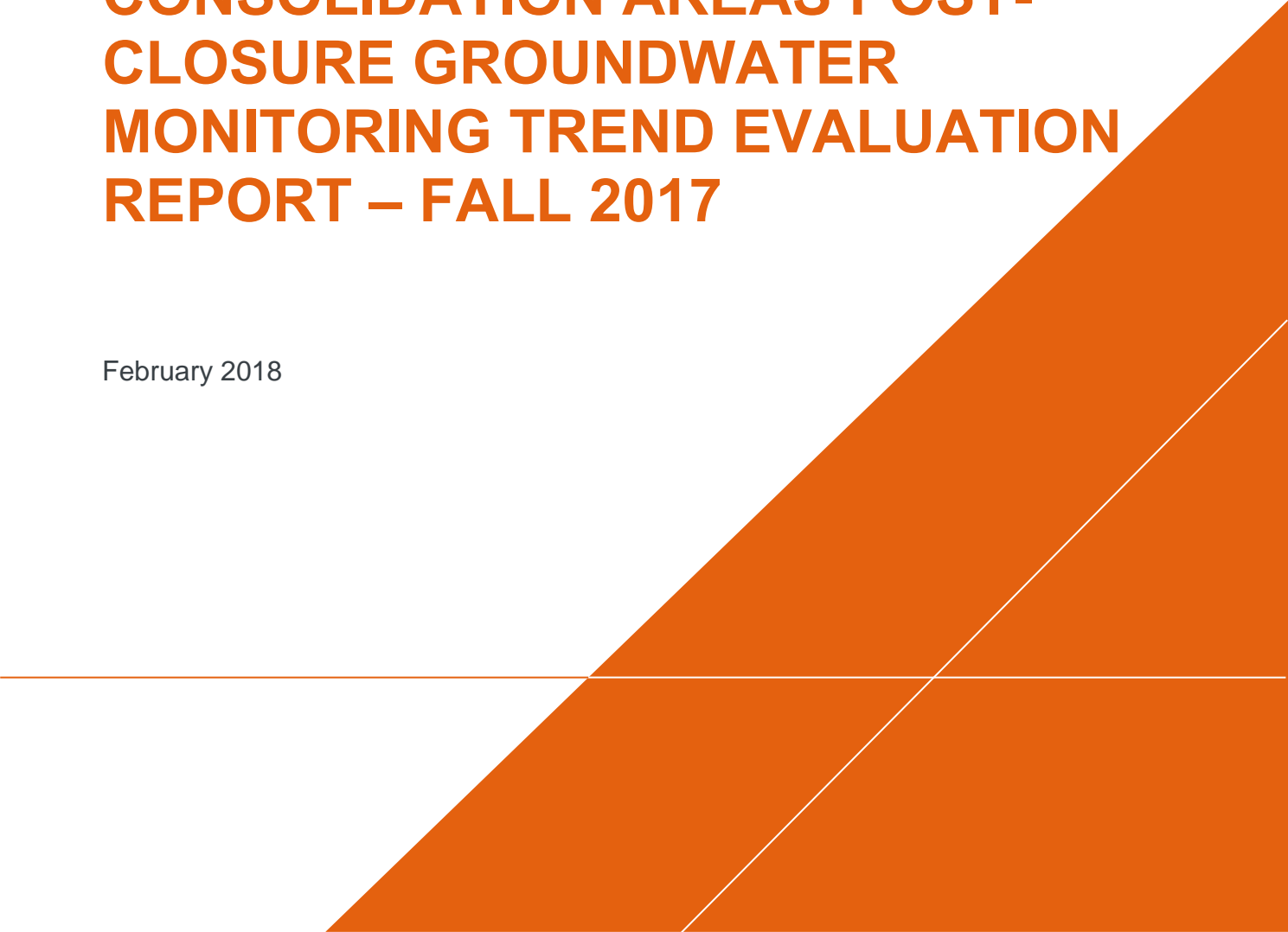
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General Electric Company

**GROUNDWATER MANAGEMENT  
AREA 4 LONG-TERM MONITORING  
PROGRAM / ON-PLANT  
CONSOLIDATION AREAS POST-  
CLOSURE GROUNDWATER  
MONITORING TREND EVALUATION  
REPORT – FALL 2017**

February 2018



**GROUNDWATER  
MANAGEMENT AREA 4  
LONG-TERM  
MONITORING  
PROGRAM / ON-PLANT  
CONSOLIDATION  
AREAS POST-  
CLOSURE  
GROUNDWATER  
MONITORING EVENT  
EVALUATION REPORT  
– FALL 2017**

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## ACRONYMS AND ABBREVIATIONS

CD	Consent Decree
cfs	Cubic feet per second
DNAPL	Dense non-aqueous-phase liquid
EPA	Environmental Protection Agency
FSP	Field Sampling Plan
GE	General Electric Company
GMA	Groundwater Management Area
LNAPL	Light non-aqueous-phase liquid
MCP	Massachusetts Contingency Plan
MDEP	Massachusetts Department of Environmental Protection
mg/kg	Milligrams per kilogram
µg/L	Micrograms per liter
ng/L	Nanograms per liter
NTU	Nephelometric Turbidity Units
OPCA	On-Plant Consolidation Area
PAC	Physiologically available cyanide
PCB	Polychlorinated biphenyl
PCDD	Polychlorinated dibenzo-p-dioxin
PCDF	Polychlorinated dibenzofuran
PCE	Tetrachloroethylene
PGC	Pittsfield Generating Company
QAPP	Quality Assurance Project Plan
RAA	Removal Action Area
RCRA	Resource Conservation and Recovery Act
SDG	Sample Delivery Group
SGS	SGS Environmental Services, Inc.
SVOC	Semi-volatile organic compound
TCE	Trichloroethylene
TEF	Toxicity Equivalency Factors

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TEQ	Toxicity Equivalency Quotient
TSCA	Toxic Substances Control Act
UCL	Upper Concentration Limit
VOC	Volatile organic compound
WHO	World Health Organization

## 1 INTRODUCTION

### 1.1 General

On October 27, 2000, a *Consent Decree* (CD) executed in 1999 by the General Electric Company (GE), the United States Environmental Protection Agency (EPA), the Massachusetts Department of Environmental Protection (MDEP), and several other government agencies was entered by the United States District Court for the District of Massachusetts. The CD governs (among other things) the performance of response actions to address polychlorinated biphenyls (PCBs) and other hazardous constituents in soil, sediment, and groundwater in several Removal Action Areas (RAAs) located in or near Pittsfield, Massachusetts that collectively comprise the GE-Pittsfield/Housatonic River Site (the Site).

#### 1.1.1 GMA4

For groundwater and non-aqueous-phase liquid (NAPL), the RAAs at and near the GE Pittsfield facility have been divided into five separate Groundwater Management Areas (GMAs). These GMAs are described, together with the Performance Standards established for the response actions at and related to them, in Section 2.7 of the Statement of Work for Removal Actions Outside the River (SOW) (Appendix E to the CD), with further details presented in Attachment H to the SOW (Groundwater/ NAPL Monitoring, Assessment, and Response Programs). The Plant Site 3 Groundwater Management Area, also known as and referred to herein as GMA 4, excludes the groundwater sampling activities associated with the Hill 78 and Building 71 On-Plant Consolidation Areas (OPCAs), which are located within the boundary of GMA 4, but are subject to a separate groundwater monitoring program.

In accordance with the CD and Attachment H of the SOW, baseline groundwater monitoring within GMA 4 began in 2000 and continued with extended baseline monitoring (known as the interim monitoring program) from Spring 2002 through Fall 2011, ending after closure of the OPCAs and the completion of the soil-related remediation work at the areas within GMA 4. In March 2012, GE submitted a Baseline Assessment Final Report and Long-Term Monitoring Program Proposal for Groundwater Management Area 4 (GMA 4 Long-Term Monitoring Proposal), which was conditionally approved by EPA on May 11, 2012. The long-term monitoring program proposed in that report was initiated in Spring 2012. The last prior report submitted addressing only this program, the *Long-Term Monitoring Program Monitoring Event Evaluation Report – Fall 2016* (GMA 4 Fall 2016 Report), was submitted on February 17, 2017 and conditionally approved by EPA on May 23, 2017.

#### 1.1.2 OPCAs

In accordance with the CD and the attached *Detailed Work Plan for the On-Plant Consolidation Areas*, GE designed, constructed, and operated two On-Plant Consolidation Areas (OPCAs) at the Site, referred to as the Hill 78 and Building 71 OPCAs. In connection with the design of the CD, GE developed and implemented a groundwater monitoring program for the OPCAs. Beginning in 2002, this program was incorporated into the groundwater monitoring program for GMA 4, which encompassed the OPCAs and adjacent areas. That program continued while the OPCAs were in operation. Final closure activities for

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the OPCAs were completed in September 2009 with certain restoration activities completed in April 2010. Following closure, GE developed a long-term post-closure monitoring program specific to the OPCAs, which would be implemented separately from the GMA 4 monitoring program. The *Final Completion Report* for the OPCAs, including the final *Post-Closure Groundwater Monitoring Plan*, was approved by EPA on September 26, 2011.

As part of the OPCA post-closure groundwater monitoring program, GE is required to monitor groundwater elevations and collect groundwater samples on a semi-annual basis, and to submit reports after each groundwater sampling event to summarize the groundwater monitoring results and related activities and, as appropriate, propose modifications to the monitoring program. GE commenced implementation of this separate post-closure groundwater monitoring program for the OPCAs in Fall 2011. The last prior report submitted addressing only this program, the *Post-Closure Groundwater Monitoring Event Evaluation Report – Fall 2016* (OPCA Fall 2016 Report), was submitted on February 17, 2017, and conditionally approved by EPA by letter dated May 23, 2017.

## 1.1.3 Combined GMA 4 and OPCA Reports

Condition 1 of EPA's May 23, 2017 conditional approval of GE's GMA 4 Fall 2016 Report and Condition 6 of EPA's May 23, 2017 conditional approval of GE's OPCA Fall 2016 Report, directed GE to combine future GMA 4 and OPCA reports for each monitoring period. The initial combined report, the *GMA 4 Long-Term Monitoring Program/OPCA Post Closure Groundwater Trend Evaluation Report for Spring 2017* (Spring GMA 4/OPCA 2017 Report) was submitted on August 7, 2017 and conditionally approved by EPA on October 6, 2017.

This GMA 4 Long-Term Monitoring Program / OPCA Post-Closure Groundwater Monitoring Event Evaluation Report for Spring 2017 describes and presents the results of groundwater sampling activities performed at the GMA 4 and OPCA monitoring wells during the Fall 2017 monitoring period (July through December 2017), as well as other groundwater-related activities performed at and near GMA 4 and the OPCAs during that same period.

## 1.2 Background Information

A site plan showing the locations of the GMA 4 and Hill 78 and Building 71 OPCAs is included as Figure 1 and the approximate locations of monitoring wells within the GMA4 and the OPCAs are shown on Figure 2.

### 1.2.1 Description of GMA 4

GMA 4 is located within the mid-eastern portion of the GE Plant Area and encompasses the Hill 78 and Building 71 OPCAs. It includes the Hill 78 Area-Remainder RAA and the portion of the Unkamet Brook Area RAA located to the west of Plastics Avenue. GMA 4 occupies an area of approximately 68 acres, generally bounded by Tyler Street/Tyler Street Extension to the north, Merrill Road to the south, Plastics Avenue to the east, and New York Avenue to the west, as illustrated on Figure 1. The Hill 78 and Building 71 OPCAs (subject to a separate groundwater monitoring program) are located within the central portion of this GMA, which also contains a power generating facility operated by Pittsfield Generating Company (PGC) under a ground lease from GE. The eastern portion of this GMA is mostly paved or covered by

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Buildings OP-1 and OP-2, which contain operations of General Dynamics Corporation conducted under contract with the U.S. Department of the Navy. (GE continues to own the land beneath those buildings.)

The Removal Action performed by GE at the Hill 78 Area-Remainder RAA generally included site preparation, soil removal/replacement, and property restoration. These activities were conducted in phases between October 2007 and December 2008, with certain additional restoration activities conducted in April 2010. A Final Completion Report for the Hill 78 Area-Remainder Removal Action was submitted to EPA on August 30, 2011 and EPA issued a Certificate of Completion for this RAA on September 6, 2011.

With respect to the portion of the Unkamet Brook Area RAA that is located within GMA 4 (i.e., the portion west of Plastics Avenue), GE's April 2011 Revised Final Removal Design/Removal Action Work Plan for Unkamet Brook Area-West, as approved by EPA, demonstrates that no soil remediation is necessary in that portion of this RAA.

Small amounts of light non-aqueous-phase liquid (LNAPL) were occasionally detected at former GMA 4 well H78B-8R from May 1999 to May 2001 and from June 2002 to June 2003, when that well was decommissioned as part of the OPCA construction. Measurable LNAPL has never been recorded in any adjacent or downgradient locations. Since the decommissioning of well H78B-8R in 2003, LNAPL has not been observed at any wells within GMA 4.

Very few constituents have been consistently detected in groundwater at GMA 4, and the observed detections were sporadic, resulting in an apparent scattered distribution of occasionally detected constituents throughout the baseline groundwater monitoring program. The sampling program was optimized based on the analytical results obtained throughout the program, concluding in the need for further analysis of volatile organic compounds (VOCs) only. In accordance with EPA's May 8, 2014 conditional approval of the GMA 4 Fall 2013 Trend Evaluation Report and an April 3, 2014 communication between EPA and GE, passive diffusion bags (PDBs) are now utilized for this groundwater quality monitoring.

## 1.2.2 Description of the OPCAs

In accordance with the CD, the Hill 78 and Building 71 OPCAs were constructed and utilized for the consolidation of materials (e.g., soil, sediment, debris, etc.) generated during the performance of various response actions conducted by both GE and EPA, as well as certain demolition and related activities conducted by GE, at several locations at the Site. The Building 71 OPCA occupies approximately 4.4 acres directly east and adjacent to Hill 78 OPCA and contains waste material that is subject to the Toxic Substances Control Act (TSCA) regulations due to PCBs at concentrations at or above 50 milligrams per kilogram (mg/kg) and/or that constitutes hazardous waste under the Resource Conservation and Recovery Act (RCRA). The Hill 78 OPCA occupies approximately 6.0 acres of the north-central section of the Site along Tyler Street and contains waste material that contains less than 50 mg/kg PCBs, as determined by an appropriate composite sampling technique or other technique approved by EPA and does not constitute hazardous waste under RCRA.

The OPCAs themselves (i.e., areas comprising the consolidated materials and final cover limits) along with certain associated areas, including stormwater basins occupying approximately 1.1 acres and other areas occupying approximately 0.65 acre, together cover an area of approximately 12.15 acres within a portion of Tax Parcel K11-7-2. Although the Hill 78 and Building 71 OPCA RAAs constitute separate RAAs under



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the CD, they are physically located within the boundaries of the Hill 78 Area-Remainder RAA. Additional ancillary features, including paved access roads, leachate collection facilities, and a surface water drainage system, are located outside the boundaries of the OPCA RAAs.

Groundwater from deep bedrock wells installed near the OPCAs is utilized for industrial purposes at the PGC power generation facility located just south of the OPCAs and operated by PGC under a ground lease from GE. Currently, personnel acting on behalf of PGC collect groundwater samples from an existing bedrock supply well (ASW-5, which serves as its primary source of cooling water) for analysis of PCBs and volatile organic compounds (VOCs), in accordance with an existing permitted program. This well is located near the southwest corner of the steam turbine generator building, as illustrated on Figure 2. As required by EPA, GE is to include the analytical results provided on behalf of PGC for samples collected from well ASW-5 in its OPCA groundwater monitoring program reports, as discussed in Sections 3.4.3 and 4.4.

## 2 FORMAT OF DOCUMENT

This report consists of six sections. A basic description of each section follows.

- Section 1.       Presents an introduction and background to the GMA 4 long-term monitoring program and the OPCA Post-Closure Program.
- Section 2.       Format of Document
- Section 3.       Describes the groundwater-related activities performed at GMA 4 and the OPCAs in Fall 2017.
- Section 4.       Presents the analytical results obtained during the Fall 2017 sampling events at GMA 4 and the OPCAs.
- Section 5.       Provides a summary of the applicable groundwater quality Performance Standards identified in the CD and SOW, a comparison of the Fall 2017 results to those Performance Standards, an overall assessment of groundwater quality at GMA 4 and the OPCAs, including an evaluation of the analytical dataset for the wells that were sampled as part of the Fall 2017 sampling event.
- Section 6.       Evaluates the need for modifications to the long-term monitoring program for GMA 4, and the OPCA Post-Closure Program and presents the schedule for future field and reporting activities related to groundwater quality at GMA 4, and an assessment of the need for follow-up investigations or response actions.

Additional supporting information is provided in tables, figures, and appendices.

## 3 FALL 2017 FIELD AND ANALYTICAL ACTIVITIES

### 3.1 General

The GMA 4 and OPCA field and analytical activities are summarized in this section. Field activities conducted as part of the GMA4 long-term monitoring program and OPCAs post-closure groundwater monitoring program during Fall 2017 included the measurement of groundwater levels and the collection and analysis of groundwater samples at select monitoring wells within and downgradient of GMA4, and wells surrounding the OPCAs; as summarized in Tables 1 and 2. Table 1 presents the groundwater quality sampling programs and Table 2 summarizes the groundwater elevation monitoring programs. The groundwater elevation monitoring programs summarized in Table 2 also include several adjacent monitoring wells in the GMA 1 area as well as wells monitored by EPA at the Allendale School property. The monitoring wells in these programs are shown on Figure 2, and a summary of monitoring well construction details for each well is provided in Table 3. GE also performed inspections of the monitoring wells, as summarized in Appendix A. Groundwater elevation monitoring and well inspections were performed on October 18, 2017. The collection of groundwater samples for analysis was conducted on October 20, 2017 through October 23, 2017, and November 14, 2017. All activities were performed in accordance with GE's approved Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), dated July 2013, the GMA 4 Long-Term Monitoring Program Proposal, and the OPCA *Post-Closure Groundwater Monitoring Plan*.

### 3.2 Monitoring Well Inspections and Repairs

Routine monitoring well inspections were performed on October 18, 2017. A summary of those inspections is provided as Table A-1 in Appendix A. As shown on that table, wells GMA4-7S and OPCA MW-7 were flagged as needing bolts replaced and well UB-MW-5 was dry, preventing sediment removal. No other maintenance needs were noted. Wells H78B-17R and OPCA-MW-3R were surveyed on August 17, 2017. Maintenance at wells GMA4-7S and OPCA-MW-7 will be completed prior to or during the spring 2018 semi-annual event.

### 3.3 Groundwater Level Measurement and LNAPL Monitoring

#### 3.3.1 Groundwater Level Measurement

Groundwater elevation was recorded in all 31 monitoring wells in the GMA4 and OPCA gauging programs on October 18, 2017. Concurrent groundwater elevation data were collected by EPA from piezometers PZ-1, PZ-2, PZ-3, PZ-4 and monitoring well SCH-1, located on or adjacent to the Allendale School property, and by GE from an additional subset of nearby wells within other areas. Groundwater elevations measured as part of the GMA 4 and OPCA programs in Fall 2017 are provided in Table 4. A Fall 2017 groundwater contour map is included as Figure 3. This report presents the depth to water in well UB-MW-5 as greater than the measured total depth, as well UB-MW-5 was once again dry.

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In general, the Fall 2017 groundwater elevation measurements were within the historical range. As shown on Figure 3, the groundwater flow directions are generally consistent with those observed during previous seasonal monitoring events. A comparison of the groundwater elevation contours with the top-of-till contours presented in the Long-Term Monitoring Program Monitoring Event Evaluation Report for Spring 2014 (approved by EPA on September 11, 2014) continues to show, as stated in that report, that groundwater elevations are generally correlated with changes in the elevation of the glacial till interface. Specifically, groundwater generally flows from north to south, although variations exist corresponding to changes in the topography of the ground surface and/or the glacial till interface, including a prominent groundwater depression across the western portion of the GMA.

The EPA monitoring data from the Allendale School property are generally consistent with the groundwater contours presented in the GMA 4 and OPCA semi-annual reports since Spring 2008. Groundwater elevations are highest at the locations adjacent to the school and decrease to the south (i.e., groundwater flows from the Allendale School property toward the OPCAs), providing confirmation that the OPCAs are downgradient from the Allendale School property.

In addition, at EPA's direction, GE reviewed the Housatonic River flow data collected at the U.S. Geological Survey (USGS) gauging station in Coltsville, Massachusetts during the groundwater elevation monitoring and sampling events. The river flow data ranged from 17.7-42.2 cubic feet per second (cfs) during the Fall 2017 gauging and sampling period from October 18, 2017 to October 23, 2017, and November 14, 2017.

### **3.3.2 LNAPL Monitoring**

Consistent with prior monitoring results, no non-aqueous-phase liquid (NAPL) was observed in any of the GMA 4 or OPCA monitoring wells during the groundwater elevation and sampling activities conducted in Fall 2017. This includes wells OPCA-MW-2R and OPCA-MW-3R, which are located downgradient of former well H78B-8R, where the only known historical occurrence of NAPL within the OPCA area was recorded. Small amounts of Light NAPL (LNAPL) were previously detected at well H78B-8R from May 1999 to May 2001 and from June 2002 to June 2003. However, that well was decommissioned as part of the OPCA construction, and LNAPL has never been observed in any adjacent location. Dense non-aqueous-phase liquid (DNAPL) has not been observed in any GMA 4 or OPCA wells.

## **3.4 Groundwater Sampling and Analysis**

### **3.4.1 GMA 4 Sampling and Analysis**

Long-term groundwater sampling was completed at the four monitoring wells in the GMA 4 long-term sampling program on October 23, 2017 and November 14, 2017. These wells are listed in Table 1 and shown on Figure 2. Each well was sampled via PDB in accordance with EPA's May 8, 2014 conditional approval of the GMA 4 Fall 2013 Trend Evaluation Report and an April 3, 2014 communication between EPA and GE. In addition to PDB sampling, low-flow sampling was used to collect groundwater from well GMA4-8 for dissolved cadmium analysis in accordance with Condition 5 of EPA's October 27, 2015 conditional approval of GE's OPCA Post-Closure Groundwater Monitoring Trend Evaluation Report – Spring 2015 (OPCA Spring 2015 Report).

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In accordance with Appendix AA of the FSP/QAPP, PDBs were deployed in each well on October 27, 2017, remained in the well at the screen interval for 18 days (which is greater than the minimum of 14 days required by the FSP/QAPP), and were removed on November 14, 2017 for VOC sampling. PDBs do not require low-flow purging; however, field parameters (including depth to water, temperature, pH, specific conductivity, turbidity, dissolved oxygen, and, oxidation-reduction potential) were measured, utilizing a peristaltic pump to retrieve water and a water quality meter to make the measurements.

Low-flow sampling techniques, using a peristaltic pump, were followed for the purging and collection of a groundwater sample from well GMA4-8 for analysis of dissolved cadmium. GMA4-8 was purged until field parameters (including water level, temperature, pH, specific conductivity, turbidity, dissolved oxygen, and, oxidation-reduction potential) stabilized prior to sample collection, in accordance with Appendix D of the FSP/QAPP. Field parameter measurements were collected using a YSI 556® and Hach 2100P®. Sampling information was recorded on the Groundwater Sampling Logs provided in Attachments D-2 (low-flow sampling) and AA-1 (PDB sampling) of the FSP/QAPP. Groundwater sampling logs are provided in Appendix A and field parameter measurements are listed in Table 5.

The collected groundwater samples were submitted to SGS Environmental Services Inc. (SGS), located in Orlando, Florida, for laboratory analysis. The samples collected during this event were submitted for analysis of VOCs via EPA Method 8260 and/or dissolved cadmium via EPA Method 6010.

Following receipt of the analytical data from the laboratory, the preliminary results were reviewed for completeness, validated, and compared to the applicable Performance Standards, which are based on the Massachusetts Contingency Plan (MCP) Method 1 GW-2 and GW-3 standards, and to the MCP Upper Concentration Limits (UCLs) for groundwater, as summarized in Table 6a and discussed in Section 4.2 and 5.3.

### 3.4.2 OPCA Sampling and Analysis

Post-closure groundwater sampling was conducted at the 12 monitoring wells in the post-closure sampling program on October 20, 2017 (with some purging starting on October 19, 2017) through October 23, 2017, and November 14, 2017. Groundwater sampling was performed in accordance with GE's approved FSP/QAPP and *Post-Closure Groundwater Monitoring Plan*, with the qualification that passive diffusion bags (PDBs) are employed for VOC analyses as an exception to the *Post-Closure Groundwater Monitoring Plan*, but are used in accordance with prior EPA approval and the FSP/QAPP. Additionally, due to an error, the physiologically available cyanide (PAC) samples were not filtered in Fall 2017, potentially resulting in higher than appropriate reported concentrations, however PAC was still not detected in any of the samples collected in Fall 2017. GE will ensure future PAC samples are filtered. PDBs can be used on four OPCA wells (OPCA-MW-2R, OPCA-MW-4, OPCA-MW-7, and OPCA-MW-8R) with documented recharge issues and may also be employed for VOC sample collection at other locations if excessive drawdown is encountered during sampling attempts using low-flow purging methods. During the Fall 2017 monitoring event, VOC samples were collected from six of the twelve OPCA wells (GMA4-6, 78-1, 78-6, OPCA-MW-1RR, OPCA-MW-3, and OPCA-MW-6) using low-flow sampling. PDBs were used in the four wells with documented recharge issues (OPCA-MW-2R, OPCA-MW-4, OPCA-MW-7, and OPCA-MW-8R) and wells H78B-15 and OPCA-MW-5R (which were purged dry prior to sample collection due to poor recharge). PDBs were deployed in wells H78B-15, OPCA-MW-2R, OPCA-MW-4, OPCA-MW-5R, OPCA-MW-7, and OPCA-MW-8R on October 27, 2017, remained in the wells at the screen interval for 18 days (which is greater than

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the minimum of 14 days required by the FSP/QAPP), and were removed on November 14, 2017 for VOC sampling, in accordance with Appendix AA of the FSP/QAPP.

The analytes sampled from monitoring wells sampled using low-flow techniques were sampled by purging the wells until field parameters (including water level, temperature, pH, specific conductivity, turbidity, dissolved oxygen, and, oxidation-reduction potential) stabilized prior to sample collection, or were purged dry prior to field parameter stabilization and allowed to recharge prior to sampling, in accordance with Appendix D of the FSP/QAPP. Field parameter measurements were collected using a YSI 556® and Hach 2100P®. Sampling information was recorded on the Groundwater Sampling Logs provided in Attachments D-2 (low-flow sampling) and AA-1 (PDB sampling) of the FSP/QAPP. Groundwater sampling logs are provided in Appendix A and field parameter measurements are listed in Table 5.

A total of 12 groundwater sample sets were collected and submitted to SGS Environmental Services Inc. (SGS), located in Wilmington, North Carolina, or Orlando, Florida for laboratory analysis of volatile organic compounds (VOCs) via EPA Method 8260, PCB Aroclors via EPA Method 8082, semi-volatile organic compounds (SVOCs) via EPA Method 8270, metals via EPA Method 6010, and dioxin/furans via EPA Method 8290.<sup>1</sup> Samples were also submitted to Eurofins Lancaster Laboratories, Inc. in Lancaster, PA for sulfide analysis via EPA Method 9034 and to TestAmerica Laboratories, Inc. located in Amherst, New York for PAC analysis via EPA Method 9014. The laboratory analytical reports are included in Appendix B.

Following receipt of the analytical data from the laboratories, the preliminary results were reviewed for completeness, validated, and compared to the applicable Performance Standards, which are based on the Massachusetts Contingency Plan (MCP) Method 1 GW-2 and GW-3 standards, and to the MCP Upper Concentration Limits (UCLs) for groundwater, as summarized in Table 6b and discussed in Sections 4.3 and 5.3.

### **3.4.3 Pittsfield Generating Company Sampling**

In accordance with PGC's existing permitted program, PGC collected a groundwater sample for analysis of VOCs and PCBs from PGC's deep bedrock groundwater extraction well (well ASW-5, screened at approximately 441 to 457 feet below ground surface). This well serves as the primary source of cooling water for the PGC plant. GE has included the analytical results provided on behalf of PGC for samples collected from ASW-5 on November 28, 2017 in this report, provided as Appendix C. The results of this sampling are discussed below in Section 4.4.

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<sup>1</sup> As agreed with EPA, groundwater samples are analyzed for PCBs and inorganic constituents only in filtered form, resulting in the reporting of concentrations of dissolved PCBs and inorganics.

## 4 FALL 2017 GROUNDWATER ANALYTICAL RESULTS

### 4.1 General

A summary of the Fall 2017 groundwater analytical results is presented in this section. The laboratory analytical reports are provided in Appendix B and the results are summarized in Tables 6a and 6b. Results are measured in milligrams per liter (mg/L), unless noted otherwise. Values presented in [brackets] represent duplicate sample results from the subject sampling event. The laboratory data were validated in accordance with the approved FSP/QAPP and the most current Region I data validation guidelines, EPA New England, Environmental Data Review Program Guidance (USEPA, April 2013). The data review is provided in Appendix B. Based on the results of the data validation, it has been determined that 98.2% of the GMA 4 and 99.5% of the OPCA Fall 2017 groundwater quality data are considered to be useable, which is greater than the minimum required usability of 90% as specified in the FSP/QAPP. The following subsections provide an overview of the Fall 2017 analytical results from the GMA 4 and OPCA groundwater quality monitoring wells for constituent groups analyzed.

### 4.2 Groundwater Quality Results for GMA 4

The analytical results for the GMA 4 groundwater samples collected in Fall 2017 are summarized in Table 6a. Based on laboratory analytical results from the Fall 2017 long-term monitoring event, analytes were not reported or estimated (J-flagged)<sup>2</sup> at concentrations exceeding laboratory reporting limits with the following exceptions:

- Well GMA4-7S: Chloroform and total VOCs at a concentration of 0.0015 mg/L each;
- Well GMA4-8: dissolved cadmium at an estimated concentration of 0.0012 J [0.0012 J] mg/L;
- Well GMA4-9: 2-Chloro-1,3-butadiene at an estimated concentration of 0.0050 J mg/L, chloroform at a concentration of 0.0026 mg/L, tetrachloroethylene (PCE) at an estimated concentration of 0.0017 J mg/L, and total VOCs at a concentration of 0.0043 mg/L; and
- Well H78B-16 The following constituents were detected at the indicated concentrations or estimated (J-flagged) concentrations:

Constituent	Concentration (mg/L)
1,1-Dichloroethene	0.00078 J
1,2-Dichloroethane	0.0015
Chlorobenzene	0.00033 J
Chloroethane	0.0021
Chloroform	0.00030 J

<sup>2</sup> J-flagged indicates an estimated value.



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Constituent	Concentration (mg/L)
Tetrachloroethene	0.0039 J
trans-1,2-Dichloroethene	0.00071 J
Trichloroethene	0.45
Vinyl Chloride	0.0019
Total VOCs	0.46 J

A summary of the applicable groundwater quality Performance Standards identified in the CD and SOW, a comparison of the Fall 2017 GMA 4 results to those Performance Standards, and an overall assessment of groundwater quality at GMA 4, are described in Section 5.

### 4.3 OPCA Results

The following subsections provide an overview of the Fall 2017 analytical results. The analytical results for the OPCA groundwater samples collected in Fall 2017 are summarized in Table 6b.

#### 4.3.1 OPCA VOC Results

Based on laboratory analytical results from the Fall 2017 post-closure monitoring event, VOCs were not detected or estimated (J-flagged) at concentrations exceeding laboratory detection limits with the following exceptions:

- Well GMA4-6: chloromethane at an estimated concentration of 0.00077 J mg/L and total VOCs at an estimated concentration of 0.00077J mg/L;
- Well OPCA-MW-1RR: chloroform at an estimated concentration of 0.0093 J mg/L, PCE at a concentration of 1.6 J mg/L, TCE at a concentration of 0.023 mg/L, and total VOCs at an estimated concentration of 1.6 J mg/L;
- Well OPCA-MW-4: TCE at a concentration of 0.0013 mg/L and total VOCs at a concentration of 0.0013 mg/L; and
- Well OPCA-MW-8R: chloromethane at a concentration of 0.00058 J [ND(<0.0020 J)]<sup>3</sup> mg/L and total VOCs at a concentration of 0.00058 J [ND(<0.20)] mg/L.

#### 4.3.2 OPCA SVOC Results

Based on laboratory analytical results from the Fall 2017 post-closure monitoring event, SVOCs were not reported or estimated (J-flagged) at concentrations exceeding laboratory detection limits with the exception

<sup>3</sup> ND indicates sample was non-detect. The values in parenthesis following ND's are the associated detection limits preceded by the "less than" symbol (<) as the concentration is less than the detection limit. This notation is included in accordance with Condition 4 of EPA's May 23, 2017 conditional approval of GE's OPCA Fall 2016 Report.



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of diethylphthalate, which was detected in samples from wells 78-1 (0.0010 J mg/L) and OPCA-MW-7 (0.0040 J mg/L).

#### 4.3.3 OPCA PCB Results

Based on laboratory analytical results from the Fall 2017 post-closure monitoring event, dissolved PCBs were not reported at concentrations exceeding laboratory detection limits except for samples from five wells (78-1, H78B-15, OPCA-MW-1RR, OPCA-MW-4, OPCA-MW-7), in which total dissolved PCBs were detected at concentrations of 0.000053 J, 0.00012, 0.00020 J, 0.00086, and 0.0046 mg/L, respectively.

#### 4.3.4 OPCA Inorganic Constituent Results

Based on laboratory analytical results from the Fall 2017 post-closure monitoring event, dissolved inorganic constituents were not reported or estimated (J-flagged) at concentrations exceeding laboratory detection limits with the following exceptions:

- Well 78-1: dissolved barium at an estimated concentration of 0.0461 J [0.0458 J] mg/L, dissolved cadmium at an estimated concentration of 0.000600 J [0.000700 J] mg/L, dissolved cobalt at an estimated concentration of ND(<0.0500)[0.000200 J], dissolved copper at an estimated concentration of 0.00180 J [ND(<0.0250)], dissolved nickel at an estimated concentration of 0.00210 J [0.00200 J], and dissolved zinc at an estimated concentration of 0.00940 J [0.00590 J];
- Well 78-6R: dissolved barium at an estimated concentration of 0.158 J mg/L, dissolved cobalt at an estimated concentration of 0.00100 J mg/L, and dissolved nickel at an estimated concentration of 0.00600 J mg/L;
- Well GMA4-6: dissolved barium at an estimated concentration of 0.0220 J mg/L, dissolved cadmium at an estimated concentration of 0.000400 J mg/L, dissolved copper at a concentration of 0.0374 mg/L, dissolved nickel at an estimated concentration of 0.000500 J and dissolved zinc at an estimated concentration of 0.00570 J;
- Well H78B-15: dissolved barium at an estimated concentration of 0.0366 J mg/L and dissolved cadmium at an estimated concentration of 0.000200 J mg/L;
- Well OPCA-MW-1RR: dissolved barium at an estimated concentration of 0.0575 J mg/L and dissolved cadmium at an estimated concentration of 0.00410 J mg/L;
- Well OPCA-MW-2R: dissolved barium at an estimated concentration of 0.0291 J mg/L and dissolved nickel at an estimated concentration of 0.00100 J mg/L;
- Well OPCA-MW-3: dissolved barium at an estimated concentration of 0.0702 J mg/L, dissolved cobalt at an estimated concentration of 0.00120 J mg/L, dissolved copper at an estimated concentration of 0.00240 J mg/L, dissolved nickel at an estimated concentration of 0.00460 J mg/L and dissolved silver at an estimated concentration of 0.00100 J mg/L;
- Well OPCA-MW-4: dissolved antimony at an estimated concentration of 0.00130 J mg/L, dissolved barium at an estimated concentration of 0.0216 J mg/L and dissolved cadmium at an estimated concentration of 0.000300 J mg/L;

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- Well OPCA-MW-5R: dissolved barium at an estimated concentration of 0.0347 J mg/L, dissolved cadmium at an estimated concentration of 0.00190 J, dissolved copper at an estimated concentration of 0.00220 J mg/L, dissolved nickel at a concentration of 0.00110 mg/L, dissolved vanadium at an estimated concentration of 0.000700 J mg/L, and dissolved zinc at a concentration of 0.0413 mg/L;
- Well OPCA-MW-6: dissolved barium at an estimated concentration of 0.0113 J mg/L, dissolved copper at an estimated concentration of 0.00170 J mg/L, and dissolved zinc at and estimated concentration of 0.0192 mg/L;
- Well OPCA-MW-7: dissolved barium at an estimated concentration of 0.0600 J mg/L, dissolved cadmium at an estimated concentration of 0.000700 J mg/L, dissolved chromium at an estimated concentration of 0.00380 J mg/L, dissolved cobalt at an estimated concentration of 0.000300 Jmg/L, dissolved copper at an estimated concentration of 0.00160 J mg/L, dissolved nickel at an estimated concentration of 0.0215 J mg/L and dissolved selenium at an estimated concentration of 0.00290 J mg/L; and
- Well OPCA-MW-8R: dissolved barium at an estimated concentration of 0.124 J mg/L and dissolved nickel at an estimated concentration of 0.0123 J mg/L.

#### 4.3.5 OPCA Dioxin/Furan Results

Dioxin/furans were analyzed as polychlorinated dibenzo-*p*-dioxins and polychlorinated dibenzofurans (PCDDs/PCDFs) during the Fall 2017 OPCA sampling event. Total Toxicity Equivalency Quotient (TEQ) concentrations were calculated for the PCDD/PCDF compounds in OPCA wells using the Toxicity Equivalency Factors (TEFs) issued by the World Health Organization (WHO) in 1998, as provided in the *Statement of Work for Removal Actions Outside the River* (SOW). In calculating those TEQs, the concentrations of individual PCDD/PCDF compounds that were not detected were represented as half of the analytical detection limit for those compounds, thus allowing TEQs to be developed for all wells. OPCA wells 78-1, 78-6R, GMA4-6, H78B-15, OPCA-MW-1RR, OPCA-MW-2R, OPCA-MW-3, OPCA-MW-4, OPCA-MW-5R, OPCA-MW-6, OPCA-MW-7, OPCA-MW-8R had total TEQ concentrations calculated in nanograms per liter (ng/L) of 3.00E-09<sup>4</sup>, 8.70E-09 [2.70E-09], 2.00E-09, 3.00E-09, 1.70E-09, 2.40E-09, 1.60E-08, 3.00E-09, 2.40E-08, 2.10E-09, 1.90E-09, and 1.80E-09, respectively.

A summary of the applicable groundwater quality Performance Standards identified in the CD and SOW, a comparison of the Fall 2017 results to those Performance Standards, and an overall assessment of groundwater quality at the OPCAs, are described in Section 5.

#### 4.4 Pittsfield Generating Company Sample Results

PGC provided laboratory results from industrial supply well ASW-5 collected on November 28, 2017. The laboratory report is provided as Appendix C. Based on laboratory analytical results, VOCs and PCBs were not detected above laboratory detection limits in the groundwater sample collected from ASW-5.

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<sup>4</sup> E-<number> indicates times 10 raised to the -<number> power.

## 5 ASSESSMENT OF GROUNDWATER QUALITY

### 5.1 General

This section describes the applicable groundwater quality Performance Standards and benchmarks established in the CD and *Statement of Work for Removal Actions Outside the River (SOW)* (Appendix D to the CD) and presents an assessment of Fall 2017 groundwater analytical results relative to those Performance Standards, benchmarks, and the UCLs for groundwater. In addition, this section includes a comparison of the Fall 2017 monitoring results to prior data from the GMA 4 and OPCA monitoring wells, and it presents an overall evaluation of the data from those wells. The information presented in this section is based on the laboratory results obtained during the Fall 2017 groundwater sampling event, supplemented with historical groundwater analytical data when applicable. As discussed further below, summary statistics of historical analytical results for monitoring wells included in the GMA 4 Long-Term Program and OPCA post-closure monitoring program, as well as graphs illustrating the concentrations of certain constituents over time which have exceeded GW-2 benchmarks and/or the GW-3 standards/benchmarks, are provided in Appendix D (along with a supplemental graph for fall 2017 depicting dissolved cadmium concentrations in samples from well GMA4-8, discussed further in Sections 5.4.2, 6.1, and 6.2).

### 5.2 Groundwater Quality Performance Standards

The applicable groundwater quality Performance Standards under the CD and SOW are based on the groundwater classification categories designated in the MCP (310 CMR 40.0932) that are relevant to GMA 4 and the area around the OPCAs. The MCP identifies three potential groundwater categories that may be applicable to a given site. One of these, GW-1 groundwater, applies to groundwater that is a current or potential source of potable drinking water. None of the groundwater in GMA 4 or the OPCA area is classified as GW-1. However, the remaining MCP groundwater categories are applicable to GMA 4 and the OPCA area and are described below:

- GW-2 groundwater is defined as groundwater that is a potential source of vapors to the indoor air of buildings. Groundwater is classified as GW-2 if it is located within 30 feet of an existing occupied building and has an average annual depth below ground surface (bgs) of 15 feet or less.<sup>5</sup>
- GW-3 groundwater is defined as groundwater that discharges to surface water. By MCP definition, all groundwater at a site is classified as GW-3 since it is considered to ultimately discharge to surface water.

The MDEP adopted default “Method 1” groundwater standards for these categories, including GW-2 standards for a number of volatile constituents and GW-3 standards for a larger number of constituents. These standards are set forth in the MCP, and the Method 1 numerical standards are used for comparison in this report. The MCP also contains procedures for development of “Method 2” standards for constituents

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<sup>5</sup> In addition, the SOW specifies a concentration of 5 parts per million (ppm) of total VOCs as a notification level for GW-2 wells located within 30 feet of a school or occupied residential structure and as a trigger level in GW-2 wells (if associated with an exceedance of a GW-2 standard) for the proposal of interim response actions.

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for which Method 1 standards do not exist. On July 30, 2008, EPA approved Method 2 GW-3 standards for two constituents (cobalt and copper) for all GMAs at this Site, which are used for evaluation in the OPCA post-closure monitoring program when those constituents are detected.

### 5.2.1 GMA 4 Groundwater Performance Standards

The four monitoring wells sampled within GMA 4 during Fall 2016 (GMA4-7S, GMA4-8, GMA4-9, and H78B-16) do not meet the definitional requirements for GW-2 wells. However, as required by EPA, the analytical results from those wells are compared to the MCP Method 1 GW-2 standards as benchmarks for informational purposes only. In addition, the results from these four wells are compared with the MCP Method 1 GW-3 standards (for long-term compliance) at wells GMA4-7S, GMA4-9, and H78B-16, to the GW-3 standards as benchmarks at well GMA4-8, and to the MCP UCLs for groundwater.

### 5.2.2 OPCA Groundwater Performance Standards

As provided in the OPCA *Post-Closure Groundwater Monitoring Plan*, none of the existing wells in the OPCA post-closure monitoring program meets the GW-2 criteria; however, three monitoring wells (H78B-15, OPCA-MW-4, and OPCA-MW-5R) located slightly over 30 feet upgradient of buildings are used for assessing compliance with GW-2 standards. In addition, the post-closure groundwater monitoring program requires use of GW-2 standards as benchmark levels at all OPCA wells, even if they do not meet the GW-2 criteria, to assess the need for further actions to evaluate the potential for vapor intrusion. All groundwater at and near the OPCAs is classified as GW-3.

## 5.3 Groundwater Results Relative to Benchmarks and Performance Standards– Fall 2017

Laboratory analytical results were compared to the MCP Method 1 GW-2 and GW-3 Benchmarks and Performance Standards and to the MCP UCLs for groundwater, as summarized in Table 6a and 6b and discussed below.

### 5.3.1 Fall 2017 Groundwater Results Relative to GW-2 Benchmarks and Performance Standards

Table 1 presents the wells in GMA 4 and the OPCAs and the benchmarks and performance standards that apply to each well. Review of Table 6a indicates that the only constituent that exceeded a GW-2 benchmark level in GMA 4 was TCE in the sample from well H78B-16 (0.45 mg/L compared to the GW-2 benchmark of 0.005 mg/L). Although the detection of TCE in fall 2017 was the maximum reported detection of TCE in samples from this well, TCE has been detected in samples from this well at concentrations greater than the GW-2 benchmark value in 23 of 25 prior sampling events (see Appendix D graph). The last sampling event with a TCE concentration below the GW-2 benchmark at this well was in Spring 2017. As the Fall 2017 TCE concentration in the sample collected from well H78B-16 is several times greater than recent and historical concentrations of TCE in samples from well H78B-16, GE believes this result is likely anomalous. TCE concentrations at this well will be reevaluated in the Spring 2018 report. Furthermore, GW-2 benchmarks are used only for informational purposes in GMA 4, and the TCE concentration in the Fall 2017

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well H78B-16 sample does not exceed 50% of a Performance Standard. No wells in GMA 4 exceeded a GW-2 Performance Standard or the 5 mg/L total VOC benchmark notification level (no wells in GMA 4 are GW-2 compliance points). Review of Table 6b indicates that none of the laboratory analytical results from the three monitoring wells (H78B-15, OPCA-MW-4, and OPCA-MW-5R) used for assessing compliance with GW-2 numerical standards in the OPCAs exceeded the GW-2 standards or even half of those standards, and none contained total VOC concentrations above the 5 mg/L notification level for GW-2 compliance points. Constituents at concentrations exceeding GW-2 numerical benchmark levels were not detected at any of the OPCA wells in Fall 2017 with the exception of PCE and TCE, which were detected in sample OPCA-MW-1RR at concentrations (1.6 J and 0.023 mg/L, respectively) above the GW-2 benchmark levels of 0.05 and 0.005 mg/L, respectively. Prior detections of PCE and TCE above the GW-2 benchmark levels have been observed at OPCA-MW-1RR and the Fall 2017 concentrations were below the historical averages of 2.35 and 0.0574 mg/L, respectively.

### **5.3.2 Fall 2017 Groundwater Results Relative to GW-3 Benchmarks and Performance Standards**

None of the GMA 4 laboratory analytical results were reported at concentrations exceeding their corresponding MCP Method 1 GW-3 benchmarks or Performance Standards. Laboratory analytical results were not reported or estimated at concentrations exceeding GW-3 numerical standards at any of the OPCA post-closure monitoring wells in Fall 2017 with the exception that dissolved cadmium was detected in the samples from well OPCA-MW-1RR at an estimated concentration (0.00410 J) slightly above the GW-3 Performance Standard of 0.004 mg/L. As shown in Appendix D, prior detections of dissolved cadmium above the GW-3 Performance Standard have been observed in samples from well OPCA-MW-1RR and the Fall 2017 concentration was below the average of 0.00425 mg/L, it was also well below the historical maximum concentration of dissolved cadmium at this location of 0.0273 mg/L in April 2014.

### **5.3.3 Fall 2017 Groundwater Results Relative to Upper Concentration Limits.**

None of the GMA 4 or OPCA laboratory analytical results were reported at concentrations exceeding UCLs.

## **5.4 Overall Assessment of Groundwater Analytical Results**

For the purpose of assessing groundwater conditions, analytical results from the Fall 2017 long-term groundwater sampling event and post-closure groundwater sampling event were compared to data obtained during prior sampling events. In addition, the variability of the data was evaluated. The results of these comparisons are described below.

### **5.4.1 Comparison of Fall 2017 GMA4 Analytical Results to Prior Groundwater Data**

As noted above, the GMA 4 analytical results for the groundwater samples collected in Fall 2017 are summarized in Table 6a, which compares results to the MCP Method 1 GW-2 standards (for benchmark purposes only), the GW-3 standards/benchmarks, and to the MCP UCLs for groundwater. These results

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are discussed below in the context of the historical analytical dataset for these wells. Graphs of concentrations over time for the two wells sampled during Fall 2017 that have historically shown exceedances of the GW-2 benchmark levels for PCE (well GMA4-9) and TCE (well H78B-16) are provided in Appendix D (along with a supplemental graph for fall 2017 depicting dissolved cadmium concentrations in samples from well GMA4-8, discussed further in Sections 5.4.2, 6.1, and 6.2). Summary statistics of the historical results at the four wells in the long-term sampling program are also provided in Appendix D.

Of the monitoring wells sampled during Fall 2017 (GMA4-7S, GMA4-8, GMA4-9 and H78B-16), no constituent has ever been detected at a concentration greater than its respective GW-3 standard, benchmark, or UCL. Only three VOCs have ever been detected at concentrations greater than the GW-2 benchmark levels in samples collected from these four wells: TCE and vinyl chloride in samples from well H78B-16 and PCE in samples from well GMA4-9. The results for these constituents in samples from these wells are discussed further below. Total VOC concentrations have not been detected at a concentration greater than the GW-2 notification level of 5 mg/L in any GMA 4 well sampled.

TCE has been detected during all 25 sampling events at well H78B-16, with an average concentration of 0.0766 mg/L, which is greater than the current GW-2 benchmark level of 0.005 mg/L, but less than the GW-3 Performance Standard of 5 mg/L (see graph for this well in Appendix D). In the Fall 2017 sampling event, TCE was detected in the sample from well H78B-16 at concentration of 0.45 mg/L. The Fall 2017 concentration is the maximum reported concentration of TCE in samples from this well. As the Fall 2017 TCE concentration in the sample collected from well H78B-16 is several times greater than recent and historical concentrations of TCE in samples from well H78B-16, GE believes this result is likely anomalous. TCE concentrations at this well will be reevaluated in the Spring 2018 report. Over the last five years, concentrations of TCE in samples from well H78B-16 have fluctuated between 0.0003 J and 0.45 mg/L and have shown no clear trend. Detections in 2017 alone ranged from 0.00043 J to 0.45 mg/L.

Vinyl chloride historically has been detected in the majority of the samples collected from well H78B-16 (15 of 25 sampling events), including in Fall 2017 (0.0019 mg/L) with an average concentration of 0.00363 mg/L (slightly greater than the GW-2 benchmark level of 0.002 mg/L). From Spring 2013 through Spring 2017, that constituent was not detected. As discussed in the Spring 2017 GMA 4/OPCA Report, a significant decreasing trend over the full historical dataset but not over the most recent eight sampling events existed for vinyl chloride.

PCE has been detected in all prior sampling rounds in samples from well GMA4-9, except for Fall 2016, and was again detected in Fall 2017 (at an estimated concentration of 0.0017 J mg/L). The average concentration of PCE in samples from well GMA4-9 is 0.0826 mg/L, which is slightly greater than the GW-2 benchmark level of 0.05 mg/L, but less than the GW-3 Performance Standard of 30 mg/L (see graph for this well in Appendix D). Peak concentrations of PCE were detected in samples from well GMA4-9 in 2009-2011 (0.18 to 0.36 mg/L). In the more recent years, there is no clear trend in PCE concentrations in this well, with concentrations periodically exceeding the GW-2 benchmark level, slightly greater than the detection limit, or not detected.



#### **5.4.2 Comparison of Fall 2017 OPCA Analytical Results to Prior Groundwater Data**

As noted above, the OPCA analytical results for the groundwater samples collected in Fall 2017 are summarized in Table 6b, which compares results to the MCP Method 1 GW-2 standards/benchmarks, the GW-3 standards, and to the MCP UCLs for groundwater. These results are discussed below in the context of the historical analytical dataset for these wells. Graphs of concentrations over time for the one OPCA well sampled during Fall 2017 that has historically shown exceedances of the GW-2 benchmark levels for PCE and TCE (well OPCA-MW-1RR) and the two OPCA wells that have historically shown exceedances of the GW-3 standard for cadmium (wells 78-1 and OPCA-MW-1RR) are provided in Appendix D. Summary statistics of the historical results at the 12 wells in the post-closure sampling program are also provided in Appendix D.

PCE concentrations in OPCA-MW-1RR were compared with the prior sampling data. The maximum concentration of PCE detected in OPCA-MW-1RR was 5.570 [5.630] mg/L in Spring 2009, and the concentration was an estimated 1.6 J mg/L during the most recent sampling event in Fall 2017 (greater than the GW-2 benchmark level for PCE of 0.05 mg/L). As shown in Appendix D, PCE concentrations in OPCA-MW-1RR have generally decreased since Spring 2009.

TCE concentrations in OPCA-MW-1RR were compared with the prior sampling data. The maximum concentration of TCE detected in OPCA-MW-1RR was 0.042 J mg/L in Spring 2012, and the concentration was 0.023 mg/L during the most recent sampling event in Fall 2017 (greater than the GW-2 benchmark level of 0.005 mg/L). As shown in Appendix D, there is no visually apparent trend in TCE concentrations at well OPCA-MW-1RR.

Dissolved cadmium concentrations in OPCA-MW-1RR were compared with the prior sampling data. The maximum concentration of dissolved cadmium detected in OPCA-MW-1RR was an estimated 0.0273 J mg/L in Spring 2014, but this result was considered anomalous since it was approximately an order of magnitude greater than the dissolved cadmium concentrations typically observed at this location. The Fall 2017 concentration of 0.0041 J mg/L is substantially less than the Spring 2014 maximum of 0.0273 J mg/L and is also less than the average concentration of dissolved cadmium at this well (0.00425 mg/L). The GW-3 Performance Standard for dissolved cadmium is 0.004 mg/L. As shown in Appendix D, there appears to have been a spike in dissolved cadmium concentrations at well OPCA-MW-1RR in Spring 2014, which subsided in Fall 2014 and Spring 2015. Downgradient well OPCA-MW-2R is also monitored for dissolved cadmium. Results from that well show infrequent detections of this constituent. Dissolved cadmium was not detected in OPCA-MW-2R during the Fall 2017 sampling event.

As required by EPA in its conditional approval letter dated October 27, 2015 for GE's OPCA Spring 2015 Report, well GMA4-8 located downgradient of well OPCA-MW-1RR and monitored as part of the GMA 4 long-term monitoring program, was sampled in Fall 2017 for dissolved cadmium analysis in order to further evaluate dissolved cadmium exceedances in well OPCA-MW-1RR. Dissolved cadmium was estimated in the sample collected from well GMA4-8 on October 23, 2017 at a concentration of 0.0012 J [0.0012 J] mg/L, which is below the GW-3 benchmark of 0.004 mg/L and below the estimated concentration of dissolved cadmium detected upgradient in the October 23, 2017 sample from well OPCA-MW-1RR (0.00410 J mg/L). As shown in the supplemental GMA4-8 cadmium graph provided in Appendix D, concentrations of dissolved cadmium in samples from well GMA4-8 have remained below the GW-3 benchmark. While the average

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concentration of dissolved cadmium in samples from this well (0.00208 mg/L) is slightly higher than 50% of the GW-3 benchmark (50% of 0.004 mg/L, or 0.002 mg/L), a simple linear regression of the data indicates a decreasing trend in dissolved cadmium concentrations ( $R^2$  0.1125). Furthermore, the average dissolved cadmium concentration in samples from this well is less than half of the average dissolved cadmium concentration in samples from well OPCA-MW-1RR (0.00425 mg/L). Seasonality appears to be present in dissolved cadmium concentrations in samples from well GMA4-8, with spring samples containing dissolved cadmium at a greater concentration than fall samples. The data indicate that the dissolved cadmium concentrations at the location of OPCA-MW-1RR do not extend downgradient to well GMA4-8 at concentrations that exceed the GW-3 standard/benchmark. Furthermore, as there is no increasing trend and dissolved cadmium concentrations have remained less than the GW-3 benchmark for all four rounds of sampling in samples from well GMA4-8, GE proposes to discontinue dissolved cadmium sampling at well GMA4-8 (discussed further in Section 6.1).

The Fall 2016 sample from well 78-1 was the first to contain dissolved cadmium concentrations (0.0223 mg/L) greater than the GW-3 Standard for dissolved cadmium (0.004 mg/L) at this location. The average concentration of dissolved cadmium at this location (0.00229 mg/L) is only slightly greater than half of the GW-3 standard and the Fall 2016 result was approximately an order of magnitude above that average, and the only result greater than half of the GW-3 standard at this location. Dissolved cadmium was detected at an estimated concentration (0.000600 J [0.000700 J]) much less than the GW-3 standard in the Fall 2017 sample from well 78-1. GE evaluated the results from downgradient wells OPCA-MW-4, OPCA-MW-5R, and OPCA-MW-8R and found that Fall 2016 and Spring 2017 dissolved cadmium results for samples from these wells were all less than half of the applicable GW-3 standard. Given the low to non-detected concentrations of dissolved cadmium typically found in samples from well 78-1 and found in samples from nearby wells, GE believes that the well 78-1 Fall 2016 dissolved cadmium result was an anomaly.

### 5.4.3 Evaluation of GMA 4 and OPCA Analytical Data Summary Statistics

GE prepared statistical summaries of historical analytical results for monitoring wells included in the GMA 4 long-term monitoring and OPCA post-closure monitoring program, which are also included in Appendix D.<sup>6</sup> Most of the analyzed constituents are rarely detected or were detected at maximum or average concentrations an order of magnitude or more below the applicable GW-2 standards/benchmark levels or GW-3 standards/benchmarks. As previously discussed, the only constituent observed in any of the GMA 4 wells in Fall 2017 at a concentration greater than the GW-2 benchmark levels or GW-3 benchmarks/standards was TCE above the GW-2 benchmark level in the sample collected from well H78B-

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<sup>6</sup> For locations with duplicate and/or split analytical results, if there was a detection in any of the samples for a location during a single monitoring event, a single detection is reported when calculating the detection frequency presented in these tables. Minimum and maximum detects are the minimum and maximum from all analytical results, treating duplicate and split samples separately. Medians, arithmetic averages, and geometric means are calculated by treating the arithmetic average of paired duplicate results, split samples, and primary samples each as a single result. One half of the associated reporting limit was used for any non-detected results in the summary statistics presented. In many cases in these tables, the median, arithmetic average, and geometric mean are higher than the maximum detected concentration. This is an artifact resulting from the use of one-half of the reporting limit for non-detected compounds in calculating these summary statistics and the fact that, for a number of historical analyses, the reporting limits were elevated relative to concentrations that were detected on other occasions.



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16. The only OPCA constituents in Fall 2017 at concentrations greater than the GW-2 standards/benchmark levels or GW-3 standards were TCE and PCE above GW-2 benchmark levels and cadmium above the GW-3 Performance Standard in the sample collected from well OPCA-MW-1RR.

Five constituents, most at trace concentrations, were detected in Fall 2017 at their highest levels at one or more GMA 4 monitoring wells with one informational benchmark exceedance observed at H78B-16. These constituents and wells with maximum reported concentrations are:

- Well H78B-16: PCE (GW-3 standard of 30 mg/L) was detected for the seventeenth time in 25 sampling events at H78B-16 at an estimated concentration of 0.0039 mg/L, the previous maximum detection was recorded in April 2004 (0.0031 mg/L). The arithmetic average of PCE in samples at this location is 0.00167 mg/L. 1,1-Dichloroethene was detected at an estimated value of 0.000785 mg/L, which was the second time this constituent has been detected in 25 sampling events at H78B-16, the previous maximum was recorded in May 2012 (0.00035 J). The arithmetic average of 1,1-Dichloroethene is 0.00127 mg/L. The third constituent and the only one at GMA 4 detected above an applicable informational benchmark, TCE was detected at a value of 0.45 mg/L which exceeds the Method 1 GW-2 Groundwater benchmark value of 0.005 mg/L. TCE has been observed in each of the last twenty-five sampling events, with the next greatest concentration of 0.13 mg/L reported in December 2016
- Well GMA4-9: 2-Chloro-1,3 butadiene (no applicable standard) was detected for the first time in 15 sampling events at well GMA4-9, at an estimated concentration of 0.0050 J mg/L. The arithmetic average of 2-Chloro-1,3 butadiene concentrations in samples from this well is 0.00290 mg/L.

Nine constituents, most at trace concentrations, were detected in Fall 2017 at their highest levels at one or more OPCA monitoring wells although none of them exceeded the applicable Performance Standards. These constituents and wells with maximum reported concentrations are:

- Well 78-1: Diethylphthalate (GW-3 standard of 9 mg/L) was detected for the first time in 36 sampling events at well 78-1, at an estimated concentration of 0.0010 J mg/L. The arithmetic average of Diethylphthalate concentrations in samples from this well is 0.00370 mg/;
- Well GMA4-6: Chloromethane (no applicable performance standards or benchmarks) was detected for the first time in 23 sampling events at well GMA4-6, at an estimated concentration of 0.00077 J mg/L. The arithmetic average of Chloromethane concentrations in samples from this well is 0.000599 mg/L. Dissolved copper (GW-3 standard of 0.23 mg/L) was detected for the sixth time in 23 sampling events at well GMA4-6, at a concentration of 0.0374 mg/L, the previous maximum concentration of dissolved copper in samples from this well (0.00737 mg/L) was recorded in April 2009. The arithmetic average of dissolved copper concentration in samples from this well is 0.0234 mg/L;
- Well OPCA-MW-3R: Dissolved silver (GW-2 standard of 0.007 mg/L) was detected for the first time in 33 sampling events at well OPCA-MW-3R, at an estimated concentration of 0.0001J mg/L. The arithmetic average of dissolved silver concentration from this well is 0.00215 mg/L;

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- Well OPCA-MW-4: Total PeCDDs (no applicable groundwater standards) was detected for the sixth time in 35 sampling events at well OPCA-MW-4, at an estimated concentration of 7.3E-08 JNX<sup>7</sup> mg/L, the previous maximum concentration for total PeCDDs at well OPCA-MW-4 (3.00E-08 mg/L) was recorded in April 2017. The arithmetic average for Total PeCDDs is 7.45E-09 mg/L;
- Well OPCA-MW-7: Dissolved Aroclor-1254 (No applicable groundwater performance standards) was detected for the eleventh time in 31 sampling events at well OPCA-MW-7, at a concentration of 0.0026 mg/L, the previous maximum concentration of dissolved Aroclor-1254 in samples from well OPCA-MW-7 (0.0012 J mg/L) was recorded in October 2007. The arithmetic average of acetone concentrations in samples from this well is 0.000201 mg/L. Dissolved Aroclor-1260 (no applicable groundwater performance standards) was detected for the fifth time in 31 sampling events at a well OPCA-MW-7 at a concentration of 0.0020 mg/L, the previous maximum concentration of dissolved Aroclor-1260 was recorded in May 2018 (0.00018 J mg/L). Dissolved chromium (GW-3 standard of 0.3 mg/L) was detected for the tenth time in 31 sampling events at OPCA-MW-7, at an estimated concentration of 0.0038 J mg/L, the previous maximum concentration of dissolved chromium in samples from well OPCA-MW-7 (0.0017 B mg/L) was recorded in Spring 2003. The arithmetic average of dissolved chromium concentrations in samples from this well is 0.00400 mg/L.
- Well OPCA-MW-8R: Dissolved barium (GW-3 standard of 50 mg/L) was detected for the twenty-second time in 33 sampling events at an estimated concentration of 0.124 J mg/L, the previous maximum concentration of dissolved barium in samples from OPCA-MW-8R was recorded in October 2016 (0.0910 J). The arithmetic average of dissolved barium concentrations in samples from this well is 0.0573 mg/L

As shown above, the majority of the concentrations reported for these constituents in Fall 2017 are below half of any applicable GW-2 or GW-3 standards, and these low-level detections do not warrant additional actions. Further evaluations of the TCE detection above benchmark levels in the sample collected from well H78B-16 are provided in Sections 6.2.1 and 6.2.2.

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<sup>7</sup> JNX indicates that the ion abundance ratio is outside criteria. An estimated maximum possible concentration has been reported.

## 6 MONITORING PROGRAM MODIFICATIONS AND SCHEDULE OF FUTURE ACTIVITIES

### 6.1 General

Based on the results of the Fall sampling round and the evaluation of data relative to the applicable Performance Standards (further detailed in Section 5), GE proposes to discontinue dissolved cadmium sampling at well GMA4-8. There is no increasing trend in well GMA4-8 dissolved cadmium concentrations and dissolved cadmium concentrations have remained less than the concentration of dissolved cadmium in samples from well OPCA-MW-1RR and the GW-3 benchmark for all four rounds of sampling at well GMA4-8. GE does not propose to make any other modifications to the locations to be sampled or analyses to be performed as part of the long-term monitoring program and post-closure program. As detected constituents are presented in Table 6a and 6b, GE proposes in future reports to eliminate the duplication of the listing of all detected constituents in the results sections (Sections 4.2 and 4.3 of this report) and instead present a summary of the types of constituents (e.g. VOCs, SVOCs, PCBs, Inorganics, and/or Dioxins/Furans) detected in GMA 4 and the OPCAs in the text in these sections. GE will retain Tables 6a and 6b in their current format and cite these tables in the results sections of future reports. GE will also retain a detailed assessment of detected constituents (included in Section 5 of this report). This reporting approach will more efficiently communicate results while maintaining a robust assessment of the groundwater quality in GMA 4 and the OPCAs and is similar to the format of reports for other GMAs. The results of the evaluation conducted in this report do not necessitate the need for other program modifications, as discussed below. This section also summarizes the approved activities and schedule for upcoming post-closure monitoring events and associated reporting activities.

### 6.2 Evaluation of the Need for Follow-up Investigations, Interim Response Actions, or Other Monitoring Program Modifications

Based on the results of the Fall 2017 long-term and post-closure sampling events and the evaluation of data relative to MCP numerical standard and/or benchmark levels, GE proposes to discontinue dissolved cadmium sampling at well GMA4-8, as discussed in Sections 5.4.2 and 6.1 above. GE does not propose any other modifications to the locations to be sampled or analyses to be performed as part of the long-term monitoring program for the GMA 4 or the post-closure monitoring program for the OPCAs. GE will evaluate reducing the GMA 4 scope of sampling under the Long-Term Monitoring Program following the analysis of additional sampling results from OPCA well OPCA-MW-3R and other wells as needed, as noted in Condition 5 of EPA's May 23, 2017 conditional approval of GE's Fall 2016 OPCA Report.

#### 6.2.1 Evaluation of Data in Relation to GW-2 Standards and Benchmarks

##### GMA 4

GMA 4 wells are compared to the GW-2 standard only as an informational benchmark, not as a Performance Standard. TCE in the sample from well H78B-16 (0.45 mg/L) exceeded the applicable informational benchmark (0.005 mg/L) and was anomalously greater than historical detections of TCE in

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samples from this well. TCE has been detected in samples from this well at concentrations greater than the GW-2 benchmark value in 23 of 25 prior sampling events (see Appendix D graph). The last sampling event with a TCE concentration below the GW-2 benchmark at this well was in Spring 2017. GW-2 standards are used only for informational benchmark purposes only in GMA 4, and downgradient monitoring at well GMA4-7S has never detected an exceedance of this benchmark. As such, no changes are proposed to the Long-Term Monitoring Program for GMA 4 based on the Fall 2017 sampling results compared to GW-2 benchmarks.

### **OPCAs**

Section 4.6.1 of the OPCA *Post-Closure Groundwater Monitoring Plan* requires that, if sampling results from a GW-2 compliance well indicate an exceedance of a GW-2 standard, or if constituent concentrations in such a well are greater than half of an applicable GW-2 standard and there is a statistically significant increase in concentrations (based on a statistical evaluation of the data), GE must propose appropriate response actions to address that exceedance. Response actions may include: resampling of the groundwater; increasing the sampling frequency to quarterly; additional well installation (including sampling and analysis); soil gas sampling; desk-top modeling of potential volatilization of chemicals from the groundwater to the indoor air of nearby occupied buildings; sampling of the indoor air of such buildings; an evaluation of the potential risks related to volatilization to such indoor air; the development and proposal of a risk-based alternative GW-2 standard (if not already established); and/or active response actions (e.g., containment, recovery, or treatment of impacted groundwater).

None of the laboratory analytical results from the three OPCA monitoring wells (H78B-15, OPCA-MW-4, and OPCA-MW-5R) used for assessing compliance with GW-2 Performance Standards were reported at concentrations exceeding half the GW-2 standards.

The OPCA *Post-Closure Groundwater Monitoring Plan* also requires that, if the results from any other OPCA sampling well exceed the levels of the GW-2 standards as a benchmark, GE must propose to EPA for approval appropriate actions to further evaluate such exceedance. Such actions may include actions similar to those noted above.

PCE and TCE were detected in the Fall 2017 sample from well OPCA-MW-1RR at concentrations (1.6 J and 0.023 mg/L, respectively) above the GW-2 benchmark levels of 0.05 mg/L and 0.005 mg/L, respectively. Both of these compounds were previously detected at this well. Prior detections of PCE and TCE above the GW-2 benchmark levels have been observed in samples from well OPCA-MW-1RR and the Fall 2017 concentrations were below the historical averages of, 2.35 and 0.0574 mg/L, respectively. Based on PCE and TCE detections above benchmark levels in OPCA-MW-1RR, GE has already performed response actions based on those results as part of the GMA 4 monitoring program. Specifically, GE installed monitoring well GMA4-8 at a location downgradient of well OPCA-MW-1RR and continues to sample that well as part of the GMA 4 long-term monitoring program. No PCE or TCE was detected in this well during the Fall 2017 sampling event. In fact, no PCE or TCE has ever been detected in downgradient well GMA4-8.

Based on these results and the activities already performed, no additional response actions are proposed at this time to address these constituents at OPCA-MW-1RR. GE will continue to sample this well as part of the OPCA post-closure program and will re-evaluate the need for further actions in future monitoring event and trend evaluation reports.

## **6.2.2 Evaluation of Data in Relation to GW-3 Standards and Benchmarks**

### **GMA 4**

None of the GMA 4 laboratory analytical results were reported at concentrations exceeding their corresponding GW-3 Performance Standards. As noted in Section 5.4.2, 6.1, and 6.2 above, GE proposes to discontinue dissolved cadmium sampling at well GMA4-8. There is no increasing trend in well GMA4-8 dissolved cadmium concentrations and dissolved cadmium concentrations have remained less than the concentration of dissolved cadmium in samples from well OPCA-MW-1RR and the GW-3 benchmark for all four rounds of sampling at well GMA4-8.

### **OPCAs**

Section 4.6.2 of the *Post-Closure Groundwater Monitoring Plan* requires that, for each monitoring event, if the sampling data show an exceedance of a GW-3 standard at any of the OPCA wells, or if constituent concentrations are greater than half of those standards and there is a statistically significant increase in concentrations, GE must propose appropriate response actions to address that condition. Response actions may include, but are not limited to, measures to remediate the groundwater, additional sampling to confirm or further evaluate the data, and/or further assessment of groundwater quality with regard to potential receptors.

As noted in Section 5.3.2, the Fall 2017 dissolved cadmium concentration of 0.00410 J mg/L in the sample from well OPCA-MW-1RR is substantially less than the Spring 2014 maximum of 0.0273 J mg/L and is also less than the average concentration of dissolved cadmium at this well (0.00425 mg/L). The GW-3 Performance Standard for dissolved cadmium is 0.004 mg/L. As shown in Appendix D, there appears to have been a spike in dissolved cadmium concentrations at well OPCA-MW-1RR in Spring 2014, which subsided in Fall 2014 and Spring 2015. Downgradient well OPCA-MW-2R is also monitored for dissolved cadmium. Results from that well show infrequent detections of this constituent. GE also monitored cadmium in downgradient well GMA4-8 for four rounds and based on those results has proposed to cease cadmium monitoring at that location as noted above. GE does not propose any additional response actions to address dissolved cadmium in well OPCA-MW-1RR and will continue to evaluate the results from well OPCA-MW-1RR and OPCA-MW-2R in future monitoring reports. If dissolved cadmium concentrations at downgradient well OPCA-MW-2R exceed half of the GW-3 standard in a future sampling event, GE will at that time evaluate the need for additional response actions. The Spring 2017 GMA 4/OPCA Report indicated that there was a statistically significant increase in dissolved cadmium concentrations at well GMA4-6. However, the Fall 2017 cadmium concentration in the sample from well GMA4-6 (0.0004 J mg/L) is less than the GW-3 standard, in contrast to the greater concentration in Spring 2017 (0.0038 mg/L), indicating cadmium concentrations may be decreasing at this well. Downgradient well OPCA-MW-2R is being monitored for dissolved cadmium as part of the OPCA Post-Closure Monitoring. As well OPCA-MW-2R has never had an exceedance of dissolved cadmium and cadmium has been below the detection limit at this well for the last five sampling events, GE does not propose any additional response actions to address dissolved cadmium in well GMA4-6 and will continue to evaluate the results in future monitoring reports. If dissolved cadmium concentrations at downgradient well OPCA-MW-2R exceed half of the GW-3 standard in a future sampling event, GE will at that time evaluate the need for additional response actions.

### 6.3 Field Activities Schedule

GE anticipates that the Spring 2018 semi-annual long-term monitoring event for GMA 4 and post-closure groundwater sampling event for the OPCAs will be performed in April 2018. In advance of groundwater sampling, a round of groundwater elevation monitoring at the GMA 4 and OPCA wells (and adjacent areas) where such monitoring is required will be performed. GE will coordinate the groundwater elevation monitoring within the shortest time window feasible so that the groundwater contour dataset is representative across adjacent GMAs. Groundwater sampling will be performed at the 4 GMA 4 long-term groundwater monitoring program wells and at the 12 OPCA post-closure groundwater monitoring program wells listed in Table 1 and illustrated on Figure 2, with analyses for the constituent groups listed in the program summary in Table 1. Where applicable, PDBs will be retrieved and sampled at least two weeks after deployment.

Prior to performance of these field activities, GE will provide EPA with 7 days advance notice to allow the assignment of oversight personnel, preparations to split samples with EPA's contractor, and the collection by EPA of groundwater levels at the Allendale School property wells in conjunction with GE's groundwater elevation monitoring activities at the GMA 4 and OPCA wells (if desired).

### 6.4 Reporting Schedule

In accordance with the previously approved reporting schedule for this monitoring program, GE will submit a combined GMA 4 and OPCA Monitoring Event Evaluation Report within 60 days following receipt of the final analytical data packages from the Spring 2018 sampling event.

Long-Term Trend Evaluation Reports for GMA 4 and the OPCAs will be prepared at two-year intervals over the duration of the long-term and post-closure monitoring programs, unless an alternate schedule is proposed by GE and approved by EPA. The next Long-Term Trend Evaluation Report for GMA 4 and the OPCAs is scheduled to be submitted in place of the Spring 2019 Monitoring Event Evaluation Report. That report will be submitted within 75 days following receipt of the final analytical data packages from the Spring 2019 sampling event.

# TABLES





**Table 1**  
**Groundwater Quality Monitoring Program Summary**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**Groundwater Management Area 4 and On-Plant Consolidation Areas**  
**General Electric Company - Pittsfield, Massachusetts**

Well ID	Monitoring Well Usage	Monitoring Frequency	Analyses								
			VOCs	Dissolved Cadmium	PCBs	SVOCs	Sulfide	Cyanide	Metals	Dioxin/Furans	
<b>GMA4</b>											
GMA4-8	GW-2 Benchmark Sentinel, GW-3 General/Source Area Sentinel	Semi-Annual	X (PDB)	X	NA	NA	NA	NA	NA	NA	NA
GMA4-9	GW-2 Benchmark Sentinel, GW-3 Perimeter (Downgradient)	Semi-Annual	X (PDB)	NA	NA	NA	NA	NA	NA	NA	NA
H78B-16	GW-2 Benchmark Sentinel, GW-3 Perimeter (Downgradient)	Semi-Annual	X (PDB)	NA	NA	NA	NA	NA	NA	NA	NA
GMA4-7S	GW-2 Benchmark Sentinel, GW-3 Perimeter (Downgradient)	Semi-Annual	X (PDB)	NA	NA	NA	NA	NA	NA	NA	NA
<b>OPCA</b>											
78-1	GW-2 Benchmark/ GW-3 Compliance	Semi-Annual	X	X	X	X	X	X	X	X	X
78-6R	GW-2 Benchmark/ GW-3 Compliance	Semi-Annual	X	X	X	X	X	X	X	X	X
GMA4-6	GW-2 Benchmark/ GW-3 Compliance	Semi-Annual	X	X	X	X	X	X	X	X	X
H78B-15	GW-2 Compliance/ GW-3 Compliance	Semi-Annual	X (PDB) <sup>3</sup>	X	X	X	X	X	X	X	X
OPCA-MW-1RR	GW-2 Benchmark/ GW-3 Compliance	Semi-Annual	X	X	X	X	X	X	X	X	X
OPCA-MW-2R	GW-2 Benchmark/ GW-3 Compliance	Semi-Annual	X (PDB) <sup>3</sup>	X	X	X	X	X	X	X	X
OPCA-MW-3R	GW-2 Benchmark/ GW-3 Compliance	Semi-Annual	X	X	X	X	X	X	X	X	X
OPCA-MW-4	GW-2 Compliance/ GW-3 Compliance	Semi-Annual	X (PDB) <sup>3</sup>	X	X	X	X	X	X	X	X
OPCA-MW-5R	GW-2 Compliance/ GW-3 Compliance	Semi-Annual	X (PDB) <sup>3</sup>	X	X	X	X	X	X	X	X
OPCA-MW-6	GW-2 Benchmark/ GW-3 Compliance	Semi-Annual	X	X	X	X	X	X	X	X	X
OPCA-MW-7	GW-2 Benchmark/ GW-3 Compliance	Semi-Annual	X (PDB) <sup>3</sup>	X	X	X	X	X	X	X	X
OPCA-MW-8R	GW-2 Benchmark/ GW-3 Compliance	Semi-Annual	X (PDB) <sup>3</sup>	X	X	X	X	X	X	X	X

**Notes:**

NA = Not Analyzed

VOCs = Volatile organic compounds analyzed by EPA method 8260.

PCBs = Dissolved polychlorinated biphenyl aroclors by EPA method 8082.

SVOCs = Semi-volatile organic compounds analyzed by EPA method 8270.

Sulfide = Sulfide analyzed by EPA method 9034.

Cyanide = Dissolved physiologically available cyanide (PAC) analyzed by EPA method 9014 (MDEP PAC Protocol).

Metals = Dissolved inorganic analysis of 17 elements by EPA Methods 6010B, 7000A and 7470A.

Dioxin/Furans = Dioxin/Furans analyzed by EPA method 8290.

PDB = Passive Diffusion Bag.

- All GMA4 VOC samples were collected using passive diffusion bags. All OPCA VOC samples were collected via Low Flow, unless noted otherwise.
- Samples from well GMA4-8 were submitted for dissolved cadmium analysis during the Spring 2017 sampling event in accordance with Condition 3 of EPA's September 22, 2016 conditional approval of GE's *GMA 4 Groundwater Monitoring Trend Evaluation Report – Spring 2016*. As required by that Condition, GE has continue to submit samples from well GMA4-8 for dissolved cadmium analysis until at least Fall 2017.
- PDBs were used in Fall 2017 in accordance with EPA approval on a limited number of wells, as stated in Sections 3.4.1 and 3.4.2.



**Table 2**  
**Groundwater Elevation Monitoring Program Summary**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**Groundwater Management Area 4 and On-Plant Consolidation Areas**  
**General Electric Company - Pittsfield, Massachusetts**

Well Number	Monitoring Schedule
<b>GMA 4 Monitoring Wells</b>	
060B-R	Semi-Annual
GMA4-2	Semi-Annual
GMA4-3	Semi-Annual
H78B-16	Semi-Annual
NY-3	Semi-Annual
RF-14	Semi-Annual
RF-15	Semi-Annual
UB-MW-5	Semi-Annual
<b>OPCA Sampling Wells</b>	
78-1	Semi-Annual
78-6R	Semi-Annual
GMA4-6	Semi-Annual
H78B-15	Semi-Annual
OPCA-MW-1RR	Semi-Annual
OPCA-MW-2R	Semi-Annual
OPCA-MW-3R	Semi-Annual
OPCA-MW-4	Semi-Annual
OPCA-MW-5R	Semi-Annual
OPCA-MW-6	Semi-Annual
OPCA-MW-7	Semi-Annual
OPCA-MW-8R	Semi-Annual
<b>Additional Nearby Wells Monitored In Fall 2017 (see Note 2)</b>	
<b>Wells Downgradient of GMA 4 (see Note 3)</b>	
GMA4-7S	Semi-Annual
<b>Additional Wells Monitored Under Post-Closure Program for the OPCAs</b>	
78-2	Semi-Annual
78-3	Semi-Annual
GMA4-1	Semi-Annual
GMA4-4	Semi-Annual
GMA4-8	Semi-Annual
GMA4-9	Semi-Annual
H78B-13R	Semi-Annual
H78B-17R	Semi-Annual
NY-2	Semi-Annual
NY-4	Semi-Annual
UB-MW-6	Semi-Annual
<b>East Street Area 2 - North (Groundwater Management Area 1) West of GMA 4 (see Note 4)</b>	
ES1-05	Semi-Annual
ES1-20	Semi-Annual
<b>Commercial Street Site Monitoring Well (see Note 5)</b>	
GMA4-5	Semi-Annual
<b>Allendale School Property Monitoring Wells/Piezometers North of GMA 4 (see Note 6)</b>	
PZ-1	Semi-Annual
PZ-2	Semi-Annual
PZ-3	Semi-Annual
PZ-4	Semi-Annual
SCH-1	Semi-Annual

**Notes:**

1. The listed monitoring wells are monitored for groundwater elevation and NAPL presence at the frequencies shown.
2. These additional wells were monitored by GE or EPA as part of groundwater monitoring programs at groundwater management areas adjacent to the OPCAs. The data obtained at these wells was utilized to supplement monitoring results from the OPCA sampling wells and additional monitoring locations in the preparation of groundwater elevation contour mapping.
3. Well GMA4-7S is located downgradient of Groundwater Management Area 4, but was monitored and sampled in Fall 2017 as part of the GMA 4 program.
4. Well ES1-20 and ES1-05 are located in Groundwater Management Area 1, but also utilized as part of the GMA 4 groundwater elevation monitoring network.
5. Well GMA 4-5 is located on the Commercial Street site, but was monitored in Fall 2017 as part of the GMA 4 program.
6. The Allendale School Property Monitoring Wells/Piezometers are monitored by EPA.

**Table 3**  
**Monitoring Well Construction Summary**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**Groundwater Management Area 4 and On-Plant Consolidation Areas**  
**General Electric Company - Pittsfield, Massachusetts**

Monitoring Well Number	Survey Coordinates		Well Diameter (inches)	Ground Surface Elevation (ft AMSL)	Measuring Point Elevation (ft AMSL)	Depth to Top of Screen (ft BGS)	Screen Length (ft)	Top of Screen Elevation (ft AMSL)	Base of Screen Elevation (ft AMSL)
	Northing	Easting							
<b>GMA 4 Monitoring Wells</b>									
060B-R	534740.20	135328.00	2.00	1,003.04	1,002.79	12.00	10.00	991.04	981.04
78-4	535014.00	136554.90	4.00	998.81	998.52	5.31	15.00	993.50	978.50
78-5R	534944.00	136219.20	2.00	997.96	997.36	4.00	15.00	993.96	978.96
GMA4-2	536218.10	137516.30	2.00	1,006.56	1,006.30	9.93	10.00	996.63	986.63
GMA4-3	536289.20	137999.50	2.00	1,004.64	1,004.36	16.59	10.00	988.05	978.05
H78B-16	535040.80	136495.50	1.00	995.60	999.16	3.60	10.00	992.00	982.00
NY-3	535508.40	135077.10	2.00	1,005.79	1,005.30	10.12	15.00	995.67	980.67
RF-14	536833.60	137753.70	4.00	1,002.23	1,001.91	7.33	15.00	994.90	979.90
RF-15	535638.20	137803.00	2.00	1,012.61	1,012.18	9.43	15.00	1,003.18	988.18
SCH-4	535975.46	136030.74	2.00	1,012.27	1,014.05	7.90	10.00	1,004.37	994.37
UB-MW-5	536364.48	137001.88	2.00	1,006.21	1,005.81	6.93	10.00	999.28	989.28
<b>OPCA Sampling Wells</b>									
78-1	536143.00	136345.00	4.00	1,026.56	1,026.32	7.16	15.00	1,019.40	1,004.40
78-6R	535909.40	135904.70	4.00	1,012.08	1,011.70	3.27	14.59	1,008.81	994.22
GMA4-6	535774.20	135658.40	2.00	1,009.63	1,009.13	3.01	10.00	1,006.62	996.62
H78B-15	535408.90	136705.20	0.75	1,010.30	1,012.68	6.50	10.00	1,003.80	993.80
OPCA-MW-1RR	535367.60	135561.10	2.00	1,016.63	1,016.42	18.00	10.00	998.63	988.63
OPCA-MW-2R	535176.60	135892.10	2.00	1,016.80	1,018.84	10.00	15.00	1,006.80	991.80
OPCA-MW-3R	535293.00	136185.15	2.00	1015.53	1015.26	14.52	30.00	1001.01	971.01
OPCA-MW-4	535570.50	136222.30	2.00	1,019.27	1,018.67	12.07	10.00	1,007.20	997.20
OPCA-MW-5R	535630.00	136477.40	2.00	1,016.61	1,016.29	11.22	10.00	1,005.39	995.39
OPCA-MW-6	535449.70	136901.20	2.00	1,022.82	1,022.24	15.12	10.00	1,007.70	997.70
OPCA-MW-7	535673.70	136835.80	2.00	1,027.26	1,026.54	14.36	10.00	1,012.90	1,002.90
OPCA-MW-8R	535981.60	136687.00	3.00	1,028.80	1,030.70	5.10	20.00	1,023.70	1,003.70

**Table 3**  
**Monitoring Well Construction Summary**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**Groundwater Management Area 4 and On-Plant Consolidation Areas**  
**General Electric Company - Pittsfield, Massachusetts**

Monitoring Well Number	Survey Coordinates		Well Diameter (inches)	Ground Surface Elevation (ft AMSL)	Measuring Point Elevation (ft AMSL)	Depth to Top of Screen (ft BGS)	Screen Length (ft)	Top of Screen Elevation (ft AMSL)	Base of Screen Elevation (ft AMSL)
	Northing	Easting							
<b>Additional Nearby Wells Monitored (see Note 3)</b>									
<b>Wells Downgradient of GMA 4 (see Note 4)</b>									
GMA4-7S	534591.50	136528.70	2.00	999.90	1,001.64	10.00	15.00	989.90	974.90
<b>Additional Wells Monitored Under Post-Closure Program for the OPCAs</b>									
78-2	536411.70	136892.70	4.00	1,034.92	1,034.42	6.02	15.00	1,028.90	1,013.90
78-3	535126.60	137132.70	3.00	1,007.28	1,006.87	9.18	15.00	998.10	983.10
GMA4-1	535134.40	136407.20	2.00	1,012.35	1,012.01	13.30	15.00	999.05	984.05
GMA4-4	535332.20	135149.40	2.00	996.55	999.64	4.95	15.00	991.60	976.60
GMA4-8	535107.40	135562.70	2.00	1,020.90	1,020.42	10.00	22.00	1,010.90	988.90
GMA4-9	535004.40	136153.10	2.00	1,000.00	1,002.28	3.00	12.00	997.00	985.00
H78B-13R	534740.20	135327.90	2.00	993.23	992.93	5.00	15.00	988.23	973.23
H78B-17R	534995.69	136658.83	4.00	999.60	1,000.62	14.70	9.30	984.90	975.60
NY-2	534802.40	135675.80	4.00	993.70	996.54	9.50	15.00	984.20	969.20
NY-4	535669.20	135360.10	2.00	1,024.54	1,024.69	17.00	15.00	1,007.54	992.54
UB-MW-6	535541.50	137463.00	2.00	1,021.09	1,020.12	26.54	10.00	994.55	984.55
<b>East Street Area 2 - North (Groundwater Management Area 1) West of GMA 4 (see Note 5)</b>									
ES1-05	534749.31	135063.74	2.00	1,023.25	1,022.75	34.86	10.00	988.39	978.39
ES1-20	535314.82	134924.90	0.75	997.82	1,001.56	6.00	10.00	991.82	981.82
<b>Commercial Street Site Monitoring Well (see Note 6)</b>									
GMA4-5	534525.10	136816.60	2.00	993.28	993.16	7.72	10.00	985.56	975.56
<b>Allendale School Property Monitoring Wells/Piezometers (see Note 7)</b>									
PZ-1	535900.23	135753.22	2.00	1,008.55	1,005.60	8.00	9.80	1,000.55	990.75
PZ-2	536112.14	135563.58	2.00	1,008.54	1,009.89	8.00	9.80	1,000.54	990.74
PZ-3	536396.28	135728.63	2.00	1,008.03	1,010.43	8.00	9.80	1,000.03	990.23
PZ-4	536116.06	136119.15	2.00	1,008.41	1,007.96	8.00	9.80	1,000.41	990.61
SCH-1	536574.57	135606.24	2.00	1,017.59	1,017.11	9.20	10.00	1,008.39	998.39

**Notes:**

1. ft AMSL - Feet above mean sea level.
2. ft BGS - Feet below ground surface.
3. These additional wells were monitored by GE or EPA as part of groundwater monitoring programs at groundwater management areas adjacent to the OPCAs. The data obtained at these wells was utilized to supplement monitoring results from the OPCA sampling wells and additional monitoring locations in the preparation of groundwater elevation contour mapping.
4. Well GMA4-7S is located downgradient of Groundwater Management Area 4, but was monitored and sampled in Fall 2016 as part of the GMA 4 program.
5. Well ES1-20 and ES1-05 are located in Groundwater Management Area 1, but also utilized as part of the GMA 4 groundwater elevation monitoring network.
6. Well GMA 4-5 is located on the Commercial Street site, but was monitored in Spring 2017 as part of the GMA 4 program.
7. The Allendale School Property Monitoring Wells/Piezometers are monitored by EPA.

**Table 4**  
**Groundwater Elevation Data - Fall 2017**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**Groundwater Management Area 4 and On-Plant Consolidation Area**  
**General Electric Company - Pittsfield, Massachusetts**

Well Number	Date	Ground Surface Elevation (Feet AMSL)	Measuring Point Elevation (Feet AMSL)	Fall 2017 Depth to Water (Feet BMP)	Fall 2017 Groundwater Elevation (Feet AMSL)
<b>GMA 4 Monitoring Wells</b>					
060B-R	10/18/2017	1,003.04	1,002.79	16.62	986.17
GMA4-2	10/18/2017	1,006.56	1,006.30	12.42	993.88
GMA4-3	10/18/2017	1,004.64	1,004.36	18.60	985.76
H78B-16	10/18/2017	995.60	999.16	12.33	986.83
NY-3	10/16/2017	1,005.79	1,005.30	15.57	989.73
RF-14	10/18/2017	1,002.23	1,001.91	10.94	990.97
RF-15	10/18/2017	1,012.61	1,012.18	15.62	996.56
UB-MW-5	10/18/2017	1,006.70	1,006.48	Dry	<992.35
<b>OPCA Sampling Wells</b>					
78-1	10/18/2017	1,026.56	1,026.32	12.23	1014.09
78-6R	10/18/2017	1,012.08	1,011.70	9.30	1002.40
GMA4-6	10/18/2017	1,009.63	1,009.13	10.42	998.71
H78B-15	10/18/2017	1,010.30	1,012.68	15.62	997.06
OPCA-MW-1RR	10/16/2017	1,016.63	1,016.42	17.64	998.78
OPCA-MW-2R	10/18/2017	1,016.80	1,018.84	23.91	994.93
OPCA-MW-3R	10/18/2017	1,015.53	1,015.26	22.89	992.37
OPCA-MW-4	10/18/2017	1,019.27	1,018.67	13.06	1005.61
OPCA-MW-5R	10/18/2017	1,016.61	1,016.29	13.57	1002.72
OPCA-MW-6	10/18/2017	1,022.82	1,022.24	17.64	1004.60
OPCA-MW-7	10/18/2017	1,027.26	1,026.54	19.98	1006.56
OPCA-MW-8R	10/18/2017	1,028.80	1,030.70	18.34	1012.36
<b>Additional Nearby Wells Monitored (see Note 3)</b>					
<b>Wells Downgradient of GMA 4 (see Note 4)</b>					
GMA4-7S	10/18/2017	999.90	1,001.64	17.32	984.32
<b>Additional Wells Monitored Under Post-Closure Program For The OPCAs</b>					
78-2	10/18/2017	1,034.92	1,034.42	10.82	1023.60
78-3	10/18/2017	1,007.28	1,006.87	17.50	989.37
GMA4-1	10/18/2017	1,012.35	1,012.01	23.21	988.80
GMA4-4	10/18/2017	996.55	999.64	12.89	986.75
GMA4-8	10/18/2017	1,020.90	1,020.42	25.43	994.99
GMA4-9	10/18/2017	1,000.00	1,002.28	10.12	992.16
H78B-13R	10/18/2017	993.23	992.93	11.70	981.23
H78B-17R	10/18/2017	999.60	1,000.62	13.64	986.98
NY-2	10/18/2017	993.70	996.54	17.86	978.68
NY-4	10/18/2017	1,024.54	1,024.69	14.30	1010.39
UB-MW-6	10/18/2017	1,021.09	1,020.12	20.46	999.66
<b>East Street Area 2 - North (Groundwater Management Area 1) West of GMA 4 (see Note 5)</b>					
ES1-05	10/18/2017	1,023.25	1,022.75	39.97	982.78
ES1-20	10/18/2017	997.82	1,001.56	14.54	987.02
<b>Commercial Street Site Monitoring Well (see Note 6)</b>					
GMA4-5	10/18/2017	993.28	993.16	11.86	981.30
<b>Allendale School Property Monitoring Wells/Piezometers (see Note 7)</b>					
PZ-1	10/18/2017	1,008.55	1,005.60	Dry	<1001.79
PZ-2	10/18/2017	1,008.54	1,009.89	4.50	1005.39
PZ-3	10/18/2017	1,008.03	1,010.43	3.17	1007.26
PZ-4	10/18/2017	1,008.41	1,007.96	2.64	1005.32
SCH-1	10/18/2017	1,017.59	1,017.11	8.33	1008.78

**Table 4**  
**Groundwater Elevation Data - Fall 2017**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**Groundwater Management Area 4 and On-Plant Consolidation Area**  
**General Electric Company - Pittsfield, Massachusetts**

**Notes:**

1. AMSL - Above mean sea level.
2. BMP - Below Measuring Point
3. These additional wells were monitored by GE or EPA as part of groundwater monitoring programs at groundwater management areas adjacent to the OPCAs. The data obtained at these wells was utilized to supplement monitoring results from the OPCA sampling wells and additional monitoring locations in the preparation of groundwater elevation contour mapping.
4. Well GMA4-7S is located downgradient of Groundwater Management Area 4, but was monitored and sampled in Fall 2017 as part of the GMA 4 program.
5. Well ES1-20 and ES1-05 are located in Groundwater Management Area 1, but also utilized as part of the GMA 4 groundwater elevation monitoring network.
6. Well GMA 4-5 is located on the Commercial Street site, but was monitored in Fall 2017 as part of the GMA 4 program.
7. The Allendale School Property Monitoring Wells/Piezometers are monitored by EPA.
8. The above measurements were for the date of monitoring.

**Table 5**  
**Field Parameter Measurements**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**Groundwater Management Area 4 and On-Plant Consolidation Areas**  
**General Electric Company - Pittsfield, Massachusetts**

Well ID	Date of Low-Flow	Temperature (Degrees Celsius)	pH (standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)
<b>GMA 4 Monitoring Wells</b>							
GMA4-7S (PDB)	11/14/2017	11.72	7.73	0.523	153.00	4.21	131.2
GMA4-8	10/23/2017	14.22	6.91	1.855	1.43	0.21	134.8
GMA4-8 (PDB)	11/14/2017	9.94	7.44	1.092	28.00	2.49	207.6
GMA4-9 (PDB)	11/14/2017	11.72	7.94	0.378	58.00	5.37	126.9
H78B-16 (PDB)	11/14/2017	12.31	7.72	0.671	69.00	3.41	195.6
<b>OPCA Sampling Wells</b>							
78-1	10/20/2017	14.98	6.68	1.282	4.25	0.39	157.7
78-6R	10/20/2017	15.03	6.86	4.174	19.20	0.06	-80.1
GMA4-6	10/20/2017	15.44	6.89	1.128	0.39	0.15	55.1
H78B-15	10/24/2017	15.49	6.50	1.801	19.50	7.26	244.1
H78B-15 (PDB)	11/14/2017	12.75	7.73	0.846	5.00	6.25	182.6
OPCA-MW-1RR	10/23/2017	15.86	7.49	1.561	3.23	0.27	43.3
OPCA-MW-2R	10/24/2017	18.11	6.47	0.738	1.95	2.53	252.0
OPCA-MW-2R (PDB)	11/14/2017	10.37	7.36	0.611	28.00	3.94	202.8
OPCA-MW-3R	10/23/2017	15.58	6.72	0.884	0.94	0.22	166.4
OPCA-MW-4	10/24/2017	14.48	7.01	0.857	1.80	2.46	221.4
OPCA-MW-4 (PDB)	11/14/2017	12.83	7.68	0.707	57.00	4.14	152.5
OPCA-MW-5R	10/20/2017	15.58	7.00	0.703	3.14	0.84	109.8
OPCA-MW-5R (PDB)	11/14/2017	12.92	8.10	0.206	406.00	4.80	129.6
OPCA-MW-6	10/23/2017	12.43	7.66	1.017	1.91	0.84	52.5
OPCA-MW-7	10/24/2017	17.94	7.04	5.248	67.40	3.47	-7.2
OPCA-MW-7 (PDB)	11/14/2017	11.19	7.62	1.880	108.00	4.46	91.4
OPCA-MW-8R	10/23/2017	14.06	7.12	5.051	10.90	8.44	99.2
OPCA-MW-8R (PDB)	11/14/2017	11.32	7.67	3.441	62.00	8.14	115.5

**Notes:**

PDB = Passive Diffusion Bag

1. The readings above are the final parameters recorded during purging, unless otherwise indicated.
2. The readings indicated by (PDB) above are the parameters at the time of PDB collection.

Table 6a

**Summary of Groundwater Management Area 4 Groundwater Sample Analytical Results - Fall 2017**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**Groundwater Management Area 4 and On-Plant Consolidation Areas**  
**General Electric Company - Pittsfield, Massachusetts**  
 (Values are presented in parts per million, ppm)

Well type:				GW-2 Sentinel <sup>11</sup> / GW-3 Perimeter (Downgradient) GMA4-7S 11/14/17	GW-2 Sentinel <sup>11</sup> / GW-3 General/SAS <sup>9</sup> GMA4-8 10/23/17 - 11/14/17	GW-2 Sentinel <sup>11</sup> / GW-3 Perimeter (Downgradient) GMA4-9 11/14/17	GW-2 Sentinel <sup>11</sup> / GW-3 Perimeter (Downgradient) H78B-16 11/14/17
Location ID: Date Collected:	METHOD 1 GW-2	METHOD 1 GW-3	MCP UCL				
<b>Volatile Organics</b>							
1,1-Dichloroethene	0.08	30	100	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)	0.00078 J
1,2-Dichloroethane	0.005	20	100	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)	0.0015
2-Chloro-1,3-butadiene	NL	NL	NL	ND(0.0050 J)	ND(0.0050 J) [ND(0.0050 J)]	0.0050 J	ND(0.0050 J)
Chlorobenzene	0.2	1	10	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)	0.00033 J
Chloroethane	NL	NL	NL	ND(0.0020)	ND(0.0020) [ND(0.0020)]	ND(0.0020)	0.0021
Chloroform	0.05	20	100	0.0015	ND(0.0010) [ND(0.0010)]	0.0026	0.00030 J
Tetrachloroethene	0.05	30	100	ND(0.0010 J)	ND(0.0010 J) [ND(0.0010 J)]	0.0017 J	0.0039 J
trans-1,2-Dichloroethene	0.08	50	100	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)	0.00071 J
Trichloroethene	0.005	5	50	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)	<b>0.45</b>
Vinyl Chloride	0.002	50	100	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)	0.0019
Total VOCs	5	NL	NL	0.0015	ND(0.20) [ND(0.20)]	0.0043	0.46 J
<b>Inorganics-filtered</b>							
Cadmium	NL	0.004	0.05	NA	0.0012 J [0.0012 J]	NA	NA

**Notes:**

1. Samples were collected by Arcadis and submitted to SGS Environmental Services, Inc. for laboratory analysis in Fall 2017.
2. Samples have been validated as per Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), General Electric Company, Pittsfield, Massachusetts, Arcadis (revised on July 2, 2013 and approved by EPA on July 23, 2013).
3. Only those constituents detected in one or more samples are summarized.
4. Field duplicate sample results are presented in brackets.
5. Total VOCs at GW-2 wells are being compared to the notification level in the SOW of 5 ppm, as there is no GW-2 standard for Total VOCs.
6. NA = Not Analyzed.
7. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.
8. NL = Not Listed.
9. SAS = Source Area Sentinel.
10. Bold values indicate an informational GW-2 benchmark exceedance.
11. GW-2 Sentinel wells are compared to the GW-2 standards for informational benchmark purposes only.

Data Qualifiers:Organics (volatiles)

J - Indicates that the associated numerical value is an estimated concentration.

Inorganics

J - Indicates that the associated numerical value is an estimated concentration.



Table 6b

Summary of On-Plant Consolidation Area Groundwater Sample Analytical Results - Fall 2017  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 Groundwater Management Area 4 and On-Plant Consolidation Areas  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)

Well type: Location ID: Date Collected:	METHOD 1 GW-2 STANDARDS	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	GW-2 Benchmark/ GW-3 Compliance 78-1 10/20/17	GW-2 Benchmark/ GW-3 Compliance 78-6R 10/20/17
<b>PCBs-Filtered</b>					
Aroclor-1254	NL	NL	NL	0.000053 J	ND(0.000099) [ND(0.00010)]
Aroclor-1260	NL	NL	NL	ND(0.000098)	ND(0.000099) [ND(0.00010)]
Total PCBs	0.005	0.01	0.1	0.000053 J	ND(0.000099) [ND(0.00010)]
<b>Volatile Organics</b>					
Chloroform	0.05	20	100	ND(0.0010)	ND(0.0010) [ND(0.0010)]
Chloromethane	NL	NL	NL	ND(0.0020)	ND(0.0020) [ND(0.0020)]
Tetrachloroethene	0.05	30	100	ND(0.0010 J)	ND(0.0010 J) [ND(0.0010 J)]
Trichloroethene	0.005	5	50	ND(0.0010)	ND(0.0010) [ND(0.0010)]
Total VOCs	5	NL	NL	ND(0.20)	ND(0.20) [ND(0.20)]
<b>Semivolatile Organics</b>					
Diethylphthalate	50	9	100	0.0010 J	ND(0.0048)
<b>Furans</b>					
2,3,7,8-TCDF	NL	NL	NL	ND(1.40E-09)	ND(4.50E-09) [ND(1.30E-09)]
TCDFs (total)	NL	NL	NL	ND(2.30E-09)	ND(4.70E-09) [ND(1.60E-09)]
1,2,3,7,8-PeCDF	NL	NL	NL	ND(1.50E-09)	ND(3.10E-09) [ND(1.20E-09)]
2,3,4,7,8-PeCDF	NL	NL	NL	ND(1.50E-09)	ND(2.90E-09) [ND(1.20E-09)]
PeCDFs (total)	NL	NL	NL	ND(1.80E-09)	ND(9.80E-09) [ND(1.50E-09)]
1,2,3,4,7,8-HxCDF	NL	NL	NL	ND(2.10E-09)	ND(5.10E-09) [ND(2.50E-09)]
1,2,3,6,7,8-HxCDF	NL	NL	NL	ND(2.00E-09)	ND(4.00E-09) [ND(2.40E-09)]
1,2,3,7,8,9-HxCDF	NL	NL	NL	ND(3.00E-09)	ND(7.10E-09) [ND(3.90E-09)]
2,3,4,6,7,8-HxCDF	NL	NL	NL	ND(2.30E-09)	ND(5.10E-09) [ND(2.70E-09)]
HxCDFs (total)	NL	NL	NL	ND(2.90E-09)	ND(1.10E-08) [ND(3.10E-09)]
1,2,3,4,6,7,8-HpCDF	NL	NL	NL	ND(1.90E-09)	ND(7.60E-09) [ND(2.20E-09)]
1,2,3,4,7,8,9-HpCDF	NL	NL	NL	ND(3.40E-09)	ND(1.10E-08) [ND(3.60E-09)]
HpCDFs (total)	NL	NL	NL	ND(2.80E-09)	ND(1.20E-08) [ND(3.30E-09)]
OCDF	NL	NL	NL	ND(1.00E-08)	ND(2.50E-08) [ND(1.10E-08)]
<b>Dioxins</b>					
2,3,7,8-TCDD	NL	NL	NL	ND(2.30E-09)	ND(4.70E-09) [ND(1.60E-09)]
TCDDs (total)	NL	NL	NL	ND(1.40E-09)	ND(4.50E-09) [ND(1.30E-09)]
1,2,3,7,8-PeCDD	NL	NL	NL	ND(1.80E-09)	ND(9.80E-09) [ND(1.50E-09)]
PeCDDs (total)	NL	NL	NL	1.20E-08 JNX	ND(3.00E-09) [ND(1.20E-09)]
1,2,3,4,7,8-HxCDD	NL	NL	NL	ND(3.00E-09)	ND(1.10E-08) [ND(3.10E-09)]
1,2,3,6,7,8-HxCDD	NL	NL	NL	ND(2.90E-09)	ND(1.00E-08) [ND(3.10E-09)]
1,2,3,7,8,9-HxCDD	NL	NL	NL	ND(3.00E-09)	ND(1.10E-08) [ND(3.20E-09)]
HxCDDs (total)	NL	NL	NL	ND(2.30E-09)	ND(5.20E-09) [ND(2.80E-09)]
1,2,3,4,6,7,8-HpCDD	NL	NL	NL	ND(2.80E-09)	ND(1.20E-08) [ND(3.30E-09)]
HpCDDs (total)	NL	NL	NL	ND(2.60E-09)	ND(9.30E-09) [ND(2.80E-09)]
OCDD	NL	NL	NL	ND(1.70E-08)	ND(5.30E-08) [ND(1.90E-08)]
Total TEQs (1998 WHO TEFs)	NL	4.00E-05	4.00E-04	3.00E-09	8.70E-09 [2.70E-09]

Table 6b

Summary of On-Plant Consolidation Area Groundwater Sample Analytical Results - Fall 2017  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 Groundwater Management Area 4 and On-Plant Consolidation Areas  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)



Well type: Location ID: Date Collected:	METHOD 1 GW-2 STANDARDS	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	GW-2 Benchmark/ GW-3 Compliance 78-1 10/20/17	GW-2 Benchmark/ GW-3 Compliance 78-6R 10/20/17
<b>Inorganics</b>					
Sulfide	NL	NL	NL	ND(2.00)	ND(2.00) [ND(2.00)]
<b>Inorganics-filtered</b>					
Antimony	NL	8	80	ND(0.00600) [ND(0.00600)]	ND(0.00600)
Barium	NL	50	100	0.0461 J [0.0458 J]	0.158 J
Cadmium	NL	0.004	0.05	0.000600 J [0.000700 J]	ND(0.00500)
Chromium	NL	0.3	3	ND(0.0100) [ND(0.0100)]	ND(0.0100)
Cobalt	NL	0.075	NL	ND(0.0500) [0.000200 J]	0.00100 J
Copper	NL	0.23	NL	0.00180 J [ND(0.0250)]	ND(0.0250)
Cyanide-MADEP (PAC)	NL	0.03	2	ND(0.0100 J)	ND(0.0100 J)
Nickel	NL	0.2	2	0.00210 J [0.00200 J]	0.000600 J
Selenium	NL	0.1	1	ND(0.0100) [ND(0.0100)]	ND(0.0100)
Silver	NL	0.007	1	ND(0.0100) [ND(0.0100)]	ND(0.0100)
Vanadium	NL	4	40	ND(0.0500) [ND(0.0500)]	ND(0.0500)
Zinc	NL	0.9	50	0.00940 J [0.00590 J]	ND(0.0200)

Table 6b

Summary of On-Plant Consolidation Area Groundwater Sample Analytical Results - Fall 2017  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 Groundwater Management Area 4 and On-Plant Consolidation Areas  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)

Well type: Location ID: Date Collected:	METHOD 1 GW-2 STANDARDS	METHOD 2 METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	GW-2 Benchmark/ GW-3 Compliance GMA4-6 10/20/17	GW-2 Compliance/ GW-3 Compliance H78B-15 10/24-11/14/17	GW-2 Benchmark/ GW-3 Compliance OPCA-MW-1RR 10/23/17	GW-2 Benchmark/ GW-3 Compliance OPCA-MW-2R 10/24-11/14/17
<b>PCBs-Filtered</b>							
Aroclor-1254	NL	NL	NL	ND(0.000094)	0.00012	0.00012	ND(0.000094)
Aroclor-1260	NL	NL	NL	ND(0.000094)	ND(0.00010)	0.000079 J	ND(0.000094)
Total PCBs	0.005	0.01	0.1	ND(0.000094)	0.00012	0.00020 J	ND(0.000094)
<b>Volatile Organics</b>							
Chloroform	0.05	20	100	ND(0.0010)	ND(0.0010)	0.0093 J	ND(0.0010)
Chloromethane	NL	NL	NL	0.00077 J	ND(0.0020)	ND(0.040)	ND(0.0020)
Tetrachloroethene	0.05	30	100	ND(0.0010 J)	ND(0.0010 J)	<b>1.6 J</b>	ND(0.0010 J)
Trichloroethene	0.005	5	50	ND(0.0010)	ND(0.0010)	<b>0.023</b>	ND(0.0010)
Total VOCs	5	NL	NL	0.00077 J	ND(0.20)	1.6 J	ND(0.20)
<b>Semivolatile Organics</b>							
Diethylphthalate	50	9	100	ND(0.0048)	ND(0.0056)	ND(0.0048)	ND(0.0048)
<b>Furans</b>							
2,3,7,8-TCDF	NL	NL	NL	ND(1.00E-09)	ND(2.20E-09)	ND(8.80E-10)	ND(1.10E-09)
TCDFs (total)	NL	NL	NL	ND(1.30E-09)	ND(2.10E-09)	ND(9.80E-10)	ND(1.60E-09)
1,2,3,7,8-PeCDF	NL	NL	NL	ND(7.30E-10)	ND(1.10E-09)	ND(7.50E-10)	ND(6.40E-10)
2,3,4,7,8-PeCDF	NL	NL	NL	ND(7.20E-10)	ND(1.10E-09)	ND(7.30E-10)	ND(6.50E-10)
PeCDFs (total)	NL	NL	NL	ND(1.40E-09)	ND(2.10E-09)	ND(1.10E-09)	ND(1.60E-09)
1,2,3,4,7,8-HxCDF	NL	NL	NL	ND(1.40E-09)	ND(1.70E-09)	ND(1.40E-09)	ND(2.10E-09)
1,2,3,6,7,8-HxCDF	NL	NL	NL	ND(1.40E-09)	ND(1.60E-09)	ND(1.30E-09)	ND(2.00E-09)
1,2,3,7,8,9-HxCDF	NL	NL	NL	ND(1.90E-09)	ND(2.70E-09)	ND(1.80E-09)	ND(2.90E-09)
2,3,4,6,7,8-HxCDF	NL	NL	NL	ND(1.50E-09)	ND(2.10E-09)	ND(1.50E-09)	ND(2.20E-09)
HxCDFs (total)	NL	NL	NL	ND(2.70E-09)	ND(3.50E-09)	ND(2.30E-09)	ND(3.10E-09)
1,2,3,4,6,7,8-HpCDF	NL	NL	NL	ND(1.10E-09)	ND(9.70E-10)	ND(1.00E-09)	ND(8.00E-10)
1,2,3,4,7,8,9-HpCDF	NL	NL	NL	ND(1.80E-09)	ND(1.60E-09)	ND(1.60E-09)	ND(1.40E-09)
HpCDFs (total)	NL	NL	NL	ND(1.70E-09)	ND(2.60E-09)	ND(1.90E-09)	ND(1.90E-09)
OCDF	NL	NL	NL	ND(6.70E-09)	ND(7.60E-09)	ND(6.90E-09)	ND(8.40E-09)
<b>Dioxins</b>							
2,3,7,8-TCDD	NL	NL	NL	ND(1.30E-09)	ND(2.10E-09)	ND(9.80E-10)	ND(1.60E-09)
TCDDs (total)	NL	NL	NL	ND(1.00E-09)	ND(2.20E-09)	ND(8.80E-10)	ND(1.10E-09)
1,2,3,7,8-PeCDD	NL	NL	NL	ND(1.40E-09)	ND(2.10E-09)	ND(1.10E-09)	ND(1.60E-09)
PeCDDs (total)	NL	NL	NL	ND(7.30E-10)	4.30E-09 JNX	ND(7.40E-10)	ND(6.50E-10)
1,2,3,4,7,8-HxCDD	NL	NL	NL	ND(2.70E-09)	ND(3.60E-09)	ND(2.30E-09)	ND(3.10E-09)
1,2,3,6,7,8-HxCDD	NL	NL	NL	ND(2.70E-09)	ND(3.40E-09)	ND(2.30E-09)	ND(3.00E-09)
1,2,3,7,8,9-HxCDD	NL	NL	NL	ND(2.70E-09)	ND(3.50E-09)	ND(2.40E-09)	ND(3.10E-09)
HxCDDs (total)	NL	NL	NL	ND(1.60E-09)	ND(2.00E-09)	ND(1.50E-09)	ND(2.30E-09)
1,2,3,4,6,7,8-HpCDD	NL	NL	NL	ND(1.70E-09)	ND(2.60E-09)	ND(1.90E-09)	ND(1.90E-09)
HpCDDs (total)	NL	NL	NL	ND(1.40E-09)	ND(1.20E-09)	ND(1.30E-09)	ND(1.10E-09)
OCDD	NL	NL	NL	ND(1.20E-08)	ND(1.80E-08)	ND(1.40E-08)	ND(1.70E-08)
Total TEQs (1998 WHO TEFs)	NL	4.00E-05	4.00E-04	2.00E-09	3.00E-09	1.70E-09	2.40E-09

Table 6b

Summary of On-Plant Consolidation Area Groundwater Sample Analytical Results - Fall 2017  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 Groundwater Management Area 4 and On-Plant Consolidation Areas  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)

Well type: Location ID: Date Collected:	METHOD 1 GW-2 STANDARDS	METHOD 1/ METHOD 2 METHOD 3 GW-3 STANDARDS	MCP UCL for GroundWater	GW-2 Benchmark/ GW-3 Compliance GMA4-6 10/20/17	GW-2 Compliance/ GW-3 Compliance H78B-15 10/24-11/14/17	GW-2 Benchmark/ GW-3 Compliance OPCA-MW-1RR 10/23/17	GW-2 Benchmark/ GW-3 Compliance OPCA-MW-2R 10/24-11/14/17
<b>Inorganics</b>							
Sulfide	NL	NL	NL	ND(2.00)	ND(2.00)	ND(2.00)	ND(2.00)
<b>Inorganics-filtered</b>							
Antimony	NL	8	80	ND(0.00600)	ND(0.00600)	ND(0.00600)	ND(0.00600)
Barium	NL	50	100	0.0220 J	0.0366 J	0.0575 J	0.0291 J
Cadmium	NL	0.004	0.05	0.000400 J	0.000200 J	0.00410 J	ND(0.00500)
Chromium	NL	0.3	3	ND(0.0100)	ND(0.0100)	ND(0.0100)	ND(0.0100)
Cobalt	NL	0.075	NL	ND(0.0500)	ND(0.0500)	ND(0.0500)	ND(0.0500)
Copper	NL	0.23	NL	0.0374	ND(0.0250)	ND(0.0250)	ND(0.0250)
Cyanide-MADEP (PAC)	NL	0.03	2	ND(0.0100 J) [ND(0.0100 J)]	ND(0.0100 J)	ND(0.0100 J)	ND(0.0100 J)
Nickel	NL	0.2	2	0.000500 J	ND(0.0400)	ND(0.0400)	0.00100 J
Selenium	NL	0.1	1	ND(0.0100)	ND(0.0100)	ND(0.0100)	ND(0.0100)
Silver	NL	0.007	1	ND(0.0100)	ND(0.0100)	ND(0.0100)	ND(0.0100)
Vanadium	NL	4	40	ND(0.0500)	ND(0.0500)	ND(0.0500)	ND(0.0500)
Zinc	NL	0.9	50	0.00570 J	ND(0.0200)	ND(0.0200)	ND(0.0200)

Table 6b

Summary of On-Plant Consolidation Area Groundwater Sample Analytical Results - Fall 2017  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 Groundwater Management Area 4 and On-Plant Consolidation Areas  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)

Well type: Location ID: Date Collected:	METHOD 1 GW-2 STANDARDS	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	GW-2 Benchmark/ GW-3 Compliance OPCA-MW-3R 10/24/17	GW-2 Compliance/ GW-3 Compliance OPCA-MW-4 10/24-11/14/17	GW-2 Compliance/ GW-3 Compliance OPCA-MW-5R 10/20-11/14/17
<b>PCBs-Filtered</b>						
Aroclor-1254	NL	NL	NL	ND(0.000095)	0.00086	ND(0.000099)
Aroclor-1260	NL	NL	NL	ND(0.000095)	ND(0.000095)	ND(0.000099)
Total PCBs	0.005	0.01	0.1	ND(0.000095)	0.00086	ND(0.000099)
<b>Volatile Organics</b>						
Chloroform	0.05	20	100	ND(0.0010)	ND(0.0010)	ND(0.0010)
Chloromethane	NL	NL	NL	ND(0.0020)	ND(0.0020)	ND(0.0020)
Tetrachloroethene	0.05	30	100	ND(0.0010)	ND(0.0010 J)	ND(0.0010 J)
Trichloroethene	0.005	5	50	ND(0.0010)	0.0013	ND(0.0010)
Total VOCs	5	NL	NL	ND(0.20)	0.0013	ND(0.20)
<b>Semivolatile Organics</b>						
Diethylphthalate	50	9	100	ND(0.0049)	ND(0.0048)	ND(0.0050) [ND(0.0050)]
<b>Furans</b>						
2,3,7,8-TCDF	NL	NL	NL	ND(9.20E-10)	ND(1.60E-09)	ND(1.40E-09)
TCDFs (total)	NL	NL	NL	ND(1.00E-09)	ND(1.30E-09)	ND(1.60E-09)
1,2,3,7,8-PeCDF	NL	NL	NL	ND(5.60E-10)	ND(2.50E-09)	ND(1.10E-09)
2,3,4,7,8-PeCDF	NL	NL	NL	ND(6.00E-10)	ND(2.50E-09)	ND(1.00E-09)
PeCDFs (total)	NL	NL	NL	ND(1.00E-09)	ND(2.30E-09)	ND(1.60E-09)
1,2,3,4,7,8-HxCDF	NL	NL	NL	ND(9.90E-10)	ND(2.10E-09)	ND(1.90E-09)
1,2,3,6,7,8-HxCDF	NL	NL	NL	ND(1.00E-09)	ND(2.00E-09)	ND(1.80E-09)
1,2,3,7,8,9-HxCDF	NL	NL	NL	ND(1.70E-09)	ND(3.00E-09)	ND(2.60E-09)
2,3,4,6,7,8-HxCDF	NL	NL	NL	ND(1.20E-09)	ND(2.20E-09)	ND(2.00E-09)
HxCDFs (total)	NL	NL	NL	ND(2.10E-09)	ND(3.10E-09)	ND(2.70E-09)
1,2,3,4,6,7,8-HpCDF	NL	NL	NL	ND(9.60E-10)	ND(1.10E-09)	ND(1.70E-09)
1,2,3,4,7,8,9-HpCDF	NL	NL	NL	ND(1.70E-09)	ND(1.70E-09)	ND(3.10E-09)
HpCDFs (total)	NL	NL	NL	ND(1.80E-09)	ND(2.50E-09)	ND(3.20E-09)
OCDF	NL	NL	NL	ND(4.50E-09)	ND(7.10E-09)	ND(7.50E-09)
<b>Dioxins</b>						
2,3,7,8-TCDD	NL	NL	NL	ND(1.00E-09)	ND(1.30E-09)	ND(1.60E-09)
TCDDs (total)	NL	NL	NL	ND(9.20E-10)	5.10E-09	ND(1.40E-09)
1,2,3,7,8-PeCDD	NL	NL	NL	ND(1.00E-09)	ND(2.30E-09)	ND(1.60E-09)
PeCDDs (total)	NL	NL	NL	ND(5.80E-10)	7.30E-08 JNX	ND(1.00E-09)
1,2,3,4,7,8-HxCDD	NL	NL	NL	ND(2.20E-09)	ND(2.90E-09)	ND(2.70E-09)
1,2,3,6,7,8-HxCDD	NL	NL	NL	ND(2.00E-09)	ND(3.20E-09)	ND(2.70E-09)
1,2,3,7,8,9-HxCDD	NL	NL	NL	ND(2.10E-09)	ND(3.20E-09)	ND(2.70E-09)
HxCDDs (total)	NL	NL	NL	ND(1.20E-09)	ND(2.30E-09)	ND(2.00E-09)
1,2,3,4,6,7,8-HpCDD	NL	NL	NL	ND(1.80E-09)	ND(2.50E-09)	ND(3.20E-09)
HpCDDs (total)	NL	NL	NL	ND(1.30E-09)	ND(1.30E-09)	ND(2.30E-09)
OCDD	NL	NL	NL	ND(1.10E-08)	ND(1.50E-08)	ND(1.20E-08)
Total TEQs (1998 WHO TEFs)	NL	4.00E-05	4.00E-04	1.60E-09	3.00E-09	2.40E-09

Table 6b

Summary of On-Plant Consolidation Area Groundwater Sample Analytical Results - Fall 2017  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 Groundwater Management Area 4 and On-Plant Consolidation Areas  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)



Well type: Location ID: Date Collected:	METHOD 1 GW-2 STANDARDS	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	GW-2 Benchmark/ GW-3 Compliance OPCA-MW-3R 10/24/17	GW-2 Compliance/ GW-3 Compliance OPCA-MW-4 10/24-11/14/17	GW-2 Compliance/ GW-3 Compliance OPCA-MW-5R 10/20-11/14/17
<b>Inorganics</b>						
Sulfide	NL	NL	NL	ND(2.00)	ND(2.00)	ND(2.00)
<b>Inorganics-filtered</b>						
Antimony	NL	8	80	ND(0.00600)	0.00130 J	ND(0.00600)
Barium	NL	50	100	0.0702 J	0.0216 J	0.0347 J
Cadmium	NL	0.004	0.05	ND(0.00500)	0.000300 J	0.00190 J
Chromium	NL	0.3	3	ND(0.0100)	ND(0.0100)	ND(0.0100)
Cobalt	NL	0.075	NL	0.00120 J	ND(0.0500)	ND(0.0500)
Copper	NL	0.23	NL	0.00240 J	ND(0.0250)	0.00220 J
Cyanide-MADEP (PAC)	NL	0.03	2	ND(0.0100 J)	ND(0.0100 J)	ND(0.0100 J)
Nickel	NL	0.2	2	0.00460 J	ND(0.0400)	0.00110 J
Selenium	NL	0.1	1	ND(0.0100)	ND(0.0100)	ND(0.0100)
Silver	NL	0.007	1	0.00100 J	ND(0.0100)	ND(0.0100)
Vanadium	NL	4	40	ND(0.0500)	ND(0.0500)	0.000700 J
Zinc	NL	0.9	50	ND(0.0200)	ND(0.0200)	0.0413

Table 6b

Summary of On-Plant Consolidation Area Groundwater Sample Analytical Results - Fall 2017  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 Groundwater Management Area 4 and On-Plant Consolidation Areas  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)

Well type: Location ID: Date Collected:	METHOD 1 GW-2 STANDARDS	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	GW-2 Benchmark/ GW-3 Compliance OPCA-MW-6 10/23/17	GW-2 Benchmark/ GW-3 Compliance OPCA-MW-7 10/24-11/14/17	GW-2 Benchmark/ GW-3 Compliance OPCA-MW-8R 10/23-11/14/17
<b>PCBs-Filtered</b>						
Aroclor-1254	NL	NL	NL	ND(0.000094)	0.0026	ND(0.000099)
Aroclor-1260	NL	NL	NL	ND(0.000094)	0.0020	ND(0.000099)
Total PCBs	0.005	0.01	0.1	ND(0.000094)	0.0046	ND(0.000099)
<b>Volatile Organics</b>						
Chloroform	0.05	20	100	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
Chloromethane	NL	NL	NL	ND(0.0020)	ND(0.0020)	0.00058 J [ND(0.0020)]
Tetrachloroethene	0.05	30	100	ND(0.0010 J)	ND(0.0010 J)	ND(0.0010 J) [ND(0.0010 J)]
Trichloroethene	0.005	5	50	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
Total VOCs	5	NL	NL	ND(0.20)	ND(0.20)	0.00058 J [ND(0.20)]
<b>Semivolatile Organics</b>						
Diethylphthalate	50	9	100	ND(0.0048)	0.0040 J	ND(0.0050)
<b>Furans</b>						
2,3,7,8-TCDF	NL	NL	NL	ND(1.50E-09)	ND(1.20E-09)	ND(1.00E-09)
TCDFs (total)	NL	NL	NL	ND(1.20E-09)	ND(1.20E-09)	ND(1.20E-09)
1,2,3,7,8-PeCDF	NL	NL	NL	ND(8.90E-10)	ND(8.10E-10)	ND(5.90E-10)
2,3,4,7,8-PeCDF	NL	NL	NL	ND(8.80E-10)	ND(7.70E-10)	ND(6.40E-10)
PeCDFs (total)	NL	NL	NL	ND(1.50E-09)	ND(1.40E-09)	ND(1.10E-09)
1,2,3,4,7,8-HxCDF	NL	NL	NL	ND(1.40E-09)	ND(1.30E-09)	ND(1.20E-09)
1,2,3,6,7,8-HxCDF	NL	NL	NL	ND(1.40E-09)	ND(1.20E-09)	ND(1.20E-09)
1,2,3,7,8,9-HxCDF	NL	NL	NL	ND(2.20E-09)	ND(1.90E-09)	ND(1.80E-09)
2,3,4,6,7,8-HxCDF	NL	NL	NL	ND(1.60E-09)	ND(1.40E-09)	ND(1.30E-09)
HxCDFs (total)	NL	NL	NL	ND(2.80E-09)	ND(2.50E-09)	ND(2.40E-09)
1,2,3,4,6,7,8-HpCDF	NL	NL	NL	ND(1.00E-09)	2.60E-09 JNX	ND(9.50E-10)
1,2,3,4,7,8,9-HpCDF	NL	NL	NL	ND(1.60E-09)	ND(8.80E-10)	ND(1.60E-09)
HpCDFs (total)	NL	NL	NL	ND(1.30E-09)	ND(1.40E-09)	ND(1.50E-09)
OCDF	NL	NL	NL	ND(7.20E-09)	ND(5.60E-09)	ND(6.30E-09)
<b>Dioxins</b>						
2,3,7,8-TCDD	NL	NL	NL	ND(1.20E-09)	ND(1.20E-09)	ND(1.20E-09)
TCDDs (total)	NL	NL	NL	ND(1.50E-09)	ND(1.20E-09)	ND(1.00E-09)
1,2,3,7,8-PeCDD	NL	NL	NL	ND(1.50E-09)	ND(1.40E-09)	ND(1.10E-09)
PeCDDs (total)	NL	NL	NL	3.30E-09 JNX	ND(7.90E-10)	ND(6.10E-10)
1,2,3,4,7,8-HxCDD	NL	NL	NL	ND(2.70E-09)	ND(2.40E-09)	ND(2.30E-09)
1,2,3,6,7,8-HxCDD	NL	NL	NL	ND(2.80E-09)	ND(2.50E-09)	ND(2.40E-09)
1,2,3,7,8,9-HxCDD	NL	NL	NL	ND(2.90E-09)	ND(2.60E-09)	ND(2.50E-09)
HxCDDs (total)	NL	NL	NL	ND(1.60E-09)	3.00E-09	ND(1.40E-09)
1,2,3,4,6,7,8-HpCDD	NL	NL	NL	ND(1.30E-09)	ND(1.40E-09)	ND(1.50E-09)
HpCDDs (total)	NL	NL	NL	ND(1.30E-09)	4.40E-09 JNX	ND(1.20E-09)
OCDD	NL	NL	NL	ND(1.50E-08)	2.40E-08 J	ND(1.50E-08)
Total TEQs (1998 WHO TEFs)	NL	4.00E-05	4.00E-04	2.10E-09	1.90E-09	1.80E-09



Table 6b

**Summary of On-Plant Consolidation Area Groundwater Sample Analytical Results - Fall 2017**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**Groundwater Management Area 4 and On-Plant Consolidation Areas**  
**General Electric Company - Pittsfield, Massachusetts**  
**(Results are presented in parts per million, ppm)**

Well type: Location ID: Date Collected:	METHOD 1 GW-2 STANDARDS	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	GW-2 Benchmark/ GW-3 Compliance OPCA-MW-6 10/23/17	GW-2 Benchmark/ GW-3 Compliance OPCA-MW-7 10/24-11/14/17	GW-2 Benchmark/ GW-3 Compliance OPCA-MW-8R 10/23-11/14/17
<b>Inorganics</b>						
Sulfide	NL	NL	NL	ND(2.00)	ND(2.00)	ND(2.00)
<b>Inorganics-filtered</b>						
Antimony	NL	8	80	ND(0.00600)	ND(0.00600)	ND(0.00600)
Barium	NL	50	100	0.0113 J	0.0600 J	0.124 J
Cadmium	NL	0.004	0.05	ND(0.00500)	0.000700 J	ND(0.00500)
Chromium	NL	0.3	3	ND(0.0100)	0.00380 J	ND(0.0100)
Cobalt	NL	0.075	NL	ND(0.0500)	0.000300 J	ND(0.0500)
Copper	NL	0.23	NL	0.00170 J	0.00160 J	ND(0.0250)
Cyanide-MADEP (PAC)	NL	0.03	2	ND(0.0100 J)	ND(0.0100 J)	ND(0.0100 J)
Nickel	NL	0.2	2	ND(0.0400)	0.0215 J	0.0123 J
Selenium	NL	0.1	1	ND(0.0100)	0.00290 J	ND(0.0100)
Silver	NL	0.007	1	ND(0.0100)	ND(0.0100)	ND(0.0100)
Vanadium	NL	4	40	ND(0.0500)	ND(0.0500)	ND(0.0500)
Zinc	NL	0.9	50	0.0192 J	ND(0.0200)	ND(0.0200)

**Notes:**

1. Samples were collected by Arcadis and submitted to SGS Environmental Services, Inc. for laboratory analysis in Fall 2017.
2. Samples have been validated as per Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), General Electric Company, Pittsfield, Massachusetts, Arcadis (revised on July 2, 2013 and approved by EPA on July 23, 2013).
3. With the exception of dioxin/furans sulfide and cyanide only those constituents detected in one or more samples are summarized.
4. Field duplicate sample results are presented in brackets.
5. Cyanide-MADEP (PAC) was not filtered in the field/lab in fall 2017 but was reported under filtered inorganics parameters.
6. NA = Not Analyzed.
7. ND - Analyte was not detected. The number in parentheses is the associated reporting limit.
8. NL - Not Listed.
9. Bold values indicate a GW-2 criteria exceedance and shaded values indicate a GW-3 criteria exceedance.
10. Total VOCs at GW-2 wells are being compared to the notification level in the SOW of 5 ppm, as there is no GW-2 standard for Total VOCs.
11. The listed Method 2 GW-3 standards for filtered cobalt and copper were approved for use at all GMAs by EPA in a letter to GE dated July 30, 2008.

Data Qualifiers:Organics (volatiles, PCBs, semivolatiles, dioxin/furans)

J - Indicates that the associated numerical value is an estimated concentration.

R - Data was rejected due to a deficiency in the data generation process.

JNX - The ion abundance ratio is outside criteria; estimated maximum possible concentration has been reported.

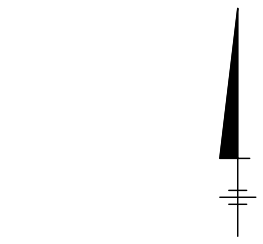
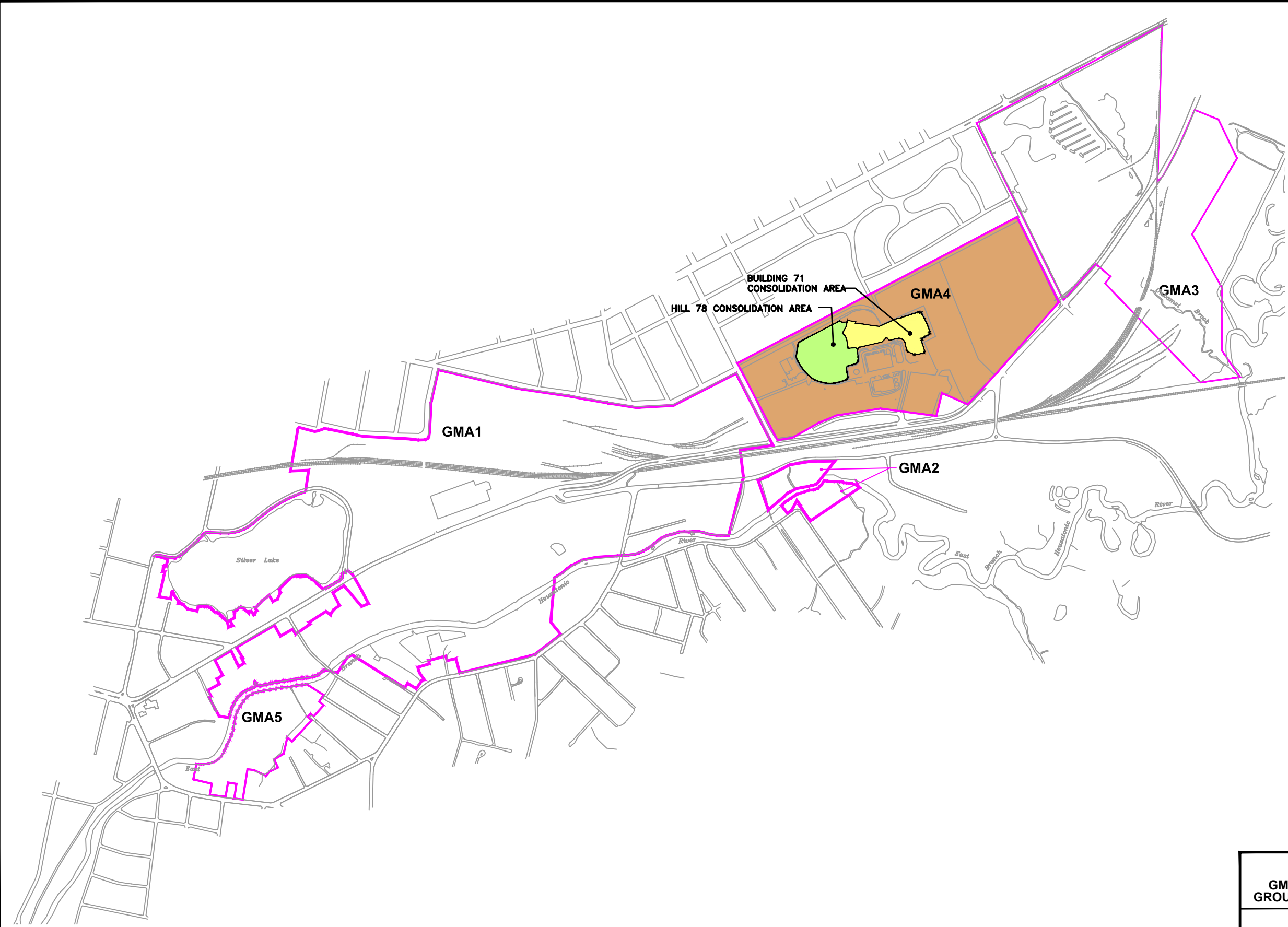
Inorganics

J - Indicates that the associated numerical value is an estimated concentration.

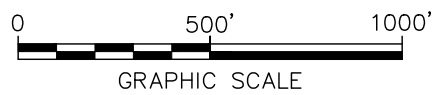
# FIGURES



CITY: SYRACUSE, NY DIV/GROUP: EBC-IMDV DB: K.SARTORI PIC: P.FARR PM: C.AVERIL TM: C.KASSEL LYR: Option="OFF=REF" PLOTTED: 7/20/2017 2:32 PM BY: SARTORI, KATHERINE  
 Z:\GEP\PRJ\ENVCAD\SYRACUSE\ACT\CALL1011333000\GE-Pittsfield\GMA4-OPCAV\101133301.dwg LAYOUT: 1 SAVED: 7/20/2017 2:31 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: --- PLOTSTYLETABLE: ---



- GMA1 GMA1-PLANT SITE 1
- GMA3 GMA 3-PLANT SITE 2
- GMA4 GMA 4-PLANT SITE 3
- GMA5 GMA 5-FORMER OXBOWS A&C
- NON-TSCA/NON-RCRA AREA
- TSCA/RCRA AREA



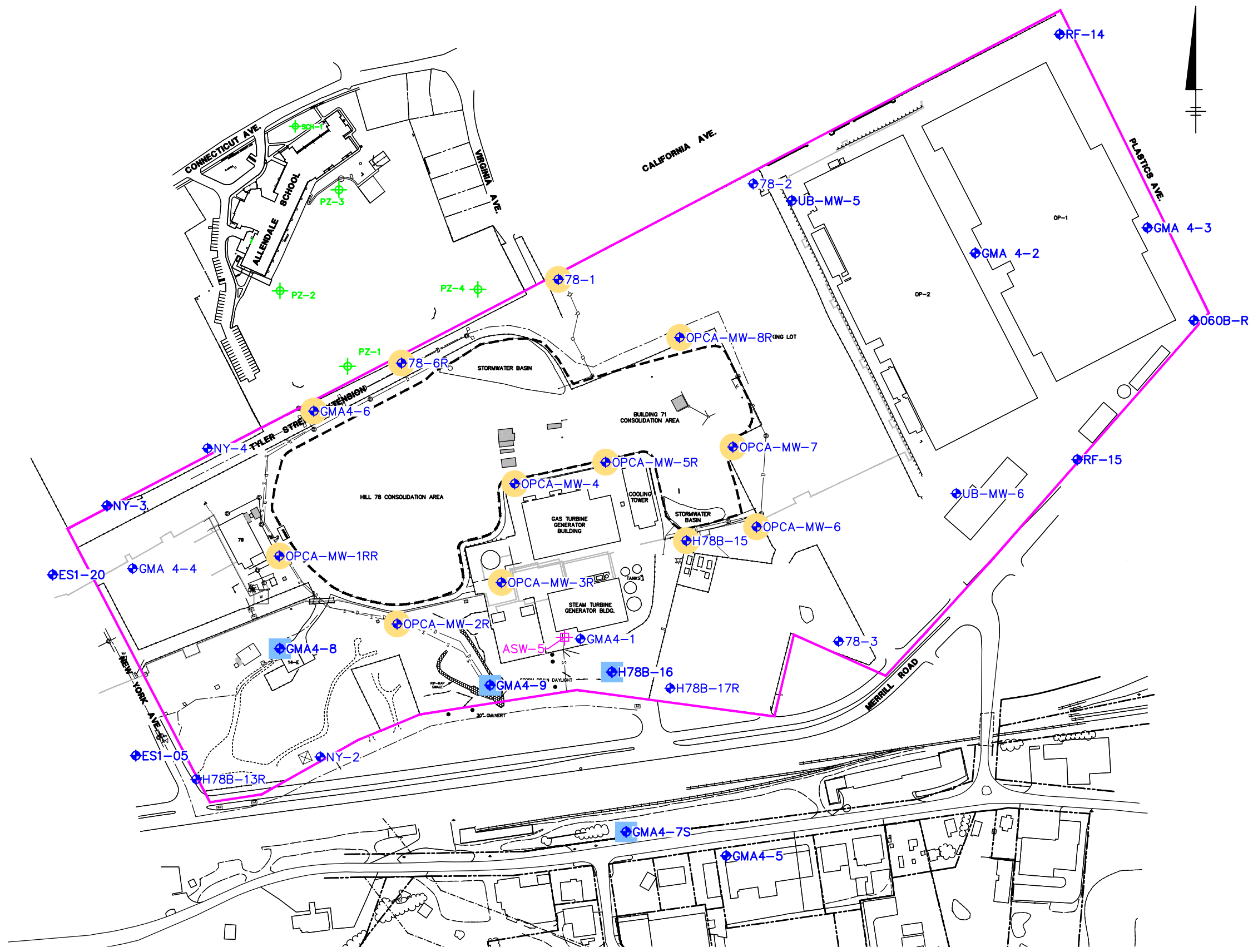
GENERAL ELECTRIC COMPANY  
 PITTSFIELD, MASSACHUSETTS  
**GMA 4 LONG-TERM AND OPCA POST-CLOSURE  
 GROUNDWATER QUALITY MONITORING PROGRAMS**

**SITE PLAN**



CITY: SYRACUSE NY DIV/GRUP: EBC-IMDV DE: K SARTORI PIC: P FARR PM: C KASSEL LXR: OPHON OFF=REF: C:\Users\Ksartori\OneDrive - ARCADIS\BIM 360 Docs\IANA-GE\GE CORP ENV /PROG\GE PITTSFIELD GW AND NAPL MONITORING\2018\ALL\10113.300001-DWG\GMA4-OPCA\GMA4-OPCA\GMA4-OPCA.dwg LAYOUT: 2 SAVED: 1/15/2018 12:45 PM ACADVER: 20.15 (LMS TECH) PAGES: 1 OF 1 PLOTSTYLETABLE: PLOTSTYLETABLE

XREFS: IMAGES: 3/20/2007 3/20/2002 3/20/2010 ALL 10113XLB




- LEGEND**
- APPROXIMATE GROUNDWATER MANAGEMENT AREA 4 BOUNDARY
  - ◆ MONITORING WELL
  - ⊕ PZ-1 EXISTING MONITORING WELL/PIEZOMETER MONITORED BY EPA
  - ⊕ ASW-5 INDUSTRIAL WELL SUPPLY
  - WELL SAMPLED IN SPRING 2017 AS PART OF THE OPCA PROGRAM
  - WELL SAMPLED IN SPRING 2017 AS PART OF THE GMA 4 PROGRAM

- NOTES**
1. MAPPING IS BASED ON AUTOCAD DRAWING FILE (PLANT3.CAD) AS PROVIDED BY GE AND ADDITIONAL INFORMATION FROM THE MCP PHASE II SCOPE OF WORK AND PROPOSAL FOR THE RCRA FACILITY INVESTIGATION O'BRIEN & GERE ENGINEERS, INC., FEBRUARY 1996) AS WELL AS SUPPLEMENTAL SITE SURVEY INFORMATION OBTAINED BY HILL ENGINEERS, PLANNERS & ARCHITECTS (WEEK OF MAY 29, 1997). LOCATIONS EAST OF THE PARKING LOT DIGITIZED FROM MARCH 2000 AIR PHOTO AND ARE APPROXIMATE.
  2. NOT ALL PHYSICAL FEATURES SHOWN.
  3. SITE BOUNDARY IS APPROXIMATE.
  4. ALL MONITORING WELL LOCATIONS ARE APPROXIMATE.

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PITTSFIELD, MASSACHUSETTS  
**GMA 4 LONG-TERM AND OPCA POST-CLOSURE  
GROUNDWATER QUALITY MONITORING PROGRAMS**

**MONITORING WELL LOCATIONS  
FALL 2017**

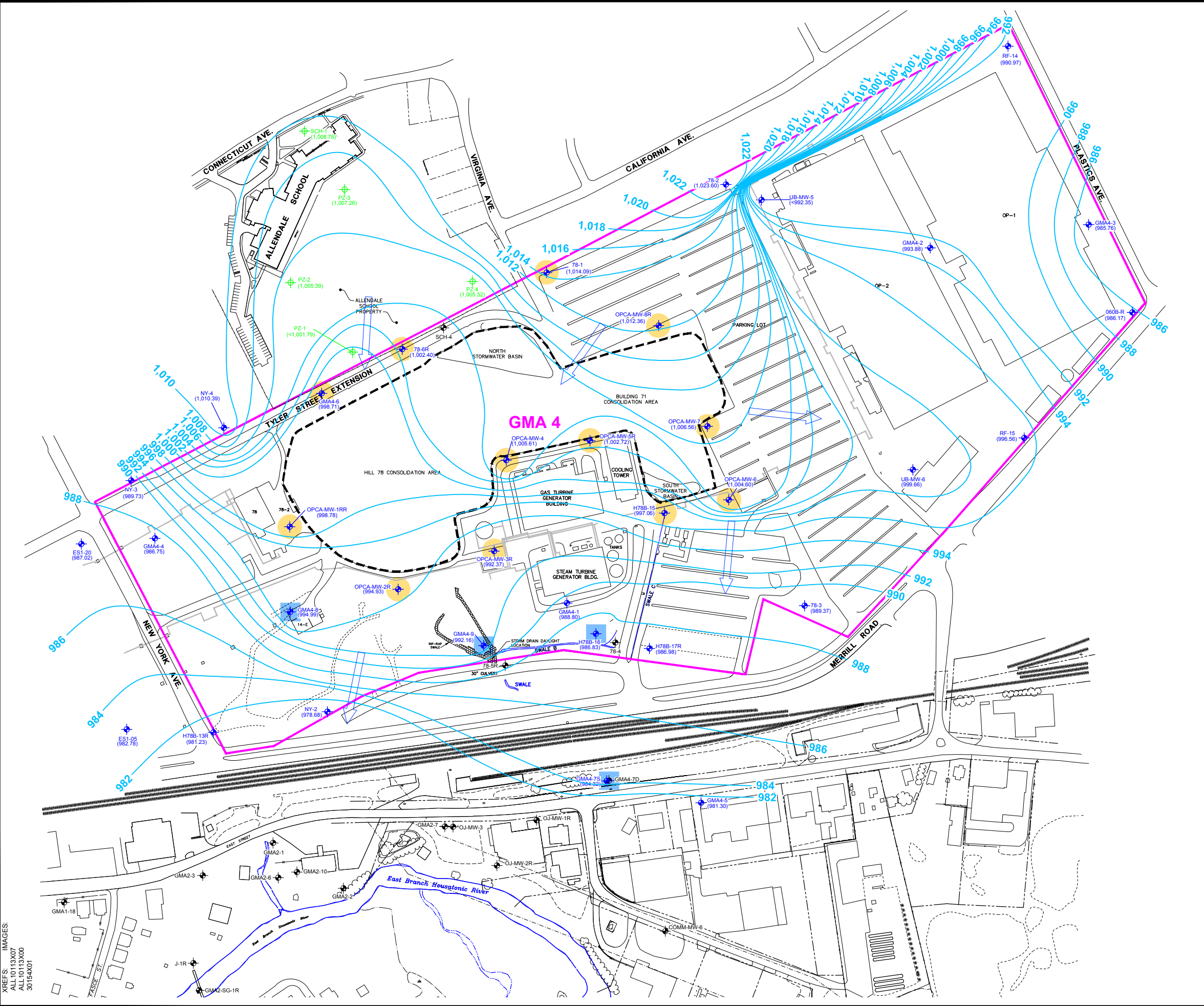


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FIGURE  
**2**



CITY: SYRACUSE NY GROUP: EBC-INDV DR: K.SARTORI PIC: P. FARR PM: C. AVERIL TM: C. KASSEL LYRON: OFF-REF (FRZ)  
 C:\Users\Ksartori\OneDrive - ARCADIS\BIM\360 Docs\ANA-GE/GE CORP ENV PROG/GE PITTSFIELD GW AND NAPL MONITORING\2018\10113.300001-DWG\GMA4-OPCA\ALL10113\W03.dwg LAYOUT: 3 SAVED: 1/25/2018 3:35 PM ACADVER: 2015 (LMS TECH) PAGES: 1 OF 1 PLOTSTYLETABLE: PLOTTED: 1/25/2018 3:35 PM BY: SARTORI, KATHERINE



- LEGEND:**
- APPROXIMATE GROUNDWATER MANAGEMENT AREA 2 BOUNDARY
  - APPROXIMATE GROUNDWATER MANAGEMENT AREA 4 BOUNDARY
  - - - BOUNDARY OF BUILDING 71 AND HILL 78 ON-PLANT CONSOLIDATION AREAS REMOVAL ACTION AREA
  - FENCE LINE
  - ◆ GMA4-3 (985.76) GROUNDWATER ELEVATION MONITORING WELL
  - ⊕ 78-4 EXISTING MONITORING WELL
  - ⊕ PZ-1 EXISTING WELL/PIEZOMETER MONITORED BY EPA
  - ⊕ GMA2-SG-1 BRIDGE REFERENCE POINT
  - WELL SAMPLED IN FALL 2017 AS PART OF THE OPCA PROGRAM
  - WELL SAMPLED IN FALL 2017 AS PART OF THE GMA 4 PROGRAM
  - WATER TABLE ELEVATION CONTOUR
  - ← GROUNDWATER FLOW

- NOTES:**
1. MAPPING BASED ON AUTOCAD DRAWING FILE (PLANT3.CAD) AS PROVIDED BY GE AND ADDITIONAL INFORMATION FROM THE MCP PHASE II SCOPE OF WORK AND PROPOSAL FOR RCRA FACILITY INVESTIGATION (O'BRIEN & GERE ENGINEERS, INC., FEBRUARY 1996) AS WELL AS SUPPLEMENTAL SITE SURVEY INFORMATION OBTAINED BY HILL ENGINEERS, PLANNERS & ARCHITECTS (WEEK OF MAY 29, 1997). LOCATIONS EAST OF THE PARKING LOT DIGITIZED FROM MARCH 2000 AIR PHOTO AND ARE APPROXIMATE.
  2. ALL LOCATIONS ARE APPROXIMATE.
  3. GROUNDWATER ELEVATION IN FEET COLLECTED OCTOBER 18, 2017

GENERAL ELECTRIC COMPANY  
 PITTSFIELD, MASSACHUSETTS  
**GMA 4 LONG-TERM AND OPCA POST-CLOSURE  
 GROUNDWATER QUALITY MONITORING PROGRAMS**

**GROUNDWATER CONTOUR MAP -  
 FALL 2017**

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FIGURE  
**3**

# APPENDIX A

Well Maintenance, Groundwater Sampling Logs, and  
OPCA-MW-3/3R Logs



Table A-1  
 Monitoring Well Inventory Summary - Fall 2017  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 Groundwater Management Area 4 and On-Plant Consolidation Areas  
 General Electric Company - Pittsfield, Massachusetts



Well Name	Fall Date of Inventory	As-Built Elevation at Base of Well <sup>2</sup>	Spring 2017 Measured Elevation at Base of Well	Fall 2017 Measured Elevation at Base of Well	Fall 2017 Difference From As-Built Base of Well Elevation (feet)	Date(s) of Completed Maintenance	Fall 2017 Maintenance
<b>GMA 4</b>							
060B-R	10/18/2017	980.63	980.45	980.47	-0.16		
GMA4-2	10/18/2017	986.63	986.85	986.86	0.23		
GMA4-3	10/18/2017	978.05	978.01	978.02	-0.03		
GMA4-3	10/18/2017	978.05	978.01	978.02	-0.03		
GMA4-8	10/18/2017	988.60	988.49	988.57	-0.03		
GMA4-9	10/18/2017	984.50	984.19	984.22	-0.28		
H78B-16	10/18/2017	982.00	982.14	982.21	0.21		
NY-3	10/16/2017	980.67	980.76	980.69	0.02		
RF-14	10/18/2017	979.90	979.11	979.23	-0.67		
RF-15	10/18/2017	991.42	992.11	992.19	0.77		
UB-MW-5	10/18/2017	988.61	992.33	992.35	3.74		Although there is greater than one foot of sediment, this well has been dry, preventing sediment removal.
<b>East Street Area 2 North- Adjacent Area for GMA 4</b>							
ES1-05	10/16/2017	978.39	978.92	979.01	0.62		
ES1-20	10/16/2017	981.82	982.38	982.40	0.58		
<b>Commercial Street Site</b>							
GMA4-5	10/18/2017	975.56	975.28	975.25	-0.31		
<b>Wells Downgradient of GMA 4</b>							
GMA4-7S	10/18/2017	974.60	974.94	974.93	0.33	Pending	Replace bolts.
<b>OPCAs</b>							
78-1	10/18/2017	1004.40	1003.91	1003.94	-0.46		
78-2	10/18/2017	1013.90	1013.31	1013.80	-0.10		
78-3	10/18/2017	983.10	988.27	982.07	-1.03	Pending	Replace bolts. A review of Spring 2017 data shows that depth to bottom measurement reported in Spring 2017 was erroneous. The fall 2017 measurement is consistent with previous seasons' values.
78-6R	10/18/2017	994.03	993.67	993.76	-0.27		
GMA4-1	10/18/2017	984.05	983.94	983.98	-0.07		
GMA4-4	10/18/2017	976.60	976.55	976.52	-0.08		
GMA4-6	10/18/2017	996.62	996.76	996.81	0.19		
H78B-13R	10/18/2017	973.23	972.96	972.97	-0.26		
H78B-15	10/18/2017	993.80	994.45	994.48	0.68		
H78B-17R	10/18/2017	975.91	973.42	975.52	-0.39	8/15/2017	Resurveyed.
NY-2	10/18/2017	970.42	969.95	969.92	-0.50		
NY-4	10/18/2017	992.80	993.13	993.18	0.38		
OPCA-MW-1RR	10/18/2017	988.33	988.32	988.20	-0.13		
OPCA-MW-2R	10/18/2017	991.50	991.61	991.58	0.08		
OPCA-MW-3R	10/18/2017	971.01	NA	970.38	-0.63	8/15/2017	Surveyed.
OPCA-MW-4	10/18/2017	997.20	997.23	997.10	-0.10		
OPCA-MW-5R	10/18/2017	995.39	994.60	994.60	-0.79		
OPCA-MW-6	10/18/2017	997.70	997.96	997.97	0.27		
OPCA-MW-7	10/18/2017	1002.90	1002.95	1002.92	0.02	Pending	Replace bolts.
OPCA-MW-8R	10/18/2017	1003.20	1003.81	1003.87	0.67		
UB-MW-6	10/18/2017	984.55	985.29	985.29	0.74		

**Notes:**

1. This table only includes those monitoring wells that were inspected, monitored, or maintained during the Fall 2017 monitoring event.
2. "As-Built Depth to Bottom" represents the calculated base of well at construction from the current measuring point or the base of well measured following re-development.
3. NA: Not Applicable



GROUNDWATER SAMPLING LOG

Well No. GMA4-6  
 Key No. yes  
 PID Background (ppm) 0.0  
 Well Headspace (ppm) 0.4

Site/GMA Name GE Pittsfield - GMA4  
 Sampling Personnel Penny Rawas  
 Date 10/20/17  
 Weather clear, sunny, 55° F

WELL INFORMATION

Reference Point Marked?  Y  N  
 Height of Reference Point \_\_\_\_\_ Meas. From \_\_\_\_\_  
 Well Diameter 2"  
 Screen Interval Depth 2.5-12.5 Meas. From TIC  
 Water Table Depth 10.43 Meas. From TIC  
 Well Depth 12.09 Meas. From TIC  
 Length of Water Column 1.66  
 Volume of Water in Well 0.271 Gallons  
 Intake Depth of Pump/Tubing 11.09' Meas. From TK

Sample Time 12:00  
 Sample ID GMA4-6  
 Duplicate ID DUP-OPCA-2-102017  
 MS/MSD \_\_\_\_\_  
 Split Sample ID \_\_\_\_\_

Reference Point Identification:

TIC: Top of Inner (PVC) Casing BMP: Below Measuring Point  
 TOC: Top of Outer (Protective) Casing ft: feet  
 Grade/BGS: Ground Surface gal: gallons  
 ppm: parts per million

- |                                     |                                |                     |
|-------------------------------------|--------------------------------|---------------------|
| Required                            | Analytical Parameters:         | # Bottles Collected |
| <input checked="" type="checkbox"/> | VOCs (Standard List)           | (3)                 |
| <input type="checkbox"/>            | VOCs (Expanded List)           | ( )                 |
| <input checked="" type="checkbox"/> | SVOCs                          | (1)                 |
| <input type="checkbox"/>            | PCBs (Unfiltered)              | ( )                 |
| <input checked="" type="checkbox"/> | PCBs (Filtered) <u>by lab</u>  | (2)                 |
| <input checked="" type="checkbox"/> | Metals/Inorganics (Unfiltered) | (1)                 |
| <input type="checkbox"/>            | Metals/Inorganics (Filtered)   | ( )                 |
| <input type="checkbox"/>            | Total Cyanide (Unfiltered)     | ( )                 |
| <input type="checkbox"/>            | Total Cyanide (Filtered)       | ( )                 |
| <input checked="" type="checkbox"/> | PAC Cyanide (Filtered) + Dup   | (2)                 |
| <input type="checkbox"/>            | PCDDs/PCDFs                    | (2)                 |
| <input type="checkbox"/>            | Pesticides/Herbicides          | ( )                 |
| <input type="checkbox"/>            | Natural Attenuation            | ( )                 |
| <input checked="" type="checkbox"/> | Other sulfide                  | (3)                 |

Redevelop? Y  N

Additional well maintenance needed? Y  N (if yes, describe below)

EVACUATION INFORMATION

Pump Start Time 10:30  
 Pump Stop Time 12:50  
 Minutes of Pumping 140 PTP  
 Volume of Water Removed 5.55 gallons 5.55 gal  
 Did Well Go Dry? Y  N

Evacuation Method: Bailer ( ) Bladder Pump ( )  
 Peristaltic Pump (  ) Submersible Pump ( ) Other/Specify ( )  
 Pump Type: Geo pump  
 Samples collected by same method as evacuation?  Y  N (specify)

Water Quality Meter Type(s) / Serial Numbers: YSI #: 28197 HACH/LaMotte #: 024770  
 Air Quality Meter Type(s)/Serial Numbers: 012680  
 Water Level Meter Type(s)/Serial Numbers: Pine 900418

Time	Pump Rate (mL/min.)	Total Gallons Removed	Water Level (ft TIC)	Temp. (Celsius) [3%]*	pH [0.1 units]*	Sp. Cond. (mS/cm) [3%]*	Turbidity (NTU) [10% or 1 NTU]*	DO (mg/l) [10% or 0.1 mg/l]*	ORP (mV) [10 mV]*
1030	200	0.26	10.43				56.2		
1035	200	0.52	10.71	14.74	6.66	1.121	24.1	2.00	253.4
1040	150	0.72	10.79	14.61	6.68	1.114	9.34	0.48	247.3
1045	150	0.92	10.79	14.70	6.77	1.115	4.58	0.37	210.3
1050	150	1.12	10.80	14.72	6.81	1.115	2.83	0.28	198.2
1055	150	1.32	10.81	14.74	6.84	1.115	2.08	0.24	176.7
1100	150	1.52	10.78	14.88	6.86	1.116	1.98	0.23	156.8
1105	150	1.72	10.78	15.11	6.88	1.121	1.27	0.25	135.4

\* The stabilization criteria for each field parameter (three consecutive readings collected at 3- to 5-minute intervals) is listed in each column heading.  
 OBSERVATIONS/SAMPLING METHOD DEVIATIONS Intake depth was set at 1.0 foot above bottom based on length of water column and historical data for well on drawdown history.

SAMPLE DESTINATION

Laboratory: \_\_\_\_\_  
 Delivered Via: \_\_\_\_\_  
 Airbill #: \_\_\_\_\_

Field Sampling Coordinator: L. Pitman

GROUNDWATER SAMPLING LOG

Well No. GMA 4-6

Site/GMA Name GE Pittsfield - GMA 4  
 Sampling Personnel Penny Rabasco  
 Date 10/20/17  
 Weather Sunny, 59° F

WELL INFORMATION - See Page 1

Time	Pump Rate (mL/min.)	Total Gallons Removed	Water Level (ft TIC)	Temp. (Celsius) [3%]*	pH [0.1 units]*	Sp. Cond. (mS/cm) [3%]*	Turbidity (NTU) [10% or 1 NTU]*	DO (mg/l) [10% or 0.1 mg/l]*	ORP (mV) [10 mV]*
1110	150	1.92	10.78	15.15	6.89	1.122	1.26	0.24	123.8
1115	150	2.12	10.78	15.15	6.89	1.121	0.90	0.17	112.2
1120	150	2.32	10.76	15.27	6.89	1.124	0.92	0.16	100.9
1125	150	2.52	10.76	15.35	6.90	1.125	0.75	0.15	90.5
1130	150	2.72	10.76	15.40	6.90	1.126	0.60	0.15	84.2
1135	150	2.92	10.77	15.46	6.90	1.128	0.48	0.21	76.9
1140	150	3.12	10.77	15.51	6.90	1.129	0.37	0.16	68.0
1145	150	3.32	10.77	15.44	6.90	1.128	0.39	0.13	64.5
1150	150	3.52	10.77	15.36	6.89	1.125	0.55	0.12	60.2
1155	150	3.72	10.77	15.44	6.89	1.128	0.39	0.15	55.1
All Parameters Stabilized - Sample Time 12:00									

\* The stabilization criteria for each field parameter (three consecutive readings collected at 3- to 5-minute intervals) is listed in each column heading.

OBSERVATIONS/SAMPLING METHOD DEVIATIONS \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

GROUNDWATER SAMPLING LOG

Well No. GMA4-8 Site/GMA Name GE/GMA4  
 Key No. yes Sampling Personnel A. Gibson  
 PID Background (ppm) 0.0 Date 10/23/17  
 Well Headspace (ppm) 0.0 Weather 63°F, cloudy, 30.18 in Hg

WELL INFORMATION

Reference Point Marked? Ⓧ N  
 Height of Reference Point -0.43 Meas. From TIC  
 Well Diameter 2 1/8 in  
 Screen Interval Depth 9.52-31.52 ft Meas. From TIC  
 Water Table Depth 25.41 ft Meas. From TIC  
 Well Depth 31.88 ft Meas. From TIC  
 Length of Water Column 6.47 ft  
 Volume of Water in Well 1.05 gal.  
 Intake Depth of Pump/Tubing 28.65 ft Meas. From TIC

Sample Time 1543  
 Sample ID GMA4-8  
 Duplicate ID DUP-GMA4-1-102317  
 MS/MSD GMA4-8-MS; GMA4-8-MSD  
 Split Sample ID -

Reference Point Identification:

TIC: Top of Inner (PVC) Casing  
 TOC: Top of Outer (Protective) Casing  
 Grade/BGS: Ground Surface

Required	Analytical Parameters:	# Bottles Collected
( )	VOCs (Standard List)	( )
( )	VOCs (Expanded List)	( )
( )	SVOCs	( )
( )	PCBs (Unfiltered)	( )
( )	PCBs (Filtered)	( )
( )	Metals/Inorganics (Unfiltered)	( )
( )	Metals/Inorganics (Filtered)	( )
( )	Total Cyanide (Unfiltered)	( )
( )	Total Cyanide (Filtered)	( )
( )	PAC Cyanide (Filtered)	( )
( )	PCDDs/PCDFs	( )
( )	Pesticides/Herbicides	( )
( )	Natural Attenuation	( )
( <u>X</u> )	Other <u>Dissolved Cadmium</u>	( <u>3</u> ) + 1 for Dup

Redevelop? Y N

Additional well maintenance needed? Y N (if yes, describe below)

EVACUATION INFORMATION

Pump Start Time 1416  
 Pump Stop Time 1553  
 Minutes of Pumping 97  
 Volume of Water Removed 3.5 gal  
 Did Well Go Dry? Y Ⓧ

Evacuation Method: Bailer ( ) Bladder Pump ( )  
 Peristaltic Pump (X) Submersible Pump ( ) Other/Specify ( )  
 Pump Type: Geopump Easyload II  
 Samples collected by same method as evacuation? Ⓧ N (specify)

Water Quality Meter Type(s) / Serial Numbers: YSI # 96C2658 HACH/LabMotta #: 40317  
 Air Quality Meter Type(s)/Serial Numbers: Mhi Rae 2000: 110-005310  
 Water Level Meter Type(s)/Serial Numbers: Solinst Water Level Meter: 32208

Time	Pump Rate (mL/min.)	Total Gallons Removed	Water Level (ft TIC)	Temp. (Celsius) [3%]*	pH [0.1 units]*	Sp. Cond. (mS/cm) [3%]*	Turbidity (NTU) [10% or 1 NTU]*	DO (mg/l) [10% or 0.1 mg/l]*	ORP (mV) [10 mV]*
1421	100	0.133	25.51	13.94	6.75	1.774	24.3	0.61	172.0
1426	100	0.266	26.05	14.13	6.74	1.786	28.1	0.47	167.6
1431	300	0.677	26.54	13.29	6.78	1.740	11.3	0.30	161.6
1436	100	0.800	26.79	14.61	6.81	1.809	9.97	0.41	148.2
1441	100	0.923	26.86	14.63	6.80	1.817	11.59	0.42	143.3
1446	300	1.244	27.18	13.17	6.83	1.773	7.38	0.25	138.6
1451	100	1.427	27.25	13.71	6.83	1.761	3.41	0.27	137.0
1456	100	1.560	27.39	14.49	6.83	1.820	2.39	0.33	136.2

\* The stabilization criteria for each field parameter (three consecutive readings collected at 3- to 5-minute intervals) is listed in each column heading.

OBSERVATIONS/SAMPLING METHOD DEVIATIONS

19 inches, Hg = mercury, °F = degrees Fahrenheit, At 1426 pump rate raised to 300 mL/min. in order to find a stable drawdown, at 1431 pump rate returned to 100 mL/min. At 1441 pump rate raised to 300 mL/min to find a stable drawdown.

SAMPLE DESTINATION

Laboratory: \_\_\_\_\_  
 Delivered Via: \_\_\_\_\_  
 Airbill #: \_\_\_\_\_

Field Sampling Coordinator: Pitman A. Gibson

GROUNDWATER SAMPLING LOG

Well No. GMA4-8

Site/GMA Name GE/GMA4  
 Sampling Personnel A. Gibson  
 Date 10/23/17  
 Weather 63°F, Cloudy, 30.18 in. Hg

WELL INFORMATION - See Page 1

Time	Pump Rate (mL/min.)	Total Gallons Removed	Water Level (ft TIC)	Temp. (Celsius) [3%]*	pH [0.1 units]*	Sp. Cond. (mS/cm) [3%]*	Turbidity (NTU) [10% or 1 NTU]*	DO (mg/l) [10% or 0.1 mg/l]*	ORP (mV) [10 mV]*
1501	300	1.921	27.94	13.02	6.81	1.773	3.44	0.22	135.4
1506	100	2.054	27.93	14.16	6.82	1.822	2.19	0.33	132.4
1511	100	2.187	28.04	14.82	6.81	1.860	1.74	0.35	131.5
1516	100	2.320	28.11	14.61	6.80	1.857	1.23	0.37	131.6
1521	100	2.453	28.24	14.49	6.80	1.856	1.43	0.31	131.5
1526	300	2.814	28.55	13.39	6.81	1.824	4.35	0.29	134.8
1531	100	2.947	28.50	14.01	6.89	1.842	1.74	0.25	133.4
1536	100	3.080	28.44	14.18	6.89	1.856	1.58	0.19	134.3
1541	100	3.213	28.44	14.22	6.91	1.855	1.43	0.21	134.8

\* The stabilization criteria for each field parameter (three consecutive readings collected at 3- to 5-minute intervals) is listed in each column heading.

OBSERVATIONS/SAMPLING METHOD DEVIATIONS At 1456 pump rate increased to 300ml/min to find stable drawdown, At 1446 pump rate returned to 100ml/min, At 1501 pump rate returned to 100ml/min. At 1521 pump rate increased to 300ml/min pump intake lowered to 29.88ft to keep submerged, At 1526 pump rate returned to 100ml/min, MS/MSD + DWP collected



GROUNDWATER SAMPLING LOG

Well No. 78-1 Site/GMA Name GE Pittsfield / OPCA  
 Key No. yes Sampling Personnel M. Mackenzie  
 PID Background (ppm) 0.0 ppm Date 10-20-17  
 Well Headspace (ppm) 0.0 ppm Weather Sunny 45°F

WELL INFORMATION

Reference Point Marked?  Y  N  
 Height of Reference Point -0.28 Meas. From TIC  
 Well Diameter 4.11  
 Screen Interval Depth 6.92-21.92 Meas. From TIC  
 Water Table Depth 12.80 Meas. From TIC  
 Well Depth 22.16 Meas. From TIC  
 Length of Water Column 9.86  
 Volume of Water in Well 6.439 gals  
 Intake Depth of Pump/Tubing 17.00 Meas. From TIC

Sample Time 1400  
 Sample ID 78-1  
 Duplicate ID JWP-OPCA-4-102017  
 MS/MSD 78-1-molmsd  
 Split Sample ID ---

Reference Point Identification:

TIC: Top of Inner (PVC) Casing BMP: Below Measuring Point  
 TOC: Top of Outer (Protective) Casing ft: feet  
 Grade/BGS: Ground Surface gal: gallons  
 ppm: parts per million

Redevelop? Y  N

Additional well maintenance needed? Y  N (if yes, describe below)

Required	Analytical Parameters:	# Bottles Collected
<input checked="" type="checkbox"/>	VOCs (Standard List)	(3)
<input type="checkbox"/>	VOCs (Expanded List)	( )
<input checked="" type="checkbox"/>	SVOCs	(1)
<input type="checkbox"/>	PCBs (Unfiltered)	( )
<input checked="" type="checkbox"/>	PCBs (Filtered)	(2)
<input type="checkbox"/>	Metals/Inorganics (Unfiltered)	( )
<input checked="" type="checkbox"/>	Metals/Inorganics (Filtered)	(4)
<input type="checkbox"/>	Total Cyanide (Unfiltered)	( )
<input type="checkbox"/>	Total Cyanide (Filtered)	( )
<input checked="" type="checkbox"/>	PAC Cyanide (Filtered)	(1)
<input checked="" type="checkbox"/>	PCDDs/PCDFs	(2)
<input type="checkbox"/>	Pesticides/Herbicides	( )
<input type="checkbox"/>	Natural Attenuation	( )
<input checked="" type="checkbox"/>	Other <u>Sulfide</u>	(3)

EVACUATION INFORMATION

Pump Start Time 1025  
 Pump Stop Time 1500  
 Minutes of Pumping 475  
 Volume of Water Removed 148200  
 Did Well Go Dry? Y  N ACC

Evacuation Method: Bailer ( ) Bladder Pump ( )  
 Peristaltic Pump  Submersible Pump ( ) Other/Specify ( )  
 Pump Type: Geopump 6277  
 Samples collected by same method as evacuation? Y  N (specify)

Water Quality Meter Type(s) / Serial Numbers: YSI #: 11d102401 HACH/LaMotte #: 3054  
 Air Quality Meter Type(s)/Serial Numbers: Mini Rae 9553  
 Water Level Meter Type(s)/Serial Numbers: Solinst # 04420

Time	Pump Rate (mL/min)	Total Gallons Removed	Water Level (ft TIC)	Temp. (Celsius) [3%]*	pH [0.1 units]*	Sp. Cond. (mS/cm) [3%]*	Turbidity (NTU) [10% or 1 NTU]*	DO (mg/l) [10% or 0.1 mg/l]*	ORP (mV) [10 mV]*
1030	200	<del>0.578</del> 0.578	12.43	14.11	6.48	1.131	18.5	0.90	236.9
1035	200	0.528	12.52	14.03	6.50	1.117	24.4	0.41	246.7
1040	200	0.792	12.57	14.02	6.51	1.109	17.0	0.39	237.0
1045	200	1.056	12.67	14.05	6.52	1.103	11.5	0.41	229.4
1050	200	1.120	12.75	14.06	6.52	1.101	10.9	0.38	222.7
1055	200	1.384	12.85	14.11	6.53	1.105	10.2	0.35	215.8
1100	200	1.648	12.96	14.17	6.54	1.114	7.99	0.37	211.8
1105	200	1.912	13.05	14.26	6.55	1.130	7.61	0.37	207.3

\* The stabilization criteria for each field parameter (three consecutive readings collected at 3- to 5-minute intervals) is listed in each column heading.

OBSERVATIONS/SAMPLING METHOD DEVIATIONS

orange color, no odor. Changed out tubing, purge water has slight hydrobore rope in well.  
Collected molmsd and duplicate for metals

SAMPLE DESTINATION

Laboratory: \_\_\_\_\_  
 Delivered Via: \_\_\_\_\_  
 Airbill #: \_\_\_\_\_

Field Sampling Coordinator: Pitman A Gibson



GROUNDWATER SAMPLING LOG

Well No. 78-1

Site/GMA Name Gre Pittsfield / DPCA  
 Sampling Personnel M. Mackenzie  
 Date 10-20-17  
 Weather Sunny 65°F

WELL INFORMATION - See Page 1

Time	Pump Rate (mL/min.)	Total Gallons Removed	Water Level (ft TIC)	Temp. (Celsius) [3%]*	pH [0.1 units]*	Sp. Cond. (mS/cm) [3%]*	Turbidity (NTU) [10% or 1 NTU]*	DO (mg/l) [10% or 0.1 mg/l]*	ORP (mV) [10 mV]*
1110	100	2.044	13.10	14.31	6.55	1.146	7.83	0.38	205.7
1115	100	2.176	13.15	14.31	6.56	1.156	7.54	0.39	206.1
1120	100	2.208	13.20	14.36	6.57	1.162	7.72	0.39	207.3
1125	100	2.340	13.24	14.36	6.57	1.169	5.41	0.38	204.5
1130	100	2.472	13.30	14.35	6.58	1.173	5.93	0.38	200.9
1135	100	2.604	13.35	14.40	6.58	1.176	5.88	0.38	199.4
1140	500	3.264	13.43	14.25	6.58	1.182	6.23	0.35	196.2
1145	100	3.396	13.47	14.37	6.59	1.183	5.77	0.36	193.3
1150	500	3.728	13.55	14.32	6.59	1.191	5.01	0.35	190.3
1155	100	3.858	13.61	14.38	6.59	1.192	4.93	0.38	189.3
1200	500	4.518	13.68	14.28	6.60	1.199	4.77	0.36	186.8
1205	100	4.650	13.72	14.38	6.60	1.199	5.66	0.36	184.4
1210	500	5.310	13.81	14.25	6.60	1.206	5.03	0.36	182.0
1215	100	5.442	13.83	14.39	6.61	1.207	4.53	0.37	180.7
1220	100	5.574	13.86	14.43	6.61	1.208	4.68	0.37	179.3
1225	100	5.706	13.89	14.39	6.61	1.212	5.41	0.40	177.2
1230	100	5.838	13.92	14.39	6.62	1.215	4.95	0.39	175.5
1240	100	6.102	13.99	14.41	6.62	1.221	4.58	0.37	172.0
1245	500	6.760	14.06	14.26	6.63	1.233	6.34	0.36	170.1
1250	100	7.424	14.18	14.38	6.63	1.236	4.79	0.37	169.5
1255	500	8.084	14.21	14.44	6.64	1.238	4.75	0.38	168.4
1300	100	9.116	14.25	14.42	6.64	1.239	4.26	0.37	167.5
1305	500	9.776	14.33	14.30	6.64	1.244	4.27	0.36	166.6
1310	100	9.908	14.35	14.46	6.65	1.247	3.85	0.37	165.2
1315	500	10.568	14.51	14.27	6.65	1.254	4.35	0.35	164.7
1320	100	10.700	14.52	14.43	6.65	1.257	3.85	0.36	163.3
1325	500	11.360	14.65	14.26	6.65	1.265	3.58	0.36	162.4
1330	100	11.492	14.67	14.44	6.66	1.269	3.61	0.36	160.9
1335	500	12.152	14.83	14.23	6.66	1.271	3.19	0.36	159.3

\* The stabilization criteria for each field parameter (three consecutive readings collected at 3- to 5-minute intervals) is listed in each column heading.

OBSERVATIONS/SAMPLING METHOD DEVIATIONS

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

GROUNDWATER SAMPLING LOG

Well No. 78-1

Site/GMA Name GRE Pittsfield / OPCA  
Sampling Personnel M. Mackenzie  
Date 10-20-17  
Weather Sunny / 65°F

WELL INFORMATION - See Page 1

Time	Pump Rate (mL/min.)	Total Gallons Removed	Water Level (ft TIC)	Temp. (Celsius) [3%]*	pH [0.1 units]*	Sp. Cond. (mS/cm) [3%]*	Turbidity (NTU) [10% or 1 NTU]*	DO (mg/l) [10% or 0.1 mg/l]*	ORP (mV) [10 mV]*
<u>1340</u>	<u>100</u>	<u>12284</u>	<u>14.85</u>	<u>14.45</u>	<u>6.67</u>	<u>1.277</u>	<u>3.82</u>	<u>0.39</u>	<u>157.7</u>
<u>1345</u>	<u>500</u>	<u>12940</u>	<u>14.98</u>	<u>14.25</u>	<u>6.67</u>	<u>1.280</u>	<u>3.70</u>	<u>0.37</u>	<u>156.6</u>
<u>1350</u>	<u>100</u>	<u>13072</u>	<u>14.98</u>	<u>14.45</u>	<u>6.67</u>	<u>1.282</u>	<u>4.23</u>	<u>0.38</u>	<u>155.0</u>
<u>1355</u>	<u>100</u>	<u>13104</u>	<u>14.98</u>	<u>14.48</u>	<u>6.68</u>	<u>1.282</u>	<u>4.25</u>	<u>0.39</u>	<u>153.8</u>

\* The stabilization criteria for each field parameter (three consecutive readings collected at 3- to 5-minute intervals) is listed in each column heading.

OBSERVATIONS/SAMPLING METHOD DEVIATIONS \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**GROUNDWATER SAMPLING LOG**

Well No. 78-6R  
 Key No. \_\_\_\_\_  
 PID Background (ppm) 0.0  
 Well Headspace (ppm) 0.0

Site/GMA Name OPCA  
 Sampling Personnel J. D. [unclear]  
 Date 10/20/17  
 Weather 58°F

**WELL INFORMATION**

Reference Point Marked? Ⓚ N  
 Height of Reference Point 0.27' Meas. From TIC  
 Well Diameter 4"  
 Screen Interval Depth 2.67/17.67 Meas. From TIC  
 Water Table Depth 9.35' Meas. From TIC  
 Well Depth 17.34' Meas. From TIC  
 Length of Water Column 8.49'  
 Volume of Water in Well 5.61 gal  
 Intake Depth of Pump/Tubing 13.6' Meas. From TIC

Sample Time 78-6R 1325  
 Sample ID 78-6R  
 Duplicate ID DUP-OPCA-3-20202017  
 MS/MSD 78-6R-MS/78-6R-MSD  
 Split Sample ID \_\_\_\_\_

**Reference Point Identification:**

TIC: Top of Inner (PVC) Casing  
 TOC: Top of Outer (Protective) Casing  
 Grade/BGS: Ground Surface

Redevelop? Y N

Additional well maintenance needed? Y N (if yes, describe below)

**EVACUATION INFORMATION**

Pump Start Time 1215  
 Pump Stop Time 1520  
 Minutes of Pumping 185  
 Volume of Water Removed 9.63  
 Did Well Go Dry? Y N

Required	Analytical Parameters:	Collected
( <input checked="" type="checkbox"/> )	VOCs (Standard List)	(12)
( <input type="checkbox"/> )	VOCs (Expanded List)	( )
( <input type="checkbox"/> )	SVOCs	( )
( <input checked="" type="checkbox"/> )	PCBs (Unfiltered)	(8)
( <input type="checkbox"/> )	PCBs (Filtered)	( )
( <input type="checkbox"/> )	Metals/Inorganics (Unfiltered)	( )
( <input checked="" type="checkbox"/> )	Metals/Inorganics (Filtered)	( )
( <input type="checkbox"/> )	Total Cyanide (Unfiltered)	( )
( <input type="checkbox"/> )	Total Cyanide (Filtered)	( )
( <input checked="" type="checkbox"/> )	PAC Cyanide (Filtered)	( )
( <input type="checkbox"/> )	PCDDs/PCDFs	( )
( <input type="checkbox"/> )	Pesticides/Herbicides	( )
( <input type="checkbox"/> )	Natural Attenuation	( )
( <input checked="" type="checkbox"/> )	Other (Specify) <u>Sulfide</u>	(12)
( <input checked="" type="checkbox"/> )	<u>Dioxan Furan</u>	(8)
( <input type="checkbox"/> )	Bladder Pump ( )	( )
( <input checked="" type="checkbox"/> )	Peristaltic Pump ( )	( )
( <input type="checkbox"/> )	Submersible Pump ( )	( )
( <input type="checkbox"/> )	Other/Specify ( )	( )
( <input checked="" type="checkbox"/> )	Pump Type: <u>Geopump Easyload II</u>	( )
( <input checked="" type="checkbox"/> )	Samples collected by same method as evacuation? <u>N</u> (specify)	( )

Water Quality Meter Type(s) / Serial Numbers: YSI 556 MPS 4422

Time	Pump Rate (L/min.)	Total Gallons Removed	Water Level (ft TIC)	Temp. (Celsius) [3%]*	pH [0.1 units]*	Sp. Cond. (mS/cm) [3%]*	Turbidity (NTU) [10% or 1 NTU]*	DO (mg/l) [10% or 0.1 mg/l]*	ORP (mV) [10 mV]*
1220	200	0.26	9.85	15.50	6.83	4.601	48.4	0.83	-79.2
1225	200	0.53	9.55	15.36	6.86	4.614	45.6	0.30	-77.2
1230	200	0.79	9.55	15.08	6.87	4.531	44.3	0.19	-70.9
1235	200	1.05	9.55	14.85	6.86	4.435	33.0	0.12	-73.7
1240	200	1.31	9.55	14.97	6.87	4.311	25.8	0.09	-63.4
1245	200	1.57	9.55	14.87	6.84	4.291	28.4	0.11	-73.0
1250	200	1.83	9.55	15.06	6.86	4.266	23.8	0.16	-69.9
1255	200	2.09	9.55	14.98	6.86	4.256	24.3	0.11	-77.1

\* The stabilization criteria for each field parameter (three consecutive readings collected at 3- to 5-minute intervals) is listed in each column heading.

**OBSERVATIONS/SAMPLING METHOD DEVIATIONS**

**SAMPLE DESTINATION**

Laboratory: \_\_\_\_\_  
 Delivered Via: \_\_\_\_\_  
 Airbill #: \_\_\_\_\_

Field Sampling Coordinator: \_\_\_\_\_

**GROUNDWATER SAMPLING LOG**

Well No. 78-6R

Site/GMA Name OPCA  
 Sampling Personnel J. Dugnette  
 Date 10/20/17  
 Weather 58°F Sunny

WELL INFORMATION - See Page 1

Time	Pump Rate (L/min.)	Total Gallons Removed	Water Level (ft TIC)	Temp. (Celsius) [3%]*	pH [0.1 units]*	Sp. Cond. (mS/cm) [3%]*	Turbidity (NTU) [10% or 1 NTU]*	DO (mg/l) [10% or 0.1 mg/l]*	ORP (mV) [10 mV]*
1300	200	2.35	9.55	15.03	6.86	4.223	22.5	0.09	-76.9
1305	200	2.61	9.55	15.02	6.86	4.196	19.3	0.09	-78.4
1310	200	2.87	9.55	15.01	6.86	4.177	18.8	0.08	-78.8
1315	200	3.13	9.55	15.03	6.86	4.174	19.2	0.06	-80.1

\* The stabilization criteria for each field parameter (three consecutive readings collected at 3- to 5-minute intervals) is listed in each column heading.

OBSERVATIONS/SAMPLING METHOD DEVIATIONS

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**GROUNDWATER SAMPLING LOG**

Well No. H78-B-15  
 Key No. \_\_\_\_\_  
 PID Background (ppm) 0.0  
 Well Headspace (ppm) 0.0

Site/GMA Name OPCA  
 Sampling Personnel J. Duvette  
 Date 10/23/17  
 Weather 50°F Sunny

$V = r^2 h (0.163)$   
 $V = (0.75)^2 (2.55) (0.163)$   
 $V = 0.23 \text{ gal}$

**WELL INFORMATION**

Reference Point Marked? Y  
 Height of Reference Point 2.22' Meas. From TIC  
 Well Diameter 3.4"  
 Screen Interval Depth 9.38 - 19.38' Meas. From TIC  
 Water Table Depth 15.58' Meas. From TIC  
 Well Depth 18.13' Meas. From TIC  
 Length of Water Column 2.55'  
 Volume of Water in Well 0.23 gal  
 Intake Depth of Pump/Tubing 16.8' Meas. From TIC

Sample Time 1040  
 Sample ID H78-B-15  
 Duplicate ID \_\_\_\_\_  
 MS/MSD \_\_\_\_\_  
 Split Sample ID \_\_\_\_\_

**Reference Point Identification:**

TIC: Top of Inner (PVC) Casing feet  
 TOC: Top of Outer (Protective) Casing  
 Grade/BGS: Ground Surface

Redevelop? Y N

Additional well maintenance needed? Y N (if yes, describe below)

**EVACUATION INFORMATION**

Pump Start Time 1110  
 Pump Stop Time 1140  
 Minutes of Pumping 30  
 Volume of Water Removed \_\_\_\_\_  
 Did Well Go Dry? Y N

Required	Analytical Parameters:	Collected
( )	VOCs (Standard List)	( )
( )	VOCs (Expanded List)	( )
( )	SVOCS	( )
( )	PCBs (Unfiltered)	( )
( )	PCBs (Filtered)	( )
( )	Metals/Inorganics (Unfiltered)	( )
( )	Metals/Inorganics (Filtered)	( )
( )	Total Cyanide (Unfiltered)	( )
( )	Total Cyanide (Filtered)	( )
( )	PAC Cyanide (Filtered)	( )
( )	PCDDs/PCDFs	( )
( )	Pesticides/Herbicides	( )
( )	Natural Attenuation	( )
( )	Other (Specify)	( )
( )	Sulfide	( )
( )	Dioxine Furan	( )

Evacuation Method: Bladder Pump ( )  
 Peristaltic Pump ( ) Submersible Pump ( ) Other/Specify ( )  
 Pump Type: Geopump easyload II  
 Samples collected by same method as evacuation? Y N (specify)

Water Quality Meter Type(s) / Serial Numbers: YSI 556 MPS 4422

Time	Pump Rate (L/min.)	Total Gallons Removed	Water Level (ft TIC)	Temp. (Celsius) [3%]*	pH [0.1 units]*	Sp. Cond. (mS/cm) [3%]*	Turbidity (NTU) [10% or 1 NTU]*	DO (mg/l) [10% or 0.1 mg/l]*	ORP (mV) [10 mV]*
1125	100	0.13	17.05	15.19	6.52	1.820	17.6	5.59	237.9
1130	100	0.26	17.52	14.95	6.49	1.799	15.3	5.21	235.3
1135	100	0.39	17.84	14.56	6.51	1.835	26.9	5.76	230.5
<del>1138</del>	<del>well went dry</del>								
1138	well went dry								
10/24 1006	100		17.01	15.94	6.50	1.801	19.5	7.26	244.1

\* The stabilization criteria for each field parameter (three consecutive readings collected at 3- to 5-minute intervals) is listed in each column heading.

**OBSERVATIONS/SAMPLING METHOD DEVIATIONS**

Called C.K. about well volume, said to go ahead with low flow measuring. Called after 0.5 ft of drawdown after 5 mins, C.K. said to continue test due to well going dry. Sampled well as water came into well.

**SAMPLE DESTINATION**

Laboratory: \_\_\_\_\_  
 Delivered Via: \_\_\_\_\_  
 Airbill #: \_\_\_\_\_

Field Sampling Coordinator: \_\_\_\_\_

15.67' water in well on 10/24  
2.46' Water Column on 10/24



GROUNDWATER SAMPLING LOG

Well No. OPCA-MW-1RR Site/GMA Name GE Pittsfield - OPCA  
 Key No. yes Sampling Personnel Peny Rubasco  
 PID Background (ppm) 0.0 Date 10/23/17  
 Well Headspace (ppm) 38.3 Weather overcast 52°F

WELL INFORMATION

Reference Point Marked?  Y  N  
 Height of Reference Point \_\_\_\_\_ Meas. From \_\_\_\_\_  
 Well Diameter 2"  
 Screen Interval Depth 17.79-27.79 Meas. From TIC  
 Water Table Depth 17.78 Meas. From TIC  
 Well Depth 29.91 Meas. From TIC  
 Length of Water Column 10.13  
 Volume of Water in Well 1.05 gallons  
 Intake Depth of Pump/Tubing 22.78 Meas. From TIC

Sample Time 12:20  
 Sample ID OPCA-MW-1RR  
 Duplicate ID \_\_\_\_\_  
 MS/MSD \_\_\_\_\_  
 Split Sample ID \_\_\_\_\_

Reference Point Identification:

TIC: Top of Inner (PVC) Casing BMP: Below Measuring Point  
 TOC: Top of Outer (Protective) Casing ft: feet  
 Grade/BGS: Ground Surface gal: gallons  
 ppm: parts per million

Required	Analytical Parameters:	# Bottles Collected
<input checked="" type="checkbox"/>	VOCs (Standard List)	(3)
<input type="checkbox"/>	VOCs (Expanded List)	( )
<input checked="" type="checkbox"/>	SVOCs	(1)
<input checked="" type="checkbox"/>	NOPCBs (Unfiltered)	(3)
<input checked="" type="checkbox"/>	PCBs (Filtered) <u>by lab</u>	(2)
<input type="checkbox"/>	Metals/Inorganics (Unfiltered)	( )
<input checked="" type="checkbox"/>	Metals/Inorganics (Filtered)	(1)
<input type="checkbox"/>	Total Cyanide (Unfiltered)	( )
<input type="checkbox"/>	Total Cyanide (Filtered)	( )
<input checked="" type="checkbox"/>	PAC Cyanide (Filtered)	(1)
<input checked="" type="checkbox"/>	PCDDs/PCDFs	(2)
<input type="checkbox"/>	Pesticides/Herbicides	( )
<input type="checkbox"/>	Natural Attenuation	( )
<input checked="" type="checkbox"/>	Other <u>sulfide</u>	(2)

Redevelop? Y  N

Additional well maintenance needed? Y  N (if yes, describe below)

EVACUATION INFORMATION

Pump Start Time 1035  
 Pump Stop Time 1310  
 Minutes of Pumping 155  
 Volume of Water Removed 5.78 gal  
 Did Well Go Dry? Y  N

Evacuation Method: Bailer ( ) Bladder Pump ( )  
 Peristaltic Pump (  ) Submersible Pump ( ) Other/Specify ( )  
 Pump Type: Geopump  
 Samples collected by same method as evacuation?  Y  N (specify)

Water Quality Meter Type(s) / Serial Numbers: YSI #: 28197 Pine# HACH/LaMotte #: Pine 024770  
 Air Quality Meter Type(s)/Serial Numbers: Pine 012680  
 Water Level Meter Type(s)/Serial Numbers: Pine #900418

Time	Pump Rate (mL/min.)	Total Gallons Removed	Water Level (ft TIC)	Temp. (Celsius) [3%]*	pH [0.1 units]*	Sp. Cond. (mS/cm) [3%]*	Turbidity (NTU) [10% or 1 NTU]*	DO (mg/l) [10% or 0.1 mg/l]*	ORP (mV) [10 mV]*
1035	200	0.26	17.78						
1040	200	0.52	18.55	15.15	6.84	1.184	37.7	0.48	247.5
1045	200	0.78	18.75	15.37	7.00	1.254	38.1	0.46	237.7
1050	200	1.04	18.93	15.89	7.14	1.305	42.0	0.57	223.6
1055	150	1.24	19.02	16.04	7.22	1.346	32.3	0.61	224.9
1100	150	1.44	19.06	16.14	7.28	1.396	25.3	0.50	214.6
1105	150	1.64	19.11	16.26	7.32	1.433	13.4	0.41	193.4
1110	125	1.80	19.11	16.44	7.35	1.457	11.9	0.39	176.7

\* The stabilization criteria for each field parameter (three consecutive readings collected at 3- to 5-minute intervals) is listed in each column heading.

OBSERVATIONS/SAMPLING METHOD DEVIATIONS

SAMPLE DESTINATION

Laboratory: \_\_\_\_\_  
 Delivered Via: \_\_\_\_\_  
 Airbill #: \_\_\_\_\_

Field Sampling Coordinator: L. Pitman

GROUNDWATER SAMPLING LOG

Well No. OPCA - MW - 1RR

Site/GMA Name G/E Pittsfield - OPCA  
Sampling Personnel Penny Rabasco  
Date 10/23/17  
Weather partly cloudy, 56°F

WELL INFORMATION - See Page 1

Time	Pump Rate (mL/min.)	Total Gallons Removed	Water Level (ft TIC)	Temp. (Celsius) [3%]*	pH [0.1 units]*	Sp. Cond. (mS/cm) [3%]*	Turbidity (NTU) [10% or 1 NTU]*	DO (mg/l) [10% or 0.1 mg/l]*	ORP (mV) [10 mV]*
.165 1115	125	1.96	19.11	16.37	7.38	1.475	10.1	0.35	157.5
1120	125	2.13	19.12	16.11	7.40	1.488	7.28	0.32	137.7
1125	125	2.30	19.12	16.01	7.41	1.504	6.28	0.30	118.3
1130	125	2.47	19.12	15.93	7.42	1.511	5.42	0.28	107.5
1135	125	2.63	19.12	15.83	7.43	1.509	5.38	0.33	96.2
1140	125	2.80	19.12	15.84	7.45	1.509	4.71	0.28	84.5
1145	125	2.97	19.12	15.77	7.45	1.522	4.17	0.28	77.3
1150	125	3.13	19.12	15.70	7.46	1.524	3.83	0.31	73.4
1155	125	3.30	19.12	15.69	7.47	1.524	3.94	0.29	62.5
1200	125	3.47	19.12	15.73	7.47	1.529	3.52	0.26	61.0
1205	125	3.63	19.12	15.82	7.48	1.536	3.06	0.27	54.8
1210	125	3.80	19.12	15.68	7.48	1.544	4.00	0.26	48.0
1215	125	3.97	19.12	15.74	7.49	1.552	3.98	0.25	46.5
1220	125	4.13	19.12	15.86	7.49	1.561	3.23	0.27	43.3
All Parameters Stable Sample Time: 12:20									

\* The stabilization criteria for each field parameter (three consecutive readings collected at 3- to 5-minute intervals) is listed in each column heading.

OBSERVATIONS/SAMPLING METHOD DEVIATIONS \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**GROUNDWATER SAMPLING LOG**

Well No. OPCA-MW-ZR Site/GMA Name GE Pittsfield - OPCA's  
 Key No. yes Sampling Personnel Romy Rabasco  
 PID Background (ppm) 0.0 Date 10/23/17  
 Well Headspace (ppm) 0.2 Weather overcast, 67°F

**WELL INFORMATION**

Reference Point Marked?  Y  N  
 Height of Reference Point \_\_\_\_\_ Meas. From \_\_\_\_\_  
 Well Diameter 2"  
 Screen Interval Depth 12.04-27.04' Meas. From TIC  
 Water Table Depth 23.92' Meas. From TIC  
 Well Depth 26.94' Meas. From TIC  
 Length of Water Column 3.02'  
 Volume of Water in Well 0.49 gallons  
 Intake Depth of Pump/Tubing 24.94' Meas. From TIC

Sample Time 10/24/17 @ 9:40  
 Sample ID OPCA-MW-ZR  
 Duplicate ID \_\_\_\_\_  
 MS/MSD \_\_\_\_\_  
 Split Sample ID \_\_\_\_\_

Required	Analytical Parameters:	# Bottles Collected
<input type="checkbox"/>	VOCs (Standard List)	<input type="checkbox"/> PDB
<input type="checkbox"/>	VOCs (Expanded List)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	SVOCS	<input type="checkbox"/>
<input type="checkbox"/>	PCBs (Unfiltered)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	PCBs (Filtered)	<input type="checkbox"/> 2
<input type="checkbox"/>	Metals/Inorganics (Unfiltered)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Metals/Inorganics (Filtered)	<input type="checkbox"/> 1
<input type="checkbox"/>	Total Cyanide (Unfiltered)	<input type="checkbox"/>
<input type="checkbox"/>	Total Cyanide (Filtered)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	PAC Cyanide (Filtered)	<input type="checkbox"/> 1
<input checked="" type="checkbox"/>	PCDDs/PCDFs	<input type="checkbox"/> 2
<input type="checkbox"/>	Pesticides/Herbicides	<input type="checkbox"/>
<input type="checkbox"/>	Natural Attenuation	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Other <u>sulfide</u>	<input type="checkbox"/> 3

**Reference Point Identification:**  
 TIC: Top of Inner (PVC) Casing  
 TOC: Top of Outer (Protective) Casing  
 Grade/BGS: Ground Surface  
 BMP: Below Measuring Point  
 ft: feet  
 gal: gallons  
 ppm: parts per million

Redevelop? Y  N

Additional well maintenance needed? Y  (if yes, describe below)

**EVACUATION INFORMATION**

Pump Start Time 14:15 10/24/17  
 Pump Stop Time 15:45 9:40  
 Minutes of Pumping 90 10:30  
 Volume of Water Removed 3.5 gal 1.65 gallons  
 Did Well Go Dry?  Y  N

Evacuation Method: Bailer  Bladder Pump   
 Peristaltic Pump  Submersible Pump  Other/Specify   
 Pump Type: Geopump  
 Samples collected by same method as evacuation? Y  N  (specify)

Water Quality Meter Type(s) / Serial Numbers: YSI# Pine # 28197 HACH/LaMotte # Pine # 024770  
 Air Quality Meter Type(s)/Serial Numbers: Pine # 012680  
 Water Level Meter Type(s)/Serial Numbers: Pine # 900418

Time	Pump Rate (mL/min.)	Total Gallons Removed	Water Level (ft TIC)	Temp. (Celsius) [3%]*	pH [0.1 units]*	Sp. Cond. (mS/cm) [3%]*	Turbidity (NTU) [10% or 1 NTU]*	DO (mg/l) [10% or 0.1 mg/l]*	ORP (mV) [10 mV]*
1415	175	0.23	23.90						
1420	175	0.46	24.22	14.79	7.12	0.659	21.2	3.44	90.3
1425	150	0.66	24.41	14.67	6.87	0.656	9.71	3.03	88.5
1430	150	0.86	24.61	14.66	6.85	0.656	2.90	3.13	81.5
1435	125	1.025	24.71	14.73	6.84	0.652	1.95	2.92	78.8
1440	125	1.19	24.79	14.92	6.83	0.647	1.65	2.75	77.9
1445	125	1.36	24.91	14.35	6.82	0.636	1.79	3.20	77.6
1450	125	1.52	25.02	14.23	6.82	0.634	2.15	3.02	78.2

\* The stabilization criteria for each field parameter (three consecutive readings collected at 3- to 5-minute intervals) is listed in each column heading.

**OBSERVATIONS/SAMPLING METHOD DEVIATIONS** 125 ml per minute is the lowest the pump will go. Intake set at 24.94' ft and then lowered at 14:45 to 25.70' as the water level kept lowering and not stabilizing.

**SAMPLE DESTINATION**

Laboratory: \_\_\_\_\_  
 Delivered Via: \_\_\_\_\_  
 Airbill #: \_\_\_\_\_  
 Field Sampling Coordinator: L. Pitman

*lowered \* Intake*

GROUNDWATER SAMPLING LOG

Well No. OPCA-MW-2R

Site/GMA Name GE Pittsfield - OPCA's

Sampling Personnel Penny Rubasco

Date 10/23/17

Weather overcast, 67°F

10/24/17 weather: light rain, 70°F

WELL INFORMATION - See Page 1

Time	Pump Rate (mL/min.)	Total Gallons Removed	Water Level (ft TIC)	Temp. (Celsius) [3%]*	pH [0.1 units]*	Sp. Cond. (mS/cm) [3%]*	Turbidity (NTU) [10% or 1 NTU]*	DO (mg/l) [10% or 0.1 mg/l]*	ORP (mV) [10 mV]*		
1455	125	1.69	25.07	14.47	6.81	0.637	2.24	2.95	78.4		
1500	125	1.85	25.15	14.65	6.81	0.643	4.62	2.88	77.9		
1505	125	2.02	25.20	14.53	6.82	0.644	3.41	2.75	76.5		
1510	125	2.18	25.25	14.38	6.83	0.647	2.66	3.01	76.9		
1515	500	2.54	Increased flow for two minutes								
1517	125	2.71	25.41	14.00	6.81	0.665	9.99	2.44	75.8		
1520	125	2.87	25.50	14.02	6.81	0.664	10.90	2.54	75.6		
1525	125	3.04	25.71	14.04	6.81	0.659	4.51	2.34	76.0		
Pumped well dry											
1545			26.52								
10/24/17 9:40	125		23.91	18.11	6.47	0.738	1.95	2.53	252.0		

\* The stabilization criteria for each field parameter (three consecutive readings collected at 3- to 5-minute intervals) is listed in each column heading.

OBSERVATIONS/SAMPLING METHOD DEVIATIONS 10/24/17 Intake depth of pump tubing set at 24.94 at 9:40. At Tubing lowered to 25.94' and remaining sample bottles were filled.



GROUNDWATER SAMPLING LOG

Well No. OPCA-MW-3R Site/GMA Name GE/OPCA  
 Key No. yes Sampling Personnel A. Gibson  
 PID Background (ppm) 0.0 Date 10/23/17  
 Well Headspace (ppm) 0.0 Weather 61°F cloudy, 30.22 in. Hg.

WELL INFORMATION

Reference Point Marked?  N Meas. From TIC  
 Height of Reference Point 0.45  
 Well Diameter 2 inches  
 Screen Interval Depth 1452-1452 Meas. From TTC  
 Water Table Depth 23.09 ft. Meas. From TTC  
 Well Depth 14.61 ft. Meas. From TTC  
 Length of Water Column 21.62 ft.  
 Volume of Water in Well 3.52 gal.  
 Intake Depth of Pump/Tubing 27.99 ft. Meas. From TTC

Sample Time 1239  
 Sample ID OPCA-MW-3R  
 Duplicate ID -  
 MS/MSD -  
 Split Sample ID -

Reference Point Identification:

TIC: Top of Inner (PVC) Casing BMP: Below Measuring Point  
 TOC: Top of Outer (Protective) Casing ft. feet  
 Grade/BGS: Ground Surface gal. gallons  
 ppm: parts per million

Redevelop? Y  N

Additional well maintenance needed? Y  N (if yes, describe below)

EVACUATION INFORMATION

Pump Start Time 1156  
 Pump Stop Time 1250  
 Minutes of Pumping 54  
 Volume of Water Removed 2.5 gallons  
 Did Well Go Dry? Y  N

Required	Analytical Parameters:	# Bottles Collected
( 3 )	VOCs (Standard List)	( 3 )
( )	VOCs (Expanded List)	( )
( 1 )	SVOCs	( 1 )
( )	PCBs (Unfiltered)	( )
( 2 )	PCBs (Filtered)	( 2 )
( )	Metals/Inorganics (Unfiltered)	( )
( 1 )	Metals/Inorganics (Filtered)	( 1 )
( )	Total Cyanide (Unfiltered)	( )
( )	Total Cyanide (Filtered)	( )
( 1 )	PAC Cyanide (Filtered)	( 1 )
( 2 )	PCDDs/PCDFs	( 2 )
( )	Pesticides/Herbicides	( )
( )	Natural Attenuation	( )
( 3 )	Swiide Other	( 3 )

Evacuation Method: Bailer ( ) Bladder Pump ( )  
 Peristaltic Pump  Submersible Pump ( ) Other/Specify ( )  
 Pump Type: Geo Pump Easy Load II  
 Samples collected by same method as evacuation? Y N (specify)

Water Quality Meter Type(s) / Serial Numbers: YSI # 0662658 HACH/Lamotte # 40317  
 Air Quality Meter Type(s)/Serial Numbers: MhiRAE 2000: 110-005310  
 Water Level Meter Type(s)/Serial Numbers: Solinst Water Level Meter: 32200

Time	Pump Rate (mL/min.)	Total Gallons Removed	Water Level (ft TIC)	Temp. (Celsius) [3%]*	pH [0.1 units]*	Sp. Cond. (mS/cm) [3%]*	Turbidity (NTU) [10% or 1 NTU]*	DO (mg/l) [10% or 0.1 mg/l]*	ORP (mV) [10 mV]*
1201	325	0.429	23.07	15.63	6.74	0.890	1.62	0.70	210.2
1206	200	0.691	23.07	15.90	6.74	0.888	0.90	0.47	203.1
1212	200	0.955	23.07	15.77	6.74	0.889	1.59	0.30	195.8
1217	200	1.219	23.07	15.64	6.73	0.887	1.12	0.27	183.4
1222	200	1.483	23.07	15.63	6.73	0.888	1.08	0.26	180.3
1227	200	1.747	23.07	15.74	6.73	0.889	0.89	0.25	175.1
1232	200	2.011	23.07	15.69	6.73	0.886	0.98	0.22	169.5
1237	200	2.275	23.07	15.58	6.72	0.884	0.94	0.22	166.4

\* The stabilization criteria for each field parameter (three consecutive readings collected at 3- to 5-minute intervals) is listed in each column heading.

OBSERVATIONS/SAMPLING METHOD DEVIATIONS

in. inches, Hg = mercury, Intake placed 5ft. below the top of the water column according to the SOP i.e. the length of the screen being greater than 10ft, initial purge water is sheer, odor, or color, At 1201 pump rate lowered to 200 mL/L due to slow down.

SAMPLE DESTINATION

Laboratory: \_\_\_\_\_  
 Delivered Via: \_\_\_\_\_  
 Airbill #: \_\_\_\_\_

Field Sampling Coordinator: A. Gibson



GROUNDWATER SAMPLING LOG

Well No. OPCA-MW-4 Site/GMA Name GE/OPCA  
 Key No. yes Sampling Personnel A. Gibson  
 PID Background (ppm) 0.0 Date 10/24/17  
 Well Headspace (ppm) 0.0 Weather 66°F, rainy 29.86 in. Hg.

WELL INFORMATION

Reference Point Marked? 9 N Meas. From TIC  
 Height of Reference Point -0.65 ft.  
 Well Diameter 3 inches  
 Screen Interval Depth 1.47-2.17 ft. Meas. From TIC  
 Water Table Depth 2.93 ft. Meas. From TIC  
 Well Depth 21.57 ft. Meas. From TIC  
 Length of Water Column 8.64 ft.  
 Volume of Water in Well 1.41 gal  
 Intake Depth of Pump/Tubing 17.25 ft. Meas. From TIC

Sample Time 1052  
 Sample ID OPCA-MW-4  
 Duplicate ID -  
 MS/MSD -  
 Split Sample ID -

Reference Point Identification:

TIC: Top of Inner (PVC) Casing BMP: Below Measuring Point  
 TOC: Top of Outer (Protective) Casing ft. feet  
 Grade/BGS: Ground Surface gal. gallons  
 ppm: parts per million

Required	Analytical Parameters:	# Bottles Collected
(X)	VOCs (Standard List)	( )
( )	VOCs (Expanded List)	( )
(X)	SVOCs	( 1 )
( )	PCBs (Unfiltered)	( )
(X)	PCBs (Filtered)	( 2 )
( )	Metals/Inorganics (Unfiltered)	( )
(X)	Metals/Inorganics (Filtered)	( 1 )
( )	Total Cyanide (Unfiltered)	( )
( )	Total Cyanide (Filtered)	( )
(X)	PAC Cyanide (Filtered)	( 1 )
(X)	PCDDs/PCDFs	( 2 )
( )	Pesticides/Herbicides	( )
( )	Natural Attenuation	( )
(X)	Other <u>Subside</u>	( 2 )

Redevelop? Y (N)

Additional well maintenance needed? Y (N) (if yes, describe below)

EVACUATION INFORMATION

Pump Start Time 0845  
 Pump Stop Time 1150  
 Minutes of Pumping 185  
 Volume of Water Removed 6.2 gal.  
 Did Well Go Dry? Y (N)

Evacuation Method: Bailer ( ) Bladder Pump ( )  
 Peristaltic Pump (X) Submersible Pump ( ) Other/Specify ( )  
 Pump Type: Geopump Easy Load II  
 Samples collected by same method as evacuation? Y N (specify)

Water Quality Meter Type(s) / Serial Numbers: YSI #: 0612658 HACH/LowMote #: 40317  
 Air Quality Meter Type(s)/Serial Numbers: Mia Rae 2000: 110-005310  
 Water Level Meter Type(s)/Serial Numbers: Solinst Water Level Meter: 32205

Time	Pump Rate (mL/min.)	Total Gallons Removed	Water Level (ft TIC)	Temp. (Celsius) [3%]*	pH [0.1 units]*	Sp. Cond. (mS/cm) [3%]*	Turbidity (NTU) [10% or 1 NTU]*	DO (mg/l) [10% or 0.1 mg/l]*	ORP (mV) [10 mV]*
0850	100	0.133	13.44	15.07	6.99	0.908	18.7	4.61	242.7
0855	300	0.529	14.23	15.23	6.93	0.875	4.65	3.24	238.8
0900	100	0.662	14.36	15.30	6.95	0.875	2.82	2.93	237.3
0905	100	0.795	14.52	15.40	6.96	0.875	1.36	2.53	237.1
0910	100	0.928	14.70	15.53	6.96	0.878	0.95	2.42	236.5
0915	300	1.324	15.31	14.79	6.95	0.840	1.26	1.93	237.1
0920	100	1.457	15.40	15.10	6.96	0.851	1.16	1.99	237.5
0925	100	1.590	15.51	15.36	6.97	0.862	1.13	2.16	238.6

\* The stabilization criteria for each field parameter (three consecutive readings collected at 3- to 5-minute intervals) is listed in each column heading.

OBSERVATIONS/SAMPLING METHOD DEVIATIONS

IN = inches, Hg = mercury, At 0855 as per SOP, pump rate was increased to find a stable drawdown. At 0900, pump rate reduced to minimum (100ml/min). At 0915 pump rate was again increased to 300ml/min to find a stable drawdown.

SAMPLE DESTINATION

Laboratory: \_\_\_\_\_  
 Delivered Via: \_\_\_\_\_  
 Airbill #: \_\_\_\_\_

Field Sampling Coordinator: A.G. Gibson

GROUNDWATER SAMPLING LOG

Well No. OPCA-MW-4

Site/GMA Name GE/OPLA  
 Sampling Personnel A. Gibson

Date 10/24/17  
 Weather 67°F, Cloudy 29.84 in. Hg

WELL INFORMATION - See Page 1

Time	Pump Rate (mL/min.)	Total Gallons Removed	Water Level (ft TIC)	Temp. (Celsius) [3%]*	pH [0.1 units]*	Sp. Cond. (mS/cm) [3%]*	Turbidity (NTU) [10% or 1 NTU]*	DO (mg/l) [10% or 0.1 mg/l]*	ORP (mV) [10 mV]*
0930	100	1.723	15.62	15.46	6.97	0.868	1.19	2.30	238.7
0935	300	2.119	16.51	14.41	6.96	0.854	1.46	2.76	239.9
0940	100	2.252	16.61	15.36	6.97	0.873	0.99	2.63	237.3
0945	100	2.385	16.75	15.44	6.98	0.881	1.06	2.61	236.3
0950	100	2.528	16.84	15.49	6.99	0.881	1.13	2.59	234.5
0955	300	2.925	17.20	14.32	7.01	0.860	4.84	3.03	231.9
1000	100	3.058	17.31	14.90	7.02	0.872	1.36	2.74	228.6
1005	100	3.192	17.48	14.90	7.02	0.872	1.14	2.70	227.8
1010	100	3.325	17.55	14.97	7.01	0.873	1.07	2.64	226.3
1015	300	3.721	18.27	14.10	7.00	0.853	2.05	2.64	224.7
1020	100	3.854	18.42	14.67	7.01	0.869	2.48	2.44	220.9
1025	100	3.987	18.48	14.78	7.01	0.857	1.19	2.37	219.1
1030	100	4.120	18.62	14.71	7.01	0.851	1.11	2.49	217.5
1035	300	4.516	18.82	13.89	7.01	0.855	2.34	2.48	220.1
1040	100	4.649	18.82	14.14	7.02	0.854	1.89	2.47	219.4
1045	100	4.782	18.82	14.45	7.02	0.855	1.74	2.45	220.8
1050	100	4.915	18.82	14.48	7.01	0.857	1.80	2.46	221.4

\* The stabilization criteria for each field parameter (three consecutive readings collected at 3- to 5-minute intervals) is listed in each column heading.

OBSERVATIONS/SAMPLING METHOD DEVIATIONS At 0935 pump rate raised to 300 mL/min to find a stable drawdown, At 0940 pump rate returned to minimum (100 mL/min) At 0955 pump rate raised to 300 mL/min to find stable drawdown, At 1000 pump rate returned to 100 mL/min, At 1015 pump rate raised to

GROUNDWATER SAMPLING LOG

Well No. OPCA-MW-4

Site/GMA Name GE/OPCA

Sampling Personnel A. Gibson

Date 10/24/17

Weather 67°F, cloudy, 29.84 in. Hg

WELL INFORMATION - See Page 1

OBSERVATIONS/SAMPLING METHOD DEVIATIONS

300ml/min to find a stable drawdown  
At 1020 pump rate returned to 1020, At 1035 pump rate raised  
to 300ml/min to find stable drawdown, At 1040 pump rate returned  
to 100ml/min, each time callout for pump rate changes includes  
the preceding five minutes, purge water colorless, no odor, no  
sheen

Additional well maintenance needed?  Y  N

GROUNDWATER SAMPLING LOG

Well No. OPCA-MW-SR  
 Key No. yes  
 PID Background (ppm) 0.0  
 Well Headspace (ppm) 0.0

Site/GMA Name GE/OPCA  
 Sampling Personnel A.G. Gibson  
 Date 10/19/17/10/20/17  
 Weather 58°F, sunny, 30.16 in Hg

WELL INFORMATION

Reference Point Marked?  N  
 Height of Reference Point \_\_\_\_\_ Meas. From TIC  
 Well Diameter 2 inch  
 Screen Interval Depth 10.9-20.9 ft Meas. From TIC  
 Water Table Depth 13.56 ft Meas. From TIC  
 Well Depth 21.60 ft Meas. From TIC  
 Length of Water Column 8.04 ft  
 Volume of Water in Well 1.21 gal  
 Intake Depth of Pump/Tubing 17.58 ft Meas. From TIC

Sample Time 10/20/17, 1118  
 Sample ID OPCA-MW-SR  
 Duplicate ID DWP-OPCA-1-102017  
 MS/MSD OPCA-MW-SR-MS, OPCA-MW-SR-MSD  
 Split Sample ID \_\_\_\_\_

Reference Point Identification:

TIC: Top of Inner (PVC) Casing BMP: Below Measuring Point  
 TOC: Top of Outer (Protective) Casing ft. feet  
 Grade/BGS: Ground Surface gal. gallons  
 ppm: parts per million

Required	Analytical Parameters:	# Bottles Collected
(X)	VOCs (Standard List)	( )
( )	VOCs (Expanded List)	( )
(X)	SVOCs	(3) +1 for DWP
( )	PCBs (Unfiltered)	( )
(X)	PCBs (Filtered)	(2)
( )	Metals/Inorganics (Unfiltered)	( )
(X)	Metals/Inorganics (Filtered)	(1)
( )	Total Cyanide (Unfiltered)	( )
( )	Total Cyanide (Filtered)	( )
(X)	PAC Cyanide (Filtered)	(1)
(X)	PCDDs/PCDFs	(2)
( )	Pesticides/Herbicides	( )
( )	Natural Attenuation	( )
(X)	Other <u>Sulfide</u>	(3)

Redevelop? Y  N

Additional well maintenance needed? Y  N (if yes, describe below)

EVACUATION INFORMATION

Pump Start Time 1523  
 Pump Stop Time 1647  
 Minutes of Pumping 84  
 Volume of Water Removed 4.2 gal  
 Did Well Go Dry?  N

Evacuation Method: Bailer ( ) Bladder Pump ( )  
 Peristaltic Pump (X) Submersible Pump ( ) Other/Specify ( )  
 Pump Type: Geo pump EasyLoad II  
 Samples collected by same method as evacuation?  N (specify)

Water Quality Meter Type(s) / Serial Numbers: YSI # 06C2658 HACH/Low Mottle # 40317  
 Air Quality Meter Type(s)/Serial Numbers: Mair Rae 2000; 110-005310  
 Water Level Meter Type(s)/Serial Numbers: Solinst Water Level Meter: 32208

Time	Pump Rate (mL/min.)	Total Gallons Removed	Water Level (ft TIC)	Temp. (Celsius) [3%]*	pH [0.1 units]*	Sp. Cond. (mS/cm) [3%]*	Turbidity (NTU) [10% or 1 NTU]*	DO (mg/l) [10% or 0.1 mg/l]*	ORP (mV) [10 mV]*
1528	100	0.132	13.76	16.00	6.89	0.386	73.8	0.70	118.9
1533	100	0.164	14.02	16.01	6.87	0.367	67.9	0.73	119.1
1538	100	0.296	14.12	16.04	6.85	0.343	55.3	0.89	119.5
1543	100	0.428	14.31	16.05	6.84	0.346	16.7	1.50	121.3
1548	100	0.560	14.50	15.93	6.87	0.386	2.07	1.71	121.8
1553	100	0.692	14.62	15.94	6.89	0.403	1.98	1.53	121.2
1558	400	1.217	15.91	15.29	6.99	0.499	1.39	1.40	117.0
1603	100	1.339	15.77	15.48	6.99	0.531	1.11	1.09	115.7

\* The stabilization criteria for each field parameter (three consecutive readings collected at 3- to 5-minute intervals) is listed in each column heading.

OBSERVATIONS/SAMPLING METHOD DEVIATIONS in 2 inch Hg = mercury, initial purge water colorless, odorless, no sheen, at 1553 pump rate increased to 400ml/min to find stable drawdown, at 1558 pump rate reduced to minimum (100ml/min), at 1608 pump rate raised

SAMPLE DESTINATION

Laboratory: \_\_\_\_\_  
 Delivered Via: \_\_\_\_\_  
 Airbill #: \_\_\_\_\_

Field Sampling Coordinator: L. Pittman A. Gibson

GROUNDWATER SAMPLING LOG

Well No. OPCA-MW-SR

Site/GMA Name GE/OPCA  
 Sampling Personnel A. Gibson  
 Date 10/19/17  
 Weather 58°F, sunny, 30.16 in Hg

WELL INFORMATION - See Page 1

Time	Pump Rate (mL/min.)	Total Gallons Removed	Water Level (ft TIC)	Temp. (Celsius) [3%]*	pH [0.1 units]*	Sp. Cond. (mS/cm) [3%]*	Turbidity (NTU) [10% or 1 NTU]*	DO (mg/l) [10% or 0.1 mg/l]*	ORP (mV) [10 mV]*
1608	100	1.471	16.92	15.67	6.99	0.537	2.02	0.76	114.9
1613	400	1.926	18.04	14.48	7.00	0.562	12.9	1.27	82.4
1618	100	2.058	18.16	14.80	7.01	0.572	9.60	1.14	79.4
1623	100	2.190	18.24	14.90	7.01	0.565	12.6	1.13	77.7
1628	400	2.715	19.25	14.19	7.00	0.551	8.46	1.03	75.9
1633	100	2.847	19.47	14.67	6.99	0.560	8.90	0.97	71.9
1638	100	2.979	19.59	14.87	6.94	0.552	7.91	0.92	58.7
1639	well dry at 19.65								
1643	400	3.504	21.34	14.11	6.98	9.541	28.4	1.23	61.4
1648	100	3.636	21.47	14.53	6.99	0.558	12.8	0.88	55.3
1649	well dry at 21.50'								
10/20/17 1107	100	-	17.38	15.58	7.00	9.703	3.14	2.54	109.8

\* The stabilization criteria for each field parameter (three consecutive readings collected at 3- to 5-minute intervals) is listed in each column heading.

OBSERVATIONS/SAMPLING METHOD DEVIATIONS to 400ml/min to find stable drawdown,  
At 1623 pump rate increased to 400ml/min to find stable drawdown,  
At 1613 pump rate returned to 100ml/min. At 1628 pump rate returned  
to 100ml/min At 1610 intake lowered to 19.00', At 1625 intake

GROUNDWATER SAMPLING LOG

Well No. OPCA-MW-SR

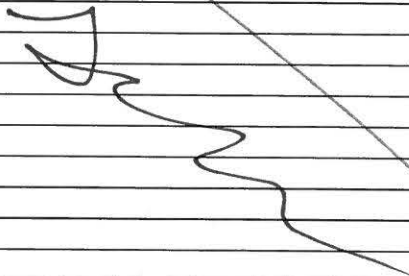
Site/GMA Name GE/OPCA  
Sampling Personnel A. Gibson  
Date 10/19/17  
Weather 58°F, Sunny, 30.1 in. Hg

WELL INFORMATION - See Page 1

OBSERVATIONS/SAMPLING METHOD DEVIATIONS

Lowered to 19.65, 1639 well goes dry. As per SOP since well went dry at 19.65 below the required 2' of water column without a stable drawdown, the well was pumped dry to bottom at 1649, VOCs not collected since well was pumped dry, MS/MSD+Dup collected for SVOCs

Additional well maintenance needed?  Y  N





GROUNDWATER SAMPLING LOG

Well No. OPCA-MW-6  
 Key No. \_\_\_\_\_  
 PID Background (ppm) 0.1  
 Well Headspace (ppm) 0.0

Site/GMA Name OPCA  
 Sampling Personnel S. Dugnette  
 Date 10/23/17  
 Weather 55°F Cloud

WELL INFORMATION

Reference Point Marked?  N  
 Height of Reference Point -0.5' Meas. From TIC  
 Well Diameter 2"  
 Screen Interval Depth 4.14' - 26.64' Meas. From TIC  
 Water Table Depth 18.14' Meas. From TIC  
 Well Depth 24.14' Meas. From TIC  
 Length of Water Column 5.96'  
 Volume of Water in Well 0.97 gal  
 Intake Depth of Pump/Tubing 21.20' Meas. From TIC

Sample Time 1440  
 Sample ID OPCA-MW-6  
 Duplicate ID \_\_\_\_\_  
 MS/MSD \_\_\_\_\_  
 Split Sample ID \_\_\_\_\_

Reference Point Identification:

TIC: Top of Inner (PVC) Casing ' = feet  
 TOC: Top of Outer (Protective) Casing  
 Grade/BGS: Ground Surface

Redevelop? Y  N

Additional well maintenance needed? Y  N (if yes, describe below)

EVACUATION INFORMATION

Pump Start Time 1340  
 Pump Stop Time 1515  
 Minutes of Pumping 95  
 Volume of Water Removed 2.21  
 Did Well Go Dry? Y  N

Required	Analytical Parameters:	Collected
<input checked="" type="checkbox"/>	VOCs (Standard List)	( 3 )
<input checked="" type="checkbox"/>	VOCs (Expanded List)	( )
<input checked="" type="checkbox"/>	SVOCs	( 1 )
<input checked="" type="checkbox"/>	PCBs (Unfiltered)	( 2 )
<input checked="" type="checkbox"/>	PCBs (Filtered)	( )
<input checked="" type="checkbox"/>	Metals/Inorganics (Unfiltered)	( 1 )
<input checked="" type="checkbox"/>	Metals/Inorganics (Filtered)	( )
<input checked="" type="checkbox"/>	Total Cyanide (Unfiltered)	( )
<input checked="" type="checkbox"/>	Total Cyanide (Filtered)	( )
<input checked="" type="checkbox"/>	PAC Cyanide (Filtered)	( )
<input checked="" type="checkbox"/>	PCDDs/PCDFs	( )
<input checked="" type="checkbox"/>	Pesticides/Herbicides	( )
<input checked="" type="checkbox"/>	Natural Attenuation	( )
<input checked="" type="checkbox"/>	Other (Specify)	( )
<input checked="" type="checkbox"/>	Evacuation Method: <u>Soil Sulfide</u>	
<input checked="" type="checkbox"/>	Bladder Pump ( )	<u>Bladder Pump</u>
<input checked="" type="checkbox"/>	Peristaltic Pump ( )	<u>Submersible Pump</u>
<input checked="" type="checkbox"/>	Pump Type: <u>Geopump easy load II</u>	
<input checked="" type="checkbox"/>	Samples collected by same method as evacuation? <input checked="" type="checkbox"/> N (specify)	

Water Quality Meter Type(s) / Serial Numbers: YSI 556 MPS 4422

Time	Pump Rate (L/min.)	Total Gallons Removed	Water Level (ft TIC)	Temp. (Celsius) [3%]*	pH [0.1 units]*	Sp. Cond. (mS/cm) [3%]*	Turbidity (NTU) [10% or 1 NTU]*	DO (mg/l) [10% or 0.1 mg/l]*	ORP (mV) [10 mV]*
1355	100	0.13	18.34	13.08	7.58	0.855	14.1	3.42	151.3
1400	100	0.26	18.58	12.74	7.63	0.917	7.45	1.40	144.3
1405	100	0.39	18.65	12.64	7.62	0.962	5.75	1.23	125.4
1410	100	0.52	18.68	12.63	7.62	0.988	3.37	0.99	102.3
1415	100	0.65	18.71	12.58	7.63	1.004	3.08	0.90	79.5
1420	100	0.78	18.74	12.58	7.65	1.011	1.77	0.86	60.2
1425	100	0.91	18.75	12.45	7.66	1.010	1.97	0.80	56.7
1430	100	1.04	18.75	12.48	7.66	1.012	1.99	0.80	54.2

\* The stabilization criteria for each field parameter (three consecutive readings collected at 3- to 5-minute intervals) is listed in each column heading.

OBSERVATIONS/SAMPLING METHOD DEVIATIONS \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

SAMPLE DESTINATION

Laboratory: \_\_\_\_\_  
 Delivered Via: \_\_\_\_\_  
 Airbill #: \_\_\_\_\_

Field Sampling Coordinator: \_\_\_\_\_

**GROUNDWATER SAMPLING LOG**

Well No. OPCA-MW-6

Site/GMA Name OPCA  
 Sampling Personnel J. Duquette  
 Date 10/23/17  
 Weather 55°F Clear

WELL INFORMATION - See Page 1

Time	Pump Rate (L/min.)	Total Gallons Removed	Water Level (ft TIC)	Temp. (Celsius) [3%]*	pH [0.1 units]*	Sp. Cond. (mS/cm) [3%]*	Turbidity (NTU) [10% or 1 NTU]*	DO (mg/l) [10% or 0.1 mg/l]*	ORP (mV) [10 mV]*
1435	100	1.17	16.75	12.43	7.66	1.017	1.91	0.84	52.5

\* The stabilization criteria for each field parameter (three consecutive readings collected at 3- to 5-minute intervals) is listed in each column heading.

OBSERVATIONS/SAMPLING METHOD DEVIATIONS

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**GROUNDWATER SAMPLING LOG**

Well No. OPCA MW-7 Site/GMA Name GIS Pittsfield / OPCA  
 Key No. yes Sampling Personnel M. MacKenzie  
 PID Background (ppm) 0.0 ppm Date 10-23-17  
 Well Headspace (ppm) 0.2 ppm Weather Cloudy 59°F

**WELL INFORMATION**

Reference Point Marked?  Y  N  
 Height of Reference Point -0.321' Meas. From TIC  
 Well Diameter 2.11"  
 Screen Interval Depth 14.04' - 24.09' Meas. From TIC  
 Water Table Depth 20.28' Meas. From TIC  
 Well Depth 23.44' Meas. From TIC  
 Length of Water Column 3.16'  
 Volume of Water in Well 0.5159 gals  
 Intake Depth of Pump/Tubing 2.22' Meas. From TIC

Sample Time 10:24:17 - 0955  
 Sample ID OPCA MW-7  
 Duplicate ID \_\_\_\_\_  
 MS/MSD \_\_\_\_\_  
 Split Sample ID \_\_\_\_\_

**Reference Point Identification:**

TIC: Top of Inner (PVC) Casing      BMP: Below Measuring Point  
 TOC: Top of Outer (Protective) Casing      ft: feet  
 Grade/BGS: Ground Surface      gal: gallons  
    ppm: parts per million

Redevelop?    Y   N

Additional well maintenance needed?  Y  N (if yes, describe below)

Correct size bottles needed

**EVACUATION INFORMATION**

Pump Start Time 1000  
 Pump Stop Time 1123  
 Minutes of Pumping 83  
 Volume of Water Removed 4.420 gals  
 Did Well Go Dry?  Y  N

10:24:17  
0955  
10:25  
30

Evacuation Method:    Bailer ( )    Bladder Pump ( )  
 Peristaltic Pump     Submersible Pump ( )    Other/Specify ( )  
 Pump Type: Geopump 5271  
 Samples collected by same method as evacuation?    Y  N (specify)

Water Quality Meter Type(s) / Serial Numbers:    YSI #: 110102401      HACH/LaMotte #: 3054  
 Air Quality Meter Type(s)/Serial Numbers:    Mini Rae 2000 # 9853  
 Water Level Meter Type(s)/Serial Numbers:    Sollant # 04420

Time	Pump Rate (mL/min.)	Total Gallons Removed	Water Level (ft TIC)	Temp. (Celsius) [3%]*	pH [0.1 units]*	Sp. Cond. (mS/cm) [3%]*	Turbidity (NTU) [10% or 1 NTU]*	DO (mg/l) [10% or 0.1 mg/l]*	ORP (mV) [10 mV]*
1005	200	0.264	20.42	12.98	6.94	5.109	11.0	5.08	235.3
1010	200	0.528	20.58	12.86	7.06	5.097	10.0	3.85	235.1
1015	100	0.660	20.62	13.04	7.11	5.023	8.92	4.79	231.7
1020	100	0.792	20.76	12.86	7.11	5.130	7.75	4.03	228.6
1025	200	1.056	20.92	12.76	7.13	5.171	6.09	3.59	221.1
1030	100	1.188	21.07	12.84	7.15	5.128	4.98	3.28	207.5
1035	200	1.302	21.24	12.94	7.14	5.073	8.85	3.82	204.2
1040	100	1.424	21.38	12.77	7.14	5.234	22.4	3.51	188.3

\* The stabilization criteria for each field parameter (three consecutive readings collected at 3- to 5-minute intervals) is listed in each column heading.

**OBSERVATIONS/SAMPLING METHOD DEVIATIONS**

hydrosteered rope in well, purge water clear and no odor. Changed out tubing in well.

**SAMPLE DESTINATION**

Laboratory: \_\_\_\_\_  
 Delivered Via: \_\_\_\_\_  
 Airbill #: \_\_\_\_\_

Field Sampling Coordinator: L. Pitman / A. Gibson

GROUNDWATER SAMPLING LOG

Well No. OPCA MW:7

Site/GMA Name GE Pittsfield / OPCA  
 Sampling Personnel M. Mackenzie  
 Date 10-23-17  
 Weather Cloudy 60°F

WELL INFORMATION - See Page 1

Time	Pump Rate (mL/min.)	Total Gallons Removed	Water Level (ft TIC)	Temp. (Celsius) [3%]*	pH [0.1 units]*	Sp. Cond. (mS/cm) [3%]*	Turbidity (NTU) [10% or 1 NTU]*	DO (mg/l) [10% or 0.1 mg/l]*	ORP (mV) [10 mV]*
10:45	100	1.576	21.55	12.80	7.15	5.239	12.6	3.34	1123.0
10:50	500	2.104	21.80	12.56	7.15	5.204	8.12	3.35	144.7
10:55	100	2.236	21.97	12.81	7.16	5.184	6.33	3.16	138.9
11:00	100	2.368	22.12	12.85	7.16	5.188	6.15	3.21	138.3
11:05	100	2.500	22.23	12.93	7.16	5.209	5.06	3.42	142.0
11:10	500	3.028	22.38	12.98	7.15	5.287	6.94	3.67	191.5
11:15	100	3.160	22.52	12.94	7.15	5.304	4.76	3.55	194.1
11:20	500	3.688	22.73	12.67	7.15	5.274	3.59	3.73	197.3
11:23	100	Well	Dried	Out					
10:24:17	100	0.0264	21.38	17.94	7.04	5.248	67.4	3.47	-7.2

\* The stabilization criteria for each field parameter (three consecutive readings collected at 3- to 5-minute intervals) is listed in each column heading.

OBSERVATIONS/SAMPLING METHOD DEVIATIONS 10:24:17 purge water turbid, no odor.  
pid 2.3 ppm, DTW = 21.22  
Unable to measure DTW after start of purge as tubing was tied to probe mac.



GROUNDWATER SAMPLING LOG

Well No. DPCA MW-7

Site/GMA Name GE Pittsfield / DPCA  
Sampling Personnel M. Mackenzie  
Date 10.23.17  
Weather Cloudy 59°F

WELL INFORMATION - See Page 1

OBSERVATIONS/SAMPLING METHOD DEVIATIONS

10.23.17  
At 1015 slowed purge to match historical  
purge. At 1025 to 1123 did increase in purge then decrease to  
attempt to "shock" the well into a stable depth to water

10.24.17 - Grabbed 1 set of parameter measurements and then  
collected sample due to well drying out.

Additional well maintenance needed?  N Well needs 3 correct sized botts.

GROUNDWATER SAMPLING LOG

Well No. OPCA MW-82  
 Key No. Yes  
 PID Background (ppm) 0.2  
 Well Headspace (ppm) 0.3

Site/GMA Name GE Pittsfield / OPCA  
 Sampling Personnel M. Mackenzie  
 Date 10-23-17  
 Weather Cloudy 100°F

WELL INFORMATION

Reference Point Marked?  Y  N  
 Height of Reference Point 1.93' Meas. From TIC  
 Well Diameter 4"  
 Screen Interval Depth 7.10-27.10 Meas. From TIC  
 Water Table Depth 18.32' Meas. From TIC  
 Well Depth 26.60' Meas. From TIC  
 Length of Water Column 8.28  
 Volume of Water in Well 5.382 gals  
 Intake Depth of Pump/Tubing 23.00' Meas. From TIC

Sample Time 1450  
 Sample ID OPCA MW-82  
 Duplicate ID ---  
 MS/MSD ---  
 Split Sample ID ---

Reference Point Identification:

TIC: Top of Inner (PVC) Casing  
 TOC: Top of Outer (Protective) Casing  
 Grade/BGS: Ground Surface

Redevelop?  Y  N

Additional well maintenance needed?  Y  N (if yes, describe below)

Required	Analytical Parameters:	Collected
( )	VOCs (Standard List)	( )
( )	VOCs (Expanded List)	( )
( X )	SVOCs	( )
( )	PCBs (Unfiltered)	( )
( X )	PCBs (Filtered)	( )
( )	Metals/Inorganics (Unfiltered)	( )
( X )	Metals/Inorganics (Filtered)	( )
( )	Total Cyanide (Unfiltered)	( )
( )	Total Cyanide (Filtered)	( )
( X )	PAC Cyanide (Filtered)	( )
( )	PCDDs/PCDFs	( )
( )	Pesticides/Herbicides	( )
( )	Natural Attenuation	( )
( X )	Other (Specify) <u>Sulfide</u>	( )

EVACUATION INFORMATION

Pump Start Time 1200  
 Pump Stop Time 1550  
 Minutes of Pumping 230  
 Volume of Water Removed 10.524  
 Did Well Go Dry?  Y  N

Evacuation Method: Bailer ( ) Bladder Pump ( )  
 Peristaltic Pump ( X ) Submersible Pump ( ) Other/Specify ( )  
 Pump Type: Geopump # 3054  
 Samples collected by same method as evacuation?  Y  N (specify)

Water Quality Meter Type(s) / Serial Numbers: VSI 556 m03 # 111102401

Air Quality Meter - Mini Rae 2500 # 9553 Water Level Meter Solinst # 64420

Time	Pump Rate (L/min.)	Total Gallons Removed	Water Level (ft TIC)	Temp. (Celsius) [3%]*	pH [0.1 units]*	Sp. Cond. (mS/cm) [3%]*	Turbidity (NTU) [10% or 1 NTU]*	DO (mg/l) [10% or 0.1 mg/l]*	ORP (mV) [10 mV]*
1205	200	0.264	18.74	14.01	7.22	5.069	3.59	6.70	117.5
1210	100	0.396	18.82	14.17	7.17	5.059	5.34	6.33	154.5
1215	500	0.924	19.10	13.89	7.15	5.034	6.28	6.166	124.3
1220	100	1.056	19.17	14.15	7.14	5.015	5.65	6.56	110.1
1225	500	1.604	19.37	14.01	7.14	4.953	11.2	7.08	92.1
1230	100	1.736	19.43	14.24	7.14	4.872	13.2	6.64	85.5
1235	500	2.264	19.63	14.08	7.14	4.803	21.1	7.33	83.3
1240	500	2.792	19.87	14.05	7.13	4.811	22.6	7.47	89.5

\* The stabilization criteria for each field parameter (three consecutive readings collected at 3- to 5-minute intervals) is listed in each column heading.

OBSERVATIONS/SAMPLING METHOD DEVIATIONS

Hydrosteeve rope in well. Replaced tubing in well.  
Large water clear with no odor.

SAMPLE DESTINATION

Laboratory: \_\_\_\_\_  
 Delivered Via: \_\_\_\_\_  
 Airbill #: \_\_\_\_\_

Field Sampling Coordinator: A Gibson



**GROUNDWATER SAMPLING LOG**

Well No. DPCA MW 82

Site/GMA Name GE Pittsfield / DPCA  
 Sampling Personnel M. Mackenzie  
 Date 10.23.17  
 Weather Cloudy 60°F

WELL INFORMATION - See Page 1

Time	Pump Rate (L/min.)	Total Gallons Removed	Water Level (ft TIC)	Temp. (Celsius) [3%]*	pH [0.1 units]*	Sp. Cond. (mS/cm) [3%]*	Turbidity (NTU) [10% or 1 NTU]*	DO (mg/l) [10% or 0.1 mg/l]*	ORP (mV) [10 mV]*
1245	100	2.924	19.95	14.24	7.13	4.830	22.2	7.37	96.1
1250	100	3.056	20.03	14.26	7.13	4.887	19.4	7.47	99.8
1255	500	3.584	20.22	14.03	7.12	4.915	21.7	8.16	84.0
1300	100	3.716	20.28	14.18	7.13	4.904	19.4	7.97	81.1
1305	100	3.848	20.34	14.24	7.13	4.923	19.9	8.09	84.9
1310	500	4.376	20.65	14.00	7.13	4.926	24.8	8.67	78.5
1315	100	4.508	20.70	14.31	7.13	4.914	26.2	8.04	83.3
1320	100	4.640	20.75	14.33	7.13	4.940	26.3	8.13	82.4
1325	500	5.138	21.07	14.00	7.13	4.920	24.4	8.49	83.1
1330	100	5.270	21.10	14.30	7.13	4.912	20.9	8.40	85.1
1335	100	5.402	21.14	14.34	7.13	4.935	19.8	8.45	77.6
1340	500	5.910	21.32	14.06	7.13	4.921	17.4	8.45	64.4
1345	100	6.042	21.34	14.40	7.14	4.915	15.1	8.40	78.4
1350	100	6.174	21.37	14.42	7.13	4.963	12.9	8.34	85.8
1355	500	6.702	21.44	14.23	7.13	4.972	11.8	8.28	85.9
1400	500	7.230	21.65	14.07	7.14	4.877	15.4	8.72	81.3
1405	100	7.362	21.67	14.34	7.14	4.862	11.4	8.64	88.4
1410	100	7.494	21.67	14.37	7.14	4.883	12.5	8.57	91.9
1415	100	7.626	21.67	14.34	7.14	4.893	13.4	8.59	90.3
1420	100	7.758	21.70	14.37	7.13	4.919	13.5	8.51	90.0
1425	500	8.286	21.83	14.11	7.13	4.912	12.1	8.49	92.2
1430	100	8.412	21.84	14.19	7.14	4.973	10.5	8.51	92.8
1435	100	8.544	21.83	14.18	7.13	5.025	9.15	8.45	94.4
1440	100	8.676	21.83	14.12	7.12	5.041	10.8	8.53	98.7
1445	100	8.808	21.83	14.07	7.12	5.047	11.5	8.42	97.4
1450	100	8.940	21.83	14.06	7.12	5.051	10.9	8.44	99.2

\* The stabilization criteria for each field parameter (three consecutive readings collected at 3- to 5-minute intervals) is listed in each column heading.

OBSERVATIONS/SAMPLING METHOD DEVIATIONS \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**GROUNDWATER SAMPLING LOG**

Well No. DPCA MW-8R Site/GMA Name GE Pittsfield / DPCA  
Sampling Personnel M. Mackenzie  
Date 10.23.17  
Weather Cloudy 60°F

WELL INFORMATION - See Page 1

OBSERVATIONS/SAMPLING METHOD DEVIATIONS

Started purge @ 200 ml/minute. Due to immediate drawdown started purging at 100 ml/min @ 12:10. At 12:15 to 14:25 attempted increasing purge rate then decreasing rate to "shock" the well into stabilizing water level. Water level stabilized @ 14:30 - 14:50.



GROUNDWATER SAMPLING LOG

Site/GMA Name: GE/OPCA  
 Deployment : Personnel: A Gibson  
 Date/Time: 10/27/17 / 1430  
 Weather: 45° sunny  
 Well No.: OPCA-MW-7  
 Key No.: \_\_\_\_\_  
 PID Background (ppm): 0.0  
 Well Headspace (ppm): 12.1  
 Sampling Personnel: GAR PTR  
 Date: 11/14/17  
 Weather: cloudy, 36°F

WELL INFORMATION

Reference Point Marked? Y N  
 Height of Reference Point: \_\_\_\_\_ Meas. From: TIC  
 Well Diameter: 23.14-23.64 ft  
 11/14/17 Screen Interval Depth: 2 inch Meas. From: TIC  
 20.95' Water Table Depth: 20.68 Meas. From: TIC  
 Well Depth: 23.68 Meas. From: TIC  
 Length of Water Column: 2-9.2 ft  
 Volume of Water in Well: 0.77 gal

Sample Time: 17:00  
 Sample ID: OPCA-MW-7  
 Duplicate ID: \_\_\_\_\_  
 MS/MSD: \_\_\_\_\_  
 Split Sample ID: \_\_\_\_\_

Required	Analytical Parameters:	Collected
<input checked="" type="checkbox"/>	VOCs (Standard List)	<input checked="" type="checkbox"/> (3)
<input type="checkbox"/>	VOCs (Expanded List)	<input type="checkbox"/>
<input type="checkbox"/>	SVOCs	<input type="checkbox"/>
<input type="checkbox"/>	PCBs (Unfiltered)	<input type="checkbox"/>
<input type="checkbox"/>	PCBs (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	Metals/Inorganics (Unfiltered)	<input type="checkbox"/>
<input type="checkbox"/>	Metals/Inorganics (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	Total Cyanide (Unfiltered)	<input type="checkbox"/>
<input type="checkbox"/>	Total Cyanide (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	PAC Cyanide (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	PCDDs/PCDFs	<input type="checkbox"/>
<input type="checkbox"/>	Pesticides/Herbicides	<input type="checkbox"/>
<input type="checkbox"/>	Natural Attenuation	<input type="checkbox"/>
<input type="checkbox"/>	Other (Specify)	<input type="checkbox"/>

Reference Point Identification:

TIC: Top of Inner (PVC) Casing  
 TOC: Top of Outer (Protective) Casing  
 Grade/BGS: Ground Surface

Redevelop? Y N

Additional well maintenance needed? Y N (if yes, describe below)

PDB Information

PDB Length/diameter: 1.5 ft / 2 in.  
 PDB Material: Poly  
 PDBs Filled: Lab / Field  
 Tether Assembled: Lab / Field  
 Line/Tether Material diameter: 1/16 inch  
 Weight Type/Position: stainless steel weight below pdb

Water Quality Meters Types(s)/Serial Numbers:

VSI Pme# 21453  
PID Pme# 27298  
Water level Pme# 27937

PDB Collection				PDB replacement	
Depth	GW Appearance		Number of PDBs at	Depth	Number of
feet (bmp)	Color	Odor	Collection Depth	(ft bmp)	PDBs
	<u>clear</u>	<u>none</u>	<u>1</u>		

	10/27/17	11/14/17
Downhole Field Parameters	<u>7.00</u>	<u>7.62</u>
pH (SU)	<u>4.545</u>	<u>1.880</u>
Specific Conductivity (ms/cm)	<u>28.5</u>	<u>91.4</u>
ORP (mV)	<u>14.56</u>	<u>1119°C</u>
Temperature (°C)	<u>5.99</u>	<u>4.46</u>
DO (mg/L)	<u>115 NTU</u>	<u>108 ntU</u>
Turbidity		

OBSERVATIONS/SAMPLING METHOD DEVIATIONS

SAMPLE DESTINATION

Laboratory: SGS Orlando, FL  
 Delivered Via: Fedex  
 Airbill #: 7884 72303336

Field Sampling Coordinator: A. Gibson

GROUNDWATER SAMPLING LOG

Site/GMA Name GE/OPCA  
 Deployment Personnel A. Gibson  
 Date/Time 10/27/17/1530  
 Weather 49°F Sunny  
 Well No. OPCA-MW-8R  
 Key No. \_\_\_\_\_  
 PID Background (ppm) 0.0  
 Well Headspace (ppm) 1.2  
 Sampling Personnel PTR/GAR  
 Date 11/14/17  
 Weather cloudy, 36°F

WELL INFORMATION

Reference Point Marked? Y N  
 Height of Reference Point 2.19 ft Meas. From TIC  
 Well Diameter 4 inches Meas. From TIC  
 11/14/17 Screen Interval Depth 7.27 ft Meas. From TIC  
 18.28' Water Table Depth 18.63 Meas. From TIC  
 Well Depth 26.78 Meas. From TIC  
 Length of Water Column 8.15  
 Volume of Water in Well 1.33 gal.

Sample Time 17:30  
 Sample ID OPCA-MW-8R  
 Duplicate ID OPCA-DUPI-20171114  
 MS/MSD OPCA-MW-8R-MS+  
 Split Sample ID OPCA-MW-8R-MSD

Required	Analytical Parameters:	Collected
<input checked="" type="checkbox"/>	VOCs (Standard List) + DuP	<input checked="" type="checkbox"/>
<input type="checkbox"/>	VOCs (Expanded List)	<input type="checkbox"/>
<input type="checkbox"/>	SVOCs	<input type="checkbox"/>
<input type="checkbox"/>	PCBs (Unfiltered)	<input type="checkbox"/>
<input type="checkbox"/>	PCBs (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	Metals/Inorganics (Unfiltered)	<input type="checkbox"/>
<input type="checkbox"/>	Metals/Inorganics (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	Total Cyanide (Unfiltered)	<input type="checkbox"/>
<input type="checkbox"/>	Total Cyanide (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	PAC Cyanide (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	PCDDs/PCDFs	<input type="checkbox"/>
<input type="checkbox"/>	Pesticides/Herbicides	<input type="checkbox"/>
<input type="checkbox"/>	Natural Attenuation	<input type="checkbox"/>
<input checked="" type="checkbox"/>	VOC Other (Specify) MS/MSD	<input checked="" type="checkbox"/>

Reference Point Identification:

TIC: Top of Inner (PVC) Casing  
 TOC: Top of Outer (Protective) Casing  
 Grade/BGS: Ground Surface

Redevelop? Y (N)

Additional well maintenance needed? Y (N) (if yes, describe below)

PDB Information

PDB Length/diameter 1.5ft/2in.  
 PDB Material poly  
 PDBs Filled Lab Field  
 Tether Assembled Lab Field  
 Line/Tether Material diameter 1/16 inch  
 Weight Type/Position stainless steel weight below pdb

Water Quality Meters Types(s)/Serial Numbers:

VSI 556 Pine # 21453  
PID Pine # 27298  
Water level Meter # 27937

PDB Collection			PDB replacement	
Depth	GW Appearance	Number of PDBs at	Depth	Number of
feet (bmp)	Color	Collection Depth	(ft bmp)	PDBs
	<u>clear</u>	<u>3</u>		
	<u>none</u>			

	10/27/17	11/14/17
Downhole Field Parameters	<u>7.27</u>	<u>7.67</u>
pH (SU)	<u>4.430</u>	<u>3.441</u>
Specific Conductivity (ms/cm)	<u>59.8</u>	<u>115.5</u>
ORP (mV)	<u>13.84</u>	<u>11.32</u>
Temperature (°C)	<u>7.91</u>	<u>8.14</u>
DO (mg/L)	<u>28 NTH</u>	<u>62 ntu</u>
Turbidity		

OBSERVATIONS/SAMPLING METHOD DEVIATIONS

3 PDBs deployed for QA  
Duplicate sample and MS/MSD collected at this location.

SAMPLE DESTINATION

Laboratory: SGS Orlando, FL  
 Delivered Via: Fedex  
 Airbill #: 788472303336

Field Sampling Coordinator: A. Gibson

GROUNDWATER SAMPLING LOG

Well No. OPCA-MW-4  
 Key No. \_\_\_\_\_  
 PID Background (ppm) 0.0  
 Well Headspace (ppm) 12.2

Site/GMA Name 6E/OPCA  
 Deployment Personnel A. Gibson  
 Date/Time 10/27/17/1100  
 Weather 45°F Sunny

Sampling Personnel PTR  
 Date 11/14/17  
 Weather cloudy, 36°F

WELL INFORMATION

Reference Point Marked? (N)  
 Height of Reference Point -0.65 ft Meas. From TIC  
 Well Diameter 2 inch Meas. From TIC  
 Screen Interval Depth 11.47-26.47 ft Meas. From TIC  
 Water Table Depth 13.25 ft Meas. From TIC  
 Well Depth 21.46 ft Meas. From TIC  
 Length of Water Column 8.21 ft  
 Volume of Water in Well 1.34 gal

Sample Time 16:20  
 Sample ID OPCA-MW-4  
 Duplicate ID \_\_\_\_\_  
 MS/MSD \_\_\_\_\_  
 Split Sample ID \_\_\_\_\_

Reference Point Identification:

TIC: Top of Inner (PVC) Casing  
 TOC: Top of Outer (Protective) Casing  
 Grade/BGS: Ground Surface

Redevelop? Y (W)

Additional well maintenance needed? Y (N) (if yes, describe below)

Required	Analytical Parameters	Collected
<input checked="" type="checkbox"/>	VOCs (Standard List)	<u>(3)</u>
<input type="checkbox"/>	VOCs (Expanded List)	<input type="checkbox"/>
<input type="checkbox"/>	SVOCs	<input type="checkbox"/>
<input type="checkbox"/>	PCBs (Unfiltered)	<input type="checkbox"/>
<input type="checkbox"/>	PCBs (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	Metals/inorganics (Unfiltered)	<input type="checkbox"/>
<input type="checkbox"/>	Metals/inorganics (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	Total Cyanide (Unfiltered)	<input type="checkbox"/>
<input type="checkbox"/>	Total Cyanide (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	PAC Cyanide (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	PCDDs/PCDFs	<input type="checkbox"/>
<input type="checkbox"/>	Pesticides/Herbicides	<input type="checkbox"/>
<input type="checkbox"/>	Natural Attenuation	<input type="checkbox"/>
<input type="checkbox"/>	Other (Specify)	<input type="checkbox"/>

PDB Information

PDB Length/diameter 1.5 ft / 2 inch  
 PDB Material Poly  
 PDBs Filled (Lab / Field)  
 Tether Assembled (Lab / Field)  
 Line/Tether Material diameter 1/16 inch  
 Weight Type/Position stainless steel weight below PDB

Water Quality Meters Types(s)/Serial Numbers:

YSI Pine # 21453  
PID Pine # 27298  
Water level Pine # 27937

PDB Collection			PDB replacement	
Depth	GW Appearance	Number of PDBs at	Depth	Number of
feet (bmp)	Color	Collection Depth	(ft bmp)	PDBs
	<u>clear</u>	<u>none</u>	<u>1</u>	

Downhole Field Parameters

	10/27/17	11/14/17
pH (SU)	<u>6.62</u>	<u>7.68</u>
Specific Conductivity (ms/cm)	<u>0.400</u>	<u>0.707</u>
ORP (mV)	<u>270.4</u>	<u>152.5</u>
Temperature (°C)	<u>12.28</u>	<u>12.83</u>
DO (mg/L)	<u>5.63</u>	<u>4.14</u>
Turbidity	<u>28 NTU</u>	<u>57 ntu</u>

OBSERVATIONS/SAMPLING METHOD DEVIATIONS

SAMPLE DESTINATION

Laboratory: SGS Orlando, FL  
 Delivered Via: Fedex  
 Airbill #: 7884 723 633 36

Field Sampling Coordinator: A. Gibson

GROUNDWATER SAMPLING LOG

Well No. OPCA-MW-2R  
 Key No. \_\_\_\_\_  
 PID Background (ppm) 0.0  
 Well Headspace (ppm) 0.0

Site/GMA Name GE/OPCA  
 Deployment Personnel A. Gibson  
 Date/Time 10/27/17 / 0950  
 Weather 45°F sunny  
36°F cloudy  
 Sampling Personnel PTIR  
 Date 11/14/17  
 Weather 36°F cloudy

WELL INFORMATION

Reference Point Marked? 1.74 ft  
 Height of Reference Point 1.74 ft Meas. From TIC  
 Well Diameter 2 inch  
 Screen Interval Depth 23.04 - 23.24 ft Meas. From TIC  
23.59 Water Table Depth 23.45 ft Meas. From TIC  
 Well Depth 27.14 ft Meas. From TIC  
 Length of Water Column 3.29 ft  
 Volume of Water in Well 0.54 gal.

Sample Time 11:30  
 Sample ID OPCA-MW-2R  
 Duplicate ID \_\_\_\_\_  
 MS/MSD \_\_\_\_\_  
 Split Sample ID \_\_\_\_\_

Reference Point Identification:

TIC: Top of Inner (PVC) Casing  
 TOC: Top of Outer (Protective) Casing  
 Grader/BGS: Ground Surface

Redevelop? Y N

Additional well maintenance needed? Y N (if yes, describe below)

Required	Analytical Parameters:	Collected
<input checked="" type="checkbox"/>	VOCs (Standard List)	( 3 )
<input type="checkbox"/>	VOCs (Expanded List)	( )
<input type="checkbox"/>	SVOCs	( )
<input type="checkbox"/>	PCBs (Unfiltered)	( )
<input type="checkbox"/>	PCBs (Filtered)	( )
<input type="checkbox"/>	Metals/Inorganics (Unfiltered)	( )
<input type="checkbox"/>	Metals/Inorganics (Filtered)	( )
<input type="checkbox"/>	Total Cyanide (Unfiltered)	( )
<input type="checkbox"/>	Total Cyanide (Filtered)	( )
<input type="checkbox"/>	PAC Cyanide (Filtered)	( )
<input type="checkbox"/>	PCDDs/PCDFs	( )
<input type="checkbox"/>	Pesticides/Herbicides	( )
<input type="checkbox"/>	Natural Attenuation	( )
<input type="checkbox"/>	Other (Specify)	( )

PDB Information

PDB Length/diameter 1.5 ft / 2 inch  
 PDB Material Poly  
 PDBs Filled Lab / Field  
 Tether Assembled Lab / Field  
 Line/Tether Material diameter 4/16 inch  
 Weight Type/Position stainless steel weight below PDB

Water Quality Meters Types(s)/Serial Numbers:

YSI Pine # 21453  
PID Pine # 27298  
Water level Pme # 27937

PDB Collection			PDB replacement		
Depth	GW Appearance		Number of PDBs at	Depth	Number of
feet (bmp)	Color	Odor	Collection Depth	(ft bmp)	PDBs
	<u>clear</u>	<u>NONE</u>	<u>1</u>		

Downhole Field Parameters	10/27/17	11/14/17
pH (SU)	<u>6.63</u>	<u>7.36</u>
Specific Conductivity (ms/cm)	<u>9,800</u>	<u>0.611</u>
ORP (mV)	<u>224.1</u>	<u>202.80</u>
Temperature (°C)	<u>13.03</u>	<u>10.37</u>
DO (mg/L)	<u>1.41</u>	<u>3.94</u>
Turbidity	<u>41</u>	<u>26</u>

OBSERVATIONS/SAMPLING METHOD DEVIATIONS

SAMPLE DESTINATION

Laboratory: SGS orlando  
 Delivered Via: Fedex  
 Airbill #: 788472303336

Field Sampling Coordinator: Andrew Gibson

GROUNDWATER SAMPLING LOG

Site/GMA Name: GE / OPCA  
 Deployment Personnel: A. Gibson  
 Date/Time: 10/27/17 / 0855  
 Weather: 45°F, SUNNY  
 Well No.: H78B-15  
 Key No.: \_\_\_\_\_  
 PID Background (ppm): 0.0  
 Well Headspace (ppm): 0.5  
 Sampling Personnel: PTR / GAR  
 Date: 11/14/17  
 Weather: Cloudy, 36°F

WELL INFORMATION

Reference Point Marked? Y N  
 Height of Reference Point: \_\_\_\_\_ Meas. From: TIC  
 Well Diameter: 3/4 inch  
 Screen Interval Depth: 8.88-18.88 ft Meas. From: TIC  
 Water Table Depth: 15.61 Meas. From: TIC  
 Well Depth: 18.18 Meas. From: TIC  
 Length of Water Column: 2.57 ft  
 Volume of Water in Well: 0.42 gal.  
 Sample Time: 13:00  
 Sample ID: H78B-15  
 Duplicate ID: \_\_\_\_\_  
 MS/MSD: \_\_\_\_\_  
 Split Sample ID: \_\_\_\_\_

Reference Point Identification:

TIC: Top of Inner (PVC) Casing  
 TOC: Top of Outer (Protective) Casing  
 Grade/BGS: Ground Surface

Redevelop? Y N

Additional well maintenance needed? Y N (if yes, describe below)

Required	Analytical Parameters:	Collected
<input checked="" type="checkbox"/>	VOCs (Standard List)	( 3 )
<input type="checkbox"/>	VOCs (Expanded List)	( )
<input type="checkbox"/>	SVOCs	( )
<input type="checkbox"/>	PCBs (Unfiltered)	( )
<input type="checkbox"/>	PCBs (Filtered)	( )
<input type="checkbox"/>	Metals/Inorganics (Unfiltered)	( )
<input type="checkbox"/>	Metals/Inorganics (Filtered)	( )
<input type="checkbox"/>	Total Cyanide (Unfiltered)	( )
<input type="checkbox"/>	Total Cyanide (Filtered)	( )
<input type="checkbox"/>	PAC Cyanide (Filtered)	( )
<input type="checkbox"/>	PCDDs/PCDFs	( )
<input type="checkbox"/>	Pesticides/Herbicides	( )
<input type="checkbox"/>	Natural Attenuation	( )
<input type="checkbox"/>	Other (Specify)	( )

PDB Information

PDB Length/diameter: ~2.1 ft / 3/4"  
 PDB Material: Poly  
 PDBs Filled: Lab / Field  
 Tether Assembled: Lab / Field  
 Line/Tether Material diameter: 1/16 inch  
 Weight Type/Position: Stainless steel weight below PDB

Water Quality Meters Types(s)/Serial Numbers:

Hach 2100P: 021000028329 YSI Pine\* 21453  
YSI MPS 556: 28197 PPD Pine\* 27298  
Water level Pine\* 27937

Depth feet (bmp)	PDB Collection		Number of PDBs at Collection Depth	PDB replacement	
	Color	Odor		Depth (ft bmp)	Number of PDBs
	<u>Clear</u>	<u>NONE</u>	<u>1</u>		

Downhole Field Parameters

Parameter	10/27/17	11/14/17
pH (SU)	<u>6.28</u>	<u>7.73</u>
Specific Conductivity (ms/cm)	<u>1.811</u>	<u>0.846</u>
ORP (mV)	<u>180.6</u>	<u>182.6</u>
Temperature (°C)	<u>11.58</u>	<u>12.750</u>
DO (mg/L)	<u>7.60</u>	<u>6.25</u>
Turbidity	<u>3 NTU</u>	<u>5 NTU</u>

OBSERVATIONS/SAMPLING METHOD DEVIATIONS

14.20' No water; Water level at 15.09 feet

SAMPLE DESTINATION

Laboratory: SGS Orlando, FL  
 Delivered Via: Fedex  
 Airbill #: 7884 72303336

Field Sampling Coordinator: A. Gibson

GROUNDWATER SAMPLING LOG

Well No. OPCA-MW-SR  
 Key No. \_\_\_\_\_  
 PID Background (ppm) 0.0  
 Well Headspace (ppm) 1.9

Site/GMA Name GE/OPCA  
 Deployment Personnel A. Gibson  
 Date/Time 10/27/17 / 1115  
 Weather 45°F, sunny

Sampling Personnel P. Rabasco  
 Date 11/14/17  
 Weather cloudy, 36°F

WELL INFORMATION

Reference Point Marked?  N  
 Height of Reference Point \_\_\_\_\_ Meas. From TIC  
 Well Diameter 2 inch  
 11/14/17 Screen Interval Depth 10.9-20.90 ft Meas. From TIC  
 13.00' Water Table Depth 13.73 ft Meas. From TIC  
 Well Depth 21.58 ft Meas. From TIC  
 Length of Water Column 7.83 ft  
 Volume of Water in Well 1.28 gal

Sample Time 15:45  
 Sample ID OPCA-MW-SR  
 Duplicate ID \_\_\_\_\_  
 MS/MSD \_\_\_\_\_  
 Split Sample ID \_\_\_\_\_

Required	Analytical Parameters:	Collected
<input checked="" type="checkbox"/>	VOCs (Standard List)	<input checked="" type="checkbox"/> 3
<input type="checkbox"/>	VOCs (Expanded List)	<input type="checkbox"/>
<input type="checkbox"/>	SVOCs	<input type="checkbox"/>
<input type="checkbox"/>	PCBs (Unfiltered)	<input type="checkbox"/>
<input type="checkbox"/>	PCBs (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	Metals/Inorganics (Unfiltered)	<input type="checkbox"/>
<input type="checkbox"/>	Metals/Inorganics (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	Total Cyanide (Unfiltered)	<input type="checkbox"/>
<input type="checkbox"/>	Total Cyanide (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	PAC Cyanide (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	PCDDs/PCDFs	<input type="checkbox"/>
<input type="checkbox"/>	Pesticides/Herbicides	<input type="checkbox"/>
<input type="checkbox"/>	Natural Attenuation	<input type="checkbox"/>
<input type="checkbox"/>	Other (Specify)	<input type="checkbox"/>

Reference Point Identification:

TIC: Top of Inner (PVC) Casing  
 TOC: Top of Outer (Protective) Casing  
 Grade/BGS: Ground Surface

Redevelop? Y  N

Additional well maintenance needed? Y  (if yes, describe below)

PDB Information

PDB Length/diameter 1.5ft/2inch  
 PDB Material Poly  
 PDBs Filled  Lab /  Field  
 Tether Assembled  Lab /  Field  
 Line/Tether Material diameter 1/16 inch  
 Weight Type/Position Stainless steel weight below pdb

Water Quality Meters Types(s)/Serial Numbers:

VSI 556 Pine # 21453  
PID Pine # 27298  
Water level Pine # 27937

PDB Collection			PDB replacement	
Depth	GW Appearance		Depth	Number of
feet (bmp)	Color	Odor	(ft bmp)	PDBs
	<u>clear</u>	<u>none</u>		<u>1</u>

	10/27/17	11/14/17
Downhole Field Parameters	<u>6.56</u>	<u>8.10</u>
pH (SU)	<u>0.177</u>	<u>0.206</u>
Specific Conductivity (ms/cm)	<u>259.7</u>	<u>129.6</u>
ORP (mV)	<u>13.88</u>	<u>12.92</u>
Temperature (°C)	<u>5.62</u>	<u>4.80</u>
DO (mg/L)	<u>89NTU</u>	<u>406.0</u>
Turbidity		

OBSERVATIONS/SAMPLING METHOD DEVIATIONS

Water was turbid in well

SAMPLE DESTINATION

Laboratory: SGS Orlando, FL  
 Delivered Via: Fedex  
 Airbill #: 7884 723 0333 6

Field Sampling Coordinator: A. Gibson



GROUNDWATER SAMPLING LOG

Well No. GMA4-9  
 Key No. \_\_\_\_\_  
 PID Background (ppm) 0.0  
 Well Headspace (ppm) 0.1

Site/GMA Name GE/GMA4  
 Deployment Personnel A. Gibson  
 Date/Time 10/27/17 11340  
 Weather 46°F Sunny

Sampling Personnel PTR  
 Date 11/14/17  
 Weather cloudy, 36°F

WELL INFORMATION

Reference Point Marked? 0 N  
 Height of Reference Point \_\_\_\_\_ Meas. From TIC  
 Well Diameter 2 inch  
 11/14/17 Screen Interval Depth 5.28-17.28 ft Meas. From TIC  
9.92 Water Table Depth 10.07 ft Meas. From TIC  
 Well Depth 17.94 ft Meas. From TIC  
 Length of Water Column 7.87 ft  
 Volume of Water in Well 3.94 ft<sup>3</sup> AG  
1.28 gal

Sample Time 15:15  
 Sample ID GMA4-9  
 Duplicate ID \_\_\_\_\_  
 MS/MSD \_\_\_\_\_  
 Split Sample ID \_\_\_\_\_

Required	Analytical Parameters:	Collected
<input checked="" type="checkbox"/>	VOCs (Standard List)	<input checked="" type="checkbox"/> (3)
<input type="checkbox"/>	VOCs (Expanded List)	<input type="checkbox"/>
<input type="checkbox"/>	SVOCs	<input type="checkbox"/>
<input type="checkbox"/>	PCBs (Unfiltered)	<input type="checkbox"/>
<input type="checkbox"/>	PCBs (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	Metals/Inorganics (Unfiltered)	<input type="checkbox"/>
<input type="checkbox"/>	Metals/Inorganics (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	Total Cyanide (Unfiltered)	<input type="checkbox"/>
<input type="checkbox"/>	Total Cyanide (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	PAC Cyanide (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	PCDDs/PCDFs	<input type="checkbox"/>
<input type="checkbox"/>	Pesticides/Herbicides	<input type="checkbox"/>
<input type="checkbox"/>	Natural Attenuation	<input type="checkbox"/>
<input type="checkbox"/>	Other (Specify)	<input type="checkbox"/>

Reference Point Identification:

TIC: Top of Inner (PVC) Casing  
 TOC: Top of Outer (Protective) Casing  
 Grade/BGS: Ground Surface

Redevelop? Y  N

Additional well maintenance needed? Y  (if yes, describe below)

PDB Information

PDB Length/diameter 1.5 ft / 2 inch  
 PDB Material Poly  
 PDBs Filled Lab / Field  
 Tether Assembled Lab / Field  
 Line/Tether Material diameter 1/16 inch  
 Weight Type/Position Stainless Steel weight below pdb

Water Quality Meters Types(s)/Serial Numbers:

YSI Pipe # 21453  
PID Pipe # 27298  
Water level pipe # 27937

PDB Collection			PDB replacement	
Depth	GW Appearance		Depth	Number of
feet (bmp)	Color	Odor	(ft bmp)	PDBs
	<u>clear</u>	<u>none</u>		<u>1</u>

Downhole Field Parameters

	10/27/17	11/14/17
pH (SU)	<u>7.26</u>	<u>7.94</u>
Specific Conductivity (ms/cm)	<u>0.301</u>	<u>0.378</u>
ORP (mV)	<u>200.3</u>	<u>126.9</u>
Temperature (°C)	<u>14.82</u>	<u>11.72</u>
DO (mg/L)	<u>3.7</u>	<u>5.37</u>
Turbidity	<u>3.8 NTU</u>	<u>5.8</u>

OBSERVATIONS/SAMPLING METHOD DEVIATIONS

SAMPLE DESTINATION

Laboratory: SGS Orlando, FL  
 Delivered Via: Fedex  
 Airbill #: 7884723 033 47

Field Sampling Coordinator: A. Gibson

GROUNDWATER SAMPLING LOG

Well No. GMA 4-8  
 Key No. -  
 PID Background (ppm) 0.0  
 Well Headspace (ppm) 0.5

Site/GMA Name GE/GMA 4  
 Deployment / Personnel A. Gibson  
 Date/Time 10/27/17 / 1500  
 Weather 10/27/17 / 45°F, Sunny

Sampling Personnel PTR  
 Date 11/14/17  
 Weather Cloudy, 36°F

WELL INFORMATION

Reference Point Marked? Y N  
 Height of Reference Point TIC  
 Well Diameter 2 inch  
 Screen Interval Depth 9.52-31.52 ft  
 Water Table Depth 25.43  
 Well Depth 31.25  
 Length of Water Column 6.32  
 Volume of Water in Well 1.03

Meas. From TIC  
 Meas. From TIC  
 Meas. From TIC  
 Meas. From TIC

Sample Time 12:10  
 Sample ID GMA 4-8  
 Duplicate ID GMA 4-DUPI-20171114  
 MS/MSD GMA 4-8-MS + GMA 4-8-MSD  
 Split Sample ID -

Reference Point Identification:

TIC: Top of Inner (PVC) Casing  
 TOC: Top of Outer (Protective) Casing  
 Grade/BGS: Ground Surface

Redevelop? Y

Additional well maintenance needed? Y  (if yes, describe below)

Required	Analytical Parameters:	Collected
<input checked="" type="checkbox"/>	VOCs (Standard List) + DUP	<u>6</u>
<input type="checkbox"/>	VOCs (Expanded List)	<input type="checkbox"/>
<input type="checkbox"/>	SVOCs	<input type="checkbox"/>
<input type="checkbox"/>	PCBs (Unfiltered)	<input type="checkbox"/>
<input type="checkbox"/>	PCBs (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	Metals/Inorganics (Unfiltered)	<input type="checkbox"/>
<input type="checkbox"/>	Metals/Inorganics (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	Total Cyanide (Unfiltered)	<input type="checkbox"/>
<input type="checkbox"/>	Total Cyanide (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	PAC Cyanide (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	PCDDs/PCDFs	<input type="checkbox"/>
<input type="checkbox"/>	Pesticides/Herbicides	<input type="checkbox"/>
<input type="checkbox"/>	Natural Attenuation	<input type="checkbox"/>
<input checked="" type="checkbox"/>	VOC Other (Specify) MS/MSD	<u>6</u>

PDB Information

PDB Length/diameter 1.5 ft / 2 inch  
 PDB Material Poly  
 PDBs Filled Lab / Field  
 Tether Assembled Lab / Field  
 Line/Tether Material diameter 1/16 inch  
 Weight Type/Position Stainless steel weight below pdb

Water Quality Meters Types(s)/Serial Numbers:

YSI Pine + 21453  
PID Pine + 27298  
Water level # 27937

PDB Collection			PDB replacement	
Depth	GW Appearance		Depth	Number of
feet (bmp)	Color	Odor	(ft bmp)	PDBs
	<u>clear</u>	<u>none</u>	<u>2</u>	

Downhole Field Parameters

	10/27/17	11/14/17
pH (SU)	<u>7.02</u>	<u>7.44</u>
Specific Conductivity (ms/cm)	<u>2.078</u>	<u>1.092</u>
ORP (mV)	<u>34.9</u>	<u>207.6</u>
Temperature (°C)	<u>14.68</u>	<u>9.94</u>
DO (mg/L)	<u>3.11</u>	<u>2.49</u>
Turbidity	<u>115 NTU</u>	<u>28 ntu</u>

OBSERVATIONS/SAMPLING METHOD DEVIATIONS

Duplicate and MS/MSD collected here.

Extra PDB installed for QC

SAMPLE DESTINATION

Laboratory: SGS Orlando, FL  
 Delivered Via: Fedex  
 Airbill #: 7884 7230 3347

Field Sampling Coordinator: A. Gibson

GROUNDWATER SAMPLING LOG

Site/GMA Name GE/GMA4  
 Deployment : Personnel A. Gibson  
 Date/Time 10/27/17 1540  
 Weather 48°F, Sunny  
 Well No. GMA4-75  
 Key No. \_\_\_\_\_  
 PID Background (ppm) 0.0  
 Well Headspace (ppm) 0.9  
 Sampling Personnel CHARI PTR  
 Date 11/14/17  
 Weather Cloudy, 36°F

WELL INFORMATION

Reference Point Marked? Q N  
 Height of Reference Point \_\_\_\_\_ Meas. From TIC  
 Well Diameter 2 inch Meas. From TIC  
 Screen Interval Depth 11.74-26.74 ft Meas. From TIC  
 11/14/17 17.07' Water Table Depth \_\_\_\_\_ Meas. From TIC  
 Well Depth 26.58 Meas. From TIC  
 Length of Water Column 9.21  
 Volume of Water in Well 1.5 gal

Sample Time 14:20  
 Sample ID GMA4-75  
 Duplicate ID \_\_\_\_\_  
 MS/MSD \_\_\_\_\_  
 Split Sample ID \_\_\_\_\_

Required	Analytical Parameters:	Collected
<input checked="" type="checkbox"/>	VOCs (Standard List)	<u>3</u>
<input type="checkbox"/>	VOCs (Expanded List)	<input type="checkbox"/>
<input type="checkbox"/>	SVOCs	<input type="checkbox"/>
<input type="checkbox"/>	PCBs (Unfiltered)	<input type="checkbox"/>
<input type="checkbox"/>	PCBs (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	Metals/Inorganics (Unfiltered)	<input type="checkbox"/>
<input type="checkbox"/>	Metals/Inorganics (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	Total Cyanide (Unfiltered)	<input type="checkbox"/>
<input type="checkbox"/>	Total Cyanide (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	PAC Cyanide (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	PCDDs/PCDFs	<input type="checkbox"/>
<input type="checkbox"/>	Pesticides/Herbicides	<input type="checkbox"/>
<input type="checkbox"/>	Natural Attenuation	<input type="checkbox"/>
<input type="checkbox"/>	Other (Specify)	<input type="checkbox"/>

Reference Point Identification:

TIC: Top of Inner (PVC) Casing  
 TOC: Top of Outer (Protective) Casing  
 Grade/BGS: Ground Surface

Redevelop? Y N

Additional well maintenance needed? Y N (if yes, describe below)

PDB Information

PDB Length/diameter 1.5 ft / 2 inch  
 PDB Material poly  
 PDBs Filled Lab / Field  
 Tether Assembled Lab / Field  
 Line/Tether Material diameter 1/16 inch  
 Weight Type/Position Stainless Steel weight below pdb

Water Quality Meters Types(s)/Serial Numbers:

YSI Pine # 21453  
PFD Pine # 27298  
Water level Pine # 27937

PDB Collection			PDB replacement	
Depth	GW Appearance		Depth	Number of
feet (bmp)	Color	Odor	(ft bmp)	PDBs
	<u>Cloudy</u>	<u>NONE</u>	<u>2</u>	

Downhole Field Parameters

pH (SU)	<u>6.85</u>	<u>7.73</u>
Specific Conductivity (ms/cm)	<u>0.688</u>	<u>0.523</u>
ORP (mV)	<u>178.3</u>	<u>131.2</u>
Temperature (°C)	<u>14.14</u>	<u>11.72°C</u>
DO (mg/L)	<u>4.81</u>	<u>4.21</u>
Turbidity	<u>153 NTU</u>	<u>153 ntu</u>

OBSERVATIONS/SAMPLING METHOD DEVIATIONS

Extra PDB deployed for QA  
Water was cloudy in well PDB was clear

SAMPLE DESTINATION

Laboratory: SGS Orlando, FL  
 Delivered Via: Fedex  
 Airbill #: 788472303347

Field Sampling Coordinator: A. Gibson

GROUNDWATER SAMPLING LOG

46 10/27/17

GE/OPCA GMA4

Well No. H-78B-16  
 Key No. \_\_\_\_\_  
 PID Background (ppm) 0.0  
 Well Headspace (ppm) 0.2

Site/GMA Name \_\_\_\_\_  
 Deployment Personnel A. Gibson  
 Date/Time 10/27/17 10:30  
 Weather 45°F sunny  
 Sampling Personnel PTR/GAR  
 Date 11/14/17  
 Weather cloudy, 36°F

WELL INFORMATION

Reference Point Marked?  N ✓  
 Height of Reference Point \_\_\_\_\_ Meas. From TIC  
 Well Diameter 3/4" Meas. From TIC  
 Screen Interval Depth 7.16-17.16ft Meas. From TIC  
 Water Table Depth 12.18 Meas. From TIC  
 Well Depth 16.88 Meas. From TIC  
 Length of Water Column 4.74  
 Volume of Water in Well 0.11 gal

Sample Time 13:30  
 Sample ID H78B-16  
 Duplicate ID \_\_\_\_\_  
 MS/MSD \_\_\_\_\_  
 Split Sample ID \_\_\_\_\_

Reference Point Identification:

TIC: Top of Inner (PVC) Casing  
 TOC: Top of Outer (Protective) Casing  
 Grade/BGS: Ground Surface

Redevelop?  N

Additional well maintenance needed?  N (if yes, describe below)

Required	Analytical Parameters:	Collected
<input checked="" type="checkbox"/>	VOCs (Standard List)	<input checked="" type="checkbox"/> 2 vials
<input type="checkbox"/>	VOCs (Expanded List)	<input type="checkbox"/>
<input type="checkbox"/>	SVOCs	<input type="checkbox"/>
<input type="checkbox"/>	PCBs (Unfiltered)	<input type="checkbox"/>
<input type="checkbox"/>	PCBs (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	Metals/Inorganics (Unfiltered)	<input type="checkbox"/>
<input type="checkbox"/>	Metals/Inorganics (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	Total Cyanide (Unfiltered)	<input type="checkbox"/>
<input type="checkbox"/>	Total Cyanide (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	PAC Cyanide (Filtered)	<input type="checkbox"/>
<input type="checkbox"/>	PCDDs/PCDFs	<input type="checkbox"/>
<input type="checkbox"/>	Pesticides/Herbicides	<input type="checkbox"/>
<input type="checkbox"/>	Natural Attenuation	<input type="checkbox"/>
<input type="checkbox"/>	Other (Specify)	<input type="checkbox"/>

PDB Information

PDB Length/diameter 2.144 / 3/4 inch  
 PDB Material poly  
 PDBs Filled  Lab /  Field  
 Tether Assembled  Lab /  Field  
 Line/Tether Material diameter 1/16 inch  
 Weight Type/Position stainless steel weight below pdb

Water Quality Meters Types(s)/Serial Numbers:

YSI Pine # 21453  
PED Pine # 27298  
Water level Pine # 27937

PDB Collection			PDB replacement	
Depth	GW Appearance		Depth	Number of
feet (bmp)	Color	Odor	(ft bmp)	PDBs
	<u>clear</u>	<u>NONE</u>	<u>1</u>	

Downhole Field Parameters

	10/27/17	11/14/17
pH (SU)	<u>6.91</u>	<u>7.72</u>
Specific Conductivity (ms/cm)	<u>0.877</u>	<u>0.671</u>
ORP (mV)	<u>238.7</u>	<u>195.6</u>
Temperature (°C)	<u>13.90</u>	<u>12.31</u>
DO (mg/L)	<u>3.00</u>	<u>3.41</u>
Turbidity	<u>0.6 NTU</u>	<u>69</u>

OBSERVATIONS/SAMPLING METHOD DEVIATIONS

Only able to fill two 40 ml vials

SAMPLE DESTINATION

Laboratory: SBS Orlando, FL  
 Delivered Via: Fedex  
 Airbill #: 788472303347

Field Sampling Coordinator: A. Gibson

# APPENDIX B

## Data Validation Report



GE Pittsfield

## DATA REVIEW

GMA-4/OPCA Post-Closure Groundwater Monitoring Event  
Evaluation Report


Fall 2017

Volatile, Semivolatile, PCB, Metals, PCDD/PCDF, and Miscellaneous Analyses

Analyses Reported By:  
SGS Environmental Services, Inc.

Orlando, Florida/  
Wilmington, North Carolina

Report #28865R  
Review Level: Tier I/II  
Project: ALL10113.3000.3006B





## DATA REVIEW REPORT

### SUMMARY

This attachment summarizes the data validation review performed on behalf of the General Electric Company (GE) for groundwater samples collected in Fall 2017 as part of groundwater sampling activities conducted at the Hill 78 and Building 71 On-Plant Consolidation Areas and Groundwater Management Area 4, located at the General Electric Company/Housatonic River Site in Pittsfield, Massachusetts. The review was conducted at Tier I and Tier II levels and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the sample qualifier summary sheets, sample result sheets, and chain of custody. Analyses were performed on the following samples:

SDG Number	Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
						VOC	SVOC	PCB	MET	MISC
FA48667	TRIP BLANK-1-102017	FA48667-1	Water	10/20/2017		X				
	OPCA-MW-5R	FA48667-2	Water	10/20/2017			X	X	X	
	GMA4-6	FA48667-3	Water	10/20/2017		X	X	X	X	
	78-6R	FA48667-4	Water	10/20/2017		X	X	X	X	
	78-1	FA48667-5	Water	10/20/2017		X	X	X	X	
	DUP-OPCA-1-102017	FA48667-6	Water	10/20/2017	OPCA-MW-5R		X			
	DUP-OPCA-3-102017	FA48667-8	Water	10/20/2017	78-6R	X		X		
	DUP-OPCA-4-102017	FA48667-9F	Water	10/20/2017	78-1				X	
480-126616-1	OPCA-MW-5R	480-126616-1	Water	10/20/2017						CN
	78-6R	480-126616-2	Water	10/20/2017						CN
	DUP-OPCA-2-102017	480-126616-3	Water	10/20/2017	GMA4-6					CN
SGA28	OPCA-MW-5R	9284167	Water	10/20/2017						S
	78-6R	9284168	Water	10/20/2017						S
	78-1	9284171	Water	10/20/2017						S
	DUP-OPCA-3-102017	9284172	Water	10/20/2017	78-6R					S
	GMA4-6	9284173	Water	10/20/2017						S
B1458	OPCA-MW-5R	B1458_15253_DF_001	Water	10/20/2017			PCDD/ PCDF			
	GMA4-6	B1458_15253_DF_002	Water	10/20/2017			PCDD/ PCDF			
	78-6R	B1458_15253_DF_003	Water	10/20/2017			PCDD/ PCDF			
	78-1	B1458_15253_DF_004	Water	10/20/2017			PCDD/ PCDF			

## DATA REVIEW REPORT

SDG Number	Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
						VOC	SVOC	PCB	MET	MISC
	DUP-OPCA-3-102017	B1458_15253_DF_005	Water	10/20/2017	78-6R		PCDD/ PCDF			
FA48701	GMA4-8*	FA48701-1F	Water	10/23/2017					X	
	DUP-GMA4-1-102317*	FA48701-2F	Water	10/23/2017	GMA4-8				X	
FA48703	OPCA-MW-1RR	FA48703-1	Water	10/23/2017		X	X	X	X	
	OPCA-MW-6	FA48703-2	Water	10/23/2017		X	X	X	X	
	OPCA-MW-8R	FA48703-3	Water	10/23/2017			X	X	X	
	TRIP BLANK-OPCA-1-102317	FA48703-4	Water	10/23/2017		X				
480-126617-1	H78B-15	480-126617-1	Water	10/24/2017						CN
	OPCA-MW-2R	480-126617-2	Water	10/24/2017						CN
	OPCA-MW-4	480-126617-3	Water	10/24/2017						CN
	OPCA-MW-3R	480-126617-4	Water	10/24/2017						CN
	OPCA-MW-7	480-126617-5	Water	10/24/2017						CN
	OPCA-MW-1RR	480-126617-6	Water	10/23/2017						CN
	OPCA-MW-6	480-126617-7	Water	10/23/2017						CN
	OPCA-MW-8R	480-126617-8	Water	10/23/2017						CN
SGA30	OPCA-MW-1RR	9284261	Water	10/23/2017						S
	OPCA-MW-6	9284262	Water	10/23/2017						S
	OPCA-MW-8R	9284263	Water	10/23/2017						S
B1469	OPCA-MW-1RR	B1469_15253_DF_001	Water	10/23/2017			PCDD/ PCDF			
	OPCA-MW-6	B1469_15253_DF_002	Water	10/23/2017			PCDD/ PCDF			
	OPCA-MW-8R	B1469_15253_DF_003	Water	10/23/2017			PCDD/ PCDF			
FA48727	H78B-15	FA48727-1	Water	10/24/2017			X	X	X	
	OPCA-MW-2R	FA48727-2	Water	10/24/2017			X	X	X	
	OPCA-MW-4	FA48727-3	Water	10/24/2017			X	X	X	
	OPCA-MW-3R	FA48727-4	Water	10/24/2017		X	X	X	X	
	OPCA-MW-7	FA48727-5	Water	10/24/2017			X	X	X	
	TRIP BLANK-OPCA-1-102417	FA48727-6	Water	10/24/2017		X				
SGA29	H78B-15	9284232	Water	10/24/2017						S
	OPCA-MW-2R	9284233	Water	10/24/2017						S

## DATA REVIEW REPORT

SDG Number	Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
						VOC	SVOC	PCB	MET	MISC
	OPCA-MW-4	9284234	Water	10/24/2017						S
	OPCA-MW-3R	9284235	Water	10/24/2017						S
	OPCA-MW-7	9284236	Water	10/24/2017						S
FA49402	GMA4-9*	FA49402-1	Water	11/14/2017		X				
	GMA4-8*	FA49402-2	Water	11/14/2017		X				
	GMA4-7S*	FA49402-3	Water	11/14/2017		X				
	H78B-16*	FA49402-4	Water	11/14/2017		X				
	GMA4-DUP1-20171114*	FA49402-5	Water	11/14/2017	GMA4-8	X				
	TRIP BLANK	FA49402-6	Water	11/14/2017		X				
FA49403	OPCA-MW-7	FA49403-1	Water	11/14/2017		X				
	OPCA-MW-8R	FA49403-2	Water	11/14/2017		X				
	OPCA-MW-4	FA49403-3	Water	11/14/2017		X				
	OPCA-MW-2R	FA49403-4	Water	11/14/2017		X				
	H78B-15	FA49403-5	Water	11/14/2017		X				
	OPCA-DUP1-20171114	FA49403-6	Water	11/14/2017	OPCA-MW-8R	X				
	TRIP BLANK	FA49403-7	Water	11/14/2017		X				
	OPCA-MW-5R	FA49403-8	Water	11/14/2017		X				
480-127001-1	GMA-4-6	480-127001-1	Water	10/20/2017						CN
	78-1	480-127001-2	Water	10/20/2017						CN
B1470	H78B-15	B1470_15253_DF_001	Water	10/24/2017			PCDD/PCDF			
	OPCA-MW-2R	B1470_15253_DF_002	Water	10/24/2017			PCDD/PCDF			
	OPCA-MW-4	B1470_15253_DF_003	Water	10/24/2017			PCDD/PCDF			
	OPCA-MW-3R	B1470_15253_DF_004	Water	10/24/2017			PCDD/PCDF			
	OPCA-MW-7	B1470_15253_DF_005	Water	10/24/2017			PCDD/PCDF			

Notes:

S = sulfide analysis

CN = PAC cyanide analysis

PCDD/PCDF = dioxin/furan analysis

\* = Indicates a sample location associated with the Groundwater Management Area 4 site.

## DATA REVIEW REPORT

### ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

Note:

QA - Quality Assurance

## DATA REVIEW REPORT

### ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8260B, 8270D, 8082A, and 8290A. Data were reviewed in accordance with Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), General Electric Company, Pittsfield, Massachusetts, ARCADIS (Revision 5 submitted by GE on July 2, 2013 and approved by EPA on July 23, 2013); EPA Region I, EPA-New England Data Validation Functional Guidelines for Evaluating Environmental Analyses (July 1996, revised December 1996) (EPA Region I Guidelines); and National Functional Guidelines for Chlorinated Dibenzo-p-Dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) Data Review, USEPA (September 2011).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
  - U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
  - B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers
  - E The compound was quantitated above the calibration range.
  - D Concentration is based on a diluted sample analysis.
- Validation Qualifiers
  - J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
  - UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
  - JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
  - UB Compound considered non-detect at the listed value due to associated blank contamination.
  - N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
  - R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and

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provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.



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### VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

#### 1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260B	Water	14 days from collection to analysis (preserved) 7 days from collection to analysis (non-preserved)	Cool to <6 °C; preserved to a pH of less than 2 s.u.

Note:

s.u. Standard units

All samples were analyzed within the specified holding time criteria.

Note: The target compound 2-chloroethyl vinyl ether degrades in the presence of acid used to preserve the aqueous samples. Therefore, all sample results for 2-chloroethyl vinyl ether have been qualified as rejected.

#### 2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were detected in the associated QA blanks; however, the associated sample results were greater than the BAL and/or were non-detect. No other qualification of the sample results was required.

#### 3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

#### 4. Calibration

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

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### 4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (30%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

### 4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (25%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
<b><u>SDG FA48667</u></b> TRIP BLANK-1-102017 GMA4-6 78-6R 78-1 DUP-OPCA-3-102017	CCV %D	Tetrachloroethene	34.8%
<b><u>SDG FA48703</u></b> OPCA-MW-1RR OPCA-MW-6 TRIP BLANK-OPCA-1-102317			
<b><u>SDG FA49402</u></b> GMA4-9 GMA4-8 GMA4-7S H78B-16 GMA4-DUP1-20171114 TRIP BLANK	CCV %D	Tetrachloroethene	28.6%
		Acetonitrile	36.0%
		Acrylonitrile	28.4%
		Vinyl acetate	28.5%
		Chloroprene	28.4%
<b><u>SDG FA49403</u></b> OPCA-MW-7 OPCA-MW-8R OPCA-MW-4 OPCA-MW-2R H78B-15 OPCA-DUP1-20171114 TRIP BLANK OPCA-MW-5R	CCV %D	Tetrachloroethene	45.0%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

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Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF <0.05	Non-detect	R
		Detect	J
	RRF <0.01 <sup>1</sup>	Non-detect	R
		Detect	J
	RRF >0.05 or RRF >0.01 <sup>1</sup>	Non-detect	No Action
		Detect	
Continuing Calibration	%D >25% (increase/decrease in sensitivity)	Non-detect	No Action
		Detect	J

Note:

<sup>1</sup> RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketones, 1,4-dioxane, etc.)

### 5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

### 6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria require the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

### 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within 20%.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

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Sample Locations	Compound	MS Recovery	MSD Recovery
<b><u>SDG FA48667</u></b> 78-6R	2-Chloroethyl Vinyl Ether	<10%	<10%
	Styrene	<LL but >10%	<LL but >10%
<b><u>SDG FA49402</u></b> GMA4-8	2-Chloroethyl Vinyl Ether	<10%	<10%
	Vinyl Acetate	>UL	>UL
<b><u>SDG FA49403</u></b> OPCA-MW-8R	2-Chloroethyl Vinyl Ether	<10%	<10%
	Vinyl Acetate	>UL	>UL

Note:

AC Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > four times the MS/MSD spiking solution concentration.	Detect	No Action
	Non-detect	

Sample locations associated with MS/MSD recoveries exhibiting an RPD greater than of the control limit presented in the following table.

Sample Locations	Compound
<b><u>SDG FA49403</u></b> OPCA-MW-8R	1,1-Dichloroethylene

The criteria used to evaluate the RPD between the MS/MSD recoveries are presented in the following table. In the case of an RPD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	UJ
	Detect	J

### 8. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

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Sample locations associated with LCS/LCSD analysis exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Compound	LCS Recovery	LCSD Recovery
<b><u>SDG FA49402</u></b> GMA4-9 GMA4-8 GMA4-7S H78B-16 GMA4-DUP1-20171114 TRIP BLANK <b><u>SDG FA49403</u></b> OPCA-MW-7 OPCA-MW-8R OPCA-MW-4 OPCA-MW-2R H78B-15 OPCA-DUP1-20171114 TRIP BLANK OPCA-MW-5R	Vinyl Acetate	>UL	--

The criteria used to evaluate the LCS/LCSD recoveries are presented in the following table. In the case of an LCS/LCSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J

### 9. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
<b><u>SDG FA48667</u></b> 78-6R / DUP-OPCA-3-102017	All compounds	U	U	AC
<b><u>SDG FA49402</u></b> GMA4-8 / GMA4-DUP1-20171114	All compounds	U	U	AC
<b><u>SDG FA49403</u></b> OPCA-MW-8R / OPCA-DUP1-20171114	Methyl Chloride	0.00058 J	0.002 U	AC

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### Notes:

AC Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

### 10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

Sample results associated with compound that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
<b>SDG FA43277</b> OPCA-MW-1RR	Tetrachloroethylene	--	1870	1870 D
<b>SDG FA43878</b> GMA4-9	Tetrachloroethylene	--	158	158 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

### 11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

Note: The target compound 2-chloroethyl vinyl ether degrades in the presence of acid used to preserve the aqueous samples. Therefore, all sample results for 2-chloroethyl vinyl ether have been qualified as rejected.



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## DATA VALIDATION CHECKLIST FOR VOCs

VOCs: SW-846 8260B	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
<b>GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)</b>					
<b>Tier II Validation</b>					
Holding times/Preservation		X	X		
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
C. Trip blanks		X		X	
Laboratory Control Sample (LCS)		X	X		
Laboratory Control Sample Duplicate(LCSD)	X				X
LCS/LCSD Precision (RPD)	X				X
Matrix Spike (MS)		X	X		
Matrix Spike Duplicate(MSD)		X	X		
MS/MSD Precision (RPD)		X	X		
Field/Lab Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content		X		X	
<b>Tier III Validation</b>					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X	X		
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT		X		X	

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VOCs: SW-846 8260B	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
<b>GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)</b>					
windows					
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

Notes:

- %RSD Relative standard deviation
- %R Percent recovery
- RPD Relative percent difference
- %D Percent difference

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### SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

#### 1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270D	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to <6 °C

All samples were analyzed within the specified holding time criteria.

#### 2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

#### 3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

#### 4. Calibration

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

##### 4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

##### 4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (25%) and RRF value greater than control limit (0.05).

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All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
<b><u>SDG FA48667</u></b> OPCA-MW-5R GMA4-6 78-6R DUP-OPCA-1-102017 <b><u>SDG FA48703</u></b> OPCA-MW-1RR OPCA-MW-8R <b><u>SDG FA48727</u></b> H78B-15 OPCA-MW-2R OPCA-MW-4 OPCA-MW-3R OPCA-MW-7	CCV %D	Di-n-octylphthalate	27.6%
		Benzo[k]fluoranthene	25.4%
		Indeno[1,2,3-cd]pyrene	36.0%
		Benzo[g,h,i]perylene	28.9%
		4-Chloroaniline	31.3%
<b><u>SDG FA48667</u></b> 78-1 <b><u>SDG FA48703</u></b> OPCA-MW-6	CCV %D	3-Nitroaniline	27.8%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF <0.05	Non-detect	R
		Detect	J
	RRF <0.01 <sup>1</sup>	Non-detect	R
		Detect	J
	RRF >0.05 or RRF >0.01 <sup>1</sup>	Non-detect	No Action
		Detect	
Continuing Calibration	%D >25% (increase/decrease in sensitivity)	Non-detect	No Action
		Detect	J

**Note:**

<sup>1</sup> RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketones, 1,4-dioxane, etc.)

### 5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC

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analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

### 6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the SVOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

### 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
<b>SDG FA48667</b> OPCA-MW-5R	Isophorone	AC	>UL

Note:

AC Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J

Sample locations associated with MS/MSD recoveries exhibiting an RPD greater than of the control limit presented in the following table.

Sample Locations	Compound
<b>SDG FA48667</b> OPCA-MW-5R	Phenol

The criteria used to evaluate the RPD between the MS/MSD recoveries are presented in the following table. In the case of an RPD deviation, the sample results are qualified as documented in the table below.

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Control Limit	Sample Result	Qualification
> UL	Non-detect	UJ
	Detect	J

### 8. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

Sample locations associated with LCS/LCSD analysis exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Compound	LCS Recovery	LCSD Recovery
<b><u>SDG FA48667</u></b> OPCA-MW-5R GMA4-6 78-6R DUP-OPCA-1-102017	Aniline	<LL but >10%	--
	Benzidine	<LL but >10%	--
<b><u>SDG FA48703</u></b> OPCA-MW-1RR OPCA-MW-6 OPCA-MW-8R	Benzyl Alcohol	<LL but >10%	--
	3-Methylcholanthrene	>UL	--
<b><u>SDG FA48727</u></b> H78B-15 OPCA-MW-2R OPCA-MW-4 OPCA-MW-3R OPCA-MW-7	1-Naphthylamine	<LL but >10%	--
	3,3'-Dimethylbenzidine	>UL	--
<b><u>SDG FA48667</u></b> 78-1	3-Methylcholanthrene	>UL	--

The criteria used to evaluate the LCS/LCSD recoveries are presented in the following table. In the case of an LCS/LCSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J



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### 9. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
<b><u>SDG FA48667</u></b>				
OPCA-MW-5R / DUP-OPCA-1-102017	All compounds	U	U	AC

#### Notes:

AC Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

### 10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

### 11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

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## DATA VALIDATION CHECKLIST FOR SVOCs

SVOCs: SW-846 8270D	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
<b>GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)</b>					
<b>Tier II Validation</b>					
Holding times		X	X		
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
Laboratory Control Sample (LCS) %R		X	X		
Laboratory Control Sample Duplicate(LCSD) %R	X				X
LCS/LCSD Precision (RPD)	X				X
Matrix Spike (MS) %R		X	X		
Matrix Spike Duplicate(MSD) %R		X	X		
MS/MSD Precision (RPD)		X	X		
Field/Lab Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content	X				X
<b>Tier III Validation</b>					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X	X		
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
F. Reconstructed ion chromatograms		X		X	
G. Quantitation Reports		X		X	
H. RT of sample compounds within the established RT windows		X		X	

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SVOCs: SW-846 8270D	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
<b>GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)</b>					
I. Quantitation transcriptions/calculations		X		X	
J. Reporting limits adjusted to reflect sample dilutions		X		X	

Notes:

%RSD Relative standard deviation

%R Percent recovery

RPD Relative percent difference

%D Percent difference

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## POLYCHLORINATED BIPHENYLS (PCBs) ANALYSES

### 1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8082A	Water	One year from collection analysis	Cool to <6 °C

All samples were analyzed within the specified holding time criteria.

### 2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

### 3. System Performance

System performance and column resolution were acceptable.

### 4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

#### 4.3 Initial Calibration

A maximum RSD of 20% is allowed or a correlation coefficient greater than 0.99. Multiple-point calibrations were performed for Aroclor 1016 and 1260 only. Single-point calibrations were performed for the remaining Aroclors.

#### 4.4 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (15%).

All calibration criteria were within the control limits.

### 5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. PCB

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analysis requires that one of the two PCB surrogate compounds exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries reported from the primary column were within control limits.

### 6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD exhibited acceptable recoveries and RPD between the MS/MSD recoveries.

### 7. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS/LCSD analysis exhibited recoveries within the control limits.

### 8. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
<b>SDG FA48667</b> 78-6R / DUP-OPCA-3-102017	All Aroclors	U	U	AC

#### Notes:

AC Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

### 9. Compound Identification

The retention times of all quantitated peaks must fall within the calculated retention time windows for both the primary and confirmation columns. When dual column analysis is performed the relative percent difference (%RPD) of detected sample results must be less than 40%.

The dual column analysis exhibited an acceptable %RPD between columns.

The laboratory qualified several Aroclors as estimated (J) citing "Estimated value due to the presence of multiple overlapping Aroclor patterns." After review of the chromatograms, it was determined that the individual peaks used by the laboratory to quantitate the Aroclors were isolated enough to determine the

## DATA REVIEW REPORT

concentration of the individual Aroclor. Therefore, the laboratory "J" qualifier was removed where appropriate.

### 10. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.



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## DATA VALIDATION CHECKLIST FOR PCBs

PCBs; SW-846 8082A	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY (GC/ECD)					
<b>Tier II Validation</b>					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks					X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate(LCSD) %R	X				X
LCS/LCSD Precision (RPD)	X				X
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate(MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X		X	
Column (RPD) (If dual column is performed-not confirmation purposes only)					X
Dilution Factor		X		X	
Moisture Content					X
<b>Tier III Validation</b>					
Initial calibration %RSDs		X		X	
Continuing calibration %Ds		X		X	
System performance and column resolution		X		X	
Compound identification and quantitation					
A. Quantitation Reports		X		X	
B. RT of sample compounds within the established RT windows		X		X	
C. Pattern identification		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	
%RSD – relative standard deviation, %R - percent recovery, RPD - relative percent difference, %D – difference					

## DATA REVIEW REPORT

### POLYCHLORINATED DIBENZODIOXINS AND POLYCHLORINATED DIBENZOFURANS (PCDD/PCDF) ANALYSES

#### 1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8290	Water	30 days from collection to extraction and 45 days from extraction to analysis	Cool to <6 °C

All samples were analyzed within the specified holding times.

#### 2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

#### 3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable.

System performance and column resolution were acceptable.

#### 4. Calibration

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

##### 4.1 Initial Calibration

A maximum relative standard deviation (RSD) of 20% is allowed for all non-labeled compounds (target) and 30% is allowed for all labeled compounds (internal standards and recovery standards)

##### 4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibited percent difference (%D) less than the control limit (20%).

All calibration criteria were within the control limits.

## DATA REVIEW REPORT

### 5. Recovery Standard Performance

All samples to be analyzed for PCDD/PCDF compounds are spiked with recovery standard prior to injection. The concentrations of all the labeled standards (internal standards) are determined by using the recovery standard.

All recovery standard isotopic ratios were acceptable.

### 6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria require the internal standard compounds exhibit recoveries within the control limits of 40% to 135%.

All internal standard responses were within control limits.

### 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compounds concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD exhibited acceptable recoveries and RPD between the MS/MSD recoveries.

### 8. Ongoing Precision Result (OPR) (Laboratory Control Sample (LCS)) Analysis

The OPR analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the OPR analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the OPR analysis exhibited recoveries within the control limits.

### 9. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
<b>SDG B1458</b> 78-6R / DUP-OPCA-3-102017	All compounds	U	U	AC

#### Notes:

AC = Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

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### 10. Compound Identification

PCDD/PCDF compounds are identified by using the compound's ion abundance ratios, signal-to-noise values, and relative retention times.

An EMPC or "estimated maximum possible concentration" designation is given to compounds which have signals eluting within the established retention time window which would, if positively identified, be above the detection limit. The signals do not, however, meet the ion abundance ratio criteria and cannot be identified as the compound of interest. The EMPC value is the estimated concentration of the interferant quantitated "as" the compound of interest." This value should be considered an elevated detection limit based on potential compound identification and quantitation interference.

Sample results qualified by the laboratory as "EMPC" (ion abundance ratio outside criteria; estimated maximum possible concentration reported) have been qualified as estimated. The associated total results will also be qualified. The reported qualifier will be JNX.

Sample ID	Compound	Lab Result	Reported Result
<b><u>SDG B1458</u></b> OPCA-MW-6	Total PeCDF	11.7 EMPC	11.7 JNX
<b><u>SDG B1469</u></b> OPCA-MW-6	Total PeCDF	3.3 EMPC	3.3 JNX
<b><u>SDG B1470</u></b> OPCA-MW-6	Total PeCDF	4.34 EMPC	4.34 JNX
<b><u>SDG B1470</u></b> OPCA-MW-4	Total PeCDF	73.3 EMPC	73.3 JNX
<b><u>SDG B1470</u></b> OPCA-MW-7	1234678-HpCDF	2.59 EMPC	2.59 JNX
	Total HpCDF	4.4 EMPC	4.4 JNX

### 11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

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## DATA VALIDATION CHECKLIST FOR PCDD/PCDF

PCDDs/PCDFs; SW-846 8290	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
<b>HIGH-RESOLUTION GAS CHROMATOGRAPHY/HIGH-RESOLUTION MASS SPECTROMETRY (HRGC/HRMS)</b>					
<b>Tier II Validation</b>					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate(LCSD) %R	X				X
LCS/LCSD Precision (RPD)	X				X
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate(MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content		X		X	
<b>Tier III Validation</b>					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration %Ds		X		X	
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X	X		
Signal-to-noise ratio $\geq$ 10:1		X		X	
Internal standard performance		X		X	
Recovery standard performance		X		X	
Resolution mix $\leq$ 25%		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	

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PCDDs/PCDFs; SW-846 8290	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
<b>HIGH-RESOLUTION GAS CHROMATOGRAPHY/HIGH-RESOLUTION MASS SPECTROMETRY (HRGC/HRMS)</b>					
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

Notes:

RSD – relative standard deviation

%R - percent recovery

RPD - relative percent difference

%D – difference



## DATA REVIEW REPORT

### INORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 6010C, 6020A, 7470A, 9012, and 9034. Data were reviewed in accordance with Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), General Electric Company, Pittsfield, Massachusetts, ARCADIS (Revision 5 submitted by GE on July 2, 2013 and approved by EPA on July 23, 2013); EPA Region I, EPA-New England Data Validation Functional Guidelines for Evaluating Environmental Analyses (July 1996, revised December 1996) (EPA Region I Guidelines); and EPA Region I, Part IV, Inorganic Data Validation Functional Guidelines of the EPA Region I Guidelines (November 2008).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
  - U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.
  - J The reported value was obtained from a reading less than the reporting limit (RL), but greater than or equal to the method detection limit (MDL).
- Quantitation (Q) Qualifiers
  - E The reported value is estimated due to the presence of interference.
  - N Spiked sample recovery is not within control limits.
  - \* Duplicate analysis is not within control limits.
- Validation Qualifiers
  - J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.
  - UJ The analyte was not detected above the reporting limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.
  - UB Analyte considered non-detect at the listed value due to associated blank contamination.
  - R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

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## METALS ANALYSES

### 1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 6010C/6020A	Water	180 days from collection to analysis	Preserved to a pH of less than 2.
SW-846 7470A	Water	28 days from collection to analysis	Cool to <6 °C; preserved to a pH of less than 2.

All samples were analyzed within the specified holding times.

### 2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

All analytes associated with the QA blanks exhibited a concentration less than the MDL, with the exception of the analytes listed in the following table. Sample results associated with QA blank contamination that were greater than the BAL resulted in the removal of the laboratory qualifier (B) from the data. Sample results less than the BAL associated with the following sample locations were qualified as listed in the following table.

Sample Locations	Analytes	Sample Result	Qualification
<b><u>SDG FA48727</u></b> H78B-15 OPCA-MW-2R OPCA-MW-4 OPCA-MW-3R OPCA-MW-7	Tin (MB)	Detected sample results <RL and <BAL	"U" at the RL

**Note:**

RL = reporting limit

MB = Method Blank

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### 3. Mass Spectrometer Tuning (SW-846 6020 analysis only)

The %RSD of the absolute signals for all analytes in the tuning solution must be less than 5% for each analyte and the instrument mass resolution must be within 0.1 amu over manufacturer specifications the range of 6-210 amu.

Mass spectrometer performance and system performance was acceptable.

### 4. Calibration

Satisfactory instrument calibration is established to provide that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument's continuing performance is satisfactory.

#### 4.1 Initial Calibration and Continuing Calibration

The correct number and type of standards were analyzed. The correlation coefficient of the initial calibration was greater than 0.995 for all non-ICP analytes and all initial calibration verification standard recoveries were within control limits.

All initial and continuing calibration verification standard recoveries were within the control limit.

#### 4.2 RL Check Standard

The RL check standard serves to verify the linearity of calibration of the analysis at the reporting limit. The RL standard is not required for the analysis of aluminum (Al), barium (Ba), calcium (Ca), iron (Fe), magnesium (Mg), sodium (Na), and potassium (K). The criteria used to evaluate the RL standard analysis are presented below in the RL standards evaluation table (if applicable).

All RL standard recoveries were within control limits.

#### 4.3 ICP Interference Control Sample (ICS)

The ICS verifies the laboratories interelement and background correction factors.

All ICS exhibited recoveries within the control limits.

### 5. Internal Standard Performance (SW-846 6020 analysis only)

Internal standard performance criteria insure that the ICP/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard analytes associated with the metals must exhibit a percent recovery within the established acceptance limits of 60% to 125%

All internal standard responses were within control limits.

### 6. Matrix Spike (MS)/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

#### 6.1 MS Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory flag will be removed.

The MS/MSD analysis exhibited recoveries within the control limits.

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### 6.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of one times the RL is applied for water matrices and two times the RL for soil matrices.

MS/MSD analysis was performed in replacement of the laboratory duplicate analysis. The MS/MSD recoveries exhibited acceptable RPD.

### 7. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
<b><u>SDG FA48667</u></b> 78-1/ DUP-OPCA-4-102017	Barium	0.0461 J	0.0458 J	AC
	Cadmium	0.0006 J	0.0007 J	AC
	Cobalt	0.05 U	0.0002 J	AC
	Copper	0.0018 J	0.025 U	AC
	Nickel	0.0021 J	0.002 J	AC
	Zinc	0.0094 J	0.0059 J	AC
<b><u>SDG FA48701</u></b> GMA4-8 / DUP-GMA4-1-102317	Cadmium	0.0012 J	0.0012 J	AC

#### Notes:

AC = Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

### 8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS analysis exhibited recoveries within the control limits.

### 9. Serial Dilution

The serial dilution analysis is used to assess if a significant physical or chemical interference exists due to sample matrix. Analytes exhibiting concentrations greater than 50 times the MDL in the undiluted sample are evaluated to determine if matrix interference exists. These analytes are required to have less than a 10% difference (%D) between sample results from the undiluted (parent) sample and results associated with the same sample analyzed with a five-fold dilution.

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All serial dilutions were within control limits.

### **10. System Performance and Overall Assessment**

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

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## DATA VALIDATION CHECKLIST FOR METAL

METALS; SW-846 6010C/6020A/7470A	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	

Inductively Coupled Plasma-Atomic Emission Spectrometry (ICP-AES)

Inductively Coupled Plasma-Mass Spectrometry (ICP-MS)

Atomic Absorption – Manual Cold Vapor (CV)

### Tier II Validation

Holding Times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Instrument Blanks		X		X	
B. Method Blanks		X	X		
C. Equipment/Field Blanks	X				X
Laboratory Control Sample (LCS)		X		X	
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
ICP Serial Dilution %D		X		X	
Total vs. Dissolved	X				X
Reporting Limit Verification		X		X	

### Tier III Validation

Initial Calibration Verification		X		X	
Continuing Calibration Verification		X		X	
CRDL Standard Recovery		X		X	
ICP Interference Check		X		X	
ICP-MS Internal Standards		X		X	
Transcription/calculations acceptable		X		X	
Raw Data		X		X	
Reporting limits adjusted to reflect sample dilutions		X		X	

Notes:

%R      Percent recovery

RPD              Relative percent difference



# DATA REVIEW REPORT

## GENERAL CHEMISTRY ANALYSES

### 1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
PAC Cyanide by SW-846 9012	Water	14 days from collection to analysis	Cool to <6 °C; preserved to a pH of greater than 12.
Sulfide by SW-846 9034 modified	Water	7 days from collection to analysis	Zinc acetate; preserved to a pH of greater than 9

The analyses that exceeded the holding time are presented in the following table.

Sample Locations	Analyte	Holding Time	Criteria
<b>SDG 480-127001-1</b> GMA-4-6 78-1	PAC Cyanide	18 days	<14 Days

Sample results associated with sample locations above were qualified, as specified in the table below. All other holding times were met.

Criteria	Qualification	
	Detected Analytes	Non-detect Analytes
Analysis completed less than two times holding time	J	UJ

### 2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Analytes were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

### 3. Calibration

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

## DATA REVIEW REPORT

The correct number and type of standards were analyzed. The correlation coefficient of the initial calibration was greater than 0.995 and all initial calibration verification standard recoveries were within control limits.

All calibration standard recoveries were within the control limit.

### 4. Matrix Spike/Matrix Spike Duplicate (MS/MSD)/Laboratory Duplicate Analysis

MS/MSD and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

#### 4.1 MS/MSD Analysis

All analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory flag will be removed.

All analytes associated with MS recoveries were within control limits with the exception of the following analytes present in the table below.

Sample Location	Analyte	MS Recovery	MSD Recovery
<b>SDG 480-126616-1</b> OPCA-MW-5R	PAC Cyanide	45%	--
<b>SDG 480-126617-1</b> H78-B-1S	PAC Cyanide	52%	--

The criteria used to evaluate MS recoveries are presented in the following table. In the case of an MS deviation, the sample results are qualified. The qualifications are applied to all sample results within the associated SDG.

Control limit	Sample Result	Qualification
MS/MSD percent recovery 30% to 74%	Non-detect	UJ
	Detect	J
MS/MSD percent recovery <30%	Non-detect	R
	Detect	J
MS/MSD percent recovery >125%	Non-detect	No Action
	Detect	J

#### 4.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of one times the RL is applied for water matrices and two times the RL for soil matrices.

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The MS/MSD was performed in replacement of the laboratory duplicate analysis. Sample locations associated with MS/MSD recoveries exhibiting an RPD greater than of the control limit are presented in the following table.

Sample Location	Analytes	MS/MSD RPD
<b><u>SDG 480-127001-1</u></b> GMA-4-6	PAC Cyanide	22%

The criteria used to evaluate MS/MSD RPD are presented in the following table. In the case of a MS/MSD RPD deviation, the sample results are qualified. The qualifications are applied to the all sample results associated with this MS/MSD.

Control Limit	Sample Result	Qualification
> 20% (water)	Non-detect	UJ
	Detect	J

### 5. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
<b><u>SDG 480-126616-1</u></b> GMA4-6 / DUP-OPCA-2-102017	PAC Cyanide	U	U	AC
<b><u>SDG SGA28</u></b> 78-6R / DUP-OPCA-3-102017	Sulfide	U	U	AC

Notes:

AC = Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

### 6. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit a percent recovery between the control limits of 80% and 120%.

All LCS recoveries were within control limits.

### 7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

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### DATA VALIDATION CHECKLIST FOR GENERAL CHEMISTRY

General Chemistry: USEPA SW846 9012 and 9034	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Miscellaneous Instrumentation					
<b>Tier II Validation</b>					
Holding times		X	X		
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate(LCSD) %R	X				X
LCS/LCSD Precision (RPD)	X				X
Matrix Spike (MS) %R		X	X		
Matrix Spike Duplicate(MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Dilution Factor		X		X	
Moisture Content	X				X
<b>Tier III Validation</b>					
Initial calibration %RSD or correlation coefficient		X		X	
Continuing calibration %R		X		X	
Raw Data					
Transcription/calculation errors present		X		X	
Reporting limits adjusted to reflect sample dilutions		X		X	

**Notes:**

%RSD – relative standard deviation

%R - percent recovery

RPD - relative percent difference,

%D – difference

## DATA REVIEW REPORT

VALIDATION PERFORMED BY: Andrew Korycinski

SIGNATURE:



DATE: January 2, 2018

PEER REVIEW: Dennis Capria

DATE: January 4, 2018

# CHAIN OF CUSTODY SAMPLE ANALYSIS DATA SHEETS





ACCUTEST

SGS Accutest Southeast

Chain of Custody

Vineland Road, Suite C-15 Orlando, FL 32811  
TEL: 407-425-0700 FAX: 407-425-0707

FA48667

# of Coolers 8C

4405 SGS ACCUTEST JOB #:

PAGE 1 OF 3

Client / Reporting Information			Project Information				Analytical Information											Matrix Codes								
Company Name: Arcadis			Project Name: GE Pittsfield - OPCA															DW - Drinking								
Address: One Lincoln Center 110 W Fayette St, Suite 300			Street: 159 Plastics Ave															GW - Ground								
City: Syracuse State: NY Zip: 13202			City: Pittsfield State: NY															Water								
Project Contact: Chris Kasal			Project #															WW - Water								
Email: Chris.Kasal@arcadis.com			Project # ALL10113.3000.3006S															SW - Surface								
Phone #: 315-258-5386 (Kassel)			Fax #															Water								
Sampler(s) Name(s) (Printed)			Client Purchase Order #															SO - Soil								
Sampler 1: Andrew Gibson																		Sl - Sludge								
Sampler 2: Penny Fabaslo																		OI - Oil								
																		LIQ - Other Liquid								
																		AIR - Air								
																		SOL - Other Solid								
SGS Accutest Sample #	Field ID / Point of Collection	DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	IC	MOCH	PHOS	PHOS4	KAOH-ZINC	DI WATER	HEXCH	VOCs STANDARD (EPA method 8260) (See attached Notes to Lab)	SVOCs STANDARD (EPA method 8260) (See attached Notes to Lab)	Barium	EPA Method 8264	Mercury (DCSH/MS) (EPA method 8210, 700A, and 7700A)	Lead/Cadmium (EPA method 8210)	Asbestos (EPA method 8270)	PCBs (EPA method 8270)	PAHs (EPA method 8270)	LAB USE ONLY	
	E25C-24	10/19/17	1110	JD	GW	3		X		X						X										
	E25C-24-MS	10/19/17	1110	JD	GW	1				X																
	E25C-24-MSD	10/19/17	1110	JD	GW	1					X															
	S2	10/19/17	1100	MM	GW	5		X	X							X										
	LSSC-165	10/19/17	1230	PR	GW	5		X	X							X										
	ESA15-72R	10/19/17	1135	AG	GW	7		X	X							X	X									
	ESA15-72R-MS	10/19/17	1135	AG	GW	7		X	X							X	X									
	ESA15-72R-MSD	10/19/17	1135	AG	GW	7		X	X							X	X									
	DUP-GMA1-1-101917	10/19/17	-	-	GW	1				X								X								
	DUP-GMA1-2-101917	10/19/17	-	-	GW	7		X	X							X	X									
	ES2-Q2AR	10/19/17	1510	MM	GW	3				X						X										
	LSSC-085	10/19/17	1425	PR	GW	2		X								X										
Turnaround Time (Business days)		Data Deliverable Information				Comments / Remarks																				
<input checked="" type="checkbox"/> 10 Day (Business) <input type="checkbox"/> 7 Day <input type="checkbox"/> 5 Day <input type="checkbox"/> 3 Day RUSH <input type="checkbox"/> 2 Day RUSH <input type="checkbox"/> 1 Day RUSH <input type="checkbox"/> Other		Approved By: / Date: _____ <input type="checkbox"/> COMMERCIAL "A" (RESULTS ONLY) <input type="checkbox"/> COMMERCIAL "B" (RESULTS PLUS QC) <input type="checkbox"/> REDT <sup>1</sup> (EPA LEVEL 3) <input type="checkbox"/> FULLT <sup>1</sup> (EPA LEVEL 4) <input checked="" type="checkbox"/> EDD'S CORE EDDS, Refer to Contract for details.				Please see attached "NOTES TO LAB" Lab to do all filtering Please note, 17 site-specific dissolved metals are listed in the contract.																				
Rush T/A Data Available VIA Email or Lablink																										
Relinquished by Sampler/Affiliation		Date Time:	Sample Custody must be documented below each time samples change possession, including courier delivery.		Date Time:	Relinquished By/Affiliation		Date Time:	Received By/Affiliation																	
Andrew Gibson / Arcadis		10/20/17 10:30	B. P. Gibson		10-20-17	B. P. Gibson		10-20-17	FED																	
Relinquished by/Affiliation		Date Time:	Received By/Affiliation		Date Time:	Relinquished By/Affiliation		Date Time:	Received By/Affiliation																	
FED			B. P. Gibson 10/21/17 11:00																							
Lab Use Only: Cooler Temperature (s) Celsius: 2.7, 3.0, 2.1, 2.2																										





**SGS Accutest Southeast**  
**ACCUTEST Chain of Custody**

Vineland Road, Suite C-15 Orlando, FL 32811  
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4405 **SGS ACCUTEST JOB #:** \_\_\_\_\_  
 # of Coolers 8  
 PAGE 2 OF 3

Client / Reporting Information			Project Information				Analytical Information												Matrix Codes				
Company Name: Arcadis			Project Name: <b>GE Pittsfield - OPCA</b>																DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge LIQ - Other Liquid AIR - Air SOL - Other Solid				
Addresses: One Lincoln Center 110 W Fayette St, Suite 300			Street: 199 Plastics Ave																				
City: Syracuse State: NY Zip: 13202			City: Pittsfield State: NY																				
Project Contact: Lisa P. Finn Email: lfinn@arcadis.com Chris Kassel Email: ckassel@arcadis.com			Project # ALL10113.3000.3005S																				
Phone #: 315-256-5386 (Kassel) 315-256-5386 (Kassel)			Fax #																				
Sampler(s) Name(s) (Printed) Sampler 1: <u>Andrew G. Sosa</u> Sampler 2: <u>Renny Rabasca</u>			Client Purchase Order #																				
SGS Accutest Sample #	Field ID / Point of Collection		DATE		TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	OTHER	NOISE	ICG	RUSH	PK03	PK04	PK05	PK06	PK07	PK08	PK09	PK10	PK11	PK12	LAB USE ONLY
	HR-G3-MW-1		10/14/17	1410		JD	GW	3			X												
	LSSC-18		10/19/17	1615		FR	GW	3		X													
	3-6C-EB-14R		10/18/17	1300		MM	GW	3			X												
	Frisk Blank-1-101917		-	-	-	W	2			X													
	Trip Blank-1-102017		-	-	-	W	2			X													
	E25C-23		10/20/17	1107		AG	GW	2		X													
2	OPCA-MW-SR		10/20/17	1118		AG	GW	3		X	X				X	X	X	X	X	X	X		
	OPCA-MW-SR-MS		10/20/17	1118		AG	GW	1		X													
	OPCA-MW-SR-MSD		10/20/17	1118		AG	GW	1		X													
3	GMAH-6		10/20/17	1200		FR	GW	13		X	X				X	X	X	X	X	X	X		
	GMAH-6-MS		10/20/17	1200		FR	GW	1		X													
	GMAH-6-MSD		10/20/17	1200		FR	GW	1		X													
Turnaround Time (Business days)			Data Deliverable Information				Comments / Remarks																
<input checked="" type="checkbox"/> 10 Day (Business) <input type="checkbox"/> 7 Day <input type="checkbox"/> 5 Day <input type="checkbox"/> 3 Day RUSH <input type="checkbox"/> 2 Day RUSH <input type="checkbox"/> 1 Day RUSH <input type="checkbox"/> Other			Approved By / Date: _____ <input type="checkbox"/> COMMERCIAL "A" (RESULTS ONLY) <input type="checkbox"/> COMMERCIAL "B" (RESULTS PLUS QC) <input type="checkbox"/> REDY (EPA LEVEL 3) <input type="checkbox"/> FULLY (EPA LEVEL 4) <input checked="" type="checkbox"/> EDD'S				Please see attached "NOTES TO LAB" Lab to do all filtering Please note, 17 site-specific dissolved metals are listed in the contract.																
Rush T/A Data Available Via Email or Lablink			CORE EDDS, Refer to Contract for details.																				
Relinquished by Sampler/Affiliation		Date Time:	Sample Custody must be documented below each time samples change possession, including courier delivery.				Relinquished By/Affiliation		Date Time:	Received By/Affiliation													
Andrew G. Sosa / Arcadis		10/20/17/1630	B. Kassel				B. Kassel		10-20-17	FED													
Relinquished by/Affiliation		Date Time:	Received By/Affiliation				Relinquished By/Affiliation		Date Time:	Received By/Affiliation													
S			S				S			S													

Lab Use Only : Cooler Temperature (s) Celsius:



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# of Coolers 8  
 SGS ACCUTEST JOB #: 4405      PAGE 3 OF 3

Client / Reporting Information				Project Information						Analytical Information										Matrix Codes																																							
Company Name: Arcadis				Project Name: <b>GE Pittsfield - OPCA</b>																Matrix Codes																																							
Address: One Lincoln Center 110 W Fayette St, Suite 300				Street: <b>Pittsfield</b>																DW - Drinking Water																																							
City: Syracuse		State: NY		Zip: 13202		City: Pittsfield		State: NY												GW - Ground Water																																							
Project Contact: <u>Chris Kassel</u>				Project #																WW - Water																																							
Email: <u>chriskassel@arcadis.com</u>				ALL10113.3000.3006S																SW - Surface Water																																							
Phone #: <u>315-255-6386 (Kassel)</u>				Fax #																SO - Soil																																							
Sampler(s) Name(s) (Printed): <u>Perry Rabasco</u>				Client Purchase Order #																SL - Sludge																																							
Sampler 1: <u>78-6R</u>																				OI - Oil																																							
Sampler 2: <u>78-1</u>																				LIQ - Other Liquid																																							
Sampler 3: <u>78-1-MSD</u>																				AIR - Air																																							
Sampler 4: <u>78-1-MSD</u>																				SOL - Other Solid																																							
SGS Accutest Sample #				Field ID / Point of Collection		DATE		TIME		SAMPLED BY		MATRIX		TOTAL # OF BOTTLES		NONE		OTHER		SI		PC		PZ		NH		FICD		MNOZ/NIC		DI WATER		MDSH		VOCs STAND (EPA method 8260)		PCBs (Chrotoxy) (EPA method 8160)		SVOCs STAND (See attached Note to Lab) (EPA method 8290)		Sulfides (EPA method 8324)		PAC Oxidize (See attached Note to Lab) (EPA method 8141)		Mercury Dissolved (EPA method 1631, 1631A, and 1770A)		Dissulfides (EPA method 8280)				LAB USE ONLY							
4						10/20/17			1325	JD	GW	13				X	X						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X																	
↓						10/20/17			1325	JD	GW	10				X	X						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X																
↓						10/20/17			1325	JD	GW	10				X	X						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X															
5						10/20/17			1400	MM	GW	13				X	X						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X															
↓						10/20/17			1400	MM	GW	1				X																																											
↓						10/20/17			1420	MM	GW	1				X																																											
10						10/20/17			-	-	GW	1				X							X																																				
16						10/20/17			-	-	GW	1				X							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X														
7						10/20/17			-	-	GW	10				X	X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X													
8						10/20/17			-	-	GW	1				X																																											
<b>Turnaround Time ( Business days)</b>				<b>Date Deliverable Information</b>						<b>Comments / Remarks</b>																																																	
<input checked="" type="checkbox"/> 10 Day (Business) <input type="checkbox"/> 7 Day <input type="checkbox"/> 5 Day <input type="checkbox"/> 3 Day RUSH <input type="checkbox"/> 2 Day RUSH <input type="checkbox"/> 1 Day RUSH <input type="checkbox"/> Other				Approved By / Date: _____ <input type="checkbox"/> COMMERCIAL "A" (RESULTS ONLY) <input type="checkbox"/> COMMERCIAL "B" (RESULTS PLUS QC) <input type="checkbox"/> REDT1 (EPA LEVEL 3) <input type="checkbox"/> FULLT1 (EPA LEVEL 4) <input checked="" type="checkbox"/> EDD'S CORE EDD'S, Refer to Contract for details.						Please see attached "NOTES TO LAB" Lab to do all filtering Please note, 17 site-specific dissolved metals are listed in the contract.																																																	
Rush TIA Data Available VIA Email or Lablink				Sample Custody must be documented below each time samples change possession, including courier delivery.																																																							
Relinquished by Sampler/Affiliation		Date Time:		Received By/Affiliation				Relinquished By/Affiliation		Date Time:		Received By/Affiliation																																															
Andrew Gibson (Arcadis)		10/20/17 16:30		B. C				B. C		10-20-17		F. H																																															
Relinquished by/Affiliation		Date Time:		Received By/Affiliation				Relinquished By/Affiliation		Date Time:		Received By/Affiliation																																															
Lab Use Only : Cooler Temperature (s) Celsius:																																																											

6.1  
6

SGS Accutest LabLink@182465 15:27 01-Dec-2017

## Report of Analysis

Page 1 of 2

Client Sample ID:	TRIP BLANK-1-102017	Date Sampled:	10/20/17
Lab Sample ID:	FA48667-1	Date Received:	10/21/17
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	P53317.D	1	10/27/17 12:27	AJ	n/a	n/a	VP2026
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	25	14	ug/l	
107-02-8	Acrolein <sup>b</sup>	ND	20	6.1	ug/l	
107-13-1	Acrylonitrile <sup>b</sup>	ND	10	2.1	ug/l	
107-05-1	Allyl Chloride	ND	2.0	0.26	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether <sup>b</sup> <sup>R</sup>	ND	<del>5.0</del>	<del>2.1</del>	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
126-99-8	Chloroprene	ND	5.0	0.50	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
123-91-1	1,4-Dioxane	ND	200	75	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
97-63-2	Ethyl Methacrylate	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	TRIP BLANK-1-102017	Date Sampled:	10/20/17
Lab Sample ID:	FA48667-1	Date Received:	10/21/17
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-83-1	Isobutyl Alcohol	ND	50	11	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl Iodide	ND	1.0	0.27	ug/l	
80-62-6	Methyl Methacrylate	ND	5.0	0.71	ug/l	
74-95-3	Methylene Bromide	ND	2.0	0.37	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND UJ	1.0	0.22	ug/l	
108-88-3	Toluene	0.85	1.0	0.30	ug/l	J
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.63	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		83-118%
17060-07-0	1,2-Dichloroethane-D4	97%		79-125%
2037-26-5	Toluene-D8	100%		85-112%
460-00-4	4-Bromofluorobenzene	101%		83-118%

- (a) Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.  
(b) Result reported from HCl preserved sample and should be used for screening purposes only.

ND = Not detected      MDL = Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

SGS Accutest LabLink@182465 15:27 01-Dec-2017

## Report of Analysis

Page 1 of 4

Client Sample ID:	OPCA-MW-5R	Date Sampled:	10/20/17
Lab Sample ID:	FA48667-2	Date Received:	10/21/17
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D2973.D	1	11/02/17 02:58	MV	10/27/17 08:45	OP67384	S4D111
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
59-50-7	4-Chloro-3-methyl Phenol	ND	5.0	0.59	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.63	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	0.84	ug/l	
87-65-0	2,6-Dichlorophenol	ND	5.0	0.83	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	0.74	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	5.0	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.0	ug/l	
95-48-7	2-Methylphenol	ND	5.0	0.56	ug/l	
	3&4-Methylphenol	ND	5.0	0.98	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.85	ug/l	
100-02-7	4-Nitrophenol	ND	25	5.0	ug/l	
87-86-5	Pentachlorophenol	ND	25	5.0	ug/l	
108-95-2	Phenol	ND UJ	5.0	0.50	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	0.97	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	0.74	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.75	ug/l	
83-32-9	Acenaphthene	ND	5.0	0.63	ug/l	
208-96-8	Acenaphthylene	ND	5.0	0.64	ug/l	
98-86-2	Acetophenone	ND	5.0	0.81	ug/l	
53-96-3	2-Acetylaminofluorene	ND	5.0	0.75	ug/l	
92-67-1	4-Aminobiphenyl	ND	5.0	0.80	ug/l	
62-53-3	Aniline	ND UJ	5.0	1.0	ug/l	
120-12-7	Anthracene	ND	5.0	0.80	ug/l	
140-57-8	Aramite	ND	10	2.0	ug/l	
92-87-5	Benzidine	ND UJ	25	5.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	0.76	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	0.78	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	0.78	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND UJ	5.0	0.82	ug/l	
207-08-9	Benzo(k)fluoranthene	ND UJ	5.0	0.86	ug/l	
100-51-6	Benzyl Alcohol	ND UJ	5.0	0.61	ug/l	
101-55-3	4-Bromophenyl Phenyl Ether	ND	5.0	0.85	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	OPCA-MW-5R	Date Sampled:	10/20/17
Lab Sample ID:	FA48667-2	Date Received:	10/21/17
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
85-68-7	Butyl Benzyl Phthalate	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.63	ug/l	
510-15-6	Chlorobenzilate	ND	5.0	1.1	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.81	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.73	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.76	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.50	ug/l	
7005-72-3	4-Chlorophenyl Phenyl Ether	ND	5.0	0.54	ug/l	
218-01-9	Chrysene	ND	5.0	0.85	ug/l	
2303-16-4	Diallate	ND	5.0	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	0.80	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.60	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	0.50	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.64	ug/l	
84-66-2	Diethyl Phthalate	ND	5.0	1.0	ug/l	
60-11-7	p-(Dimethylamine)azobenzene	ND	5.0	1.0	ug/l	
57-97-6	7,12-Dimethylbenz(a)anthracene	ND	5.0	1.0	ug/l	
119-93-7	3,3'-Dimethylbenzidine	ND	10	2.8	ug/l	
122-09-8	A,A-Dimethylphenethylamine	ND	25	5.0	ug/l	
131-11-3	Dimethyl Phthalate	ND	5.0	1.0	ug/l	
84-74-2	Di-n-butyl Phthalate	ND	5.0	1.0	ug/l	
117-84-0	Di-n-octyl Phthalate	ND UJ	5.0	1.0	ug/l	
99-65-0	m-Dinitrobenzene	ND	5.0	0.91	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	0.81	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	0.71	ug/l	
122-39-4	Diphenylamine	ND	5.0	0.81	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.76	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	1.0	ug/l	
62-50-0	Ethyl Methanesulfonate	ND	5.0	1.1	ug/l	
206-44-0	Fluoranthene	ND	5.0	0.55	ug/l	
86-73-7	Fluorene	ND	5.0	0.70	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.69	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.50	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.0	1.8	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
70-30-4	Hexachlorophene	ND	100	50	ug/l	
1888-71-7	Hexachloropropene	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND UJ	5.0	0.71	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	OPCA-MW-5R	Date Sampled:	10/20/17
Lab Sample ID:	FA48667-2	Date Received:	10/21/17
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
465-73-6	Isodrin	ND	5.0	1.0	ug/l	
78-59-1	Isophorone	ND	5.0	0.78	ug/l	
120-58-1	Isosafrole	ND	5.0	2.4	ug/l	
91-80-5	Methapyrilene	ND	20	4.0	ug/l	
56-49-5	3-Methylcholanthrene	ND	5.0	1.0	ug/l	
66-27-3	Methyl Methanesulfonate	ND	5.0	0.77	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	0.60	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
130-15-4	1,4-Naphthoquinone	ND	5.0	0.72	ug/l	
134-32-7	1-Naphthylamine	ND UJ	5.0	1.2	ug/l	
91-59-8	2-Naphthylamine	ND	5.0	1.2	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	1.8	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.88	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	1.2	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.93	ug/l	
99-55-8	5-Nitro-o-toluidine	ND	5.0	1.3	ug/l	
55-18-5	N-Nitrosodiethylamine	ND	5.0	0.87	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	5.0	0.50	ug/l	
924-16-3	N-Nitrosodi-n-butylamine	ND	5.0	1.1	ug/l	
621-64-7	N-Nitrosodi-n-propylamine	ND	5.0	0.67	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.81	ug/l	
10595-95-6	N-Nitrosomethylethylamine	ND	5.0	0.98	ug/l	
59-89-2	N-Nitrosomorpholine	ND	5.0	0.88	ug/l	
100-75-4	N-Nitrosopiperidine	ND	5.0	1.2	ug/l	
930-55-2	N-Nitrosopyrrolidine	ND	5.0	1.1	ug/l	
56-57-5	4-Nitroquinoline 1-Oxide	ND	20	5.0	ug/l	
126-68-1	O,O,O-Triethyl Phosphorothio	ND	5.0	1.0	ug/l	
608-93-5	Pentachlorobenzene	ND	5.0	3.1	ug/l	
76-01-7	Pentachloroethane	ND	5.0	3.4	ug/l	
82-68-8	Pentachloronitrobenzene	ND	5.0	1.6	ug/l	
62-44-2	Phenacetin	ND	5.0	1.3	ug/l	
85-01-8	Phenanthrene	ND	5.0	0.86	ug/l	
106-50-3	p-Phenylenediamine	ND	50	10	ug/l	
109-06-8	2-Picoline	ND	5.0	1.0	ug/l	
23950-58-5	Pronamide	ND	5.0	1.3	ug/l	
129-00-0	Pyrene	ND	5.0	0.68	ug/l	
110-86-1	Pyridine	ND	10	2.0	ug/l	
94-59-7	Safrole	ND	5.0	1.6	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	5.0	0.50	ug/l	
297-97-2	Thionazin	ND	5.0	1.0	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-5R		<b>Date Sampled:</b> 10/20/17
<b>Lab Sample ID:</b> FA48667-2		<b>Date Received:</b> 10/21/17
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8270D SW846 3510C		
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

**ABN Appendix IX Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-53-4	o-Toluidine	ND	5.0	1.2	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.1	ug/l	
99-35-4	sym-Trinitrobenzene	ND	5.0	0.99	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	22%		14-67%
4165-62-2	Phenol-d5	19%		10-50%
118-79-6	2,4,6-Tribromophenol	68%		33-118%
4165-60-0	Nitrobenzene-d5	63%		42-108%
321-60-8	2-Fluorobiphenyl	71%		40-106%
1718-51-0	Terphenyl-d14	65%		39-121%

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	OPCA-MW-5R	Date Sampled:	10/20/17
Lab Sample ID:	FA48667-2F	Date Received:	10/21/17
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Method:	SW846 8082A SW846 3510C		
Project:	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MM46367.D	1	11/01/17 17:05	NJ	10/30/17 16:10	OP67413	GMM888
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1010 ml	5.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.099	0.040	ug/l	
11104-28-2	Aroclor 1221	ND	0.099	0.050	ug/l	
11141-16-5	Aroclor 1232	ND	0.099	0.050	ug/l	
53469-21-9	Aroclor 1242	ND	0.099	0.040	ug/l	
12672-29-6	Aroclor 1248	ND	0.099	0.040	ug/l	
11097-69-1	Aroclor 1254	ND	0.099	0.040	ug/l	
11096-82-5	Aroclor 1260	ND	0.099	0.040	ug/l	
1336-36-3	Total PCBs	ND	0.099	0.050	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	76%		38-127%
2051-24-3	Decachlorobiphenyl	50%		25-137%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-5R <b>Lab Sample ID:</b> FA48667-2F <b>Matrix:</b> AQ - Groundwater Filtered <b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA	<b>Date Sampled:</b> 10/20/17 <b>Date Received:</b> 10/21/17 <b>Percent Solids:</b> n/a
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### Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	1.0 U	6.0	1.0	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Arsenic	1.3 U	10	1.3	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Barium	34.7 J	200	1.0	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Beryllium	0.20 U	4.0	0.20	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Cadmium	1.9 J	5.0	0.20	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Chromium	1.0 U	10	1.0	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Cobalt	0.20 U	50	0.20	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Copper	2.2 J	25	1.0	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Lead	1.1 U	5.0	1.1	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Mercury	0.030 U	0.50	0.030	ug/l	1	11/02/17	11/02/17 DM	SW846 7470A <sup>2</sup>	SW846 7470A <sup>4</sup>
Nickel	1.1 J	40	0.40	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Selenium	2.9 U	10	2.9	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Silver	0.70 U	10	0.70	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Thallium	1.4 U	10	1.4	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Tin	1.0 U	50	1.0	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Vanadium	0.70 J	50	0.60	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Zinc	41.3	20	4.4	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>

- (1) Instrument QC Batch: MA14468
- (2) Instrument QC Batch: MA14474
- (3) Prep QC Batch: MP32931
- (4) Prep QC Batch: MP32943

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 J = Indicates a result > = MDL but < RL

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## Report of Analysis

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Client Sample ID:	GMA4-6	Date Sampled:	10/20/17
Lab Sample ID:	FA48667-3	Date Received:	10/21/17
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	P53318.D	1	10/27/17 12:52	AJ	n/a	n/a	VP2026

Run #1	Purge Volume
Run #2	5.0 ml

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	25	14	ug/l	
107-02-8	Acrolein <sup>a</sup>	ND	20	6.1	ug/l	
107-13-1	Acrylonitrile <sup>a</sup>	ND	10	2.1	ug/l	
107-05-1	Allyl Chloride	ND	2.0	0.26	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether <sup>a</sup>	R ND	5.0	<del>2.1</del>	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
126-99-8	Chloroprene	ND	5.0	0.50	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
123-91-1	1,4-Dioxane	ND	200	75	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
97-63-2	Ethyl Methacrylate	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	GMA4-6	Date Sampled:	10/20/17
Lab Sample ID:	FA48667-3	Date Received:	10/21/17
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-83-1	Isobutyl Alcohol	ND	50	11	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	0.77	2.0	0.50	ug/l	J
74-88-4	Methyl Iodide	ND	1.0	0.27	ug/l	
80-62-6	Methyl Methacrylate	ND	5.0	0.71	ug/l	
74-95-3	Methylene Bromide	ND	2.0	0.37	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND UJ	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.63	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	98%		79-125%
2037-26-5	Toluene-D8	100%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

(a) Result reported from HCl preserved sample and should be used for screening purposes only.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	GMA4-6	Date Sampled:	10/20/17
Lab Sample ID:	FA48667-3	Date Received:	10/21/17
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	4D2953.D	1	11/01/17 18:23	MV	10/27/17 08:45	OP67384	S4D111

Run #1	Initial Volume	Final Volume
Run #2	1050 ml	1.0 ml

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
59-50-7	4-Chloro-3-methyl Phenol	ND	4.8	0.56	ug/l	
95-57-8	2-Chlorophenol	ND	4.8	0.60	ug/l	
120-83-2	2,4-Dichlorophenol	ND	4.8	0.80	ug/l	
87-65-0	2,6-Dichlorophenol	ND	4.8	0.79	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.8	0.70	ug/l	
51-28-5	2,4-Dinitrophenol	ND	24	4.8	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	9.5	1.9	ug/l	
95-48-7	2-Methylphenol	ND	4.8	0.53	ug/l	
	3&4-Methylphenol	ND	4.8	0.93	ug/l	
88-75-5	2-Nitrophenol	ND	4.8	0.81	ug/l	
100-02-7	4-Nitrophenol	ND	24	4.8	ug/l	
87-86-5	Pentachlorophenol	ND	24	4.8	ug/l	
108-95-2	Phenol	ND	4.8	0.48	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol <sup>a</sup>	ND	4.8	0.92	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.8	0.70	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.8	0.72	ug/l	
83-32-9	Acenaphthene	ND	4.8	0.60	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.61	ug/l	
98-86-2	Acetophenone	ND	4.8	0.77	ug/l	
53-96-3	2-Acetylaminofluorene	ND	4.8	0.71	ug/l	
92-67-1	4-Aminobiphenyl	ND	4.8	0.76	ug/l	
62-53-3	Aniline <sup>b</sup>	ND UJ	4.8	0.95	ug/l	
120-12-7	Anthracene	ND	4.8	0.76	ug/l	
140-57-8	Aramite	ND	9.5	1.9	ug/l	
92-87-5	Benzidine <sup>c</sup>	ND UJ	24	4.8	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.72	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.75	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.74	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND UJ	4.8	0.78	ug/l	
207-08-9	Benzo(k)fluoranthene	ND UJ	4.8	0.82	ug/l	
100-51-6	Benzyl Alcohol <sup>b</sup>	ND UJ	4.8	0.58	ug/l	
101-55-3	4-Bromophenyl Phenyl Ether	ND	4.8	0.81	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	GMA4-6	Date Sampled:	10/20/17
Lab Sample ID:	FA48667-3	Date Received:	10/21/17
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
85-68-7	Butyl Benzyl Phthalate	ND	4.8	0.95	ug/l	
106-47-8	4-Chloroaniline	ND	4.8	0.60	ug/l	
510-15-6	Chlorobenzilate	ND	4.8	1.1	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	4.8	0.77	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	4.8	0.70	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	4.8	0.72	ug/l	
91-58-7	2-Chloronaphthalene	ND	4.8	0.48	ug/l	
7005-72-3	4-Chlorophenyl Phenyl Ether	ND	4.8	0.51	ug/l	
218-01-9	Chrysene	ND	4.8	0.81	ug/l	
2303-16-4	Diallate	ND	4.8	0.95	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.77	ug/l	
132-64-9	Dibenzofuran	ND	4.8	0.57	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	4.8	0.48	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	4.8	0.48	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	4.8	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine <sup>a</sup>	ND	4.8	0.61	ug/l	
84-66-2	Diethyl Phthalate	ND	4.8	0.95	ug/l	
60-11-7	p-(Dimethylamino)azobenzene	ND	4.8	0.95	ug/l	
57-97-6	7,12-Dimethylbenz(a)anthrac <sup>d</sup>	ND	4.8	0.95	ug/l	
119-93-7	3,3'-Dimethylbenzidine <sup>d</sup>	ND	9.5	2.7	ug/l	
122-09-8	A,A-Dimethylphenethylamine	ND	24	4.8	ug/l	
131-11-3	Dimethyl Phthalate	ND	4.8	0.95	ug/l	
84-74-2	Di-n-butyl Phthalate	ND	4.8	0.95	ug/l	
117-84-0	Di-n-octyl Phthalate	ND UJ	4.8	0.95	ug/l	
99-65-0	m-Dinitrobenzene <sup>a</sup>	ND	4.8	0.86	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	4.8	0.77	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	4.8	0.68	ug/l	
122-39-4	Diphenylamine	ND	4.8	0.77	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	4.8	0.72	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	4.8	0.95	ug/l	
62-50-0	Ethyl Methanesulfonate	ND	4.8	1.1	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.53	ug/l	
86-73-7	Fluorene	ND	4.8	0.67	ug/l	
118-74-1	Hexachlorobenzene <sup>a</sup>	ND	4.8	0.66	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.8	0.48	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	4.8	1.7	ug/l	
67-72-1	Hexachloroethane	ND	4.8	1.6	ug/l	
70-30-4	Hexachlorophene	ND	95	48	ug/l	
1888-71-7	Hexachloropropene <sup>d</sup>	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND UJ	4.8	0.68	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

Client Sample ID:	GMA4-6	Date Sampled:	10/20/17
Lab Sample ID:	FA48667-3	Date Received:	10/21/17
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
465-73-6	Isodrin	ND	4.8	0.99	ug/l	
78-59-1	Isophorone	ND	4.8	0.74	ug/l	
120-58-1	Isosafrole	ND	4.8	2.2	ug/l	
91-80-5	Methapyrilene <sup>d</sup>	ND	19	3.8	ug/l	
56-49-5	3-Methylcholanthrene <sup>d</sup>	ND	4.8	0.96	ug/l	
66-27-3	Methyl Methanesulfonate	ND	4.8	0.73	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.57	ug/l	
91-20-3	Naphthalene	ND	4.8	0.48	ug/l	
130-15-4	1,4-Naphthoquinone <sup>d</sup>	ND	4.8	0.69	ug/l	
134-32-7	1-Naphthylamine <sup>b</sup>	ND UJ	4.8	1.1	ug/l	
91-59-8	2-Naphthylamine	ND	4.8	1.1	ug/l	
88-74-4	2-Nitroaniline	ND	4.8	1.7	ug/l	
99-09-2	3-Nitroaniline	ND	4.8	0.84	ug/l	
100-01-6	4-Nitroaniline <sup>a</sup>	ND	4.8	1.1	ug/l	
98-95-3	Nitrobenzene	ND	4.8	0.89	ug/l	
99-55-8	5-Nitro-o-toluidine	ND	4.8	1.2	ug/l	
55-18-5	N-Nitrosodiethylamine	ND	4.8	0.82	ug/l	
62-75-9	N-Nitrosodimethylamine <sup>a</sup>	ND	4.8	0.48	ug/l	
924-16-3	N-Nitrosodi-n-butylamine	ND	4.8	1.0	ug/l	
621-64-7	N-Nitrosodi-n-propylamine	ND	4.8	0.64	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	0.77	ug/l	
10595-95-6	N-Nitrosomethylethylamine	ND	4.8	0.93	ug/l	
59-89-2	N-Nitrosomorpholine	ND	4.8	0.84	ug/l	
100-75-4	N-Nitrosopiperidine	ND	4.8	1.1	ug/l	
930-55-2	N-Nitrosopyrrolidine	ND	4.8	1.1	ug/l	
56-57-5	4-Nitroquinoline 1-Oxide	ND	19	4.8	ug/l	
126-68-1	O,O,O-Triethyl Phosphorothio	ND	4.8	0.95	ug/l	
608-93-5	Pentachlorobenzene	ND	4.8	3.0	ug/l	
76-01-7	Pentachloroethane	ND	4.8	3.3	ug/l	
82-68-8	Pentachloronitrobenzene	ND	4.8	1.5	ug/l	
62-44-2	Phenacetin	ND	4.8	1.2	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.82	ug/l	
106-50-3	p-Phenylenediamine	ND	48	9.5	ug/l	
109-06-8	2-Picoline	ND	4.8	0.95	ug/l	
23950-58-5	Pronamide	ND	4.8	1.3	ug/l	
129-00-0	Pyrene	ND	4.8	0.65	ug/l	
110-86-1	Pyridine	ND	9.5	1.9	ug/l	
94-59-7	Safrole	ND	4.8	1.6	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	4.8	0.48	ug/l	
297-97-2	Thionazin	ND	4.8	0.95	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> GMA4-6 <b>Lab Sample ID:</b> FA48667-3 <b>Matrix:</b> AQ - Ground Water <b>Method:</b> SW846 8270D SW846 3510C <b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA	<b>Date Sampled:</b> 10/20/17 <b>Date Received:</b> 10/21/17 <b>Percent Solids:</b> n/a
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**ABN Appendix IX Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-53-4	o-Toluidine	ND	4.8	1.1	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	4.8	1.0	ug/l	
99-35-4	sym-Trinitrobenzene	ND	4.8	0.94	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	18%		14-67%
4165-62-2	Phenol-d5	15%		10-50%
118-79-6	2,4,6-Tribromophenol	63%		33-118%
4165-60-0	Nitrobenzene-d5	66%		42-108%
321-60-8	2-Fluorobiphenyl	72%		40-106%
1718-51-0	Terphenyl-d14	54%		39-121%

- (a) Associated CCV outside of control limits high, sample was ND.
- (b) Associated BS recovery outside control limits.
- (c) Associated ICV outside control limits. Associated CCV outside of control limits high, sample was ND.
- (d) Associated ICV outside control limits.

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	GMA4-6	Date Sampled:	10/20/17
Lab Sample ID:	FA48667-3F	Date Received:	10/21/17
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Method:	SW846 8082A SW846 3510C		
Project:	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MM46368.D	1	11/01/17 17:17	NJ	10/30/17 16:10	OP67413	GMM888
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1060 ml	5.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.094	0.038	ug/l	
11104-28-2	Aroclor 1221	ND	0.094	0.047	ug/l	
11141-16-5	Aroclor 1232	ND	0.094	0.047	ug/l	
53469-21-9	Aroclor 1242	ND	0.094	0.038	ug/l	
12672-29-6	Aroclor 1248	ND	0.094	0.038	ug/l	
11097-69-1	Aroclor 1254	ND	0.094	0.038	ug/l	
11096-82-5	Aroclor 1260	ND	0.094	0.038	ug/l	
1336-36-3	Total PCBs	ND	0.094	0.047	ug/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
877-09-8	Tetrachloro-m-xylene	80%		38-127%		
2051-24-3	Decachlorobiphenyl	46%		25-137%		

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> GMA4-6 <b>Lab Sample ID:</b> FA48667-3F <b>Matrix:</b> AQ - Groundwater Filtered <b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA	<b>Date Sampled:</b> 10/20/17 <b>Date Received:</b> 10/21/17 <b>Percent Solids:</b> n/a
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### Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	1.0 U	6.0	1.0	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Arsenic	1.3 U	10	1.3	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Barium	22.0 J	200	1.0	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Beryllium	0.20 U	4.0	0.20	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Cadmium	0.40 J	5.0	0.20	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Chromium	1.0 U	10	1.0	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Cobalt	0.20 U	50	0.20	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Copper	37.4	25	1.0	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Lead	1.1 U	5.0	1.1	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Mercury	0.030 U	0.50	0.030	ug/l	1	11/02/17	11/02/17 DM	SW846 7470A <sup>2</sup>	SW846 7470A <sup>4</sup>
Nickel	0.50 J	40	0.40	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Selenium	2.9 U	10	2.9	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Silver	0.70 U	10	0.70	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Thallium	1.4 U	10	1.4	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Tin	1.0 U	50	1.0	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Vanadium	0.60 U	50	0.60	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Zinc	5.7 J	20	4.4	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>

- (1) Instrument QC Batch: MA14468
- (2) Instrument QC Batch: MA14474
- (3) Prep QC Batch: MP32931
- (4) Prep QC Batch: MP32943

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 J = Indicates a result > = MDL but < RL

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## Report of Analysis

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Client Sample ID: 78-6R	Date Sampled: 10/20/17
Lab Sample ID: FA48667-4	Date Received: 10/21/17
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	P53319.D	1	10/27/17 13:16	AJ	n/a	n/a	VP2026

Run #1	Purge Volume
Run #2	5.0 ml

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	25	14	ug/l	
107-02-8	Acrolein <sup>a</sup>	ND	20	6.1	ug/l	
107-13-1	Acrylonitrile <sup>a</sup>	ND	10	2.1	ug/l	
107-05-1	Allyl Chloride	ND	2.0	0.26	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether <sup>a</sup> R	ND	5.0	2.1	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
126-99-8	Chloroprene	ND	5.0	0.50	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
123-91-1	1,4-Dioxane	ND	200	75	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
97-63-2	Ethyl Methacrylate	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	78-6R	Date Sampled:	10/20/17
Lab Sample ID:	FA48667-4	Date Received:	10/21/17
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-83-1	Isobutyl Alcohol	ND	50	11	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl Iodide	ND	1.0	0.27	ug/l	
80-62-6	Methyl Methacrylate	ND	5.0	0.71	ug/l	
74-95-3	Methylene Bromide	ND	2.0	0.37	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
100-42-5	Styrene	ND UJ	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND UJ	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.63	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	99%		79-125%
2037-26-5	Toluene-D8	96%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

(a) Result reported from HCl preserved sample and should be used for screening purposes only.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

Page 1 of 4

Client Sample ID: 78-6R	Date Sampled: 10/20/17
Lab Sample ID: FA48667-4	Date Received: 10/21/17
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8270D SW846 3510C	
Project: GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	4D2954.D	1	11/01/17 18:50	MV	10/27/17 08:45	OP67384	S4D111

Run #1	Initial Volume	Final Volume
Run #2	1050 ml	1.0 ml

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
59-50-7	4-Chloro-3-methyl Phenol	ND	4.8	0.56	ug/l	
95-57-8	2-Chlorophenol	ND	4.8	0.60	ug/l	
120-83-2	2,4-Dichlorophenol	ND	4.8	0.80	ug/l	
87-65-0	2,6-Dichlorophenol	ND	4.8	0.79	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.8	0.70	ug/l	
51-28-5	2,4-Dinitrophenol	ND	24	4.8	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	9.5	1.9	ug/l	
95-48-7	2-Methylphenol	ND	4.8	0.53	ug/l	
	3&4-Methylphenol	ND	4.8	0.93	ug/l	
88-75-5	2-Nitrophenol	ND	4.8	0.81	ug/l	
100-02-7	4-Nitrophenol	ND	24	4.8	ug/l	
87-86-5	Pentachlorophenol	ND	24	4.8	ug/l	
108-95-2	Phenol	ND	4.8	0.48	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol <sup>a</sup>	ND	4.8	0.92	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.8	0.70	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.8	0.72	ug/l	
83-32-9	Acenaphthene	ND	4.8	0.60	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.61	ug/l	
98-86-2	Acetophenone	ND	4.8	0.77	ug/l	
53-96-3	2-Acetylaminofluorene	ND	4.8	0.71	ug/l	
92-67-1	4-Aminobiphenyl	ND	4.8	0.76	ug/l	
62-53-3	Aniline <sup>b</sup>	ND UJ	4.8	0.95	ug/l	
120-12-7	Anthracene	ND	4.8	0.76	ug/l	
140-57-8	Aramite	ND	9.5	1.9	ug/l	
92-87-5	Benzidine <sup>c</sup>	ND UJ	24	4.8	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.72	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.75	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.74	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND UJ	4.8	0.78	ug/l	
207-08-9	Benzo(k)fluoranthene	ND UJ	4.8	0.82	ug/l	
100-51-6	Benzyl Alcohol <sup>b</sup>	ND UJ	4.8	0.58	ug/l	
101-55-3	4-Bromophenyl Phenyl Ether	ND	4.8	0.81	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

Client Sample ID:	78-6R	Date Sampled:	10/20/17
Lab Sample ID:	FA48667-4	Date Received:	10/21/17
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
85-68-7	Butyl Benzyl Phthalate	ND	4.8	0.95	ug/l	
106-47-8	4-Chloroaniline	ND	4.8	0.60	ug/l	
510-15-6	Chlorobenzilate	ND	4.8	1.1	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	4.8	0.77	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	4.8	0.70	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	4.8	0.72	ug/l	
91-58-7	2-Chloronaphthalene	ND	4.8	0.48	ug/l	
7005-72-3	4-Chlorophenyl Phenyl Ether	ND	4.8	0.51	ug/l	
218-01-9	Chrysene	ND	4.8	0.81	ug/l	
2303-16-4	Diallate	ND	4.8	0.95	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.77	ug/l	
132-64-9	Dibenzofuran	ND	4.8	0.57	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	4.8	0.48	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	4.8	0.48	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	4.8	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine <sup>a</sup>	ND	4.8	0.61	ug/l	
84-66-2	Diethyl Phthalate	ND	4.8	0.95	ug/l	
60-11-7	p-(Dimethylamine)azobenzene	ND	4.8	0.95	ug/l	
57-97-6	7,12-Dimethylbenz(a)anthrac <sup>d</sup>	ND	4.8	0.95	ug/l	
119-93-7	3,3'-Dimethylbenzidine <sup>d</sup>	ND	9.5	2.7	ug/l	
122-09-8	A,A-Dimethylphenethylamine	ND	24	4.8	ug/l	
131-11-3	Dimethyl Phthalate	ND	4.8	0.95	ug/l	
84-74-2	Di-n-butyl Phthalate	ND	4.8	0.95	ug/l	
117-84-0	Di-n-octyl Phthalate	ND	4.8	0.95	ug/l	
99-65-0	m-Dinitrobenzene <sup>a</sup>	ND	4.8	0.86	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	4.8	0.77	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	4.8	0.68	ug/l	
122-39-4	Diphenylamine	ND	4.8	0.77	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	4.8	0.72	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	4.8	0.95	ug/l	
62-50-0	Ethyl Methanesulfonate	ND	4.8	1.1	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.53	ug/l	
86-73-7	Fluorene	ND	4.8	0.67	ug/l	
118-74-1	Hexachlorobenzene <sup>a</sup>	ND	4.8	0.66	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.8	0.48	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	4.8	1.7	ug/l	
67-72-1	Hexachloroethane	ND	4.8	1.6	ug/l	
70-30-4	Hexachlorophene	ND	95	48	ug/l	
1888-71-7	Hexachloropropene <sup>d</sup>	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	0.68	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	78-6R	Date Sampled:	10/20/17
Lab Sample ID:	FA48667-4	Date Received:	10/21/17
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
465-73-6	Isodrin	ND	4.8	0.99	ug/l	
78-59-1	Isophorone	ND	4.8	0.74	ug/l	
120-58-1	Isosafrole	ND	4.8	2.2	ug/l	
91-80-5	Methapyrilene <sup>d</sup>	ND	19	3.8	ug/l	
56-49-5	3-Methylcholanthrene <sup>d</sup>	ND	4.8	0.96	ug/l	
66-27-3	Methyl Methanesulfonate	ND	4.8	0.73	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.57	ug/l	
91-20-3	Naphthalene	ND	4.8	0.48	ug/l	
130-15-4	1,4-Naphthoquinone <sup>d</sup>	ND	4.8	0.69	ug/l	
134-32-7	1-Naphthylamine <sup>b</sup>	ND UJ	4.8	1.1	ug/l	
91-59-8	2-Naphthylamine	ND	4.8	1.1	ug/l	
88-74-4	2-Nitroaniline	ND	4.8	1.7	ug/l	
99-09-2	3-Nitroaniline	ND	4.8	0.84	ug/l	
100-01-6	4-Nitroaniline <sup>a</sup>	ND	4.8	1.1	ug/l	
98-95-3	Nitrobenzene	ND	4.8	0.89	ug/l	
99-55-8	5-Nitro-o-toluidine	ND	4.8	1.2	ug/l	
55-18-5	N-Nitrosodiethylamine	ND	4.8	0.82	ug/l	
62-75-9	N-Nitrosodimethylamine <sup>a</sup>	ND	4.8	0.48	ug/l	
924-16-3	N-Nitrosodi-n-butylamine	ND	4.8	1.0	ug/l	
621-64-7	N-Nitrosodi-n-propylamine	ND	4.8	0.64	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	0.77	ug/l	
10595-95-6	N-Nitrosomethylethylamine	ND	4.8	0.93	ug/l	
59-89-2	N-Nitrosomorpholine	ND	4.8	0.84	ug/l	
100-75-4	N-Nitrosopiperidine	ND	4.8	1.1	ug/l	
930-55-2	N-Nitrosopyrrolidine	ND	4.8	1.1	ug/l	
56-57-5	4-Nitroquinoline 1-Oxide	ND	19	4.8	ug/l	
126-68-1	O,O,O-Triethyl Phosphorothio	ND	4.8	0.95	ug/l	
608-93-5	Pentachlorobenzene	ND	4.8	3.0	ug/l	
76-01-7	Pentachloroethane	ND	4.8	3.3	ug/l	
82-68-8	Pentachloronitrobenzene	ND	4.8	1.5	ug/l	
62-44-2	Phenacetin	ND	4.8	1.2	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.82	ug/l	
106-50-3	p-Phenylenediamine	ND	48	9.5	ug/l	
109-06-8	2-Picoline	ND	4.8	0.95	ug/l	
23950-58-5	Pronamide	ND	4.8	1.3	ug/l	
129-00-0	Pyrene	ND	4.8	0.65	ug/l	
110-86-1	Pyridine	ND	9.5	1.9	ug/l	
94-59-7	Safrole	ND	4.8	1.6	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	4.8	0.48	ug/l	
297-97-2	Thionazin	ND	4.8	0.95	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> 78-6R <b>Lab Sample ID:</b> FA48667-4 <b>Matrix:</b> AQ - Ground Water <b>Method:</b> SW846 8270D SW846 3510C <b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA	<b>Date Sampled:</b> 10/20/17 <b>Date Received:</b> 10/21/17 <b>Percent Solids:</b> n/a
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**ABN Appendix IX Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-53-4	o-Toluidine	ND	4.8	1.1	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	4.8	1.0	ug/l	
99-35-4	sym-Trinitrobenzene	ND	4.8	0.94	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	22%		14-67%
4165-62-2	Phenol-d5	12%		10-50%
118-79-6	2,4,6-Tribromophenol	82%		33-118%
4165-60-0	Nitrobenzene-d5	82%		42-108%
321-60-8	2-Fluorobiphenyl	89%		40-106%
1718-51-0	Terphenyl-d14	49%		39-121%

- (a) Associated CCV outside of control limits high, sample was ND.
- (b) Associated BS recovery outside control limits.
- (c) Associated ICV outside control limits. Associated CCV outside of control limits high, sample was ND.
- (d) Associated ICV outside control limits.

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID: 78-6R	Date Sampled: 10/20/17
Lab Sample ID: FA48667-4F	Date Received: 10/21/17
Matrix: AQ - Groundwater Filtered	Percent Solids: n/a
Method: SW846 8082A SW846 3510C	
Project: GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MM46369.D	1	11/01/17 17:28	NJ	10/30/17 16:10	OP67413	GMM888
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1010 ml	5.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.099	0.040	ug/l	
11104-28-2	Aroclor 1221	ND	0.099	0.050	ug/l	
11141-16-5	Aroclor 1232	ND	0.099	0.050	ug/l	
53469-21-9	Aroclor 1242	ND	0.099	0.040	ug/l	
12672-29-6	Aroclor 1248	ND	0.099	0.040	ug/l	
11097-69-1	Aroclor 1254	ND	0.099	0.040	ug/l	
11096-82-5	Aroclor 1260	ND	0.099	0.040	ug/l	
1336-36-3	Total PCBs	ND	0.099	0.050	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	72%		38-127%
2051-24-3	Decachlorobiphenyl	40%		25-137%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> 78-6R <b>Lab Sample ID:</b> FA48667-4F <b>Matrix:</b> AQ - Groundwater Filtered <b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA	<b>Date Sampled:</b> 10/20/17 <b>Date Received:</b> 10/21/17 <b>Percent Solids:</b> n/a
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### Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	1.0 U	6.0	1.0	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Arsenic	1.3 U	10	1.3	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Barium	158 J	200	1.0	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Beryllium	0.20 U	4.0	0.20	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Cadmium	0.20 U	5.0	0.20	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Chromium	1.0 U	10	1.0	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Cobalt	1.0 J	50	0.20	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Copper	1.0 U	25	1.0	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Lead	1.1 U	5.0	1.1	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Mercury	0.030 U	0.50	0.030	ug/l	1	11/02/17	11/02/17 DM	SW846 7470A <sup>2</sup>	SW846 7470A <sup>4</sup>
Nickel	0.60 J	40	0.40	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Selenium	2.9 U	10	2.9	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Silver	0.70 U	10	0.70	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Thallium	1.4 U	10	1.4	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Tin	1.0 U	50	1.0	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Vanadium	0.60 U	50	0.60	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Zinc	4.4 U	20	4.4	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>

- (1) Instrument QC Batch: MA14468
- (2) Instrument QC Batch: MA14474
- (3) Prep QC Batch: MP32931
- (4) Prep QC Batch: MP32943

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 J = Indicates a result > = MDL but < RL

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## Report of Analysis

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Client Sample ID: 78-1	Date Sampled: 10/20/17
Lab Sample ID: FA48667-5	Date Received: 10/21/17
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	P53320.D	1	10/27/17 13:41	AJ	n/a	n/a	VP2026

Run #1	Purge Volume
Run #2	5.0 ml

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	25	14	ug/l	
107-02-8	Acrolein <sup>a</sup>	ND	20	6.1	ug/l	
107-13-1	Acrylonitrile <sup>a</sup>	ND	10	2.1	ug/l	
107-05-1	Allyl Chloride	ND	2.0	0.26	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether <sup>a</sup> R	ND	5.0	2.1	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
126-99-8	Chloroprene	ND	5.0	0.50	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
123-91-1	1,4-Dioxane	ND	200	75	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
97-63-2	Ethyl Methacrylate	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	78-1	Date Sampled:	10/20/17
Lab Sample ID:	FA48667-5	Date Received:	10/21/17
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-83-1	Isobutyl Alcohol	ND	50	11	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl Iodide	ND	1.0	0.27	ug/l	
80-62-6	Methyl Methacrylate	ND	5.0	0.71	ug/l	
74-95-3	Methylene Bromide	ND	2.0	0.37	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	UJ	1.0	0.22	ug/l
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.63	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	99%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

(a) Result reported from HCl preserved sample and should be used for screening purposes only.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



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## Report of Analysis

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Client Sample ID: 78-1	Date Sampled: 10/20/17
Lab Sample ID: FA48667-5	Date Received: 10/21/17
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8270D SW846 3510C	
Project: GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	4D3113.D	1	11/18/17 12:16	MV	11/13/17 08:30	OP67625	S4D116
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
59-50-7	4-Chloro-3-methyl Phenol	ND	5.0	0.59	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.63	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	0.84	ug/l	
87-65-0	2,6-Dichlorophenol	ND	5.0	0.83	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	0.74	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	5.0	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.0	ug/l	
95-48-7	2-Methylphenol	ND	5.0	0.56	ug/l	
	3&4-Methylphenol	ND	5.0	0.98	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.85	ug/l	
100-02-7	4-Nitrophenol	ND	25	5.0	ug/l	
87-86-5	Pentachlorophenol	ND	25	5.0	ug/l	
108-95-2	Phenol	ND	5.0	0.50	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol <sup>b</sup>	ND	5.0	0.97	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	0.74	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.75	ug/l	
83-32-9	Acenaphthene	ND	5.0	0.63	ug/l	
208-96-8	Acenaphthylene	ND	5.0	0.64	ug/l	
98-86-2	Acetophenone	ND	5.0	0.81	ug/l	
53-96-3	2-Acetylaminofluorene	ND	5.0	0.75	ug/l	
92-67-1	4-Aminobiphenyl	ND	5.0	0.80	ug/l	
62-53-3	Aniline	ND	5.0	1.0	ug/l	
120-12-7	Anthracene	ND	5.0	0.80	ug/l	
140-57-8	Aramite <sup>b</sup>	ND	10	2.0	ug/l	
92-87-5	Benzidine	ND	25	5.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	0.76	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	0.78	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	0.78	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	0.82	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	0.86	ug/l	
100-51-6	Benzyl Alcohol	ND	5.0	0.61	ug/l	
101-55-3	4-Bromophenyl Phenyl Ether	ND	5.0	0.85	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	78-1	Date Sampled:	10/20/17
Lab Sample ID:	FA48667-5	Date Received:	10/21/17
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
85-68-7	Butyl Benzyl Phthalate	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline <sup>b</sup>	ND UJ	5.0	0.63	ug/l	
510-15-6	Chlorobenzilate	ND	5.0	1.1	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.81	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.73	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.76	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.50	ug/l	
7005-72-3	4-Chlorophenyl Phenyl Ether	ND	5.0	0.54	ug/l	
218-01-9	Chrysene	ND	5.0	0.85	ug/l	
2303-16-4	Diallate	ND	5.0	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	0.80	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.60	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	0.50	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.64	ug/l	
84-66-2	Diethyl Phthalate	1.0	5.0	1.0	ug/l	J
60-11-7	p-(Dimethylamine)azobenzene	ND	5.0	1.0	ug/l	
57-97-6	7,12-Dimethylbenz(a)anthrac <sup>b</sup>	ND	5.0	1.0	ug/l	
119-93-7	3,3'-Dimethylbenzidine <sup>c</sup>	ND	10	2.8	ug/l	
122-09-8	A,A-Dimethylphenethylamine	ND	25	5.0	ug/l	
131-11-3	Dimethyl Phthalate	ND	5.0	1.0	ug/l	
84-74-2	Di-n-butyl Phthalate	ND	5.0	1.0	ug/l	
117-84-0	Di-n-octyl Phthalate	ND	5.0	1.0	ug/l	
99-65-0	m-Dinitrobenzene	ND	5.0	0.91	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	0.81	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	0.71	ug/l	
122-39-4	Diphenylamine	ND	5.0	0.81	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.76	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	1.0	ug/l	
62-50-0	Ethyl Methanesulfonate	ND	5.0	1.1	ug/l	
206-44-0	Fluoranthene	ND	5.0	0.55	ug/l	
86-73-7	Fluorene	ND	5.0	0.70	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.69	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.50	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.0	1.8	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
70-30-4	Hexachlorophene	ND	100	50	ug/l	
1888-71-7	Hexachloropropene <sup>b</sup>	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	0.71	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	78-1	Date Sampled:	10/20/17
Lab Sample ID:	FA48667-5	Date Received:	10/21/17
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
465-73-6	Isodrin	ND	5.0	1.0	ug/l	
78-59-1	Isophorone	ND	5.0	0.78	ug/l	
120-58-1	Isosafrole	ND	5.0	2.4	ug/l	
91-80-5	Methapyrilene <sup>c</sup>	ND	20	4.0	ug/l	
56-49-5	3-Methylcholanthrene <sup>c</sup>	ND	5.0	1.0	ug/l	
66-27-3	Methyl Methanesulfonate	ND	5.0	0.77	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	0.60	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
130-15-4	1,4-Naphthoquinone	ND	5.0	0.72	ug/l	
134-32-7	1-Naphthylamine	ND	5.0	1.2	ug/l	
91-59-8	2-Naphthylamine	ND	5.0	1.2	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	1.8	ug/l	
99-09-2	3-Nitroaniline <sup>b</sup>	ND UJ	5.0	0.88	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	1.2	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.93	ug/l	
99-55-8	5-Nitro-o-toluidine <sup>b</sup>	ND	5.0	1.3	ug/l	
55-18-5	N-Nitrosodiethylamine	ND	5.0	0.87	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	5.0	0.50	ug/l	
924-16-3	N-Nitrosodi-n-butylamine	ND	5.0	1.1	ug/l	
621-64-7	N-Nitrosodi-n-propylamine	ND	5.0	0.67	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.81	ug/l	
10595-95-6	N-Nitrosomethylethylamine	ND	5.0	0.98	ug/l	
59-89-2	N-Nitrosomorpholine	ND	5.0	0.88	ug/l	
100-75-4	N-Nitrosopiperidine	ND	5.0	1.2	ug/l	
930-55-2	N-Nitrosopyrrolidine	ND	5.0	1.1	ug/l	
56-57-5	4-Nitroquinoline 1-Oxide	ND	20	5.0	ug/l	
126-68-1	O,O,O-Triethyl Phosphorothio	ND	5.0	1.0	ug/l	
608-93-5	Pentachlorobenzene	ND	5.0	3.1	ug/l	
76-01-7	Pentachloroethane	ND	5.0	3.4	ug/l	
82-68-8	Pentachloronitrobenzene	ND	5.0	1.6	ug/l	
62-44-2	Phenacetin	ND	5.0	1.3	ug/l	
85-01-8	Phenanthrene	ND	5.0	0.86	ug/l	
106-50-3	p-Phenylenediamine	ND	50	10	ug/l	
109-06-8	2-Picoline	ND	5.0	1.0	ug/l	
23950-58-5	Pronamide	ND	5.0	1.3	ug/l	
129-00-0	Pyrene	ND	5.0	0.68	ug/l	
110-86-1	Pyridine	ND	10	2.0	ug/l	
94-59-7	Safrole	ND	5.0	1.6	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	5.0	0.50	ug/l	
297-97-2	Thionazin	ND	5.0	1.0	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 78-1		
Lab Sample ID: FA48667-5		Date Sampled: 10/20/17
Matrix: AQ - Ground Water		Date Received: 10/21/17
Method: SW846 8270D SW846 3510C		Percent Solids: n/a
Project: GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

**ABN Appendix IX Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-53-4	o-Toluidine	ND	5.0	1.2	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.1	ug/l	
99-35-4	sym-Trinitrobenzene	ND	5.0	0.99	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	25%		14-67%
4165-62-2	Phenol-d5	14%		10-50%
118-79-6	2,4,6-Tribromophenol	88%		33-118%
4165-60-0	Nitrobenzene-d5	80%		42-108%
321-60-8	2-Fluorobiphenyl	82%		40-106%
1718-51-0	Terphenyl-d14	69%		39-121%

- (a) Sample extracted beyond hold time.
- (b) Associated CCV outside of control limits high, sample was ND.
- (c) Associated ICV outside control limits high. Associated CCV outside of control limits high, sample was ND.

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID: 78-1	Date Sampled: 10/20/17
Lab Sample ID: FA48667-5F	Date Received: 10/21/17
Matrix: AQ - Groundwater Filtered	Percent Solids: n/a
Method: SW846 8082A SW846 3510C	
Project: GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	MM46370.D	1	11/01/17 17:40	NJ	10/30/17 16:10	OP67413	GMM888
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1020 ml	5.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.098	0.039	ug/l	
11104-28-2	Aroclor 1221	ND	0.098	0.049	ug/l	
11141-16-5	Aroclor 1232	ND	0.098	0.049	ug/l	
53469-21-9	Aroclor 1242	ND	0.098	0.039	ug/l	
12672-29-6	Aroclor 1248	ND	0.098	0.039	ug/l	
11097-69-1	Aroclor 1254	0.053	0.098	0.039	ug/l	J
11096-82-5	Aroclor 1260	ND	0.098	0.039	ug/l	
1336-36-3	Total PCBs	0.053	0.098	0.049	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	79%		38-127%
2051-24-3	Decachlorobiphenyl	47%		25-137%

(a) All hits confirmed by dual column analysis.

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> 78-1 <b>Lab Sample ID:</b> FA48667-5F <b>Matrix:</b> AQ - Groundwater Filtered <b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA	<b>Date Sampled:</b> 10/20/17 <b>Date Received:</b> 10/21/17 <b>Percent Solids:</b> n/a
--	---

### Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	1.0 U	6.0	1.0	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Arsenic	1.3 U	10	1.3	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Barium	46.1 J	200	1.0	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Beryllium	0.20 U	4.0	0.20	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Cadmium	0.60 J	5.0	0.20	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Chromium	1.0 U	10	1.0	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Cobalt	0.20 U	50	0.20	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Copper	1.8 J	25	1.0	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Lead	1.1 U	5.0	1.1	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Mercury	0.030 U	0.50	0.030	ug/l	1	11/02/17	11/02/17 DM	SW846 7470A <sup>2</sup>	SW846 7470A <sup>4</sup>
Nickel	2.1 J	40	0.40	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Selenium	2.9 U	10	2.9	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Silver	0.70 U	10	0.70	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Thallium	1.4 U	10	1.4	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Tin	1.0 U	50	1.0	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Vanadium	0.60 U	50	0.60	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Zinc	9.4 J	20	4.4	ug/l	1	10/31/17	10/31/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>

- (1) Instrument QC Batch: MA14468
- (2) Instrument QC Batch: MA14474
- (3) Prep QC Batch: MP32931
- (4) Prep QC Batch: MP32943

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 J = Indicates a result > = MDL but < RL

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## Report of Analysis

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Client Sample ID:	DUP-OPCA-1-102017	Date Sampled:	10/20/17
Lab Sample ID:	FA48667-6	Date Received:	10/21/17
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D2955.D	1	11/01/17 19:17	MV	10/27/17 08:45	OP67384	S4D111
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
59-50-7	4-Chloro-3-methyl Phenol	ND	5.0	0.59	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.63	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	0.84	ug/l	
87-65-0	2,6-Dichlorophenol	ND	5.0	0.83	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	0.74	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	5.0	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.0	ug/l	
95-48-7	2-Methylphenol	ND	5.0	0.56	ug/l	
	3&4-Methylphenol	ND	5.0	0.98	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.85	ug/l	
100-02-7	4-Nitrophenol	ND	25	5.0	ug/l	
87-86-5	Pentachlorophenol	ND	25	5.0	ug/l	
108-95-2	Phenol	ND	5.0	0.50	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol <sup>a</sup>	ND	5.0	0.97	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	0.74	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.75	ug/l	
83-32-9	Acenaphthene	ND	5.0	0.63	ug/l	
208-96-8	Acenaphthylene	ND	5.0	0.64	ug/l	
98-86-2	Acetophenone	ND	5.0	0.81	ug/l	
53-96-3	2-Acetylaminofluorene	ND	5.0	0.75	ug/l	
92-67-1	4-Aminobiphenyl	ND	5.0	0.80	ug/l	
62-53-3	Aniline <sup>b</sup>	ND UJ	5.0	1.0	ug/l	
120-12-7	Anthracene	ND	5.0	0.80	ug/l	
140-57-8	Aramite	ND	10	2.0	ug/l	
92-87-5	Benzidine <sup>c</sup>	ND UJ	25	5.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	0.76	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	0.78	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	0.78	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND UJ	5.0	0.82	ug/l	
207-08-9	Benzo(k)fluoranthene	ND UJ	5.0	0.86	ug/l	
100-51-6	Benzyl Alcohol <sup>b</sup>	ND UJ	5.0	0.61	ug/l	
101-55-3	4-Bromophenyl Phenyl Ether	ND	5.0	0.85	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

Client Sample ID:	DUP-OPCA-1-102017	Date Sampled:	10/20/17
Lab Sample ID:	FA48667-6	Date Received:	10/21/17
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
85-68-7	Butyl Benzyl Phthalate	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.63	ug/l	
510-15-6	Chlorobenzilate	ND	5.0	1.1	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.81	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.73	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.76	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.50	ug/l	
7005-72-3	4-Chlorophenyl Phenyl Ether	ND	5.0	0.54	ug/l	
218-01-9	Chrysene	ND	5.0	0.85	ug/l	
2303-16-4	Diallate	ND	5.0	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	0.80	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.60	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	0.50	ug/l	
91-94-1	3,3'-Dichlorobenzidine <sup>a</sup>	ND	5.0	0.64	ug/l	
84-66-2	Diethyl Phthalate	ND	5.0	1.0	ug/l	
60-11-7	p-(Dimethylamine)azobenzene	ND	5.0	1.0	ug/l	
57-97-6	7,12-Dimethylbenz(a)anthrac <sup>d</sup>	ND	5.0	1.0	ug/l	
119-93-7	3,3'-Dimethylbenzidine <sup>d</sup>	ND	10	2.8	ug/l	
122-09-8	A,A-Dimethylphenethylamine	ND	25	5.0	ug/l	
131-11-3	Dimethyl Phthalate	ND	5.0	1.0	ug/l	
84-74-2	Di-n-butyl Phthalate	ND	5.0	1.0	ug/l	
117-84-0	Di-n-octyl Phthalate	ND	UJ	5.0	1.0	ug/l
99-65-0	m-Dinitrobenzene <sup>a</sup>	ND	5.0	0.91	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	0.81	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	0.71	ug/l	
122-39-4	Diphenylamine	ND	5.0	0.81	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.76	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	1.0	ug/l	
62-50-0	Ethyl Methanesulfonate	ND	5.0	1.1	ug/l	
206-44-0	Fluoranthene	ND	5.0	0.55	ug/l	
86-73-7	Fluorene	ND	5.0	0.70	ug/l	
118-74-1	Hexachlorobenzene <sup>a</sup>	ND	5.0	0.69	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.50	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.0	1.8	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
70-30-4	Hexachlorophene	ND	100	50	ug/l	
1888-71-7	Hexachloropropene <sup>d</sup>	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	UJ	5.0	0.71	ug/l

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	DUP-OPCA-1-102017	Date Sampled:	10/20/17
Lab Sample ID:	FA48667-6	Date Received:	10/21/17
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
465-73-6	Isodrin	ND	5.0	1.0	ug/l	
78-59-1	Isophorone	ND	5.0	0.78	ug/l	
120-58-1	Isosafrole	ND	5.0	2.4	ug/l	
91-80-5	Methapyrilene <sup>d</sup>	ND	20	4.0	ug/l	
56-49-5	3-Methylcholanthrene <sup>d</sup>	ND	5.0	1.0	ug/l	
66-27-3	Methyl Methanesulfonate	ND	5.0	0.77	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	0.60	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
130-15-4	1,4-Naphthoquinone <sup>d</sup>	ND	5.0	0.72	ug/l	
134-32-7	1-Naphthylamine <sup>b</sup>	ND UJ	5.0	1.2	ug/l	
91-59-8	2-Naphthylamine	ND	5.0	1.2	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	1.8	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.88	ug/l	
100-01-6	4-Nitroaniline <sup>a</sup>	ND	5.0	1.2	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.93	ug/l	
99-55-8	5-Nitro-o-toluidine	ND	5.0	1.3	ug/l	
55-18-5	N-Nitrosodiethylamine	ND	5.0	0.87	ug/l	
62-75-9	N-Nitrosodimethylamine <sup>a</sup>	ND	5.0	0.50	ug/l	
924-16-3	N-Nitrosodi-n-butylamine	ND	5.0	1.1	ug/l	
621-64-7	N-Nitrosodi-n-propylamine	ND	5.0	0.67	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.81	ug/l	
10595-95-6	N-Nitrosomethylethylamine	ND	5.0	0.98	ug/l	
59-89-2	N-Nitrosomorpholine	ND	5.0	0.88	ug/l	
100-75-4	N-Nitrosopiperidine	ND	5.0	1.2	ug/l	
930-55-2	N-Nitrosopyrrolidine	ND	5.0	1.1	ug/l	
56-57-5	4-Nitroquinoline 1-Oxide	ND	20	5.0	ug/l	
126-68-1	O,O,O-Triethyl Phosphorothio	ND	5.0	1.0	ug/l	
608-93-5	Pentachlorobenzene	ND	5.0	3.1	ug/l	
76-01-7	Pentachloroethane	ND	5.0	3.4	ug/l	
82-68-8	Pentachloronitrobenzene	ND	5.0	1.6	ug/l	
62-44-2	Phenacetin	ND	5.0	1.3	ug/l	
85-01-8	Phenanthrene	ND	5.0	0.86	ug/l	
106-50-3	p-Phenylenediamine	ND	50	10	ug/l	
109-06-8	2-Picoline	ND	5.0	1.0	ug/l	
23950-58-5	Pronamide	ND	5.0	1.3	ug/l	
129-00-0	Pyrene	ND	5.0	0.68	ug/l	
110-86-1	Pyridine	ND	10	2.0	ug/l	
94-59-7	Safrole	ND	5.0	1.6	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	5.0	0.50	ug/l	
297-97-2	Thionazin	ND	5.0	1.0	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: DUP-OPCA-1-102017		Date Sampled: 10/20/17
Lab Sample ID: FA48667-6		Date Received: 10/21/17
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8270D SW846 3510C		
Project: GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

**ABN Appendix IX Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-53-4	o-Toluidine	ND	5.0	1.2	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.1	ug/l	
99-35-4	sym-Trinitrobenzene	ND	5.0	0.99	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	20%		14-67%
4165-62-2	Phenol-d5	11%		10-50%
118-79-6	2,4,6-Tribromophenol	73%		33-118%
4165-60-0	Nitrobenzene-d5	70%		42-108%
321-60-8	2-Fluorobiphenyl	78%		40-106%
1718-51-0	Terphenyl-d14	62%		39-121%

- (a) Associated CCV outside of control limits high, sample was ND.
- (b) Associated BS recovery outside control limits.
- (c) Associated ICV outside control limits. Associated CCV outside of control limits high, sample was ND.
- (d) Associated ICV outside control limits.

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	DUP-OPCA-3-102017	Date Sampled:	10/20/17
Lab Sample ID:	FA48667-8	Date Received:	10/21/17
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	P53321.D	1	10/27/17 14:05	AJ	n/a	n/a	VP2026

Run #1	Purge Volume
Run #2	5.0 ml

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	25	14	ug/l	
107-02-8	Acrolein <sup>a</sup>	ND	20	6.1	ug/l	
107-13-1	Acrylonitrile <sup>a</sup>	ND	10	2.1	ug/l	
107-05-1	Allyl Chloride	ND	2.0	0.26	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether <sup>a</sup>	ND	5.0	2.1	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
126-99-8	Chloroprene	ND	5.0	0.50	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
123-91-1	1,4-Dioxane	ND	200	75	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
97-63-2	Ethyl Methacrylate	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	DUP-OPCA-3-102017	Date Sampled:	10/20/17
Lab Sample ID:	FA48667-8	Date Received:	10/21/17
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-83-1	Isobutyl Alcohol	ND	50	11	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl Iodide	ND	1.0	0.27	ug/l	
80-62-6	Methyl Methacrylate	ND	5.0	0.71	ug/l	
74-95-3	Methylene Bromide	ND	2.0	0.37	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND UJ	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.63	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	101%		79-125%
2037-26-5	Toluene-D8	96%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

(a) Result reported from HCl preserved sample and should be used for screening purposes only.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	DUP-OPCA-3-102017		Date Sampled:	10/20/17
Lab Sample ID:	FA48667-8F		Date Received:	10/21/17
Matrix:	AQ - Groundwater Filtered		Percent Solids:	n/a
Method:	SW846 8082A SW846 3510C			
Project:	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MM46701.D	1	11/10/17 11:13	NJ	11/09/17 13:30	OP67584	GMM894
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.10	0.040	ug/l	
11104-28-2	Aroclor 1221	ND	0.10	0.050	ug/l	
11141-16-5	Aroclor 1232	ND	0.10	0.050	ug/l	
53469-21-9	Aroclor 1242	ND	0.10	0.040	ug/l	
12672-29-6	Aroclor 1248	ND	0.10	0.040	ug/l	
11097-69-1	Aroclor 1254	ND	0.10	0.040	ug/l	
11096-82-5	Aroclor 1260	ND	0.10	0.040	ug/l	
1336-36-3	Total PCBs	ND	0.10	0.050	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	80%		38-127%
2051-24-3	Decachlorobiphenyl	73%		25-137%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> DUP-OPCA-4-102017 <b>Lab Sample ID:</b> FA48667-9F <b>Matrix:</b> AQ - Ground Water <b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA	<b>Date Sampled:</b> 10/20/17 <b>Date Received:</b> 10/21/17 <b>Percent Solids:</b> n/a
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**Total Metals Analysis**

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	1.0 U	6.0	1.0	ug/l	1	11/01/17	11/01/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Arsenic	1.3 U	10	1.3	ug/l	1	11/01/17	11/01/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Barium	45.8 J	200	1.0	ug/l	1	11/01/17	11/01/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Beryllium	0.20 U	4.0	0.20	ug/l	1	11/01/17	11/01/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Cadmium	0.70 J	5.0	0.20	ug/l	1	11/01/17	11/01/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Chromium	1.0 U	10	1.0	ug/l	1	11/01/17	11/01/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Cobalt	0.20 J	50	0.20	ug/l	1	11/01/17	11/01/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Copper	1.0 U	25	1.0	ug/l	1	11/01/17	11/01/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Lead	1.1 U	5.0	1.1	ug/l	1	11/01/17	11/01/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Mercury	0.030 U	0.50	0.030	ug/l	1	11/02/17	11/02/17 DM	SW846 7470A <sup>2</sup>	SW846 7470A <sup>4</sup>
Nickel	2.0 J	40	0.40	ug/l	1	11/01/17	11/01/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Selenium	2.9 U	10	2.9	ug/l	1	11/01/17	11/01/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Silver	0.70 U	10	0.70	ug/l	1	11/01/17	11/01/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Thallium	1.4 U	10	1.4	ug/l	1	11/01/17	11/01/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Tin	1.0 U	50	1.0	ug/l	1	11/01/17	11/01/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Vanadium	0.60 U	50	0.60	ug/l	1	11/01/17	11/01/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Zinc	5.9 J	20	4.4	ug/l	1	11/01/17	11/01/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>

- (1) Instrument QC Batch: MA14473
- (2) Instrument QC Batch: MA14474
- (3) Prep QC Batch: MP32938
- (4) Prep QC Batch: MP32943

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 J = Indicates a result > = MDL but < RL

4.13  
4



# Client Sample Results

Client: SGS Accutest Inc  
Project/Site: General Testing

TestAmerica Job ID: 480-126616-1

## Client Sample ID: OPCA-MW-5R

Date Collected: 10/20/17 12:00  
Date Received: 10/25/17 09:30

## Lab Sample ID: 480-126616-1

Matrix: Water

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Physiologically Available Cyanide	ND	<del>F1</del> UJ	0.010	0.010	mg/L		11/02/17 11:10	11/02/17 16:28	1

## Client Sample ID: 78-6R

Date Collected: 10/20/17 13:25  
Date Received: 10/25/17 09:30

## Lab Sample ID: 480-126616-2

Matrix: Water

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Physiologically Available Cyanide	ND	UJ	0.010	0.010	mg/L		11/02/17 11:10	11/02/17 16:28	1

## Client Sample ID: DUP-OPCA-2-102017

Date Collected: 10/20/17 12:00  
Date Received: 10/25/17 09:30

## Lab Sample ID: 480-126616-3

Matrix: Water

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Physiologically Available Cyanide	ND	UJ	0.010	0.010	mg/L		11/02/17 11:10	11/02/17 16:28	1



**Sample Description:** OPCA-MW-5R Grab Sample  
SGS Accutest

**Accutest Laboratories**  
**ELLE Sample #:** WW 9284167  
**ELLE Group #:** 1867667  
**Matrix:** Sample

**Project Name:** GE Pittsfield

**Submittal Date/Time:** 10/25/2017 09:45  
**Collection Date/Time:** 10/20/2017 11:18  
**SDG#:** SGA28-01



CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
01333	Sulfide	SW-846 9034 modified 18496-25-8	mg/l N.D.	mg/l 0.70	mg/l 2.0	1

### Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01333	Sulfide	SW-846 9034 modified	1	17300133302A	10/27/2017 12:20	Satchel S MacClintic	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** 78-6R Grab Sample  
SGS Accutest

**Accutest Laboratories**  
**ELLE Sample #:** WW 9284168  
**ELLE Group #:** 1867667  
**Matrix:** Sample

**Project Name:** GE Pittsfield

**Submittal Date/Time:** 10/25/2017 09:45  
**Collection Date/Time:** 10/20/2017 13:25  
**SDG#:** SGA28-02BKG



CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
01333	Sulfide	SW-846 9034 modified 18496-25-8	mg/l N.D.	mg/l 0.70	mg/l 2.0	1

### Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01333	Sulfide	SW-846 9034 modified	1	17300133302A	10/27/2017 12:20	Satchel S MacClintic	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** 78-1 Grab Sample  
SGS Accutest

**Accutest Laboratories**  
ELLE Sample #: WW 9284171  
ELLE Group #: 1867667  
Matrix: Sample

**Project Name:** GE Pittsfield

Submittal Date/Time: 10/25/2017 09:45  
Collection Date/Time: 10/20/2017 14:00  
SDG#: SGA28-03



CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
01333	Sulfide	SW-846 9034 modified 18496-25-8	mg/l N.D.	mg/l 0.70	mg/l 2.0	1

### Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01333	Sulfide	SW-846 9034 modified	1	17300133302A	10/27/2017 12:20	Satchel S MacClintic	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** DUP-OPCA-3-102017 Grab Sample  
SGS Accutest

**Accutest Laboratories**  
ELLE Sample #: WW 9284172  
ELLE Group #: 1867667  
Matrix: Sample

**Project Name:** GE Pittsfield

Submittal Date/Time: 10/25/2017 09:45  
Collection Date/Time: 10/20/2017  
SDG#: SGA28-04



CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
01333	Sulfide	SW-846 9034 modified 18496-25-8	mg/l N.D.	mg/l 0.70	mg/l 2.0	1

### Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01333	Sulfide	SW-846 9034 modified	1	17300133302A	10/27/2017 12:20	Satchel S MacClintic	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** GMA4-6 Grab Sample  
SGS Accutest

**Accutest Laboratories**  
**ELLE Sample #:** WW 9284173  
**ELLE Group #:** 1867667  
**Matrix:** Sample

**Project Name:** GE Pittsfield

**Submittal Date/Time:** 10/25/2017 09:45  
**Collection Date/Time:** 10/20/2017 12:00  
**SDG#:** SGA28-05



CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
01333	Sulfide	SW-846 9034 modified 18496-25-8	mg/l N.D.	mg/l 0.70	mg/l 2.0	1

### Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01333	Sulfide	SW-846 9034 modified	1	17300133302A	10/27/2017 12:20	Satchel S MacClintic	1

\*=This limit was used in the evaluation of the final result

# Sample ID: OPCA-MW-5R

# Method 8290A

Client Data		Sample Data		Laboratory Data			
Name:	SGS Accutest	Matrix:	Aqueous	Lab Project ID:	B1458	Date Received:	25-Oct-2017
Project ID:	FA48667X	Weight/Volume:	1.03 L	Lab Sample ID:	B1458_15253_DF_001	Date Extracted:	30-Oct-2017
Date Collected:	20-Oct-2017	pH:	6	QC Batch No:	15253	Date Analyzed:	02-Nov-2017
		Split:	-	Dilution:	-	Time Analyzed:	22:44:37
Analyte	Conc. (pg/L)	DL (pg/L)	EMPC (pg/L)	Qualifiers	Standard	ES Recoveries	Qualifiers
2378-TCDD	ND	1.63			ES 2378-TCDD	92.1	
12378-PeCDD	ND	1.6			ES 12378-PeCDD	81.2	
123478-HxCDD	ND	2.73			ES 123478-HxCDD	88.4	
123678-HxCDD	ND	2.66			ES 123678-HxCDD	86.7	
123789-HxCDD	ND	2.7			ES 123789-HxCDD	90.9	
1234678-HpCDD	ND	3.19			ES 1234678-HpCDD	88.8	
OCDD	ND	12.1			ES OCDD	78.1	
2378-TCDF	ND	1.42			ES 2378-TCDF	81.9	
12378-PeCDF	ND	1.05			ES 12378-PeCDF	72.5	
23478-PeCDF	ND	0.998			ES 23478-PeCDF	71.7	
123478-HxCDF	ND	1.88			ES 123478-HxCDF	91.7	
123678-HxCDF	ND	1.75			ES 123678-HxCDF	92.5	
234678-HxCDF	ND	1.97			ES 234678-HxCDF	96.3	
123789-HxCDF	ND	2.58			ES 123789-HxCDF	90.9	
1234678-HpCDF	ND	1.68			ES 1234678-HpCDF	94.9	
1234789-HpCDF	ND	3.05			ES 1234789-HpCDF	86	
OCDF	ND	7.51			ES OCDF	77.4	
Totals					Standard	CS Recoveries	
Total TCDD	ND	1.63	ND		CS 37CI-2378-TCDD	92.2	
Total PeCDD	ND	1.6	ND		CS 12347-PeCDD	79.4	
Total HxCDD	ND	2.69	ND		CS 12346-PeCDF	70.1	
Total HpCDD	ND	3.19	ND		CS 123469-HxCDF	95.2	
					CS 1234689-HpCDF	92.3	
Total TCDF	ND	1.42	ND				
Total PeCDF	ND	1.03	ND				
Total HxCDF	ND	2.01	ND				
Total HpCDF	ND	2.27	ND				
Total PCDD/Fs	ND		ND				
ITEF TEQs							
TEQ: ND=0	0		0				
TEQ: ND=DL/2	2.43	2.43	2.43				
TEQ: ND=DL	4.85	4.85	4.85				



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# Sample ID: OPCA-MW-5R

# Method 8290A

Client Data		Sample Data			Laboratory Data			Date Received:	
Name:	SGS Accutest	Matrix:	Aqueous	Lab Project ID:	B1458	Date Received:	25-Oct-2017		
Project ID:	FA48667X	Weight/Volume:	1.03 L	Lab Sample ID:	B1458_15253_DF_001	Date Extracted:	30-Oct-2017		
Date Collected:	20-Oct-2017	pH:	6	QC Batch No.:	15253	Date Analyzed:	02-Nov-2017		
		Split:	-	Dilution:	-	Time Analyzed:	22:44:37		

Tetra-Dioxins	Conc. (pg/L)	Qualifiers	Penta-Dioxins	Conc. (pg/L)	Qualifiers	Hexa-Dioxins	Conc (pg/L)	Qualifiers	Hepta-Dioxins	Conc (pg/L)	Qualifiers
1368D	(1.63)		12479/12468D	(1.6)		124679/124689D	(2.69)		1234679D	(3.19)	
1379D	(1.63)		12469D	(1.6)		123468D	(2.69)		1234678D	(3.19)	
1369D	(1.63)		12368D	(1.6)		123679/123689D	(2.69)				
1469D	(1.63)		12478D	(1.6)		123469D	(2.69)				
1247D...[4]	(1.63)		12379D	(1.6)		123478D	(2.73)				
1378D	(1.63)		12369D...[3]	(1.6)		123678D	(2.66)				
1268D	(1.63)		12346/12347D	(1.6)		123467D	(2.69)				
1478D	(1.63)		12378D	(1.6)		123789D	(2.7)		<b>Conc.</b>	0	
1279D	(1.63)		12367D	(1.6)					<b>EMPC</b>	0	
1234/1269D	(1.63)		12389D	(1.6)							
1236D	(1.63)								<b>Octa-Dioxin</b>	<b>Conc</b>	<b>Qualifiers</b>
1237/1238D	(1.63)									<b>(pg/L)</b>	
1239D	(1.63)								OCDD	(12.1)	
2378D	(1.63)										
1278D	(1.63)										
1267D	(1.63)										
1289D	(1.63)										
<b>Conc.</b>	0		<b>Conc.</b>	0		<b>Conc.</b>	0				
<b>EMPC</b>	0		<b>EMPC</b>	0		<b>EMPC</b>	0				



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ITEF TEQs	Conc.	EMPC
TEQ: ND=0	0	0
TEQ: ND=DL/2	2.43	2.43
TEQ: ND=DL	4.85	4.85
Total PCDD/Fs	Conc.	EMPC
	0	0

Checkcode: 574-031-CCK

Report Created: 06-Nov-2017 12:54 Analyst: TF


# Sample ID: OPCA-MW-5R

# Method 8290A

Client Data			Sample Data			Laboratory Data					
Name:	SGS Accutest		Matrix:	Aqueous		Lab Project ID:	B1458		Date Received:	25-Oct-2017	
Project ID:	FA48667X		Weight/Volume:	1.03 L		Lab Sample ID:	B1458_15253_DF_001		Date Extracted:	30-Oct-2017	
Date Collected:	20-Oct-2017		pH:	6		QC Batch No.:	15253		Date Analyzed:	02-Nov-2017	
			Split:	-		Dilution:	-		Time Analyzed:	22:44:37	
Tetra-Furans	Conc. (pg/L)	Qualifiers	Penta-Furans	Conc. (pg/L)	Qualifiers	Hexa-Furans	Conc (pg/L)	Qualifiers	Hepta-Furans	Conc (pg/L)	Qualifiers
1368F	(1.42)		13468/12468F	(0.68)		123468F	(2.01)		1234678F	(1.68)	
1468F	(1.42)		13678F...[3]	(1.03)		124678/134678F	(2.01)		1234679F	(2.27)	
2468F	(1.42)		12368F...[3]	(1.03)		134679F	(2.01)		1234689F	(2.27)	
1346/1246F	(1.42)		14678F	(1.03)		124679F	(2.01)		1234789F	(3.05)	
1347F...[3]	(1.42)		13479F	(1.03)		124689F	(2.01)				
1348F	(1.42)		13469/12479F	(1.03)		123467F	(2.01)				
1248F...[3]	(1.42)		12346F	(1.03)		123478F	(1.88)				
1268F	(1.42)		23468/12469F	(1.03)		123678F	(1.75)				
1467F	(1.42)		12347F	(1.03)		123479F	(2.01)				
1478F	(1.42)		12348F	(1.03)		123469F	(2.01)				
1369/1237F	(1.42)		12378F	(1.05)		123679F	(2.01)				
2467F	(1.42)		12678/12367F	(1.03)		234678F	(1.97)		<b>Conc.</b>	0	
2368F	(1.42)		12379F	(1.03)		234678/123689F	0		<b>EMPC</b>	0	
1238F...[5]	(1.42)		12679F	(1.03)		123689F	(2.01)				
1278F	(1.42)		23467/12369F	(1.03)		123789F	(2.58)		<b>Octa-Furan</b>	<b>Conc</b>	<b>Qualifiers</b>
1349F	(1.42)		23478F	(0.998)		123789/123489F	0			<b>(pg/L)</b>	
1267F	(1.42)		23478/12489F	0		123489F	(2.01)		<b>OCDF</b>	(7.51)	
2346/1249F	(1.42)		12489F	(1.03)							
2347/1279F	(1.42)		12349F	(1.03)							
2348F	(1.42)		12389F	(1.03)							
2378F	(1.42)										
2367/3467F	(1.42)										
1269F	(1.42)										
1239F	(1.42)										
1289F	(1.42)										
<b>Conc.</b>	0		<b>Conc.</b>	0		<b>Conc.</b>	0				
<b>EMPC</b>	0		<b>EMPC</b>	0		<b>EMPC</b>	0				

Checkcode: 574-031-CCK

Report Created: 06-Nov-2017 12:54 Analyst: TF

Sample ID: OPCA-MW-5R			TEQ Summary		Method 8290A	
Client Project Name: SGS Accutest			Matrix: Aqueous		Lab Sample ID: B1458_15253_DF_001	
Client Project ID: FA48667X			Weight/Volume: 1.03 L		QC Batch No.: 15253	
Date Collected: 20-Oct-2017			Split: -		Date Extracted: 30-Oct-2017	
Date Received: 25-Oct-2017			Dilution: -		Date Analyzed: 02-Nov-2017 22:44	
Lab Project No: B1458			Units: pg/L			
Analyte	Result	Qualifiers	DLs	I-TEQ	WHO-1998	WHO-2005
2378-TCDD	(1.63)		1.63	(1.63)	(1.63)	(1.63)
12378-PeCDD	(1.6)		1.6	(0.8)	(1.6)	(1.6)
123478-HxCDD	(2.73)		2.73	(0.273)	(0.273)	(0.273)
123678-HxCDD	(2.66)		2.66	(0.266)	(0.266)	(0.266)
123789-HxCDD	(2.7)		2.7	(0.27)	(0.27)	(0.27)
1234678-HpCDD	(3.19)		3.19	(0.0319)	(0.0319)	(0.0319)
OCDD	(12.1)		12.1	(0.0121)	(0.00121)	(0.00364)
2378-TCDF	(1.42)		1.42	(0.142)	(0.142)	(0.142)
12378-PeCDF	(1.05)		1.05	(0.0527)	(0.0527)	(0.0316)
23478-PeCDF	(0.998)		0.998	(0.499)	(0.499)	(0.299)
123478-HxCDF	(1.88)		1.88	(0.188)	(0.188)	(0.188)
123678-HxCDF	(1.75)		1.75	(0.175)	(0.175)	(0.175)
234678-HxCDF	(1.97)		1.97	(0.197)	(0.197)	(0.197)
123789-HxCDF	(2.58)		2.58	(0.258)	(0.258)	(0.258)
1234678-HpCDF	(1.68)		1.68	(0.0168)	(0.0168)	(0.0168)
1234789-HpCDF	(3.05)		3.05	(0.0305)	(0.0305)	(0.0305)
OCDF	(7.51)		7.51	(0.00751)	(0.000751)	(0.00225)
5500 Business Drive Wilmington, NC 28405, USA Tel: +1 910 794-1613; Toll-Free 866 846-8290 www.us.sgs.com 		<b>TEQ Summaries</b>				
		EMPC = 0, ND = 0		0	0	0
		EMPC = 0, ND = DL / 2		2.43	2.82	2.71
		EMPC = 0, ND = DL		4.85	5.64	5.42
		EMPC = 0, < J-level = 0		0	0	0
		EMPC = EMPC, ND = 0		0	0	0
		EMPC = EMPC, ND = DL / 2		2.43	2.82	2.71
		EMPC = EMPC, ND = DL		4.85	5.64	5.42
EMPC = EMPC, < J-level = 0		0	0	0		

Checkcode: 574-031-CCK

SGS North America - DF v0.30

# Sample ID: GMA4-6

# Method 8290A

Client Data		Sample Data		Laboratory Data			
Name:	SGS Accutest	Matrix:	Aqueous	Lab Project ID:	B1458	Date Received:	25-Oct-2017
Project ID:	FA48667X	Weight/Volume:	1.05 L	Lab Sample ID:	B1458_15253_DF_002	Date Extracted:	30-Oct-2017
Date Collected:	20-Oct-2017	pH:	6	QC Batch No:	15253	Date Analyzed:	02-Nov-2017
		Split:	-	Dilution:	-	Time Analyzed:	23:32:02
Analyte	Conc. (pg/L)	DL (pg/L)	EMPC (pg/L)	Qualifiers	Standard	ES Recoveries	Qualifiers
2378-TCDD	ND	1.31			ES 2378-TCDD	85.6	
12378-PeCDD	ND	1.37			ES 12378-PeCDD	76.8	
123478-HxCDD	ND	2.67			ES 123478-HxCDD	75.1	
123678-HxCDD	ND	2.68			ES 123678-HxCDD	78.1	
123789-HxCDD	ND	2.66			ES 123789-HxCDD	78.1	
1234678-HpCDD	ND	1.66			ES 1234678-HpCDD	82.9	
OCDD	ND	11.8			ES OCDD	72	
2378-TCDF	ND	1.02			ES 2378-TCDF	88.3	
12378-PeCDF	ND	0.728			ES 12378-PeCDF	78.3	
23478-PeCDF	ND	0.722			ES 23478-PeCDF	76.5	
123478-HxCDF	ND	1.41			ES 123478-HxCDF	80.1	
123678-HxCDF	ND	1.44			ES 123678-HxCDF	80.8	
234678-HxCDF	ND	1.52			ES 234678-HxCDF	84.9	
123789-HxCDF	ND	1.92			ES 123789-HxCDF	79.9	
1234678-HpCDF	ND	1.1			ES 1234678-HpCDF	81.8	
1234789-HpCDF	ND	1.78			ES 1234789-HpCDF	77.9	
OCDF	ND	6.69			ES OCDF	69.8	
Totals					Standard	CS Recoveries	
Total TCDD	ND	1.31	ND		CS 37CI-2378-TCDD	84.2	
Total PeCDD	ND	1.37	ND		CS 12347-PeCDD	75.8	
Total HxCDD	ND	2.66	ND		CS 12346-PeCDF	81.2	
Total HpCDD	ND	1.66	ND		CS 123469-HxCDF	86.5	
					CS 1234689-HpCDF	86.4	
Total TCDF	ND	1.02	ND				
Total PeCDF	ND	0.725	ND				
Total HxCDF	ND	1.55	ND				
Total HpCDF	ND	1.4	ND				
Total PCDD/Fs	<b>ND</b>		<b>ND</b>				
ITEF TEQs							
TEQ: ND=0	0		0				
TEQ: ND=DL/2	1.99	1.99	1.99				
TEQ: ND=DL	3.98	3.98	3.98				



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# Sample ID: GMA4-6

# Method 8290A

Client Data			Sample Data			Laboratory Data						
Name:	SGS Accutest		Matrix:	Aqueous		Lab Project ID:	B1458		Date Received:	25-Oct-2017		
Project ID:	FA48667X		Weight/Volume:	1.05 L		Lab Sample ID:	B1458_15253_DF_002		Date Extracted:	30-Oct-2017		
Date Collected:	20-Oct-2017		pH:	6		QC Batch No.:	15253		Date Analyzed:	02-Nov-2017		
			Split:	-		Dilution:	-		Time Analyzed:	23:32:02		

Tetra-Dioxins	Conc. (pg/L)	Qualifiers	Penta-Dioxins	Conc. (pg/L)	Qualifiers	Hexa-Dioxins	Conc (pg/L)	Qualifiers	Hepta-Dioxins	Conc (pg/L)	Qualifiers
1368D	(1.31)		12479/12468D	(1.37)		124679/124689D	(2.66)		1234679D	(1.66)	
1379D	(1.31)		12469D	(1.37)		123468D	(2.66)		1234678D	(1.66)	
1369D	(1.31)		12368D	(1.37)		123679/123689D	(2.66)				
1469D	(1.31)		12478D	(1.37)		123469D	(2.66)				
1247D...[4]	(1.31)		12379D	(1.37)		123478D	(2.67)				
1378D	(1.31)		12369D...[3]	(1.37)		123678D	(2.68)				
1268D	(1.31)		12346/12347D	(1.37)		123467D	(2.66)				
1478D	(1.31)		12378D	(1.37)		123789D	(2.66)		<b>Conc.</b>	0	
1279D	(1.31)		12367D	(1.37)					<b>EMPC</b>	0	
1234/1269D	(1.31)		12389D	(1.37)							
1236D	(1.31)								<b>Octa-Dioxin</b>	<b>Conc</b>	<b>Qualifiers</b>
1237/1238D	(1.31)									<b>(pg/L)</b>	
1239D	(1.31)								OCDD	(11.8)	
2378D	(1.31)										
1278D	(1.31)										
1267D	(1.31)										
1289D	(1.31)										
<b>Conc.</b>	0		<b>Conc.</b>	0		<b>Conc.</b>	0				
<b>EMPC</b>	0		<b>EMPC</b>	0		<b>EMPC</b>	0				



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ITEF TEQs	Conc.	EMPC
TEQ: ND=0	0	0
TEQ: ND=DL/2	1.99	1.99
TEQ: ND=DL	3.98	3.98
Total PCDD/Fs	Conc.	EMPC
	0	0

Checkcode: 410-393-MJQ

Report Created: 06-Nov-2017 12:54 Analyst: TF

# Sample ID: GMA4-6

# Method 8290A

Client Data			Sample Data			Laboratory Data					
Name:	SGS Accutest		Matrix:	Aqueous		Lab Project ID:	B1458		Date Received:	25-Oct-2017	
Project ID:	FA48667X		Weight/Volume:	1.05 L		Lab Sample ID:	B1458_15253_DF_002		Date Extracted:	30-Oct-2017	
Date Collected:	20-Oct-2017		pH:	6		QC Batch No.:	15253		Date Analyzed:	02-Nov-2017	
			Split:	-		Dilution:	-		Time Analyzed:	23:32:02	
Tetra-Furans	Conc.	Qualifiers	Penta-Furans	Conc.	Qualifiers	Hexa-Furans	Conc	Qualifiers	Hepta-Furans	Conc	Qualifiers
	(pg/L)			(pg/L)			(pg/L)			(pg/L)	
1368F	(1.02)		13468/12468F	(0.7)		123468F	(1.55)		1234678F	(1.1)	
1468F	(1.02)		13678F...[3]	(0.725)		124678/134678F	(1.55)		1234679F	(1.4)	
2468F	(1.02)		12368F...[3]	(0.725)		134679F	(1.55)		1234689F	(1.4)	
1346/1246F	(1.02)		14678F	(0.725)		124679F	(1.55)		1234789F	(1.78)	
1347F...[3]	(1.02)		13479F	(0.725)		124689F	(1.55)				
1348F	(1.02)		13469/12479F	(0.725)		123467F	(1.55)				
1248F...[3]	(1.02)		12346F	(0.725)		123478F	(1.41)				
1268F	(1.02)		23468/12469F	(0.725)		123678F	(1.44)				
1467F	(1.02)		12347F	(0.725)		123479F	(1.55)				
1478F	(1.02)		12348F	(0.725)		123469F	(1.55)				
1369/1237F	(1.02)		12378F	(0.728)		123679F	(1.55)				
2467F	(1.02)		12678/12367F	(0.725)		234678F	(1.52)		<b>Conc.</b>	0	
2368F	(1.02)		12379F	(0.725)		234678/123689F	0		<b>EMPC</b>	0	
1238F...[5]	(1.02)		12679F	(0.725)		123689F	(1.55)				
1278F	(1.02)		23467/12369F	(0.725)		123789F	(1.92)		<b>Octa-Furan</b>	<b>Conc</b>	<b>Qualifiers</b>
1349F	(1.02)		23478F	(0.722)		123789/123489F	0			(pg/L)	
1267F	(1.02)		23478/12489F	0		123489F	(1.55)		OCDF	(6.69)	
2346/1249F	(1.02)		12489F	(0.725)							
2347/1279F	(1.02)		12349F	(0.725)							
2348F	(1.02)		12389F	(0.725)							
2378F	(1.02)										
2367/3467F	(1.02)										
1269F	(1.02)										
1239F	(1.02)										
1289F	(1.02)										
<b>Conc.</b>	0		<b>Conc.</b>	0		<b>Conc.</b>	0				
<b>EMPC</b>	0		<b>EMPC</b>	0		<b>EMPC</b>	0				


Checkcode: 410-393-MJQ

Report Created: 06-Nov-2017 12:54 Analyst: TF

**Sample ID: GMA4-6** **TEQ Summary** **Method 8290A**

Client Project Name:	SGS Accutest	Matrix:	Aqueous	Lab Sample ID:	B1458_15253_DF_002
Client Project ID:	FA48667X	Weight/Volume:	1.05 L	QC Batch No.:	15253
Date Collected:	20-Oct-2017	Split:	-	Date Extracted:	30-Oct-2017
Date Received:	25-Oct-2017	Dilution:	-	Date Analyzed:	02-Nov-2017 23:32
Lab Project No:	B1458	Units	pg/L		

Analyte	Result	Qualifiers	DLs	I-TEQ	WHO-1998	WHO-2005
2378-TCDD	(1.31)		1.31	(1.31)	(1.31)	(1.31)
12378-PeCDD	(1.37)		1.37	(0.686)	(1.37)	(1.37)
123478-HxCDD	(2.67)		2.67	(0.267)	(0.267)	(0.267)
123678-HxCDD	(2.68)		2.68	(0.268)	(0.268)	(0.268)
123789-HxCDD	(2.66)		2.66	(0.266)	(0.266)	(0.266)
1234678-HpCDD	(1.66)		1.66	(0.0166)	(0.0166)	(0.0166)
OCDD	(11.8)		11.8	(0.0118)	(0.00118)	(0.00353)
2378-TCDF	(1.02)		1.02	(0.102)	(0.102)	(0.102)
12378-PeCDF	(0.728)		0.728	(0.0364)	(0.0364)	(0.0218)
23478-PeCDF	(0.722)		0.722	(0.361)	(0.361)	(0.217)
123478-HxCDF	(1.41)		1.41	(0.141)	(0.141)	(0.141)
123678-HxCDF	(1.44)		1.44	(0.144)	(0.144)	(0.144)
234678-HxCDF	(1.52)		1.52	(0.152)	(0.152)	(0.152)
123789-HxCDF	(1.92)		1.92	(0.192)	(0.192)	(0.192)
1234678-HpCDF	(1.1)		1.1	(0.011)	(0.011)	(0.011)
1234789-HpCDF	(1.78)		1.78	(0.0178)	(0.0178)	(0.0178)
OCDF	(6.69)		6.69	(0.00669)	(0.000669)	(0.00201)

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	EMPC = 0, ND = 0	0	0	0
	EMPC = 0, ND = DL / 2	1.99	2.33	2.25
	EMPC = 0, ND = DL	3.98	4.65	4.5
	EMPC = 0, < J-level = 0	0	0	0
	EMPC = EMPC, ND = 0	0	0	0
	EMPC = EMPC, ND = DL / 2	1.99	2.33	2.25
	EMPC = EMPC, ND = DL	3.98	4.65	4.5
EMPC = EMPC, < J-level = 0	0	0	0	

Checkcode: 410-393-MJQ

SGS North America - DF v0.30



# Sample ID: 78-6R

# Method 8290A

Client Data		Sample Data		Laboratory Data			
Name:	SGS Accutest	Matrix:	Aqueous	Lab Project ID:	B1458	Date Received:	25-Oct-2017
Project ID:	FA48667X	Weight/Volume:	1.05 L	Lab Sample ID:	B1458_15253_DF_003	Date Extracted:	30-Oct-2017
Date Collected:	20-Oct-2017	pH:	6	QC Batch No:	15253	Date Analyzed:	03-Nov-2017
		Split:	-	Dilution:	-	Time Analyzed:	0:19:27
Analyte	Conc. (pg/L)	DL (pg/L)	EMPC (pg/L)	Qualifiers	Standard	ES Recoveries	Qualifiers
2378-TCDD	ND	4.74			ES 2378-TCDD	85.2	
12378-PeCDD	ND	9.78			ES 12378-PeCDD	69.3	
123478-HxCDD	ND	10.7			ES 123478-HxCDD	82.3	
123678-HxCDD	ND	10			ES 123678-HxCDD	81.7	
123789-HxCDD	ND	11			ES 123789-HxCDD	84.3	
1234678-HpCDD	ND	12.2			ES 1234678-HpCDD	86.7	
OCDD	ND	53.4			ES OCDD	68.3	
2378-TCDF	ND	4.53			ES 2378-TCDF	85.3	
12378-PeCDF	ND	3.1			ES 12378-PeCDF	73.4	
23478-PeCDF	ND	2.92			ES 23478-PeCDF	70.4	
123478-HxCDF	ND	5.1			ES 123478-HxCDF	89.2	
123678-HxCDF	ND	4.04			ES 123678-HxCDF	91.3	
234678-HxCDF	ND	5.13			ES 234678-HxCDF	92.3	
123789-HxCDF	ND	7.08			ES 123789-HxCDF	85.6	
1234678-HpCDF	ND	7.59			ES 1234678-HpCDF	83.6	
1234789-HpCDF	ND	11.3			ES 1234789-HpCDF	83.6	
OCDF	ND	25.4			ES OCDF	66.3	
Totals					Standard	CS Recoveries	
Total TCDD	ND	4.74	ND		CS 37CI-2378-TCDD	91.7	
Total PeCDD	ND	9.78	ND		CS 12347-PeCDD	82.3	
Total HxCDD	ND	10.5	ND		CS 123469-PeCDF	79.4	
Total HpCDD	ND	12.2	ND		CS 123469-HxCDF	102	
					CS 1234689-HpCDF	96	
Total TCDF	ND	4.53	ND				
Total PeCDF	ND	3.01	ND				
Total HxCDF	ND	5.21	ND				
Total HpCDF	ND	9.26	ND				
Total PCDD/Fs	<b>ND</b>		<b>ND</b>				
ITEF TEQs							
TEQ: ND=0	0		0				
TEQ: ND=DL/2	8.69	8.69	8.69				
TEQ: ND=DL	17.4	17.4	17.4				



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# Sample ID: 78-6R

# Method 8290A

Client Data		Sample Data			Laboratory Data			Date Received:	
Name:	SGS Accutest	Matrix:	Aqueous	Lab Project ID:	B1458	Date Received:	25-Oct-2017		
Project ID:	FA48667X	Weight/Volume:	1.05 L	Lab Sample ID:	B1458_15253_DF_003	Date Extracted:	30-Oct-2017		
Date Collected:	20-Oct-2017	pH:	6	QC Batch No.:	15253	Date Analyzed:	03-Nov-2017		
		Split:	-	Dilution:	-	Time Analyzed:	0:19:27		

Tetra-Dioxins	Conc. (pg/L)	Qualifiers	Penta-Dioxins	Conc. (pg/L)	Qualifiers	Hexa-Dioxins	Conc (pg/L)	Qualifiers	Hepta-Dioxins	Conc (pg/L)	Qualifiers
1368D	(4.74)		12479/12468D	(9.78)		124679/124689D	(10.5)		1234679D	(12.2)	
1379D	(4.74)		12469D	(9.78)		123468D	(10.5)		1234678D	(12.2)	
1369D	(4.74)		12368D	(9.78)		123679/123689D	(10.5)				
1469D	(4.74)		12478D	(9.78)		123469D	(10.5)				
1247D...[4]	(4.74)		12379D	(9.78)		123478D	(10.7)				
1378D	(4.74)		12369D...[3]	(9.78)		123678D	(10)				
1268D	(4.74)		12346/12347D	(9.78)		123467D	(10.5)				
1478D	(4.74)		12378D	(9.78)		123789D	(11)		<b>Conc.</b>	0	
1279D	(4.74)		12367D	(9.78)					<b>EMPC</b>	0	
1234/1269D	(4.74)		12389D	(9.78)							
1236D	(4.74)								<b>Octa-Dioxin</b>	<b>Conc</b>	<b>Qualifiers</b>
1237/1238D	(4.74)									<b>(pg/L)</b>	
1239D	(4.74)								OCDD	(53.4)	
2378D	(4.74)										
1278D	(4.74)										
1267D	(4.74)										
1289D	(4.74)										
<b>Conc.</b>	0		<b>Conc.</b>	0		<b>Conc.</b>	0				
<b>EMPC</b>	0		<b>EMPC</b>	0		<b>EMPC</b>	0				



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ITEF TEQs	Conc.	EMPC
TEQ: ND=0	0	0
TEQ: ND=DL/2	8.69	8.69
TEQ: ND=DL	17.4	17.4
Total PCDD/Fs	Conc.	EMPC
	0	0

Checkcode: 179-641-DHV

Report Created: 06-Nov-2017 12:54 Analyst: TF

# Sample ID: 78-6R

# Method 8290A

Client Data			Sample Data			Laboratory Data					
Name:	SGS Accutest		Matrix:	Aqueous		Lab Project ID:	B1458		Date Received:	25-Oct-2017	
Project ID:	FA48667X		Weight/Volume:	1.05 L		Lab Sample ID:	B1458_15253_DF_003		Date Extracted:	30-Oct-2017	
Date Collected:	20-Oct-2017		pH:	6		QC Batch No.:	15253		Date Analyzed:	03-Nov-2017	
			Split:	-		Dilution:	-		Time Analyzed:	0:19:27	
Tetra-Furans	Conc. (pg/L)	Qualifiers	Penta-Furans	Conc. (pg/L)	Qualifiers	Hexa-Furans	Conc (pg/L)	Qualifiers	Hepta-Furans	Conc (pg/L)	Qualifiers
1368F	(4.53)		13468/12468F	(3.72)		123468F	(5.21)		1234678F	(7.59)	
1468F	(4.53)		13678F...[3]	(3.01)		124678/134678F	(5.21)		1234679F	(9.26)	
2468F	(4.53)		12368F...[3]	(3.01)		134679F	(5.21)		1234689F	(9.26)	
1346/1246F	(4.53)		14678F	(3.01)		124679F	(5.21)		1234789F	(11.3)	
1347F...[3]	(4.53)		13479F	(3.01)		124689F	(5.21)				
1348F	(4.53)		13469/12479F	(3.01)		123467F	(5.21)				
1248F...[3]	(4.53)		12346F	(3.01)		123478F	(5.1)				
1268F	(4.53)		23468/12469F	(3.01)		123678F	(4.04)				
1467F	(4.53)		12347F	(3.01)		123479F	(5.21)				
1478F	(4.53)		12348F	(3.01)		123469F	(5.21)				
1369/1237F	(4.53)		12378F	(3.1)		123679F	(5.21)				
2467F	(4.53)		12678/12367F	(3.01)		234678F	(5.13)		Conc.	0	
2368F	(4.53)		12379F	(3.01)		234678/123689F	0		EMPC	0	
1238F...[5]	(4.53)		12679F	(3.01)		123689F	(5.21)				
1278F	(4.53)		23467/12369F	(3.01)		123789F	(7.08)		Octa-Furan	Conc	Qualifiers
1349F	(4.53)		23478F	(2.92)		123789/123489F	0			(pg/L)	
1267F	(4.53)		23478/12489F	0		123489F	(5.21)		OCDF	(25.4)	
2346/1249F	(4.53)		12489F	(3.01)							
2347/1279F	(4.53)		12349F	(3.01)							
2348F	(4.53)		12389F	(3.01)							
2378F	(4.53)										
2367/3467F	(4.53)										
1269F	(4.53)										
1239F	(4.53)										
1289F	(4.53)										
Conc.	0		Conc.	0		Conc.	0				
EMPC	0		EMPC	0		EMPC	0				


Checkcode: 179-641-DHV

Report Created: 06-Nov-2017 12:54 Analyst: TF

**Sample ID: 78-6R** **TEQ Summary** **Method 8290A**

Client Project Name:	SGS Accutest	Matrix:	Aqueous	Lab Sample ID:	B1458_15253_DF_003
Client Project ID:	FA48667X	Weight/Volume:	1.05 L	QC Batch No.:	15253
Date Collected:	20-Oct-2017	Split:	-	Date Extracted:	30-Oct-2017
Date Received:	25-Oct-2017	Dilution:	-	Date Analyzed:	03-Nov-2017 00:19
Lab Project No:	B1458	Units	pg/L		

Analyte	Result	Qualifiers	DLs	I-TEQ	WHO-1998	WHO-2005
2378-TCDD	(4.74)		4.74	(4.74)	(4.74)	(4.74)
12378-PeCDD	(9.78)		9.78	(4.89)	(9.78)	(9.78)
123478-HxCDD	(10.7)		10.7	(1.07)	(1.07)	(1.07)
123678-HxCDD	(10)		10	(1)	(1)	(1)
123789-HxCDD	(11)		11	(1.1)	(1.1)	(1.1)
1234678-HpCDD	(12.2)		12.2	(0.122)	(0.122)	(0.122)
OCDD	(53.4)		53.4	(0.0534)	(0.00534)	(0.016)
2378-TCDF	(4.53)		4.53	(0.453)	(0.453)	(0.453)
12378-PeCDF	(3.1)		3.1	(0.155)	(0.155)	(0.0929)
23478-PeCDF	(2.92)		2.92	(1.46)	(1.46)	(0.875)
123478-HxCDF	(5.1)		5.1	(0.51)	(0.51)	(0.51)
123678-HxCDF	(4.04)		4.04	(0.404)	(0.404)	(0.404)
234678-HxCDF	(5.13)		5.13	(0.513)	(0.513)	(0.513)
123789-HxCDF	(7.08)		7.08	(0.708)	(0.708)	(0.708)
1234678-HpCDF	(7.59)		7.59	(0.0759)	(0.0759)	(0.0759)
1234789-HpCDF	(11.3)		11.3	(0.113)	(0.113)	(0.113)
OCDF	(25.4)		25.4	(0.0254)	(0.00254)	(0.00763)

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	EMPC = 0, ND = 0	0	0	0
	EMPC = 0, ND = DL / 2	8.69	11.1	10.8
	EMPC = 0, ND = DL	17.4	22.2	21.6
	EMPC = 0, < J-level = 0	0	0	0
	EMPC = EMPC, ND = 0	0	0	0
	EMPC = EMPC, ND = DL / 2	8.69	11.1	10.8
	EMPC = EMPC, ND = DL	17.4	22.2	21.6
EMPC = EMPC, < J-level = 0	0	0	0	

Checkcode: 179-641-DHV

SGS North America - DF v0.30

# Sample ID: 78-1

# Method 8290A

Client Data		Sample Data		Laboratory Data			
Name:	SGS Accutest	Matrix:	Aqueous	Lab Project ID:	B1458	Date Received:	25-Oct-2017
Project ID:	FA48667X	Weight/Volume:	1.01 L	Lab Sample ID:	B1458_15253_DF_004	Date Extracted:	30-Oct-2017
Date Collected:	20-Oct-2017	pH:	6	QC Batch No:	15253	Date Analyzed:	03-Nov-2017
		Split:	-	Dilution:	-	Time Analyzed:	2:41:41
Analyte	Conc. (pg/L)	DL (pg/L)	EMPC (pg/L)	Qualifiers	Standard	ES Recoveries	Qualifiers
2378-TCDD	ND	2.29			ES 2378-TCDD	77.6	
12378-PeCDD	ND	1.84			ES 12378-PeCDD	71.9	
123478-HxCDD	ND	3.01			ES 123478-HxCDD	81.4	
123678-HxCDD	ND	2.86			ES 123678-HxCDD	86.4	
123789-HxCDD	ND	2.95			ES 123789-HxCDD	88	
1234678-HpCDD	ND	2.82			ES 1234678-HpCDD	85.6	
OCDD	ND	17			ES OCDD	72.4	
2378-TCDF	ND	1.4			ES 2378-TCDF	81.9	
12378-PeCDF	ND	1.52			ES 12378-PeCDF	64.1	
23478-PeCDF	ND	1.47			ES 23478-PeCDF	68.9	
123478-HxCDF	ND	2.06			ES 123478-HxCDF	87.3	
123678-HxCDF	ND	2.01			ES 123678-HxCDF	89.8	
234678-HxCDF	ND	2.28			ES 234678-HxCDF	90.4	
123789-HxCDF	ND	2.98			ES 123789-HxCDF	85.6	
1234678-HpCDF	ND	1.93			ES 1234678-HpCDF	88.5	
1234789-HpCDF	ND	3.4			ES 1234789-HpCDF	81.3	
OCDF	ND	10.4			ES OCDF	71.9	
Totals					Standard	CS Recoveries	
Total TCDD	ND	2.29	ND		CS 37CI-2378-TCDD	76	
Total PeCDD	ND	1.84	ND		CS 12347-PeCDD	68.8	
Total HxCDD	ND	2.93	ND		CS 12346-PeCDF	74.1	
Total HpCDD	ND	2.82	ND		CS 123469-HxCDF	90.8	
					CS 1234689-HpCDF	87.9	
Total TCDF	ND	1.4	ND				
Total PeCDF	11.7		11.7	JNX			
Total HxCDF	ND	2.29	ND				
Total HpCDF	ND	2.57	ND				
Total PCDD/Fs	11.7		11.7				
ITEF TEQs							
TEQ: ND=0	0		0				
TEQ: ND=DL/2	3.04	3.04	3.04				
TEQ: ND=DL	6.08	6.08	6.08				



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# Sample ID: 78-1

# Method 8290A

<b>Client Data</b>			<b>Sample Data</b>			<b>Laboratory Data</b>						
Name:	SGS Accutest		Matrix:	Aqueous		Lab Project ID:	B1458		Date Received:	25-Oct-2017		
Project ID:	FA48667X		Weight/Volume:	1.01 L		Lab Sample ID:	B1458_15253_DF_004		Date Extracted:	30-Oct-2017		
Date Collected:	20-Oct-2017		pH:	6		QC Batch No.:	15253		Date Analyzed:	03-Nov-2017		
			Split:	-		Dilution:	-		Time Analyzed:	2:41:41		

Tetra-Dioxins	Conc. (pg/L)	Qualifiers	Penta-Dioxins	Conc. (pg/L)	Qualifiers	Hexa-Dioxins	Conc (pg/L)	Qualifiers	Hepta-Dioxins	Conc (pg/L)	Qualifiers
1368D	(2.29)		12479/12468D	(1.84)		124679/124689D	(2.93)		1234679D	(2.82)	
1379D	(2.29)		12469D	(1.84)		123468D	(2.93)		1234678D	(2.82)	
1369D	(2.29)		12368D	(1.84)		123679/123689D	(2.93)				
1469D	(2.29)		12478D	(1.84)		123469D	(2.93)				
1247D...[4]	(2.29)		12379D	(1.84)		123478D	(3.01)				
1378D	(2.29)		12369D...[3]	(1.84)		123678D	(2.86)				
1268D	(2.29)		12346/12347D	(1.84)		123467D	(2.93)				
1478D	(2.29)		12378D	(1.84)		123789D	(2.95)		<b>Conc.</b>	0	
1279D	(2.29)		12367D	(1.84)					<b>EMPC</b>	0	
1234/1269D	(2.29)		12389D	(1.84)							
1236D	(2.29)								<b>Octa-Dioxin</b>	<b>Conc</b>	<b>Qualifiers</b>
1237/1238D	(2.29)									<b>(pg/L)</b>	
1239D	(2.29)								OCDD	(17)	
2378D	(2.29)										
1278D	(2.29)										
1267D	(2.29)										
1289D	(2.29)										
<b>Conc.</b>	0		<b>Conc.</b>	0		<b>Conc.</b>	0				
<b>EMPC</b>	0		<b>EMPC</b>	0		<b>EMPC</b>	0				



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ITEF TEQs	Conc.	EMPC
TEQ: ND=0	0	0
TEQ: ND=DL/2	3.04	3.04
TEQ: ND=DL	6.08	6.08
Total PCDD/Fs	Conc.	EMPC
	11.7	11.7

Checkcode: 060-319-YBV

Report Created: 06-Nov-2017 12:56 Analyst: TF

# Sample ID: 78-1

# Method 8290A

Client Data			Sample Data			Laboratory Data					
Name:	SGS Accutest		Matrix:	Aqueous		Lab Project ID:	B1458		Date Received:	25-Oct-2017	
Project ID:	FA48667X		Weight/Volume:	1.01 L		Lab Sample ID:	B1458_15253_DF_004		Date Extracted:	30-Oct-2017	
Date Collected:	20-Oct-2017		pH:	6		QC Batch No.:	15253		Date Analyzed:	03-Nov-2017	
			Split:	-		Dilution:	-		Time Analyzed:	2:41:41	
Tetra-Furans	Conc. (pg/L)	Qualifiers	Penta-Furans	Conc. (pg/L)	Qualifiers	Hexa-Furans	Conc (pg/L)	Qualifiers	Hepta-Furans	Conc (pg/L)	Qualifiers
1368F	(1.4)		13468/12468F	(1.01)		123468F	(2.29)		1234678F	(1.93)	
1468F	(1.4)		13678F...[3]	(1.5)		124678/134678F	(2.29)		1234679F	(2.57)	
2468F	(1.4)		12368F...[3]	(1.5)		134679F	(2.29)		1234689F	(2.57)	
1346/1246F	(1.4)		14678F	(1.5)		124679F	(2.29)		1234789F	(3.4)	
1347F...[3]	(1.4)		13479F	(1.5)		124689F	(2.29)				
1348F	(1.4)		13469/12479F	(1.5)		123467F	(2.29)				
1248F...[3]	(1.4)		12346F	2.75	J	123478F	(2.06)				
1268F	(1.4)		23468/12469F	(1.5)		123678F	(2.01)				
1467F	(1.4)		12347F	(1.5)		123479F	(2.29)				
1478F	(1.4)		12348F	(1.5)		123469F	(2.29)				
1369/1237F	(1.4)		12378F	(1.52)		123679F	(2.29)				
2467F	(1.4)		12678/12367F	(1.5)		234678F	(2.28)		<b>Conc.</b>	0	
2368F	(1.4)		12379F	(1.5)		234678/123689F	0		<b>EMPC</b>	0	
1238F...[5]	(1.4)		12679F	(1.5)		123689F	(2.29)				
1278F	(1.4)		23467/12369F	(1.5)		123789F	(2.98)		<b>Octa-Furan</b>	<b>Conc</b>	<b>Qualifiers</b>
1349F	(1.4)		23478F	(1.47)		123789/123489F	0			(pg/L)	
1267F	(1.4)		23478/12489F	0		123489F	(2.29)		<b>OCDF</b>	(10.4)	
2346/1249F	(1.4)		12489F	(1.5)							
2347/1279F	(1.4)		12349F	8.93	J						
2348F	(1.4)		12389F	(1.5)							
2378F	(1.4)										
2367/3467F	(1.4)										
1269F	(1.4)										
1239F	(1.4)										
1289F	(1.4)										
<b>Conc.</b>	0		<b>Conc.</b>	11.7		<b>Conc.</b>	0				
<b>EMPC</b>	0		<b>EMPC</b>	11.7		<b>EMPC</b>	0				

Checkcode: 060-319-YBV


Report Created: 06-Nov-2017 12:56 Analyst: TF



**Sample ID: 78-1** **TEQ Summary** **Method 8290A**

Client Project Name:	SGS Accutest	Matrix:	Aqueous	Lab Sample ID:	B1458_15253_DF_004
Client Project ID:	FA48667X	Weight/Volume:	1.01 L	QC Batch No.:	15253
Date Collected:	20-Oct-2017	Split:	-	Date Extracted:	30-Oct-2017
Date Received:	25-Oct-2017	Dilution:	-	Date Analyzed:	03-Nov-2017 02:41
Lab Project No:	B1458	Units	pg/L		

Analyte	Result	Qualifiers	DLs	I-TEQ	WHO-1998	WHO-2005
2378-TCDD	(2.29)		2.29	(2.29)	(2.29)	(2.29)
12378-PeCDD	(1.84)		1.84	(0.918)	(1.84)	(1.84)
123478-HxCDD	(3.01)		3.01	(0.301)	(0.301)	(0.301)
123678-HxCDD	(2.86)		2.86	(0.286)	(0.286)	(0.286)
123789-HxCDD	(2.95)		2.95	(0.295)	(0.295)	(0.295)
1234678-HpCDD	(2.82)		2.82	(0.0282)	(0.0282)	(0.0282)
OCDD	(17)		17	(0.017)	(0.0017)	(0.0051)
2378-TCDF	(1.4)		1.4	(0.14)	(0.14)	(0.14)
12378-PeCDF	(1.52)		1.52	(0.0762)	(0.0762)	(0.0457)
23478-PeCDF	(1.47)		1.47	(0.734)	(0.734)	(0.441)
123478-HxCDF	(2.06)		2.06	(0.206)	(0.206)	(0.206)
123678-HxCDF	(2.01)		2.01	(0.201)	(0.201)	(0.201)
234678-HxCDF	(2.28)		2.28	(0.228)	(0.228)	(0.228)
123789-HxCDF	(2.98)		2.98	(0.298)	(0.298)	(0.298)
1234678-HpCDF	(1.93)		1.93	(0.0193)	(0.0193)	(0.0193)
1234789-HpCDF	(3.4)		3.4	(0.034)	(0.034)	(0.034)
OCDF	(10.4)		10.4	(0.0104)	(0.00104)	(0.00312)

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	EMPC = 0, ND = 0	0	0	0
	EMPC = 0, ND = DL / 2	3.04	3.49	3.33
	EMPC = 0, ND = DL	6.08	6.97	6.66
	EMPC = 0, < J-level = 0	0	0	0
	EMPC = EMPC, ND = 0	0	0	0
	EMPC = EMPC, ND = DL / 2	3.04	3.49	3.33
	EMPC = EMPC, ND = DL	6.08	6.97	6.66
EMPC = EMPC, < J-level = 0	0	0	0	

Checkcode: 060-319-YBV

SGS North America - DF v0.30

# Sample ID: DUP-OPCA-3-102017

# Method 8290A

Client Data		Sample Data		Laboratory Data			
Name:	SGS Accutest	Matrix:	Aqueous	Lab Project ID:	B1458	Date Received:	25-Oct-2017
Project ID:	FA48667X	Weight/Volume:	1.04 L	Lab Sample ID:	B1458_15253_DF_005	Date Extracted:	30-Oct-2017
Date Collected:	20-Oct-2017	pH:	6	QC Batch No:	15253	Date Analyzed:	03-Nov-2017
		Split:	-	Dilution:	-	Time Analyzed:	5:59:11
Analyte	Conc. (pg/L)	DL (pg/L)	EMPC (pg/L)	Qualifiers	Standard	ES Recoveries	Qualifiers
2378-TCDD	ND	1.61			ES 2378-TCDD	86.4	
12378-PeCDD	ND	1.49			ES 12378-PeCDD	83.1	
123478-HxCDD	ND	3.12			ES 123478-HxCDD	85.5	
123678-HxCDD	ND	3.08			ES 123678-HxCDD	83.1	
123789-HxCDD	ND	3.19			ES 123789-HxCDD	86.1	
1234678-HpCDD	ND	3.27			ES 1234678-HpCDD	88.6	
OCDD	ND	18.9			ES OCDD	75.7	
2378-TCDF	ND	1.26			ES 2378-TCDF	88.4	
12378-PeCDF	ND	1.19			ES 12378-PeCDF	80	
23478-PeCDF	ND	1.24			ES 23478-PeCDF	78.9	
123478-HxCDF	ND	2.47			ES 123478-HxCDF	90.8	
123678-HxCDF	ND	2.44			ES 123678-HxCDF	89.7	
234678-HxCDF	ND	2.7			ES 234678-HxCDF	91.8	
123789-HxCDF	ND	3.85			ES 123789-HxCDF	85.6	
1234678-HpCDF	ND	2.21			ES 1234678-HpCDF	86.3	
1234789-HpCDF	ND	3.57			ES 1234789-HpCDF	82.2	
OCDF	ND	10.9			ES OCDF	71.4	
Totals					Standard	CS Recoveries	
Total TCDD	ND	1.61	ND		CS 37CI-2378-TCDD	89.5	
Total PeCDD	ND	1.49	ND		CS 12347-PeCDD	82.9	
Total HxCDD	ND	3.13	ND		CS 12346-PeCDF	79.7	
Total HpCDD	ND	3.27	ND		CS 123469-HxCDF	94.3	
					CS 1234689-HpCDF	88.5	
Total TCDF	ND	1.26	ND				
Total PeCDF	ND	1.22	ND				
Total HxCDF	ND	2.81	ND				
Total HpCDF	ND	2.81	ND				
Total PCDD/Fs	ND		ND				
ITEF TEQs							
TEQ: ND=0	0		0				
TEQ: ND=DL/2	2.68	2.68	2.68				
TEQ: ND=DL	5.37	5.37	5.37				



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**Sample ID: DUP-OPCA-3-102017**

**Method 8290A**

<b>Client Data</b>		<b>Sample Data</b>		<b>Laboratory Data</b>			
Name:	SGS Accutest	Matrix:	Aqueous	Lab Project ID:	B1458	Date Received:	25-Oct-2017
Project ID:	FA48667X	Weight/Volume:	1.04 L	Lab Sample ID:	B1458_15253_DF_005	Date Extracted:	30-Oct-2017
Date Collected:	20-Oct-2017	pH:	6	QC Batch No.:	15253	Date Analyzed:	03-Nov-2017
		Split:	-	Dilution:	-	Time Analyzed:	5:59:11

Tetra-Dioxins	Conc. (pg/L)	Qualifiers	Penta-Dioxins	Conc. (pg/L)	Qualifiers	Hexa-Dioxins	Conc (pg/L)	Qualifiers	Hepta-Dioxins	Conc (pg/L)	Qualifiers
1368D	(1.61)		12479/12468D	(1.49)		124679/124689D	(3.13)		1234679D	(3.27)	
1379D	(1.61)		12469D	(1.49)		123468D	(3.13)		1234678D	(3.27)	
1369D	(1.61)		12368D	(1.49)		123679/123689D	(3.13)				
1469D	(1.61)		12478D	(1.49)		123469D	(3.13)				
1247D...[4]	(1.61)		12379D	(1.49)		123478D	(3.12)				
1378D	(1.61)		12369D...[3]	(1.49)		123678D	(3.08)				
1268D	(1.61)		12346/12347D	(1.49)		123467D	(3.13)				
1478D	(1.61)		12378D	(1.49)		123789D	(3.19)		<b>Conc.</b>	0	
1279D	(1.61)		12367D	(1.49)					<b>EMPC</b>	0	
1234/1269D	(1.61)		12389D	(1.49)							
1236D	(1.61)								<b>Octa-Dioxin</b>	<b>Conc</b>	<b>Qualifiers</b>
1237/1238D	(1.61)									<b>(pg/L)</b>	
1239D	(1.61)								OCDD	(18.9)	
2378D	(1.61)										
1278D	(1.61)										
1267D	(1.61)										
1289D	(1.61)										
<b>Conc.</b>	0		<b>Conc.</b>	0		<b>Conc.</b>	0				
<b>EMPC</b>	0		<b>EMPC</b>	0		<b>EMPC</b>	0				



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ITEF TEQs	Conc.	EMPC
TEQ: ND=0	0	0
TEQ: ND=DL/2	2.68	2.68
TEQ: ND=DL	5.37	5.37
Total PCDD/Fs	Conc.	EMPC
	0	0

Checkcode: 731-740-RNN

Report Created: 06-Nov-2017 12:59 Analyst: TF

**Sample ID: DUP-OPCA-3-102017**

**Method 8290A**

Client Data			Sample Data			Laboratory Data					
Name:	SGS Accutest		Matrix:	Aqueous		Lab Project ID:	B1458		Date Received:	25-Oct-2017	
Project ID:	FA48667X		Weight/Volume:	1.04 L		Lab Sample ID:	B1458_15253_DF_005		Date Extracted:	30-Oct-2017	
Date Collected:	20-Oct-2017		pH:	6		QC Batch No.:	15253		Date Analyzed:	03-Nov-2017	
			Split:	-		Dilution:	-		Time Analyzed:	5:59:11	
Tetra-Furans	Conc. (pg/L)	Qualifiers	Penta-Furans	Conc. (pg/L)	Qualifiers	Hexa-Furans	Conc (pg/L)	Qualifiers	Hepta-Furans	Conc (pg/L)	Qualifiers
1368F	(1.26)		13468/12468F	(1.02)		123468F	(2.81)		1234678F	(2.21)	
1468F	(1.26)		13678F...[3]	(1.22)		124678/134678F	(2.81)		1234679F	(2.81)	
2468F	(1.26)		12368F...[3]	(1.22)		134679F	(2.81)		1234689F	(2.81)	
1346/1246F	(1.26)		14678F	(1.22)		124679F	(2.81)		1234789F	(3.57)	
1347F...[3]	(1.26)		13479F	(1.22)		124689F	(2.81)				
1348F	(1.26)		13469/12479F	(1.22)		123467F	(2.81)				
1248F...[3]	(1.26)		12346F	(1.22)		123478F	(2.47)				
1268F	(1.26)		23468/12469F	(1.22)		123678F	(2.44)				
1467F	(1.26)		12347F	(1.22)		123479F	(2.81)				
1478F	(1.26)		12348F	(1.22)		123469F	(2.81)				
1369/1237F	(1.26)		12378F	(1.19)		123679F	(2.81)				
2467F	(1.26)		12678/12367F	(1.22)		234678F	(2.7)		<b>Conc.</b>	0	
2368F	(1.26)		12379F	(1.22)		234678/123689F	0		<b>EMPC</b>	0	
1238F...[5]	(1.26)		12679F	(1.22)		123689F	(2.81)				
1278F	(1.26)		23467/12369F	(1.22)		123789F	(3.85)		<b>Octa-Furan</b>	<b>Conc</b>	<b>Qualifiers</b>
1349F	(1.26)		23478F	(1.24)		123789/123489F	0			<b>(pg/L)</b>	
1267F	(1.26)		23478/12489F	0		123489F	(2.81)		<b>OCDF</b>	(10.9)	
2346/1249F	(1.26)		12489F	(1.22)							
2347/1279F	(1.26)		12349F	(1.22)							
2348F	(1.26)		12389F	(1.22)							
2378F	(1.26)										
2367/3467F	(1.26)										
1269F	(1.26)										
1239F	(1.26)										
1289F	(1.26)										
<b>Conc.</b>	0		<b>Conc.</b>	0		<b>Conc.</b>	0				
<b>EMPC</b>	0		<b>EMPC</b>	0		<b>EMPC</b>	0				


Checkcode: 731-740-RNN

Report Created: 06-Nov-2017 12:59 Analyst: TF

**Sample ID: DUP-OPCA-3-102017**      **TEQ Summary**      **Method 8290A**

Client Project Name:	SGS Accutest	Matrix:	Aqueous	Lab Sample ID:	B1458_15253_DF_005
Client Project ID:	FA48667X	Weight/Volume:	1.04 L	QC Batch No.:	15253
Date Collected:	20-Oct-2017	Split:	-	Date Extracted:	30-Oct-2017
Date Received:	25-Oct-2017	Dilution:	-	Date Analyzed:	03-Nov-2017 05:59
Lab Project No:	B1458	Units	pg/L		

Analyte	Result	Qualifiers	DLs	I-TEQ	WHO-1998	WHO-2005
2378-TCDD	(1.61)		1.61	(1.61)	(1.61)	(1.61)
12378-PeCDD	(1.49)		1.49	(0.747)	(1.49)	(1.49)
123478-HxCDD	(3.12)		3.12	(0.312)	(0.312)	(0.312)
123678-HxCDD	(3.08)		3.08	(0.308)	(0.308)	(0.308)
123789-HxCDD	(3.19)		3.19	(0.319)	(0.319)	(0.319)
1234678-HpCDD	(3.27)		3.27	(0.0327)	(0.0327)	(0.0327)
OCDD	(18.9)		18.9	(0.0189)	(0.00189)	(0.00566)
2378-TCDF	(1.26)		1.26	(0.126)	(0.126)	(0.126)
12378-PeCDF	(1.19)		1.19	(0.0595)	(0.0595)	(0.0357)
23478-PeCDF	(1.24)		1.24	(0.622)	(0.622)	(0.373)
123478-HxCDF	(2.47)		2.47	(0.247)	(0.247)	(0.247)
123678-HxCDF	(2.44)		2.44	(0.244)	(0.244)	(0.244)
234678-HxCDF	(2.7)		2.7	(0.27)	(0.27)	(0.27)
123789-HxCDF	(3.85)		3.85	(0.385)	(0.385)	(0.385)
1234678-HpCDF	(2.21)		2.21	(0.0221)	(0.0221)	(0.0221)
1234789-HpCDF	(3.57)		3.57	(0.0357)	(0.0357)	(0.0357)
OCDF	(10.9)		10.9	(0.0109)	(0.00109)	(0.00326)

5500 Business Drive Wilmington, NC 28405, USA Tel: +1 910 794-1613; Toll-Free 866 846-8290 www.us.sgs.com 	<b>TEQ Summaries</b>			
	EMPC = 0, ND = 0	0	0	0
	EMPC = 0, ND = DL / 2	2.68	3.04	2.91
	EMPC = 0, ND = DL	5.37	6.09	5.82
	EMPC = 0, < J-level = 0	0	0	0
	EMPC = EMPC, ND = 0	0	0	0
	EMPC = EMPC, ND = DL / 2	2.68	3.04	2.91
	EMPC = EMPC, ND = DL	5.37	6.09	5.82
EMPC = EMPC, < J-level = 0	0	0	0	

Checkcode: 731-740-RNN

SGS North America - DF v0.30



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FA48701

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4405 SGS ACCUTEST JOB #:

PAGE 1 OF 1

Client / Reporting Information		Project Information		Analytical Information										Matrix Codes			
Company Name: Arcadis		Project Name: GE Pittsfield - GMA4												DW - Drinking Water			
Address: One Lincoln Center 110 W Fayette St, Suite 300		Street: 159 Plastics Ave												GW - Ground Water			
City: Syracuse State: NY Zip: 13202		City: Pittsfield State: NY												WW - Water			
Project Contact: Chris Kassel Email: Chris.Kassel@arcadis.com		Project # ALL10113.3000.3005												SW - Surface Water			
Phone #: 315-256-5388 (Kassel)		Fax #												SO - Soil			
Sampler(s) Name(s) (Printed)		Client Purchase Order #												SL - Sludge			
Sampler 1: A-MW-GWS Sampler 2:														OJ - Oil			
SGS Accutest Sample #	Field ID / Point of Collection	DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	PCB	MCH	PCB3	HCB24	MCH+HCB24	DI WATER	MCHP	Dissolved Cadmium (See attached Notes to Lab)	LAB USE ONLY
1	GMA4-8	10/23/17	1543	AG	GW	1			X								X
2	GMA4-8-MS	10/23/17	1543	AG	GW	1			X								X
3	GMA4-8-MSD	10/23/17	1543	AG	GW	1			X								X
4	ADUP-GMA4-1-102317	10/23/17	-	-	GW	1			X								X
Turnaround Time ( Business days)		Data Deliverable Information		Comments / Remarks													
<input checked="" type="checkbox"/> 10 Day (Business) <input type="checkbox"/> 7 Day <input type="checkbox"/> 5 Day <input type="checkbox"/> 3 Day RUSH <input type="checkbox"/> 2 Day RUSH <input type="checkbox"/> 1 Day RUSH <input type="checkbox"/> Other		Approved By / Date:		<input type="checkbox"/> COMMERCIAL "A" (RESULTS ONLY) <input type="checkbox"/> COMMERCIAL "B" (RESULTS PLUS QC) <input type="checkbox"/> REDT1 (EPA LEVEL 3) <input type="checkbox"/> FULLT1 (EPA LEVEL 4) <input checked="" type="checkbox"/> EDD'S CORE EDDS, Refer to Contract for details.										Please see attached "NOTES TO LAB"			
Rush T/A Data Available VIA Email or Lablink																	
Relinquished by/Sampler/Affiliation		Date Time:		Received By/Affiliation		Date Time:		Relinquished By/Affiliation		Date Time:		Received By/Affiliation					
1 Andrea Gibson/Arcadis		10/23/17 16:38		2 B. C.		10-23-17		B.C.		10-23-17		F.D.					
Relinquished by/Affiliation		Date Time:		Received By/Affiliation		Date Time:		Relinquished By/Affiliation		Date Time:		Received By/Affiliation					
5 Ted K.				6 G. G. R.		10/24/17 8:45											
Lab Use Only: Cooler Temperature (s) Celsius:		938, 936, 935, 934, 933															

5.1  
5

## Report of Analysis

<b>Client Sample ID:</b> GMA4-8		<b>Date Sampled:</b> 10/23/17
<b>Lab Sample ID:</b> FA48701-1F		<b>Date Received:</b> 10/24/17
<b>Matrix:</b> AQ - Groundwater Filtered		<b>Percent Solids:</b> n/a
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

### Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Cadmium	1.2 J	5.0	0.20	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA14477

(2) Prep QC Batch: MP32946

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
J = Indicates a result > = MDL but < RL

4.1  
4



## Report of Analysis

<b>Client Sample ID:</b> DUP-GMA4-1-102317		<b>Date Sampled:</b> 10/23/17
<b>Lab Sample ID:</b> FA48701-2F		<b>Date Received:</b> 10/24/17
<b>Matrix:</b> AQ - Groundwater Filtered		<b>Percent Solids:</b> n/a
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

4.2  
4

### Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Cadmium	1.2 J	5.0	0.20	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA14477

(2) Prep QC Batch: MP32946

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
J = Indicates a result > = MDL but < RL



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FA48703

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 PAGE 1 OF 1

4405 SGS ACCUTEST JOB #:

Client / Reporting Information		Project Information		SGS Accutest Quote #												SKIFF #					
Company Name: Arcadis		Project Name: GE Pittsfield - OPCA		VOCs STAND (EPA method 8260) SVOCs STAND (See attached Notes to Lab) PCBs (Dissolved) Lead (EPA method 8082) VOCs STAND (See attached Notes to Lab) SVOCs STAND (EPA method 8260) Sulfoxide PAC Cyanide (See attached Notes to Lab) MIBAK (EPA method 8014) MIBT (EPA method 8014) (EPA method 6010B, 7000A, and 7470A) Dioxin/Furans 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,2,4-trichlorobenzene, and naphthalene Lead (Dissolved) NATURAL ATTEN 1,2-DICHLOROPHENOL and 4-CHLOROPHENOL (EPA method 8270D)												Matrix Codes					
Address: One Lincoln Center 110 W Fayette St, Suite 300		Street: 159 Plastics Ave														City: Pittsfield		State: NY		DW - Drinking Water	
City: Syracuse State: NY Zip: 13202		City: Pittsfield														State: NY		GW - Ground Water		WW - Water	
Project Contact: Andrew Gibson Chris Kassel Email: andrew.gibson@arcadis.com Chris.Kassel@arcadis.com		Project # ALL 10113.3000 .30045														Fax #		SW - Surface Water		SO - Soil	
Phone #: 518-588-1077 (Gibson) 315-256-5395 (Kassel)		Client Purchase Order #				SL - Sludge		OI - Oil													
Sampler(s) Name(s) (Printed)						LIQ - Other Liquid		AIR - Air													
Sampler 1: Andrew Gibson Sampler 2: Penny Rabasco Sampler 3: Marcia MacKenzie Sampler 4: Josh Duquette						SOL - Other Solid															
SGS Accutest Sample #	Field ID / Point of Collection	COLLECTION		CONTAINER INFORMATION												LAB USE ONLY					
		DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NHCl	PHCl3	PHCl4	NACH2NAG	DI WATER	MECH						
1	OPCA-MW-IRR	11/23/17	1:20	PR	GW	12		X	X												
2	OPCA-MW-b	11/23/17	14:40	PD	GW	13		X	X												
3	OPCA-MW-SR	11/23/17	14:50	MR	GW	9		X													
4	Trip Blank - OPCA-1-102317	11/23/17	-	-	WW	2			X												
Turnaround Time (Business days)		Data Deliverable Information		Comments / Remarks																	
<input checked="" type="checkbox"/> 10 Day (Business) <input type="checkbox"/> 7 Day <input type="checkbox"/> 5 Day <input type="checkbox"/> 3 Day RUSH <input type="checkbox"/> 2 Day RUSH <input type="checkbox"/> 1 Day RUSH <input type="checkbox"/> Other		Approved By: / Date: _____ <input type="checkbox"/> COMMERCIAL "A" (RESULTS ONLY) <input type="checkbox"/> COMMERCIAL "B" (RESULTS PLUS QC) <input type="checkbox"/> REDT1 (EPA LEVEL 3) <input type="checkbox"/> FULLT1 (EPA LEVEL 4) <input checked="" type="checkbox"/> EDD'S CORE EDDS, Refer to Contract for details.		Please see attached "NOTES TO LAB" Lab to do all filtering Please note, 17 site-specific dissolved metals are listed in the contract.																	
Rush T/A Data Available VIA Email or Lablink		Sample Custody must be documented below each time samples change possession, including courier delivery.																			
Relinquished by Sampler/Affiliation		Date Time:		Received By/Affiliation		Date Time:		Relinquished By/Affiliation		Date Time:		Received By/Affiliation		Date Time:		Received By/Affiliation					
1 Andrew Gibson/Arcadis		10/11/17 16:38		2 B. Bull		10-23-17		3 B.C		10-23-17		FED									
5 Fed Ex				6 [Signature]		11/24/17 8:45		7													
Lab Use Only: Cooler Temperature (s) Celsius:		1.0 1.0 2.2																			

6.1  
6

## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-1RR	<b>Date Sampled:</b>	10/23/17
<b>Lab Sample ID:</b>	FA48703-1	<b>Date Received:</b>	10/24/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P53330.D	20	10/27/17 17:43	AJ	n/a	n/a	VP2026
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	500	200	ug/l	
75-05-8	Acetonitrile	ND	500	290	ug/l	
107-02-8	Acrolein <sup>a</sup>	ND	400	120	ug/l	
107-13-1	Acrylonitrile <sup>a</sup>	ND	200	42	ug/l	
107-05-1	Allyl Chloride	ND	40	5.1	ug/l	
71-43-2	Benzene	ND	20	6.2	ug/l	
75-27-4	Bromodichloromethane	ND	20	4.8	ug/l	
75-25-2	Bromoform	ND	20	8.1	ug/l	
78-93-3	2-Butanone (MEK)	ND	100	40	ug/l	
75-15-0	Carbon Disulfide	ND	40	11	ug/l	
56-23-5	Carbon Tetrachloride	ND	20	7.1	ug/l	
108-90-7	Chlorobenzene	ND	20	4.0	ug/l	
75-00-3	Chloroethane	ND	40	13	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether <sup>a</sup> R	ND	100	42	ug/l	
67-66-3	Chloroform	9.3	20	6.0	ug/l	J
126-99-8	Chloroprene	ND	100	10	ug/l	
124-48-1	Dibromochloromethane	ND	20	5.5	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	100	21	ug/l	
106-93-4	1,2-Dibromoethane	ND	40	5.5	ug/l	
75-71-8	Dichlorodifluoromethane	ND	40	10	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	200	20	ug/l	
75-34-3	1,1-Dichloroethane	ND	20	6.8	ug/l	
107-06-2	1,2-Dichloroethane	ND	20	6.2	ug/l	
75-35-4	1,1-Dichloroethylene	ND	20	6.4	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	20	4.4	ug/l	
78-87-5	1,2-Dichloropropane	ND	20	8.5	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	20	5.8	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	20	4.3	ug/l	
123-91-1	1,4-Dioxane	ND	4000	1500	ug/l	
100-41-4	Ethylbenzene	ND	20	7.1	ug/l	
97-63-2	Ethyl Methacrylate	ND	100	10	ug/l	
591-78-6	2-Hexanone	ND	200	40	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-1RR	<b>Date Sampled:</b>	10/23/17
<b>Lab Sample ID:</b>	FA48703-1	<b>Date Received:</b>	10/24/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-83-1	Isobutyl Alcohol	ND	1000	230	ug/l	
126-98-7	Methacrylonitrile	ND	400	100	ug/l	
74-83-9	Methyl Bromide	ND	40	12	ug/l	
74-87-3	Methyl Chloride	ND	40	10	ug/l	
74-88-4	Methyl Iodide	ND	20	5.5	ug/l	
80-62-6	Methyl Methacrylate	ND	100	14	ug/l	
74-95-3	Methylene Bromide	ND	40	7.4	ug/l	
75-09-2	Methylene Chloride	ND	100	40	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	100	20	ug/l	
107-12-0	Propionitrile	ND	400	100	ug/l	
100-42-5	Styrene	ND	20	4.4	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	20	5.5	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	20	6.0	ug/l	
127-18-4	Tetrachloroethylene	1600 J	20	4.3	ug/l	
108-88-3	Toluene	ND	20	6.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	20	5.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	20	9.3	ug/l	
79-01-6	Trichloroethylene	22.9	20	6.9	ug/l	
75-69-4	Trichlorofluoromethane	ND	40	10	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	40	13	ug/l	
108-05-4	Vinyl Acetate	ND	200	40	ug/l	
75-01-4	Vinyl Chloride	ND	20	8.2	ug/l	
1330-20-7	Xylene (total)	ND	60	14	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	101%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

(a) Result reported from HCl preserved sample and should be used for screening purposes only.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-1RR	<b>Date Sampled:</b>	10/23/17
<b>Lab Sample ID:</b>	FA48703-1	<b>Date Received:</b>	10/24/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8270D SW846 3510C		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D2956.D	1	11/01/17 19:45	MV	10/27/17 08:45	OP67384	S4D111
Run #2							

Run #1	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
59-50-7	4-Chloro-3-methyl Phenol	ND	4.8	0.56	ug/l	
95-57-8	2-Chlorophenol	ND	4.8	0.60	ug/l	
120-83-2	2,4-Dichlorophenol	ND	4.8	0.80	ug/l	
87-65-0	2,6-Dichlorophenol	ND	4.8	0.79	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.8	0.70	ug/l	
51-28-5	2,4-Dinitrophenol	ND	24	4.8	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	9.5	1.9	ug/l	
95-48-7	2-Methylphenol	ND	4.8	0.53	ug/l	
	3&4-Methylphenol	ND	4.8	0.93	ug/l	
88-75-5	2-Nitrophenol	ND	4.8	0.81	ug/l	
100-02-7	4-Nitrophenol	ND	24	4.8	ug/l	
87-86-5	Pentachlorophenol	ND	24	4.8	ug/l	
108-95-2	Phenol	ND	4.8	0.48	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol <sup>a</sup>	ND	4.8	0.92	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.8	0.70	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.8	0.72	ug/l	
83-32-9	Acenaphthene	ND	4.8	0.60	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.61	ug/l	
98-86-2	Acetophenone	ND	4.8	0.77	ug/l	
53-96-3	2-Acetylaminofluorene	ND	4.8	0.71	ug/l	
92-67-1	4-Aminobiphenyl	ND	4.8	0.76	ug/l	
62-53-3	Aniline <sup>b</sup>	ND UJ	4.8	0.95	ug/l	
120-12-7	Anthracene	ND	4.8	0.76	ug/l	
140-57-8	Aramite	ND	9.5	1.9	ug/l	
92-87-5	Benzidine <sup>c</sup>	ND UJ	24	4.8	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.72	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.75	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.74	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND UJ	4.8	0.78	ug/l	
207-08-9	Benzo(k)fluoranthene	ND UJ	4.8	0.82	ug/l	
100-51-6	Benzyl Alcohol <sup>b</sup>	ND UJ	4.8	0.58	ug/l	
101-55-3	4-Bromophenyl Phenyl Ether	ND	4.8	0.81	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-1RR	<b>Date Sampled:</b>	10/23/17
<b>Lab Sample ID:</b>	FA48703-1	<b>Date Received:</b>	10/24/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8270D SW846 3510C		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
85-68-7	Butyl Benzyl Phthalate	ND	4.8	0.95	ug/l	
106-47-8	4-Chloroaniline	ND	4.8	0.60	ug/l	
510-15-6	Chlorobenzilate	ND	4.8	1.1	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	4.8	0.77	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	4.8	0.70	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	4.8	0.72	ug/l	
91-58-7	2-Chloronaphthalene	ND	4.8	0.48	ug/l	
7005-72-3	4-Chlorophenyl Phenyl Ether	ND	4.8	0.51	ug/l	
218-01-9	Chrysene	ND	4.8	0.81	ug/l	
2303-16-4	Diallate	ND	4.8	0.95	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.77	ug/l	
132-64-9	Dibenzofuran	ND	4.8	0.57	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	4.8	0.48	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	4.8	0.48	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	4.8	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine <sup>a</sup>	ND	4.8	0.61	ug/l	
84-66-2	Diethyl Phthalate	ND	4.8	0.95	ug/l	
60-11-7	p-(Dimethylamino)azobenzene	ND	4.8	0.95	ug/l	
57-97-6	7,12-Dimethylbenz(a)anthrac <sup>d</sup>	ND	4.8	0.95	ug/l	
119-93-7	3,3'-Dimethylbenzidine <sup>d</sup>	ND	9.5	2.7	ug/l	
122-09-8	A,A-Dimethylphenethylamine	ND	24	4.8	ug/l	
131-11-3	Dimethyl Phthalate	ND	4.8	0.95	ug/l	
84-74-2	Di-n-butyl Phthalate	ND	4.8	0.95	ug/l	
117-84-0	Di-n-octyl Phthalate	ND UJ	4.8	0.95	ug/l	
99-65-0	m-Dinitrobenzene <sup>a</sup>	ND	4.8	0.86	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	4.8	0.77	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	4.8	0.68	ug/l	
122-39-4	Diphenylamine	ND	4.8	0.77	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	4.8	0.72	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	4.8	0.95	ug/l	
62-50-0	Ethyl Methanesulfonate	ND	4.8	1.1	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.53	ug/l	
86-73-7	Fluorene	ND	4.8	0.67	ug/l	
118-74-1	Hexachlorobenzene <sup>a</sup>	ND	4.8	0.66	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.8	0.48	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	4.8	1.7	ug/l	
67-72-1	Hexachloroethane	ND	4.8	1.6	ug/l	
70-30-4	Hexachlorophene	ND	95	48	ug/l	
1888-71-7	Hexachloropropene <sup>d</sup>	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND UJ	4.8	0.68	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-1RR	<b>Date Sampled:</b>	10/23/17
<b>Lab Sample ID:</b>	FA48703-1	<b>Date Received:</b>	10/24/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8270D SW846 3510C		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
465-73-6	Isodrin	ND	4.8	0.99	ug/l	
78-59-1	Isophorone	ND	4.8	0.74	ug/l	
120-58-1	Isosafrole	ND	4.8	2.2	ug/l	
91-80-5	Methapyrilene <sup>d</sup>	ND	19	3.8	ug/l	
56-49-5	3-Methylcholanthrene <sup>d</sup>	ND	4.8	0.96	ug/l	
66-27-3	Methyl Methanesulfonate	ND	4.8	0.73	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.57	ug/l	
91-20-3	Naphthalene	ND	4.8	0.48	ug/l	
130-15-4	1,4-Naphthoquinone <sup>d</sup>	ND	4.8	0.69	ug/l	
134-32-7	1-Naphthylamine <sup>b</sup>	ND UJ	4.8	1.1	ug/l	
91-59-8	2-Naphthylamine	ND	4.8	1.1	ug/l	
88-74-4	2-Nitroaniline	ND	4.8	1.7	ug/l	
99-09-2	3-Nitroaniline	ND	4.8	0.84	ug/l	
100-01-6	4-Nitroaniline <sup>a</sup>	ND	4.8	1.1	ug/l	
98-95-3	Nitrobenzene	ND	4.8	0.89	ug/l	
99-55-8	5-Nitro-o-toluidine	ND	4.8	1.2	ug/l	
55-18-5	N-Nitrosodiethylamine	ND	4.8	0.82	ug/l	
62-75-9	N-Nitrosodimethylamine <sup>a</sup>	ND	4.8	0.48	ug/l	
924-16-3	N-Nitrosodi-n-butylamine	ND	4.8	1.0	ug/l	
621-64-7	N-Nitrosodi-n-propylamine	ND	4.8	0.64	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	0.77	ug/l	
10595-95-6	N-Nitrosomethylethylamine	ND	4.8	0.93	ug/l	
59-89-2	N-Nitrosomorpholine	ND	4.8	0.84	ug/l	
100-75-4	N-Nitrosopiperidine	ND	4.8	1.1	ug/l	
930-55-2	N-Nitrosopyrrolidine	ND	4.8	1.1	ug/l	
56-57-5	4-Nitroquinoline 1-Oxide	ND	19	4.8	ug/l	
126-68-1	O,O,O-Triethyl Phosphorothio	ND	4.8	0.95	ug/l	
608-93-5	Pentachlorobenzene	ND	4.8	3.0	ug/l	
76-01-7	Pentachloroethane	ND	4.8	3.3	ug/l	
82-68-8	Pentachloronitrobenzene	ND	4.8	1.5	ug/l	
62-44-2	Phenacetin	ND	4.8	1.2	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.82	ug/l	
106-50-3	p-Phenylenediamine	ND	48	9.5	ug/l	
109-06-8	2-Picoline	ND	4.8	0.95	ug/l	
23950-58-5	Pronamide	ND	4.8	1.3	ug/l	
129-00-0	Pyrene	ND	4.8	0.65	ug/l	
110-86-1	Pyridine	ND	9.5	1.9	ug/l	
94-59-7	Safrole	ND	4.8	1.6	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	4.8	0.48	ug/l	
297-97-2	Thionazin	ND	4.8	0.95	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-1RR		<b>Date Sampled:</b> 10/23/17
<b>Lab Sample ID:</b> FA48703-1		<b>Date Received:</b> 10/24/17
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8270D SW846 3510C		
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

### ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-53-4	o-Toluidine	ND	4.8	1.1	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	4.8	1.0	ug/l	
99-35-4	sym-Trinitrobenzene	ND	4.8	0.94	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	19%		14-67%
4165-62-2	Phenol-d5	10%		10-50%
118-79-6	2,4,6-Tribromophenol	79%		33-118%
4165-60-0	Nitrobenzene-d5	72%		42-108%
321-60-8	2-Fluorobiphenyl	80%		40-106%
1718-51-0	Terphenyl-d14	59%		39-121%

- (a) Associated CCV outside of control limits high, sample was ND.
- (b) Associated BS recovery outside control limits.
- (c) Associated ICV outside control limits. Associated CCV outside of control limits high, sample was ND.
- (d) Associated ICV outside control limits.

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.1  
4

## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-1RR		<b>Date Sampled:</b>	10/23/17
<b>Lab Sample ID:</b>	FA48703-1F		<b>Date Received:</b>	10/24/17
<b>Matrix:</b>	AQ - Groundwater Filtered		<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8082A SW846 3510C			
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA			

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	MM46375.D	1	11/01/17 18:38	NJ	10/30/17 16:10	OP67413	GMM888
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	5.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.094	0.038	ug/l	
11104-28-2	Aroclor 1221	ND	0.094	0.047	ug/l	
11141-16-5	Aroclor 1232	ND	0.094	0.047	ug/l	
53469-21-9	Aroclor 1242	ND	0.094	0.038	ug/l	
12672-29-6	Aroclor 1248	ND	0.094	0.038	ug/l	
11097-69-1	Aroclor 1254 <sup>b</sup>	0.12	0.094	0.038	ug/l	J
11096-82-5	Aroclor 1260 <sup>b</sup>	0.079	0.094	0.038	ug/l	J
1336-36-3	Total PCBs <sup>b</sup>	0.20	0.094	0.047	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	79%		38-127%
2051-24-3	Decachlorobiphenyl	48%		25-137%

(a) All hits confirmed by dual column analysis.

(b) Estimated value due to the presence of multiple overlapping Aroclor patterns.

ND = Not detected      MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-IRR		<b>Date Sampled:</b> 10/23/17
<b>Lab Sample ID:</b> FA48703-1F		<b>Date Received:</b> 10/24/17
<b>Matrix:</b> AQ - Groundwater Filtered		<b>Percent Solids:</b> n/a
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

### Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	1.0 U	6.0	1.0	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Arsenic	1.3 U	10	1.3	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	57.5 J	200	1.0	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Beryllium	0.20 U	4.0	0.20	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	4.1 J	5.0	0.20	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	1.0 U	10	1.0	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Cobalt	0.20 U	50	0.20	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	1.0 U	25	1.0	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	1.1 U	5.0	1.1	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	0.030 U	0.50	0.030	ug/l	1	11/02/17	11/02/17 DM	SW846 7470A <sup>1</sup>	SW846 7470A <sup>3</sup>
Nickel	0.40 U	40	0.40	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	2.9 U	10	2.9	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	0.70 U	10	0.70	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Thallium	1.4 U	10	1.4	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Tin	1.0 U	50	1.0	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Vanadium	0.60 U	50	0.60	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	4.4 U	20	4.4	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>

- (1) Instrument QC Batch: MA14474
- (2) Instrument QC Batch: MA14477
- (3) Prep QC Batch: MP32942
- (4) Prep QC Batch: MP32946

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 J = Indicates a result > = MDL but < RL

4.2  
4

## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-6	<b>Date Sampled:</b>	10/23/17
<b>Lab Sample ID:</b>	FA48703-2	<b>Date Received:</b>	10/24/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	P53331.D	1	10/27/17 18:07	AJ	n/a	n/a	VP2026

Run #1	Purge Volume
Run #2	5.0 ml

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	25	14	ug/l	
107-02-8	Acrolein <sup>a</sup>	ND	20	6.1	ug/l	
107-13-1	Acrylonitrile <sup>a</sup>	ND	10	2.1	ug/l	
107-05-1	Allyl Chloride	ND	2.0	0.26	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether <sup>a</sup> R	ND	5.0	<del>2.1</del>	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
126-99-8	Chloroprene	ND	5.0	0.50	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
123-91-1	1,4-Dioxane	ND	200	75	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
97-63-2	Ethyl Methacrylate	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-6		<b>Date Sampled:</b> 10/23/17
<b>Lab Sample ID:</b> FA48703-2		<b>Date Received:</b> 10/24/17
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

**VOA Appendix IX List**

CAS No.	Compound	Result	RL	MDL	Units	Q
78-83-1	Isobutyl Alcohol	ND	50	11	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl Iodide	ND	1.0	0.27	ug/l	
80-62-6	Methyl Methacrylate	ND	5.0	0.71	ug/l	
74-95-3	Methylene Bromide	ND	2.0	0.37	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND UJ	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.63	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		83-118%
17060-07-0	1,2-Dichloroethane-D4	101%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

(a) Result reported from HCl preserved sample and should be used for screening purposes only.

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.3  
4

## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-6	<b>Date Sampled:</b>	10/23/17
<b>Lab Sample ID:</b>	FA48703-2	<b>Date Received:</b>	10/24/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8270D SW846 3510C		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D3120.D	1	11/18/17 15:24	MV	10/27/17 08:45	OP67384	S4D116
Run #2							

Run #1	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
59-50-7	4-Chloro-3-methyl Phenol	ND	4.8	0.56	ug/l	
95-57-8	2-Chlorophenol	ND	4.8	0.60	ug/l	
120-83-2	2,4-Dichlorophenol	ND	4.8	0.80	ug/l	
87-65-0	2,6-Dichlorophenol	ND	4.8	0.79	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.8	0.70	ug/l	
51-28-5	2,4-Dinitrophenol	ND	24	4.8	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	9.5	1.9	ug/l	
95-48-7	2-Methylphenol	ND	4.8	0.53	ug/l	
	3&4-Methylphenol	ND	4.8	0.93	ug/l	
88-75-5	2-Nitrophenol	ND	4.8	0.81	ug/l	
100-02-7	4-Nitrophenol	ND	24	4.8	ug/l	
87-86-5	Pentachlorophenol	ND	24	4.8	ug/l	
108-95-2	Phenol	ND	4.8	0.48	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol <sup>a</sup>	ND	4.8	0.92	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.8	0.70	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.8	0.72	ug/l	
83-32-9	Acenaphthene	ND	4.8	0.60	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.61	ug/l	
98-86-2	Acetophenone	ND	4.8	0.77	ug/l	
53-96-3	2-Acetylaminofluorene	ND	4.8	0.71	ug/l	
92-67-1	4-Aminobiphenyl	ND	4.8	0.76	ug/l	
62-53-3	Aniline	ND UJ	4.8	0.95	ug/l	
120-12-7	Anthracene	ND	4.8	0.76	ug/l	
140-57-8	Aramite <sup>a</sup>	ND	9.5	1.9	ug/l	
92-87-5	Benzidine	ND UJ	24	4.8	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.72	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.75	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.74	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.78	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.82	ug/l	
100-51-6	Benzyl Alcohol	ND UJ	4.8	0.58	ug/l	
101-55-3	4-Bromophenyl Phenyl Ether	ND	4.8	0.81	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-6	<b>Date Sampled:</b>	10/23/17
<b>Lab Sample ID:</b>	FA48703-2	<b>Date Received:</b>	10/24/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8270D SW846 3510C		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
85-68-7	Butyl Benzyl Phthalate	ND	4.8	0.95	ug/l	
106-47-8	4-Chloroaniline <sup>a</sup>	ND UJ	4.8	0.60	ug/l	
510-15-6	Chlorobenzilate	ND	4.8	1.1	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	4.8	0.77	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	4.8	0.70	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	4.8	0.72	ug/l	
91-58-7	2-Chloronaphthalene	ND	4.8	0.48	ug/l	
7005-72-3	4-Chlorophenyl Phenyl Ether	ND	4.8	0.51	ug/l	
218-01-9	Chrysene	ND	4.8	0.81	ug/l	
2303-16-4	Diallate	ND	4.8	0.95	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.77	ug/l	
132-64-9	Dibenzofuran	ND	4.8	0.57	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	4.8	0.48	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	4.8	0.48	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	4.8	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	4.8	0.61	ug/l	
84-66-2	Diethyl Phthalate	ND	4.8	0.95	ug/l	
60-11-7	p-(Dimethylamine)azobenzene	ND	4.8	0.95	ug/l	
57-97-6	7,12-Dimethylbenz(a)anthrac <sup>a</sup>	ND	4.8	0.95	ug/l	
119-93-7	3,3'-Dimethylbenzidine <sup>b</sup>	ND	9.5	2.7	ug/l	
122-09-8	A,A-Dimethylphenethylamine	ND	24	4.8	ug/l	
131-11-3	Dimethyl Phthalate	ND	4.8	0.95	ug/l	
84-74-2	Di-n-butyl Phthalate	ND	4.8	0.95	ug/l	
117-84-0	Di-n-octyl Phthalate	ND	4.8	0.95	ug/l	
99-65-0	m-Dinitrobenzene	ND	4.8	0.86	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	4.8	0.77	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	4.8	0.68	ug/l	
122-39-4	Diphenylamine	ND	4.8	0.77	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	4.8	0.72	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	4.8	0.95	ug/l	
62-50-0	Ethyl Methanesulfonate	ND	4.8	1.1	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.53	ug/l	
86-73-7	Fluorene	ND	4.8	0.67	ug/l	
118-74-1	Hexachlorobenzene	ND	4.8	0.66	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.8	0.48	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	4.8	1.7	ug/l	
67-72-1	Hexachloroethane	ND	4.8	1.6	ug/l	
70-30-4	Hexachlorophene	ND	95	48	ug/l	
1888-71-7	Hexachloropropene <sup>a</sup>	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	0.68	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-6	<b>Date Sampled:</b>	10/23/17
<b>Lab Sample ID:</b>	FA48703-2	<b>Date Received:</b>	10/24/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8270D SW846 3510C		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
465-73-6	Isodrin	ND	4.8	0.99	ug/l	
78-59-1	Isophorone	ND	4.8	0.74	ug/l	
120-58-1	Isosafrole	ND	4.8	2.2	ug/l	
91-80-5	Methapyrilene <sup>b</sup>	ND	19	3.8	ug/l	
56-49-5	3-Methylcholanthrene <sup>b</sup>	ND	4.8	0.96	ug/l	
66-27-3	Methyl Methanesulfonate	ND	4.8	0.73	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.57	ug/l	
91-20-3	Naphthalene	ND	4.8	0.48	ug/l	
130-15-4	1,4-Naphthoquinone	ND	4.8	0.69	ug/l	
134-32-7	1-Naphthylamine	ND UJ	4.8	1.1	ug/l	
91-59-8	2-Naphthylamine	ND	4.8	1.1	ug/l	
88-74-4	2-Nitroaniline	ND	4.8	1.7	ug/l	
99-09-2	3-Nitroaniline <sup>a</sup>	ND UJ	4.8	0.84	ug/l	
100-01-6	4-Nitroaniline	ND	4.8	1.1	ug/l	
98-95-3	Nitrobenzene	ND	4.8	0.89	ug/l	
99-55-8	5-Nitro-o-toluidine <sup>a</sup>	ND	4.8	1.2	ug/l	
55-18-5	N-Nitrosodiethylamine	ND	4.8	0.82	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	4.8	0.48	ug/l	
924-16-3	N-Nitrosodi-n-butylamine	ND	4.8	1.0	ug/l	
621-64-7	N-Nitrosodi-n-propylamine	ND	4.8	0.64	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	0.77	ug/l	
10595-95-6	N-Nitrosomethylethylamine	ND	4.8	0.93	ug/l	
59-89-2	N-Nitrosomorpholine	ND	4.8	0.84	ug/l	
100-75-4	N-Nitrosopiperidine	ND	4.8	1.1	ug/l	
930-55-2	N-Nitrosopyrrolidine	ND	4.8	1.1	ug/l	
56-57-5	4-Nitroquinoline 1-Oxide	ND	19	4.8	ug/l	
126-68-1	O,O,O-Triethyl Phosphorothio	ND	4.8	0.95	ug/l	
608-93-5	Pentachlorobenzene	ND	4.8	3.0	ug/l	
76-01-7	Pentachloroethane	ND	4.8	3.3	ug/l	
82-68-8	Pentachloronitrobenzene	ND	4.8	1.5	ug/l	
62-44-2	Phenacetin	ND	4.8	1.2	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.82	ug/l	
106-50-3	p-Phenylenediamine	ND	48	9.5	ug/l	
109-06-8	2-Picoline	ND	4.8	0.95	ug/l	
23950-58-5	Pronamide	ND	4.8	1.3	ug/l	
129-00-0	Pyrene	ND	4.8	0.65	ug/l	
110-86-1	Pyridine	ND	9.5	1.9	ug/l	
94-59-7	Safrole	ND	4.8	1.6	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	4.8	0.48	ug/l	
297-97-2	Thionazin	ND	4.8	0.95	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-6		<b>Date Sampled:</b> 10/23/17
<b>Lab Sample ID:</b> FA48703-2		<b>Date Received:</b> 10/24/17
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8270D SW846 3510C		
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

### ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-53-4	o-Toluidine	ND	4.8	1.1	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	4.8	1.0	ug/l	
99-35-4	sym-Trinitrobenzene	ND	4.8	0.94	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	20%		14-67%
4165-62-2	Phenol-d5	12%		10-50%
118-79-6	2,4,6-Tribromophenol	83%		33-118%
4165-60-0	Nitrobenzene-d5	72%		42-108%
321-60-8	2-Fluorobiphenyl	77%		40-106%
1718-51-0	Terphenyl-d14	70%		39-121%

(a) Associated CCV outside of control limits high, sample was ND.

(b) Associated ICV outside control limits high. Associated CCV outside of control limits high, sample was ND.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.3  
4

## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-6	<b>Date Sampled:</b> 10/23/17
<b>Lab Sample ID:</b> FA48703-2F	<b>Date Received:</b> 10/24/17
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8082A SW846 3510C	
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MM46376.D	1	11/01/17 18:50	NJ	10/30/17 16:10	OP67413	GMM888
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1060 ml	5.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.094	0.038	ug/l	
11104-28-2	Aroclor 1221	ND	0.094	0.047	ug/l	
11141-16-5	Aroclor 1232	ND	0.094	0.047	ug/l	
53469-21-9	Aroclor 1242	ND	0.094	0.038	ug/l	
12672-29-6	Aroclor 1248	ND	0.094	0.038	ug/l	
11097-69-1	Aroclor 1254	ND	0.094	0.038	ug/l	
11096-82-5	Aroclor 1260	ND	0.094	0.038	ug/l	
1336-36-3	Total PCBs	ND	0.094	0.047	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	71%		38-127%
2051-24-3	Decachlorobiphenyl	42%		25-137%

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-6		<b>Date Sampled:</b> 10/23/17
<b>Lab Sample ID:</b> FA48703-2F		<b>Date Received:</b> 10/24/17
<b>Matrix:</b> AQ - Groundwater Filtered		<b>Percent Solids:</b> n/a
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

### Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	1.0 U	6.0	1.0	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Arsenic	1.3 U	10	1.3	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	11.3 J	200	1.0	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Beryllium	0.20 U	4.0	0.20	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	0.20 U	5.0	0.20	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	1.0 U	10	1.0	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Cobalt	0.20 U	50	0.20	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	1.7 J	25	1.0	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	1.1 U	5.0	1.1	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	0.030 U	0.50	0.030	ug/l	1	11/02/17	11/02/17 DM	SW846 7470A <sup>1</sup>	SW846 7470A <sup>3</sup>
Nickel	0.40 U	40	0.40	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	2.9 U	10	2.9	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	0.70 U	10	0.70	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Thallium	1.4 U	10	1.4	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Tin	1.0 U	50	1.0	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Vanadium	0.60 U	50	0.60	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	19.2 J	20	4.4	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>

- (1) Instrument QC Batch: MA14474
- (2) Instrument QC Batch: MA14477
- (3) Prep QC Batch: MP32942
- (4) Prep QC Batch: MP32946

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 J = Indicates a result > = MDL but < RL

4.4  
4

## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-8R		<b>Date Sampled:</b> 10/23/17
<b>Lab Sample ID:</b> FA48703-3		<b>Date Received:</b> 10/24/17
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8270D SW846 3510C		
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D2958.D	1	11/01/17 20:39	MV	10/27/17 08:45	OP67384	S4D111
Run #2							

Run #1	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
59-50-7	4-Chloro-3-methyl Phenol	ND	5.0	0.59	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.63	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	0.84	ug/l	
87-65-0	2,6-Dichlorophenol	ND	5.0	0.83	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	0.74	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	5.0	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.0	ug/l	
95-48-7	2-Methylphenol	ND	5.0	0.56	ug/l	
	3&4-Methylphenol	ND	5.0	0.98	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.85	ug/l	
100-02-7	4-Nitrophenol	ND	25	5.0	ug/l	
87-86-5	Pentachlorophenol	ND	25	5.0	ug/l	
108-95-2	Phenol	ND	5.0	0.50	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol <sup>a</sup>	ND	5.0	0.97	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	0.74	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.75	ug/l	
83-32-9	Acenaphthene	ND	5.0	0.63	ug/l	
208-96-8	Acenaphthylene	ND	5.0	0.64	ug/l	
98-86-2	Acetophenone	ND	5.0	0.81	ug/l	
53-96-3	2-Acetylaminofluorene	ND	5.0	0.75	ug/l	
92-67-1	4-Aminobiphenyl	ND	5.0	0.80	ug/l	
62-53-3	Aniline <sup>b</sup>	ND UJ	5.0	1.0	ug/l	
120-12-7	Anthracene	ND	5.0	0.80	ug/l	
140-57-8	Aramite	ND	10	2.0	ug/l	
92-87-5	Benzidine <sup>c</sup>	ND UJ	25	5.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	0.76	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	0.78	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	0.78	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND UJ	5.0	0.82	ug/l	
207-08-9	Benzo(k)fluoranthene	ND UJ	5.0	0.86	ug/l	
100-51-6	Benzyl Alcohol <sup>b</sup>	ND UJ	5.0	0.61	ug/l	
101-55-3	4-Bromophenyl Phenyl Ether	ND	5.0	0.85	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-8R	<b>Date Sampled:</b>	10/23/17
<b>Lab Sample ID:</b>	FA48703-3	<b>Date Received:</b>	10/24/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8270D SW846 3510C		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
85-68-7	Butyl Benzyl Phthalate	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.63	ug/l	
510-15-6	Chlorobenzilate	ND	5.0	1.1	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.81	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.73	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.76	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.50	ug/l	
7005-72-3	4-Chlorophenyl Phenyl Ether	ND	5.0	0.54	ug/l	
218-01-9	Chrysene	ND	5.0	0.85	ug/l	
2303-16-4	Diallate	ND	5.0	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	0.80	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.60	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	0.50	ug/l	
91-94-1	3,3'-Dichlorobenzidine <sup>a</sup>	ND	5.0	0.64	ug/l	
84-66-2	Diethyl Phthalate	ND	5.0	1.0	ug/l	
60-11-7	p-(Dimethylamine)azobenzene	ND	5.0	1.0	ug/l	
57-97-6	7,12-Dimethylbenz(a)anthrac <sup>d</sup>	ND	5.0	1.0	ug/l	
119-93-7	3,3'-Dimethylbenzidine <sup>d</sup>	ND	10	2.8	ug/l	
122-09-8	A,A-Dimethylphenethylamine	ND	25	5.0	ug/l	
131-11-3	Dimethyl Phthalate	ND	5.0	1.0	ug/l	
84-74-2	Di-n-butyl Phthalate	ND	5.0	1.0	ug/l	
117-84-0	Di-n-octyl Phthalate	ND UJ	5.0	1.0	ug/l	
99-65-0	m-Dinitrobenzene <sup>a</sup>	ND	5.0	0.91	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	0.81	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	0.71	ug/l	
122-39-4	Diphenylamine	ND	5.0	0.81	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.76	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	1.0	ug/l	
62-50-0	Ethyl Methanesulfonate	ND	5.0	1.1	ug/l	
206-44-0	Fluoranthene	ND	5.0	0.55	ug/l	
86-73-7	Fluorene	ND	5.0	0.70	ug/l	
118-74-1	Hexachlorobenzene <sup>a</sup>	ND	5.0	0.69	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.50	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.0	1.8	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
70-30-4	Hexachlorophene	ND	100	50	ug/l	
1888-71-7	Hexachloropropene <sup>d</sup>	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND UJ	5.0	0.71	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-8R	<b>Date Sampled:</b>	10/23/17
<b>Lab Sample ID:</b>	FA48703-3	<b>Date Received:</b>	10/24/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8270D SW846 3510C		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
465-73-6	Isodrin	ND	5.0	1.0	ug/l	
78-59-1	Isophorone	ND	5.0	0.78	ug/l	
120-58-1	Isosafrole	ND	5.0	2.4	ug/l	
91-80-5	Methapyrilene <sup>d</sup>	ND	20	4.0	ug/l	
56-49-5	3-Methylcholanthrene <sup>d</sup>	ND	5.0	1.0	ug/l	
66-27-3	Methyl Methanesulfonate	ND	5.0	0.77	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	0.60	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
130-15-4	1,4-Naphthoquinone <sup>d</sup>	ND	5.0	0.72	ug/l	
134-32-7	1-Naphthylamine <sup>b</sup>	ND UJ	5.0	1.2	ug/l	
91-59-8	2-Naphthylamine	ND	5.0	1.2	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	1.8	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.88	ug/l	
100-01-6	4-Nitroaniline <sup>a</sup>	ND	5.0	1.2	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.93	ug/l	
99-55-8	5-Nitro-o-toluidine	ND	5.0	1.3	ug/l	
55-18-5	N-Nitrosodiethylamine	ND	5.0	0.87	ug/l	
62-75-9	N-Nitrosodimethylamine <sup>a</sup>	ND	5.0	0.50	ug/l	
924-16-3	N-Nitrosodi-n-butylamine	ND	5.0	1.1	ug/l	
621-64-7	N-Nitrosodi-n-propylamine	ND	5.0	0.67	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.81	ug/l	
10595-95-6	N-Nitrosomethylethylamine	ND	5.0	0.98	ug/l	
59-89-2	N-Nitrosomorpholine	ND	5.0	0.88	ug/l	
100-75-4	N-Nitrosopiperidine	ND	5.0	1.2	ug/l	
930-55-2	N-Nitrosopyrrolidine	ND	5.0	1.1	ug/l	
56-57-5	4-Nitroquinoline 1-Oxide	ND	20	5.0	ug/l	
126-68-1	O,O,O-Triethyl Phosphorothio	ND	5.0	1.0	ug/l	
608-93-5	Pentachlorobenzene	ND	5.0	3.1	ug/l	
76-01-7	Pentachloroethane	ND	5.0	3.4	ug/l	
82-68-8	Pentachloronitrobenzene	ND	5.0	1.6	ug/l	
62-44-2	Phenacetin	ND	5.0	1.3	ug/l	
85-01-8	Phenanthrene	ND	5.0	0.86	ug/l	
106-50-3	p-Phenylenediamine	ND	50	10	ug/l	
109-06-8	2-Picoline	ND	5.0	1.0	ug/l	
23950-58-5	Pronamide	ND	5.0	1.3	ug/l	
129-00-0	Pyrene	ND	5.0	0.68	ug/l	
110-86-1	Pyridine	ND	10	2.0	ug/l	
94-59-7	Safrole	ND	5.0	1.6	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	5.0	0.50	ug/l	
297-97-2	Thionazin	ND	5.0	1.0	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-8R		<b>Date Sampled:</b> 10/23/17
<b>Lab Sample ID:</b> FA48703-3		<b>Date Received:</b> 10/24/17
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8270D SW846 3510C		
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

### ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-53-4	o-Toluidine	ND	5.0	1.2	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.1	ug/l	
99-35-4	sym-Trinitrobenzene	ND	5.0	0.99	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	17%		14-67%
4165-62-2	Phenol-d5	11%		10-50%
118-79-6	2,4,6-Tribromophenol	67%		33-118%
4165-60-0	Nitrobenzene-d5	62%		42-108%
321-60-8	2-Fluorobiphenyl	68%		40-106%
1718-51-0	Terphenyl-d14	56%		39-121%

- (a) Associated CCV outside of control limits high, sample was ND.
- (b) Associated BS recovery outside control limits.
- (c) Associated ICV outside control limits. Associated CCV outside of control limits high, sample was ND.
- (d) Associated ICV outside control limits.

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.5  
4

## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-8R		<b>Date Sampled:</b>	10/23/17
<b>Lab Sample ID:</b>	FA48703-3F		<b>Date Received:</b>	10/24/17
<b>Matrix:</b>	AQ - Groundwater Filtered		<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8082A SW846 3510C			
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MM46379.D	1	11/01/17 19:25	NJ	10/30/17 16:10	OP67413	GMM888
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1010 ml	5.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.099	0.040	ug/l	
11104-28-2	Aroclor 1221	ND	0.099	0.050	ug/l	
11141-16-5	Aroclor 1232	ND	0.099	0.050	ug/l	
53469-21-9	Aroclor 1242	ND	0.099	0.040	ug/l	
12672-29-6	Aroclor 1248	ND	0.099	0.040	ug/l	
11097-69-1	Aroclor 1254	ND	0.099	0.040	ug/l	
11096-82-5	Aroclor 1260	ND	0.099	0.040	ug/l	
1336-36-3	Total PCBs	ND	0.099	0.050	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	82%		38-127%
2051-24-3	Decachlorobiphenyl	65%		25-137%

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-8R		<b>Date Sampled:</b> 10/23/17
<b>Lab Sample ID:</b> FA48703-3F		<b>Date Received:</b> 10/24/17
<b>Matrix:</b> AQ - Groundwater Filtered		<b>Percent Solids:</b> n/a
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

### Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	1.0 U	6.0	1.0	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Arsenic	1.3 U	10	1.3	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	124 J	200	1.0	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Beryllium	0.20 U	4.0	0.20	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	0.20 U	5.0	0.20	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	1.0 U	10	1.0	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Cobalt	0.20 U	50	0.20	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	1.0 U	25	1.0	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	1.1 U	5.0	1.1	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	0.030 U	0.50	0.030	ug/l	1	11/02/17	11/02/17 DM	SW846 7470A <sup>1</sup>	SW846 7470A <sup>3</sup>
Nickel	12.3 J	40	0.40	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	2.9 U	10	2.9	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	0.70 U	10	0.70	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Thallium	1.4 U	10	1.4	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Tin	1.0 U	50	1.0	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Vanadium	0.60 U	50	0.60	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	4.4 U	20	4.4	ug/l	1	11/02/17	11/02/17 LM	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>

- (1) Instrument QC Batch: MA14474
- (2) Instrument QC Batch: MA14477
- (3) Prep QC Batch: MP32942
- (4) Prep QC Batch: MP32946

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 J = Indicates a result > = MDL but < RL

4.6  
4

## Report of Analysis

<b>Client Sample ID:</b>	TRIP BLANK-OPCA-1-102317	<b>Date Sampled:</b>	10/23/17
<b>Lab Sample ID:</b>	FA48703-4	<b>Date Received:</b>	10/24/17
<b>Matrix:</b>	AQ - Trip Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	P53332.D	1	10/27/17 18:32	AJ	n/a	n/a	VP2026
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	25	14	ug/l	
107-02-8	Acrolein <sup>b</sup>	ND	20	6.1	ug/l	
107-13-1	Acrylonitrile <sup>b</sup>	ND	10	2.1	ug/l	
107-05-1	Allyl Chloride	ND	2.0	0.26	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether <sup>b</sup>	ND	5.0	2.1	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
126-99-8	Chloroprene	ND	5.0	0.50	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
123-91-1	1,4-Dioxane	ND	200	75	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
97-63-2	Ethyl Methacrylate	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	TRIP BLANK-OPCA-1-102317	<b>Date Sampled:</b>	10/23/17
<b>Lab Sample ID:</b>	FA48703-4	<b>Date Received:</b>	10/24/17
<b>Matrix:</b>	AQ - Trip Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-83-1	Isobutyl Alcohol	ND	50	11	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl Iodide	ND	1.0	0.27	ug/l	
80-62-6	Methyl Methacrylate	ND	5.0	0.71	ug/l	
74-95-3	Methylene Bromide	ND	2.0	0.37	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	UJ	1.0	0.22	ug/l
108-88-3	Toluene	2.3	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.63	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	101%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

- (a) Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.  
(b) Result reported from HCl preserved sample and should be used for screening purposes only.

ND = Not detected      MDL = Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

CHAIN OF CUSTODY

4405 Vineland Rd, Suite C-15, Orlando, FL 32811  
 TEL: 407-425-6700 FAX: 407-425-0707  
 www.sgs.com

FED-EX Tracking #	Order Control #
SGS Account Quote #	SGS Account Job <b>FA48727X</b>

<b>Client / Reporting Information</b>		<b>Project Information</b>	
Company Name: SGS Accutest		Project Name: GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA	
Street Address: 4405 Vineland Rd, Suite C-15		Street	
City State Zip: Orlando FL 32811		City State	
Project Contact (Email): heather.wandrey@sgs.com		Project #	
Phone #: 407-425-6700		Client Purchase Order #	
Sampler(s) Name(s): GRMD		Project Manager	
Project #		Street Address	
Fax #		City State Zip	
Attention:		Attention:	

Requested Analysis (see TEST CODE sheet)										Matrix Codes									
<p style="text-align: center; font-size: 24px;"><b>Loc: 480 126617</b></p>										DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank									
										LAB USE ONLY									
SGS Account Sample #	Field ID / Point of Collection	MEOHDI Val #	Date	Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2O2	NONE	DI Water	MEOH	ENCORE	S8012PAC			
1FX	H78-B-1S		10/24/17	10:40:00 AM	GRMD	AQ													
1X	H78-B-1S		10/24/17	10:40:00 AM	GRMD	AQ											X		
2FX	OPCA-MW-2R		10/24/17	9:40:00 AM	GRMD	AQ													
2X	OPCA-MW-2R		10/24/17	9:40:00 AM	GRMD	AQ												X	
3FX	OPCA-MW-4		10/24/17	10:52:00 AM	GRMD	AQ													
3X	OPCA-MW-4		10/24/17	10:52:00 AM	GRMD	AQ													X
4FX	OPCA-MW-3R		10/24/17	12:39:00 PM	GRMD	AQ													
4X	OPCA-MW-3R		10/24/17	12:39:00 PM	GRMD	AQ													X
5FX	OPCA-MW-7		10/24/17	9:55:00 AM	GRMD	AQ													
5X	OPCA-MW-7		10/24/17	9:55:00 AM	GRMD	AQ													X

11/03/2017

Turnaround Time (Business days)		Data Deliverable Information										Comments / Special Instructions			
<input type="checkbox"/> 10 Day (business) <input type="checkbox"/> 5-7 Day <input type="checkbox"/> 3 Day RUSH <input type="checkbox"/> 2 Day RUSH <input type="checkbox"/> 1 Day RUSH <input checked="" type="checkbox"/> other Due 11/8/2017 Rush T/A data available via Lablink		Approved By (SGS Accutest PM): / Date:		<input type="checkbox"/> Commercial "A" (Level 1, Results Only) <input type="checkbox"/> Commercial "B" (Level 2, Results + QC summary) <input type="checkbox"/> REDT1 (Level 3) <input type="checkbox"/> FULT1 (Level 4) <input type="checkbox"/> DOD FULT1 (Level 4) X I-U <input type="checkbox"/> Other <input type="checkbox"/> EDD Format										Test America -Amhurst, NY	

Sample Custody must be documented below each time samples change possession, including courier delivery.					
Relinquished to Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	10-25-17 14:30	1	2		2
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by:	Date Time:	Received By:	Custody Seal #	<input type="checkbox"/> Intact Preserved where applicable	On Ice Cooler Temp.
5		5		<input type="checkbox"/> Not intact	

210 #1



CHAIN OF CUSTODY

4405 Vineland Rd, Suite C-15, Orlando, FL 32811  
 TEL: 407-425-6700 FAX: 407-425-0707  
 www.sgs.com

FED-EX Tracking #	Bottle Order Control #
SGS Accutest Quote #	SGS Accutest Job # <b>FA48703X</b>

Client / Reporting Information		Project Information										Requested Analysis (see TEST CODE sheet)										Matrix Codes
Company Name: <b>SGS Accutest</b>		Project Name: <b>GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA</b>																				DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipes FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank
Street Address: <b>4405 Vineland Rd, Suite C-15</b>		Street: <b>4405 Vineland Rd, Suite C-15</b>																				
City State Zip: <b>Orlando FL 32811</b>		City State: <b>Orlando FL 32811</b>																				
Project Contact E-mail: <b>jean.dent-erlth@sgs.com</b>		Project #: <b></b>																				
Phone #: <b>407-425-6700</b>		Client Purchase Order #: <b></b>																				
Sampler(s) Name(s): <b>RDMG</b>		Project Manager: <b></b>																				
Billing Information (if different from Report to): Company Name: <b></b>		Street Address: <b></b>										City State Zip: <b></b>										Attention: <b></b>
SGS Accutest Sample #	Field ID / Point of Collection	METHOD/ Vol #	Collection			Matrix	# of bottles	Number of preserved bottles								S8012PAC	LAB USE ONLY					
			Date	Time	Sampled by			HCl	NaOH	HNO3	H2SO4	NONE	D1 Water	MEOH	ENCORE							
1FX	OPCA-MW-1RR		10/23/17	12:20:00 PM	RDMG	AQ																
1X	OPCA-MW-1RR		10/23/17	12:20:00 PM	RDMG	AQ												X				
2FX	OPCA-MW-6		10/23/17	2:40:00 PM	RDMG	AQ												X				
2X	OPCA-MW-6		10/23/17	2:40:00 PM	RDMG	AQ												X				
3FX	OPCA-MW-8R		10/23/17	2:50:00 PM	RDMG	AQ												X				
3X	OPCA-MW-8R		10/23/17	2:50:00 PM	RDMG	AQ												X				

Turnaround Time (Business days):		Data Deliverable Information										Comments / Special Instructions									
<input type="checkbox"/> 10 Day (business) <input type="checkbox"/> 5-7 Day <input type="checkbox"/> 3 Day RUSH <input type="checkbox"/> 2 Day RUSH <input type="checkbox"/> 1 Day RUSH <input checked="" type="checkbox"/> other Due 11/7/2017 Rush T/A data available VIA Lablink		Approved By (SGS Accutest PM): / Date: _____										Test America-Amhurst, NY <input type="checkbox"/> Commercial "A" (Level 1, Results Only) <input type="checkbox"/> Commercial "B" (Level 2, Results + QC summary) <input type="checkbox"/> REDT1 (Level 3) <input type="checkbox"/> FULT1 (Level 4) <input type="checkbox"/> DOD FULT1 (Level 4)      X      F-U <input type="checkbox"/> Other _____ <input type="checkbox"/> EDD Format _____									

Sample Custody must be documented below each time samples change possession, including courier delivery.

1 Relinquished by Sampler: <i>[Signature]</i>	Date Tm: 10-25-17/10:23	Received By: <i>[Signature]</i>	Relinquished By: 2	Date Time:	Received By: 2		
3 Relinquished by Sampler:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4		
5 Relinquished by:	Date Time:	Received By: 5	Custody Seal #	<input type="checkbox"/> Intact <input type="checkbox"/> Not intact	Preserved where applicable <input type="checkbox"/>	On Ice <input type="checkbox"/>	Cooler Temp. <input type="checkbox"/>

7.0 #1

11/03/2017

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# Client Sample Results

Client: SGS Accutest Inc  
Project/Site: GE Pittsfield-GMA

TestAmerica Job ID: 480-126617-1

**Client Sample ID: H78-B-1S**  
Date Collected: 10/24/17 10:40  
Date Received: 10/26/17 10:00

**Lab Sample ID: 480-126617-1**  
Matrix: Water

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Physiologically Available Cyanide	ND	UJ	0.010	0.010	mg/L		11/02/17 11:10	11/02/17 16:28	1

**Client Sample ID: OPCA-MW-2R**  
Date Collected: 10/24/17 09:40  
Date Received: 10/26/17 10:00

**Lab Sample ID: 480-126617-2**  
Matrix: Water

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Physiologically Available Cyanide	ND	UJ	0.010	0.010	mg/L		11/02/17 11:10	11/02/17 16:28	1

**Client Sample ID: OPCA-MW-4**  
Date Collected: 10/24/17 10:52  
Date Received: 10/26/17 10:00

**Lab Sample ID: 480-126617-3**  
Matrix: Water

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Physiologically Available Cyanide	ND	UJ	0.010	0.010	mg/L		11/02/17 11:10	11/02/17 16:28	1

**Client Sample ID: OPCA-MW-3R**  
Date Collected: 10/24/17 12:39  
Date Received: 10/26/17 10:00

**Lab Sample ID: 480-126617-4**  
Matrix: Water

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Physiologically Available Cyanide	ND	UJ	0.010	0.010	mg/L		11/02/17 11:10	11/02/17 16:28	1

**Client Sample ID: OPCA-MW-7**  
Date Collected: 10/24/17 09:55  
Date Received: 10/26/17 10:00

**Lab Sample ID: 480-126617-5**  
Matrix: Water

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Physiologically Available Cyanide	ND	UJ	0.010	0.010	mg/L		11/02/17 11:10	11/02/17 16:28	1

**Client Sample ID: OPCA-MW-1RR**  
Date Collected: 10/23/17 12:20  
Date Received: 10/26/17 10:00

**Lab Sample ID: 480-126617-6**  
Matrix: Water

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Physiologically Available Cyanide	ND	UJ	0.010	0.010	mg/L		11/02/17 11:10	11/02/17 16:28	1

**Client Sample ID: OPCA-MW-6**  
Date Collected: 10/23/17 14:40  
Date Received: 10/26/17 10:00

**Lab Sample ID: 480-126617-7**  
Matrix: Water

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Physiologically Available Cyanide	ND	UJ	0.010	0.010	mg/L		11/02/17 11:10	11/02/17 16:28	1

TestAmerica Buffalo

# Client Sample Results

Client: SGS Accutest Inc  
Project/Site: GE Pittsfield-GMA

TestAmerica Job ID: 480-126617-1

**Client Sample ID: OPCA-MW-8R**

**Lab Sample ID: 480-126617-8**

**Date Collected: 10/23/17 14:50**

**Matrix: Water**

**Date Received: 10/26/17 10:00**

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Physiologically Available Cyanide	ND	UJ	0.010	0.010	mg/L		11/02/17 11:10	11/02/17 16:28	1

5

TestAmerica Buffalo

11/03/2017



ACCUTEST

CHAIN OF CUSTODY 9715

4992/1867687/9284261-3  
③ HLC 2013 10-27-17

4405 Vineland Rd, Suite C-15, Orlando, FL 32811  
TEL: 407-425-6700 FAX: 407-425-0707  
www.sgs.com

FED-EX Tracking #	Bottle Order Control #
SGS Accutest Quote #	SGS Accutest Job FA48703X

Client / Reporting Information		Project Information										Requested Analysis ( see TEST CODE sheet)										Matrix Codes				
Company Name: <b>SGS Accutest</b>		Project Name: <b>GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA</b>																				DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank				
Street Address <b>4405 Vineland Rd, Suite C-15</b>		Street																								
City State Zip <b>Orlando FL 32811</b>		Billing Information ( if different from Report to) Company Name																								
Project Contact E-mail <b>jean.dent-smith@sgs.com</b>		Project #																								
Phone # <b>407-425-6700</b>		Client Purchase Order #																								
Sampler(s) Name(s) <b>RDMG</b>		Project Manager																								
Phone		Attention:																								
SGS Accutest Sample #		MEOH/DI Vial #		Collection			Number of preserved Bottles					SGS034-Sulfide										LAB USE ONLY				
Field ID / Point of Collection		Date		Time		Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3											H2SO4	NONE	DI Water	MEOH	ENCORE
1FX OPCA-MW-1RR		10/23/17		12:20:00 PM		RDMG	AQ																			
1X OPCA-MW-1RR		10/23/17		12:20:00 PM		RDMG	AQ																			
2FX OPCA-MW-6		10/23/17		2:40:00 PM		RDMG	AQ																			
2X OPCA-MW-6		10/23/17		2:40:00 PM		RDMG	AQ																			
3FX OPCA-MW-8R		10/23/17		2:50:00 PM		RDMG	AQ																			
3X OPCA-MW-8R		10/23/17		2:50:00 PM		RDMG	AQ																			

Turnaround Time ( Business days)		Data Deliverable Information										Comments / Special Instructions									
<input type="checkbox"/> 10 Day (business) <input type="checkbox"/> 5-7 Day <input type="checkbox"/> 3 Day RUSH <input type="checkbox"/> 2 Day RUSH <input type="checkbox"/> 1 Day RUSH <input checked="" type="checkbox"/> other Due 11/7/2017 <small>Rush T/A data available VIA Lablink</small>		Approved By (SGS Accutest PM): / Date: _____ <input type="checkbox"/> Commercial "A" ( Level 1, Results Only) <input type="checkbox"/> Commercial "B" ( Level 2, Results + QC summary) <input type="checkbox"/> REDT1 ( Level 3) <input type="checkbox"/> FULT1 ( Level 4) <input type="checkbox"/> DOD FULT1 (Level 4) X F-U <input type="checkbox"/> Other _____ <input type="checkbox"/> EDD Format _____										Eurofins-Lancaster									

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: <i>[Signature]</i>	Date Time: <i>10-23-17 10:30</i>	Received By: <i>[Signature]</i>	Relinquished By: <i>[Signature]</i>	Date Time: <i>10-20-17</i>	Received By: <i>[Signature]</i>
Relinquished by Sampler: <i>[Signature]</i>	Date Time:	Received By: <i>[Signature]</i>	Relinquished By: <i>[Signature]</i>	Date Time:	Received By: <i>[Signature]</i>
Relinquished by: <i>[Signature]</i>	Date Time:	Received By: <i>[Signature]</i>	Custody Seal #	<input checked="" type="checkbox"/> Intact <input type="checkbox"/> Not intact	Preserved where applicable <input type="checkbox"/>
			On Ice <input checked="" type="checkbox"/> Cooler Temp <i>0.8 08:35</i>		



**Sample Description:** OPCA-MW-1RR Grab Sample  
GE Pittsfield-GMA

**Accutest Laboratories**  
**ELLE Sample #:** WW 9284261  
**ELLE Group #:** 1867685  
**Matrix:** Sample

**Project Name:** GE Pittsfield

**Submittal Date/Time:** 10/26/2017 09:35  
**Collection Date/Time:** 10/23/2017 12:20  
**SDG#:** SGA30-01



CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
01333	Sulfide	SW-846 9034 modified 18496-25-8	mg/l N.D.	mg/l 0.70	mg/l 2.0	1

### Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01333	Sulfide	SW-846 9034 modified	1	17300133302A	10/27/2017 12:20	Satchel S MacClintic	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** OPCA-MW-6 Grab Sample  
GE Pittsfield-GMA

**Accutest Laboratories**  
ELLE Sample #: WW 9284262  
ELLE Group #: 1867685  
Matrix: Sample

**Project Name:** GE Pittsfield

Submittal Date/Time: 10/26/2017 09:35  
Collection Date/Time: 10/23/2017 14:40  
SDG#: SGA30-02



CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
01333	Sulfide	SW-846 9034 modified 18496-25-8	mg/l N.D.	mg/l 0.70	mg/l 2.0	1

### Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01333	Sulfide	SW-846 9034 modified	1	17300133302A	10/27/2017 12:20	Satchel S MacClintic	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** OPCA-MW-8R Grab Sample  
GE Pittsfield-GMA

**Accutest Laboratories**  
**ELLE Sample #:** WW 9284263  
**ELLE Group #:** 1867685  
**Matrix:** Sample

**Project Name:** GE Pittsfield

**Submittal Date/Time:** 10/26/2017 09:35  
**Collection Date/Time:** 10/23/2017 14:50  
**SDG#:** SGA30-03



CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
01333	Sulfide	SW-846 9034 modified 18496-25-8	mg/l N.D.	mg/l 0.70	mg/l 2.0	1

### Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01333	Sulfide	SW-846 9034 modified	1	17300133302A	10/27/2017 12:20	Satchel S MacClintic	1

\*=This limit was used in the evaluation of the final result



# Sample Receipt Notification

5500 Business Drive  
 Wilmington, NC 28405 USA  
 Tel: 910 794-1613  
 Toll Free: 866 846-8290  
 Fax: 910 794-3919

**Project Manager:** *Tamara Morgan*  
**Receipt Date & Time:** *26-Oct-17 at 10:04*  
**AP Project name:** *B1469*  
**Requested TAT:** *14 days*  
**Projected due date:** *9-Nov-17*  
**Matrix:** *Aqueous*  
**Phone#:** *910-794-1613*  
**Email Address:** [Tamara.Morgan@sgs.com](mailto:Tamara.Morgan@sgs.com)

**Company Contact:** *Jean Dent-Smith*  
**Company:** *SGS Accutest*  
**Project Name & Site:** *FA48703X*  
**Project PO#:** *FA48703X*  
**QAAP/Contract #:** *N/A*  
**Requested Analysis:** *Method 8290A*  
**Phone#:** *408-588-0200*  
**Email Address:** [jean.dent-smith@sgs.com](mailto:jean.dent-smith@sgs.com)

Client Smp ID	AP Smp ID	Sample Condition & Notes	Quantity	Size	Sampling Date	Sampling Time	Received Temp	Container #	Shipping #	
OPCA-MW-1RR	B1469_001	AQ	2	1-Liter Amber	23-Oct-17	12:20	0.4	2	7272 0000 7418	
OPCA-MW-6	B1469_002	AQ	2	1-Liter Amber	23-Oct-17	14:40	1.4, 0.4	1, 2	7272 0000 7407,7272 0000 7418,	
OPCA-MW-8R	B1469_003	AQ	2	1-Liter Amber	23-Oct-17	14:50	1.4, 0.4	1, 2	7272 0000 7407,7272 0000 7418,	
<b>Preservation Type:</b>			<b>Sample Seals:</b>			No		Any un-extracted sample will be stored for 90 days from reporting date. Additional storage fees may apply for any samples stored longer than 90 days.		
<b>Notes/Comments:</b>										
Samples received intact.										
Remaining samples listed on COC subbed back to Accutest-FL.										

Received by: *Ashley Owens*      Logged in by: *Ashley Owens*      QC'ed by: AK 27 Oct 17

All services are rendered in accordance with the applicable SGS General Conditions of Service accessible via: [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)





# Sample ID: OPCA-MW-1RR

# Method 8290A

Client Data		Sample Data		Laboratory Data			
Name:	SGS Accutest	Matrix:	Aqueous	Lab Project ID:	B1469	Date Received:	26-Oct-2017
Project ID:	FA48703X	Weight/Volume:	1.06 L	Lab Sample ID:	B1469_15253_DF_001	Date Extracted:	30-Oct-2017
Date Collected:	23-Oct-2017	pH:	6	QC Batch No:	15253	Date Analyzed:	03-Nov-2017
		Split:	-	Dilution:	-	Time Analyzed:	6:46:38
Analyte	Conc. (pg/L)	DL (pg/L)	EMPC (pg/L)	Qualifiers	Standard	ES Recoveries	Qualifiers
2378-TCDD	ND	0.984			ES 2378-TCDD	90.7	
12378-PeCDD	ND	1.1			ES 12378-PeCDD	81.2	
123478-HxCDD	ND	2.28			ES 123478-HxCDD	85.4	
123678-HxCDD	ND	2.27			ES 123678-HxCDD	83.1	
123789-HxCDD	ND	2.36			ES 123789-HxCDD	88.6	
1234678-HpCDD	ND	1.91			ES 1234678-HpCDD	85.9	
OCDD	ND	14.1			ES OCDD	76.8	
2378-TCDF	ND	0.875			ES 2378-TCDF	96.6	
12378-PeCDF	ND	0.747			ES 12378-PeCDF	82.5	
23478-PeCDF	ND	0.73			ES 23478-PeCDF	82.7	
123478-HxCDF	ND	1.37			ES 123478-HxCDF	89.4	
123678-HxCDF	ND	1.33			ES 123678-HxCDF	90	
234678-HxCDF	ND	1.45			ES 234678-HxCDF	91.2	
123789-HxCDF	ND	1.81			ES 123789-HxCDF	89.2	
1234678-HpCDF	ND	1.02			ES 1234678-HpCDF	84.4	
1234789-HpCDF	ND	1.6			ES 1234789-HpCDF	83.6	
OCDF	ND	6.91			ES OCDF	74.1	
Totals					Standard	CS Recoveries	
Total TCDD	ND	0.984	ND		CS 37CI-2378-TCDD	87.9	
Total PeCDD	ND	1.1	ND		CS 12347-PeCDD	78	
Total HxCDD	ND	2.3	ND		CS 12346-PeCDF	85.4	
Total HpCDD	ND	1.91	ND		CS 123469-HxCDF	93.5	
					CS 1234689-HpCDF	87	
Total TCDF	ND	0.875	ND				
Total PeCDF	ND	0.738	ND				
Total HxCDF	ND	1.47	ND				
Total HpCDF	ND	1.28	ND				
<b>Total PCDD/Fs</b>	<b>ND</b>		<b>ND</b>				
ITF TEQs							
TEQ: ND=0	0		0				
TEQ: ND=DL/2	1.69	1.69	1.69				
TEQ: ND=DL	3.38	3.38	3.38				



5500 Business Drive  
 Wilmington, NC 28405, USA  
 www.us.sgs.com  
 Tel: +1 910 794-1613; Toll-Free 866 846-8290

# Sample ID: OPCA-MW-1RR

# Method 8290A

Client Data		Sample Data			Laboratory Data			Date Received:	
Name:	SGS Accutest	Matrix:	Aqueous	Lab Project ID:	B1469	Date Received:	26-Oct-2017		
Project ID:	FA48703X	Weight/Volume:	1.06 L	Lab Sample ID:	B1469_15253_DF_001	Date Extracted:	30-Oct-2017		
Date Collected:	23-Oct-2017	pH:	6	QC Batch No.:	15253	Date Analyzed:	03-Nov-2017		
		Split:	-	Dilution:	-	Time Analyzed:	6:46:38		

Tetra-Dioxins	Conc. (pg/L)	Qualifiers	Penta-Dioxins	Conc. (pg/L)	Qualifiers	Hexa-Dioxins	Conc (pg/L)	Qualifiers	Hepta-Dioxins	Conc (pg/L)	Qualifiers
1368D	(0.984)		12479/12468D	(1.1)		124679/124689D	(2.3)		1234679D	(1.91)	
1379D	(0.984)		12469D	(1.1)		123468D	(2.3)		1234678D	(1.91)	
1369D	(0.984)		12368D	(1.1)		123679/123689D	(2.3)				
1469D	(0.984)		12478D	(1.1)		123469D	(2.3)				
1247D...[4]	(0.984)		12379D	(1.1)		123478D	(2.28)				
1378D	(0.984)		12369D...[3]	(1.1)		123678D	(2.27)				
1268D	(0.984)		12346/12347D	(1.1)		123467D	(2.3)				
1478D	(0.984)		12378D	(1.1)		123789D	(2.36)		<b>Conc.</b>	0	
1279D	(0.984)		12367D	(1.1)					<b>EMPC</b>	0	
1234/1269D	(0.984)		12389D	(1.1)							
1236D	(0.984)								<b>Octa-Dioxin</b>	<b>Conc</b>	<b>Qualifiers</b>
1237/1238D	(0.984)									<b>(pg/L)</b>	
1239D	(0.984)								OCDD	(14.1)	
2378D	(0.984)										
1278D	(0.984)										
1267D	(0.984)										
1289D	(0.984)										
<b>Conc.</b>	0		<b>Conc.</b>	0		<b>Conc.</b>	0				
<b>EMPC</b>	0		<b>EMPC</b>	0		<b>EMPC</b>	0				



5500 Business Drive  
 Wilmington, NC 28405, USA  
 Tel: +1 910 794-1613  
 www.us.sgs.com

ITEF TEQs	Conc.	EMPC
TEQ: ND=0	0	0
TEQ: ND=DL/2	1.69	1.69
TEQ: ND=DL	3.38	3.38
Total PCDD/Fs	Conc.	EMPC
	0	0

Checkcode: 915-089-JFP

Report Created: 06-Nov-2017 14:26 Analyst: TF

**Sample ID: OPCA-MW-1RR**

**Method 8290A**

Client Data			Sample Data			Laboratory Data					
Name:		SGS Accutest	Matrix:		Aqueous	Lab Project ID:		B1469	Date Received:		26-Oct-2017
Project ID:		FA48703X	Weight/Volume:		1.06 L	Lab Sample ID:		B1469_15253_DF_001	Date Extracted:		30-Oct-2017
Date Collected:		23-Oct-2017	pH:		6	QC Batch No.:		15253	Date Analyzed:		03-Nov-2017
			Split:		-	Dilution:		-	Time Analyzed:		6:46:38
Tetra-Furans	Conc.	Qualifiers	Penta-Furans	Conc.	Qualifiers	Hexa-Furans	Conc	Qualifiers	Hepta-Furans	Conc	Qualifiers
	(pg/L)			(pg/L)			(pg/L)			(pg/L)	
1368F	(0.875)		13468/12468F	(0.463)		123468F	(1.47)		1234678F	(1.02)	
1468F	(0.875)		13678F...[3]	(0.738)		124678/134678F	(1.47)		1234679F	(1.28)	
2468F	(0.875)		12368F...[3]	(0.738)		134679F	(1.47)		1234689F	(1.28)	
1346/1246F	(0.875)		14678F	(0.738)		124679F	(1.47)		1234789F	(1.6)	
1347F...[3]	(0.875)		13479F	(0.738)		124689F	(1.47)				
1348F	(0.875)		13469/12479F	(0.738)		123467F	(1.47)				
1248F...[3]	(0.875)		12346F	(0.738)		123478F	(1.37)				
1268F	(0.875)		23468/12469F	(0.738)		123678F	(1.33)				
1467F	(0.875)		12347F	(0.738)		123479F	(1.47)				
1478F	(0.875)		12348F	(0.738)		123469F	(1.47)				
1369/1237F	(0.875)		12378F	(0.747)		123679F	(1.47)				
2467F	(0.875)		12678/12367F	(0.738)		234678F	(1.45)		<b>Conc.</b>	0	
2368F	(0.875)		12379F	(0.738)		234678/123689F	0		<b>EMPC</b>	0	
1238F...[5]	(0.875)		12679F	(0.738)		123689F	(1.47)				
1278F	(0.875)		23467/12369F	(0.738)		123789F	(1.81)		<b>Octa-Furan</b>	<b>Conc</b>	<b>Qualifiers</b>
1349F	(0.875)		23478F	(0.73)		123789/123489F	0			(pg/L)	
1267F	(0.875)		23478/12489F	0		123489F	(1.47)		<b>OCDF</b>	(6.91)	
2346/1249F	(0.875)		12489F	(0.738)							
2347/1279F	(0.875)		12349F	(0.738)							
2348F	(0.875)		12389F	(0.738)							
2378F	(0.875)										
2367/3467F	(0.875)										
1269F	(0.875)										
1239F	(0.875)										
1289F	(0.875)										
<b>Conc.</b>	0		<b>Conc.</b>	0		<b>Conc.</b>	0				
<b>EMPC</b>	0		<b>EMPC</b>	0		<b>EMPC</b>	0				


Checkcode: 915-089-JFP

Report Created: 06-Nov-2017 14:26 Analyst: TF

**Sample ID: OPCA-MW-1RR** **TEQ Summary** **Method 8290A**

Client Project Name:	SGS Accutest	Matrix:	Aqueous	Lab Sample ID:	B1469_15253_DF_001
Client Project ID:	FA48703X	Weight/Volume:	1.06 L	QC Batch No.:	15253
Date Collected:	23-Oct-2017	Split:	-	Date Extracted:	30-Oct-2017
Date Received:	26-Oct-2017	Dilution:	-	Date Analyzed:	03-Nov-2017 06:46
Lab Project No:	B1469	Units	pg/L		

Analyte	Result	Qualifiers	DLs	I-TEQ	WHO-1998	WHO-2005
2378-TCDD	(0.984)		0.984	(0.984)	(0.984)	(0.984)
12378-PeCDD	(1.1)		1.1	(0.552)	(1.1)	(1.1)
123478-HxCDD	(2.28)		2.28	(0.228)	(0.228)	(0.228)
123678-HxCDD	(2.27)		2.27	(0.227)	(0.227)	(0.227)
123789-HxCDD	(2.36)		2.36	(0.236)	(0.236)	(0.236)
1234678-HpCDD	(1.91)		1.91	(0.0191)	(0.0191)	(0.0191)
OCDD	(14.1)		14.1	(0.0141)	(0.00141)	(0.00424)
2378-TCDF	(0.875)		0.875	(0.0875)	(0.0875)	(0.0875)
12378-PeCDF	(0.747)		0.747	(0.0373)	(0.0373)	(0.0224)
23478-PeCDF	(0.73)		0.73	(0.365)	(0.365)	(0.219)
123478-HxCDF	(1.37)		1.37	(0.137)	(0.137)	(0.137)
123678-HxCDF	(1.33)		1.33	(0.133)	(0.133)	(0.133)
234678-HxCDF	(1.45)		1.45	(0.145)	(0.145)	(0.145)
123789-HxCDF	(1.81)		1.81	(0.181)	(0.181)	(0.181)
1234678-HpCDF	(1.02)		1.02	(0.0102)	(0.0102)	(0.0102)
1234789-HpCDF	(1.6)		1.6	(0.016)	(0.016)	(0.016)
OCDF	(6.91)		6.91	(0.00691)	(0.000691)	(0.00207)

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	EMPC = 0, ND = 0	0	0	0
	EMPC = 0, ND = DL / 2	1.69	1.96	1.88
	EMPC = 0, ND = DL	3.38	3.91	3.76
	EMPC = 0, < J-level = 0	0	0	0
	EMPC = EMPC, ND = 0	0	0	0
	EMPC = EMPC, ND = DL / 2	1.69	1.96	1.88
	EMPC = EMPC, ND = DL	3.38	3.91	3.76
EMPC = EMPC, < J-level = 0	0	0	0	

Checkcode: 915-089-JFP

SGS North America - DF v0.30

# Sample ID: OPCA-MW-6

# Method 8290A

Client Data		Sample Data		Laboratory Data			
Name:	SGS Accutest	Matrix:	Aqueous	Lab Project ID:	B1469	Date Received:	26-Oct-2017
Project ID:	FA48703X	Weight/Volume:	1.02 L	Lab Sample ID:	B1469_15253_DF_002	Date Extracted:	30-Oct-2017
Date Collected:	23-Oct-2017	pH:	6	QC Batch No:	15253	Date Analyzed:	03-Nov-2017
		Split:	-	Dilution:	-	Time Analyzed:	7:34:05
Analyte	Conc. (pg/L)	DL (pg/L)	EMPC (pg/L)	Qualifiers	Standard	ES Recoveries	Qualifiers
2378-TCDD	ND	1.21			ES 2378-TCDD	88.9	
12378-PeCDD	ND	1.47			ES 12378-PeCDD	78.1	
123478-HxCDD	ND	2.71			ES 123478-HxCDD	88.3	
123678-HxCDD	ND	2.79			ES 123678-HxCDD	84.4	
123789-HxCDD	ND	2.88			ES 123789-HxCDD	90.4	
1234678-HpCDD	ND	1.28			ES 1234678-HpCDD	90.9	
OCDD	ND	14.8			ES OCDD	71.9	
2378-TCDF	ND	1.45			ES 2378-TCDF	86.8	
12378-PeCDF	ND	0.891			ES 12378-PeCDF	75.4	
23478-PeCDF	ND	0.883			ES 23478-PeCDF	72	
123478-HxCDF	ND	1.42			ES 123478-HxCDF	93.4	
123678-HxCDF	ND	1.44			ES 123678-HxCDF	94.9	
234678-HxCDF	ND	1.62			ES 234678-HxCDF	94.7	
123789-HxCDF	ND	2.16			ES 123789-HxCDF	88.9	
1234678-HpCDF	ND	1.01			ES 1234678-HpCDF	88.4	
1234789-HpCDF	ND	1.62			ES 1234789-HpCDF	84.7	
OCDF	ND	7.19			ES OCDF	72.1	
Totals					Standard	CS Recoveries	
Total TCDD	ND	1.21	ND		CS 37CI-2378-TCDD	84.8	
Total PeCDD	ND	1.47	ND		CS 12347-PeCDD	73.5	
Total HxCDD	ND	2.79	ND		CS 12346-PeCDF	73.6	
Total HpCDD	ND	1.28	ND		CS 123469-HxCDF	93.7	
Total TCDF	ND	1.45	ND		CS 1234689-HpCDF	90.9	
Total PeCDF	3.3		3.3	JNX			
Total HxCDF	ND	1.63	ND				
Total HpCDF	ND	1.28	ND				
<b>Total PCDD/Fs</b>	<b>3.3</b>		<b>3.3</b>				
ITEF TEQs							
TEQ: ND=0	0		0				
TEQ: ND=DL/2	2.07	2.07	2.07				
TEQ: ND=DL	4.14	4.14	4.14				



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# Sample ID: OPCA-MW-6

# Method 8290A

<b>Client Data</b>			<b>Sample Data</b>			<b>Laboratory Data</b>						
Name:	SGS Accutest		Matrix:	Aqueous		Lab Project ID:	B1469		Date Received:	26-Oct-2017		
Project ID:	FA48703X		Weight/Volume:	1.02 L		Lab Sample ID:	B1469_15253_DF_002		Date Extracted:	30-Oct-2017		
Date Collected:	23-Oct-2017		pH:	6		QC Batch No.:	15253		Date Analyzed:	03-Nov-2017		
			Split:	-		Dilution:	-		Time Analyzed:	7:34:05		

Tetra-Dioxins	Conc. (pg/L)	Qualifiers	Penta-Dioxins	Conc. (pg/L)	Qualifiers	Hexa-Dioxins	Conc (pg/L)	Qualifiers	Hepta-Dioxins	Conc (pg/L)	Qualifiers
1368D	(1.21)		12479/12468D	(1.47)		124679/124689D	(2.79)		1234679D	(1.28)	
1379D	(1.21)		12469D	(1.47)		123468D	(2.79)		1234678D	(1.28)	
1369D	(1.21)		12368D	(1.47)		123679/123689D	(2.79)				
1469D	(1.21)		12478D	(1.47)		123469D	(2.79)				
1247D...[4]	(1.21)		12379D	(1.47)		123478D	(2.71)				
1378D	(1.21)		12369D...[3]	(1.47)		123678D	(2.79)				
1268D	(1.21)		12346/12347D	(1.47)		123467D	(2.79)				
1478D	(1.21)		12378D	(1.47)		123789D	(2.88)		<b>Conc.</b>	0	
1279D	(1.21)		12367D	(1.47)					<b>EMPC</b>	0	
1234/1269D	(1.21)		12389D	(1.47)							
1236D	(1.21)								<b>Octa-Dioxin</b>	<b>Conc</b>	<b>Qualifiers</b>
1237/1238D	(1.21)									<b>(pg/L)</b>	
1239D	(1.21)								OCDD	(14.8)	
2378D	(1.21)										
1278D	(1.21)										
1267D	(1.21)										
1289D	(1.21)										
<b>Conc.</b>	0		<b>Conc.</b>	0		<b>Conc.</b>	0				
<b>EMPC</b>	0		<b>EMPC</b>	0		<b>EMPC</b>	0				



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ITEF TEQs	Conc.	EMPC
TEQ: ND=0	0	0
TEQ: ND=DL/2	2.07	2.07
TEQ: ND=DL	4.14	4.14
<b>Total PCDD/Fs</b>	<b>3.3</b>	<b>3.3</b>

Checkcode: 337-231-SZS

Report Created: 06-Nov-2017 14:26 Analyst: TF

# Sample ID: OPCA-MW-6

# Method 8290A

Client Data			Sample Data			Laboratory Data					
Name:	SGS Accutest		Matrix:	Aqueous		Lab Project ID:	B1469		Date Received:	26-Oct-2017	
Project ID:	FA48703X		Weight/Volume:	1.02 L		Lab Sample ID:	B1469_15253_DF_002		Date Extracted:	30-Oct-2017	
Date Collected:	23-Oct-2017		pH:	6		QC Batch No.:	15253		Date Analyzed:	03-Nov-2017	
			Split:	-		Dilution:	-		Time Analyzed:	7:34:05	
Tetra-Furans	Conc.	Qualifiers	Penta-Furans	Conc.	Qualifiers	Hexa-Furans	Conc	Qualifiers	Hepta-Furans	Conc	Qualifiers
	(pg/L)			(pg/L)			(pg/L)			(pg/L)	
1368F	(1.45)		13468/12468F	(0.711)		123468F	(1.63)		1234678F	(1.01)	
1468F	(1.45)		13678F...[3]	(0.887)		124678/134678F	(1.63)		1234679F	(1.28)	
2468F	(1.45)		12368F...[3]	(0.887)		134679F	(1.63)		1234689F	(1.28)	
1346/1246F	(1.45)		14678F	(0.887)		124679F	(1.63)		1234789F	(1.62)	
1347F...[3]	(1.45)		13479F	(0.887)		124689F	(1.63)				
1348F	(1.45)		13469/12479F	(0.887)		123467F	(1.63)				
1248F...[3]	(1.45)		12346F	(0.887)		123478F	(1.42)				
1268F	(1.45)		23468/12469F	(0.887)		123678F	(1.44)				
1467F	(1.45)		12347F	(0.887)		123479F	(1.63)				
1478F	(1.45)		12348F	(0.887)		123469F	(1.63)				
1369/1237F	(1.45)		12378F	(0.891)		123679F	(1.63)				
2467F	(1.45)		12678/12367F	(0.887)		234678F	(1.62)		<b>Conc.</b>	0	
2368F	(1.45)		12379F	(0.887)		234678/123689F	0		<b>EMPC</b>	0	
1238F...[5]	(1.45)		12679F	(0.887)		123689F	(1.63)				
1278F	(1.45)		23467/12369F	(0.887)		123789F	(2.16)		<b>Octa-Furan</b>	<b>Conc</b>	<b>Qualifiers</b>
1349F	(1.45)		23478F	(0.883)		123789/123489F	0			(pg/L)	
1267F	(1.45)		23478/12489F	0		123489F	(1.63)		OCDF	(7.19)	
2346/1249F	(1.45)		12489F	(0.887)							
2347/1279F	(1.45)		12349F	3.3	J						
2348F	(1.45)		12389F	(0.887)							
2378F	(1.45)										
2367/3467F	(1.45)										
1269F	(1.45)										
1239F	(1.45)										
1289F	(1.45)										
<b>Conc.</b>	0		<b>Conc.</b>	3.3		<b>Conc.</b>	0				
<b>EMPC</b>	0		<b>EMPC</b>	3.3		<b>EMPC</b>	0				

Checkcode: 337-231-SZS


Report Created: 06-Nov-2017 14:26 Analyst: TF



**Sample ID: OPCA-MW-6** **TEQ Summary** **Method 8290A**

Client Project Name:	SGS Accutest	Matrix:	Aqueous	Lab Sample ID:	B1469_15253_DF_002
Client Project ID:	FA48703X	Weight/Volume:	1.02 L	QC Batch No.:	15253
Date Collected:	23-Oct-2017	Split:	-	Date Extracted:	30-Oct-2017
Date Received:	26-Oct-2017	Dilution:	-	Date Analyzed:	03-Nov-2017 07:34
Lab Project No:	B1469	Units	pg/L		

Analyte	Result	Qualifiers	DLs	I-TEQ	WHO-1998	WHO-2005
2378-TCDD	(1.21)		1.21	(1.21)	(1.21)	(1.21)
12378-PeCDD	(1.47)		1.47	(0.736)	(1.47)	(1.47)
123478-HxCDD	(2.71)		2.71	(0.271)	(0.271)	(0.271)
123678-HxCDD	(2.79)		2.79	(0.279)	(0.279)	(0.279)
123789-HxCDD	(2.88)		2.88	(0.288)	(0.288)	(0.288)
1234678-HpCDD	(1.28)		1.28	(0.0128)	(0.0128)	(0.0128)
OCDD	(14.8)		14.8	(0.0148)	(0.00148)	(0.00444)
2378-TCDF	(1.45)		1.45	(0.145)	(0.145)	(0.145)
12378-PeCDF	(0.891)		0.891	(0.0445)	(0.0445)	(0.0267)
23478-PeCDF	(0.883)		0.883	(0.441)	(0.441)	(0.265)
123478-HxCDF	(1.42)		1.42	(0.142)	(0.142)	(0.142)
123678-HxCDF	(1.44)		1.44	(0.144)	(0.144)	(0.144)
234678-HxCDF	(1.62)		1.62	(0.162)	(0.162)	(0.162)
123789-HxCDF	(2.16)		2.16	(0.216)	(0.216)	(0.216)
1234678-HpCDF	(1.01)		1.01	(0.0101)	(0.0101)	(0.0101)
1234789-HpCDF	(1.62)		1.62	(0.0162)	(0.0162)	(0.0162)
OCDF	(7.19)		7.19	(0.00719)	(0.000719)	(0.00216)

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	EMPC = 0, ND = 0	0	0	0
	EMPC = 0, ND = DL / 2	2.07	2.43	2.33
	EMPC = 0, ND = DL	4.14	4.86	4.67
	EMPC = 0, < J-level = 0	0	0	0
	EMPC = EMPC, ND = 0	0	0	0
	EMPC = EMPC, ND = DL / 2	2.07	2.43	2.33
	EMPC = EMPC, ND = DL	4.14	4.86	4.67
	EMPC = EMPC, < J-level = 0	0	0	0

Checkcode: 337-231-SZS

SGS North America - DF v0.30

# Sample ID: OPCA-MW-8R

# Method 8290A

Client Data		Sample Data		Laboratory Data			
Name:	SGS Accutest	Matrix:	Aqueous	Lab Project ID:	B1469	Date Received:	26-Oct-2017
Project ID:	FA48703X	Weight/Volume:	1.01 L	Lab Sample ID:	B1469_15253_DF_003	Date Extracted:	30-Oct-2017
Date Collected:	23-Oct-2017	pH:	6	QC Batch No:	15253	Date Analyzed:	03-Nov-2017
		Split:	-	Dilution:	-	Time Analyzed:	8:21:30
Analyte	Conc. (pg/L)	DL (pg/L)	EMPC (pg/L)	Qualifiers	Standard	ES Recoveries	Qualifiers
2378-TCDD	ND	1.16			ES 2378-TCDD	89.8	
12378-PeCDD	ND	1.11			ES 12378-PeCDD	83.7	
123478-HxCDD	ND	2.34			ES 123478-HxCDD	86.7	
123678-HxCDD	ND	2.36			ES 123678-HxCDD	87.3	
123789-HxCDD	ND	2.51			ES 123789-HxCDD	90	
1234678-HpCDD	ND	1.48			ES 1234678-HpCDD	94.2	
OCDD	ND	15.2			ES OCDD	82.9	
2378-TCDF	ND	0.998			ES 2378-TCDF	88.8	
12378-PeCDF	ND	0.585			ES 12378-PeCDF	80.7	
23478-PeCDF	ND	0.64			ES 23478-PeCDF	77.9	
123478-HxCDF	ND	1.24			ES 123478-HxCDF	96.9	
123678-HxCDF	ND	1.24			ES 123678-HxCDF	98.6	
234678-HxCDF	ND	1.34			ES 234678-HxCDF	96.8	
123789-HxCDF	ND	1.82			ES 123789-HxCDF	93.5	
1234678-HpCDF	ND	0.947			ES 1234678-HpCDF	94.2	
1234789-HpCDF	ND	1.56			ES 1234789-HpCDF	87.1	
OCDF	ND	6.25			ES OCDF	80.8	
Totals					Standard	CS Recoveries	
Total TCDD	ND	1.16	ND		CS 37CI-2378-TCDD	92	
Total PeCDD	ND	1.11	ND		CS 12347-PeCDD	82.3	
Total HxCDD	ND	2.4	ND		CS 12346-PeCDF	84.4	
Total HpCDD	ND	1.48	ND		CS 123469-HxCDF	98.6	
					CS 1234689-HpCDF	97.4	
Total TCDF	ND	0.998	ND				
Total PeCDF	ND	0.612	ND				
Total HxCDF	ND	1.39	ND				
Total HpCDF	ND	1.21	ND				
<b>Total PCDD/Fs</b>	<b>ND</b>		<b>ND</b>				
ITEF TEQs							
TEQ: ND=0	0		0				
TEQ: ND=DL/2	1.76	1.76	1.76				
TEQ: ND=DL	3.51	3.51	3.51				



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# Sample ID: OPCA-MW-8R

# Method 8290A

Client Data		Sample Data			Laboratory Data			Date Received:	
Name:	SGS Accutest	Matrix:	Aqueous	Lab Project ID:	B1469	Date Received:	26-Oct-2017		
Project ID:	FA48703X	Weight/Volume:	1.01 L	Lab Sample ID:	B1469_15253_DF_003	Date Extracted:	30-Oct-2017		
Date Collected:	23-Oct-2017	pH:	6	QC Batch No.:	15253	Date Analyzed:	03-Nov-2017		
		Split:	-	Dilution:	-	Time Analyzed:	8:21:30		

Tetra-Dioxins	Conc. (pg/L)	Qualifiers	Penta-Dioxins	Conc. (pg/L)	Qualifiers	Hexa-Dioxins	Conc (pg/L)	Qualifiers	Hepta-Dioxins	Conc (pg/L)	Qualifiers
1368D	(1.16)		12479/12468D	(1.11)		124679/124689D	(2.4)		1234679D	(1.48)	
1379D	(1.16)		12469D	(1.11)		123468D	(2.4)		1234678D	(1.48)	
1369D	(1.16)		12368D	(1.11)		123679/123689D	(2.4)				
1469D	(1.16)		12478D	(1.11)		123469D	(2.4)				
1247D...[4]	(1.16)		12379D	(1.11)		123478D	(2.34)				
1378D	(1.16)		12369D...[3]	(1.11)		123678D	(2.36)				
1268D	(1.16)		12346/12347D	(1.11)		123467D	(2.4)				
1478D	(1.16)		12378D	(1.11)		123789D	(2.51)		<b>Conc.</b>	0	
1279D	(1.16)		12367D	(1.11)					<b>EMPC</b>	0	
1234/1269D	(1.16)		12389D	(1.11)							
1236D	(1.16)								<b>Octa-Dioxin</b>	<b>Conc</b>	<b>Qualifiers</b>
1237/1238D	(1.16)									<b>(pg/L)</b>	
1239D	(1.16)								OCDD	(15.2)	
2378D	(1.16)										
1278D	(1.16)										
1267D	(1.16)										
1289D	(1.16)										
<b>Conc.</b>	0		<b>Conc.</b>	0		<b>Conc.</b>	0				
<b>EMPC</b>	0		<b>EMPC</b>	0		<b>EMPC</b>	0				



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ITEF TEQs	Conc.	EMPC
TEQ: ND=0	0	0
TEQ: ND=DL/2	1.76	1.76
TEQ: ND=DL	3.51	3.51
Total PCDD/Fs	Conc.	EMPC
	0	0

Checkcode: 457-822-CDR

Report Created: 06-Nov-2017 14:26 Analyst: TF


# Sample ID: OPCA-MW-8R

# Method 8290A

Client Data			Sample Data			Laboratory Data					
Name:	SGS Accutest		Matrix:	Aqueous		Lab Project ID:	B1469		Date Received:	26-Oct-2017	
Project ID:	FA48703X		Weight/Volume:	1.01 L		Lab Sample ID:	B1469_15253_DF_003		Date Extracted:	30-Oct-2017	
Date Collected:	23-Oct-2017		pH:	6		QC Batch No.:	15253		Date Analyzed:	03-Nov-2017	
			Split:	-		Dilution:	-		Time Analyzed:	8:21:30	
Tetra-Furans	Conc. (pg/L)	Qualifiers	Penta-Furans	Conc. (pg/L)	Qualifiers	Hexa-Furans	Conc (pg/L)	Qualifiers	Hepta-Furans	Conc (pg/L)	Qualifiers
1368F	(0.998)		13468/12468F	(0.485)		123468F	(1.39)		1234678F	(0.947)	
1468F	(0.998)		13678F...[3]	(0.612)		124678/134678F	(1.39)		1234679F	(1.21)	
2468F	(0.998)		12368F...[3]	(0.612)		134679F	(1.39)		1234689F	(1.21)	
1346/1246F	(0.998)		14678F	(0.612)		124679F	(1.39)		1234789F	(1.56)	
1347F...[3]	(0.998)		13479F	(0.612)		124689F	(1.39)				
1348F	(0.998)		13469/12479F	(0.612)		123467F	(1.39)				
1248F...[3]	(0.998)		12346F	(0.612)		123478F	(1.24)				
1268F	(0.998)		23468/12469F	(0.612)		123678F	(1.24)				
1467F	(0.998)		12347F	(0.612)		123479F	(1.39)				
1478F	(0.998)		12348F	(0.612)		123469F	(1.39)				
1369/1237F	(0.998)		12378F	(0.585)		123679F	(1.39)				
2467F	(0.998)		12678/12367F	(0.612)		234678F	(1.34)		<b>Conc.</b>	0	
2368F	(0.998)		12379F	(0.612)		234678/123689F	0		<b>EMPC</b>	0	
1238F...[5]	(0.998)		12679F	(0.612)		123689F	(1.39)				
1278F	(0.998)		23467/12369F	(0.612)		123789F	(1.82)		<b>Octa-Furan</b>	<b>Conc</b>	<b>Qualifiers</b>
1349F	(0.998)		23478F	(0.64)		123789/123489F	0			<b>(pg/L)</b>	
1267F	(0.998)		23478/12489F	0		123489F	(1.39)		<b>OCDF</b>	(6.25)	
2346/1249F	(0.998)		12489F	(0.612)							
2347/1279F	(0.998)		12349F	(0.612)							
2348F	(0.998)		12389F	(0.612)							
2378F	(0.998)										
2367/3467F	(0.998)										
1269F	(0.998)										
1239F	(0.998)										
1289F	(0.998)										
<b>Conc.</b>	0		<b>Conc.</b>	0		<b>Conc.</b>	0				
<b>EMPC</b>	0		<b>EMPC</b>	0		<b>EMPC</b>	0				

Checkcode: 457-822-CDR

Report Created: 06-Nov-2017 14:26 Analyst: TF

Sample ID: OPCA-MW-8R			TEQ Summary		Method 8290A	
Client Project Name: SGS Accutest			Matrix: Aqueous		Lab Sample ID: B1469_15253_DF_003	
Client Project ID: FA48703X			Weight/Volume: 1.01 L		QC Batch No.: 15253	
Date Collected: 23-Oct-2017			Split: -		Date Extracted: 30-Oct-2017	
Date Received: 26-Oct-2017			Dilution: -		Date Analyzed: 03-Nov-2017 08:21	
Lab Project No: B1469			Units: pg/L			
Analyte	Result	Qualifiers	DLs	I-TEQ	WHO-1998	WHO-2005
2378-TCDD	(1.16)		1.16	(1.16)	(1.16)	(1.16)
12378-PeCDD	(1.11)		1.11	(0.557)	(1.11)	(1.11)
123478-HxCDD	(2.34)		2.34	(0.234)	(0.234)	(0.234)
123678-HxCDD	(2.36)		2.36	(0.236)	(0.236)	(0.236)
123789-HxCDD	(2.51)		2.51	(0.251)	(0.251)	(0.251)
1234678-HpCDD	(1.48)		1.48	(0.0148)	(0.0148)	(0.0148)
OCDD	(15.2)		15.2	(0.0152)	(0.00152)	(0.00456)
2378-TCDF	(0.998)		0.998	(0.0998)	(0.0998)	(0.0998)
12378-PeCDF	(0.585)		0.585	(0.0292)	(0.0292)	(0.0175)
23478-PeCDF	(0.64)		0.64	(0.32)	(0.32)	(0.192)
123478-HxCDF	(1.24)		1.24	(0.124)	(0.124)	(0.124)
123678-HxCDF	(1.24)		1.24	(0.124)	(0.124)	(0.124)
234678-HxCDF	(1.34)		1.34	(0.134)	(0.134)	(0.134)
123789-HxCDF	(1.82)		1.82	(0.182)	(0.182)	(0.182)
1234678-HpCDF	(0.947)		0.947	(0.00947)	(0.00947)	(0.00947)
1234789-HpCDF	(1.56)		1.56	(0.0156)	(0.0156)	(0.0156)
OCDF	(6.25)		6.25	(0.00625)	(0.000625)	(0.00187)
5500 Business Drive Wilmington, NC 28405, USA Tel: +1 910 794-1613; Toll-Free 866 846-8290 www.us.sgs.com 		<b>TEQ Summaries</b>				
		EMPC = 0, ND = 0		0	0	0
		EMPC = 0, ND = DL / 2		1.76	2.03	1.96
		EMPC = 0, ND = DL		3.51	4.05	3.92
		EMPC = 0, < J-level = 0		0	0	0
		EMPC = EMPC, ND = 0		0	0	0
		EMPC = EMPC, ND = DL / 2		1.76	2.03	1.96
		EMPC = EMPC, ND = DL		3.51	4.05	3.92
EMPC = EMPC, < J-level = 0		0	0	0		

Checkcode: 457-822-CDR

SGS North America - DF v0.30



**SGS Accutest Southeast**  
**ACCUTEST Chain of Custody**

4405 SGS ACCUTEST JOB #:

PAGE 1 OF 1

Vineland Road, Suite C-15 Orlando, FL 32811  
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*FA4827*

# of Coolers 3

Client / Reporting Information			Project Information		SGS Accutest Quote #										SKIFF #					Matrix Codes								
Company Name: Arcadis			Project Name: <b>OE Pittsfield - OPCA</b>																	DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid								
Address: One Lincoln Center 110 W Fayette St, Suite 300			Street: 159 Plastics Ave																									
City: Syracuse State: NY Zip: 13202			City: Pittsfield State: NY																									
Project Contact: Andrew Gibson Email: andrew.gibson@arcadis.com			Project #																									
Chris Kassel Email: chris.kassel@arcadis.com			ALL 10113.3000 - <b>3045</b>																									
Phone #: 518-588-1077 (Gibson) 315-256-5386 (Kassel)			Fax #																									
Sampler(s) Name(s) (Printed)			Client Purchase Order #																									
Sampler 1: Andrew Gibson Sampler 2: Penny Rabasco																												
Sampler 3: Marcia MacKenzie Sampler 4: Josh Duquette																												
SGS Accutest Sample #	Field ID / Point of Collection	DATE	TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	OTHER	ONE	HCI	SOCK	HOCS	HSO4	NONVASC	DI WATER	MECH	VOCs STAND (EPA method 8260) (See attached Notes to Lab)*	PCBs (Dissolved) (EPA method 8082)	SVOCs SVMP (See attached Notes to Lab)* (EPA method 8266)	Sulfide* (EPA method 9034)	PAC Cyanide (See attached Notes to Lab)* (EPA method 9014)	SEMI (Dissolved)* (EPA method 8210)	Other SVOCs (EPA method 8210)	1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,2,4-trichlorobenzene, and naphthalene (EPA method 8260)	Lead (Dissolved)* (EPA method 6010(6020))	NATURAL ATEN* (EPA method 8270D)	LAB USE ONLY		
1	<i>H78-B-1S</i>	<i>10/24/17</i>	<i>1040</i>	<i>JD</i>	<i>GW</i>	<i>7</i>	<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>															
2	<i>OPCA-MW-2R</i>	<i>10/24/17</i>	<i>0940</i>	<i>PR</i>	<i>GW</i>	<i>10</i>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>															
3	<i>OPCA-MW-4</i>	<i>10/24/17</i>	<i>1052</i>	<i>AG</i>	<i>GW</i>	<i>10</i>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>															
4	<i>OPCA-MW-3R</i>	<i>10/24/17</i>	<i>1259</i>	<i>AG</i>	<i>GW</i>	<i>13</i>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>															
5	<i>OPCA-MW-7</i>	<i>10/24/17</i>	<i>0955</i>	<i>MM</i>	<i>GW</i>	<i>7</i>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>															
6	<i>Trip Blank - OPCA-1-102417</i>	<i>10/24/17</i>	<i>-</i>	<i>-</i>	<i>WW</i>	<i>2</i>			<input checked="" type="checkbox"/>																			

**Turnaround Time ( Business days)**

10 Day (Business) Approved By: / Date: \_\_\_\_\_

7 Day

5 Day

3 Day RUSH

2 Day RUSH

1 Day RUSH

Other \_\_\_\_\_

Rush T/A Data Available VIA Email or Lablink

**Data Deliverable Information**

COMMERCIAL "A" (RESULTS ONLY)

COMMERCIAL "B" (RESULTS PLUS QC)

REDT1 (EPA LEVEL 3)

FULLT1 (EPA LEVEL 4)

EDD'S

CORE EDDS, Refer to Contract for details.

**Comments / Remarks**

Please see attached "NOTES TO LAB"

**Lab to do all filtering**

Please note, 17 site-specific dissolved metals are listed in the contract.

Sample Custody/ must be documented below each time samples change possession, including courier delivery.					
Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
<i>1 Andrew Gibson / Arcadis</i>	<i>10/24/17</i>	<i>2 B. C. Kassel</i>	<i>3 B.C</i>	<i>10-24-17</i>	<i>FED</i>

Lab Use Only : Cooler Temperature (s) Celsius: *4.0 3.6 3.2* *931, 932, 941*

6.1  
6



SGS Accutest LabLink@182054 11:55 11-Nov-2017

## Report of Analysis

Page 1 of 4

<b>Client Sample ID:</b>	H78B-15	<b>Date Sampled:</b>	10/24/17
<b>Lab Sample ID:</b>	FA48727-1	<b>Date Received:</b>	10/25/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8270D SW846 3510C		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D2965.D	1	11/01/17 23:22	MV	10/27/17 08:45	OP67384	S4D111
Run #2							

Run #1	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
59-50-7	4-Chloro-3-methyl Phenol	ND	5.6	0.66	ug/l	
95-57-8	2-Chlorophenol	ND	5.6	0.70	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.6	0.93	ug/l	
87-65-0	2,6-Dichlorophenol <sup>a</sup>	ND	5.6	0.93	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.6	0.82	ug/l	
51-28-5	2,4-Dinitrophenol	ND	28	5.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	2.2	ug/l	
95-48-7	2-Methylphenol	ND	5.6	0.62	ug/l	
	3&4-Methylphenol	ND	5.6	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	5.6	0.95	ug/l	
100-02-7	4-Nitrophenol <sup>a</sup>	ND	28	5.6	ug/l	
87-86-5	Pentachlorophenol	ND	28	5.6	ug/l	
108-95-2	Phenol	ND	5.6	0.56	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol <sup>a</sup>	ND	5.6	1.1	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.6	0.82	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.6	0.83	ug/l	
83-32-9	Acenaphthene	ND	5.6	0.70	ug/l	
208-96-8	Acenaphthylene <sup>a</sup>	ND	5.6	0.71	ug/l	
98-86-2	Acetophenone	ND	5.6	0.90	ug/l	
53-96-3	2-Acetylaminofluorene	ND	5.6	0.83	ug/l	
92-67-1	4-Aminobiphenyl	ND	5.6	0.89	ug/l	
62-53-3	Aniline <sup>b</sup>	ND UJ	5.6	1.1	ug/l	
120-12-7	Anthracene	ND	5.6	0.89	ug/l	
140-57-8	Aramite	ND	11	2.2	ug/l	
92-87-5	Benzidine <sup>c</sup>	ND UJ	28	5.6	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.6	0.84	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.6	0.87	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.6	0.86	ug/l	
191-24-2	Benzo(g,h,i)perylene <sup>a</sup>	ND UJ	5.6	0.91	ug/l	
207-08-9	Benzo(k)fluoranthene	ND UJ	5.6	0.95	ug/l	
100-51-6	Benzyl Alcohol <sup>b</sup>	ND UJ	5.6	0.68	ug/l	
101-55-3	4-Bromophenyl Phenyl Ether	ND	5.6	0.94	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	H78B-15	<b>Date Sampled:</b>	10/24/17
<b>Lab Sample ID:</b>	FA48727-1	<b>Date Received:</b>	10/25/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8270D SW846 3510C		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
85-68-7	Butyl Benzyl Phthalate	ND	5.6	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	5.6	0.70	ug/l	
510-15-6	Chlorobenzilate	ND	5.6	1.2	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.6	0.90	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.6	0.81	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.6	0.84	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.6	0.56	ug/l	
7005-72-3	4-Chlorophenyl Phenyl Ether	ND	5.6	0.60	ug/l	
218-01-9	Chrysene	ND	5.6	0.94	ug/l	
2303-16-4	Diallate	ND	5.6	1.1	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.6	0.89	ug/l	
132-64-9	Dibenzofuran	ND	5.6	0.67	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.6	0.56	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.6	0.56	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.6	0.56	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.6	0.71	ug/l	
84-66-2	Diethyl Phthalate	ND	5.6	1.1	ug/l	
60-11-7	p-(Dimethylamine)azobenzene	ND	5.6	1.1	ug/l	
57-97-6	7,12-Dimethylbenz(a)anthrac <sup>c</sup>	ND	5.6	1.1	ug/l	
119-93-7	3,3'-Dimethylbenzidine <sup>c</sup>	ND	11	3.2	ug/l	
122-09-8	A,A-Dimethylphenethylamine	ND	28	5.6	ug/l	
131-11-3	Dimethyl Phthalate	ND	5.6	1.1	ug/l	
84-74-2	Di-n-butyl Phthalate	ND	5.6	1.1	ug/l	
117-84-0	Di-n-octyl Phthalate <sup>a</sup>	ND UJ	5.6	1.1	ug/l	
99-65-0	m-Dinitrobenzene <sup>a</sup>	ND	5.6	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.6	0.90	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.6	0.79	ug/l	
122-39-4	Diphenylamine	ND	5.6	0.90	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.6	0.84	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.6	1.1	ug/l	
62-50-0	Ethyl Methanesulfonate	ND	5.6	1.2	ug/l	
206-44-0	Fluoranthene	ND	5.6	0.61	ug/l	
86-73-7	Fluorene	ND	5.6	0.78	ug/l	
118-74-1	Hexachlorobenzene	ND	5.6	0.77	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.6	0.56	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.6	2.0	ug/l	
67-72-1	Hexachloroethane	ND	5.6	1.8	ug/l	
70-30-4	Hexachlorophene	ND	110	56	ug/l	
1888-71-7	Hexachloropropene <sup>c</sup>	ND	5.6	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene <sup>a</sup>	ND UJ	5.6	0.79	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	H78B-15	<b>Date Sampled:</b>	10/24/17
<b>Lab Sample ID:</b>	FA48727-1	<b>Date Received:</b>	10/25/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8270D SW846 3510C		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
465-73-6	Isodrin	ND	5.6	1.2	ug/l	
78-59-1	Isophorone	ND	5.6	0.86	ug/l	
120-58-1	Isosafrole	ND	5.6	2.6	ug/l	
91-80-5	Methapyrilene <sup>c</sup>	ND	22	4.4	ug/l	
56-49-5	3-Methylcholanthrene <sup>c</sup>	ND	5.6	1.1	ug/l	
66-27-3	Methyl Methanesulfonate	ND	5.6	0.85	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.6	0.67	ug/l	
91-20-3	Naphthalene	ND	5.6	0.56	ug/l	
130-15-4	1,4-Naphthoquinone <sup>c</sup>	ND	5.6	0.80	ug/l	
134-32-7	1-Naphthylamine <sup>b</sup>	ND UJ	5.6	1.3	ug/l	
91-59-8	2-Naphthylamine	ND	5.6	1.3	ug/l	
88-74-4	2-Nitroaniline <sup>a</sup>	ND	5.6	2.0	ug/l	
99-09-2	3-Nitroaniline	ND	5.6	0.98	ug/l	
100-01-6	4-Nitroaniline <sup>a</sup>	ND	5.6	1.3	ug/l	
98-95-3	Nitrobenzene	ND	5.6	1.0	ug/l	
99-55-8	5-Nitro-o-toluidine	ND	5.6	1.4	ug/l	
55-18-5	N-Nitrosodiethylamine	ND	5.6	0.96	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	5.6	0.56	ug/l	
924-16-3	N-Nitrosodi-n-butylamine	ND	5.6	1.2	ug/l	
621-64-7	N-Nitrosodi-n-propylamine	ND	5.6	0.74	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.6	0.90	ug/l	
10595-95-6	N-Nitrosomethylethylamine	ND	5.6	1.1	ug/l	
59-89-2	N-Nitrosomorpholine	ND	5.6	0.98	ug/l	
100-75-4	N-Nitrosopiperidine	ND	5.6	1.3	ug/l	
930-55-2	N-Nitrosopyrrolidine	ND	5.6	1.2	ug/l	
56-57-5	4-Nitroquinoline 1-Oxide	ND	22	5.6	ug/l	
126-68-1	O,O,O-Triethyl Phosphorothio	ND	5.6	1.1	ug/l	
608-93-5	Pentachlorobenzene	ND	5.6	3.5	ug/l	
76-01-7	Pentachloroethane	ND	5.6	3.8	ug/l	
82-68-8	Pentachloronitrobenzene	ND	5.6	1.7	ug/l	
62-44-2	Phenacetin	ND	5.6	1.4	ug/l	
85-01-8	Phenanthrene	ND	5.6	0.96	ug/l	
106-50-3	p-Phenylenediamine	ND	56	11	ug/l	
109-06-8	2-Picoline	ND	5.6	1.1	ug/l	
23950-58-5	Pronamide	ND	5.6	1.5	ug/l	
129-00-0	Pyrene	ND	5.6	0.76	ug/l	
110-86-1	Pyridine	ND	11	2.2	ug/l	
94-59-7	Safrole	ND	5.6	1.8	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	5.6	0.56	ug/l	
297-97-2	Thionazin	ND	5.6	1.1	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> H78B-15		<b>Date Sampled:</b> 10/24/17
<b>Lab Sample ID:</b> FA48727-1		<b>Date Received:</b> 10/25/17
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8270D SW846 3510C		
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

### ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-53-4	o-Toluidine	ND	5.6	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.6	1.2	ug/l	
99-35-4	sym-Trinitrobenzene	ND	5.6	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	23%		14-67%
4165-62-2	Phenol-d5	13%		10-50%
118-79-6	2,4,6-Tribromophenol	72%		33-118%
4165-60-0	Nitrobenzene-d5	69%		42-108%
321-60-8	2-Fluorobiphenyl	74%		40-106%
1718-51-0	Terphenyl-d14	67%		39-121%

- (a) Associated CCV outside of control limits high, sample was ND.
- (b) Associated BS recovery outside control limits.
- (c) Associated ICV outside control limits.

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.1  
4

## Report of Analysis

<b>Client Sample ID:</b>	H78B-15	<b>Date Sampled:</b>	10/24/17
<b>Lab Sample ID:</b>	FA48727-1F	<b>Date Received:</b>	10/25/17
<b>Matrix:</b>	AQ - Groundwater Filtered	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8082A SW846 3510C		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	MM46380.D	1	11/01/17 19:36	NJ	10/30/17 16:10	OP67413	GMM888
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	5.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.10	0.10	ug/l	
11104-28-2	Aroclor 1221	ND	0.10	0.10	ug/l	
11141-16-5	Aroclor 1232	ND	0.10	0.10	ug/l	
53469-21-9	Aroclor 1242	ND	0.10	0.10	ug/l	
12672-29-6	Aroclor 1248	ND	0.10	0.10	ug/l	
11097-69-1	Aroclor 1254	0.12	0.10	0.041	ug/l	
11096-82-5	Aroclor 1260	ND	0.10	0.041	ug/l	
1336-36-3	Total PCBs	0.12	0.10	0.051	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	74%		38-127%
2051-24-3	Decachlorobiphenyl	66%		25-137%

(a) All hits confirmed by dual column analysis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> H78B-15	<b>Date Sampled:</b> 10/24/17
<b>Lab Sample ID:</b> FA48727-1F	<b>Date Received:</b> 10/25/17
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA	

### Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	1.0 U	6.0	1.0	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Arsenic	1.3 U	10	1.3	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Barium	36.6 J	200	1.0	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Beryllium	0.20 U	4.0	0.20	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Cadmium	0.20 J	5.0	0.20	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Chromium	1.0 U	10	1.0	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Cobalt	0.20 U	50	0.20	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Copper	1.0 U	25	1.0	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Lead	1.1 U	5.0	1.1	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Mercury	0.030 U	0.50	0.030	ug/l	1	11/07/17	11/07/17 DM	SW846 7470A <sup>2</sup>	SW846 7470A <sup>4</sup>
Nickel	0.40 U	40	0.40	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Selenium	2.9 U	10	2.9	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Silver	0.70 U	10	0.70	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Thallium	1.4 U	10	1.4	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Tin	50 <del>7.1</del> U	50	1.0	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Vanadium	0.60 U	50	0.60	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Zinc	4.4 U	20	4.4	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>

- (1) Instrument QC Batch: MA14480
- (2) Instrument QC Batch: MA14482
- (3) Prep QC Batch: MP32959
- (4) Prep QC Batch: MP32963

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 J = Indicates a result > = MDL but < RL

4.2  
4

## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-2R		<b>Date Sampled:</b> 10/24/17
<b>Lab Sample ID:</b> FA48727-2		<b>Date Received:</b> 10/25/17
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8270D SW846 3510C		
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D2966.D	1	11/01/17 23:49	MV	10/27/17 08:45	OP67384	S4D111
Run #2							

Run #1	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
59-50-7	4-Chloro-3-methyl Phenol	ND	4.8	0.56	ug/l	
95-57-8	2-Chlorophenol	ND	4.8	0.60	ug/l	
120-83-2	2,4-Dichlorophenol	ND	4.8	0.80	ug/l	
87-65-0	2,6-Dichlorophenol <sup>a</sup>	ND	4.8	0.79	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.8	0.70	ug/l	
51-28-5	2,4-Dinitrophenol	ND	24	4.8	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	9.5	1.9	ug/l	
95-48-7	2-Methylphenol	ND	4.8	0.53	ug/l	
	3&4-Methylphenol	ND	4.8	0.93	ug/l	
88-75-5	2-Nitrophenol	ND	4.8	0.81	ug/l	
100-02-7	4-Nitrophenol <sup>a</sup>	ND	24	4.8	ug/l	
87-86-5	Pentachlorophenol	ND	24	4.8	ug/l	
108-95-2	Phenol	ND	4.8	0.48	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol <sup>a</sup>	ND	4.8	0.92	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.8	0.70	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.8	0.72	ug/l	
83-32-9	Acenaphthene	ND	4.8	0.60	ug/l	
208-96-8	Acenaphthylene <sup>a</sup>	ND	4.8	0.61	ug/l	
98-86-2	Acetophenone	ND	4.8	0.77	ug/l	
53-96-3	2-Acetylaminofluorene	ND	4.8	0.71	ug/l	
92-67-1	4-Aminobiphenyl	ND	4.8	0.76	ug/l	
62-53-3	Aniline <sup>b</sup>	ND UJ	4.8	0.95	ug/l	
120-12-7	Anthracene	ND	4.8	0.76	ug/l	
140-57-8	Aramite	ND	9.5	1.9	ug/l	
92-87-5	Benzidine <sup>c</sup>	ND UJ	24	4.8	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.72	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.75	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.74	ug/l	
191-24-2	Benzo(g,h,i)perylene <sup>a</sup>	ND UJ	4.8	0.78	ug/l	
207-08-9	Benzo(k)fluoranthene	ND UJ	4.8	0.82	ug/l	
100-51-6	Benzyl Alcohol <sup>b</sup>	ND UJ	4.8	0.58	ug/l	
101-55-3	4-Bromophenyl Phenyl Ether	ND	4.8	0.81	ug/l	

ND = Not detected MDL = Method Detection Limit

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E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-2R	<b>Date Sampled:</b>	10/24/17
<b>Lab Sample ID:</b>	FA48727-2	<b>Date Received:</b>	10/25/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8270D SW846 3510C		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
85-68-7	Butyl Benzyl Phthalate	ND	4.8	0.95	ug/l	
106-47-8	4-Chloroaniline	ND	4.8	0.60	ug/l	
510-15-6	Chlorobenzilate	ND	4.8	1.1	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	4.8	0.77	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	4.8	0.70	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	4.8	0.72	ug/l	
91-58-7	2-Chloronaphthalene	ND	4.8	0.48	ug/l	
7005-72-3	4-Chlorophenyl Phenyl Ether	ND	4.8	0.51	ug/l	
218-01-9	Chrysene	ND	4.8	0.81	ug/l	
2303-16-4	Diallate	ND	4.8	0.95	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.77	ug/l	
132-64-9	Dibenzofuran	ND	4.8	0.57	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	4.8	0.48	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	4.8	0.48	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	4.8	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	4.8	0.61	ug/l	
84-66-2	Diethyl Phthalate	ND	4.8	0.95	ug/l	
60-11-7	p-(Dimethylamine)azobenzene	ND	4.8	0.95	ug/l	
57-97-6	7,12-Dimethylbenz(a)anthrac <sup>c</sup>	ND	4.8	0.95	ug/l	
119-93-7	3,3'-Dimethylbenzidine <sup>c</sup>	ND	9.5	2.7	ug/l	
122-09-8	A,A-Dimethylphenethylamine	ND	24	4.8	ug/l	
131-11-3	Dimethyl Phthalate	ND	4.8	0.95	ug/l	
84-74-2	Di-n-butyl Phthalate	ND	4.8	0.95	ug/l	
117-84-0	Di-n-octyl Phthalate <sup>a</sup>	ND UJ	4.8	0.95	ug/l	
99-65-0	m-Dinitrobenzene <sup>a</sup>	ND	4.8	0.86	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	4.8	0.77	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	4.8	0.68	ug/l	
122-39-4	Diphenylamine	ND	4.8	0.77	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	4.8	0.72	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	4.8	0.95	ug/l	
62-50-0	Ethyl Methanesulfonate	ND	4.8	1.1	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.53	ug/l	
86-73-7	Fluorene	ND	4.8	0.67	ug/l	
118-74-1	Hexachlorobenzene	ND	4.8	0.66	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.8	0.48	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	4.8	1.7	ug/l	
67-72-1	Hexachloroethane	ND	4.8	1.6	ug/l	
70-30-4	Hexachlorophene	ND	95	48	ug/l	
1888-71-7	Hexachloropropene <sup>c</sup>	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene <sup>a</sup>	ND UJ	4.8	0.68	ug/l	

ND = Not detected MDL = Method Detection Limit

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E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-2R	<b>Date Sampled:</b>	10/24/17
<b>Lab Sample ID:</b>	FA48727-2	<b>Date Received:</b>	10/25/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8270D SW846 3510C		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
465-73-6	Isodrin	ND	4.8	0.99	ug/l	
78-59-1	Isophorone	ND	4.8	0.74	ug/l	
120-58-1	Isosafrole	ND	4.8	2.2	ug/l	
91-80-5	Methapyrilene <sup>c</sup>	ND	19	3.8	ug/l	
56-49-5	3-Methylcholanthrene <sup>c</sup>	ND	4.8	0.96	ug/l	
66-27-3	Methyl Methanesulfonate	ND	4.8	0.73	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.57	ug/l	
91-20-3	Naphthalene	ND	4.8	0.48	ug/l	
130-15-4	1,4-Naphthoquinone <sup>c</sup>	ND	4.8	0.69	ug/l	
134-32-7	1-Naphthylamine <sup>b</sup>	ND UJ	4.8	1.1	ug/l	
91-59-8	2-Naphthylamine	ND	4.8	1.1	ug/l	
88-74-4	2-Nitroaniline <sup>a</sup>	ND	4.8	1.7	ug/l	
99-09-2	3-Nitroaniline	ND	4.8	0.84	ug/l	
100-01-6	4-Nitroaniline <sup>a</sup>	ND	4.8	1.1	ug/l	
98-95-3	Nitrobenzene	ND	4.8	0.89	ug/l	
99-55-8	5-Nitro-o-toluidine	ND	4.8	1.2	ug/l	
55-18-5	N-Nitrosodiethylamine	ND	4.8	0.82	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	4.8	0.48	ug/l	
924-16-3	N-Nitrosodi-n-butylamine	ND	4.8	1.0	ug/l	
621-64-7	N-Nitrosodi-n-propylamine	ND	4.8	0.64	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	0.77	ug/l	
10595-95-6	N-Nitrosomethylethylamine	ND	4.8	0.93	ug/l	
59-89-2	N-Nitrosomorpholine	ND	4.8	0.84	ug/l	
100-75-4	N-Nitrosopiperidine	ND	4.8	1.1	ug/l	
930-55-2	N-Nitrosopyrrolidine	ND	4.8	1.1	ug/l	
56-57-5	4-Nitroquinoline 1-Oxide	ND	19	4.8	ug/l	
126-68-1	O,O,O-Triethyl Phosphorothio	ND	4.8	0.95	ug/l	
608-93-5	Pentachlorobenzene	ND	4.8	3.0	ug/l	
76-01-7	Pentachloroethane	ND	4.8	3.3	ug/l	
82-68-8	Pentachloronitrobenzene	ND	4.8	1.5	ug/l	
62-44-2	Phenacetin	ND	4.8	1.2	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.82	ug/l	
106-50-3	p-Phenylenediamine	ND	48	9.5	ug/l	
109-06-8	2-Picoline	ND	4.8	0.95	ug/l	
23950-58-5	Pronamide	ND	4.8	1.3	ug/l	
129-00-0	Pyrene	ND	4.8	0.65	ug/l	
110-86-1	Pyridine	ND	9.5	1.9	ug/l	
94-59-7	Safrole	ND	4.8	1.6	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	4.8	0.48	ug/l	
297-97-2	Thionazin	ND	4.8	0.95	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-2R		<b>Date Sampled:</b> 10/24/17
<b>Lab Sample ID:</b> FA48727-2		<b>Date Received:</b> 10/25/17
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8270D SW846 3510C		
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

### ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-53-4	o-Toluidine	ND	4.8	1.1	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	4.8	1.0	ug/l	
99-35-4	sym-Trinitrobenzene	ND	4.8	0.94	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	24%		14-67%
4165-62-2	Phenol-d5	20%		10-50%
118-79-6	2,4,6-Tribromophenol	75%		33-118%
4165-60-0	Nitrobenzene-d5	72%		42-108%
321-60-8	2-Fluorobiphenyl	81%		40-106%
1718-51-0	Terphenyl-d14	79%		39-121%

- (a) Associated CCV outside of control limits high, sample was ND.
- (b) Associated BS recovery outside control limits.
- (c) Associated ICV outside control limits.

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.3  
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SGS Accutest LabLink@182054 11:55 11-Nov-2017

## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b>	OPCA-MW-2R		<b>Date Sampled:</b>	10/24/17
<b>Lab Sample ID:</b>	FA48727-2F		<b>Date Received:</b>	10/25/17
<b>Matrix:</b>	AQ - Groundwater Filtered		<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8082A SW846 3510C			
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MM46381.D	1	11/01/17 19:48	NJ	10/30/17 16:10	OP67413	GMM888
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1060 ml	5.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.094	0.038	ug/l	
11104-28-2	Aroclor 1221	ND	0.094	0.047	ug/l	
11141-16-5	Aroclor 1232	ND	0.094	0.047	ug/l	
53469-21-9	Aroclor 1242	ND	0.094	0.038	ug/l	
12672-29-6	Aroclor 1248	ND	0.094	0.038	ug/l	
11097-69-1	Aroclor 1254	ND	0.094	0.038	ug/l	
11096-82-5	Aroclor 1260	ND	0.094	0.038	ug/l	
1336-36-3	Total PCBs	ND	0.094	0.047	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	80%		38-127%
2051-24-3	Decachlorobiphenyl	74%		25-137%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-2R		<b>Date Sampled:</b> 10/24/17
<b>Lab Sample ID:</b> FA48727-2F		<b>Date Received:</b> 10/25/17
<b>Matrix:</b> AQ - Groundwater Filtered		<b>Percent Solids:</b> n/a
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

### Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	1.0 U	6.0	1.0	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Arsenic	1.3 U	10	1.3	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Barium	29.1 J	200	1.0	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Beryllium	0.20 U	4.0	0.20	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Cadmium	0.20 U	5.0	0.20	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Chromium	1.0 U	10	1.0	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Cobalt	0.20 U	50	0.20	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Copper	1.0 U	25	1.0	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Lead	1.1 U	5.0	1.1	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Mercury	0.030 U	0.50	0.030	ug/l	1	11/07/17	11/07/17 DM	SW846 7470A <sup>2</sup>	SW846 7470A <sup>4</sup>
Nickel	1.0 J	40	0.40	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Selenium	2.9 U	10	2.9	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Silver	0.70 U	10	0.70	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Thallium	1.4 U	10	1.4	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Tin	50 <del>6.8 J</del> U	50	1.0	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Vanadium	0.60 U	50	0.60	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Zinc	4.4 U	20	4.4	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>

- (1) Instrument QC Batch: MA14480
- (2) Instrument QC Batch: MA14482
- (3) Prep QC Batch: MP32959
- (4) Prep QC Batch: MP32963

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 J = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-4		<b>Date Sampled:</b> 10/24/17
<b>Lab Sample ID:</b> FA48727-3		<b>Date Received:</b> 10/25/17
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8270D SW846 3510C		
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D2967.D	1	11/02/17 00:16	MV	10/27/17 08:45	OP67384	S4D111
Run #2							

Run #1	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
59-50-7	4-Chloro-3-methyl Phenol	ND	4.8	0.57	ug/l	
95-57-8	2-Chlorophenol	ND	4.8	0.61	ug/l	
120-83-2	2,4-Dichlorophenol	ND	4.8	0.80	ug/l	
87-65-0	2,6-Dichlorophenol <sup>a</sup>	ND	4.8	0.80	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.8	0.71	ug/l	
51-28-5	2,4-Dinitrophenol	ND	24	4.8	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	9.6	1.9	ug/l	
95-48-7	2-Methylphenol	ND	4.8	0.54	ug/l	
	3&4-Methylphenol	ND	4.8	0.94	ug/l	
88-75-5	2-Nitrophenol	ND	4.8	0.82	ug/l	
100-02-7	4-Nitrophenol <sup>a</sup>	ND	24	4.8	ug/l	
87-86-5	Pentachlorophenol	ND	24	4.8	ug/l	
108-95-2	Phenol	ND	4.8	0.48	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol <sup>a</sup>	ND	4.8	0.93	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.8	0.71	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.8	0.72	ug/l	
83-32-9	Acenaphthene	ND	4.8	0.60	ug/l	
208-96-8	Acenaphthylene <sup>a</sup>	ND	4.8	0.61	ug/l	
98-86-2	Acetophenone	ND	4.8	0.78	ug/l	
53-96-3	2-Acetylaminofluorene	ND	4.8	0.72	ug/l	
92-67-1	4-Aminobiphenyl	ND	4.8	0.77	ug/l	
62-53-3	Aniline <sup>b</sup>	ND UJ	4.8	0.96	ug/l	
120-12-7	Anthracene	ND	4.8	0.77	ug/l	
140-57-8	Aramite	ND	9.6	1.9	ug/l	
92-87-5	Benzidine <sup>c</sup>	ND UJ	24	4.8	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.73	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.75	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.75	ug/l	
191-24-2	Benzo(g,h,i)perylene <sup>a</sup>	ND UJ	4.8	0.79	ug/l	
207-08-9	Benzo(k)fluoranthene	ND UJ	4.8	0.82	ug/l	
100-51-6	Benzyl Alcohol <sup>b</sup>	ND UJ	4.8	0.59	ug/l	
101-55-3	4-Bromophenyl Phenyl Ether	ND	4.8	0.81	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-4	<b>Date Sampled:</b>	10/24/17
<b>Lab Sample ID:</b>	FA48727-3	<b>Date Received:</b>	10/25/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8270D SW846 3510C		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
85-68-7	Butyl Benzyl Phthalate	ND	4.8	0.96	ug/l	
106-47-8	4-Chloroaniline	ND	4.8	0.61	ug/l	
510-15-6	Chlorobenzilate	ND	4.8	1.1	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	4.8	0.78	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	4.8	0.70	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	4.8	0.73	ug/l	
91-58-7	2-Chloronaphthalene	ND	4.8	0.48	ug/l	
7005-72-3	4-Chlorophenyl Phenyl Ether	ND	4.8	0.52	ug/l	
218-01-9	Chrysene	ND	4.8	0.82	ug/l	
2303-16-4	Diallate	ND	4.8	0.96	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.77	ug/l	
132-64-9	Dibenzofuran	ND	4.8	0.58	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	4.8	0.48	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	4.8	0.48	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	4.8	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	4.8	0.62	ug/l	
84-66-2	Diethyl Phthalate	ND	4.8	0.96	ug/l	
60-11-7	p-(Dimethylamine)azobenzene	ND	4.8	0.96	ug/l	
57-97-6	7,12-Dimethylbenz(a)anthrac <sup>c</sup>	ND	4.8	0.96	ug/l	
119-93-7	3,3'-Dimethylbenzidine <sup>c</sup>	ND	9.6	2.7	ug/l	
122-09-8	A,A-Dimethylphenethylamine	ND	24	4.8	ug/l	
131-11-3	Dimethyl Phthalate	ND	4.8	0.96	ug/l	
84-74-2	Di-n-butyl Phthalate	ND	4.8	0.96	ug/l	
117-84-0	Di-n-octyl Phthalate <sup>a</sup>	ND UJ	4.8	0.96	ug/l	
99-65-0	m-Dinitrobenzene <sup>a</sup>	ND	4.8	0.87	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	4.8	0.78	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	4.8	0.69	ug/l	
122-39-4	Diphenylamine	ND	4.8	0.78	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	4.8	0.73	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	4.8	0.96	ug/l	
62-50-0	Ethyl Methanesulfonate	ND	4.8	1.1	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.53	ug/l	
86-73-7	Fluorene	ND	4.8	0.67	ug/l	
118-74-1	Hexachlorobenzene	ND	4.8	0.67	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.8	0.48	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	4.8	1.7	ug/l	
67-72-1	Hexachloroethane	ND	4.8	1.6	ug/l	
70-30-4	Hexachlorophene	ND	96	48	ug/l	
1888-71-7	Hexachloropropene <sup>c</sup>	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene <sup>a</sup>	ND UJ	4.8	0.69	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-4	<b>Date Sampled:</b>	10/24/17
<b>Lab Sample ID:</b>	FA48727-3	<b>Date Received:</b>	10/25/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8270D SW846 3510C		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
465-73-6	Isodrin	ND	4.8	1.0	ug/l	
78-59-1	Isophorone	ND	4.8	0.75	ug/l	
120-58-1	Isosafrole	ND	4.8	2.3	ug/l	
91-80-5	Methapyrilene <sup>c</sup>	ND	19	3.8	ug/l	
56-49-5	3-Methylcholanthrene <sup>c</sup>	ND	4.8	0.97	ug/l	
66-27-3	Methyl Methanesulfonate	ND	4.8	0.74	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.58	ug/l	
91-20-3	Naphthalene	ND	4.8	0.48	ug/l	
130-15-4	1,4-Naphthoquinone <sup>c</sup>	ND	4.8	0.69	ug/l	
134-32-7	1-Naphthylamine <sup>b</sup>	ND UJ	4.8	1.1	ug/l	
91-59-8	2-Naphthylamine	ND	4.8	1.2	ug/l	
88-74-4	2-Nitroaniline <sup>a</sup>	ND	4.8	1.7	ug/l	
99-09-2	3-Nitroaniline	ND	4.8	0.85	ug/l	
100-01-6	4-Nitroaniline <sup>a</sup>	ND	4.8	1.1	ug/l	
98-95-3	Nitrobenzene	ND	4.8	0.90	ug/l	
99-55-8	5-Nitro-o-toluidine	ND	4.8	1.2	ug/l	
55-18-5	N-Nitrosodiethylamine	ND	4.8	0.83	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	4.8	0.48	ug/l	
924-16-3	N-Nitrosodi-n-butylamine	ND	4.8	1.0	ug/l	
621-64-7	N-Nitrosodi-n-propylamine	ND	4.8	0.64	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	0.78	ug/l	
10595-95-6	N-Nitrosomethylethylamine	ND	4.8	0.94	ug/l	
59-89-2	N-Nitrosomorpholine	ND	4.8	0.85	ug/l	
100-75-4	N-Nitrosopiperidine	ND	4.8	1.1	ug/l	
930-55-2	N-Nitrosopyrrolidine	ND	4.8	1.1	ug/l	
56-57-5	4-Nitroquinoline 1-Oxide	ND	19	4.8	ug/l	
126-68-1	O,O,O-Triethyl Phosphorothio	ND	4.8	0.96	ug/l	
608-93-5	Pentachlorobenzene	ND	4.8	3.0	ug/l	
76-01-7	Pentachloroethane	ND	4.8	3.3	ug/l	
82-68-8	Pentachloronitrobenzene	ND	4.8	1.5	ug/l	
62-44-2	Phenacetin	ND	4.8	1.2	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.83	ug/l	
106-50-3	p-Phenylenediamine	ND	48	9.6	ug/l	
109-06-8	2-Picoline	ND	4.8	0.96	ug/l	
23950-58-5	Pronamide	ND	4.8	1.3	ug/l	
129-00-0	Pyrene	ND	4.8	0.66	ug/l	
110-86-1	Pyridine	ND	9.6	1.9	ug/l	
94-59-7	Safrole	ND	4.8	1.6	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	4.8	0.48	ug/l	
297-97-2	Thionazin	ND	4.8	0.96	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-4		<b>Date Sampled:</b> 10/24/17
<b>Lab Sample ID:</b> FA48727-3		<b>Date Received:</b> 10/25/17
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8270D SW846 3510C		
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

### ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-53-4	o-Toluidine	ND	4.8	1.1	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	4.8	1.0	ug/l	
99-35-4	sym-Trinitrobenzene	ND	4.8	0.95	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	17%		14-67%
4165-62-2	Phenol-d5	9% <sup>d</sup>		10-50%
118-79-6	2,4,6-Tribromophenol	74%		33-118%
4165-60-0	Nitrobenzene-d5	71%		42-108%
321-60-8	2-Fluorobiphenyl	78%		40-106%
1718-51-0	Terphenyl-d14	67%		39-121%

- (a) Associated CCV outside of control limits high, sample was ND.
- (b) Associated BS recovery outside control limits.
- (c) Associated ICV outside control limits.
- (d) Outside control limits.

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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4



## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-4		<b>Date Sampled:</b>	10/24/17
<b>Lab Sample ID:</b>	FA48727-3F		<b>Date Received:</b>	10/25/17
<b>Matrix:</b>	AQ - Groundwater Filtered		<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8082A SW846 3510C			
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA			

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	MM46382.D	1	11/01/17 19:59	NJ	10/30/17 16:10	OP67413	GMM888
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	5.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.095	0.038	ug/l	
11104-28-2	Aroclor 1221	ND	0.095	0.048	ug/l	
11141-16-5	Aroclor 1232	ND	0.095	0.048	ug/l	
53469-21-9	Aroclor 1242	ND	0.095	0.038	ug/l	
12672-29-6	Aroclor 1248	ND	0.095	0.038	ug/l	
11097-69-1	Aroclor 1254	0.86	0.095	0.038	ug/l	
11096-82-5	Aroclor 1260	ND	0.095	0.038	ug/l	
1336-36-3	Total PCBs	0.86	0.095	0.048	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	73%		38-127%
2051-24-3	Decachlorobiphenyl	63%		25-137%

(a) All hits confirmed by dual column analysis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-4		<b>Date Sampled:</b> 10/24/17
<b>Lab Sample ID:</b> FA48727-3F		<b>Date Received:</b> 10/25/17
<b>Matrix:</b> AQ - Groundwater Filtered		<b>Percent Solids:</b> n/a
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

### Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	1.3 J	6.0	1.0	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Arsenic	1.3 U	10	1.3	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Barium	21.6 J	200	1.0	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Beryllium	0.20 U	4.0	0.20	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Cadmium	0.30 J	5.0	0.20	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Chromium	1.0 U	10	1.0	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Cobalt	0.20 U	50	0.20	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Copper	1.0 U	25	1.0	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Lead	1.1 U	5.0	1.1	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Mercury	0.030 U	0.50	0.030	ug/l	1	11/07/17	11/07/17 DM	SW846 7470A <sup>2</sup>	SW846 7470A <sup>4</sup>
Nickel	0.40 U	40	0.40	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Selenium	2.9 U	10	2.9	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Silver	0.70 U	10	0.70	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Thallium	1.4 U	10	1.4	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Tin	50 <del>6.6 J</del> U	50	1.0	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Vanadium	0.60 U	50	0.60	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Zinc	4.4 U	20	4.4	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>

- (1) Instrument QC Batch: MA14480
- (2) Instrument QC Batch: MA14482
- (3) Prep QC Batch: MP32959
- (4) Prep QC Batch: MP32963

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 J = Indicates a result > = MDL but < RL

4.6  
4

## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-3R	<b>Date Sampled:</b>	10/24/17
<b>Lab Sample ID:</b>	FA48727-4	<b>Date Received:</b>	10/25/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P53416.D	1	10/31/17 18:59	AJ	n/a	n/a	VP2029
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	25	14	ug/l	
107-02-8	Acrolein <sup>a</sup>	ND	20	6.1	ug/l	
107-13-1	Acrylonitrile <sup>a</sup>	ND	10	2.1	ug/l	
107-05-1	Allyl Chloride	ND	2.0	0.26	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether <sup>a</sup> R	ND	5.0	2.1	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
126-99-8	Chloroprene	ND	5.0	0.50	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
123-91-1	1,4-Dioxane	ND	200	75	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
97-63-2	Ethyl Methacrylate	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-3R		<b>Date Sampled:</b> 10/24/17
<b>Lab Sample ID:</b> FA48727-4		<b>Date Received:</b> 10/25/17
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

**VOA Appendix IX List**

CAS No.	Compound	Result	RL	MDL	Units	Q
78-83-1	Isobutyl Alcohol	ND	50	11	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl Iodide	ND	1.0	0.27	ug/l	
80-62-6	Methyl Methacrylate	ND	5.0	0.71	ug/l	
74-95-3	Methylene Bromide	ND	2.0	0.37	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.63	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		83-118%
17060-07-0	1,2-Dichloroethane-D4	102%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

(a) Result reported from HCl preserved sample and should be used for screening purposes only.

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.7  
4

## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-3R		<b>Date Sampled:</b> 10/24/17
<b>Lab Sample ID:</b> FA48727-4		<b>Date Received:</b> 10/25/17
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8270D SW846 3510C		
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D2968.D	1	11/02/17 00:43	MV	10/27/17 08:45	OP67384	S4D111
Run #2							

Run #1	Initial Volume	Final Volume
Run #1	1020 ml	1.0 ml
Run #2		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
59-50-7	4-Chloro-3-methyl Phenol	ND	4.9	0.58	ug/l	
95-57-8	2-Chlorophenol	ND	4.9	0.62	ug/l	
120-83-2	2,4-Dichlorophenol	ND	4.9	0.82	ug/l	
87-65-0	2,6-Dichlorophenol <sup>a</sup>	ND	4.9	0.82	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.9	0.72	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	4.9	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	9.8	2.0	ug/l	
95-48-7	2-Methylphenol	ND	4.9	0.55	ug/l	
	3&4-Methylphenol	ND	4.9	0.96	ug/l	
88-75-5	2-Nitrophenol	ND	4.9	0.84	ug/l	
100-02-7	4-Nitrophenol <sup>a</sup>	ND	25	4.9	ug/l	
87-86-5	Pentachlorophenol	ND	25	4.9	ug/l	
108-95-2	Phenol	ND	4.9	0.49	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol <sup>a</sup>	ND	4.9	0.95	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.9	0.73	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.9	0.74	ug/l	
83-32-9	Acenaphthene	ND	4.9	0.61	ug/l	
208-96-8	Acenaphthylene <sup>a</sup>	ND	4.9	0.63	ug/l	
98-86-2	Acetophenone	ND	4.9	0.79	ug/l	
53-96-3	2-Acetylaminofluorene	ND	4.9	0.73	ug/l	
92-67-1	4-Aminobiphenyl	ND	4.9	0.79	ug/l	
62-53-3	Aniline <sup>b</sup>	ND UJ	4.9	0.98	ug/l	
120-12-7	Anthracene	ND	4.9	0.78	ug/l	
140-57-8	Aramite	ND	9.8	2.0	ug/l	
92-87-5	Benzidine <sup>c</sup>	ND UJ	25	4.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	0.75	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	0.77	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	0.76	ug/l	
191-24-2	Benzo(g,h,i)perylene <sup>a</sup>	ND UJ	4.9	0.81	ug/l	
207-08-9	Benzo(k)fluoranthene	ND UJ	4.9	0.84	ug/l	
100-51-6	Benzyl Alcohol <sup>b</sup>	ND UJ	4.9	0.60	ug/l	
101-55-3	4-Bromophenyl Phenyl Ether	ND	4.9	0.83	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-3R	<b>Date Sampled:</b>	10/24/17
<b>Lab Sample ID:</b>	FA48727-4	<b>Date Received:</b>	10/25/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8270D SW846 3510C		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
85-68-7	Butyl Benzyl Phthalate	ND	4.9	0.98	ug/l	
106-47-8	4-Chloroaniline	ND	4.9	0.62	ug/l	
510-15-6	Chlorobenzilate	ND	4.9	1.1	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	4.9	0.79	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	4.9	0.72	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	4.9	0.74	ug/l	
91-58-7	2-Chloronaphthalene	ND	4.9	0.49	ug/l	
7005-72-3	4-Chlorophenyl Phenyl Ether	ND	4.9	0.53	ug/l	
218-01-9	Chrysene	ND	4.9	0.83	ug/l	
2303-16-4	Diallate	ND	4.9	0.98	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	0.79	ug/l	
132-64-9	Dibenzofuran	ND	4.9	0.59	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	4.9	0.49	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	4.9	0.49	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	4.9	0.49	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	4.9	0.63	ug/l	
84-66-2	Diethyl Phthalate	ND	4.9	0.98	ug/l	
60-11-7	p-(Dimethylamine)azobenzene	ND	4.9	0.98	ug/l	
57-97-6	7,12-Dimethylbenz(a)anthrac c	ND	4.9	0.98	ug/l	
119-93-7	3,3'-Dimethylbenzidine c	ND	9.8	2.8	ug/l	
122-09-8	A,A-Dimethylphenethylamine	ND	25	4.9	ug/l	
131-11-3	Dimethyl Phthalate	ND	4.9	0.98	ug/l	
84-74-2	Di-n-butyl Phthalate	ND	4.9	0.98	ug/l	
117-84-0	Di-n-octyl Phthalate a	ND UJ	4.9	0.98	ug/l	
99-65-0	m-Dinitrobenzene a	ND	4.9	0.89	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	4.9	0.80	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	4.9	0.70	ug/l	
122-39-4	Diphenylamine	ND	4.9	0.79	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	4.9	0.75	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	4.9	0.98	ug/l	
62-50-0	Ethyl Methanesulfonate	ND	4.9	1.1	ug/l	
206-44-0	Fluoranthene	ND	4.9	0.54	ug/l	
86-73-7	Fluorene	ND	4.9	0.69	ug/l	
118-74-1	Hexachlorobenzene	ND	4.9	0.68	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.9	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	4.9	1.8	ug/l	
67-72-1	Hexachloroethane	ND	4.9	1.6	ug/l	
70-30-4	Hexachlorophene	ND	98	49	ug/l	
1888-71-7	Hexachloropropene c	ND	4.9	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene a	ND UJ	4.9	0.70	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-3R	<b>Date Sampled:</b>	10/24/17
<b>Lab Sample ID:</b>	FA48727-4	<b>Date Received:</b>	10/25/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8270D SW846 3510C		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
465-73-6	Isodrin	ND	4.9	1.0	ug/l	
78-59-1	Isophorone	ND	4.9	0.76	ug/l	
120-58-1	Isosafrole	ND	4.9	2.3	ug/l	
91-80-5	Methapyrilene <sup>c</sup>	ND	20	3.9	ug/l	
56-49-5	3-Methylcholanthrene <sup>c</sup>	ND	4.9	0.99	ug/l	
66-27-3	Methyl Methanesulfonate	ND	4.9	0.75	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	0.59	ug/l	
91-20-3	Naphthalene	ND	4.9	0.49	ug/l	
130-15-4	1,4-Naphthoquinone <sup>c</sup>	ND	4.9	0.71	ug/l	
134-32-7	1-Naphthylamine <sup>b</sup>	ND UJ	4.9	1.1	ug/l	
91-59-8	2-Naphthylamine	ND	4.9	1.2	ug/l	
88-74-4	2-Nitroaniline <sup>a</sup>	ND	4.9	1.8	ug/l	
99-09-2	3-Nitroaniline	ND	4.9	0.86	ug/l	
100-01-6	4-Nitroaniline <sup>a</sup>	ND	4.9	1.1	ug/l	
98-95-3	Nitrobenzene	ND	4.9	0.91	ug/l	
99-55-8	5-Nitro-o-toluidine	ND	4.9	1.2	ug/l	
55-18-5	N-Nitrosodiethylamine	ND	4.9	0.85	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	4.9	0.49	ug/l	
924-16-3	N-Nitrosodi-n-butylamine	ND	4.9	1.1	ug/l	
621-64-7	N-Nitrosodi-n-propylamine	ND	4.9	0.66	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.9	0.79	ug/l	
10595-95-6	N-Nitrosomethylethylamine	ND	4.9	0.96	ug/l	
59-89-2	N-Nitrosomorpholine	ND	4.9	0.86	ug/l	
100-75-4	N-Nitrosopiperidine	ND	4.9	1.1	ug/l	
930-55-2	N-Nitrosopyrrolidine	ND	4.9	1.1	ug/l	
56-57-5	4-Nitroquinoline 1-Oxide	ND	20	4.9	ug/l	
126-68-1	O,O,O-Triethyl Phosphorothio	ND	4.9	0.98	ug/l	
608-93-5	Pentachlorobenzene	ND	4.9	3.1	ug/l	
76-01-7	Pentachloroethane	ND	4.9	3.4	ug/l	
82-68-8	Pentachloronitrobenzene	ND	4.9	1.5	ug/l	
62-44-2	Phenacetin	ND	4.9	1.2	ug/l	
85-01-8	Phenanthrene	ND	4.9	0.85	ug/l	
106-50-3	p-Phenylenediamine	ND	49	9.8	ug/l	
109-06-8	2-Picoline	ND	4.9	0.98	ug/l	
23950-58-5	Pronamide	ND	4.9	1.3	ug/l	
129-00-0	Pyrene	ND	4.9	0.67	ug/l	
110-86-1	Pyridine	ND	9.8	2.0	ug/l	
94-59-7	Safrole	ND	4.9	1.6	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	4.9	0.49	ug/l	
297-97-2	Thionazin	ND	4.9	0.98	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-3R		<b>Date Sampled:</b> 10/24/17
<b>Lab Sample ID:</b> FA48727-4		<b>Date Received:</b> 10/25/17
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8270D SW846 3510C		
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

### ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-53-4	o-Toluidine	ND	4.9	1.2	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	4.9	1.0	ug/l	
99-35-4	sym-Trinitrobenzene	ND	4.9	0.97	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	19%		14-67%
4165-62-2	Phenol-d5	16%		10-50%
118-79-6	2,4,6-Tribromophenol	69%		33-118%
4165-60-0	Nitrobenzene-d5	74%		42-108%
321-60-8	2-Fluorobiphenyl	76%		40-106%
1718-51-0	Terphenyl-d14	67%		39-121%

- (a) Associated CCV outside of control limits high, sample was ND.
- (b) Associated BS recovery outside control limits.
- (c) Associated ICV outside control limits.

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.7  
4



## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-3R		<b>Date Sampled:</b>	10/24/17
<b>Lab Sample ID:</b>	FA48727-4F		<b>Date Received:</b>	10/25/17
<b>Matrix:</b>	AQ - Groundwater Filtered		<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8082A SW846 3510C			
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MM46385.D	1	11/01/17 20:34	NJ	10/30/17 16:10	OP67413	GMM888
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	5.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.095	0.038	ug/l	
11104-28-2	Aroclor 1221	ND	0.095	0.048	ug/l	
11141-16-5	Aroclor 1232	ND	0.095	0.048	ug/l	
53469-21-9	Aroclor 1242	ND	0.095	0.038	ug/l	
12672-29-6	Aroclor 1248	ND	0.095	0.038	ug/l	
11097-69-1	Aroclor 1254	ND	0.095	0.038	ug/l	
11096-82-5	Aroclor 1260	ND	0.095	0.038	ug/l	
1336-36-3	Total PCBs	ND	0.095	0.048	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	73%		38-127%
2051-24-3	Decachlorobiphenyl	48%		25-137%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-3R		<b>Date Sampled:</b> 10/24/17
<b>Lab Sample ID:</b> FA48727-4F		<b>Date Received:</b> 10/25/17
<b>Matrix:</b> AQ - Groundwater Filtered		<b>Percent Solids:</b> n/a
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

### Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	1.0 U	6.0	1.0	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Arsenic	1.3 U	10	1.3	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Barium	70.2 J	200	1.0	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Beryllium	0.20 U	4.0	0.20	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Cadmium	0.20 U	5.0	0.20	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Chromium	1.0 U	10	1.0	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Cobalt	1.2 J	50	0.20	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Copper	2.4 J	25	1.0	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Lead	1.1 U	5.0	1.1	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Mercury	0.030 U	0.50	0.030	ug/l	1	11/07/17	11/07/17 DM	SW846 7470A <sup>2</sup>	SW846 7470A <sup>4</sup>
Nickel	4.6 J	40	0.40	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Selenium	2.9 U	10	2.9	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Silver	1.0 J	10	0.70	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Thallium	1.4 U	10	1.4	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Tin	50 <del>7.2 J</del> U	50	1.0	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Vanadium	0.60 U	50	0.60	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Zinc	4.4 U	20	4.4	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>

- (1) Instrument QC Batch: MA14480
- (2) Instrument QC Batch: MA14482
- (3) Prep QC Batch: MP32959
- (4) Prep QC Batch: MP32963

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 J = Indicates a result > = MDL but < RL

4.8  
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## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-7	<b>Date Sampled:</b>	10/24/17
<b>Lab Sample ID:</b>	FA48727-5	<b>Date Received:</b>	10/25/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8270D SW846 3510C		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D2969.D	1	11/02/17 01:10	MV	10/27/17 13:00	OP67384	S4D111
Run #2							

Run #1	Initial Volume	Final Volume
Run #1	700 ml	1.0 ml
Run #2		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
59-50-7	4-Chloro-3-methyl Phenol	ND	7.1	0.85	ug/l	
95-57-8	2-Chlorophenol	ND	7.1	0.90	ug/l	
120-83-2	2,4-Dichlorophenol	ND	7.1	1.2	ug/l	
87-65-0	2,6-Dichlorophenol <sup>a</sup>	ND	7.1	1.2	ug/l	
105-67-9	2,4-Dimethylphenol	ND	7.1	1.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	36	7.1	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	14	2.9	ug/l	
95-48-7	2-Methylphenol	ND	7.1	0.80	ug/l	
	3&4-Methylphenol	ND	7.1	1.4	ug/l	
88-75-5	2-Nitrophenol	ND	7.1	1.2	ug/l	
100-02-7	4-Nitrophenol <sup>a</sup>	ND	36	7.1	ug/l	
87-86-5	Pentachlorophenol	ND	36	7.1	ug/l	
108-95-2	Phenol	ND	7.1	0.71	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol <sup>a</sup>	ND	7.1	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	7.1	1.1	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	7.1	1.1	ug/l	
83-32-9	Acenaphthene	ND	7.1	0.90	ug/l	
208-96-8	Acenaphthylene <sup>a</sup>	ND	7.1	0.91	ug/l	
98-86-2	Acetophenone	ND	7.1	1.2	ug/l	
53-96-3	2-Acetylaminofluorene	ND	7.1	1.1	ug/l	
92-67-1	4-Aminobiphenyl	ND	7.1	1.1	ug/l	
62-53-3	Aniline <sup>b</sup>	ND UJ	7.1	1.4	ug/l	
120-12-7	Anthracene	ND	7.1	1.1	ug/l	
140-57-8	Aramite	ND	14	2.9	ug/l	
92-87-5	Benzidine <sup>c</sup>	ND UJ	36	7.1	ug/l	
56-55-3	Benzo(a)anthracene	ND	7.1	1.1	ug/l	
50-32-8	Benzo(a)pyrene	ND	7.1	1.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	7.1	1.1	ug/l	
191-24-2	Benzo(g,h,i)perylene <sup>a</sup>	ND UJ	7.1	1.2	ug/l	
207-08-9	Benzo(k)fluoranthene	ND UJ	7.1	1.2	ug/l	
100-51-6	Benzyl Alcohol <sup>b</sup>	ND UJ	7.1	0.88	ug/l	
101-55-3	4-Bromophenyl Phenyl Ether	ND	7.1	1.2	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-7	<b>Date Sampled:</b>	10/24/17
<b>Lab Sample ID:</b>	FA48727-5	<b>Date Received:</b>	10/25/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8270D SW846 3510C		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
85-68-7	Butyl Benzyl Phthalate	ND	7.1	1.4	ug/l	
106-47-8	4-Chloroaniline	ND	7.1	0.90	ug/l	
510-15-6	Chlorobenzilate	ND	7.1	1.6	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	7.1	1.2	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	7.1	1.0	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	7.1	1.1	ug/l	
91-58-7	2-Chloronaphthalene	ND	7.1	0.72	ug/l	
7005-72-3	4-Chlorophenyl Phenyl Ether	ND	7.1	0.77	ug/l	
218-01-9	Chrysene	ND	7.1	1.2	ug/l	
2303-16-4	Diallate	ND	7.1	1.4	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	7.1	1.1	ug/l	
132-64-9	Dibenzofuran	ND	7.1	0.86	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	7.1	0.71	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	7.1	0.71	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	7.1	0.71	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	7.1	0.92	ug/l	
84-66-2	Diethyl Phthalate	4.0	7.1	1.4	ug/l	J
60-11-7	p-(Dimethylamino)azobenzene	ND	7.1	1.4	ug/l	
57-97-6	7,12-Dimethylbenz(a)anthracene <sup>c</sup>	ND	7.1	1.4	ug/l	
119-93-7	3,3'-Dimethylbenzidine <sup>c</sup>	ND	14	4.1	ug/l	
122-09-8	A,A-Dimethylphenethylamine	ND	36	7.1	ug/l	
131-11-3	Dimethyl Phthalate	ND	7.1	1.4	ug/l	
84-74-2	Di-n-butyl Phthalate	ND	7.1	1.4	ug/l	
117-84-0	Di-n-octyl Phthalate <sup>a</sup>	ND UJ	7.1	1.4	ug/l	
99-65-0	m-Dinitrobenzene <sup>a</sup>	ND	7.1	1.3	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	7.1	1.2	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	7.1	1.0	ug/l	
122-39-4	Diphenylamine	ND	7.1	1.2	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	7.1	1.1	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	7.1	1.4	ug/l	
62-50-0	Ethyl Methanesulfonate	ND	7.1	1.6	ug/l	
206-44-0	Fluoranthene	ND	7.1	0.79	ug/l	
86-73-7	Fluorene	ND	7.1	1.0	ug/l	
118-74-1	Hexachlorobenzene	ND	7.1	0.99	ug/l	
87-68-3	Hexachlorobutadiene	ND	7.1	0.71	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	7.1	2.6	ug/l	
67-72-1	Hexachloroethane	ND	7.1	2.3	ug/l	
70-30-4	Hexachlorophene	ND	140	71	ug/l	
1888-71-7	Hexachloropropene <sup>c</sup>	ND	7.1	2.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene <sup>a</sup>	ND UJ	7.1	1.0	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-7	<b>Date Sampled:</b>	10/24/17
<b>Lab Sample ID:</b>	FA48727-5	<b>Date Received:</b>	10/25/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8270D SW846 3510C		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## ABN Appendix IX Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
465-73-6	Isodrin	ND	7.1	1.5	ug/l	
78-59-1	Isophorone	ND	7.1	1.1	ug/l	
120-58-1	Isosafrole	ND	7.1	3.4	ug/l	
91-80-5	Methapyrilene <sup>c</sup>	ND	29	5.7	ug/l	
56-49-5	3-Methylcholanthrene <sup>c</sup>	ND	7.1	1.4	ug/l	
66-27-3	Methyl Methanesulfonate	ND	7.1	1.1	ug/l	
91-57-6	2-Methylnaphthalene	ND	7.1	0.86	ug/l	
91-20-3	Naphthalene	ND	7.1	0.71	ug/l	
130-15-4	1,4-Naphthoquinone <sup>c</sup>	ND	7.1	1.0	ug/l	
134-32-7	1-Naphthylamine <sup>b</sup>	ND UJ	7.1	1.6	ug/l	
91-59-8	2-Naphthylamine	ND	7.1	1.7	ug/l	
88-74-4	2-Nitroaniline <sup>a</sup>	ND	7.1	2.6	ug/l	
99-09-2	3-Nitroaniline	ND	7.1	1.3	ug/l	
100-01-6	4-Nitroaniline <sup>a</sup>	ND	7.1	1.7	ug/l	
98-95-3	Nitrobenzene	ND	7.1	1.3	ug/l	
99-55-8	5-Nitro-o-toluidine	ND	7.1	1.8	ug/l	
55-18-5	N-Nitrosodiethylamine	ND	7.1	1.2	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	7.1	0.71	ug/l	
924-16-3	N-Nitrosodi-n-butylamine	ND	7.1	1.5	ug/l	
621-64-7	N-Nitrosodi-n-propylamine	ND	7.1	0.96	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	7.1	1.2	ug/l	
10595-95-6	N-Nitrosomethylethylamine	ND	7.1	1.4	ug/l	
59-89-2	N-Nitrosomorpholine	ND	7.1	1.3	ug/l	
100-75-4	N-Nitrosopiperidine	ND	7.1	1.6	ug/l	
930-55-2	N-Nitrosopyrrolidine	ND	7.1	1.6	ug/l	
56-57-5	4-Nitroquinoline 1-Oxide	ND	29	7.1	ug/l	
126-68-1	O,O,O-Triethyl Phosphorothio	ND	7.1	1.4	ug/l	
608-93-5	Pentachlorobenzene	ND	7.1	4.5	ug/l	
76-01-7	Pentachloroethane	ND	7.1	4.9	ug/l	
82-68-8	Pentachloronitrobenzene	ND	7.1	2.2	ug/l	
62-44-2	Phenacetin	ND	7.1	1.8	ug/l	
85-01-8	Phenanthrene	ND	7.1	1.2	ug/l	
106-50-3	p-Phenylenediamine	ND	71	14	ug/l	
109-06-8	2-Picoline	ND	7.1	1.4	ug/l	
23950-58-5	Pronamide	ND	7.1	1.9	ug/l	
129-00-0	Pyrene	ND	7.1	0.98	ug/l	
110-86-1	Pyridine	ND	14	2.9	ug/l	
94-59-7	Safrole	ND	7.1	2.3	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	7.1	0.71	ug/l	
297-97-2	Thionazin	ND	7.1	1.4	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-7		<b>Date Sampled:</b> 10/24/17
<b>Lab Sample ID:</b> FA48727-5		<b>Date Received:</b> 10/25/17
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8270D SW846 3510C		
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

**ABN Appendix IX Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-53-4	o-Toluidine	ND	7.1	1.7	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	7.1	1.5	ug/l	
99-35-4	sym-Trinitrobenzene	ND	7.1	1.4	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	24%		14-67%
4165-62-2	Phenol-d5	14%		10-50%
118-79-6	2,4,6-Tribromophenol	73%		33-118%
4165-60-0	Nitrobenzene-d5	68%		42-108%
321-60-8	2-Fluorobiphenyl	75%		40-106%
1718-51-0	Terphenyl-d14	56%		39-121%

- (a) Associated CCV outside of control limits high, sample was ND.
- (b) Associated BS recovery outside control limits.
- (c) Associated ICV outside control limits.

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.9  
4

## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-7	<b>Date Sampled:</b>	10/24/17
<b>Lab Sample ID:</b>	FA48727-5F	<b>Date Received:</b>	10/25/17
<b>Matrix:</b>	AQ - Groundwater Filtered	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8082A SW846 3510C		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	MM46386.D	1	11/01/17 20:46	NJ	10/30/17 16:10	OP67413	GMM888
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	5.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.11	0.044	ug/l	
11104-28-2	Aroclor 1221	ND	0.11	0.056	ug/l	
11141-16-5	Aroclor 1232	ND	0.11	0.056	ug/l	
53469-21-9	Aroclor 1242	ND	0.11	0.044	ug/l	
12672-29-6	Aroclor 1248	ND	0.11	0.044	ug/l	
11097-69-1	Aroclor 1254 <sup>b</sup>	2.6	0.11	0.044	ug/l	J
11096-82-5	Aroclor 1260 <sup>b</sup>	2.0	0.11	0.044	ug/l	J
1336-36-3	Total PCBs <sup>b</sup>	4.6	0.11	0.056	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	67%		38-127%
2051-24-3	Decachlorobiphenyl	26%		25-137%

(a) All hits confirmed by dual column analysis.

(b) Estimated value due to the presence of multiple overlapping Aroclor patterns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

### Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-7	<b>Date Sampled:</b> 10/24/17
<b>Lab Sample ID:</b> FA48727-5F	<b>Date Received:</b> 10/25/17
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA	

4.10  
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**Dissolved Metals Analysis**

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	1.0 U	6.0	1.0	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Arsenic	1.3 U	10	1.3	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Barium	60.0 J	200	1.0	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Beryllium	0.20 U	4.0	0.20	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Cadmium	0.70 J	5.0	0.20	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Chromium	3.8 J	10	1.0	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Cobalt	0.30 J	50	0.20	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Copper	1.6 J	25	1.0	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Lead	1.1 U	5.0	1.1	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Mercury	0.030 U	0.50	0.030	ug/l	1	11/07/17	11/07/17 DM	SW846 7470A <sup>2</sup>	SW846 7470A <sup>4</sup>
Nickel	21.5 J	40	0.40	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Selenium	2.9 J	10	2.9	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Silver	0.70 U	10	0.70	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Thallium	1.4 U	10	1.4	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Tin	50 <del>6.8 J</del> U	50	1.0	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Vanadium	0.60 U	50	0.60	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>
Zinc	4.4 U	20	4.4	ug/l	1	11/06/17	11/06/17 LM	SW846 6010C <sup>1</sup>	SW846 3010A <sup>3</sup>

- (1) Instrument QC Batch: MA14480
- (2) Instrument QC Batch: MA14482
- (3) Prep QC Batch: MP32959
- (4) Prep QC Batch: MP32963

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
J = Indicates a result > = MDL but < RL



## Report of Analysis

<b>Client Sample ID:</b>	TRIP BLANK-OPCA-1-102417	<b>Date Sampled:</b>	10/24/17
<b>Lab Sample ID:</b>	FA48727-6	<b>Date Received:</b>	10/25/17
<b>Matrix:</b>	AQ - Trip Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	P53417.D	1	10/31/17 19:22	AJ	n/a	n/a	VP2029
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	25	14	ug/l	
107-02-8	Acrolein <sup>b</sup>	ND	20	6.1	ug/l	
107-13-1	Acrylonitrile <sup>b</sup>	ND	10	2.1	ug/l	
107-05-1	Allyl Chloride	ND	2.0	0.26	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether <sup>b</sup>	ND	5.0	2.1	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
126-99-8	Chloroprene	ND	5.0	0.50	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
123-91-1	1,4-Dioxane	ND	200	75	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
97-63-2	Ethyl Methacrylate	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	TRIP BLANK-OPCA-1-102417	<b>Date Sampled:</b>	10/24/17
<b>Lab Sample ID:</b>	FA48727-6	<b>Date Received:</b>	10/25/17
<b>Matrix:</b>	AQ - Trip Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-83-1	Isobutyl Alcohol	ND	50	11	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl Iodide	ND	1.0	0.27	ug/l	
80-62-6	Methyl Methacrylate	ND	5.0	0.71	ug/l	
74-95-3	Methylene Bromide	ND	2.0	0.37	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	1.2	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.63	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		83-118%
17060-07-0	1,2-Dichloroethane-D4	101%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

- (a) Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.  
(b) Result reported from HCl preserved sample and should be used for screening purposes only.

ND = Not detected      MDL = Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

11442/18 67680/4284232 -6



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TEL 407-425-6700 FAX 407-425-0707  
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FED-EX Tracking #	Bottle Order Control #
SGS Accutest Quote #	SGS Accutest Job <b>FA48727X</b>

Client / Reporting Information		Project Information		Requested Analysis ( see TEST CODE sheet)										Matrix Codes
Company Name: <b>SGS Accutest</b>		Project Name: <b>GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA</b>												DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED-Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank EB-Equipment Blank RB- Rinse Blank TB-Trip Blank
Street Address <b>4405 Vineland Rd, Suite C-15</b>		Street												
City State Zip <b>Orlando FL 32811</b>		City State												
Project Contact E-mail <b>heather.wandrey@sgs.com</b>		Project #												
Phone # Fax # <b>407-425-6700</b>		Client Purchase Order #												
Sampler(s) Name(s) <b>GRMD</b>		Project Manager												
		Attention:												

SGS Accutest Sample #	Field ID / Point of Collection	MEQH/DI Vial #	Collection				Matrix	# of bottles	Number of preserved Bottles								S90034S-Sulfide	LAB USE ONLY								
			Date	Time	Sampled by				HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEQH	ENDORE										
1FX	H78-B-1S		10/24/17	10:40:00 AM	GRMD	AQ																				
1X	H78-B-1S		10/24/17	10:40:00 AM	GRMD	AQ											X									
2FX	OPCA-MW-2R		10/24/17	9:40:00 AM	GRMD	AQ																				
2X	OPCA-MW-2R		10/24/17	9:40:00 AM	GRMD	AQ											X									
3FX	OPCA-MW-4		10/24/17	10:52:00 AM	GRMD	AQ																				
3X	OPCA-MW-4		10/24/17	10:52:00 AM	GRMD	AQ											X									
4FX	OPCA-MW-3R		10/24/17	12:39:00 PM	GRMD	AQ																				
4X	OPCA-MW-3R		10/24/17	12:39:00 PM	GRMD	AQ											X									
5FX	OPCA-MW-7		10/24/17	9:55:00 AM	GRMD	AQ																				
5X	OPCA-MW-7		10/24/17	9:55:00 AM	GRMD	AQ											X									

Turnaround Time ( Business days)	Approved By (SGS Accutest PM): / Date:	Data Deliverable Information	Comments / Special Instructions
<input type="checkbox"/> 10 Day (business) <input type="checkbox"/> 5-7 Day <input type="checkbox"/> 3 Day RUSH <input type="checkbox"/> 2 Day RUSH <input type="checkbox"/> 1 Day RUSH <input checked="" type="checkbox"/> other Due <u>11/8/2017</u> <small>Rush T/A data available VIA Lablink</small>	<input type="checkbox"/> Commercial "A" ( Level 1, Results Only) <input type="checkbox"/> Commercial "B" ( Level 2, Results + QC summary) <input type="checkbox"/> REDT1 ( Level 3) <input type="checkbox"/> FULLT1 ( Level 4) <input type="checkbox"/> DOD FULLT1 (Level 4)            X            F-U <input type="checkbox"/> Other _____ <input type="checkbox"/> EDD Format _____		Eurofins-Landcaster

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: 	Date/Time: <b>10-25-17 10:30</b>	Received By: 1	Relinquished By: 2	Date Time: _____	Received By: 
Relinquished by Sampler: 	Date Time: _____	Received By: 3	Relinquished By: 4	Date Time: _____	Received By: 
Relinquished by:	Date Time:	Received By: 5	Custody Seal #	<input checked="" type="checkbox"/> Intact Preserved where applicable <input type="checkbox"/> Not intact	On Ice <input checked="" type="checkbox"/> Cooler Temp. <b>-0.8</b>

10-26-17 09:35



**Sample Description:** H78-B-1S Grab Sample  
GE Pittsfield-GMA

**Accutest Laboratories**  
ELLE Sample #: WW 9284232  
ELLE Group #: 1867680  
Matrix: Sample

**Project Name:** GE Pittsfield

Submittal Date/Time: 10/26/2017 09:35  
Collection Date/Time: 10/24/2017 10:40  
SDG#: SGA29-01



CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
01333	Sulfide	SW-846 9034 modified 18496-25-8	mg/l N.D.	mg/l 0.70	mg/l 2.0	1

### Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01333	Sulfide	SW-846 9034 modified	1	17304133302A	10/31/2017 14:10	Satchel S MacClintic	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** OPCA-MW-2R Grab Sample  
GE Pittsfield-GMA

**Accutest Laboratories**  
**ELLE Sample #:** WW 9284233  
**ELLE Group #:** 1867680  
**Matrix:** Sample

**Project Name:** GE Pittsfield

**Submittal Date/Time:** 10/26/2017 09:35  
**Collection Date/Time:** 10/24/2017 09:40  
**SDG#:** SGA29-02



CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
01333	Sulfide	SW-846 9034 modified 18496-25-8	mg/l N.D.	mg/l 0.70	mg/l 2.0	1

### Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01333	Sulfide	SW-846 9034 modified	1	17304133302A	10/31/2017 14:10	Satchel S MacClintic	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** OPCA-MW-4 Grab Sample  
GE Pittsfield-GMA

**Accutest Laboratories**  
ELLE Sample #: WW 9284234  
ELLE Group #: 1867680  
Matrix: Sample

**Project Name:** GE Pittsfield

Submittal Date/Time: 10/26/2017 09:35  
Collection Date/Time: 10/24/2017 10:52  
SDG#: SGA29-03



CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
01333	Sulfide	SW-846 9034 modified 18496-25-8	mg/l N.D.	mg/l 0.70	mg/l 2.0	1

### Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01333	Sulfide	SW-846 9034 modified	1	17304133302A	10/31/2017 14:10	Satchel S MacClintic	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** OPCA-MW-3R Grab Sample  
GE Pittsfield-GMA

**Accutest Laboratories**  
**ELLE Sample #:** WW 9284235  
**ELLE Group #:** 1867680  
**Matrix:** Sample

**Project Name:** GE Pittsfield

**Submittal Date/Time:** 10/26/2017 09:35  
**Collection Date/Time:** 10/24/2017 12:39  
**SDG#:** SGA29-04



CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
01333	Sulfide	SW-846 9034 modified 18496-25-8	mg/l N.D.	mg/l 0.70	mg/l 2.0	1

### Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01333	Sulfide	SW-846 9034 modified	1	17304133302A	10/31/2017 14:10	Satchel S MacClintic	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** OPCA-MW-7 Grab Sample  
GE Pittsfield-GMA

**Accutest Laboratories**  
ELLE Sample #: WW 9284236  
ELLE Group #: 1867680  
Matrix: Sample

**Project Name:** GE Pittsfield

Submittal Date/Time: 10/26/2017 09:35  
Collection Date/Time: 10/24/2017 09:55  
SDG#: SGA29-05



CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
01333	Sulfide	SW-846 9034 modified 18496-25-8	mg/l N.D.	mg/l 0.70	mg/l 2.0	1

### Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01333	Sulfide	SW-846 9034 modified	1	17304133302A	10/31/2017 14:10	Satchel S MacClintic	1

\*=This limit was used in the evaluation of the final result





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FA49402

SGS ACCUTEST JOB #:

PAGE 1 OF 1

Client / Reporting Information			Project Information			Analytical Information										Matrix Codes		
Company Name: <b>ARCADIS</b>			Project Name: <b>GE Pittsfield GMA4</b>			<div style="writing-mode: vertical-rl; transform: rotate(180deg);">           VOC Stand (EPA Method 8260) See Attached Notes to Lab         </div>										DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge OI - Oil LIQ - Other Liquid AIR - Air		
Address: <b>One Lincoln Center, 110 W Fayette St. Suite 300</b>			Street: <b>159 Plastics Ave Bldg 59</b>															
City: <b>Syracuse</b> State: <b>N.Y.</b> Zip: <b>13202</b>			City: <b>Pittsfield</b> State: <b>MA</b>															
Project Contact: <b>Chris Kassel</b> Email: <b>Chris.Kassel@ARCADIS.com</b>			Project # <b>ALL10113.3000.30045</b>															
Phone #: <b>(315) 256-5386</b>			Fax #															
Sampler(s) Name(s) (Printed) Sampler 1: <b>Randy Rabasco</b> Sampler 2:			Client Purchase Order #															
SGS Accutest Sample #	Field ID / Point of Collection	DATE	TIME	CONTAINER INFORMATION										LAB USE ONLY				
				SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	PCD	IRISH	HR20	REDA	NOCH-ZNAR		DI WATER	MESH		
1	GMA4-9	11/4/17	15:15	PKR	GW	3			3									
2	GMA4-8	11/4/17	12:10	PKR	GW	3			3									
2	GMA4-8-MS	11/4/17	12:10	PKR	GW	3			3									
2	GMA4-8-MSD	11/4/17	12:10	PKR	GW	3			3									
3	GMA4-TS	11/4/17	14:20	PKR	GW	3			3									
4	H78B-16	11/4/17	13:30	PKR	GW	2			2									
5	GMA4-DUP1-2017114	11/4/17	—	PKR	GW	3			3									
6	Trip Blank	11/4/17	—	—	W	2			2									
Turnaround Time (Business days)			Data Deliverable Information			Comments / Remarks												
<input checked="" type="radio"/> 10 Day (Business) <input type="radio"/> 7 Day <input type="radio"/> 5 Day <input type="radio"/> 3 Day RUSH <input type="radio"/> 2 Day RUSH <input type="radio"/> 1 Day RUSH <input type="radio"/> Other			Approved By: / Date: _____			<input type="checkbox"/> COMMERCIAL "A" (RESULTS ONLY) <input type="checkbox"/> COMMERCIAL "B" (RESULTS PLUS QC) <input type="checkbox"/> REDT1 (EPA LEVEL 3) <input type="checkbox"/> FULLT1 (EPA LEVEL 4) <input type="checkbox"/> EDD'S					See Attached Notes to Lab							
Rush T/A Data Available VIA Email or LabLink			Sample Custody must be documented below each time samples change possession, including courier delivery.															
Relinquished by Sampler/Affiliation		Date Time:	Received By/Affiliation		Relinquished By/Affiliation		Date Time:	Received By/Affiliation		Relinquished By/Affiliation		Date Time:	Received By/Affiliation					
1 <i>Randy Rabasco</i>		11/5/17 1300	2 <i>Fed Ex</i>		3 <i>Fed Ex</i>			4 <i>[Signature]</i>		7 <i>[Signature]</i>			8 <i>[Signature]</i>					
5			6		7			8										
Lab Use Only: Cooler Temperature (s) Celsius: <b>2.7</b>																		

5.1  
5



## Report of Analysis

<b>Client Sample ID:</b> GMA4-9		<b>Date Sampled:</b> 11/14/17
<b>Lab Sample ID:</b> FA49402-1		<b>Date Received:</b> 11/16/17
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I51661.D	1	11/22/17 18:17	AJ	n/a	n/a	VI1501
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND UJ	25	14	ug/l	
107-02-8	Acrolein <sup>a</sup>	ND	20	6.1	ug/l	
107-13-1	Acrylonitrile <sup>a</sup>	ND UJ	10	2.1	ug/l	
107-05-1	Allyl Chloride	ND	2.0	0.26	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether <sup>a</sup> R	<del>ND</del>	<del>5.0</del>	<del>2.1</del>	ug/l	
67-66-3	Chloroform	2.6	1.0	0.30	ug/l	
126-99-8	Chloroprene	ND UJ	5.0	0.50	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
123-91-1	1,4-Dioxane	ND	200	75	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
97-63-2	Ethyl Methacrylate	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	GMA4-9	<b>Date Sampled:</b>	11/14/17
<b>Lab Sample ID:</b>	FA49402-1	<b>Date Received:</b>	11/16/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-83-1	Isobutyl Alcohol	ND	50	11	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl Iodide	ND	1.0	0.27	ug/l	
80-62-6	Methyl Methacrylate	ND	5.0	0.71	ug/l	
74-95-3	Methylene Bromide	ND	2.0	0.37	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	1.7 J	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.63	ug/l	
108-05-4	Vinyl Acetate <sup>b</sup>	ND UJ	10	2.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		83-118%
17060-07-0	1,2-Dichloroethane-D4	114%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	98%		83-118%

(a) Result reported from HCl preserved sample and should be used for screening purposes only.

(b) Associated BS recovery outside control limits.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> GMA4-8		<b>Date Sampled:</b> 11/14/17
<b>Lab Sample ID:</b> FA49402-2		<b>Date Received:</b> 11/16/17
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I51648.D	1	11/22/17 13:13	AJ	n/a	n/a	VI1501
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND UJ	25	14	ug/l	
107-02-8	Acrolein <sup>a</sup>	ND	20	6.1	ug/l	
107-13-1	Acrylonitrile <sup>a</sup>	ND UJ	10	2.1	ug/l	
107-05-1	Allyl Chloride	ND	2.0	0.26	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether <sup>a</sup>	R ND	5.0	2.1	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
126-99-8	Chloroprene	ND UJ	5.0	0.50	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
123-91-1	1,4-Dioxane	ND	200	75	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
97-63-2	Ethyl Methacrylate	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	GMA4-8	<b>Date Sampled:</b>	11/14/17
<b>Lab Sample ID:</b>	FA49402-2	<b>Date Received:</b>	11/16/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-83-1	Isobutyl Alcohol	ND	50	11	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl Iodide	ND	1.0	0.27	ug/l	
80-62-6	Methyl Methacrylate	ND	5.0	0.71	ug/l	
74-95-3	Methylene Bromide	ND	2.0	0.37	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND UJ	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.63	ug/l	
108-05-4	Vinyl Acetate <sup>b</sup>	ND UJ	10	2.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	108%		79-125%
2037-26-5	Toluene-D8	97%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

(a) Result reported from HCl preserved sample and should be used for screening purposes only.

(b) Associated BS recovery outside control limits.

ND = Not detected      MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> GMA4-7S		<b>Date Sampled:</b> 11/14/17
<b>Lab Sample ID:</b> FA49402-3		<b>Date Received:</b> 11/16/17
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I51649.D	1	11/22/17 13:36	AJ	n/a	n/a	VI1501
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND UJ	25	14	ug/l	
107-02-8	Acrolein <sup>a</sup>	ND	20	6.1	ug/l	
107-13-1	Acrylonitrile <sup>a</sup>	ND UJ	10	2.1	ug/l	
107-05-1	Allyl Chloride	ND	2.0	0.26	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether <sup>a</sup>	ND	5.0	2.1	ug/l	
67-66-3	Chloroform	1.5	1.0	0.30	ug/l	
126-99-8	Chloroprene	ND UJ	5.0	0.50	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
123-91-1	1,4-Dioxane	ND	200	75	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
97-63-2	Ethyl Methacrylate	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	GMA4-7S	<b>Date Sampled:</b>	11/14/17
<b>Lab Sample ID:</b>	FA49402-3	<b>Date Received:</b>	11/16/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-83-1	Isobutyl Alcohol	ND	50	11	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl Iodide	ND	1.0	0.27	ug/l	
80-62-6	Methyl Methacrylate	ND	5.0	0.71	ug/l	
74-95-3	Methylene Bromide	ND	2.0	0.37	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND UJ	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.63	ug/l	
108-05-4	Vinyl Acetate <sup>b</sup>	ND UJ	10	2.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		83-118%
17060-07-0	1,2-Dichloroethane-D4	111%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

(a) Result reported from HCl preserved sample and should be used for screening purposes only.

(b) Associated BS recovery outside control limits.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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## Report of Analysis

Page 1 of 2

<b>Client Sample ID:</b> H78B-16	<b>Date Sampled:</b> 11/14/17
<b>Lab Sample ID:</b> FA49402-4	<b>Date Received:</b> 11/16/17
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I51650.D	1	11/22/17 13:59	AJ	n/a	n/a	VII501
Run #2	I51698.D	10	11/24/17 13:56	MM	n/a	n/a	VII503

Run #	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND UJ	25	14	ug/l	
107-02-8	Acrolein <sup>a</sup>	ND	20	6.1	ug/l	
107-13-1	Acrylonitrile <sup>a</sup>	ND UJ	10	2.1	ug/l	
107-05-1	Allyl Chloride	ND	2.0	0.26	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	0.33	1.0	0.20	ug/l	J
75-00-3	Chloroethane	2.1	2.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether <sup>a</sup>	ND	5.0	2.1	ug/l	
67-66-3	Chloroform	0.30	1.0	0.30	ug/l	J
126-99-8	Chloroprene	ND UJ	5.0	0.50	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	1.5	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	0.78	1.0	0.32	ug/l	J
156-60-5	trans-1,2-Dichloroethylene	0.71	1.0	0.22	ug/l	J
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
123-91-1	1,4-Dioxane	ND	200	75	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
97-63-2	Ethyl Methacrylate	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	H78B-16	<b>Date Sampled:</b>	11/14/17
<b>Lab Sample ID:</b>	FA49402-4	<b>Date Received:</b>	11/16/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-83-1	Isobutyl Alcohol	ND	50	11	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl Iodide	ND	1.0	0.27	ug/l	
80-62-6	Methyl Methacrylate	ND	5.0	0.71	ug/l	
74-95-3	Methylene Bromide	ND	2.0	0.37	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	3.9 J	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	446 <sup>b</sup>	10	3.5	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.63	ug/l	
108-05-4	Vinyl Acetate <sup>c</sup>	ND UJ	10	2.0	ug/l	
75-01-4	Vinyl Chloride	1.9	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%	97%	83-118%
17060-07-0	1,2-Dichloroethane-D4	112%	100%	79-125%
2037-26-5	Toluene-D8	98%	106%	85-112%
460-00-4	4-Bromofluorobenzene	100%	100%	83-118%

(a) Result reported from HCl preserved sample and should be used for screening purposes only.

(b) Result is from Run# 2

(c) Associated BS recovery outside control limits.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	GMA4-DUP1-20171114	<b>Date Sampled:</b>	11/14/17
<b>Lab Sample ID:</b>	FA49402-5	<b>Date Received:</b>	11/16/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	I51651.D	1	11/22/17 14:23	AJ	n/a	n/a	VI1501

Run #1	Purge Volume
Run #2	5.0 ml

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND UJ	25	14	ug/l	
107-02-8	Acrolein <sup>a</sup>	ND	20	6.1	ug/l	
107-13-1	Acrylonitrile <sup>a</sup>	ND UJ	10	2.1	ug/l	
107-05-1	Allyl Chloride	ND	2.0	0.26	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether <sup>a</sup> R	ND	<del>5.0</del>	<del>2.1</del>	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
126-99-8	Chloroprene	ND UJ	5.0	0.50	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
123-91-1	1,4-Dioxane	ND	200	75	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
97-63-2	Ethyl Methacrylate	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	GMA4-DUP1-20171114	<b>Date Sampled:</b>	11/14/17
<b>Lab Sample ID:</b>	FA49402-5	<b>Date Received:</b>	11/16/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-83-1	Isobutyl Alcohol	ND	50	11	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl Iodide	ND	1.0	0.27	ug/l	
80-62-6	Methyl Methacrylate	ND	5.0	0.71	ug/l	
74-95-3	Methylene Bromide	ND	2.0	0.37	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND UJ	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.63	ug/l	
108-05-4	Vinyl Acetate <sup>b</sup>	ND UJ	10	2.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		83-118%
17060-07-0	1,2-Dichloroethane-D4	113%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

(a) Result reported from HCl preserved sample and should be used for screening purposes only.

(b) Associated BS recovery outside control limits.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	TRIP BLANK	<b>Date Sampled:</b>	11/14/17
<b>Lab Sample ID:</b>	FA49402-6	<b>Date Received:</b>	11/16/17
<b>Matrix:</b>	AQ - Trip Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	I51652.D	1	11/22/17 14:46	AJ	n/a	n/a	VI1501
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND UJ	25	14	ug/l	
107-02-8	Acrolein <sup>b</sup>	ND	20	6.1	ug/l	
107-13-1	Acrylonitrile <sup>b</sup>	ND UJ	10	2.1	ug/l	
107-05-1	Allyl Chloride	ND	2.0	0.26	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether <sup>b</sup> R	ND	5.0	<del>2.1</del>	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
126-99-8	Chloroprene	ND UJ	5.0	0.50	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
123-91-1	1,4-Dioxane	ND	200	75	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
97-63-2	Ethyl Methacrylate	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	TRIP BLANK	<b>Date Sampled:</b>	11/14/17
<b>Lab Sample ID:</b>	FA49402-6	<b>Date Received:</b>	11/16/17
<b>Matrix:</b>	AQ - Trip Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-83-1	Isobutyl Alcohol	ND	50	11	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl Iodide	ND	1.0	0.27	ug/l	
80-62-6	Methyl Methacrylate	ND	5.0	0.71	ug/l	
74-95-3	Methylene Bromide	ND	2.0	0.37	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND UJ	1.0	0.22	ug/l	
108-88-3	Toluene	2.4	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.63	ug/l	
108-05-4	Vinyl Acetate <sup>c</sup>	ND UJ	10	2.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		83-118%
17060-07-0	1,2-Dichloroethane-D4	114%		79-125%
2037-26-5	Toluene-D8	97%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

- (a) Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.  
 (b) Result reported from HCl preserved sample and should be used for screening purposes only.  
 (c) Associated BS recovery outside control limits.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



ACCUTEST

SGS Accutest Southeast Chain of Custody

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FA49403

SGS ACCUTEST JOB #: PAGE 1 OF 1

Client / Reporting Information		Project Information		Analytical Information										Matrix Codes
Company Name: ARCADIS		Project Name: GE Pittsfield OPCA's		VOC Status (EPA Method 8260) See Attached Notes to Lab DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge OI - Oil LIQ - Other Liquid AIR - Air										LAB USE ONLY
Address: One Lincoln Center, 110W Fayette St. Suite 300		Street: 159 Plastic Ave Bldg 59												1
City: Syracuse State: NY Zip: 13202		City: Pittsfield State: MA												2
Project Contact: Chris Kassel Email: Chris.Kassel@ARCADIS.com		Project #: ALL10113, 3009, 30065												3
Phone #: 315 256 5386		Fax #												4
Sampler(s) Name(s) (Printed)		Client Purchase Order #												5
Sampler 1: Penny Kubacki														6
Sampler 2:														7
SGS Accutest Sample #		COLLECTION												8
Field ID / Point of Collection		CONTAINER INFORMATION												
DATE		TIME												
SAMPLED BY:		MATRIX												
TOTAL # OF BOTTLES		OTHER												
NONE		HCl												
NaOH		HNO3												
H2SO4		HClO4												
HNO3/H2O2		DI WATER												
MEDI														
Turnaround Time ( Business days)		Data Deliverable Information		Comments / Remarks										
10 Day (Business) Approved By: / Date:		<input type="checkbox"/> COMMERCIAL "A" (RESULTS ONLY) <input type="checkbox"/> COMMERCIAL "B" (RESULTS PLUS QC) <input type="checkbox"/> REDT1 (EPA LEVEL 3) <input type="checkbox"/> FULLT1 (EPA LEVEL 4) <input type="checkbox"/> EDD'S		Please See Attached Notes to lab										
7 Day														
5 Day														
3 Day RUSH														
2 Day RUSH														
1 Day RUSH														
Other														
Rush T/A Data Available VIA Email or Lablink		Sample Custody must be documented below each time samples change possession, including courier delivery.												
Relinquished by Sampler/Affiliation		Date Time:		Received By/Affiliation		Date Time:		Received By/Affiliation		Date Time:		Received By/Affiliation		
1 Penny Kubacki		11/15/17 1300		2 Fed Ex		3 Fed Ex		4 J/L/C		11/16/17		8		
Relinquished by/Affiliation		Date Time:		Received By/Affiliation		Date Time:		Received By/Affiliation		Date Time:		Received By/Affiliation		
5				6		7								
Lab Use Only : Cooler Temperature (s) Celsius:		3.0												

5.1 5



## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-7		
<b>Lab Sample ID:</b> FA49403-1		<b>Date Sampled:</b> 11/14/17
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 11/16/17
<b>Method:</b> SW846 8260B		<b>Percent Solids:</b> n/a
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P53895.D	1	11/22/17 13:20	AJ	n/a	n/a	VP2047
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	25	14	ug/l	
107-02-8	Acrolein <sup>a</sup>	ND	20	6.1	ug/l	
107-13-1	Acrylonitrile <sup>a</sup>	ND	10	2.1	ug/l	
107-05-1	Allyl Chloride	ND	2.0	0.26	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether <sup>a</sup> R	ND	5.0	2.1	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
126-99-8	Chloroprene	ND	5.0	0.50	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
123-91-1	1,4-Dioxane	ND	200	75	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
97-63-2	Ethyl Methacrylate	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-7	<b>Date Sampled:</b>	11/14/17
<b>Lab Sample ID:</b>	FA49403-1	<b>Date Received:</b>	11/16/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-83-1	Isobutyl Alcohol	ND	50	11	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl Iodide	ND	1.0	0.27	ug/l	
80-62-6	Methyl Methacrylate	ND	5.0	0.71	ug/l	
74-95-3	Methylene Bromide	ND	2.0	0.37	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND UJ	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.63	ug/l	
108-05-4	Vinyl Acetate <sup>b</sup>	ND	10	2.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	103%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

(a) Result reported from HCl preserved sample and should be used for screening purposes only.

(b) Associated BS recovery outside control limits.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-8R		<b>Date Sampled:</b> 11/14/17
<b>Lab Sample ID:</b> FA49403-2		<b>Date Received:</b> 11/16/17
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P53896.D	1	11/22/17 13:45	AJ	n/a	n/a	VP2047
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	25	14	ug/l	
107-02-8	Acrolein <sup>a</sup>	ND	20	6.1	ug/l	
107-13-1	Acrylonitrile <sup>a</sup>	ND	10	2.1	ug/l	
107-05-1	Allyl Chloride	ND	2.0	0.26	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether <sup>a</sup> R	ND	5.0	2.1	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
126-99-8	Chloroprene	ND	5.0	0.50	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND UJ	1.0	0.32	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
123-91-1	1,4-Dioxane	ND	200	75	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
97-63-2	Ethyl Methacrylate	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-8R		<b>Date Sampled:</b> 11/14/17
<b>Lab Sample ID:</b> FA49403-2		<b>Date Received:</b> 11/16/17
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

**VOA Appendix IX List**

CAS No.	Compound	Result	RL	MDL	Units	Q
78-83-1	Isobutyl Alcohol	ND	50	11	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	0.58	2.0	0.50	ug/l	J
74-88-4	Methyl Iodide	ND	1.0	0.27	ug/l	
80-62-6	Methyl Methacrylate	ND	5.0	0.71	ug/l	
74-95-3	Methylene Bromide	ND	2.0	0.37	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND UJ	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.63	ug/l	
108-05-4	Vinyl Acetate <sup>b</sup>	ND	10	2.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		83-118%
17060-07-0	1,2-Dichloroethane-D4	105%		79-125%
2037-26-5	Toluene-D8	96%		85-112%
460-00-4	4-Bromofluorobenzene	101%		83-118%

- (a) Result reported from HCl preserved sample and should be used for screening purposes only.
- (b) Associated BS recovery outside control limits.

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.2  
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## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-4		
<b>Lab Sample ID:</b> FA49403-3		<b>Date Sampled:</b> 11/14/17
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 11/16/17
<b>Method:</b> SW846 8260B		<b>Percent Solids:</b> n/a
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P53897.D	1	11/22/17 14:09	AJ	n/a	n/a	VP2047
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	25	14	ug/l	
107-02-8	Acrolein <sup>a</sup>	ND	20	6.1	ug/l	
107-13-1	Acrylonitrile <sup>a</sup>	ND	10	2.1	ug/l	
107-05-1	Allyl Chloride	ND	2.0	0.26	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether <sup>a</sup>	ND	5.0	2.1	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
126-99-8	Chloroprene	ND	5.0	0.50	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
123-91-1	1,4-Dioxane	ND	200	75	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
97-63-2	Ethyl Methacrylate	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-4	<b>Date Sampled:</b>	11/14/17
<b>Lab Sample ID:</b>	FA49403-3	<b>Date Received:</b>	11/16/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-83-1	Isobutyl Alcohol	ND	50	11	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl Iodide	ND	1.0	0.27	ug/l	
80-62-6	Methyl Methacrylate	ND	5.0	0.71	ug/l	
74-95-3	Methylene Bromide	ND	2.0	0.37	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND JJ	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	1.3	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.63	ug/l	
108-05-4	Vinyl Acetate <sup>b</sup>	ND	10	2.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	105%		79-125%
2037-26-5	Toluene-D8	97%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

(a) Result reported from HCl preserved sample and should be used for screening purposes only.

(b) Associated BS recovery outside control limits.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-2R	<b>Date Sampled:</b> 11/14/17
<b>Lab Sample ID:</b> FA49403-4	<b>Date Received:</b> 11/16/17
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	P53898.D	1	11/22/17 14:33	AJ	n/a	n/a	VP2047

Run #1	Purge Volume
Run #2	5.0 ml

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	25	14	ug/l	
107-02-8	Acrolein <sup>a</sup>	ND	20	6.1	ug/l	
107-13-1	Acrylonitrile <sup>a</sup>	ND	10	2.1	ug/l	
107-05-1	Allyl Chloride	ND	2.0	0.26	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether <sup>a</sup> <b>R</b>	<del>ND</del>	<del>5.0</del>	<del>2.1</del>	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
126-99-8	Chloroprene	ND	5.0	0.50	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
123-91-1	1,4-Dioxane	ND	200	75	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
97-63-2	Ethyl Methacrylate	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-2R	<b>Date Sampled:</b>	11/14/17
<b>Lab Sample ID:</b>	FA49403-4	<b>Date Received:</b>	11/16/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-83-1	Isobutyl Alcohol	ND	50	11	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl Iodide	ND	1.0	0.27	ug/l	
80-62-6	Methyl Methacrylate	ND	5.0	0.71	ug/l	
74-95-3	Methylene Bromide	ND	2.0	0.37	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND UJ	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.63	ug/l	
108-05-4	Vinyl Acetate <sup>b</sup>	ND	10	2.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	105%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

(a) Result reported from HCl preserved sample and should be used for screening purposes only.

(b) Associated BS recovery outside control limits.

ND = Not detected      MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> H78B-15	<b>Date Sampled:</b> 11/14/17
<b>Lab Sample ID:</b> FA49403-5	<b>Date Received:</b> 11/16/17
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P53899.D	1	11/22/17 14:57	AJ	n/a	n/a	VP2047
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	25	14	ug/l	
107-02-8	Acrolein <sup>a</sup>	ND	20	6.1	ug/l	
107-13-1	Acrylonitrile <sup>a</sup>	ND	10	2.1	ug/l	
107-05-1	Allyl Chloride	ND	2.0	0.26	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether <sup>a</sup>	ND	5.0	2.1	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
126-99-8	Chloroprene	ND	5.0	0.50	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
123-91-1	1,4-Dioxane	ND	200	75	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
97-63-2	Ethyl Methacrylate	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	H78B-15	<b>Date Sampled:</b>	11/14/17
<b>Lab Sample ID:</b>	FA49403-5	<b>Date Received:</b>	11/16/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-83-1	Isobutyl Alcohol	ND	50	11	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl Iodide	ND	1.0	0.27	ug/l	
80-62-6	Methyl Methacrylate	ND	5.0	0.71	ug/l	
74-95-3	Methylene Bromide	ND	2.0	0.37	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND UJ	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.63	ug/l	
108-05-4	Vinyl Acetate <sup>b</sup>	ND	10	2.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		83-118%
17060-07-0	1,2-Dichloroethane-D4	106%		79-125%
2037-26-5	Toluene-D8	97%		85-112%
460-00-4	4-Bromofluorobenzene	98%		83-118%

- (a) Result reported from HCl preserved sample and should be used for screening purposes only.  
(b) Associated BS recovery outside control limits.

ND = Not detected      MDL = Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	OPCA-DUP1-20171114	<b>Date Sampled:</b>	11/14/17
<b>Lab Sample ID:</b>	FA49403-6	<b>Date Received:</b>	11/16/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P53900.D	1	11/22/17 15:22	AJ	n/a	n/a	VP2047
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	25	14	ug/l	
107-02-8	Acrolein <sup>a</sup>	ND	20	6.1	ug/l	
107-13-1	Acrylonitrile <sup>a</sup>	ND	10	2.1	ug/l	
107-05-1	Allyl Chloride	ND	2.0	0.26	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether <sup>a</sup>	ND	5.0	2.1	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
126-99-8	Chloroprene	ND	5.0	0.50	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
123-91-1	1,4-Dioxane	ND	200	75	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
97-63-2	Ethyl Methacrylate	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	OPCA-DUP1-20171114	<b>Date Sampled:</b>	11/14/17
<b>Lab Sample ID:</b>	FA49403-6	<b>Date Received:</b>	11/16/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-83-1	Isobutyl Alcohol	ND	50	11	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl Iodide	ND	1.0	0.27	ug/l	
80-62-6	Methyl Methacrylate	ND	5.0	0.71	ug/l	
74-95-3	Methylene Bromide	ND	2.0	0.37	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND UJ	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.63	ug/l	
108-05-4	Vinyl Acetate <sup>b</sup>	ND	10	2.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		83-118%
17060-07-0	1,2-Dichloroethane-D4	105%		79-125%
2037-26-5	Toluene-D8	97%		85-112%
460-00-4	4-Bromofluorobenzene	102%		83-118%

(a) Result reported from HCl preserved sample and should be used for screening purposes only.

(b) Associated BS recovery outside control limits.

ND = Not detected      MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> TRIP BLANK		
<b>Lab Sample ID:</b> FA49403-7		<b>Date Sampled:</b> 11/14/17
<b>Matrix:</b> AQ - Trip Blank Water		<b>Date Received:</b> 11/16/17
<b>Method:</b> SW846 8260B		<b>Percent Solids:</b> n/a
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	P53901.D	1	11/22/17 15:46	AJ	n/a	n/a	VP2047
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	25	14	ug/l	
107-02-8	Acrolein <sup>b</sup>	ND	20	6.1	ug/l	
107-13-1	Acrylonitrile <sup>b</sup>	ND	10	2.1	ug/l	
107-05-1	Allyl Chloride	ND	2.0	0.26	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether <sup>b</sup> R	ND	5.0	2.1	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
126-99-8	Chloroprene	ND	5.0	0.50	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
123-91-1	1,4-Dioxane	ND	200	75	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
97-63-2	Ethyl Methacrylate	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	TRIP BLANK	<b>Date Sampled:</b>	11/14/17
<b>Lab Sample ID:</b>	FA49403-7	<b>Date Received:</b>	11/16/17
<b>Matrix:</b>	AQ - Trip Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-83-1	Isobutyl Alcohol	ND	50	11	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl Iodide	ND	1.0	0.27	ug/l	
80-62-6	Methyl Methacrylate	ND	5.0	0.71	ug/l	
74-95-3	Methylene Bromide	ND	2.0	0.37	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND UJ	1.0	0.22	ug/l	
108-88-3	Toluene	4.3	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.63	ug/l	
108-05-4	Vinyl Acetate <sup>c</sup>	ND	10	2.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	105%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

(a) Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.

(b) Result reported from HCl preserved sample and should be used for screening purposes only.

(c) Associated BS recovery outside control limits.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> OPCA-MW-5R		<b>Date Sampled:</b> 11/14/17
<b>Lab Sample ID:</b> FA49403-8		<b>Date Received:</b> 11/16/17
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	P53902.D	1	11/22/17 16:11	AJ	n/a	n/a	VP2047

Run #1	Purge Volume
Run #2	5.0 ml

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	25	14	ug/l	
107-02-8	Acrolein <sup>a</sup>	ND	20	6.1	ug/l	
107-13-1	Acrylonitrile <sup>a</sup>	ND	10	2.1	ug/l	
107-05-1	Allyl Chloride	ND	2.0	0.26	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether <sup>a</sup> R	ND	5.0	2.1	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
126-99-8	Chloroprene	ND	5.0	0.50	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
123-91-1	1,4-Dioxane	ND	200	75	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
97-63-2	Ethyl Methacrylate	ND	5.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	OPCA-MW-5R	<b>Date Sampled:</b>	11/14/17
<b>Lab Sample ID:</b>	FA49403-8	<b>Date Received:</b>	11/16/17
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	GE Pittsfield-GMA; 159 Plastics Ave, Pittsfield, MA		

## VOA Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-83-1	Isobutyl Alcohol	ND	50	11	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl Iodide	ND	1.0	0.27	ug/l	
80-62-6	Methyl Methacrylate	ND	5.0	0.71	ug/l	
74-95-3	Methylene Bromide	ND	2.0	0.37	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND UJ	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.63	ug/l	
108-05-4	Vinyl Acetate <sup>b</sup>	ND	10	2.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	105%		79-125%
2037-26-5	Toluene-D8	97%		85-112%
460-00-4	4-Bromofluorobenzene	98%		83-118%

(a) Result reported from HCl preserved sample and should be used for screening purposes only.

(b) Associated BS recovery outside control limits.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



ACCUTEST

CHAIN OF CUSTODY

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www.sgs.com

FED-EX Tracking #
Bottle Order Control #
SGS Accutest Quote #
SGS Accutest Job: FA48667X

Table with columns: Client / Reporting Information, Project Information, Requested Analysis (see TEST CODE sheet), Matrix Codes. Includes sample details like 5FX, 5X, 6X, 38FX, 8X, 3X, 3SX, 3DX with dates and times.

Turnaround Time (Business days)
Data Deliverable Information
Approved By (SGS Accutest PM): / Date:
Commercial "A" (Level 1, Results Only)
Commercial "B" (Level 2, Results + QC summary)
REDT1 (Level 3)
FULT1 (Level 4)
DOD FULT1 (Level 4)
Other
EDD Format
Test America
10 Hazelwood Dr.
Amherst, NY 14228
ATTN: Judy Stone

Sample Custody must be documented below each time samples change possession, including courier delivery.
Relinquished by Sampler: 1, 3, 5
Received By: 1, 2, 3, 4, 5
Date Time:
Custody Seal #
Intact / Not intact
Preserved where applicable
On Ice / Cooler Temp.

1B-IN  
 INORGANIC ANALYSIS DATA SHEET  
 GENERAL CHEMISTRY

Client Sample ID: GMA-4-6

Lab Sample ID: 480-127001-1

Lab Name: TestAmerica Buffalo

Job No.: 480-127001-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 10/19/2017 12:00

Reporting Basis: WET

Date Received: 10/23/2017 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Physiologically Available Cyanide	ND	0.010	0.010	mg/L	UJ	<del>H F2</del>	1	9012



1B-IN  
 INORGANIC ANALYSIS DATA SHEET  
 GENERAL CHEMISTRY

Client Sample ID: 78-1

Lab Sample ID: 480-127001-2

Lab Name: TestAmerica Buffalo

Job No.: 480-127001-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 10/20/2017 14:00

Reporting Basis: WET

Date Received: 10/23/2017 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Physiologically Available Cyanide	ND	0.010	0.010	mg/L	UJ	<del>H</del>	1	9012



ACCUTEST

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FED-EX Tracking #
Bottle Order Control #
SGS Accutest Quote #
SGS Accutest Job FA48727X

Client / Reporting Information
Project Information
Requested Analysis ( see TEST CODE sheet)
Matrix Codes

Table with columns: SGS Accutest Sample #, Field ID / Point of Collection, MEQ/DI Vial #, Date, Time, Sampled by, Matrix, # of bottles, HCl, NaOH, HNO3, H2SO4, NONE, DI Water, MEQ, ENCORE, B8290TODF, FILTEREXT, P8082PCB, LAB USE ONLY


Turnaround Time ( Business days)
Data Deliverable Information
Comments / Special Instructions
Approved By (SGS Accutest PM): / Date:
Commercial "A" (Level 1, Results Only)
Commercial "B" (Level 2, Results + QC summary)
REDT1 (Level 3)
FULT1 (Level 4)
DOD FULT1 (Level 4)
Other
EDD Format
SGS-Wilmington
\*= Samples in this project.

Sample Custody must be documented below each time samples change possession, including courier delivery.
Relinquished by Sampler:
Date Time:
Received By:
Date Time:
Relinquished By:
Date Time:
Received By:
Date Time:
Custody Seal #
Intact
Not intact
Preserved where applicable
Cooler Temp.
1.4, 0.4, 2.6

# Sample ID: H78-B-1S

# Method 8290A

Client Data		Sample Data		Laboratory Data			
Name:	SGS Accutest	Matrix:	Aqueous	Lab Project ID:	B1470	Date Received:	26-Oct-2017
Project ID:	FA48727X	Weight/Volume:	0.97 L	Lab Sample ID:	B1470_15253_DF_001	Date Extracted:	30-Oct-2017
Date Collected:	24-Oct-2017	pH:	6	QC Batch No:	15253	Date Analyzed:	03-Nov-2017
		Split:	-	Dilution:	-	Time Analyzed:	9:08:56
Analyte	Conc. (pg/L)	DL (pg/L)	EMPC (pg/L)	Qualifiers	Standard	ES Recoveries	Qualifiers
2378-TCDD	ND	2.11			ES 2378-TCDD	87.4	
12378-PeCDD	ND	2.12			ES 12378-PeCDD	76.1	
123478-HxCDD	ND	3.58			ES 123478-HxCDD	83.2	
123678-HxCDD	ND	3.43			ES 123678-HxCDD	86.6	
123789-HxCDD	ND	3.48			ES 123789-HxCDD	84.1	
1234678-HpCDD	ND	2.6			ES 1234678-HpCDD	97.7	
OCDD	ND	17.7			ES OCDD	84.9	
2378-TCDF	ND	2.24			ES 2378-TCDF	87.4	
12378-PeCDF	ND	1.1			ES 12378-PeCDF	72.4	
23478-PeCDF	ND	1.12			ES 23478-PeCDF	71.1	
123478-HxCDF	ND	1.73			ES 123478-HxCDF	97.6	
123678-HxCDF	ND	1.62			ES 123678-HxCDF	99.2	
234678-HxCDF	ND	2.06			ES 234678-HxCDF	93.4	
123789-HxCDF	ND	2.73			ES 123789-HxCDF	91.8	
1234678-HpCDF	ND	0.97			ES 1234678-HpCDF	99.5	
1234789-HpCDF	ND	1.59			ES 1234789-HpCDF	93	
OCDF	ND	7.63			ES OCDF	84.5	
Totals					Standard	CS Recoveries	
Total TCDD	ND	2.11	ND		CS 37Cl-2378-TCDD	84.9	
Total PeCDD	ND	2.12	ND		CS 12347-PeCDD	74.6	
Total HxCDD	ND	3.49	ND		CS 12346-PeCDF	77.6	
Total HpCDD	ND	2.6	ND		CS 123469-HxCDF	97.1	
					CS 1234689-HpCDF	99.4	
Total TCDF	ND	2.24	ND				
Total PeCDF	4.34		4.34	JNX			
Total HxCDF	ND	1.99	ND				
Total HpCDF	ND	1.24	ND				
<b>Total PCDD/Fs</b>	<b>4.34</b>		<b>4.34</b>				
ITEF TEQs							
TEQ: ND=0	0		0				
TEQ: ND=DL/2	2.97	2.97	2.97				
TEQ: ND=DL	5.95	5.95	5.95				



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# Sample ID: H78-B-1S

# Method 8290A

<b>Client Data</b>		<b>Sample Data</b>		<b>Laboratory Data</b>			
Name:	SGS Accutest	Matrix:	Aqueous	Lab Project ID:	B1470	Date Received:	26-Oct-2017
Project ID:	FA48727X	Weight/Volume:	0.97 L	Lab Sample ID:	B1470_15253_DF_001	Date Extracted:	30-Oct-2017
Date Collected:	24-Oct-2017	pH:	6	QC Batch No.:	15253	Date Analyzed:	03-Nov-2017
		Split:	-	Dilution:	-	Time Analyzed:	9:08:56

Tetra-Dioxins	Conc. (pg/L)	Qualifiers	Penta-Dioxins	Conc. (pg/L)	Qualifiers	Hexa-Dioxins	Conc. (pg/L)	Qualifiers	Hepta-Dioxins	Conc. (pg/L)	Qualifiers
1368D	(2.11)		12479/12468D	(2.12)		124679/124689D	(3.49)		1234679D	(2.6)	
1379D	(2.11)		12469D	(2.12)		123468D	(3.49)		1234678D	(2.6)	
1369D	(2.11)		12368D	(2.12)		123679/123689D	(3.49)				
1469D	(2.11)		12478D	(2.12)		123469D	(3.49)				
1247D...[4]	(2.11)		12379D	(2.12)		123478D	(3.58)				
1378D	(2.11)		12369D...[3]	(2.12)		123678D	(3.43)				
1268D	(2.11)		12346/12347D	(2.12)		123467D	(3.49)				
1478D	(2.11)		12378D	(2.12)		123789D	(3.48)		Conc.	0	
1279D	(2.11)		12367D	(2.12)					EMPC	0	
1234/1269D	(2.11)		12389D	(2.12)							
1236D	(2.11)								Octa-Dioxin	Conc	Qualifiers
1237/1238D	(2.11)									(pg/L)	
1239D	(2.11)								OCDD	(17.7)	
2378D	(2.11)										
1278D	(2.11)										
1267D	(2.11)										
1289D	(2.11)										
Conc.	0		Conc.	0		Conc.	0				
EMPC	0		EMPC	0		EMPC	0				



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ITEF TEQs	Conc.	EMPC
TEQ: ND=0	0	0
TEQ: ND=DL/2	2.97	2.97
TEQ: ND=DL	5.95	5.95
Total PCDD/Fs	Conc.	EMPC
	4.34	4.34

Checkcode: 739-167-CJT

Report Created: 06-Nov-2017 14:49 Analyst: TF

# Sample ID: H78-B-1S

# Method 8290A

Client Data			Sample Data			Laboratory Data			Date Received: 26-Oct-2017		
Name: SGS Accutest			Matrix: Aqueous			Lab Project ID: B1470			Date Extracted: 30-Oct-2017		
Project ID: FA48727X			Weight/Volume: 0.97 L			Lab Sample ID: B1470_15253_DF_001			Date Analyzed: 03-Nov-2017		
Date Collected: 24-Oct-2017			pH: 6			QC Batch No.: 15253			Time Analyzed: 9:08:56		
Split: -			Dilution: -								
Tetra-Furans	Conc. (pg/L)	Qualifiers	Penta-Furans	Conc. (pg/L)	Qualifiers	Hexa-Furans	Conc (pg/L)	Qualifiers	Hepta-Furans	Conc (pg/L)	Qualifiers
1368F	(2.24)		13468/12468F	(1.21)		123468F	(1.99)		1234678F	(0.97)	
1468F	(2.24)		13678F...[3]	(1.11)		124678/134678F	(1.99)		1234679F	(1.24)	
2468F	(2.24)		12368F...[3]	(1.11)		134679F	(1.99)		1234689F	(1.24)	
1346/1246F	(2.24)		14678F	(1.11)		124679F	(1.99)		1234789F	(1.59)	
1347F...[3]	(2.24)		13479F	(1.11)		124689F	(1.99)				
1348F	(2.24)		13469/12479F	(1.11)		123467F	(1.99)				
1248F...[3]	(2.24)		12346F	4.34	J	123478F	(1.73)				
1268F	(2.24)		23468/12469F	(1.11)		123678F	(1.62)				
1467F	(2.24)		12347F	(1.11)		123479F	(1.99)				
1478F	(2.24)		12348F	(1.11)		123469F	(1.99)				
1369/1237F	(2.24)		12378F	(1.1)		123679F	(1.99)				
2467F	(2.24)		12678/12367F	(1.11)		234678F	(2.06)		Conc.	0	
2368F	(2.24)		12379F	(1.11)		234678/123689F	0		EMPC	0	
1238F...[5]	(2.24)		12679F	(1.11)		123689F	(1.99)				
1278F	(2.24)		23467/12369F	(1.11)		123789F	(2.73)		Octa-Furan	Conc	Qualifiers
1349F	(2.24)		23478F	(1.12)		123789/123489F	0			(pg/L)	
1267F	(2.24)		23478/12489F	0		123489F	(1.99)		OCDF	(7.63)	
2346/1249F	(2.24)		12489F	(1.11)							
2347/1279F	(2.24)		12349F	(1.11)							
2348F	(2.24)		12389F	(1.11)							
2378F	(2.24)										
2367/3467F	(2.24)										
1269F	(2.24)										
1239F	(2.24)										
1289F	(2.24)										
Conc.	0		Conc.	4.34		Conc.	0				
EMPC	0		EMPC	4.34		EMPC	0				


Checkcode: 739-167-CJT

Report Created: 06-Nov-2017 14:49 Analyst: TF

**Sample ID: H78-B-1S** **TEQ Summary** **Method 8290A**

Client Project Name: SGS Accutest	Matrix: Aqueous	Lab Sample ID: B1470_15253_DF_001
Client Project ID: FA48727X	Weight/Volume: 0.97 L	QC Batch No.: 15253
Date Collected: 24-Oct-2017	Split: -	Date Extracted: 30-Oct-2017
Date Received: 26-Oct-2017	Dilution: -	Date Analyzed: 03-Nov-2017 09:08
Lab Project No: B1470	Units: pg/L	


Analyte	Result	Qualifiers	DLs	I-TEQ	WHO-1998	WHO-2005
2378-TCDD	(2.11)		2.11	(2.11)	(2.11)	(2.11)
12378-PeCDD	(2.12)		2.12	(1.06)	(2.12)	(2.12)
123478-HxCDD	(3.58)		3.58	(0.358)	(0.358)	(0.358)
123678-HxCDD	(3.43)		3.43	(0.343)	(0.343)	(0.343)
123789-HxCDD	(3.48)		3.48	(0.348)	(0.348)	(0.348)
1234678-HpCDD	(2.6)		2.6	(0.026)	(0.026)	(0.026)
OCDD	(17.7)		17.7	(0.0177)	(0.00177)	(0.00531)
2378-TCDF	(2.24)		2.24	(0.224)	(0.224)	(0.224)
12378-PeCDF	(1.1)		1.1	(0.0552)	(0.0552)	(0.0331)
23478-PeCDF	(1.12)		1.12	(0.559)	(0.559)	(0.335)
123478-HxCDF	(1.73)		1.73	(0.173)	(0.173)	(0.173)
123678-HxCDF	(1.62)		1.62	(0.162)	(0.162)	(0.162)
234678-HxCDF	(2.06)		2.06	(0.206)	(0.206)	(0.206)
123789-HxCDF	(2.73)		2.73	(0.273)	(0.273)	(0.273)
1234678-HpCDF	(0.97)		0.97	(0.0097)	(0.0097)	(0.0097)
1234789-HpCDF	(1.59)		1.59	(0.0159)	(0.0159)	(0.0159)
OCDF	(7.63)		7.63	(0.00763)	(0.000763)	(0.00229)

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	EMPC = 0, ND = 0	0	0	0
	EMPC = 0, ND = DL / 2	2.97	3.49	3.37
	EMPC = 0, ND = DL	5.95	6.99	6.75
	EMPC = 0, < J-level = 0	0	0	0
	EMPC = EMPC, ND = 0	0	0	0
	EMPC = EMPC, ND = DL / 2	2.97	3.49	3.37
	EMPC = EMPC, ND = DL	5.95	6.99	6.75
EMPC = EMPC, < J-level = 0	0	0	0	

# Sample ID: OPCA-MW-2R

# Method 8290A

Client Data		Sample Data		Laboratory Data			
Name:	SGS Accutest	Matrix:	Aqueous	Lab Project ID:	B1470	Date Received:	26-Oct-2017
Project ID:	FA48727X	Weight/Volume:	1.05 L	Lab Sample ID:	B1470_15253_DF_002	Date Extracted:	30-Oct-2017
Date Collected:	24-Oct-2017	pH:	6	QC Batch No:	15253	Date Analyzed:	03-Nov-2017
		Split:	-	Dilution:	-	Time Analyzed:	9:56:23
Analyte	Conc. (pg/L)	DL (pg/L)	EMPC (pg/L)	Qualifiers	Standard	ES Recoveries	Qualifiers
2378-TCDD	ND	1.57			ES 2378-TCDD	86.6	
12378-PeCDD	ND	1.56			ES 12378-PeCDD	71.4	
123478-HxCDD	ND	3.14			ES 123478-HxCDD	86.2	
123678-HxCDD	ND	3			ES 123678-HxCDD	89.3	
123789-HxCDD	ND	3.09			ES 123789-HxCDD	92.6	
1234678-HpCDD	ND	1.88			ES 1234678-HpCDD	91.2	
OCDD	ND	17.3			ES OCDD	76	
2378-TCDF	ND	1.13			ES 2378-TCDF	90.7	
12378-PeCDF	ND	0.643			ES 12378-PeCDF	76.6	
23478-PeCDF	ND	0.648			ES 23478-PeCDF	73.9	
123478-HxCDF	ND	2.08			ES 123478-HxCDF	91.5	
123678-HxCDF	ND	2.02			ES 123678-HxCDF	93.7	
234678-HxCDF	ND	2.21			ES 234678-HxCDF	94.6	
123789-HxCDF	ND	2.94			ES 123789-HxCDF	87.8	
1234678-HpCDF	ND	0.804			ES 1234678-HpCDF	91.6	
1234789-HpCDF	ND	1.4			ES 1234789-HpCDF	84.6	
OCDF	ND	8.38			ES OCDF	74.9	
Totals					Standard	CS Recoveries	
Total TCDD	ND	1.57	ND		CS 37Cl-2378-TCDD	88.3	
Total PeCDD	ND	1.56	ND		CS 12347-PeCDD	75.2	
Total HxCDD	ND	3.07	ND		CS 12346-PeCDF	81	
Total HpCDD	ND	1.88	ND		CS 123469-HxCDF	96.3	
					CS 1234689-HpCDF	95.4	
Total TCDF	ND	1.13	ND				
Total PeCDF	ND	0.645	ND				
Total HxCDF	ND	2.27	ND				
Total HpCDF	ND	1.06	ND				
<b>Total PCDD/Fs</b>	<b>ND</b>		<b>ND</b>				
ITEF TEQs							
TEQ: ND=0	0		0				
TEQ: ND=DL/2	2.37	2.37	2.37				
TEQ: ND=DL	4.74	4.74	4.74				



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# Sample ID: OPCA-MW-2R

# Method 8290A

<b>Client Data</b>		<b>Sample Data</b>		<b>Laboratory Data</b>			
Name:	SGS Accutest	Matrix:	Aqueous	Lab Project ID:	B1470	Date Received:	26-Oct-2017
Project ID:	FA48727X	Weight/Volume:	1.05 L	Lab Sample ID:	B1470_15253_DF_002	Date Extracted:	30-Oct-2017
Date Collected:	24-Oct-2017	pH:	6	QC Batch No.:	15253	Date Analyzed:	03-Nov-2017
		Split:	-	Dilution:	-	Time Analyzed:	9:56:23

Tetra-Dioxins	Conc. (pg/L)	Qualifiers	Penta-Dioxins	Conc. (pg/L)	Qualifiers	Hexa-Dioxins	Conc. (pg/L)	Qualifiers	Hepta-Dioxins	Conc. (pg/L)	Qualifiers
1368D	(1.57)		12479/12468D	(1.56)		124679/124689D	(3.07)		1234679D	(1.88)	
1379D	(1.57)		12469D	(1.56)		123468D	(3.07)		1234678D	(1.88)	
1369D	(1.57)		12368D	(1.56)		123679/123689D	(3.07)				
1469D	(1.57)		12478D	(1.56)		123469D	(3.07)				
1247D...[4]	(1.57)		12379D	(1.56)		123478D	(3.14)				
1378D	(1.57)		12369D...[3]	(1.56)		123678D	(3)				
1268D	(1.57)		12346/12347D	(1.56)		123467D	(3.07)				
1478D	(1.57)		12378D	(1.56)		123789D	(3.09)		<b>Conc.</b>	0	
1279D	(1.57)		12367D	(1.56)					<b>EMPC</b>	0	
1234/1269D	(1.57)		12389D	(1.56)							
1236D	(1.57)								<b>Octa-Dioxin</b>	<b>Conc</b>	<b>Qualifiers</b>
1237/1238D	(1.57)									<b>(pg/L)</b>	
1239D	(1.57)								OCDD	(17.3)	
2378D	(1.57)										
1278D	(1.57)										
1267D	(1.57)										
1289D	(1.57)										
<b>Conc.</b>	0		<b>Conc.</b>	0		<b>Conc.</b>	0				
<b>EMPC</b>	0		<b>EMPC</b>	0		<b>EMPC</b>	0				



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ITEF TEQs	Conc.	EMPC
TEQ: ND=0	0	0
TEQ: ND=DL/2	2.37	2.37
TEQ: ND=DL	4.74	4.74
<b>Total PCDD/Fs</b>	<b>Conc.</b>	<b>EMPC</b>
	0	0

Checkcode: 947-777-JDF

Report Created: 06-Nov-2017 14:49 Analyst: TF



# Sample ID: OPCA-MW-2R

# Method 8290A

Client Data			Sample Data			Laboratory Data			Date Received: 26-Oct-2017		
Name: SGS Accutest			Matrix: Aqueous			Lab Project ID: B1470			Date Received: 26-Oct-2017		
Project ID: FA48727X			Weight/Volume: 1.05 L			Lab Sample ID: B1470_15253_DF_002			Date Extracted: 30-Oct-2017		
Date Collected: 24-Oct-2017			pH: 6			QC Batch No.: 15253			Date Analyzed: 03-Nov-2017		
			Split: -			Dilution: -			Time Analyzed: 9:56:23		
Tetra-Furans	Conc. (pg/L)	Qualifiers	Penta-Furans	Conc. (pg/L)	Qualifiers	Hexa-Furans	Conc (pg/L)	Qualifiers	Hepta-Furans	Conc (pg/L)	Qualifiers
1368F	(1.13)		13468/12468F	(0.895)		123468F	(2.27)		1234678F	(0.804)	
1468F	(1.13)		13678F...[3]	(0.645)		124678/134678F	(2.27)		1234679F	(1.06)	
2468F	(1.13)		12368F...[3]	(0.645)		134679F	(2.27)		1234689F	(1.06)	
1346/1246F	(1.13)		14678F	(0.645)		124679F	(2.27)		1234789F	(1.4)	
1347F...[3]	(1.13)		13479F	(0.645)		124689F	(2.27)				
1348F	(1.13)		13469/12479F	(0.645)		123467F	(2.27)				
1248F...[3]	(1.13)		12346F	(0.645)		123478F	(2.08)				
1268F	(1.13)		23468/12469F	(0.645)		123678F	(2.02)				
1467F	(1.13)		12347F	(0.645)		123479F	(2.27)				
1478F	(1.13)		12348F	(0.645)		123469F	(2.27)				
1369/1237F	(1.13)		12378F	(0.643)		123679F	(2.27)				
2467F	(1.13)		12678/12367F	(0.645)		234678F	(2.21)		<b>Conc.</b>	0	
2368F	(1.13)		12379F	(0.645)		234678/123689F	0		<b>EMPC</b>	0	
1238F...[5]	(1.13)		12679F	(0.645)		123689F	(2.27)				
1278F	(1.13)		23467/12369F	(0.645)		123789F	(2.94)		<b>Octa-Furan</b>	<b>Conc</b>	<b>Qualifiers</b>
1349F	(1.13)		23478F	(0.648)		123789/123489F	0			<b>(pg/L)</b>	
1267F	(1.13)		23478/12489F	0		123489F	(2.27)		<b>OCDF</b>	(8.38)	
2346/1249F	(1.13)		12489F	(0.645)							
2347/1279F	(1.13)		12349F	(0.645)							
2348F	(1.13)		12389F	(0.645)							
2378F	(1.13)										
2367/3467F	(1.13)										
1269F	(1.13)										
1239F	(1.13)										
1289F	(1.13)										
<b>Conc.</b>	0		<b>Conc.</b>	0		<b>Conc.</b>	0				
<b>EMPC</b>	0		<b>EMPC</b>	0		<b>EMPC</b>	0				


Checkcode: 947-777-JDF

Report Created: 06-Nov-2017 14:49 Analyst: TF

**Sample ID: OPCA-MW-2R** **TEQ Summary** **Method 8290A**

Client Project Name:	SGS Accutest	Matrix:	Aqueous	Lab Sample ID:	B1470_15253_DF_002
Client Project ID:	FA48727X	Weight/Volume:	1.05 L	QC Batch No.:	15253
Date Collected:	24-Oct-2017	Split:	-	Date Extracted:	30-Oct-2017
Date Received:	26-Oct-2017	Dilution:	-	Date Analyzed:	03-Nov-2017 09:56
Lab Project No:	B1470	Units	pg/L		


Analyte	Result	Qualifiers	DLs	I-TEQ	WHO-1998	WHO-2005
2378-TCDD	(1.57)		1.57	(1.57)	(1.57)	(1.57)
12378-PeCDD	(1.56)		1.56	(0.78)	(1.56)	(1.56)
123478-HxCDD	(3.14)		3.14	(0.314)	(0.314)	(0.314)
123678-HxCDD	(3)		3	(0.3)	(0.3)	(0.3)
123789-HxCDD	(3.09)		3.09	(0.309)	(0.309)	(0.309)
1234678-HpCDD	(1.88)		1.88	(0.0188)	(0.0188)	(0.0188)
OCDD	(17.3)		17.3	(0.0173)	(0.00173)	(0.00519)
2378-TCDF	(1.13)		1.13	(0.113)	(0.113)	(0.113)
12378-PeCDF	(0.643)		0.643	(0.0321)	(0.0321)	(0.0193)
23478-PeCDF	(0.648)		0.648	(0.324)	(0.324)	(0.194)
123478-HxCDF	(2.08)		2.08	(0.208)	(0.208)	(0.208)
123678-HxCDF	(2.02)		2.02	(0.202)	(0.202)	(0.202)
234678-HxCDF	(2.21)		2.21	(0.221)	(0.221)	(0.221)
123789-HxCDF	(2.94)		2.94	(0.294)	(0.294)	(0.294)
1234678-HpCDF	(0.804)		0.804	(0.00804)	(0.00804)	(0.00804)
1234789-HpCDF	(1.4)		1.4	(0.014)	(0.014)	(0.014)
OCDF	(8.38)		8.38	(0.00838)	(0.000838)	(0.00251)

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	EMPC = 0, ND = 0	0	0	0
	EMPC = 0, ND = DL / 2	2.37	2.75	2.68
	EMPC = 0, ND = DL	4.74	5.49	5.36
	EMPC = 0, < J-level = 0	0	0	0
	EMPC = EMPC, ND = 0	0	0	0
	EMPC = EMPC, ND = DL / 2	2.37	2.75	2.68
	EMPC = EMPC, ND = DL	4.74	5.49	5.36
	EMPC = EMPC, < J-level = 0	0	0	0

# Sample ID: OPCA-MW-4

# Method 8290A

Client Data		Sample Data		Laboratory Data			
Name:	SGS Accutest	Matrix:	Aqueous	Lab Project ID:	B1470	Date Received:	26-Oct-2017
Project ID:	FA48727X	Weight/Volume:	1.03 L	Lab Sample ID:	B1470_15253_DF_003	Date Extracted:	30-Oct-2017
Date Collected:	24-Oct-2017	pH:	6	QC Batch No:	15253	Date Analyzed:	03-Nov-2017
		Split:	-	Dilution:	-	Time Analyzed:	10:43:48
Analyte	Conc. (pg/L)	DL (pg/L)	EMPC (pg/L)	Qualifiers	Standard	ES Recoveries	Qualifiers
2378-TCDD	ND	1.31			ES 2378-TCDD	79.7	
12378-PeCDD	ND	2.27			ES 12378-PeCDD	78	
123478-HxCDD	ND	2.92			ES 123478-HxCDD	79.8	
123678-HxCDD	ND	3.15			ES 123678-HxCDD	77	
123789-HxCDD	ND	3.22			ES 123789-HxCDD	80.1	
1234678-HpCDD	ND	2.52			ES 1234678-HpCDD	87.8	
OCDD	ND	15.3			ES OCDD	70.6	
2378-TCDF	ND	1.6			ES 2378-TCDF	83.6	
12378-PeCDF	ND	2.47			ES 12378-PeCDF	77.6	
23478-PeCDF	ND	2.51			ES 23478-PeCDF	75.5	
123478-HxCDF	ND	2.08			ES 123478-HxCDF	88.6	
123678-HxCDF	ND	2.03			ES 123678-HxCDF	87.5	
234678-HxCDF	ND	2.15			ES 234678-HxCDF	90.2	
123789-HxCDF	ND	3.02			ES 123789-HxCDF	82.3	
1234678-HpCDF	ND	1.05			ES 1234678-HpCDF	87.2	
1234789-HpCDF	ND	1.66			ES 1234789-HpCDF	83.7	
OCDF	ND	7.1			ES OCDF	71.2	
Totals					Standard	CS Recoveries	
Total TCDD	ND	1.31	ND		CS 37Cl-2378-TCDD	80.3	
Total PeCDD	ND	2.27	ND		CS 12347-PeCDD	77.9	
Total HxCDD	ND	3.09	ND		CS 12346-PeCDF	82.8	
Total HpCDD	ND	2.52	ND		CS 123469-HxCDF	90.1	
					CS 1234689-HpCDF	90.8	
Total TCDF	5.13		5.13				
Total PeCDF	65.9		73.3	JNX			
Total HxCDF	ND		3.53				
Total HpCDF	ND	1.32	ND				
<b>Total PCDD/Fs</b>	<b>71</b>		<b>81.9</b>				
ITEF TEQs							
TEQ: ND=0	0		0				
TEQ: ND=DL/2	2.96	2.96	2.96				
TEQ: ND=DL	5.92	5.92	5.92				



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# Sample ID: OPCA-MW-4

# Method 8290A

Client Data		Sample Data			Laboratory Data			Date Received: 26-Oct-2017			
Name:	SGS Accutest	Matrix:	Aqueous		Lab Project ID:	B1470		Date Received:	26-Oct-2017		
Project ID:	FA48727X	Weight/Volume:	1.03 L		Lab Sample ID:	B1470_15253_DF_003		Date Extracted:	30-Oct-2017		
Date Collected:	24-Oct-2017	pH:	6		QC Batch No.:	15253		Date Analyzed:	03-Nov-2017		
		Split:	-		Dilution:	-		Time Analyzed:	10:43:48		

Tetra-Dioxins	Conc. (pg/L)	Qualifiers	Penta-Dioxins	Conc. (pg/L)	Qualifiers	Hexa-Dioxins	Conc. (pg/L)	Qualifiers	Hepta-Dioxins	Conc. (pg/L)	Qualifiers
1368D	(1.31)		12479/12468D	(2.27)		124679/124689D	(3.09)		1234679D	(2.52)	
1379D	(1.31)		12469D	(2.27)		123468D	(3.09)		1234678D	(2.52)	
1369D	(1.31)		12368D	(2.27)		123679/123689D	(3.09)				
1469D	(1.31)		12478D	(2.27)		123469D	(3.09)				
1247D...[4]	(1.31)		12379D	(2.27)		123478D	(2.92)				
1378D	(1.31)		12369D...[3]	(2.27)		123678D	(3.15)				
1268D	(1.31)		12346/12347D	(2.27)		123467D	(3.09)				
1478D	(1.31)		12378D	(2.27)		123789D	(3.22)		Conc.	0	
1279D	(1.31)		12367D	(2.27)					EMPC	0	
1234/1269D	(1.31)		12389D	(2.27)							
1236D	(1.31)								Octa-Dioxin	Conc	Qualifiers
1237/1238D	(1.31)									(pg/L)	
1239D	(1.31)								OCDD	(15.3)	
2378D	(1.31)										
1278D	(1.31)										
1267D	(1.31)										
1289D	(1.31)										
Conc.	0		Conc.	0		Conc.	0				
EMPC	0		EMPC	0		EMPC	0				



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ITEF TEQs	Conc.	EMPC
TEQ: ND=0	0	0
TEQ: ND=DL/2	2.96	2.96
TEQ: ND=DL	5.92	5.92
Total PCDD/Fs	Conc.	EMPC
	71	81.9

Checkcode: 122-182-LTL

Report Created: 06-Nov-2017 14:49 Analyst: TF

# Sample ID: OPCA-MW-4

# Method 8290A

Client Data			Sample Data			Laboratory Data			Date Received: 26-Oct-2017		
Name: SGS Accutest			Matrix: Aqueous			Lab Project ID: B1470			Date Received: 26-Oct-2017		
Project ID: FA48727X			Weight/Volume: 1.03 L			Lab Sample ID: B1470_15253_DF_003			Date Extracted: 30-Oct-2017		
Date Collected: 24-Oct-2017			pH: 6			QC Batch No.: 15253			Date Analyzed: 03-Nov-2017		
			Split: -			Dilution: -			Time Analyzed: 10:43:48		
Tetra-Furans	Conc. (pg/L)	Qualifiers	Penta-Furans	Conc. (pg/L)	Qualifiers	Hexa-Furans	Conc (pg/L)	Qualifiers	Hepta-Furans	Conc (pg/L)	Qualifiers
1368F	(1.6)		13468/12468F	(0.921)		123468F	(2.27)		1234678F	(1.05)	
1468F	(1.6)		13678F...[3]	(2.49)		124678/134678F	(2.27)		1234679F	(1.32)	
2468F	(1.6)		12368F...[3]	(2.49)		134679F	(2.27)		1234689F	(1.32)	
1346/1246F	(1.6)		14678F	5.73	J	124679F	(2.27)		1234789F	(1.66)	
1347F...[3]	(1.6)		13479F	(2.49)		124689F	(2.27)				
1348F	(1.6)		13469/12479F	10.1	J	123467F	(2.27)				
1248F...[3]	(1.6)		12346F	25.5		123478F	(2.08)				
1268F	(1.6)		23468/12469F	(2.49)		123678F	(2.03)				
1467F	(1.6)		12347F	8.62	J	123479F	(2.27)				
1478F	(1.6)		12348F	(2.49)		123469F	[3.53]	J			
1369/1237F	(1.6)		12378F	(2.47)		123679F	(2.27)				
2467F	(1.6)		12678/12367F	(2.49)		234678F	(2.15)		<b>Conc.</b>	0	
2368F	(1.6)		12379F	(2.49)		234678/123689F	0		<b>EMPC</b>	0	
1238F...[5]	(1.6)		12679F	(2.49)		123689F	(2.27)				
1278F	(1.6)		23467/12369F	[7.38]	J	123789F	(3.02)		<b>Octa-Furan</b>	<b>Conc</b>	<b>Qualifiers</b>
1349F	(1.6)		23478F	(2.51)		123789/123489F	0			(pg/L)	
1267F	(1.6)		23478/12489F	0		123489F	(2.27)		<b>OCDF</b>	(7.1)	
2346/1249F	(1.6)		12489F	(2.49)							
2347/1279F	(1.6)		12349F	16	J						
2348F	(1.6)		12389F	(2.49)							
2378F	(1.6)										
2367/3467F	(1.6)										
1269F	(1.6)										
1239F	(1.6)										
1289F	5.13										
<b>Conc.</b>	5.13		<b>Conc.</b>	65.9		<b>Conc.</b>	0				
<b>EMPC</b>	5.13		<b>EMPC</b>	73.3		<b>EMPC</b>	3.53				


Checkcode: 122-182-LTL

Report Created: 06-Nov-2017 14:49 Analyst: TF

**Sample ID: OPCA-MW-4** **TEQ Summary** **Method 8290A**

Client Project Name: SGS Accutest	Matrix: Aqueous	Lab Sample ID: B1470_15253_DF_003
Client Project ID: FA48727X	Weight/Volume: 1.03 L	QC Batch No.: 15253
Date Collected: 24-Oct-2017	Split: -	Date Extracted: 30-Oct-2017
Date Received: 26-Oct-2017	Dilution: -	Date Analyzed: 03-Nov-2017 10:43
Lab Project No: B1470	Units: pg/L	

Analyte	Result	Qualifiers	DLs	I-TEQ	WHO-1998	WHO-2005
2378-TCDD	(1.31)		1.31	(1.31)	(1.31)	(1.31)
12378-PeCDD	(2.27)		2.27	(1.13)	(2.27)	(2.27)
123478-HxCDD	(2.92)		2.92	(0.292)	(0.292)	(0.292)
123678-HxCDD	(3.15)		3.15	(0.315)	(0.315)	(0.315)
123789-HxCDD	(3.22)		3.22	(0.322)	(0.322)	(0.322)
1234678-HpCDD	(2.52)		2.52	(0.0252)	(0.0252)	(0.0252)
OCDD	(15.3)		15.3	(0.0153)	(0.00153)	(0.0046)
2378-TCDF	(1.6)		1.6	(0.16)	(0.16)	(0.16)
12378-PeCDF	(2.47)		2.47	(0.123)	(0.123)	(0.074)
23478-PeCDF	(2.51)		2.51	(1.25)	(1.25)	(0.753)
123478-HxCDF	(2.08)		2.08	(0.208)	(0.208)	(0.208)
123678-HxCDF	(2.03)		2.03	(0.203)	(0.203)	(0.203)
234678-HxCDF	(2.15)		2.15	(0.215)	(0.215)	(0.215)
123789-HxCDF	(3.02)		3.02	(0.302)	(0.302)	(0.302)
1234678-HpCDF	(1.05)		1.05	(0.0105)	(0.0105)	(0.0105)
1234789-HpCDF	(1.66)		1.66	(0.0166)	(0.0166)	(0.0166)
OCDF	(7.1)		7.1	(0.0071)	(0.00071)	(0.00213)

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	EMPC = 0, ND = 0	0	0	0
	EMPC = 0, ND = DL / 2	2.96	3.52	3.24
	EMPC = 0, ND = DL	5.92	7.03	6.49
	EMPC = 0, < J-level = 0	0	0	0
	EMPC = EMPC, ND = 0	0	0	0
	EMPC = EMPC, ND = DL / 2	2.96	3.52	3.24
	EMPC = EMPC, ND = DL	5.92	7.03	6.49
EMPC = EMPC, < J-level = 0	0	0	0	

# Sample ID: OPCA-MW-3R

# Method 8290A

Client Data		Sample Data		Laboratory Data			
Name:	SGS Accutest	Matrix:	Aqueous	Lab Project ID:	B1470	Date Received:	26-Oct-2017
Project ID:	FA48727X	Weight/Volume:	1.04 L	Lab Sample ID:	B1470_15253_DF_004	Date Extracted:	30-Oct-2017
Date Collected:	24-Oct-2017	pH:	6	QC Batch No:	15253	Date Analyzed:	03-Nov-2017
		Split:	-	Dilution:	-	Time Analyzed:	11:31:15
Analyte	Conc. (pg/L)	DL (pg/L)	EMPC (pg/L)	Qualifiers	Standard	ES Recoveries	Qualifiers
2378-TCDD	ND	0.997			ES 2378-TCDD	89.7	
12378-PeCDD	ND	0.995			ES 12378-PeCDD	77.3	
123478-HxCDD	ND	2.2			ES 123478-HxCDD	82.6	
123678-HxCDD	ND	1.97			ES 123678-HxCDD	94.6	
123789-HxCDD	ND	2.14			ES 123789-HxCDD	87.9	
1234678-HpCDD	ND	1.8			ES 1234678-HpCDD	84.7	
OCDD	ND	10.7			ES OCDD	78.4	
2378-TCDF	ND	0.924			ES 2378-TCDF	87.9	
12378-PeCDF	ND	0.557			ES 12378-PeCDF	77.8	
23478-PeCDF	ND	0.598			ES 23478-PeCDF	72.5	
123478-HxCDF	ND	0.99			ES 123478-HxCDF	88.6	
123678-HxCDF	ND	1.01			ES 123678-HxCDF	92.6	
234678-HxCDF	ND	1.18			ES 234678-HxCDF	92.6	
123789-HxCDF	ND	1.73			ES 123789-HxCDF	76.6	
1234678-HpCDF	ND	0.956			ES 1234678-HpCDF	88.4	
1234789-HpCDF	ND	1.73			ES 1234789-HpCDF	83.6	
OCDF	ND	4.53			ES OCDF	78	
Totals					Standard	CS Recoveries	
Total TCDD	ND	0.997	ND		CS 37Cl-2378-TCDD	88.6	
Total PeCDD	ND	0.995	ND		CS 12347-PeCDD	75.3	
Total HxCDD	ND	2.1	ND		CS 12346-PeCDF	83.3	
Total HpCDD	ND	1.8	ND		CS 123469-HxCDF	88.1	
					CS 1234689-HpCDF	88.1	
Total TCDF	ND	0.924	ND				
Total PeCDF	ND	0.577	ND				
Total HxCDF	ND	1.18	ND				
Total HpCDF	ND	1.3	ND				
Total PCDD/Fs	<b>ND</b>		<b>ND</b>				
ITEF TEQs							
TEQ: ND=0	0		0				
TEQ: ND=DL/2	1.55	1.55	1.55				
TEQ: ND=DL	3.1	3.1	3.1				



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# Sample ID: OPCA-MW-3R

# Method 8290A

<b>Client Data</b>		<b>Sample Data</b>		<b>Laboratory Data</b>			
Name:	SGS Accutest	Matrix:	Aqueous	Lab Project ID:	B1470	Date Received:	26-Oct-2017
Project ID:	FA48727X	Weight/Volume:	1.04 L	Lab Sample ID:	B1470_15253_DF_004	Date Extracted:	30-Oct-2017
Date Collected:	24-Oct-2017	pH:	6	QC Batch No.:	15253	Date Analyzed:	03-Nov-2017
		Split:	-	Dilution:	-	Time Analyzed:	11:31:15

Tetra-Dioxins	Conc. (pg/L)	Qualifiers	Penta-Dioxins	Conc. (pg/L)	Qualifiers	Hexa-Dioxins	Conc. (pg/L)	Qualifiers	Hepta-Dioxins	Conc. (pg/L)	Qualifiers
1368D	(0.997)		12479/12468D	(0.995)		124679/124689D	(2.1)		1234679D	(1.8)	
1379D	(0.997)		12469D	(0.995)		123468D	(2.1)		1234678D	(1.8)	
1369D	(0.997)		12368D	(0.995)		123679/123689D	(2.1)				
1469D	(0.997)		12478D	(0.995)		123469D	(2.1)				
1247D...[4]	(0.997)		12379D	(0.995)		123478D	(2.2)				
1378D	(0.997)		12369D...[3]	(0.995)		123678D	(1.97)				
1268D	(0.997)		12346/12347D	(0.995)		123467D	(2.1)				
1478D	(0.997)		12378D	(0.995)		123789D	(2.14)		Conc.	0	
1279D	(0.997)		12367D	(0.995)					EMPC	0	
1234/1269D	(0.997)		12389D	(0.995)							
1236D	(0.997)								Octa-Dioxin	Conc	Qualifiers
1237/1238D	(0.997)									(pg/L)	
1239D	(0.997)								OCDD	(10.7)	
2378D	(0.997)										
1278D	(0.997)										
1267D	(0.997)										
1289D	(0.997)										
Conc.	0		Conc.	0		Conc.	0				
EMPC	0		EMPC	0		EMPC	0				



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ITEF TEQs	Conc.	EMPC
TEQ: ND=0	0	0
TEQ: ND=DL/2	1.55	1.55
TEQ: ND=DL	3.1	3.1
Total PCDD/Fs	Conc.	EMPC
	0	0

Checkcode: 982-504-HRT

Report Created: 06-Nov-2017 14:49 Analyst: TF



# Sample ID: OPCA-MW-3R

# Method 8290A

Client Data			Sample Data			Laboratory Data			Date Received: 26-Oct-2017		
Name: SGS Accutest			Matrix: Aqueous			Lab Project ID: B1470			Date Extracted: 30-Oct-2017		
Project ID: FA48727X			Weight/Volume: 1.04 L			Lab Sample ID: B1470_15253_DF_004			Date Analyzed: 03-Nov-2017		
Date Collected: 24-Oct-2017			pH: 6			QC Batch No.: 15253			Time Analyzed: 11:31:15		
Split: -			Dilution: -								
Tetra-Furans	Conc. (pg/L)	Qualifiers	Penta-Furans	Conc. (pg/L)	Qualifiers	Hexa-Furans	Conc (pg/L)	Qualifiers	Hepta-Furans	Conc (pg/L)	Qualifiers
1368F	(0.924)		13468/12468F	(0.536)		123468F	(1.18)		1234678F	(0.956)	
1468F	(0.924)		13678F...[3]	(0.577)		124678/134678F	(1.18)		1234679F	(1.3)	
2468F	(0.924)		12368F...[3]	(0.577)		134679F	(1.18)		1234689F	(1.3)	
1346/1246F	(0.924)		14678F	(0.577)		124679F	(1.18)		1234789F	(1.73)	
1347F...[3]	(0.924)		13479F	(0.577)		124689F	(1.18)				
1348F	(0.924)		13469/12479F	(0.577)		123467F	(1.18)				
1248F...[3]	(0.924)		12346F	(0.577)		123478F	(0.99)				
1268F	(0.924)		23468/12469F	(0.577)		123678F	(1.01)				
1467F	(0.924)		12347F	(0.577)		123479F	(1.18)				
1478F	(0.924)		12348F	(0.577)		123469F	(1.18)				
1369/1237F	(0.924)		12378F	(0.557)		123679F	(1.18)				
2467F	(0.924)		12678/12367F	(0.577)		234678F	(1.18)		<b>Conc.</b>	0	
2368F	(0.924)		12379F	(0.577)		234678/123689F	0		<b>EMPC</b>	0	
1238F...[5]	(0.924)		12679F	(0.577)		123689F	(1.18)				
1278F	(0.924)		23467/12369F	(0.577)		123789F	(1.73)		<b>Octa-Furan</b>	<b>Conc</b>	<b>Qualifiers</b>
1349F	(0.924)		23478F	(0.598)		123789/123489F	0			<b>(pg/L)</b>	
1267F	(0.924)		23478/12489F	0		123489F	(1.18)		<b>OCDF</b>	(4.53)	
2346/1249F	(0.924)		12489F	(0.577)							
2347/1279F	(0.924)		12349F	(0.577)							
2348F	(0.924)		12389F	(0.577)							
2378F	(0.924)										
2367/3467F	(0.924)										
1269F	(0.924)										
1239F	(0.924)										
1289F	(0.924)										
<b>Conc.</b>	0		<b>Conc.</b>	0		<b>Conc.</b>	0				
<b>EMPC</b>	0		<b>EMPC</b>	0		<b>EMPC</b>	0				


Checkcode: 982-504-HRT

Report Created: 06-Nov-2017 14:49 Analyst: TF

**Sample ID: OPCA-MW-3R** **TEQ Summary** **Method 8290A**

Client Project Name: SGS Accutest	Matrix: Aqueous	Lab Sample ID: B1470_15253_DF_004
Client Project ID: FA48727X	Weight/Volume: 1.04 L	QC Batch No.: 15253
Date Collected: 24-Oct-2017	Split: -	Date Extracted: 30-Oct-2017
Date Received: 26-Oct-2017	Dilution: -	Date Analyzed: 03-Nov-2017 11:31
Lab Project No: B1470	Units: pg/L	

Analyte	Result	Qualifiers	DLs	I-TEQ	WHO-1998	WHO-2005
2378-TCDD	(0.997)		0.997	(0.997)	(0.997)	(0.997)
12378-PeCDD	(0.995)		0.995	(0.498)	(0.995)	(0.995)
123478-HxCDD	(2.2)		2.2	(0.22)	(0.22)	(0.22)
123678-HxCDD	(1.97)		1.97	(0.197)	(0.197)	(0.197)
123789-HxCDD	(2.14)		2.14	(0.214)	(0.214)	(0.214)
1234678-HpCDD	(1.8)		1.8	(0.018)	(0.018)	(0.018)
OCDD	(10.7)		10.7	(0.0107)	(0.00107)	(0.0032)
2378-TCDF	(0.924)		0.924	(0.0924)	(0.0924)	(0.0924)
12378-PeCDF	(0.557)		0.557	(0.0279)	(0.0279)	(0.0167)
23478-PeCDF	(0.598)		0.598	(0.299)	(0.299)	(0.179)
123478-HxCDF	(0.99)		0.99	(0.099)	(0.099)	(0.099)
123678-HxCDF	(1.01)		1.01	(0.101)	(0.101)	(0.101)
234678-HxCDF	(1.18)		1.18	(0.118)	(0.118)	(0.118)
123789-HxCDF	(1.73)		1.73	(0.173)	(0.173)	(0.173)
1234678-HpCDF	(0.956)		0.956	(0.00956)	(0.00956)	(0.00956)
1234789-HpCDF	(1.73)		1.73	(0.0173)	(0.0173)	(0.0173)
OCDF	(4.53)		4.53	(0.00453)	(0.000453)	(0.00136)

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	EMPC = 0, ND = 0	0	0	0
	EMPC = 0, ND = DL / 2	1.55	1.79	1.73
	EMPC = 0, ND = DL	3.1	3.58	3.45
	EMPC = 0, < J-level = 0	0	0	0
	EMPC = EMPC, ND = 0	0	0	0
	EMPC = EMPC, ND = DL / 2	1.55	1.79	1.73
	EMPC = EMPC, ND = DL	3.1	3.58	3.45
EMPC = EMPC, < J-level = 0	0	0	0	

# Sample ID: OPCA-MW-7

# Method 8290A

Client Data		Sample Data		Laboratory Data			
Name:	SGS Accutest	Matrix:	Aqueous	Lab Project ID:	B1470	Date Received:	26-Oct-2017
Project ID:	FA48727X	Weight/Volume:	1.03 L	Lab Sample ID:	B1470_15253_DF_005	Date Extracted:	30-Oct-2017
Date Collected:	24-Oct-2017	pH:	6	QC Batch No:	15253	Date Analyzed:	03-Nov-2017
		Split:	-	Dilution:	-	Time Analyzed:	12:18:41

Analyte	Conc. (pg/L)	DL (pg/L)	EMPC (pg/L)	Qualifiers	Standard	ES Recoveries	Qualifiers
2378-TCDD	ND	1.15			ES 2378-TCDD	91.3	
12378-PeCDD	ND	1.35			ES 12378-PeCDD	80.9	
123478-HxCDD	ND	2.42			ES 123478-HxCDD	85.5	
123678-HxCDD	ND	2.5			ES 123678-HxCDD	91.3	
123789-HxCDD	ND	2.59			ES 123789-HxCDD	90.3	
1234678-HpCDD	ND	1.36			ES 1234678-HpCDD	91	
OCDD	24.4			J	ES OCDD	88.2	
2378-TCDF	ND	1.15			ES 2378-TCDF	87.9	
12378-PeCDF	ND	0.809			ES 12378-PeCDF	79.8	
23478-PeCDF	ND	0.772			ES 23478-PeCDF	74.7	
123478-HxCDF	ND	1.3			ES 123478-HxCDF	94.8	
123678-HxCDF	ND	1.18			ES 123678-HxCDF	96.3	
234678-HxCDF	ND	1.39			ES 234678-HxCDF	96.8	
123789-HxCDF	ND	1.85			ES 123789-HxCDF	92.2	
1234678-HpCDF	EMPC		2.59	J NX	ES 1234678-HpCDF	99.4	
1234789-HpCDF	ND	0.879			ES 1234789-HpCDF	90.6	
OCDF	ND	5.58			ES OCDF	81	
Totals					Standard	CS Recoveries	
Total TCDD	ND	1.15	ND		CS 37Cl-2378-TCDD	88.9	
Total PeCDD	ND	1.35	ND		CS 12347-PeCDD	79.1	
Total HxCDD	ND	2.5	ND		CS 12346-PeCDF	80.8	
Total HpCDD	ND	1.36	ND		CS 123469-HxCDF	95.7	
Total TCDF	ND	1.15	ND		CS 1234689-HpCDF	90.3	
Total PeCDF	ND	0.791	ND				
Total HxCDF	2.99		2.99				
Total HpCDF	1.81		4.4	JNX			
Total PCDD/Fs	<b>29.2</b>		<b>31.8</b>				
ITEF TEQs							
TEQ: ND=0	0.0244		0.0503				
TEQ: ND=DL/2	1.88	1.87	1.91				
TEQ: ND=DL	3.75	3.74	3.77				



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# Sample ID: OPCA-MW-7

# Method 8290A

<b>Client Data</b>		<b>Sample Data</b>		<b>Laboratory Data</b>			
Name:	SGS Accutest	Matrix:	Aqueous	Lab Project ID:	B1470	Date Received:	26-Oct-2017
Project ID:	FA48727X	Weight/Volume:	1.03 L	Lab Sample ID:	B1470_15253_DF_005	Date Extracted:	30-Oct-2017
Date Collected:	24-Oct-2017	pH:	6	QC Batch No.:	15253	Date Analyzed:	03-Nov-2017
		Split:	-	Dilution:	-	Time Analyzed:	12:18:41

Tetra-Dioxins	Conc. (pg/L)	Qualifiers	Penta-Dioxins	Conc. (pg/L)	Qualifiers	Hexa-Dioxins	Conc. (pg/L)	Qualifiers	Hepta-Dioxins	Conc. (pg/L)	Qualifiers
1368D	(1.15)		12479/12468D	(1.35)		124679/124689D	(2.5)		1234679D	(1.36)	
1379D	(1.15)		12469D	(1.35)		123468D	(2.5)		1234678D	(1.36)	
1369D	(1.15)		12368D	(1.35)		123679/123689D	(2.5)				
1469D	(1.15)		12478D	(1.35)		123469D	(2.5)				
1247D...[4]	(1.15)		12379D	(1.35)		123478D	(2.42)				
1378D	(1.15)		12369D...[3]	(1.35)		123678D	(2.5)				
1268D	(1.15)		12346/12347D	(1.35)		123467D	(2.5)				
1478D	(1.15)		12378D	(1.35)		123789D	(2.59)		Conc.	0	
1279D	(1.15)		12367D	(1.35)					EMPC	0	
1234/1269D	(1.15)		12389D	(1.35)							
1236D	(1.15)								Octa-Dioxin	Conc	Qualifiers
1237/1238D	(1.15)									(pg/L)	
1239D	(1.15)								OCDD	24.4	J
2378D	(1.15)										
1278D	(1.15)										
1267D	(1.15)										
1289D	(1.15)										
Conc.	0		Conc.	0		Conc.	0				
EMPC	0		EMPC	0		EMPC	0				



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ITEF TEQs	Conc.	EMPC
TEQ: ND=0	0.0244	0.0503
TEQ: ND=DL/2	1.88	1.91
TEQ: ND=DL	3.75	3.77
	Conc.	EMPC
Total PCDD/Fs	29.2	31.8

Checkcode: 942-699-SPV

Report Created: 06-Nov-2017 14:49 Analyst: TF

# Sample ID: OPCA-MW-7

# Method 8290A

Client Data			Sample Data			Laboratory Data			Date Received: 26-Oct-2017		
Name: SGS Accutest			Matrix: Aqueous			Lab Project ID: B1470			Date Received: 26-Oct-2017		
Project ID: FA48727X			Weight/Volume: 1.03 L			Lab Sample ID: B1470_15253_DF_005			Date Extracted: 30-Oct-2017		
Date Collected: 24-Oct-2017			pH: 6			QC Batch No.: 15253			Date Analyzed: 03-Nov-2017		
			Split: -			Dilution: -			Time Analyzed: 12:18:41		
Tetra-Furans	Conc. (pg/L)	Qualifiers	Penta-Furans	Conc. (pg/L)	Qualifiers	Hexa-Furans	Conc (pg/L)	Qualifiers	Hepta-Furans	Conc (pg/L)	Qualifiers
1368F	(1.15)		13468/12468F	(0.579)		123468F	(1.4)		1234678F	[2.59]	J
1468F	(1.15)		13678F...[3]	(0.791)		124678/134678F	2.99	J	1234679F	(0.672)	
2468F	(1.15)		12368F...[3]	(0.791)		134679F	(1.4)		1234689F	1.81	J
1346/1246F	(1.15)		14678F	(0.791)		124679F	(1.4)		1234789F	(0.879)	
1347F...[3]	(1.15)		13479F	(0.791)		124689F	(1.4)				
1348F	(1.15)		13469/12479F	(0.791)		123467F	(1.4)				
1248F...[3]	(1.15)		12346F	(0.791)		123478F	(1.3)				
1268F	(1.15)		23468/12469F	(0.791)		123678F	(1.18)				
1467F	(1.15)		12347F	(0.791)		123479F	(1.4)				
1478F	(1.15)		12348F	(0.791)		123469F	(1.4)				
1369/1237F	(1.15)		12378F	(0.809)		123679F	(1.4)				
2467F	(1.15)		12678/12367F	(0.791)		234678F	(1.39)		<b>Conc.</b>	1.81	
2368F	(1.15)		12379F	(0.791)		234678/123689F	0		<b>EMPC</b>	4.4	
1238F...[5]	(1.15)		12679F	(0.791)		123689F	(1.4)				
1278F	(1.15)		23467/12369F	(0.791)		123789F	(1.85)		<b>Octa-Furan</b>	<b>Conc</b>	<b>Qualifiers</b>
1349F	(1.15)		23478F	(0.772)		123789/123489F	0			(pg/L)	
1267F	(1.15)		23478/12489F	0		123489F	(1.4)		<b>OCDF</b>	(5.58)	
2346/1249F	(1.15)		12489F	(0.791)							
2347/1279F	(1.15)		12349F	(0.791)							
2348F	(1.15)		12389F	(0.791)							
2378F	(1.15)										
2367/3467F	(1.15)										
1269F	(1.15)										
1239F	(1.15)										
1289F	(1.15)										
<b>Conc.</b>	0		<b>Conc.</b>	0		<b>Conc.</b>	2.99				
<b>EMPC</b>	0		<b>EMPC</b>	0		<b>EMPC</b>	2.99				


Checkcode: 942-699-SPV

Report Created: 06-Nov-2017 14:49 Analyst: TF

**Sample ID: OPCA-MW-7** **TEQ Summary** **Method 8290A**

Client Project Name:	SGS Accutest	Matrix:	Aqueous	Lab Sample ID:	B1470_15253_DF_005
Client Project ID:	FA48727X	Weight/Volume:	1.03 L	QC Batch No.:	15253
Date Collected:	24-Oct-2017	Split:	-	Date Extracted:	30-Oct-2017
Date Received:	26-Oct-2017	Dilution:	-	Date Analyzed:	03-Nov-2017 12:18
Lab Project No:	B1470	Units	pg/L		

Analyte	Result	Qualifiers	DLs	I-TEQ	WHO-1998	WHO-2005
2378-TCDD	(1.15)		1.15	(1.15)	(1.15)	(1.15)
12378-PeCDD	(1.35)		1.35	(0.677)	(1.35)	(1.35)
123478-HxCDD	(2.42)		2.42	(0.242)	(0.242)	(0.242)
123678-HxCDD	(2.5)		2.5	(0.25)	(0.25)	(0.25)
123789-HxCDD	(2.59)		2.59	(0.259)	(0.259)	(0.259)
1234678-HpCDD	(1.36)		1.36	(0.0136)	(0.0136)	(0.0136)
OCDD	24.4	J	11.2	0.0244	0.00244	0.00732
2378-TCDF	(1.15)		1.15	(0.115)	(0.115)	(0.115)
12378-PeCDF	(0.809)		0.809	(0.0405)	(0.0405)	(0.0243)
23478-PeCDF	(0.772)		0.772	(0.386)	(0.386)	(0.232)
123478-HxCDF	(1.3)		1.3	(0.13)	(0.13)	(0.13)
123678-HxCDF	(1.18)		1.18	(0.118)	(0.118)	(0.118)
234678-HxCDF	(1.39)		1.39	(0.139)	(0.139)	(0.139)
123789-HxCDF	(1.85)		1.85	(0.185)	(0.185)	(0.185)
1234678-HpCDF	[2.59]	J	0.514	[0.0259]	[0.0259]	[0.0259]
1234789-HpCDF	(0.879)		0.879	(0.00879)	(0.00879)	(0.00879)
OCDF	(5.58)		5.58	(0.00558)	(0.000558)	(0.00167)

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	EMPC = 0, ND = 0	0.0244	0.00244	0.00732
	EMPC = 0, ND = DL / 2	1.88	2.2	2.12
	EMPC = 0, ND = DL	3.75	4.4	4.23
	EMPC = 0, < J-level = 0	0	0	0
	EMPC = EMPC, ND = 0	0.0503	0.0283	0.0332
	EMPC = EMPC, ND = DL / 2	1.91	2.22	2.14
	EMPC = EMPC, ND = DL	3.77	4.42	4.26
EMPC = EMPC, < J-level = 0	0	0	0	

# APPENDIX C

## Pittsfield Generating Company Groundwater Analytical Data



# Adirondack Environmental Services, Inc

Date: 12-Dec-17

**CLIENT:** Pittsfield Generating Company  
**Work Order:** 171128051  
**Reference:** Semi-Annual Event / Pittsfield, MA  
**PO#:**

**Client Sample ID:** Well # 5  
**Collection Date:** 11/28/2017  
**Lab Sample ID:** 171128051-008  
**Matrix:** WASTEWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>POLYCHLORINATED BIPHENYLS - EPA 608</b>						Analyst: KF
( Prep: SW3535A - 11/29/2017 )						
Aroclor 1016	ND	0.065		µg/L	1	11/29/2017 7:45:22 PM
Aroclor 1221	ND	0.065		µg/L	1	11/29/2017 7:45:22 PM
Aroclor 1232	ND	0.065		µg/L	1	11/29/2017 7:45:22 PM
Aroclor 1242	ND	0.065		µg/L	1	11/29/2017 7:45:22 PM
Aroclor 1248	ND	0.065		µg/L	1	11/29/2017 7:45:22 PM
Aroclor 1254	ND	0.065		µg/L	1	11/29/2017 7:45:22 PM
Aroclor 1260	ND	0.065		µg/L	1	11/29/2017 7:45:22 PM
Surr: Decachlorobiphenyl	124	48.8-140		%REC	1	11/29/2017 7:45:22 PM
Surr: Tetrachloro-m-xylene	83.2	38.4-130		%REC	1	11/29/2017 7:45:22 PM
<b>VOLATILE ORGANICS EPA 624</b>						Analyst: SMD
1,2-Dichloropropane	ND	5.0		µg/L	1	12/6/2017 4:02:00 AM
cis-1,2-Dichloroethene	ND	5.0	S	µg/L	1	12/6/2017 4:02:00 AM
Dichlorodifluoromethane	ND	10	S	µg/L	1	12/6/2017 4:02:00 AM
Acrylonitrile	ND	25		µg/L	1	12/6/2017 4:02:00 AM
Chloromethane	ND	10		µg/L	1	12/6/2017 4:02:00 AM
Bromomethane	ND	10	S	µg/L	1	12/6/2017 4:02:00 AM
Vinyl chloride	ND	10		µg/L	1	12/6/2017 4:02:00 AM
Chloroethane	ND	10		µg/L	1	12/6/2017 4:02:00 AM
Methylene Chloride	ND	5.0		µg/L	1	12/6/2017 4:02:00 AM
Trichlorofluoromethane	ND	5.0		µg/L	1	12/6/2017 4:02:00 AM
1,1-Dichloroethene	ND	5.0		µg/L	1	12/6/2017 4:02:00 AM
1,1-Dichloroethane	ND	5.0		µg/L	1	12/6/2017 4:02:00 AM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	12/6/2017 4:02:00 AM
Chloroform	ND	5.0		µg/L	1	12/6/2017 4:02:00 AM
1,2-Dichloroethane	ND	5.0	S	µg/L	1	12/6/2017 4:02:00 AM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	12/6/2017 4:02:00 AM
Carbon tetrachloride	ND	5.0		µg/L	1	12/6/2017 4:02:00 AM
Bromodichloromethane	ND	5.0		µg/L	1	12/6/2017 4:02:00 AM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	12/6/2017 4:02:00 AM
Trichloroethene	ND	5.0		µg/L	1	12/6/2017 4:02:00 AM
Dibromochloromethane	ND	5.0		µg/L	1	12/6/2017 4:02:00 AM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	12/6/2017 4:02:00 AM
Benzene	ND	5.0		µg/L	1	12/6/2017 4:02:00 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	12/6/2017 4:02:00 AM
Bromoform	ND	5.0		µg/L	1	12/6/2017 4:02:00 AM
Tetrachloroethene	ND	5.0		µg/L	1	12/6/2017 4:02:00 AM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	12/6/2017 4:02:00 AM
Toluene	ND	5.0		µg/L	1	12/6/2017 4:02:00 AM



**Adirondack Environmental Services, Inc**

Date: 12-Dec-17

CLIENT: Pittsfield Generating Company  
 Work Order: 171128051  
 Reference: Semi-Annual Event / Pittsfield, MA  
 PO#:

Client Sample ID: Well # 5  
 Collection Date: 11/28/2017  
 Lab Sample ID: 171128051-008  
 Matrix: WASTEWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANICS EPA 624</b>						Analyst: <b>SMD</b>
Chlorobenzene	ND	5.0		µg/L	1	12/6/2017 4:02:00 AM
Ethylbenzene	ND	5.0		µg/L	1	12/6/2017 4:02:00 AM
m,p-Xylene	ND	5.0		µg/L	1	12/6/2017 4:02:00 AM
o-Xylene	ND	5.0		µg/L	1	12/6/2017 4:02:00 AM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	12/6/2017 4:02:00 AM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	12/6/2017 4:02:00 AM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	12/6/2017 4:02:00 AM
Surr: 1,2-Dichloroethane-d4	82.6	83.7-124	S	%REC	1	12/6/2017 4:02:00 AM
Surr: 4-Bromofluorobenzene	98.1	82.7-120		%REC	1	12/6/2017 4:02:00 AM
Surr: Toluene-d8	113	76.5-121		%REC	1	12/6/2017 4:02:00 AM

# APPENDIX D

## Summary Statistics and Select Graphs on Historical Groundwater Quality Data



**GMA 4 Summary Statistics**



**Table D-1**  
**Summary Statistics on Historical Groundwater Quality Data - GMA4-7S**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**Groundwater Management Area 4**  
**General Electric Company - Pittsfield, Massachusetts**  
**(Results are presented in parts per million, ppm)**

Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 Standards	MCP UCL for Ground Water	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Volatile Organics</b>										
2-Butanone	50	50	100	1/15	0.001	0.0014	0.00250	0.00731	0.00514	0.00552
3-Chloropropene	--	--	--	1/15	0.00034	0.00034	0.000500	0.000823	0.000662	0.000705
Acetone	50	50	100	7/15	0.0011	0.051	0.0130	0.0154	0.00962	0.0142
Bromodichloromethane	0.006	50	100	1/15	0.00017	0.00019	0.000500	0.000479	0.000467	0.0000826
Chloroform	0.05	20	100	6/15	0.00052	0.0017	0.000500	0.000702	0.000637	0.000384
Tetrachloroethene	0.05	30	100	5/15	0.00048	0.011	0.000500	0.00151	0.000796	0.00273
Trichloroethene	0.005	5	50	3/15	0.00017	0.0004	0.000500	0.000461	0.000448	0.0000922
Total VOCs	5	--	--	13/15	0.00048	0.052	0.0110	0.0161	0.00757	0.0178

**Notes:**

- Analytical data was collected between 2009 and 2017.
- Sample results were validated in accordance with GE's EPA-approved *Field Sampling Plan/Quality Assurance Project Plan* in effect at the time of the analyses.
- Only constituents which were detected during at least one prior sampling event and were analyzed during the Fall 2016 sampling event are summarized.
- Statistical calculations for events where multiple samples were collected from one location (e.g. low-flow and passive diffusion bag samples) were conducted treating the initial sample for that event as a parent and the other sample type (e.g. passive diffusion bag sample) as a split. For locations with duplicate and/or split analytical results, if there is a detection in any of the samples for a location during a single monitoring event, a single detection is reported when calculating the detection frequency. Minimum and maximum detects are the minimum and maximum from all analytical results, treating duplicate and split samples separately. Medians, arithmetic averages, and geometric means are calculated by treating the arithmetic average of paired duplicate results, split samples and primary samples each as a single result. One half of the associated reporting limit is used for any non-detected results in the summary statistics presented. The use of this convention can result in a calculated average greater than the maximum detected concentration.

**Table D-2**  
**Summary Statistics on Historical Groundwater Quality Data - GMA4-8**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**Groundwater Management Area 4**  
**General Electric Company - Pittsfield, Massachusetts**  
**(Results are presented in parts per million, ppm)**

Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 Standards	MCP UCL for Ground Water	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Volatile Organics</b>										
2-Butanone	50	50	100	3/14	0.0014	0.01	0.00250	0.00600	0.00431	0.00502
Acetone	50	50	100	8/14	0.0029	0.085	0.0130	0.0214	0.0133	0.0228
Chloroform	0.05	20	100	1/14	0.00058	0.00058	0.000500	0.000506	0.000505	0.0000214
Xylenes (total)	3	5	100	1/14	0.00026	0.00026	0.00100	0.000947	0.000854	0.000393
Total VOCs	5	--	--	8/14	0.0029	0.085	0.0360	0.0381	0.0275	0.0283
<b>Inorganics-filtered</b>										
Cadmium	--	0.004	0.05	4/4	0.00083	0.0033	0.00214	0.00208	0.00180	0.00120

**Notes:**

1. Analytical data was collected between 2009 and 2017.
2. Sample results were validated in accordance with GE's EPA-approved *Field Sampling Plan/Quality Assurance Project Plan* in effect at the time of the analyses.
3. Only constituents which were detected during at least one prior sampling event and were analyzed during the Fall 2016 sampling event are summarized.
4. Statistical calculations for events where multiple samples were collected from one location (e.g. low-flow and passive diffusion bag samples) were conducted treating the initial sample for that event as a parent and the other sample type (e.g. passive diffusion bag sample) as a split. For locations with duplicate and/or split analytical results, if there is a detection in any of the samples for a location during a single monitoring event, a single detection is reported when calculating the detection frequency. Minimum and maximum detects are the minimum and maximum from all analytical results, treating duplicate and split samples separately. Medians, arithmetic averages, and geometric means are calculated by treating the arithmetic average of paired duplicate results, split samples and primary samples each as a single result. One half of the associated reporting limit is used for any non-detected results in the summary statistics presented. The use of this convention can result in a calculated average greater than the maximum detected concentration.

**Table D-3**  
**Summary Statistics on Historical Groundwater Quality Data - GMA4-9**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**Groundwater Management Area 4**  
**General Electric Company - Pittsfield, Massachusetts**  
**(Results are presented in parts per million, ppm)**



Date Collected: Sample Name:	Method 1 GW-2 Standards	Method 1 GW-3 Standards	MCP UCL for Ground Water	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Volatile Organics</b>										
2-Butanone	50	50	100	1/15	0.0016	0.0016	0.0130	0.0284	0.0121	0.0356
2-Chloro-1,3-butadiene	--	--	--	1/15	0.005	0.005	0.00250	0.00290	0.00199	0.00252
Acetone	50	50	100	5/15	0.01	0.11	0.0250	0.0381	0.0246	0.0373
Chloroform	0.05	20	100	8/15	0.00045	0.0039	0.00140	0.00233	0.00154	0.00250
cis-1,2-Dichloroethene	0.02	50	100	1/1	0.00061	0.00061	0.000560	0.000560	0.000560	NA
Methylene Chloride	2	50	100	1/15	0.00016	0.00016	0.00250	0.0100	0.00411	0.0138
Tetrachloroethene	0.05	30	100	14/15	0.0014	0.36	0.0390	0.0826	0.0234	0.103
Trichloroethene	0.005	5	50	12/15	0.00012	0.007	0.00140	0.00223	0.00119	0.00227
Xylenes (total)	3	5	100	1/15	0.0021	0.0021	0.00150	0.00324	0.00211	0.00315
Total VOCs	5	--	--	15/15	0.0043	0.37	0.0480	0.101	0.0519	0.111

**Notes:**

1. Analytical data was collected between 2009 and 2017.
2. Sample results were validated in accordance with GE's EPA-approved *Field Sampling Plan/Quality Assurance Project Plan* in effect at the time of the analyses.
3. Only constituents which were detected during at least one prior sampling event and were analyzed during the Fall 2016 sampling event are summarized.
4. Statistical calculations for events where multiple samples were collected from one location (e.g. low-flow and passive diffusion bag samples) were conducted treating the initial sample for that event as a parent and the other sample type (e.g. passive diffusion bag sample) as a split. For locations with duplicate and/or split analytical results, if there is a detection in any of the samples for a location during a single monitoring event, a single detection is reported when calculating the detection frequency. Minimum and maximum detects are the minimum and maximum from all analytical results, treating duplicate and split samples separately. Medians, arithmetic averages, and geometric means are calculated by treating the arithmetic average of paired duplicate results, split samples and primary samples each as a single result. One half of the associated reporting limit is used for any non-detected results in the summary statistics presented. The use of this convention can result in a calculated average greater than the maximum detected concentration.

Table D-4  
 Summary Statistics on Historical Groundwater Quality Data - H78B-16  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 Groundwater Management Area 4  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)



Date Collected: Sample Name:	Method 1 GW-2 Standards	Method 1 GW-3 Standards	MCP UCL for Ground Water	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>PCBs</b>										
None Detected	--	--	--	--	--	--	--	--	--	--
<b>PCBs-Filtered</b>										
None Detected	--	--	--	--	--	--	--	--	--	--
<b>Volatile Organics</b>										
1,1,1-Trichloroethane	4	20	100	7/25	0.00034	0.009	0.00140	0.00209	0.00124	0.00251
1,1-Dichloroethane	2	20	100	7/25	0.00018	0.005	0.000500	0.00179	0.00103	0.00217
1,1-Dichloroethene	0.08	30	100	2/25	0.00035	0.00078	0.000500	0.00127	0.000739	0.00209
1,2-Dichloroethane	0.005	20	100	6/25	0.00025	0.0028	0.000640	0.00172	0.00106	0.00209
3-Chloropropene	--	--	--	1/25	0.00037	0.00037	0.00200	0.00213	0.00135	0.00232
Acetone	50	50	100	6/25	0.0069	0.074	0.00690	0.0128	0.00805	0.0165
Benzene	1	10	100	1/25	0.0006	0.0006	0.000500	0.00174	0.000996	0.00221
Chlorobenzene	0.2	1	10	17/25	0.00033	0.049	0.00220	0.00717	0.00244	0.0123
Chloroethane	--	--	--	1/25	0.0021	0.0021	0.00100	0.00198	0.00132	0.00212
Chloroform	0.05	20	100	5/25	0.00014	0.0013	0.000500	0.00173	0.000981	0.00210
cis-1,2-Dichloroethene	0.02	50	100	1/1	0.021	0.027	0.0240	0.0240	0.0240	NA
Methylene Chloride	2	50	100	3/25	0.00016	0.0015	0.00250	0.00475	0.00262	0.00962
Tetrachloroethene	0.05	30	100	17/25	0.00022	0.0039	0.00100	0.00167	0.00102	0.00210
trans-1,2-Dichloroethene	0.08	50	100	10/25	0.00019	0.002	0.000710	0.00167	0.00101	0.00208
Trichloroethene	0.005	5	50	25/25	0.0003	0.45	0.0420	0.0766	0.0379	0.0916
Trichlorofluoromethane	--	--	--	2/25	0.00041	0.00062	0.00100	0.00190	0.00121	0.00215
Vinyl Chloride	0.002	50	100	15/25	0.00028	0.019	0.000980	0.00363	0.00155	0.00519
Total VOCs	5	--	--	25/25	0.0008	0.46	0.0570	0.0970	0.0556	0.102
<b>Semivolatile Organics</b>										
Diethylphthalate	50	9	100	1/1	0.001	0.001	0.00430	0.00430	0.00430	NA
<b>Furans</b>										
2,3,7,8-TCDF	--	--	--	0/1	ND	ND	5.30E-10	5.30E-10	5.30E-10	NA
TCDFs (total)	--	--	--	0/1	ND	ND	5.30E-10	5.30E-10	5.30E-10	NA
1,2,3,7,8-PeCDF	--	--	--	0/1	ND	ND	1.30E-09	1.30E-09	1.30E-09	NA
2,3,4,7,8-PeCDF	--	--	--	0/1	ND	ND	1.20E-09	1.20E-09	1.20E-09	NA
PeCDFs (total)	--	--	--	0/1	ND	ND	1.30E-09	1.30E-09	1.30E-09	NA
1,2,3,4,7,8-HxCDF	--	--	--	0/1	ND	ND	5.70E-10	5.70E-10	5.70E-10	NA
1,2,3,6,7,8-HxCDF	--	--	--	0/1	ND	ND	4.50E-10	4.50E-10	4.50E-10	NA
1,2,3,7,8,9-HxCDF	--	--	--	0/1	ND	ND	5.70E-10	5.70E-10	5.70E-10	NA
2,3,4,6,7,8-HxCDF	--	--	--	0/1	ND	ND	1.30E-09	1.30E-09	1.30E-09	NA
HxCDFs (total)	--	--	--	0/1	ND	ND	1.30E-09	1.30E-09	1.30E-09	NA
1,2,3,4,6,7,8-HpCDF	--	--	--	0/1	ND	ND	4.30E-10	4.30E-10	4.30E-10	NA
1,2,3,4,7,8,9-HpCDF	--	--	--	0/1	ND	ND	6.50E-10	6.50E-10	6.50E-10	NA
HpCDFs (total)	--	--	--	0/1	ND	ND	6.50E-10	6.50E-10	6.50E-10	NA
OCDF	--	--	--	0/1	ND	ND	2.80E-09	2.80E-09	2.80E-09	NA

**Table D-4**  
**Summary Statistics on Historical Groundwater Quality Data - H78B-16**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**Groundwater Management Area 4**  
**General Electric Company - Pittsfield, Massachusetts**  
**(Results are presented in parts per million, ppm)**

Date Collected: Sample Name:	Method 1 GW-2 Standards	Method 1 GW-3 Standards	MCP UCL for Ground Water	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Dioxins</b>										
2,3,7,8-TCDD	--	--	--	0/1	ND	ND	8.30E-10	8.30E-10	8.30E-10	NA
TCDDs (total)	--	--	--	0/1	ND	ND	8.30E-10	8.30E-10	8.30E-10	NA
1,2,3,7,8-PeCDD	--	--	--	0/1	ND	ND	1.50E-09	1.50E-09	1.50E-09	NA
PeCDDs (total)	--	--	--	0/1	ND	ND	1.80E-09	1.80E-09	1.80E-09	NA
1,2,3,4,7,8-HxCDD	--	--	--	0/1	ND	ND	1.20E-09	1.20E-09	1.20E-09	NA
1,2,3,6,7,8-HxCDD	--	--	--	0/1	ND	ND	1.10E-09	1.10E-09	1.10E-09	NA
1,2,3,7,8,9-HxCDD	--	--	--	0/1	ND	ND	1.10E-09	1.10E-09	1.10E-09	NA
HxCDDs (total)	--	--	--	0/1	ND	ND	1.20E-09	1.20E-09	1.20E-09	NA
1,2,3,4,6,7,8-HpCDD	--	--	--	0/1	ND	ND	9.00E-10	9.00E-10	9.00E-10	NA
HpCDDs (total)	--	--	--	0/1	ND	ND	9.00E-10	9.00E-10	9.00E-10	NA
OCDD	--	--	--	0/1	ND	ND	7.50E-09	7.50E-09	7.50E-09	NA
Total TEQs (1998 WHO TEFs)	--	4.00E-05	4.00E-04	1/1	2.8E-09	4.6E-09	4.60E-09	4.60E-09	4.60E-09	NA
<b>Inorganics</b>										
Antimony	--	8	80	1/1	0.003	0.003	0.00205	0.00205	0.00205	NA
Arsenic	--	0.9	9	1/1	0.0158	0.0199	0.0179	0.0179	0.0179	NA
Barium	--	50	100	1/1	0.0265	0.0287	0.0276	0.0276	0.0276	NA
Cadmium	--	0.004	0.05	1/1	0.0003	0.0003	0.000225	0.000225	0.000225	NA
Lead	--	0.01	0.15	1/1	0.0024	0.003	0.00270	0.00270	0.00270	NA
Nickel	--	0.2	2	1/1	0.002	0.002	0.00140	0.00140	0.00140	NA
Selenium	--	0.1	1	1/1	0.0271	0.0299	0.0285	0.0285	0.0285	NA
Thallium	--	3	30	1/1	0.0134	0.0136	0.0135	0.0135	0.0135	NA
<b>Inorganics-filtered</b>										
Antimony	--	8	80	1/1	0.0038	0.0096	0.00670	0.00670	0.00670	NA
Barium	--	50	100	1/1	0.025	0.0297	0.0274	0.0274	0.0274	NA
Copper	--	0.23	--	1/1	0.0026	0.0034	0.00300	0.00300	0.00300	NA
Lead	--	0.01	0.15	1/1	0.0015	0.0019	0.00170	0.00170	0.00170	NA
Nickel	--	0.2	2	1/1	0.002	0.0023	0.00215	0.00215	0.00215	NA
Selenium	--	0.1	1	1/1	0.0034	0.0034	0.00245	0.00245	0.00245	NA

**Notes:**

- Analytical data was collected between 2009 and 2017.
- Sample results were validated in accordance with GE's EPA-approved *Field Sampling Plan/Quality Assurance Project Plan* in effect at the time of the analyses.
- Only constituents which were detected during at least one prior sampling event and were analyzed during the Fall 2016 sampling event are summarized.
- Statistical calculations for events where multiple samples were collected from one location (e.g. low-flow and passive diffusion bag samples) were conducted treating the initial sample for that event as a parent and the other sample type (e.g. passive diffusion bag sample) as a split. For locations with duplicate and/or split analytical results, if there is a detection in any of the samples for a location during a single monitoring event, a single detection is reported when calculating the detection frequency. Minimum and maximum detects are the minimum and maximum from all analytical results, treating duplicate and split samples separately. Medians, arithmetic averages, and geometric means are calculated by treating the arithmetic average of paired duplicate results, split samples and primary samples each as a single result. One half of the associated reporting limit is used for any non-detected results in the summary statistics presented. The use of this convention can result in a calculated average greater than the maximum detected concentration.

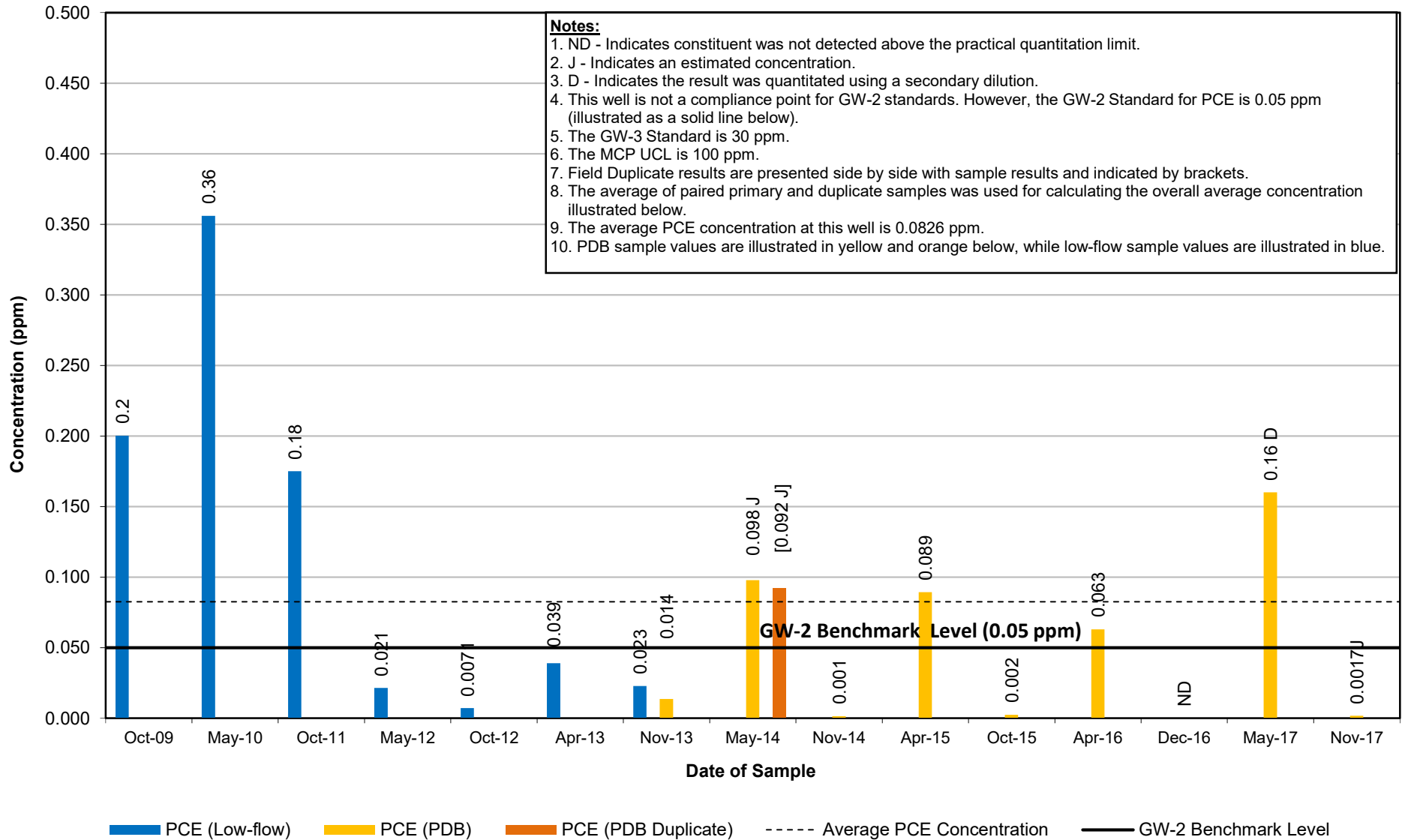


GMA 4 Graphs



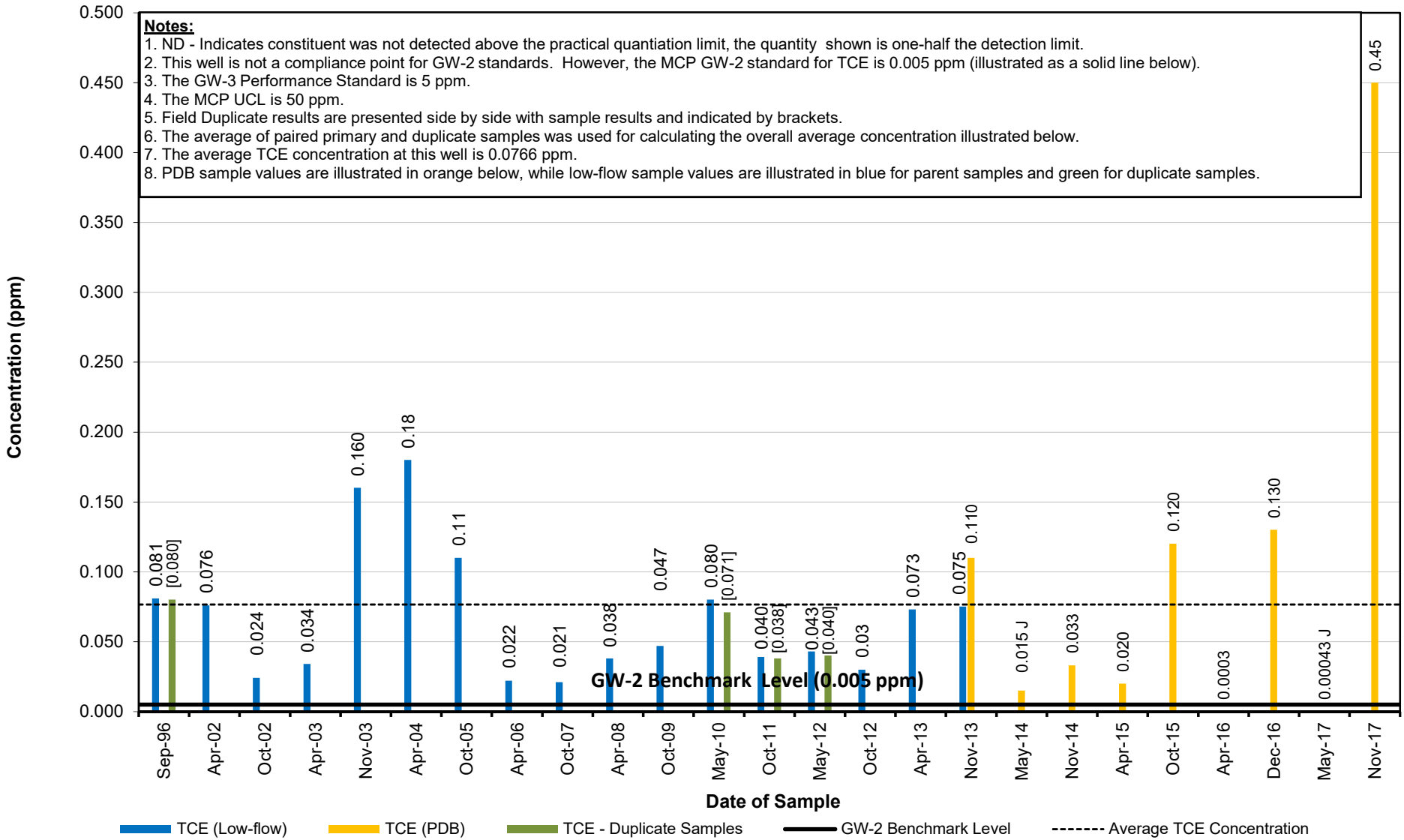
Appendix D  
Well GMA4-9 Historical Tetrachloroethene (PCE) Concentrations

GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
Groundwater Management Area 4 and On-Plant Consolidation Area  
General Electric Company - Pittsfield, Massachusetts



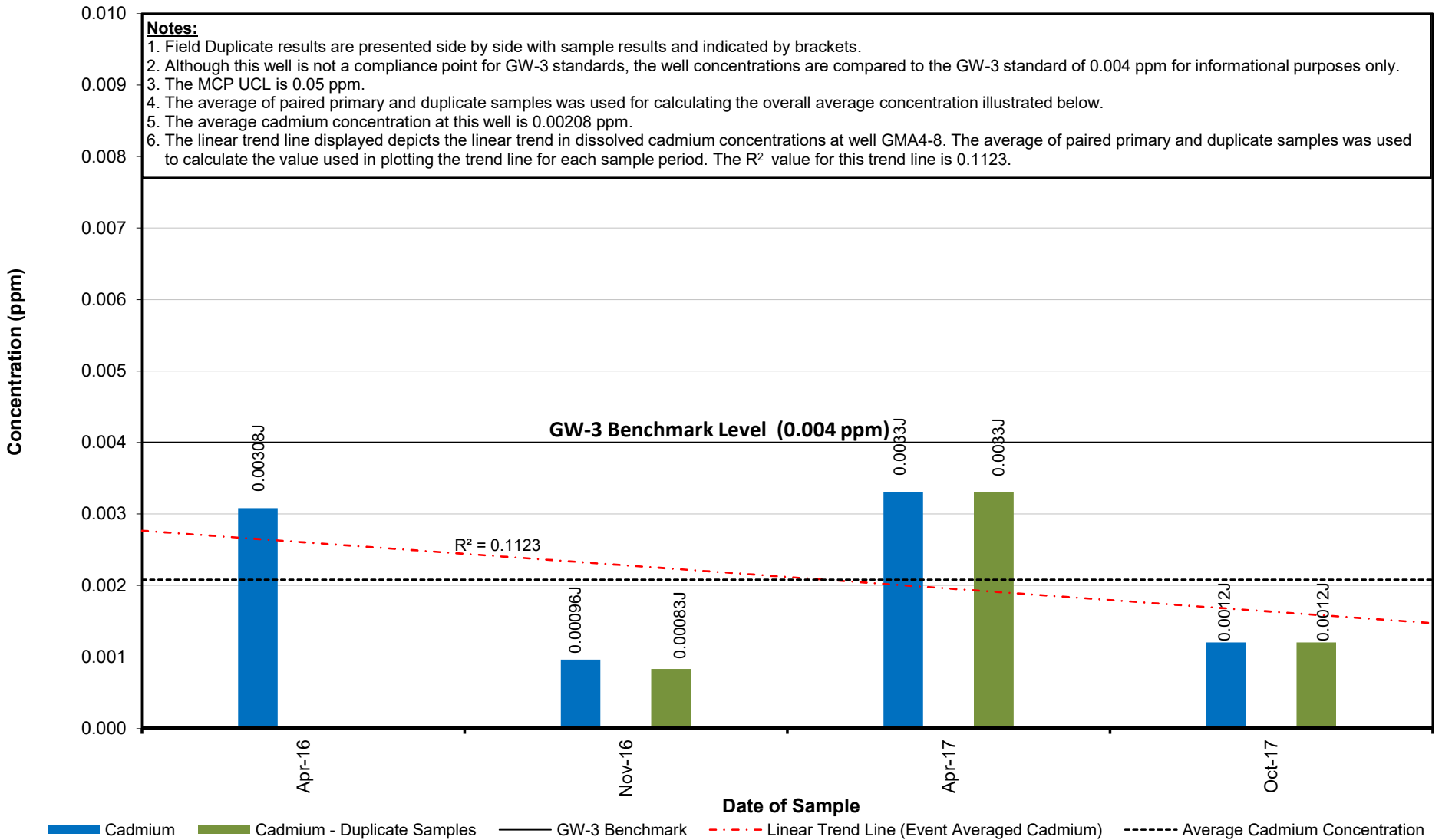
Appendix D  
Well H78B-16 Historical Trichloroethene (TCE) Concentrations

GMA 4 Long Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
Groundwater Management Area 4 and On-Plant Consolidation Area  
General Electric Company - Pittsfield, Massachusetts



Appendix D  
Well GMA4-8 Historical Cadmium Concentrations

GMA 4 Long Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
Groundwater Management Area 4 and On-Plant Consolidation Area  
General Electric Company - Pittsfield, Massachusetts



**OPCA Summary Statistics**



Table D-5  
 Summary of Groundwater Sample Analytical Results - 78-1  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 On-Plant Consolidation Area  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>PCBs</b>										
Aroclor-1254	--	--	--	6/9	0.000053	0.00023	0.0000610	0.0000996	0.0000766	0.0000776
Aroclor-1260	--	--	--	5/9	0.000046	0.0001	0.0000490	0.0000512	0.0000481	0.0000210
Total PCBs	0.005	0.01	0.1	6/9	0.000061	0.00028	0.000110	0.000135	0.000100	0.0000991
<b>PCBs-Filtered</b>										
Aroclor-1248	--	--	--	1/35	0.000056	0.000056	0.0000330	0.0000420	0.0000387	0.0000232
Aroclor-1254	--	--	--	14/35	0.0000076	0.0007	0.0000380	0.0000816	0.0000517	0.000125
Aroclor-1260	--	--	--	3/35	0.000017	0.000039	0.0000330	0.0000417	0.0000384	0.0000233
Total PCBs	0.005	0.01	0.1	14/35	0.0000076	0.0007	0.0000430	0.0000842	0.0000537	0.000125
<b>Volatile Organics</b>										
2-Butanone	50	50	100	1/35	0.019	0.019	0.00500	0.0147	0.00616	0.0418
Acetone	50	50	100	4/36	0.0011	0.41	0.00500	0.0208	0.00665	0.0558
Bromoform	0.7	50	100	1/36	0.00048	0.00048	0.000500	0.00264	0.00102	0.00820
Chloroform	0.05	20	100	1/36	0.00056	0.00056	0.000500	0.00257	0.00100	0.00819
Chloromethane	--	--	--	1/36	0.00011	0.00011	0.00100	0.00284	0.00111	0.00822
Methylene Chloride	2	50	100	1/37	0.005	0.005	0.00250	0.00922	0.00276	0.0407
Toluene	50	40	100	5/36	0.00018	0.0047	0.000500	0.00259	0.000982	0.00820
Total VOCs	5	--	--	11/37	0.00018	0.42	0.0500	0.183	0.0220	0.815
<b>Semivolatile Organics</b>										
bis(2-Ethylhexyl)phthalate	--	50	100	3/36	0.00076	0.0025	0.00275	0.00309	0.00272	0.00197
Diethylphthalate	50	9	100	1/36	0.001	0.001	0.00275	0.00370	0.00343	0.00141
Phenol	50	2	100	1/37	0.01	0.01	0.00280	0.00391	0.00362	0.00168
Total PAHs	--	--	--	4/4	0.005	0.0056	0.00520	0.00525	0.00524	0.000300
<b>Organochlorine Pesticides</b>										
None Detected	--	--	--	0/2	--	--	--	--	--	--
<b>Organophosphate Pesticides</b>										
None Detected	--	--	--	0/2	--	--	--	--	--	--
<b>Herbicides</b>										
None Detected	--	--	--	0/2	--	--	--	--	--	--

Table D-5  
 Summary of Groundwater Sample Analytical Results - 78-1  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 On-Plant Consolidation Area  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Furans</b>										
2,3,7,8-TCDF	--	--	--	7/35	3.5E-09	0.000000014	9.00E-10	2.44E-09	1.26E-09	3.14E-09
TCDFs (total)	--	--	--	12/35	2.7E-09	0.00000012	2.70E-09	1.32E-08	2.96E-09	2.72E-08
1,2,3,7,8-PeCDF	--	--	--	5/35	8.8E-10	0.000000025	1.30E-09	3.84E-09	1.42E-09	6.27E-09
2,3,4,7,8-PeCDF	--	--	--	3/35	8E-10	0.000000012	1.10E-09	2.71E-09	1.29E-09	4.78E-09
PeCDFs (total)	--	--	--	14/35	1.1E-09	0.000000061	2.70E-09	9.21E-09	3.08E-09	1.34E-08
1,2,3,4,7,8-HxCDF	--	--	--	7/35	9.6E-10	0.000000018	1.30E-09	3.66E-09	1.38E-09	5.72E-09
1,2,3,6,7,8-HxCDF	--	--	--	3/35	6.8E-10	6.5E-09	1.00E-09	2.60E-09	1.24E-09	4.59E-09
1,2,3,7,8,9-HxCDF	--	--	--	2/35	2.8E-09	0.000000025	1.30E-09	3.25E-09	1.49E-09	5.89E-09
2,3,4,6,7,8-HxCDF	--	--	--	2/35	3.9E-09	7.1E-09	1.20E-09	2.66E-09	1.27E-09	4.60E-09
HxCDFs (total)	--	--	--	10/35	6.8E-10	0.00000007	2.20E-09	6.43E-09	1.97E-09	1.31E-08
1,2,3,4,6,7,8-HpCDF	--	--	--	5/35	6.1E-10	0.000000014	1.10E-09	2.66E-09	1.34E-09	4.68E-09
1,2,3,4,7,8,9-HpCDF	--	--	--	2/35	3.6E-09	5.6E-09	1.40E-09	2.77E-09	1.50E-09	4.52E-09
HpCDFs (total)	--	--	--	6/35	4.7E-10	0.000000024	1.50E-09	3.97E-09	1.77E-09	6.59E-09
OCDF	--	--	--	4/35	2.1E-09	0.00000002	3.20E-09	6.03E-09	3.40E-09	9.25E-09
<b>Dioxins</b>										
2,3,7,8-TCDD	--	--	--	2/35	4.2E-10	5.1E-09	9.50E-10	1.51E-09	1.04E-09	1.52E-09
TCDDs (total)	--	--	--	6/35	4.2E-10	7.5E-09	1.20E-09	1.89E-09	1.33E-09	1.92E-09
1,2,3,7,8-PeCDD	--	--	--	1/35	0.000000025	0.000000025	1.70E-09	3.67E-09	1.72E-09	6.12E-09
PeCDDs (total)	--	--	--	4/35	0.000000011	0.000000017	2.40E-09	4.89E-09	2.53E-09	6.50E-09
1,2,3,4,7,8-HxCDD	--	--	--	2/35	1.5E-09	0.000000025	1.50E-09	3.33E-09	1.56E-09	5.85E-09
1,2,3,6,7,8-HxCDD	--	--	--	3/35	2.3E-10	0.000000025	1.50E-09	3.35E-09	1.30E-09	5.86E-09
1,2,3,7,8,9-HxCDD	--	--	--	4/35	1.2E-09	0.000000025	1.60E-09	3.37E-09	1.67E-09	5.83E-09
HxCDDs (total)	--	--	--	6/35	2.3E-10	0.000000038	2.00E-09	4.63E-09	1.75E-09	7.87E-09
1,2,3,4,6,7,8-HpCDD	--	--	--	4/35	1.6E-09	7.3E-09	1.70E-09	3.37E-09	2.06E-09	4.59E-09
HpCDDs (total)	--	--	--	7/35	1.1E-09	0.000000018	2.40E-09	4.50E-09	2.33E-09	5.83E-09
OCDD	--	--	--	5/35	0.000000006	0.000000027	5.50E-09	9.10E-09	4.79E-09	1.02E-08
Total TEQs (1998 WHO TEFs)	--	4.00E-05	4.00E-04	35/35	9.4E-10	0.000000063	5.10E-09	8.71E-09	5.14E-09	1.25E-08
<b>Inorganics</b>										
Antimony	--	8	80	1/7	0.007	0.007	0.0300	0.0267	0.0244	0.00869
Barium	--	50	100	6/7	0.025	0.088	0.0330	0.0486	0.0418	0.0314
Cadmium	--	0.004	0.05	1/7	0.00098	0.00098	0.00250	0.00235	0.00224	0.000634
Calcium	--	--	--	1/1	43	43	43.0	43.0	43.0	NA
Chromium	--	0.3	3	3/7	0.0013	0.014	0.00500	0.00567	0.00459	0.00405
Cobalt	--	0.075	--	2/7	0.0022	0.013	0.0250	0.0207	0.0165	0.00968
Copper	--	0.23	--	4/7	0.0016	0.022	0.0125	0.0108	0.00822	0.00718
Cyanide	--	0.03	2	1/7	0.0071	0.0071	0.00500	0.00601	0.00580	0.00192
Lead	--	0.01	0.15	1/7	0.012	0.012	0.00250	0.0124	0.00400	0.0235
Magnesium	--	--	--	1/1	18	18	18.0	18.0	18.0	NA
Manganese	--	--	--	1/1	0.47	0.47	0.470	0.470	0.470	NA
Nickel	--	0.2	2	3/7	0.0023	0.02	0.0200	0.0166	0.0124	0.00989
Sodium	--	--	--	1/1	27	27	27.0	27.0	27.0	NA
Sulfide	--	--	--	3/34	1.1	5.6	1.00	1.43	1.17	0.869
Vanadium	--	4	40	1/7	0.0019	0.0019	0.0250	0.0224	0.0178	0.00924
Zinc	--	0.9	50	7/8	0.016	0.076	0.0245	0.0309	0.0261	0.0210

**Table D-5**  
**Summary of Groundwater Sample Analytical Results - 78-1**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**On-Plant Consolidation Area**  
**General Electric Company - Pittsfield, Massachusetts**  
**(Results are presented in parts per million, ppm)**



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Inorganics-filtered</b>										
Antimony	--	8	80	1/34	0.001	0.001	0.0200	0.0203	0.0157	0.00895
Barium	--	50	100	23/34	0.012	0.0462	0.0307	0.0649	0.0405	0.0797
Beryllium	--	0.2	2	4/34	0.00021	0.00865	0.00200	0.00261	0.00162	0.00228
Cadmium	--	0.004	0.05	10/34	0.00005	0.0223	0.00150	0.00229	0.00119	0.00375
Calcium	--	--	--	1/1	62.6	62.6	62.6	62.6	62.6	NA
Chromium	--	0.3	3	4/34	0.00071	0.00301	0.00500	0.00472	0.00427	0.00187
Cobalt	--	0.075	--	4/34	0.000082	0.0046	0.00500	0.0124	0.00805	0.00974
Copper	--	0.23	--	8/34	0.0011	0.0042	0.00500	0.0189	0.00798	0.0312
Lead	--	0.01	0.15	1/34	0.00925	0.00925	0.00250	0.00333	0.00275	0.00196
Magnesium	--	--	--	1/1	22.1	22.1	22.1	22.1	22.1	NA
Manganese	--	--	--	1/1	0.0575	0.0575	0.0575	0.0575	0.0575	NA
Mercury	--	0.02	0.2	4/34	0.0000403	0.000191	0.000100	0.000119	0.000106	0.0000632
Nickel	--	0.2	2	5/34	0.0012	0.00377	0.00790	0.0126	0.00904	0.00885
Potassium	--	--	--	1/1	1.6	1.6	1.60	1.60	1.60	NA
Selenium	--	0.1	1	3/34	0.00294	0.00976	0.00645	0.00690	0.00547	0.00475
Silver	--	0.007	1	1/34	0.00008	0.00008	0.00250	0.00220	0.00154	0.00138
Sodium	--	--	--	1/1	124	124	124	124	124	NA
Thallium	--	3	30	1/34	0.00004	0.00004	0.00500	0.00427	0.00347	0.00153
Tin	--	--	--	3/33	0.001	0.0163	0.0250	0.0311	0.0229	0.0192
Vanadium	--	4	40	1/34	0.00509	0.00509	0.0250	0.0228	0.0207	0.00628
Zinc	--	0.9	50	20/34	0.00245	0.0894	0.0100	0.0143	0.0109	0.0150

**Notes:**

1. Samples were collected by Arcadis between 1991 and 2017 and were submitted to SGS Environmental Services, Inc. and Accutest Laboratories for analysis of PCBs and Appendix IX+3 constituents.
2. Samples have been validated in accordance with the applicable EPA-approved Field Sampling/Quality Assurance Project Plan (FSP/QAPP).
3. Only constituents which were detected during at least one prior sampling event and were analyzed during the spring 2017 sampling event are summarized.
4. The statistical information presented above was calculated based on all analytical results reported for each constituent, incorporating a value of one-half of the associated detection limit for any non-detected results.
5. For PCDD/PCDF compounds, total Toxicity Equivalency Quotient (TEQ) concentrations were calculated using the Toxicity Equivalency Factors (TEFs) published by the World Health Organization in 1998 (van den Berg et al., Environ. Health Perspectives, vol. 106, no. 12), as required by the Statement of Work for Removal Actions Outside the River, and representing non-detected compounds as one-half the detection limit.
6. ND - Analyte was not detected.



Table D-6  
 Summary of Groundwater Sample Analytical Results - 78-6&78-6R  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 On-Plant Consolidation Area  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Detected PCBs</b>										
Aroclor-1254	--	--	--	3/7	2.1E-05	0.00013	0.0000330	0.0000531	0.0000422	0.0000426
Aroclor-1260	--	--	--	1/7	0.0002	0.0002	0.0000330	0.0000557	0.0000410	0.0000637
Total PCBs	0.005	0.01	0.1	3/7	2.1E-05	0.0003	0.0000330	0.0000821	0.0000496	0.000103
<b>Detected PCBs-Filtered</b>										
Aroclor-1248	--	--	--	1/35	0.00004	0.00004	0.0000330	0.0000412	0.0000380	0.0000231
Aroclor-1254	--	--	--	7/35	2.2E-05	0.00079	0.0000340	0.0000648	0.0000432	0.000128
Aroclor-1260	--	--	--	1/35	1.6E-05	0.000016	0.0000330	0.0000404	0.0000368	0.0000236
Total PCBs	0.005	0.01	0.1	7/35	2.2E-05	0.00079	0.0000340	0.0000656	0.0000441	0.000128
<b>Detected Volatile Organics</b>										
Acetone	50	50	100	5/36	0.00066	0.005	0.00500	0.00726	0.00496	0.00849
Chloroform	0.05	20	100	1/35	0.00081	0.00081	0.000500	0.00116	0.000862	0.000935
Dibromomethane	--	--	--	1/35	0.0011	0.0011	0.000500	0.00127	0.000972	0.000926
Methylene Chloride	2	50	100	1/36	0.007	0.007	0.00250	0.00251	0.00241	0.000858
Toluene	50	40	100	2/35	0.0019	0.002	0.000500	0.00118	0.000883	0.000922
Total VOCs	5	--	--	9/36	0.00066	0.012	0.0500	0.0499	0.0238	0.0402
<b>Detected Semivolatile Organics</b>										
bis(2-Ethylhexyl)phthalate	--	50	100	1/35	0.00056	0.00056	0.00270	0.00285	0.00269	0.000912
Dimethylphthalate	50	50	100	1/35	0.0006	0.0006	0.00270	0.00350	0.00322	0.00132
Di-n-Butylphthalate	--	--	--	1/35	0.0011	0.0011	0.00270	0.00351	0.00328	0.00129
Naphthalene	0.7	20	100	1/35	0.0016	0.0016	0.00270	0.00344	0.00314	0.00138
Total PAHs	--	--	--	3/3	0.005	0.0056	0.00510	0.00520	0.00520	0.000265
<b>Detected Organochlorine Pesticides</b>										
None Detected	--	--	--	0/2	--	--	--	--	--	--
<b>Detected Organophosphate Pesticides</b>										
None Detected	--	--	--	0/2	--	--	--	--	--	--
<b>Detected Herbicides</b>										
None Detected	--	--	--	0/2	--	--	--	--	--	--

**Table D-6**  
**Summary of Groundwater Sample Analytical Results - 78-6&78-6R**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**On-Plant Consolidation Area**  
**General Electric Company - Pittsfield, Massachusetts**  
**(Results are presented in parts per million, ppm)**



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Furans</b>										
2,3,7,8-TCDF	--	--	--	4/35	1.2E-09	5.1E-09	1.30E-09	1.50E-09	8.85E-10	1.27E-09
TCDFs (total)	--	--	--	9/35	1.2E-09	5E-08	1.60E-09	4.58E-09	1.59E-09	8.24E-09
1,2,3,7,8-PeCDF	--	--	--	3/35	2.2E-09	2.6E-08	1.30E-09	3.56E-09	1.20E-09	6.42E-09
2,3,4,7,8-PeCDF	--	--	--	1/35	2.6E-08	2.6E-08	1.20E-09	3.49E-09	1.14E-09	6.45E-09
PeCDFs (total)	--	--	--	6/35	2.9E-09	2.6E-08	2.20E-09	4.37E-09	1.65E-09	6.61E-09
1,2,3,4,7,8-HxCDF	--	--	--	1/35	2.6E-08	2.6E-08	1.30E-09	3.58E-09	1.23E-09	6.45E-09
1,2,3,6,7,8-HxCDF	--	--	--	1/35	2.6E-08	2.6E-08	1.30E-09	3.51E-09	1.12E-09	6.46E-09
1,2,3,7,8,9-HxCDF	--	--	--	3/35	2.4E-10	2.6E-08	1.30E-09	3.69E-09	1.31E-09	6.44E-09
2,3,4,6,7,8-HxCDF	--	--	--	1/35	2.6E-08	2.6E-08	1.30E-09	3.58E-09	1.19E-09	6.45E-09
HxCDFs (total)	--	--	--	4/35	2E-12	2.6E-08	1.60E-09	3.76E-09	1.46E-09	6.39E-09
1,2,3,4,6,7,8-HpCDF	--	--	--	5/35	7.5E-10	2.6E-08	1.30E-09	3.58E-09	1.23E-09	6.53E-09
1,2,3,4,7,8,9-HpCDF	--	--	--	1/35	2.6E-08	2.6E-08	1.30E-09	3.98E-09	1.44E-09	6.68E-09
HpCDFs (total)	--	--	--	7/35	1.3E-10	2.6E-08	1.60E-09	3.85E-09	1.41E-09	6.51E-09
OCDF	--	--	--	2/35	5.1E-09	5.1E-08	3.00E-09	7.67E-09	3.17E-09	1.25E-08
<b>Dioxins</b>										
2,3,7,8-TCDD	--	--	--	1/35	5.1E-09	5.1E-09	1.00E-09	1.52E-09	8.60E-10	1.55E-09
TCDDs (total)	--	--	--	4/35	1E-09	1.1E-08	1.20E-09	1.95E-09	1.07E-09	2.31E-09
1,2,3,7,8-PeCDD	--	--	--	1/35	2.6E-08	2.6E-08	2.30E-09	4.23E-09	1.54E-09	6.72E-09
PeCDDs (total)	--	--	--	2/35	3.2E-09	2.6E-08	2.30E-09	4.32E-09	1.77E-09	6.68E-09
1,2,3,4,7,8-HxCDD	--	--	--	1/35	2.6E-08	2.6E-08	2.20E-09	3.98E-09	1.53E-09	6.38E-09
1,2,3,6,7,8-HxCDD	--	--	--	1/35	2.6E-08	2.6E-08	2.00E-09	3.96E-09	1.50E-09	6.42E-09
1,2,3,7,8,9-HxCDD	--	--	--	3/35	9.5E-10	2.6E-08	2.10E-09	4.03E-09	1.66E-09	6.37E-09
HxCDDs (total)	--	--	--	4/35	4.7E-10	2.6E-08	2.20E-09	4.47E-09	2.03E-09	6.45E-09
1,2,3,4,6,7,8-HpCDD	--	--	--	7/35	9.7E-12	2.6E-08	2.00E-09	4.21E-09	2.00E-09	6.41E-09
HpCDDs (total)	--	--	--	7/35	8E-10	2.6E-08	2.50E-09	4.56E-09	2.19E-09	6.51E-09
OCDD	--	--	--	7/35	3.7E-09	5.1E-08	5.50E-09	9.98E-09	5.47E-09	1.26E-08
Total TEQs (1998 WHO TEFs)	--	4.00E-05	4.00E-04	35/35	2.4E-12	6.8E-08	5.30E-09	9.87E-09	4.46E-09	1.50E-08

Table D-6  
 Summary of Groundwater Sample Analytical Results - 78-6&78-6R  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 On-Plant Consolidation Area  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Detected Inorganics</b>										
Antimony	--	8	80	3/7	0.0025	0.012	0.0300	0.0198	0.0139	0.0131
Arsenic	--	0.9	9	4/7	0.016	0.37	0.0160	0.0654	0.0179	0.135
Barium	--	50	100	6/7	0.031	0.16	0.0960	0.0971	0.0886	0.0388
Cadmium	--	0.004	0.05	1/7	0.006	0.006	0.00250	0.00307	0.00291	0.00130
Calcium	--	--	--	1/1	110	110	110	110	110	NA
Chromium	--	0.3	3	2/7	0.0025	0.028	0.00500	0.00814	0.00601	0.00884
Cobalt	--	0.075	--	3/7	0.0024	0.01	0.0250	0.0175	0.0127	0.0113
Copper	--	0.23	--	2/7	0.0018	0.091	0.0125	0.0217	0.0115	0.0310
Cyanide	--	0.03	2	4/7	0.0026	0.029	0.00500	0.00829	0.00568	0.00947
Lead	--	0.01	0.15	1/7	0.02	0.02	0.00150	0.0134	0.00400	0.0238
Magnesium	--	--	--	1/1	36	36	36.0	36.0	36.0	NA
Manganese	--	--	--	1/1	0.52	0.52	0.520	0.520	0.520	NA
Nickel	--	0.2	2	2/7	0.0027	0.011	0.0200	0.0177	0.0146	0.00859
Selenium	--	0.1	1	2/7	0.0049	0.0051	0.00250	0.00329	0.00313	0.00119
Silver	--	0.007	1	1/7	0.011	0.011	0.00250	0.00429	0.00354	0.00331
Sodium	--	--	--	1/1	42	42	42.0	42.0	42.0	NA
Sulfide	--	--	--	2/35	1.4	8.8	1.00	1.42	1.12	1.01
Vanadium	--	4	40	1/7	0.015	0.015	0.0250	0.0243	0.0239	0.00450
Zinc	--	0.9	50	5/8	0.0053	2	0.0105	0.264	0.0241	0.702

**Table D-6**  
**Summary of Groundwater Sample Analytical Results - 78-6&78-6R**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**On-Plant Consolidation Area**  
**General Electric Company - Pittsfield, Massachusetts**  
**(Results are presented in parts per million, ppm)**



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Detected Inorganics-filtered</b>										
Antimony	--	8	80	2/34	0.0037	0.0082	0.0200	0.0190	0.0146	0.00912
Arsenic	--	0.9	9	8/33	0.00517	0.0102	0.00500	0.00711	0.00570	0.00848
Barium	--	50	100	30/34	0.0105	0.168	0.0722	0.0939	0.0798	0.0572
Beryllium	--	0.2	2	6/34	0.00031	0.00865	0.00168	0.00248	0.00152	0.00225
Cadmium	--	0.004	0.05	4/34	0.00012	0.00294	0.00186	0.00179	0.00122	0.00123
Calcium	--	--	--	1/1	170	170	170	170	170	NA
Chromium	--	0.3	3	3/34	0.00148	0.0037	0.00500	0.00486	0.00457	0.00166
Cobalt	--	0.075	--	12/34	0.00092	0.00372	0.00500	0.00758	0.00464	0.00839
Copper	--	0.23	--	4/34	0.00193	0.00669	0.0113	0.0175	0.00925	0.0273
Cyanide	--	0.03	2	5/7	0.0021	0.011	0.00500	0.00491	0.00419	0.00312
Cyanide-MADEP (PAC)	--	0.03	2	3/24	0.0023	0.01	0.00500	0.0251	2040	0.101
Lead	--	0.01	0.15	3/34	0.00007	0.00843	0.00250	0.00329	0.00249	0.00204
Magnesium	--	--	--	1/1	51.4	51.4	51.4	51.4	51.4	NA
Manganese	--	--	--	1/1	0.602	0.602	0.602	0.602	0.602	NA
Mercury	--	0.02	0.2	2/34	4.3E-05	0.00037	0.000100	0.000131	0.000114	0.0000774
Nickel	--	0.2	2	6/34	0.0006	0.0028	0.00500	0.0115	0.00738	0.00908
Potassium	--	--	--	1/1	2.61	2.61	2.61	2.61	2.61	NA
Selenium	--	0.1	1	1/34	0.00957	0.00957	0.00979	0.00716	0.00571	0.00475
Silver	--	0.007	1	1/34	0.0011	0.0011	0.00250	0.00221	0.00165	0.00136
Sodium	--	--	--	1/1	318	318	318	318	318	NA
Thallium	--	3	30	5/34	0.00003	0.00832	0.00500	0.00429	0.00341	0.00178
Tin	--	--	--	1/33	0.0498	0.0498	0.0250	0.0318	0.0251	0.0185
Zinc	--	0.9	50	16/34	0.00256	0.444	0.0100	0.0167	0.00942	0.0377

- Notes:**
1. Samples were collected by Arcadis between 1991 and 2017 and were submitted to SGS Environmental Services, Inc. and Accutest Laboratories for analysis of PCBs and Appendix IX+3 constituents.
  2. Samples have been validated in accordance with the applicable EPA-approved Field Sampling/Quality Assurance Project Plan (FSP/QAPP).
  3. Only constituents which were detected during at least one prior sampling event and were analyzed during the spring 2017 sampling event are summarized.
  4. The statistical information presented above was calculated based on all analytical results reported for each constituent, incorporating a value of one-half of the associated detection limit for any non-detected results.
  5. For PCDD/PCDF compounds, total Toxicity Equivalency Quotient (TEQ) concentrations were calculated using the Toxicity Equivalency Factors (TEFs) published by the World Health Organization in 1998 (van den Berg et al., Environ. Health Perspectives, vol. 106, no. 12), as required by the Statement of Work for Removal Actions Outside the River, and representing non-detected compounds as one-half the detection limit.
  6. ND - Analyte was not detected.

**Table D-7**  
**Summary of Groundwater Sample Analytical Results - GMA4-6**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**On-Plant Consolidation Area**  
**General Electric Company - Pittsfield, Massachusetts**  
**(Results are presented in parts per million, ppm)**



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>PCBs-Filtered</b>										
Aroclor-1254	--	--	--	4/24	0.000034	0.00017	0.0000355	0.0000525	0.0000451	0.0000386
Aroclor-1260	--	--	--	1/24	0.000021	0.000021	0.0000350	0.0000457	0.0000403	0.0000305
Total PCBs	0.005	0.01	0.1	4/24	0.000034	0.00017	0.0000355	0.0000534	0.0000460	0.0000385
<b>Volatile Organics</b>										
Acetone	50	50	100	1/23	0.0012	0.0013	0.00500	0.00769	0.00568	0.00526
Bromodichloromethane	0.006	50	100	1/23	0.00018	0.00018	0.000500	0.000486	0.000478	0.0000667
Chloroform	0.05	20	100	13/23	0.00032	0.0047	0.000500	0.00117	0.000829	0.00115
Chloromethane	--	--	--	1/23	0.00077	0.00077	0.000500	0.000599	0.000575	0.000196
Tetrachloroethene	0.05	30	100	1/23	0.00068	0.00068	0.000500	0.000508	0.000507	0.0000375
Toluene	50	40	100	1/23	0.00032	0.00032	0.000500	0.000492	0.000490	0.0000375
Total VOCs	5	--	--	16/23	0.00032	0.0047	0.00240	0.0133	0.00345	0.0201
<b>Semivolatile Organics</b>										
bis(2-Ethylhexyl)phthalate	--	50	100	4/23	0.00053	0.0016	0.00260	0.00250	0.00229	0.00100
Pentachloroethane	--	--	--	1/20	0.0097	0.0097	0.00260	0.00314	0.00299	0.00114
Total PAHs	--	--	--	3/3	0.0051	0.0055	0.00530	0.00527	0.00527	0.000153
<b>Furans</b>										
2,3,7,8-TCDF	--	--	--	2/23	1.2E-09	1.5E-09	1.20E-09	1.57E-09	1.00E-09	1.45E-09
TCDFs (total)	--	--	--	4/23	7.8E-10	0.000000023	1.40E-09	3.02E-09	1.44E-09	5.06E-09
1,2,3,7,8-PeCDF	--	--	--	1/23	6.5E-09	6.5E-09	2.40E-09	4.24E-09	1.69E-09	6.46E-09
2,3,4,7,8-PeCDF	--	--	--	1/23	5.2E-09	5.2E-09	2.30E-09	4.16E-09	1.58E-09	6.46E-09
PeCDFs (total)	--	--	--	5/23	1.4E-09	0.000000012	2.60E-09	4.96E-09	2.32E-09	6.54E-09
1,2,3,4,7,8-HxCDF	--	--	--	1/23	1.2E-09	1.2E-09	2.50E-09	4.06E-09	1.56E-09	6.46E-09
1,2,3,6,7,8-HxCDF	--	--	--	1/23	6.3E-10	6.3E-10	2.40E-09	4.01E-09	1.46E-09	6.48E-09
1,2,3,7,8,9-HxCDF	--	--	--	0/23	ND	ND	2.50E-09	4.09E-09	1.66E-09	6.44E-09
2,3,4,6,7,8-HxCDF	--	--	--	0/23	ND	ND	2.50E-09	4.03E-09	1.45E-09	6.47E-09
HxCDFs (total)	--	--	--	2/23	8.5E-10	2.1E-09	2.50E-09	4.27E-09	2.05E-09	6.35E-09
1,2,3,4,6,7,8-HpCDF	--	--	--	0/23	ND	ND	2.00E-09	4.01E-09	1.48E-09	6.48E-09
1,2,3,4,7,8,9-HpCDF	--	--	--	0/23	ND	ND	2.40E-09	4.09E-09	1.63E-09	6.44E-09
HpCDFs (total)	--	--	--	3/23	3E-10	0.000000003	2.40E-09	4.20E-09	1.90E-09	6.39E-09
OCDF	--	--	--	1/23	0.000000038	0.000000038	3.60E-09	8.97E-09	3.72E-09	1.40E-08

Table D-7  
 Summary of Groundwater Sample Analytical Results - GMA4-6  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 On-Plant Consolidation Area  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Dioxins</b>										
2,3,7,8-TCDD	--	--	--	1/23	2.2E-10	2.2E-10	1.20E-09	1.67E-09	1.13E-09	1.47E-09
TCDDs (total)	--	--	--	4/23	1.5E-09	0.000000041	1.20E-09	2.60E-09	1.47E-09	4.25E-09
1,2,3,7,8-PeCDD	--	--	--	1/23	3.5E-10	3.5E-10	2.50E-09	4.35E-09	1.89E-09	6.43E-09
PeCDDs (total)	--	--	--	2/23	3.5E-10	3.5E-09	2.50E-09	4.42E-09	2.03E-09	6.40E-09
1,2,3,4,7,8-HxCDD	--	--	--	2/23	2.3E-10	2.7E-10	2.50E-09	4.43E-09	1.94E-09	6.38E-09
1,2,3,6,7,8-HxCDD	--	--	--	3/23	3.1E-10	0.000000001	2.50E-09	4.42E-09	2.02E-09	6.37E-09
1,2,3,7,8,9-HxCDD	--	--	--	2/23	9.8E-10	1.6E-09	2.50E-09	4.50E-09	2.04E-09	6.34E-09
HxCDDs (total)	--	--	--	4/23	6.2E-10	8.6E-09	2.60E-09	4.96E-09	2.74E-09	6.28E-09
1,2,3,4,6,7,8-HpCDD	--	--	--	3/23	1.1E-09	0.000000012	2.60E-09	5.12E-09	2.52E-09	6.49E-09
HpCDDs (total)	--	--	--	6/23	5E-11	0.000000019	2.50E-09	5.16E-09	2.49E-09	6.76E-09
OCDD	--	--	--	6/23	4.1E-09	0.000000004	6.00E-09	1.23E-08	6.63E-09	1.43E-08
Total TEQs (1998 WHO TEFs)	--	4.00E-05	4.00E-04	23/23	6.3E-10	0.000000068	5.90E-09	1.28E-08	5.86E-09	1.90E-08
<b>Inorganics</b>										
Sulfide	--	--	--	2/23	1	1.1	1.00	0.789	0.746	0.256

**Table D-7**  
**Summary of Groundwater Sample Analytical Results - GMA4-6**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**On-Plant Consolidation Area**  
**General Electric Company - Pittsfield, Massachusetts**  
**(Results are presented in parts per million, ppm)**

Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Inorganics-filtered</b>										
Antimony	--	8	80	1/23	0.00696	0.00696	0.0200	0.0158	0.0118	0.00779
Arsenic	--	0.9	9	1/22	0.0011	0.0012	0.00500	0.00560	0.00483	0.00445
Barium	--	50	100	10/23	0.00701	0.0805	0.0500	0.0813	0.0469	0.0921
Beryllium	--	0.2	2	3/23	0.00449	0.0403	0.00500	0.00459	0.00345	0.00430
Cadmium	--	0.004	0.05	12/23	0.000051	0.0038	0.00125	0.00139	0.000743	0.00131
Calcium	--	--	--	1/1	109	112	111	111	111	NA
Chromium	--	0.3	3	3/23	0.00022	0.0109	0.00500	0.00476	0.00449	0.00105
Cobalt	--	0.075	--	1/23	0.000076	0.000078	0.00500	0.00848	0.00569	0.00789
Copper	--	0.23	--	6/23	0.0014	0.0374	0.00500	0.0234	0.00882	0.0367
Cyanide-MADEP (PAC)	--	0.03	2	1/23	0.027	0.027	0.00500	0.00483	2040	0.00274
Lead	--	0.01	0.15	4/23	0.00007	0.00899	0.00500	0.00393	0.00295	0.00192
Magnesium	--	--	--	1/1	37.3	38.2	37.8	37.8	37.8	NA
Manganese	--	--	--	1/1	0.0133	0.0146	0.0140	0.0140	0.0140	NA
Mercury	--	0.02	0.2	3/23	0.0000355	0.000045	0.000100	0.000124	0.000104	0.0000761
Nickel	--	0.2	2	4/23	0.0005	0.0512	0.00500	0.0120	0.00762	0.00986
Potassium	--	--	--	1/1	2.79	2.85	2.82	2.82	2.82	NA
Selenium	--	0.1	1	3/23	0.00415	0.011	0.0100	0.00927	0.00800	0.00433
Sodium	--	--	--	1/1	97	100	98.5	98.5	98.5	NA
Thallium	--	3	30	4/23	0.00003	0.0105	0.00500	0.00422	0.00302	0.00213
Zinc	--	0.9	50	13/23	0.00285	0.119	0.0100	0.0175	0.0125	0.0231

**Notes:**

1. Samples were collected by Arcadis between 1991 and 2017 and were submitted to SGS Environmental Services, Inc. and Accutest Laboratories for analysis of PCBs and Appendix IX+3 constituents.
2. Samples have been validated in accordance with the applicable EPA-approved Field Sampling/Quality Assurance Project Plan (FSP/QAPP).
3. Only constituents which were detected during at least one prior sampling event and were analyzed during the spring 2017 sampling event are summarized.
4. The statistical information presented above was calculated based on all analytical results reported for each constituent, incorporating a value of one-half of the associated detection limit for any non-detected results.
5. For PCDD/PCDF compounds, total Toxicity Equivalency Quotient (TEQ) concentrations were calculated using the Toxicity Equivalency Factors (TEFs) published by the World Health Organization in 1998 (van den Berg et al., Environ. Health Perspectives, vol. 106, no. 12), as required by the Statement of Work for Removal Actions Outside the River, and representing non-detected compounds as one-half the detection limit.
6. ND - Analyte was not detected.

Table D-8  
 Summary of Groundwater Sample Analytical Results - H78B-15  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 On-Plant Consolidation Area  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>PCBs</b>										
Aroclor-1221	--	--	--	1/8	0.0097	0.0097	0.0000330	0.00136	0.0000993	0.00339
Aroclor-1254	--	--	--	3/8	0.00002	0.000039	0.0000340	0.000249	0.0000709	0.000455
Total PCBs	0.005	0.01	0.1	4/8	0.00002	0.0097	0.0000340	0.00136	0.0000994	0.00339
<b>PCBs-Filtered</b>										
Aroclor-1221	--	--	--	1/35	0.0084	0.0084	0.0000340	0.000312	0.0000520	0.00142
Aroclor-1248	--	--	--	1/35	0.000029	0.000029	0.0000340	0.0000948	0.0000481	0.000226
Aroclor-1254	--	--	--	8/35	0.000024	0.00033	0.0000340	0.000105	0.0000520	0.000229
Aroclor-1260	--	--	--	2/35	0.00019	0.00051	0.0000340	0.0000997	0.0000509	0.000226
Total PCBs	0.005	0.01	0.1	11/35	0.000024	0.0084	0.0000350	0.000313	0.0000591	0.00141
<b>Volatile Organics</b>										
1,1-Dichloroethane	2	20	100	2/36	0.0001	0.00022	0.000500	0.00120	0.000836	0.000992
Acetone	50	50	100	1/36	0.0031	0.0031	0.00500	0.00838	0.00627	0.00835
Chlorobenzene	0.2	1	10	1/36	0.00063	0.00063	0.000500	0.00130	0.000917	0.00114
Chloroform	0.05	20	100	7/36	0.00013	0.0049	0.000500	0.00131	0.000861	0.00117
Chloromethane	--	--	--	1/36	0.00061	0.00061	0.000805	0.00150	0.00104	0.00150
Toluene	50	40	100	3/36	0.00015	0.0016	0.000500	0.00119	0.000861	0.000958
Trichloroethene	0.005	5	50	3/36	0.00023	0.00065	0.000500	0.00122	0.000884	0.000977
Total VOCs	5	--	--	11/36	0.00013	0.0062	0.0500	0.0508	0.0152	0.0439
<b>Semivolatile Organics</b>										
bis(2-Ethylhexyl)phthalate	--	50	100	3/35	0.00046	0.001	0.00280	0.00305	0.00258	0.00205
Diethylphthalate	50	9	100	2/35	0.00091	0.0023	0.00280	0.00366	0.00339	0.00142
Total PAHs	--	--	--	3/3	0.005	0.0051	0.00510	0.00507	0.00507	0.0000577
<b>Organochlorine Pesticides</b>										
None Detected	--	--	--	0/2	--	--	--	--	--	--
<b>Organophosphate Pesticides</b>										
None Detected	--	--	--	0/2	--	--	--	--	--	--
<b>Herbicides</b>										
None Detected	--	--	--	0/2	--	--	--	--	--	--



Table D-8

## Summary of Groundwater Sample Analytical Results - H78B-15

## GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017

## On-Plant Consolidation Area

## General Electric Company - Pittsfield, Massachusetts

(Results are presented in parts per million, ppm)



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Furans</b>										
2,3,7,8-TCDF	--	--	--	3/35	2.9E-10	5.1E-09	9.50E-10	1.50E-09	8.29E-10	1.47E-09
TCDFs (total)	--	--	--	8/35	2.9E-10	0.000000056	1.10E-09	6.37E-09	1.44E-09	1.31E-08
1,2,3,7,8-PeCDF	--	--	--	7/35	3.5E-10	0.000000025	1.80E-09	3.47E-09	1.27E-09	5.31E-09
2,3,4,7,8-PeCDF	--	--	--	2/35	1.6E-09	0.000000025	1.30E-09	3.53E-09	1.10E-09	6.49E-09
PeCDFs (total)	--	--	--	9/35	9E-10	0.000000038	2.60E-09	6.40E-09	1.88E-09	9.88E-09
1,2,3,4,7,8-HxCDF	--	--	--	2/35	0.000000001	0.000000025	1.30E-09	3.59E-09	1.08E-09	6.51E-09
1,2,3,6,7,8-HxCDF	--	--	--	3/35	2.4E-10	0.000000025	1.10E-09	3.44E-09	8.99E-10	6.54E-09
1,2,3,7,8,9-HxCDF	--	--	--	1/35	0.000000025	0.000000025	1.30E-09	3.57E-09	1.06E-09	6.53E-09
2,3,4,6,7,8-HxCDF	--	--	--	2/35	1.1E-09	0.000000025	1.10E-09	3.47E-09	9.45E-10	6.54E-09
HxCDFs (total)	--	--	--	5/35	2.3E-12	0.000000025	1.80E-09	3.89E-09	1.39E-09	6.50E-09
1,2,3,4,6,7,8-HpCDF	--	--	--	4/35	3.2E-12	0.000000025	1.30E-09	3.89E-09	1.15E-09	6.84E-09
1,2,3,4,7,8,9-HpCDF	--	--	--	1/35	0.000000025	0.000000025	1.40E-09	3.76E-09	1.20E-09	6.52E-09
HpCDFs (total)	--	--	--	5/35	3.2E-12	0.000000025	1.50E-09	4.12E-09	1.42E-09	6.81E-09
OCDF	--	--	--	3/35	2.8E-09	0.000000051	2.80E-09	7.72E-09	2.69E-09	1.32E-08
<b>Dioxins</b>										
2,3,7,8-TCDD	--	--	--	2/35	5.2E-10	5.1E-09	1.00E-09	1.34E-09	7.87E-10	1.25E-09
TCDDs (total)	--	--	--	4/35	7.8E-10	0.00000002	1.10E-09	2.09E-09	1.01E-09	3.44E-09
1,2,3,7,8-PeCDD	--	--	--	2/35	1.5E-09	0.000000025	1.30E-09	3.71E-09	1.23E-09	6.47E-09
PeCDDs (total)	--	--	--	6/35	1.5E-09	0.000000025	2.50E-09	4.39E-09	1.74E-09	6.59E-09
1,2,3,4,7,8-HxCDD	--	--	--	3/35	2.4E-10	0.000000025	1.70E-09	3.71E-09	1.24E-09	6.46E-09
1,2,3,6,7,8-HxCDD	--	--	--	2/35	1.6E-09	0.000000025	1.60E-09	3.68E-09	1.17E-09	6.47E-09
1,2,3,7,8,9-HxCDD	--	--	--	1/35	0.000000025	0.000000025	1.60E-09	3.70E-09	1.19E-09	6.47E-09
HxCDDs (total)	--	--	--	6/35	2.2E-12	0.000000025	2.20E-09	4.21E-09	1.65E-09	6.61E-09
1,2,3,4,6,7,8-HpCDD	--	--	--	5/35	1.8E-09	0.000000034	2.10E-09	5.03E-09	1.82E-09	8.15E-09
HpCDDs (total)	--	--	--	7/35	2.8E-12	0.000000034	2.50E-09	5.09E-09	1.87E-09	8.13E-09
OCDD	--	--	--	5/35	2.6E-11	0.000000051	5.00E-09	9.69E-09	4.26E-09	1.31E-08
Total TEQs (1998 WHO TEFs)	--	4.00E-05	4.00E-04	35/35	1.7E-12	0.000000068	4.30E-09	9.29E-09	3.86E-09	1.57E-08
<b>Inorganics</b>										
Antimony	--	8	80	2/8	0.0029	0.0099	0.0300	0.0205	0.0129	0.0134
Arsenic	--	0.9	9	1/8	0.02	0.02	0.00500	0.00614	0.00464	0.00577
Barium	--	50	100	7/8	0.0043	0.15	0.0347	0.0506	0.0295	0.0510
Beryllium	--	0.2	2	1/8	0.00093	0.00093	0.000500	0.00106	0.000620	0.00108
Cadmium	--	0.004	0.05	1/8	0.0025	0.0025	0.00250	0.00227	0.00180	0.000874
Chromium	--	0.3	3	2/8	0.0029	0.043	0.00500	0.00915	0.00502	0.0138
Cobalt	--	0.075	--	2/8	0.00066	0.031	0.0250	0.0233	0.0167	0.00950
Copper	--	0.23	--	5/8	0.0068	0.081	0.0110	0.0195	0.0134	0.0250
Cyanide	--	0.03	2	2/8	0.0037	0.012	0.00500	0.00634	0.00586	0.00296
Lead	--	0.01	0.15	1/8	0.031	0.031	0.00150	0.0131	0.00337	0.0234
Nickel	--	0.2	2	3/8	0.0036	0.056	0.0200	0.0222	0.0172	0.0159
Sulfide	--	--	--	3/34	6.4	14	1.00	1.95	1.21	2.64
Vanadium	--	4	40	1/8	0.033	0.033	0.0250	0.0235	0.0152	0.00987
Zinc	--	0.9	50	6/8	0.007	0.22	0.0135	0.0473	0.0216	0.0742

**Table D-8**  
**Summary of Groundwater Sample Analytical Results - H78B-15**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**On-Plant Consolidation Area**  
**General Electric Company - Pittsfield, Massachusetts**  
**(Results are presented in parts per million, ppm)**



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Inorganics-filtered</b>										
Antimony	--	8	80	4/35	0.00017	0.01	0.0200	0.0177	0.0115	0.0101
Arsenic	--	0.9	9	4/34	0.0019	0.0152	0.00500	0.00692	0.00533	0.00858
Barium	--	50	100	22/35	0.0045	0.07	0.0494	0.0655	0.0341	0.0798
Beryllium	--	0.2	2	4/35	0.00059	0.00529	0.00200	0.00243	0.00143	0.00209
Cadmium	--	0.004	0.05	3/35	0.000044	0.00088	0.00150	0.00168	0.00106	0.00128
Calcium	--	--	--	1/1	236	236	236	236	236	NA
Chromium	--	0.3	3	5/35	0.00079	0.0026	0.00500	0.00450	0.00392	0.00203
Cobalt	--	0.075	--	1/35	0.000098	0.000098	0.00500	0.0134	0.00834	0.0103
Copper	--	0.23	--	9/35	0.00188	0.00737	0.00500	0.0187	0.00825	0.0307
Cyanide	--	0.03	2	3/8	0.0021	0.014	0.00500	0.00574	0.00508	0.00349
Cyanide-MADEP (PAC)	--	0.03	2	1/24	0.0018	0.0018	0.00500	0.0250	2040	0.101
Lead	--	0.01	0.15	2/35	0.0026	0.00826	0.00250	0.00330	0.00276	0.00184
Magnesium	--	--	--	1/1	97.8	97.8	97.8	97.8	97.8	NA
Mercury	--	0.02	0.2	2/35	0.00002	0.000052	0.000100	0.000118	0.000105	0.0000618
Nickel	--	0.2	2	4/35	0.0015	0.00519	0.0200	0.0130	0.00912	0.00894
Potassium	--	--	--	1/1	8.23	8.23	8.23	8.23	8.23	NA
Selenium	--	0.1	1	3/35	0.00388	0.021	0.00918	0.00737	0.00576	0.00524
Silver	--	0.007	1	1/35	0.0014	0.0014	0.00250	0.00209	0.00150	0.00130
Sodium	--	--	--	1/1	170	170	170	170	170	NA
Thallium	--	3	30	3/35	0.00819	0.0136	0.00500	0.00479	0.00418	0.00225
Tin	--	--	--	1/34	0.00892	0.00892	0.0250	0.0298	0.0224	0.0188
Vanadium	--	4	40	1/35	0.00587	0.00587	0.0250	0.0225	0.0188	0.00705
Zinc	--	0.9	50	12/35	0.00324	0.194	0.0100	0.0192	0.0109	0.0358

**Notes:**

1. Samples were collected by Arcadis between 1991 and 2017 and were submitted to SGS Environmental Services, Inc. and Accutest Laboratories for analysis of PCBs and Appendix IX+3 constituents.
2. Samples have been validated in accordance with the applicable EPA-approved Field Sampling/Quality Assurance Project Plan (FSP/QAPP).
3. Only constituents which were detected during at least one prior sampling event and were analyzed during the spring 2017 sampling event are summarized.
4. The statistical information presented above was calculated based on all analytical results reported for each constituent, incorporating a value of one-half of the associated detection limit for any non-detected results.
5. For PCDD/PCDF compounds, total Toxicity Equivalency Quotient (TEQ) concentrations were calculated using the Toxicity Equivalency Factors (TEFs) published by the World Health Organization in 1998 (van den Berg et al., Environ. Health Perspectives, vol. 106, no. 12), as required by the Statement of Work for Removal Actions Outside the River, and representing non-detected compounds as one-half the detection limit.
6. ND - Analyte was not detected.

Table D-9

Summary of Groundwater Sample Analytical Results - OPCA-MW-1R&OPCA-MW-1RR  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 On-Plant Consolidation Area  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>PCBs-Filtered</b>										
Aroclor-1248	--	--	--	2/22	0.000036	0.000063	0.0000370	0.0000495	0.0000446	0.0000292
Aroclor-1254	--	--	--	7/22	0.000031	0.001	0.0000500	0.0000880	0.0000608	0.000109
Aroclor-1260	--	--	--	3/22	0.000076	0.00021	0.0000360	0.0000589	0.0000493	0.0000452
Total PCBs	0.005	0.01	0.1	7/22	0.000088	0.001	0.0000500	0.000109	0.0000709	0.000131
<b>Volatile Organics</b>										
1,1-Dichloroethene	0.08	30	100	1/22	0.00032	0.00034	0.0325	0.0678	0.0169	0.0815
Acetone	50	50	100	1/22	0.053	0.053	0.515	0.774	0.214	0.790
Chloroform	0.05	20	100	7/22	0.0032	0.0096	0.0225	0.0667	0.0201	0.0820
Methylene Chloride	2	50	100	1/22	0.39	0.39	0.165	0.311	0.0758	0.382
Tetrachloroethene	0.05	30	100	22/22	0.012	5.6	2.20	2.35	1.19	1.60
trans-1,2-Dichloroethene	0.08	50	100	1/22	0.00035	0.00037	0.0325	0.0678	0.0169	0.0815
Trichloroethene	0.005	5	50	15/22	0.015	0.042	0.0265	0.0574	0.0214	0.0797
Xylenes (total)	3	5	100	1/22	0.015	0.015	0.0650	0.0920	0.0279	0.0877
Total VOCs	5	--	--	22/22	0.012	5.7	2.20	2.38	1.21	1.62
<b>Semivolatile Organics</b>										
bis(2-Ethylhexyl)phthalate	--	50	100	1/22	0.00077	0.00077	0.00260	0.00276	0.00258	0.00103
Phenol	50	2	100	1/22	0.0034	0.0034	0.00260	0.00299	0.00290	0.000849
Total PAHs	--	--	--	3/3	0.0051	0.0052	0.00520	0.00517	0.00517	0.0000577
<b>Furans</b>										
2,3,7,8-TCDF	--	--	--	4/22	8.8E-10	5.2E-09	7.25E-10	1.58E-09	9.67E-10	1.63E-09
TCDFs (total)	--	--	--	7/22	1.2E-09	0.00000035	1.70E-09	1.81E-08	1.94E-09	7.42E-08
1,2,3,7,8-PeCDF	--	--	--	1/22	0.000000026	0.000000026	1.25E-09	4.82E-09	1.46E-09	8.37E-09
2,3,4,7,8-PeCDF	--	--	--	7/22	5.7E-10	0.000000026	1.90E-09	3.38E-09	1.47E-09	6.31E-09
PeCDFs (total)	--	--	--	9/22	5.7E-10	0.00000031	2.60E-09	2.02E-08	3.47E-09	6.53E-08
1,2,3,4,7,8-HxCDF	--	--	--	6/22	1.3E-09	0.000000026	2.50E-09	3.80E-09	1.68E-09	6.43E-09
1,2,3,6,7,8-HxCDF	--	--	--	7/22	4E-10	0.000000026	2.30E-09	3.92E-09	1.52E-09	7.71E-09
1,2,3,7,8,9-HxCDF	--	--	--	1/22	0.000000026	0.000000026	1.30E-09	4.88E-09	1.63E-09	8.34E-09
2,3,4,6,7,8-HxCDF	--	--	--	7/22	7.7E-10	0.000000026	1.60E-09	3.82E-09	1.52E-09	7.73E-09
HxCDFs (total)	--	--	--	10/22	4.4E-10	0.00000014	2.60E-09	1.32E-08	3.54E-09	2.98E-08
1,2,3,4,6,7,8-HpCDF	--	--	--	6/22	2.1E-09	6.2E-09	2.50E-09	3.38E-09	1.67E-09	5.95E-09
1,2,3,4,7,8,9-HpCDF	--	--	--	2/22	1.8E-09	0.000000026	1.85E-09	5.00E-09	1.77E-09	8.29E-09
HpCDFs (total)	--	--	--	6/22	3.6E-10	0.000000012	2.55E-09	4.03E-09	2.20E-09	6.15E-09
OCDF	--	--	--	4/22	4.1E-09	0.000000013	3.80E-09	7.36E-09	3.63E-09	1.22E-08

Table D-9

Summary of Groundwater Sample Analytical Results - OPCA-MW-1R&OPCA-MW-1RR  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 On-Plant Consolidation Area  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Dioxins</b>										
2,3,7,8-TCDD	--	--	--	1/22	5.2E-09	5.2E-09	7.25E-10	1.44E-09	9.26E-10	1.50E-09
TCDDs (total)	--	--	--	4/22	1.7E-09	5.2E-09	9.50E-10	1.58E-09	1.13E-09	1.43E-09
1,2,3,7,8-PeCDD	--	--	--	2/22	8.5E-10	0.000000026	1.65E-09	4.94E-09	1.76E-09	8.31E-09
PeCDDs (total)	--	--	--	2/22	2.5E-10	0.000000026	2.50E-09	4.68E-09	2.15E-09	7.00E-09
1,2,3,4,7,8-HxCDD	--	--	--	3/22	2.3E-10	0.000000026	1.70E-09	5.09E-09	1.93E-09	8.27E-09
1,2,3,6,7,8-HxCDD	--	--	--	2/22	3.6E-10	0.000000026	1.60E-09	5.06E-09	1.85E-09	8.28E-09
1,2,3,7,8,9-HxCDD	--	--	--	2/22	2.1E-09	0.000000026	1.95E-09	5.15E-09	1.94E-09	8.24E-09
HxCDDs (total)	--	--	--	6/22	4.3E-10	0.000000026	2.50E-09	4.90E-09	2.23E-09	7.87E-09
1,2,3,4,6,7,8-HpCDD	--	--	--	5/22	1.8E-09	0.000000008	2.50E-09	4.50E-09	2.39E-09	6.42E-09
HpCDDs (total)	--	--	--	6/22	5.8E-10	0.000000016	2.55E-09	5.41E-09	2.88E-09	6.88E-09
OCDD	--	--	--	9/22	9.8E-09	0.000000035	9.40E-09	1.32E-08	7.69E-09	1.37E-08
Total TEQs (1998 WHO TEFs)	--	4.00E-05	4.00E-04	22/22	7E-10	0.000000071	5.35E-09	1.04E-08	4.90E-09	1.73E-08
<b>Inorganics</b>										
Sulfide	--	--	--	2/22	1.2	1.3	1.00	0.820	0.772	0.278

**Table D-9**  
**Summary of Groundwater Sample Analytical Results - OPCA-MW-1R&OPCA-MW-1RR**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**On-Plant Consolidation Area**  
**General Electric Company - Pittsfield, Massachusetts**  
**(Results are presented in parts per million, ppm)**



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Inorganics-filtered</b>										
Antimony	--	8	80	2/22	0.0001	0.00327	0.0200	0.0146	0.00876	0.00871
Arsenic	--	0.9	9	2/21	0.0013	0.00195	0.00500	0.00549	0.00463	0.00462
Barium	--	50	100	14/22	0.0401	0.0882	0.0588	0.0766	0.0662	0.0575
Beryllium	--	0.2	2	3/22	0.00053	0.0143	0.00500	0.00388	0.00301	0.00291
Cadmium	--	0.004	0.05	13/22	0.00006	0.0273	0.00250	0.00425	0.00233	0.00599
Calcium	--	--	--	1/1	118	118	118	118	118	NA
Chromium	--	0.3	3	4/22	0.00153	0.00348	0.00500	0.00432	0.00398	0.00135
Cobalt	--	0.075	--	1/22	0.000028	0.000028	0.00500	0.00864	0.00546	0.00804
Copper	--	0.23	--	2/22	0.00205	0.00659	0.00500	0.0236	0.00950	0.0370
Lead	--	0.01	0.15	4/22	0.00016	0.00982	0.00500	0.00409	0.00307	0.00238
Magnesium	--	--	--	1/1	56.1	56.1	56.1	56.1	56.1	NA
Manganese	--	--	--	1/1	0.109	0.109	0.109	0.109	0.109	NA
Mercury	--	0.02	0.2	2/22	0.0000373	0.000046	0.000100	0.000128	0.000110	0.0000754
Nickel	--	0.2	2	1/22	0.00041	0.00041	0.00500	0.0121	0.00828	0.00932
Potassium	--	--	--	1/1	3.31	3.31	3.31	3.31	3.31	NA
Selenium	--	0.1	1	1/22	0.00297	0.00297	0.0100	0.00902	0.00759	0.00460
Sodium	--	--	--	1/1	216	216	216	216	216	NA
Thallium	--	3	30	4/22	0.00003	0.0102	0.00500	0.00441	0.00304	0.00258
Tin	--	--	--	1/21	0.02	0.02	0.0500	0.0407	0.0348	0.0158
Vanadium	--	4	40	1/22	0.00665	0.00665	0.0250	0.0222	0.0195	0.00722
Zinc	--	0.9	50	11/22	0.00409	0.0803	0.0100	0.0171	0.0127	0.0171

**Notes:**

1. Samples were collected by Arcadis between 1991 and 2017 and were submitted to SGS Environmental Services, Inc. and Accutest Laboratories for analysis of PCBs and Appendix IX+3 constituents.
2. Samples have been validated in accordance with the applicable EPA-approved Field Sampling/Quality Assurance Project Plan (FSP/QAPP).
3. Only constituents which were detected during at least one prior sampling event and were analyzed during the spring 2017 sampling event are summarized.
4. The statistical information presented above was calculated based on all analytical results reported for each constituent, incorporating a value of one-half of the associated detection limit for any non-detected results.
5. For PCDD/PCDF compounds, total Toxicity Equivalency Quotient (TEQ) concentrations were calculated using the Toxicity Equivalency Factors (TEFs) published by the World Health Organization in 1998 (van den Berg et al., Environ. Health Perspectives, vol. 106, no. 12), as required by the Statement of Work for Removal Actions Outside the River, and representing non-detected compounds as one-half the detection limit.
6. ND - Analyte was not detected.

Table D-10

Summary of Groundwater Sample Analytical Results - OPCA-MW-2&OPCA-MW-2R  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 On-Plant Consolidation Area  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>PCBs</b>										
Aroclor-1254	--	--	--	4/7	0.000033	0.00014	0.0000330	0.0000677	0.0000543	0.0000474
Aroclor-1260	--	--	--	3/7	0.000022	0.00047	0.0000330	0.0000969	0.0000491	0.000165
Total PCBs	0.005	0.01	0.1	5/7	0.000022	0.00061	0.0000330	0.000141	0.0000689	0.000212
<b>PCBs-Filtered</b>										
Aroclor-1248	--	--	--	1/33	0.000032	0.000032	0.0000340	0.0000427	0.0000390	0.0000260
Aroclor-1254	--	--	--	11/33	0.000018	0.00026	0.0000380	0.0000618	0.0000492	0.0000529
Aroclor-1260	--	--	--	1/33	0.00067	0.00067	0.0000340	0.0000621	0.0000428	0.000112
Total PCBs	0.005	0.01	0.1	11/33	0.000018	0.00093	0.0000380	0.0000831	0.0000518	0.000157
<b>Volatile Organics</b>										
1,1,1-Trichloroethane	4	20	100	2/34	0.00013	0.00013	0.000500	0.00118	0.000815	0.000990
2-Butanone	50	50	100	1/34	0.0014	0.0014	0.00500	0.00745	0.00520	0.00868
Acetone	50	50	100	8/34	0.0012	0.077	0.00500	0.0116	0.00632	0.0177
Bromodichloromethane	0.006	50	100	1/34	0.00019	0.00019	0.000500	0.00120	0.000858	0.000978
Chlorobenzene	0.2	1	10	1/34	0.0028	0.0028	0.000500	0.00121	0.000885	0.000984
Chloroform	0.05	20	100	2/34	0.00023	0.00047	0.000500	0.00120	0.000861	0.000978
Chloromethane	--	--	--	1/34	0.00033	0.00033	0.000750	0.00135	0.000985	0.00112
Tetrachloroethene	0.05	30	100	1/34	0.003	0.003	0.000500	0.000794	0.000692	0.000552
Toluene	50	40	100	5/34	0.00013	0.0025	0.000500	0.00117	0.000836	0.000952
Trichloroethene	0.005	5	50	1/34	0.0011	0.0011	0.000500	0.00122	0.000903	0.000962
Trichlorofluoromethane	--	--	--	1/34	0.0004	0.00041	0.000500	0.00125	0.000933	0.000950
Xylenes (total)	3	5	100	1/34	0.00025	0.00025	0.00100	0.00223	0.00143	0.00199
Total VOCs	5	--	--	17/34	0.00013	0.077	0.0365	0.0437	0.0137	0.0423
<b>Semivolatile Organics</b>										
1,2,4-Trichlorobenzene	0.2	50	100	1/34	0.0016	0.0016	0.00290	0.00364	0.00346	0.00117
bis(2-Ethylhexyl)phthalate	--	50	100	1/34	0.0012	0.0012	0.00285	0.00290	0.00274	0.000934
Diethylphthalate	50	9	100	1/34	0.0025	0.0025	0.00290	0.00368	0.00349	0.00120
Di-n-Octylphthalate	--	--	--	1/34	0.00058	0.00058	0.00290	0.00363	0.00336	0.00129
Total PAHs	--	--	--	3/3	0.0051	0.0053	0.00510	0.00517	0.00517	0.000115
<b>Organochlorine Pesticides</b>										
None Detected	--	--	--	0/2	--	--	--	--	--	--
<b>Organophosphate Pesticides</b>										
None Detected	--	--	--	0/2	--	--	--	--	--	--
<b>Herbicides</b>										
None Detected	--	--	--	0/2	--	--	--	--	--	--

Table D-10

Summary of Groundwater Sample Analytical Results - OPCA-MW-2&OPCA-MW-2R  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 On-Plant Consolidation Area  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Furans</b>										
2,3,7,8-TCDF	--	--	--	2/34	0.000000002	3.2E-09	9.25E-10	1.42E-09	9.76E-10	1.21E-09
TCDFs (total)	--	--	--	7/34	8.1E-10	0.000000005	1.30E-09	3.20E-09	1.47E-09	7.36E-09
1,2,3,7,8-PeCDF	--	--	--	3/34	2.2E-09	4.3E-09	1.60E-09	2.64E-09	1.20E-09	3.56E-09
2,3,4,7,8-PeCDF	--	--	--	0/34	ND	ND	1.45E-09	3.22E-09	1.43E-09	5.37E-09
PeCDFs (total)	--	--	--	5/34	0.000000003	0.000000049	2.25E-09	4.34E-09	1.74E-09	6.63E-09
1,2,3,4,7,8-HxCDF	--	--	--	4/34	0.000000002	5.5E-09	1.65E-09	2.76E-09	1.32E-09	3.58E-09
1,2,3,6,7,8-HxCDF	--	--	--	2/34	4.6E-10	1.2E-09	1.25E-09	3.29E-09	1.28E-09	5.38E-09
1,2,3,7,8,9-HxCDF	--	--	--	1/34	1.8E-09	1.8E-09	1.65E-09	3.60E-09	1.80E-09	5.34E-09
2,3,4,6,7,8-HxCDF	--	--	--	1/34	1.7E-09	1.7E-09	1.50E-09	3.43E-09	1.63E-09	5.34E-09
HxCDFs (total)	--	--	--	5/34	7E-10	0.000000017	2.50E-09	3.74E-09	1.89E-09	4.02E-09
1,2,3,4,6,7,8-HpCDF	--	--	--	6/34	3E-10	8.8E-09	1.40E-09	2.58E-09	1.49E-09	3.42E-09
1,2,3,4,7,8,9-HpCDF	--	--	--	2/34	9.8E-10	3.9E-09	1.70E-09	3.76E-09	1.87E-09	5.44E-09
HpCDFs (total)	--	--	--	7/34	1.6E-10	0.000000014	2.10E-09	4.56E-09	2.25E-09	6.11E-09
OCDF	--	--	--	2/34	3.7E-09	0.000000022	4.40E-09	8.13E-09	4.31E-09	1.13E-08
<b>Dioxins</b>										
2,3,7,8-TCDD	--	--	--	1/34	2.7E-10	2.7E-10	1.15E-09	1.40E-09	1.07E-09	1.09E-09
TCDDs (total)	--	--	--	4/34	9.8E-10	2.1E-09	1.30E-09	1.62E-09	1.28E-09	1.48E-09
1,2,3,7,8-PeCDD	--	--	--	2/34	5.3E-10	6.5E-10	2.30E-09	3.62E-09	1.94E-09	5.28E-09
PeCDDs (total)	--	--	--	3/34	6.5E-10	0.000000001	2.30E-09	3.27E-09	1.93E-09	3.79E-09
1,2,3,4,7,8-HxCDD	--	--	--	3/34	3.5E-10	1.4E-09	2.45E-09	3.72E-09	1.99E-09	5.25E-09
1,2,3,6,7,8-HxCDD	--	--	--	2/34	5.1E-10	8.1E-10	2.25E-09	3.65E-09	1.63E-09	5.29E-09
1,2,3,7,8,9-HxCDD	--	--	--	1/34	1.8E-09	1.8E-09	2.35E-09	3.71E-09	1.67E-09	5.26E-09
HxCDDs (total)	--	--	--	6/34	6.7E-10	0.000000012	2.50E-09	3.71E-09	2.07E-09	4.04E-09
1,2,3,4,6,7,8-HpCDD	--	--	--	5/34	2.4E-09	8.6E-09	2.50E-09	3.96E-09	2.48E-09	4.00E-09
HpCDDs (total)	--	--	--	9/34	1.3E-09	0.000000002	2.50E-09	4.68E-09	2.74E-09	5.39E-09
OCDD	--	--	--	11/34	8.6E-09	0.000000051	7.50E-09	3.04E-08	7.46E-09	9.00E-08
Total TEQs (1998 WHO TEFs)	--	4.00E-05	4.00E-04	34/34	0.000000001	0.000000065	5.60E-09	9.70E-09	5.61E-09	1.47E-08

**Table D-10**  
**Summary of Groundwater Sample Analytical Results - OPCA-MW-2&OPCA-MW-2R**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**On-Plant Consolidation Area**  
**General Electric Company - Pittsfield, Massachusetts**  
**(Results are presented in parts per million, ppm)**



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Inorganics</b>										
Antimony	--	8	80	1/7	0.012	0.012	0.0300	0.0274	0.0263	0.00680
Arsenic	--	0.9	9	1/7	0.019	0.019	0.00500	0.00671	0.00562	0.00547
Barium	--	50	100	6/7	0.019	0.13	0.0200	0.0487	0.0348	0.0464
Beryllium	--	0.2	2	1/7	0.00082	0.00082	0.000500	0.000903	0.000693	0.000932
Cadmium	--	0.004	0.05	1/7	0.003	0.003	0.00250	0.00264	0.00263	0.000244
Chromium	--	0.3	3	2/7	0.0032	0.051	0.00500	0.0126	0.00774	0.0172
Cobalt	--	0.075	--	2/7	0.0025	0.018	0.0250	0.0215	0.0176	0.00908
Copper	--	0.23	--	2/7	0.0028	0.051	0.0125	0.0172	0.0128	0.0155
Lead	--	0.01	0.15	1/7	0.018	0.018	0.00150	0.0131	0.00394	0.0237
Mercury	--	0.02	0.2	1/7	0.0004	0.0004	0.000100	0.000164	0.000139	0.000118
Nickel	--	0.2	2	1/7	0.036	0.036	0.0200	0.0237	0.0230	0.00658
Selenium	--	0.1	1	1/7	0.0089	0.0089	0.00250	0.00349	0.00308	0.00239
Silver	--	0.007	1	1/7	0.0018	0.0018	0.00250	0.00297	0.00273	0.00158
Sulfide	--	--	--	5/34	0.66	4.8	1.00	1.52	1.22	1.01
Vanadium	--	4	40	2/7	0.003	0.038	0.0250	0.0244	0.0201	0.0106
Zinc	--	0.9	50	3/7	0.011	0.15	0.0110	0.0314	0.0166	0.0523
<b>Inorganics-filtered</b>										
Antimony	--	8	80	2/33	0.007	0.0071	0.0200	0.0194	0.0150	0.00933
Arsenic	--	0.9	9	1/32	0.00255	0.00255	0.00500	0.00672	0.00503	0.00873
Barium	--	50	100	23/33	0.0128	0.0435	0.0220	0.0434	0.0291	0.0564
Beryllium	--	0.2	2	2/33	0.00386	0.00954	0.00200	0.00277	0.00173	0.00236
Cadmium	--	0.004	0.05	4/33	0.00009	0.00263	0.00185	0.00172	0.00110	0.00128
Calcium	--	--	--	1/1	116	116	116	116	116	NA
Chromium	--	0.3	3	3/33	0.0011	0.00307	0.00500	0.00507	0.00462	0.00220
Cobalt	--	0.075	--	2/33	0.000056	0.001	0.00500	0.0137	0.00908	0.0100
Copper	--	0.23	--	1/33	0.0016	0.0016	0.0125	0.0209	0.0109	0.0309
Lead	--	0.01	0.15	1/33	0.0042	0.0042	0.00250	0.00314	0.00266	0.00165
Magnesium	--	--	--	1/1	55	55	55.0	55.0	55.0	NA
Manganese	--	--	--	1/1	0.0111	0.0111	0.0111	0.0111	0.0111	NA
Mercury	--	0.02	0.2	2/33	0.000054	0.00021	0.000100	0.000123	0.000112	0.0000629
Nickel	--	0.2	2	7/33	0.00036	0.00638	0.0112	0.0128	0.00867	0.00896
Potassium	--	--	--	1/1	1.87	1.87	1.87	1.87	1.87	NA
Selenium	--	0.1	1	7/33	0.00272	0.0111	0.00500	0.00663	0.00528	0.00473
Sodium	--	--	--	1/1	17	17	17.0	17.0	17.0	NA
Thallium	--	3	30	1/33	0.0107	0.0107	0.00500	0.00449	0.00398	0.00178
Tin	--	--	--	1/32	0.00262	0.00262	0.0250	0.0299	0.0228	0.0186
Vanadium	--	4	40	1/32	0.0012	0.0012	0.0250	0.0229	0.0200	0.00661
Zinc	--	0.9	50	11/33	0.00252	0.021	0.0100	0.0110	0.00964	0.00585



**Table D-10**  
**Summary of Groundwater Sample Analytical Results - OPCA-MW-2&OPCA-MW-2R**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**On-Plant Consolidation Area**  
**General Electric Company - Pittsfield, Massachusetts**  
**(Results are presented in parts per million, ppm)**

Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Natural Attenuation</b>										
None Detected	--	--	--	--	--	--	--	--	--	--
<b>Miscellaneous</b>										
Oxidation Reduction Potential	--	--	--	2/2	72.7	131.2	102	102	97.4	40.3
pH	--	--	--	2/2	6.9	7.05	7.00	7.00	7.00	0.141
Specific Conductivity	--	--	--	2/2	682	838.5	760	760	756	113
Temperature	--	--	--	2/2	12.4	12.8	12.5	12.5	12.5	0.707
Turbidity	--	--	--	2/2	1.3	24.2	12.7	12.7	5.59	16.1

**Notes:**

1. Samples were collected by Arcadis between 1991 and 2017 and were submitted to SGS Environmental Services, Inc. and Accutest Laboratories for analysis of PCBs and Appendix IX+3 constituents.
2. Samples have been validated in accordance with the applicable EPA-approved Field Sampling/Quality Assurance Project Plan (FSP/QAPP).
3. Only constituents which were detected during at least one prior sampling event and were analyzed during the spring 2017 sampling event are summarized.
4. The statistical information presented above was calculated based on all analytical results reported for each constituent, incorporating a value of one-half of the associated detection limit for any non-detected results.
5. For PCDD/PCDF compounds, total Toxicity Equivalency Quotient (TEQ) concentrations were calculated using the Toxicity Equivalency Factors (TEFs) published by the World Health Organization in 1998 (van den Berg et al., Environ. Health Perspectives, vol. 106, no. 12), as required by the Statement of Work for Removal Actions Outside the River, and representing non-detected compounds as one-half the detection limit.
6. ND - Analyte was not detected.

**Table D-11**  
**Summary of Groundwater Sample Analytical Results - OPCA-MW-3&OPCA-MW-3R**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**On-Plant Consolidation Area**  
**General Electric Company - Pittsfield, Massachusetts**  
**(Results are presented in parts per million, ppm)**



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>PCBs</b>										
Aroclor-1254	--	--	--	4/7	0.000037	0.000084	0.0000370	0.0000430	0.0000410	0.0000166
Total PCBs	0.005	0.01	0.1	4/7	0.000037	0.000084	0.0000370	0.0000430	0.0000410	0.0000166
<b>PCBs-Filtered</b>										
Aroclor-1248	--	--	--	3/33	0.000025	0.00031	0.0000330	0.0000505	0.0000415	0.0000523
Aroclor-1254	--	--	--	10/34	0.00003	0.00029	0.0000370	0.0000570	0.0000468	0.0000525
Aroclor-1260	--	--	--	1/33	0.000039	0.000039	0.0000340	0.0000428	0.0000395	0.0000235
Total PCBs	0.005	0.01	0.1	10/34	0.000033	0.0006	0.0000400	0.0000690	0.0000504	0.0000995
<b>Volatile Organics</b>										
Acetone	50	50	100	5/35	0.0013	0.021	0.00500	0.00831	0.00601	0.00869
Carbon Disulfide	--	--	--	1/35	0.00055	0.00055	0.000500	0.00136	0.000987	0.00113
Methylene Chloride	2	50	100	1/35	0.00035	0.00035	0.00250	0.00235	0.00224	0.000496
Total VOCs	5	--	--	6/35	0.00055	0.021	0.0500	0.0574	0.0366	0.0372
<b>Semivolatile Organics</b>										
bis(2-Ethylhexyl)phthalate	--	50	100	2/35	0.00085	0.0095	0.00270	0.00309	0.00282	0.00150
Di-n-Butylphthalate	--	--	--	1/35	0.0018	0.0018	0.00270	0.00371	0.00347	0.00143
Phenol	50	2	100	1/34	0.011	0.011	0.00270	0.00371	0.00347	0.00145
Total PAHs	--	--	--	3/3	0.0051	0.0053	0.00530	0.00527	0.00527	0.0000577
<b>Organochlorine Pesticides</b>										
None Detected	--	--	--	0/2	--	--	--	--	--	--
<b>Organophosphate Pesticides</b>										
None Detected	--	--	--	0/2	--	--	--	--	--	--
<b>Herbicides</b>										
None Detected	--	--	--	0/2	--	--	--	--	--	--
<b>Furans</b>										
2,3,7,8-TCDF	--	--	--	5/35	2.4E-09	5.9E-09	1.00E-09	1.65E-09	8.78E-10	1.58E-09
TCDFs (total)	--	--	--	7/35	2.4E-09	8.8E-09	1.40E-09	2.02E-09	1.15E-09	1.95E-09
1,2,3,7,8-PeCDF	--	--	--	4/35	6.8E-10	0.000000026	1.30E-09	3.60E-09	1.17E-09	6.53E-09
2,3,4,7,8-PeCDF	--	--	--	3/35	8.6E-10	0.000000026	1.30E-09	3.58E-09	1.12E-09	6.54E-09
PeCDFs (total)	--	--	--	8/35	5.7E-10	0.000000026	2.00E-09	3.83E-09	1.52E-09	6.45E-09
1,2,3,4,7,8-HxCDF	--	--	--	3/35	4.3E-10	0.000000026	1.20E-09	3.19E-09	1.02E-09	6.33E-09
1,2,3,6,7,8-HxCDF	--	--	--	4/35	5.3E-10	0.000000026	1.20E-09	3.17E-09	9.95E-10	6.33E-09
1,2,3,7,8,9-HxCDF	--	--	--	2/35	2.3E-10	0.000000026	1.30E-09	3.67E-09	1.16E-09	6.58E-09
2,3,4,6,7,8-HxCDF	--	--	--	3/35	8E-10	0.000000026	1.20E-09	3.18E-09	9.88E-10	6.34E-09
HxCDFs (total)	--	--	--	6/35	5.3E-10	0.000000026	1.70E-09	3.49E-09	1.39E-09	6.25E-09
1,2,3,4,6,7,8-HpCDF	--	--	--	6/35	6.6E-10	0.000000003	1.40E-09	2.26E-09	1.07E-09	4.44E-09
1,2,3,4,7,8,9-HpCDF	--	--	--	1/35	0.000000026	0.000000026	1.60E-09	3.80E-09	1.32E-09	6.50E-09
HpCDFs (total)	--	--	--	8/35	2.9E-10	4.4E-09	1.60E-09	2.64E-09	1.31E-09	4.51E-09
OCDF	--	--	--	2/35	9E-10	6.4E-09	2.90E-09	6.30E-09	2.68E-09	1.06E-08

Table D-11  
 Summary of Groundwater Sample Analytical Results - OPCA-MW-3&OPCA-MW-3R  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 On-Plant Consolidation Area  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Dioxins</b>										
2,3,7,8-TCDD	--	--	--	1/35	5.3E-09	5.3E-09	9.50E-10	1.47E-09	8.31E-10	1.34E-09
TCDDs (total)	--	--	--	3/35	5E-10	5.3E-09	1.10E-09	1.68E-09	1.00E-09	1.52E-09
1,2,3,7,8-PeCDD	--	--	--	3/35	1.9E-12	0.000000026	2.00E-09	3.79E-09	1.41E-09	6.48E-09
PeCDDs (total)	--	--	--	4/35	1.9E-12	0.000000026	2.50E-09	4.09E-09	1.70E-09	6.43E-09
1,2,3,4,7,8-HxCDD	--	--	--	2/35	0.000000026	0.000000026	1.70E-09	3.80E-09	1.43E-09	6.46E-09
1,2,3,6,7,8-HxCDD	--	--	--	2/35	0.000000026	0.000000026	1.60E-09	3.77E-09	1.38E-09	6.48E-09
1,2,3,7,8,9-HxCDD	--	--	--	2/35	6.9E-10	0.000000026	1.70E-09	3.81E-09	1.43E-09	6.46E-09
HxCDDs (total)	--	--	--	5/35	6.9E-10	0.000000026	1.70E-09	4.10E-09	1.75E-09	6.53E-09
1,2,3,4,6,7,8-HpCDD	--	--	--	5/35	1.2E-09	4.1E-09	1.90E-09	3.03E-09	1.59E-09	4.58E-09
HpCDDs (total)	--	--	--	6/35	7.6E-10	8.4E-09	2.10E-09	3.47E-09	1.83E-09	4.80E-09
OCDD	--	--	--	7/35	5.4E-09	0.000000025	5.50E-09	7.51E-09	4.16E-09	9.71E-09
Total TEQs (1998 WHO TEFs)	--	4.00E-05	4.00E-04	35/35	3.4E-12	0.000000066	5.30E-09	8.95E-09	3.95E-09	1.47E-08
<b>Inorganics</b>										
Arsenic	--	0.9	9	1/7	0.0042	0.0042	0.00500	0.00460	0.00453	0.000766
Barium	--	50	100	6/7	0.0095	0.11	0.0760	0.0708	0.0564	0.0379
Chromium	--	0.3	3	2/7	0.0013	0.0041	0.00500	0.00584	0.00531	0.00313
Cobalt	--	0.075	--	3/7	0.0021	0.0036	0.0250	0.0161	0.00977	0.0127
Copper	--	0.23	--	4/7	0.0028	0.0075	0.00730	0.00914	0.00798	0.00478
Cyanide	--	0.03	2	2/7	0.0022	0.0027	0.00500	0.00519	0.00482	0.00231
Nickel	--	0.2	2	4/7	0.0021	0.0052	0.0126	0.0135	0.00971	0.0103
Selenium	--	0.1	1	1/7	0.0054	0.0054	0.00250	0.00299	0.00286	0.00108
Sulfide	--	--	--	1/34	6.4	6.4	1.00	1.43	1.13	1.00
Zinc	--	0.9	50	4/7	0.011	0.088	0.0113	0.0273	0.0193	0.0285

**Table D-11**  
**Summary of Groundwater Sample Analytical Results - OPCA-MW-3&OPCA-MW-3R**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**On-Plant Consolidation Area**  
**General Electric Company - Pittsfield, Massachusetts**  
**(Results are presented in parts per million, ppm)**



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Inorganics-filtered</b>										
Antimony	--	8	80	3/34	0.0074	0.01	0.0200	0.0193	0.0152	0.00880
Arsenic	--	0.9	9	1/34	0.0011	0.0011	0.00500	0.00671	0.00522	0.00844
Barium	--	50	100	25/34	0.0208	0.12	0.0500	0.0609	0.0537	0.0400
Beryllium	--	0.2	2	6/34	0.0003	0.00713	0.00200	0.00256	0.00155	0.00220
Cadmium	--	0.004	0.05	10/34	0.00007	0.00081	0.00175	0.00170	0.000995	0.00130
Calcium	--	--	--	1/1	104	104	104	104	104	NA
Chromium	--	0.3	3	8/34	0.00063	0.075	0.00500	0.00673	0.00429	0.0123
Cobalt	--	0.075	--	8/34	0.00018	0.0044	0.00500	0.00978	0.00600	0.00941
Copper	--	0.23	--	14/34	0.0014	0.019	0.00500	0.0206	0.00754	0.0345
Cyanide-MADEP (PAC)	--	0.03	2	1/24	0.0013	0.0013	0.00500	0.00422	2040	0.00139
Lead	--	0.01	0.15	3/34	0.00021	0.00564	0.00250	0.00319	0.00257	0.00176
Magnesium	--	--	--	1/1	22.4	22.4	22.4	22.4	22.4	NA
Manganese	--	--	--	1/1	2.25	2.25	2.25	2.25	2.25	NA
Mercury	--	0.02	0.2	3/34	0.0000383	0.000197	0.000100	0.000121	0.000108	0.0000629
Nickel	--	0.2	2	18/34	0.0009	0.00664	0.00500	0.00818	0.00557	0.00790
Potassium	--	--	--	1/1	1.9	1.9	1.90	1.90	1.90	NA
Selenium	--	0.1	1	1/34	0.0077	0.0077	0.0100	0.00730	0.00572	0.00472
Silver	--	0.007	1	1/33	0.001	0.001	0.00250	0.00215	0.00161	0.00128
Sodium	--	--	--	1/1	14.2	14.2	14.2	14.2	14.2	NA
Thallium	--	3	30	4/34	0.00012	0.011	0.00500	0.00463	0.00393	0.00193
Vanadium	--	4	40	1/34	0.001	0.001	0.0250	0.0230	0.0201	0.00645
Zinc	--	0.9	50	13/34	0.00178	0.032	0.0100	0.0118	0.0105	0.00596

**Notes:**

1. Samples were collected by Arcadis between 1991 and 2017 and were submitted to SGS Environmental Services, Inc. and Accutest Laboratories for analysis of PCBs and Appendix IX+3 constituents.
2. Samples have been validated in accordance with the applicable EPA-approved Field Sampling/Quality Assurance Project Plan (FSP/QAPP).
3. Only constituents which were detected during at least one prior sampling event and were analyzed during the spring 2017 sampling event are summarized.
4. The statistical information presented above was calculated based on all analytical results reported for each constituent, incorporating a value of one-half of the associated detection limit for any non-detected results.
5. For PCDD/PCDF compounds, total Toxicity Equivalency Quotient (TEQ) concentrations were calculated using the Toxicity Equivalency Factors (TEFs) published by the World Health Organization in 1998 (van den Berg et al., Environ. Health Perspectives, vol. 106, no. 12), as required by the Statement of Work for Removal Actions Outside the River, and representing non-detected compounds as one-half the detection limit.
6. ND - Analyte was not detected.

Table D-12

Summary of Groundwater Sample Analytical Results - OPCA-MW-4  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 On-Plant Consolidation Area  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>PCBs</b>										
Aroclor-1254	--	--	--	7/7	0.000055	0.00089	0.000200	0.000391	0.000254	0.000344
Aroclor-1260	--	--	--	2/7	0.00011	0.00047	0.0000330	0.000105	0.0000551	0.000163
Total PCBs	0.005	0.01	0.1	7/7	0.000055	0.0013	0.000200	0.000480	0.000280	0.000477
<b>PCBs-Filtered</b>										
Aroclor-1248	--	--	--	4/34	0.00014	0.00038	0.0000340	0.0000746	0.0000515	0.0000870
Aroclor-1254	--	--	--	20/34	0.000029	0.0011	0.000115	0.000199	0.000108	0.000263
Aroclor-1260	--	--	--	5/34	0.000043	0.00047	0.0000340	0.0000625	0.0000463	0.0000807
Total PCBs	0.005	0.01	0.1	23/34	0.000029	0.0016	0.000135	0.000251	0.000131	0.000334
<b>Volatile Organics</b>										
Acetone	50	50	100	5/35	0.0014	0.026	0.00500	0.00865	0.00609	0.00924
Benzene	1	10	100	3/35	0.00013	0.00036	0.000500	0.00115	0.000779	0.000994
Chlorobenzene	0.2	1	10	9/35	0.00012	0.0023	0.000500	0.00124	0.000833	0.00101
Chloroform	0.05	20	100	1/35	0.00025	0.00025	0.000500	0.00118	0.000851	0.000969
Chloromethane	--	--	--	1/35	0.00039	0.00068	0.000540	0.00133	0.000980	0.00110
Methylene Chloride	2	50	100	1/35	0.00086	0.00086	0.00250	0.00239	0.00235	0.000373
Toluene	50	40	100	5/35	0.00014	0.0088	0.000500	0.00127	0.000844	0.00134
Trichloroethene	0.005	5	50	29/35	0.00092	0.0021	0.00140	0.00154	0.00146	0.000536
Vinyl Chloride	0.002	50	100	4/35	0.00032	0.0028	0.000500	0.000848	0.000685	0.000850
Xylenes (total)	3	5	100	2/35	0.00025	0.0022	0.00100	0.00221	0.00142	0.00197
Total VOCs	5	--	--	30/35	0.00092	0.027	0.00200	0.0174	0.00388	0.0346
<b>Semivolatile Organics</b>										
1,2,4-Trichlorobenzene	0.2	50	100	6/35	0.0006	0.016	0.00500	0.00415	0.00362	0.00250
1,3-Dichlorobenzene	6	50	100	1/35	0.0014	0.0014	0.00270	0.00359	0.00337	0.00126
1,4-Dichlorobenzene	0.06	8	80	4/35	0.00028	0.0032	0.00280	0.00353	0.00316	0.00137
bis(2-Ethylhexyl)phthalate	--	50	100	1/35	0.01	0.01	0.00280	0.00311	0.00288	0.00149
Di-n-Butylphthalate	--	--	--	1/35	0.0025	0.0025	0.00270	0.00362	0.00342	0.00122
Naphthalene	0.7	20	100	1/35	0.00023	0.00023	0.00270	0.00351	0.00311	0.00139
Total PAHs	--	--	--	3/3	0.005	0.0053	0.00500	0.00510	0.00510	0.000173
<b>Organochlorine Pesticides</b>										
None Detected	--	--	--	0/2	--	--	--	--	--	--
<b>Organophosphate Pesticides</b>										
None Detected	--	--	--	0/2	--	--	--	--	--	--
<b>Herbicides</b>										
None Detected	--	--	--	0/2	--	--	--	--	--	--

Table D-12

Summary of Groundwater Sample Analytical Results - OPCA-MW-4  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 On-Plant Consolidation Area  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Furans</b>										
2,3,7,8-TCDF	--	--	--	10/35	1.4E-11	9.4E-09	1.50E-09	2.35E-09	1.33E-09	2.33E-09
TCDFs (total)	--	--	--	25/35	3.7E-10	0.00000076	1.30E-08	7.58E-08	1.16E-08	1.56E-07
1,2,3,7,8-PeCDF	--	--	--	7/35	1E-11	0.000000025	2.20E-09	4.76E-09	1.81E-09	6.63E-09
2,3,4,7,8-PeCDF	--	--	--	10/35	1.7E-09	0.000000025	2.20E-09	3.47E-09	1.84E-09	4.63E-09
PeCDFs (total)	--	--	--	26/35	3E-10	0.000000036	3.30E-08	6.15E-08	2.22E-08	8.40E-08
1,2,3,4,7,8-HxCDF	--	--	--	7/35	3.3E-11	0.000000025	2.50E-09	4.02E-09	1.93E-09	6.33E-09
1,2,3,6,7,8-HxCDF	--	--	--	5/35	3.4E-10	0.000000025	1.70E-09	3.42E-09	1.27E-09	6.37E-09
1,2,3,7,8,9-HxCDF	--	--	--	4/35	2.2E-10	0.000000025	1.70E-09	3.15E-09	1.41E-09	4.93E-09
2,3,4,6,7,8-HxCDF	--	--	--	6/35	6E-10	0.000000025	1.60E-09	3.47E-09	1.38E-09	6.36E-09
HxCDFs (total)	--	--	--	20/35	1.2E-10	0.000000051	6.50E-09	1.06E-08	5.88E-09	1.17E-08
1,2,3,4,6,7,8-HpCDF	--	--	--	9/35	1.2E-11	6.6E-09	2.30E-09	3.38E-09	1.52E-09	5.33E-09
1,2,3,4,7,8,9-HpCDF	--	--	--	3/35	3.4E-12	0.000000025	1.50E-09	3.74E-09	1.34E-09	6.53E-09
HpCDFs (total)	--	--	--	9/35	2.1E-11	0.000000012	2.50E-09	3.81E-09	1.87E-09	5.47E-09
OCDF	--	--	--	5/35	1.5E-11	0.000000023	4.30E-09	6.65E-09	3.17E-09	1.02E-08
<b>Dioxins</b>										
2,3,7,8-TCDD	--	--	--	1/35	5.1E-09	5.1E-09	1.10E-09	1.42E-09	7.95E-10	1.33E-09
TCDDs (total)	--	--	--	6/35	7.5E-10	0.000000055	1.20E-09	3.27E-09	1.14E-09	9.15E-09
1,2,3,7,8-PeCDD	--	--	--	2/35	4.7E-09	0.000000025	2.40E-09	4.15E-09	1.58E-09	6.61E-09
PeCDDs (total)	--	--	--	6/35	0.000000001	0.000000073	2.60E-09	7.45E-09	2.43E-09	1.38E-08
1,2,3,4,7,8-HxCDD	--	--	--	1/35	0.000000025	0.000000025	2.50E-09	4.07E-09	1.53E-09	6.57E-09
1,2,3,6,7,8-HxCDD	--	--	--	1/35	0.000000025	0.000000025	2.40E-09	4.02E-09	1.48E-09	6.61E-09
1,2,3,7,8,9-HxCDD	--	--	--	2/35	8.8E-10	0.000000025	2.60E-09	4.10E-09	1.62E-09	6.56E-09
HxCDDs (total)	--	--	--	5/35	8.8E-10	0.000000025	2.60E-09	3.77E-09	2.01E-09	4.79E-09
1,2,3,4,6,7,8-HpCDD	--	--	--	6/35	4.8E-12	0.000000025	2.40E-09	4.31E-09	1.97E-09	6.49E-09
HpCDDs (total)	--	--	--	6/35	8E-12	0.000000025	2.60E-09	4.72E-09	2.19E-09	6.56E-09
OCDD	--	--	--	12/35	2.8E-11	0.000000031	6.50E-09	8.04E-09	5.03E-09	6.58E-09
Total TEQs (1998 WHO TEFs)	--	4.00E-05	4.00E-04	35/35	1E-11	0.00000006	7.10E-09	9.48E-09	4.96E-09	1.31E-08
<b>Inorganics</b>										
Barium	--	50	100	6/7	0.027	0.08	0.0450	0.0536	0.0480	0.0276
Copper	--	0.23	--	2/7	0.005	0.0054	0.0125	0.0110	0.0101	0.00422
Cyanide	--	0.03	2	1/7	0.0029	0.0029	0.00500	0.00541	0.00511	0.00217
Lead	--	0.01	0.15	1/7	0.0023	0.0023	0.00230	0.0110	0.00316	0.0238
Nickel	--	0.2	2	2/7	0.002	0.0029	0.0200	0.0164	0.0116	0.0102
Silver	--	0.007	1	1/7	0.0011	0.0011	0.00250	0.00287	0.00255	0.00168
Sulfide	--	--	--	3/35	1	4	1.00	1.42	1.15	0.940
Zinc	--	0.9	50	5/7	0.013	0.3	0.0270	0.0663	0.0319	0.105

**Table D-12**  
**Summary of Groundwater Sample Analytical Results - OPCA-MW-4**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**On-Plant Consolidation Area**  
**General Electric Company - Pittsfield, Massachusetts**  
**(Results are presented in parts per million, ppm)**



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Inorganics-filtered</b>										
Antimony	--	8	80	4/34	0.0013	0.012	0.0200	0.0190	0.0146	0.00901
Barium	--	50	100	24/34	0.00875	0.14	0.0309	0.0591	0.0399	0.0659
Beryllium	--	0.2	2	5/34	0.00053	0.0162	0.00200	0.00310	0.00179	0.00335
Cadmium	--	0.004	0.05	9/34	0.00006	0.00276	0.00175	0.00169	0.00104	0.00131
Calcium	--	--	--	1/1	122	122	122	122	122	NA
Chromium	--	0.3	3	2/34	0.0006	0.0015	0.00500	0.00487	0.00444	0.00177
Cobalt	--	0.075	--	3/34	0.000025	0.05	0.00500	0.0145	0.00904	0.0118
Copper	--	0.23	--	5/34	0.0013	0.004	0.00500	0.0193	0.00839	0.0311
Cyanide	--	0.03	2	1/7	0.0016	0.0018	0.00500	0.00453	0.00429	0.00125
Cyanide-MADEP (PAC)	--	0.03	2	1/24	0.0013	0.0013	0.00500	0.00430	2040	0.00137
Lead	--	0.01	0.15	1/34	0.00425	0.00425	0.00250	0.00320	0.00271	0.00166
Magnesium	--	--	--	1/1	23.3	23.3	23.3	23.3	23.3	NA
Mercury	--	0.02	0.2	1/34	0.000053	0.000053	0.000100	0.000121	0.000110	0.0000603
Nickel	--	0.2	2	6/34	0.00028	0.00585	0.0129	0.0129	0.00885	0.00895
Potassium	--	--	--	1/1	2.83	2.83	2.83	2.83	2.83	NA
Selenium	--	0.1	1	5/34	0.00321	0.00806	0.00500	0.00670	0.00537	0.00467
Sodium	--	--	--	1/1	49.5	49.5	49.5	49.5	49.5	NA
Thallium	--	3	30	4/34	0.00666	0.00936	0.00500	0.00469	0.00413	0.00188
Tin	--	--	--	2/33	0.0174	0.0332	0.0250	0.0305	0.0244	0.0178
Vanadium	--	4	40	2/34	0.0022	0.0024	0.0250	0.0224	0.0193	0.00724
Zinc	--	0.9	50	28/34	0.00229	0.29	0.0159	0.0424	0.0217	0.0611

**Notes:**

1. Samples were collected by Arcadis between 1991 and 2017 and were submitted to SGS Environmental Services, Inc. and Accutest Laboratories for analysis of PCBs and Appendix IX+3 constituents.
2. Samples have been validated in accordance with the applicable EPA-approved Field Sampling/Quality Assurance Project Plan (FSP/QAPP).
3. Only constituents which were detected during at least one prior sampling event and were analyzed during the spring 2017 sampling event are summarized.
4. The statistical information presented above was calculated based on all analytical results reported for each constituent, incorporating a value of one-half of the associated detection limit for any non-detected results.
5. For PCDD/PCDF compounds, total Toxicity Equivalency Quotient (TEQ) concentrations were calculated using the Toxicity Equivalency Factors (TEFs) published by the World Health Organization in 1998 (van den Berg et al., Environ. Health Perspectives, vol. 106, no. 12), as required by the Statement of Work for Removal Actions Outside the River, and representing non-detected compounds as one-half the detection limit.
6. ND - Analyte was not detected.

Table D-13

Summary of Groundwater Sample Analytical Results - OPCA-MW-5&OPCA-MW-5R  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 On-Plant Consolidation Area  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>PCBs</b>										
Aroclor-1254	--	--	--	4/7	0.000033	0.0002	0.0000330	0.0000594	0.0000447	0.0000628
Aroclor-1260	--	--	--	3/7	0.000036	0.00027	0.0000330	0.0000801	0.0000530	0.0000914
Total PCBs	0.005	0.01	0.1	5/7	0.000033	0.00033	0.0000580	0.000117	0.0000721	0.000127
<b>PCBs-Filtered</b>										
Aroclor-1254	--	--	--	12/34	0.000013	0.00026	0.0000360	0.0000569	0.0000460	0.0000476
Aroclor-1260	--	--	--	5/34	0.000011	0.00024	0.0000340	0.0000514	0.0000420	0.0000454
Total PCBs	0.005	0.01	0.1	14/34	0.000013	0.00026	0.0000370	0.0000687	0.0000515	0.0000648
<b>Volatile Organics</b>										
Acetone	50	50	100	3/35	0.0024	0.058	0.00500	0.00988	0.00635	0.0123
Benzene	1	10	100	7/35	0.00012	0.00042	0.000500	0.00111	0.000696	0.00102
Chlorobenzene	0.2	1	10	17/35	0.00011	0.012	0.00150	0.00190	0.00118	0.00220
Methylene Chloride	2	50	100	1/35	0.00022	0.00022	0.00250	0.00235	0.00221	0.000512
Toluene	50	40	100	6/35	0.00011	0.0015	0.000500	0.00109	0.000759	0.000931
Vinyl Chloride	0.002	50	100	8/35	0.00029	0.0071	0.000500	0.000999	0.000733	0.00131
Total VOCs	5	--	--	21/35	0.00011	0.058	0.00920	0.0324	0.00834	0.0405
<b>Semivolatile Organics</b>										
1,4-Dichlorobenzene	0.06	8	80	3/35	0.00055	0.0018	0.00270	0.00351	0.00317	0.00139
2,4-Dimethylphenol	40	50	100	1/33	0.0038	0.0038	0.00290	0.00367	0.00348	0.00119
Acenaphthene	--	10	100	1/35	0.011	0.011	0.00270	0.00372	0.00335	0.00182
bis(2-Ethylhexyl)phthalate	--	50	100	1/35	0.0012	0.0012	0.00270	0.00293	0.00280	0.000876
Dibenzofuran	--	--	--	1/35	0.0038	0.0038	0.00270	0.00352	0.00325	0.00131
Diethylphthalate	50	9	100	2/35	0.0011	0.0091	0.00290	0.00378	0.00349	0.00156
Di-n-Butylphthalate	--	--	--	1/35	0.0028	0.0028	0.00280	0.00365	0.00346	0.00120
Naphthalene	0.7	20	100	2/35	0.0083	0.062	0.00270	0.00527	0.00357	0.00999
Total PAHs	--	--	--	3/3	0.005	0.0053	0.00500	0.00510	0.00510	0.000173
<b>Organochlorine Pesticides</b>										
None Detected	--	--	--	0/2	--	--	--	--	--	--
<b>Organophosphate Pesticides</b>										
None Detected	--	--	--	0/2	--	--	--	--	--	--
<b>Herbicides</b>										
None Detected	--	--	--	0/2	--	--	--	--	--	--



Table D-13

Summary of Groundwater Sample Analytical Results - OPCA-MW-5&OPCA-MW-5R  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 On-Plant Consolidation Area  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Furans</b>										
2,3,7,8-TCDF	--	--	--	11/35	1.7E-09	0.000000032	1.70E-09	3.47E-09	1.36E-09	5.69E-09
TCDFs (total)	--	--	--	20/35	1.2E-09	0.000000069	3.30E-09	5.62E-08	4.20E-09	1.49E-07
1,2,3,7,8-PeCDF	--	--	--	6/35	1.5E-09	0.000000025	1.50E-09	3.58E-09	1.36E-09	5.70E-09
2,3,4,7,8-PeCDF	--	--	--	10/35	9.2E-10	0.000000065	2.50E-09	6.29E-09	1.46E-09	1.24E-08
PeCDFs (total)	--	--	--	18/35	5.5E-10	0.00000009	2.70E-09	7.02E-08	3.66E-09	1.93E-07
1,2,3,4,7,8-HxCDF	--	--	--	9/35	2.3E-09	0.000000059	2.50E-09	7.41E-09	1.69E-09	1.38E-08
1,2,3,6,7,8-HxCDF	--	--	--	7/35	2.3E-10	0.000000047	2.10E-09	5.74E-09	1.30E-09	1.06E-08
1,2,3,7,8,9-HxCDF	--	--	--	2/35	3.7E-09	0.000000025	1.40E-09	3.65E-09	1.02E-09	6.44E-09
2,3,4,6,7,8-HxCDF	--	--	--	8/35	8.5E-10	0.000000045	2.00E-09	5.37E-09	1.58E-09	9.57E-09
HxCDFs (total)	--	--	--	15/35	8.7E-10	0.00000006	2.70E-09	5.09E-08	3.63E-09	1.29E-07
1,2,3,4,6,7,8-HpCDF	--	--	--	8/35	3.3E-09	0.000000022	2.50E-09	1.16E-08	1.85E-09	3.79E-08
1,2,3,4,7,8,9-HpCDF	--	--	--	5/35	1.3E-09	0.000000028	2.10E-09	4.45E-09	1.47E-09	7.45E-09
HpCDFs (total)	--	--	--	9/35	2E-11	0.000000043	2.60E-09	2.02E-08	1.99E-09	7.47E-08
OCDF	--	--	--	8/35	4.1E-09	0.000000015	5.00E-09	1.35E-08	3.83E-09	2.82E-08
<b>Dioxins</b>										
2,3,7,8-TCDD	--	--	--	2/35	0.000000005	6.7E-09	7.00E-10	1.34E-09	7.20E-10	1.60E-09
TCDDs (total)	--	--	--	6/35	9.9E-10	0.000000041	9.90E-10	2.91E-09	1.01E-09	7.08E-09
1,2,3,7,8-PeCDD	--	--	--	3/35	7.4E-10	0.000000025	1.30E-09	3.54E-09	1.18E-09	6.11E-09
PeCDDs (total)	--	--	--	5/35	3.3E-09	0.000000035	2.60E-09	1.51E-08	1.70E-09	5.92E-08
1,2,3,4,7,8-HxCDD	--	--	--	3/35	2.6E-09	0.000000025	2.00E-09	3.57E-09	1.38E-09	6.12E-09
1,2,3,6,7,8-HxCDD	--	--	--	3/35	7.6E-10	0.000000025	1.70E-09	3.66E-09	1.41E-09	6.16E-09
1,2,3,7,8,9-HxCDD	--	--	--	5/35	0.000000001	0.000000025	1.90E-09	3.81E-09	1.55E-09	6.21E-09
HxCDDs (total)	--	--	--	8/35	8.4E-10	0.000000017	2.60E-09	1.11E-08	2.43E-09	3.08E-08
1,2,3,4,6,7,8-HpCDD	--	--	--	8/35	5.9E-10	0.000000013	2.60E-09	9.81E-09	2.47E-09	2.38E-08
HpCDDs (total)	--	--	--	10/35	1.8E-09	0.000000027	2.60E-09	1.69E-08	2.89E-09	4.94E-08
OCDD	--	--	--	13/35	4.3E-09	0.000000012	7.50E-09	7.01E-08	8.51E-09	2.43E-07
Total TEQs (1998 WHO TEFs)	--	4.00E-05	4.00E-04	35/35	3.5E-12	0.000000007	6.10E-09	1.13E-08	4.94E-09	1.74E-08
<b>Inorganics</b>										
Arsenic	--	0.9	9	1/7	0.0079	0.0079	0.00500	0.00513	0.00496	0.00143
Barium	--	50	100	6/7	0.023	0.078	0.0520	0.0561	0.0504	0.0267
Cadmium	--	0.004	0.05	1/7	0.0008	0.0008	0.00250	0.00233	0.00218	0.000699
Chromium	--	0.3	3	2/7	0.0043	0.014	0.00500	0.00640	0.00589	0.00342
Cobalt	--	0.075	--	2/7	0.0045	0.0062	0.0250	0.0201	0.0165	0.0103
Copper	--	0.23	--	3/7	0.0056	0.011	0.0125	0.0112	0.0107	0.00353
Cyanide	--	0.03	2	3/7	0.0022	0.051	0.00500	0.0125	0.00748	0.0172
Lead	--	0.01	0.15	4/7	0.003	0.034	0.00420	0.0164	0.00642	0.0244
Mercury	--	0.02	0.2	1/7	0.00005	0.00005	0.000100	0.000114	0.000103	0.0000627
Nickel	--	0.2	2	1/7	0.0074	0.0074	0.0200	0.0196	0.0184	0.00655
Sulfide	--	--	--	3/35	1	8	1.00	1.60	1.19	1.46
Vanadium	--	4	40	2/7	0.0015	0.0066	0.0250	0.0197	0.0142	0.0110
Zinc	--	0.9	50	5/7	0.011	0.05	0.0150	0.0259	0.0217	0.0167

**Table D-13**  
**Summary of Groundwater Sample Analytical Results - OPCA-MW-5&OPCA-MW-5R**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**On-Plant Consolidation Area**  
**General Electric Company - Pittsfield, Massachusetts**  
**(Results are presented in parts per million, ppm)**



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Inorganics-filtered</b>										
Antimony	--	8	80	3/34	0.0046	0.014	0.0200	0.0189	0.0146	0.00914
Arsenic	--	0.9	9	1/33	0.0014	0.0014	0.00500	0.00677	0.00527	0.00856
Barium	--	50	100	26/34	0.015	0.099	0.0500	0.0576	0.0496	0.0401
Beryllium	--	0.2	2	5/34	0.00033	0.0122	0.00200	0.00995	0.00184	0.0425
Cadmium	--	0.004	0.05	13/34	0.00005	0.00205	0.00178	0.00179	0.00135	0.00115
Calcium	--	--	--	1/1	73	73	73.0	73.0	73.0	NA
Chromium	--	0.3	3	2/34	0.00069	0.00134	0.00500	0.00487	0.00445	0.00177
Cobalt	--	0.075	--	5/34	0.00009	0.0068	0.00500	0.0120	0.00776	0.00984
Copper	--	0.23	--	12/34	0.0014	0.019	0.00500	0.0149	0.00669	0.0272
Cyanide	--	0.03	2	1/7	0.0023	0.0023	0.00500	0.00461	0.00447	0.00102
Cyanide-MADEP (PAC)	--	0.03	2	2/24	0.0017	0.013	0.00500	0.00465	2040	0.00222
Lead	--	0.01	0.15	7/34	0.0004	0.00657	0.00250	0.00316	0.00250	0.00183
Magnesium	--	--	--	1/1	23	23	23.0	23.0	23.0	NA
Manganese	--	--	--	1/1	0.0015	0.0015	0.00150	0.00150	0.00150	NA
Mercury	--	0.02	0.2	2/34	0.0000356	0.000052	0.000100	0.000119	0.000107	0.0000616
Nickel	--	0.2	2	10/34	0.0008	0.00498	0.00500	0.0102	0.00652	0.00882
Potassium	--	--	--	1/1	1.99	1.99	1.99	1.99	1.99	NA
Selenium	--	0.1	1	2/34	0.00324	0.00331	0.00500	0.00678	0.00535	0.00478
Sodium	--	--	--	1/1	88.9	88.9	88.9	88.9	88.9	NA
Thallium	--	3	30	4/34	0.00003	0.00828	0.00500	0.00431	0.00310	0.00182
Tin	--	--	--	2/33	0.00102	0.00241	0.0250	0.0290	0.0207	0.0190
Vanadium	--	4	40	4/34	0.0007	0.00627	0.0250	0.0211	0.0161	0.00864
Zinc	--	0.9	50	26/34	0.0036	0.263	0.0147	0.0366	0.0206	0.0529

**Notes:**

1. Samples were collected by Arcadis between 1991 and 2017 and were submitted to SGS Environmental Services, Inc. and Accutest Laboratories for analysis of PCBs and Appendix IX+3 constituents.
2. Samples have been validated in accordance with the applicable EPA-approved Field Sampling/Quality Assurance Project Plan (FSP/QAPP).
3. Only constituents which were detected during at least one prior sampling event and were analyzed during the spring 2017 sampling event are summarized.
4. The statistical information presented above was calculated based on all analytical results reported for each constituent, incorporating a value of one-half of the associated detection limit for any non-detected results.
5. For PCDD/PCDF compounds, total Toxicity Equivalency Quotient (TEQ) concentrations were calculated using the Toxicity Equivalency Factors (TEFs) published by the World Health Organization in 1998 (van den Berg et al., Environ. Health Perspectives, vol. 106, no. 12), as required by the Statement of Work for Removal Actions Outside the River, and representing non-detected compounds as one-half the detection limit.
6. ND - Analyte was not detected.

Table D-14  
 Summary of Groundwater Sample Analytical Results - OPCA-MW-6  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 On-Plant Consolidation Area  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>PCBs</b>										
Aroclor-1254	--	--	--	4/6	9.1E-05	0.00012	0.0000955	0.0000828	0.0000723	0.0000402
Aroclor-1260	--	--	--	2/6	0.00003	0.000086	0.0000330	0.0000400	0.0000364	0.0000228
Total PCBs	0.005	0.01	0.1	4/6	9.1E-05	0.00021	0.000106	0.000103	0.0000829	0.0000669
<b>PCBs-Filtered</b>										
Aroclor-1248	--	--	--	1/33	0.00004	0.00004	0.0000330	0.0000423	0.0000387	0.0000260
Aroclor-1254	--	--	--	11/33	1.3E-05	0.00037	0.0000350	0.0000626	0.0000476	0.0000662
Aroclor-1260	--	--	--	3/33	2.6E-05	0.00014	0.0000340	0.0000461	0.0000408	0.0000311
Total PCBs	0.005	0.01	0.1	11/33	1.3E-05	0.00051	0.0000350	0.0000707	0.0000506	0.0000886
<b>Volatile Organics</b>										
Acetone	50	50	100	3/34	0.0015	0.053	0.00500	0.0100	0.00683	0.0114
Toluene	50	40	100	2/34	0.00027	0.0016	0.000500	0.00111	0.000816	0.000929
Total VOCs	5	--	--	5/34	0.00027	0.053	0.0500	0.0568	0.0348	0.0366
<b>Semivolatile Organics</b>										
bis(2-Ethylhexyl)phthalate	--	50	100	2/34	0.0022	0.011	0.00260	0.00316	0.00293	0.00162
Diethylphthalate	50	9	100	1/34	0.0008	0.0008	0.00260	0.00354	0.00334	0.00125
Total PAHs	--	--	--	3/3	0.005	0.0051	0.00500	0.00503	0.00503	0.0000577
<b>Organochlorine Pesticides</b>										
None Detected	--	--	--	0/2	--	--	--	--	--	--
<b>Organophosphate Pesticides</b>										
None Detected	--	--	--	0/2	--	--	--	--	--	--
<b>Herbicides</b>										
None Detected	--	--	--	0/2	--	--	--	--	--	--
<b>Furans</b>										
2,3,7,8-TCDF	--	--	--	8/34	5.7E-10	5.8E-09	1.10E-09	1.74E-09	1.21E-09	1.55E-09
TCDFs (total)	--	--	--	13/34	5.7E-10	1E-07	1.35E-09	6.11E-09	1.91E-09	1.71E-08
1,2,3,7,8-PeCDF	--	--	--	2/34	3.2E-10	2.4E-09	1.25E-09	3.19E-09	1.39E-09	5.57E-09
2,3,4,7,8-PeCDF	--	--	--	0/34	ND	ND	1.03E-09	3.12E-09	1.20E-09	5.61E-09
PeCDFs (total)	--	--	--	8/34	3.2E-10	1.6E-07	2.30E-09	8.50E-09	2.16E-09	2.73E-08
1,2,3,4,7,8-HxCDF	--	--	--	1/34	1.3E-09	1.3E-09	1.25E-09	3.44E-09	1.41E-09	5.61E-09
1,2,3,6,7,8-HxCDF	--	--	--	1/34	1.3E-09	1.3E-09	1.15E-09	3.35E-09	1.25E-09	5.63E-09
1,2,3,7,8,9-HxCDF	--	--	--	1/34	2.4E-10	2.4E-10	1.25E-09	3.54E-09	1.51E-09	5.64E-09
2,3,4,6,7,8-HxCDF	--	--	--	0/34	ND	ND	1.20E-09	3.42E-09	1.32E-09	5.63E-09
HxCDFs (total)	--	--	--	5/34	6.7E-10	4.6E-09	2.00E-09	4.04E-09	1.94E-09	5.80E-09
1,2,3,4,6,7,8-HpCDF	--	--	--	4/34	6.5E-10	5.2E-09	1.25E-09	3.26E-09	1.41E-09	5.42E-09
1,2,3,4,7,8,9-HpCDF	--	--	--	0/34	ND	ND	1.20E-09	3.62E-09	1.52E-09	5.74E-09
HpCDFs (total)	--	--	--	5/34	4E-10	5.2E-09	1.25E-09	3.44E-09	1.67E-09	5.39E-09
OCDF	--	--	--	4/34	1.3E-09	1.9E-08	3.05E-09	7.19E-09	3.65E-09	1.08E-08

Table D-14  
 Summary of Groundwater Sample Analytical Results - OPCA-MW-6  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 On-Plant Consolidation Area  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Dioxins</b>										
2,3,7,8-TCDD	--	--	--	1/34	4.9E-10	4.9E-10	8.75E-10	1.27E-09	9.29E-10	1.18E-09
TCDDs (total)	--	--	--	4/34	4.9E-10	2.1E-09	1.05E-09	1.58E-09	1.15E-09	1.59E-09
1,2,3,7,8-PeCDD	--	--	--	0/34	ND	ND	1.35E-09	3.43E-09	1.58E-09	5.56E-09
PeCDDs (total)	--	--	--	3/34	3.2E-09	6.7E-09	2.30E-09	3.86E-09	2.12E-09	5.47E-09
1,2,3,4,7,8-HxCDD	--	--	--	0/34	ND	ND	1.55E-09	3.60E-09	1.62E-09	5.57E-09
1,2,3,6,7,8-HxCDD	--	--	--	1/34	3.5E-10	3.5E-10	1.35E-09	3.58E-09	1.60E-09	5.60E-09
1,2,3,7,8,9-HxCDD	--	--	--	1/34	1.9E-09	1.9E-09	1.70E-09	3.64E-09	1.70E-09	5.56E-09
HxCDDs (total)	--	--	--	3/34	9E-10	5.4E-09	2.25E-09	4.03E-09	2.13E-09	5.64E-09
1,2,3,4,6,7,8-HpCDD	--	--	--	2/34	9.4E-10	3.5E-09	1.70E-09	4.06E-09	1.98E-09	5.76E-09
HpCDDs (total)	--	--	--	5/34	3.9E-10	6E-09	1.75E-09	3.73E-09	1.94E-09	5.48E-09
OCDD	--	--	--	9/34	3.9E-09	1.6E-08	5.00E-09	8.32E-09	4.86E-09	1.03E-08
Total TEQs (1998 WHO TEFs)	--	4.00E-05	4.00E-04	34/34	5.5E-10	6.8E-08	4.05E-09	9.07E-09	4.68E-09	1.52E-08
<b>Inorganics</b>										
Antimony	--	8	80	1/6	0.0084	0.0084	0.0300	0.0264	0.0243	0.00882
Barium	--	50	100	4/6	0.017	0.053	0.0415	0.0530	0.0412	0.0386
Copper	--	0.23	--	2/6	0.004	0.005	0.0125	0.0105	0.00929	0.00491
Cyanide	--	0.03	2	1/6	0.0042	0.0042	0.00500	0.00570	0.00545	0.00213
Lead	--	0.01	0.15	1/6	0.0022	0.0022	0.00185	0.0124	0.00326	0.0258
Selenium	--	0.1	1	1/6	0.0057	0.0057	0.00250	0.00312	0.00296	0.00128
Sulfide	--	--	--	2/34	1.4	4.8	1.00	1.39	1.10	1.02
Zinc	--	0.9	50	4/6	0.0057	0.021	0.0115	0.0132	0.0119	0.00615

**Table D-14**  
**Summary of Groundwater Sample Analytical Results - OPCA-MW-6**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**On-Plant Consolidation Area**  
**General Electric Company - Pittsfield, Massachusetts**  
**(Results are presented in parts per million, ppm)**



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Inorganics-filtered</b>										
Antimony	--	8	80	3/33	0.00026	0.0077	0.0200	0.0192	0.0146	0.00911
Arsenic	--	0.9	9	3/33	0.00213	0.0045	0.00500	0.00665	0.00500	0.00860
Barium	--	50	100	19/33	0.00343	0.197	0.0325	0.0703	0.0360	0.0855
Beryllium	--	0.2	2	3/33	0.00053	0.00366	0.00200	0.00250	0.00161	0.00203
Cadmium	--	0.004	0.05	3/33	0.00018	0.00328	0.00200	0.00180	0.00125	0.00126
Calcium	--	--	--	1/1	44.8	44.8	44.8	44.8	44.8	NA
Chromium	--	0.3	3	7/33	0.0008	0.00344	0.00500	0.00453	0.00401	0.00201
Cobalt	--	0.075	--	1/33	2.6E-05	0.000026	0.00500	0.0135	0.00862	0.0101
Copper	--	0.23	--	7/33	0.0013	0.00617	0.0100	0.0213	0.00985	0.0316
Cyanide	--	0.03	2	5/8	0.0016	0.0037	0.00295	0.00328	0.00294	0.00157
Lead	--	0.01	0.15	2/33	0.00008	0.00718	0.00250	0.00322	0.00248	0.00186
Magnesium	--	--	--	1/1	12.1	12.1	12.1	12.1	12.1	NA
Manganese	--	--	--	1/1	0.0035	0.0035	0.00350	0.00350	0.00350	NA
Mercury	--	0.02	0.2	2/33	4.2E-05	0.00021	0.000100	0.000128	0.000114	0.0000692
Nickel	--	0.2	2	2/33	0.00039	0.0012	0.0200	0.0143	0.0103	0.00886
Potassium	--	--	--	1/1	1.01	1.01	1.01	1.01	1.01	NA
Selenium	--	0.1	1	1/33	0.0059	0.0059	0.0100	0.00739	0.00582	0.00472
Sodium	--	--	--	1/1	127	127	127	127	127	NA
Thallium	--	3	30	1/33	0.00656	0.00656	0.00500	0.00437	0.00392	0.00144
Tin	--	--	--	2/32	0.00108	0.00939	0.0250	0.0311	0.0234	0.0187
Zinc	--	0.9	50	15/33	0.00277	0.16	0.0100	0.0163	0.0112	0.0266

**Notes:**

1. Samples were collected by Arcadis between 1991 and 2017 and were submitted to SGS Environmental Services, Inc. and Accutest Laboratories for analysis of PCBs and Appendix IX+3 constituents.
2. Samples have been validated in accordance with the applicable EPA-approved Field Sampling/Quality Assurance Project Plan (FSP/QAPP).
3. Only constituents which were detected during at least one prior sampling event and were analyzed during the spring 2017 sampling event are summarized.
4. The statistical information presented above was calculated based on all analytical results reported for each constituent, incorporating a value of one-half of the associated detection limit for any non-detected results.
5. For PCDD/PCDF compounds, total Toxicity Equivalency Quotient (TEQ) concentrations were calculated using the Toxicity Equivalency Factors (TEFs) published by the World Health Organization in 1998 (van den Berg et al., Environ. Health Perspectives, vol. 106, no. 12), as required by the Statement of Work for Removal Actions Outside the River, and representing non-detected compounds as one-half the detection limit.
6. ND - Analyte was not detected.

Table D-15  
 Summary of Groundwater Sample Analytical Results - OPCA-MW-7  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 On-Plant Consolidation Area  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>PCBs</b>										
Aroclor-1254	--	--	--	1/5	0.000085	0.000085	0.0000330	0.0000420	0.0000380	0.0000242
Total PCBs	0.005	0.01	0.1	1/5	0.000085	0.000085	0.0000330	0.0000420	0.0000380	0.0000242
<b>PCBs-Filtered</b>										
Aroclor-1254	--	--	--	11/31	0.00003	0.0026	0.0000390	0.000201	0.0000714	0.000497
Aroclor-1260	--	--	--	5/31	0.000031	0.002	0.0000340	0.000140	0.0000526	0.000380
Total PCBs	0.005	0.01	0.1	11/31	0.00003	0.0046	0.0000440	0.000303	0.0000775	0.000882
<b>Volatile Organics</b>										
2-Butanone	50	50	100	1/34	0.005	0.005	0.00500	0.00718	0.00504	0.00864
Acetone	50	50	100	4/34	0.0055	0.04	0.00500	0.00953	0.00640	0.0107
Benzene	1	10	100	1/34	0.00052	0.00052	0.000500	0.00113	0.000809	0.000961
Bromodichloromethane	0.006	50	100	1/34	0.00034	0.00034	0.000500	0.00114	0.000832	0.000953
Chloroform	0.05	20	100	1/34	0.00081	0.00081	0.000500	0.00116	0.000854	0.000945
Dibromochloromethane	0.02	50	100	1/34	0.00014	0.00014	0.000500	0.00114	0.000811	0.000959
Dibromomethane	--	--	--	1/34	0.0026	0.0026	0.000500	0.00130	0.000965	0.000974
Toluene	50	40	100	4/34	0.00022	0.00094	0.000500	0.00115	0.000827	0.000954
Trichloroethene	0.005	5	50	1/34	0.0011	0.0011	0.000500	0.00116	0.000861	0.000943
Xylenes (total)	3	5	100	1/34	0.0021	0.0021	0.00100	0.00211	0.00135	0.00195
Total VOCs	5	--	--	9/34	0.00014	0.04	0.0500	0.0502	0.0232	0.0391
<b>Semivolatile Organics</b>										
Diethylphthalate	50	9	100	2/33	0.004	0.0047	0.00350	0.00380	0.00363	0.00116
Total PAHs	--	--	--	2/3	0.005	0.0051	0.00500	0.00423	0.00405	0.00142
<b>Organochlorine Pesticides</b>										
None Detected	--	--	--	0/1	--	--	--	--	--	--
<b>Organophosphate Pesticides</b>										
None Detected	--	--	--	0/1	--	--	--	--	--	--
<b>Herbicides</b>										
None Detected	--	--	--	0/1	--	--	--	--	--	--

Table D-15

Summary of Groundwater Sample Analytical Results - OPCA-MW-7  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 On-Plant Consolidation Area  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Furans</b>										
2,3,7,8-TCDF	--	--	--	3/33	2.5E-09	0.000000029	8.00E-10	2.16E-09	8.03E-10	4.98E-09
TCDFs (total)	--	--	--	7/33	1.9E-12	0.000000028	1.40E-09	1.52E-08	1.52E-09	5.21E-08
1,2,3,7,8-PeCDF	--	--	--	5/33	0.000000001	0.000000014	1.20E-09	3.09E-09	1.03E-09	5.54E-09
2,3,4,7,8-PeCDF	--	--	--	5/33	7.1E-10	0.000000031	1.30E-09	4.25E-09	1.18E-09	8.20E-09
PeCDFs (total)	--	--	--	14/33	4.3E-12	0.000000036	2.60E-09	2.39E-08	2.90E-09	6.86E-08
1,2,3,4,7,8-HxCDF	--	--	--	9/33	5.4E-10	0.00000013	1.70E-09	9.81E-09	1.80E-09	2.48E-08
1,2,3,6,7,8-HxCDF	--	--	--	8/33	8.6E-10	0.000000052	2.10E-09	6.22E-09	1.49E-09	1.15E-08
1,2,3,7,8,9-HxCDF	--	--	--	2/33	1.8E-09	0.000000023	1.80E-09	3.63E-09	1.18E-09	6.24E-09
2,3,4,6,7,8-HxCDF	--	--	--	5/33	8.2E-10	0.000000027	1.70E-09	4.45E-09	1.27E-09	7.83E-09
HxCDFs (total)	--	--	--	14/33	1.3E-12	0.000000042	2.60E-09	3.14E-08	3.28E-09	8.99E-08
1,2,3,4,6,7,8-HpCDF	--	--	--	12/33	8E-10	0.000000091	2.60E-09	9.10E-09	2.09E-09	2.06E-08
1,2,3,4,7,8,9-HpCDF	--	--	--	3/33	2.3E-09	0.000000058	2.20E-09	5.40E-09	1.47E-09	1.13E-08
HpCDFs (total)	--	--	--	14/33	8E-10	0.000000027	2.70E-09	1.94E-08	2.85E-09	5.39E-08
OCDF	--	--	--	7/33	0.000000002	0.000000014	5.00E-09	1.32E-08	3.57E-09	2.74E-08
<b>Dioxins</b>										
2,3,7,8-TCDD	--	--	--	2/33	7.4E-10	7.9E-09	8.00E-10	1.40E-09	7.20E-10	1.63E-09
TCDDs (total)	--	--	--	7/33	5.5E-10	0.000000014	1.30E-09	2.12E-09	9.96E-10	2.86E-09
1,2,3,7,8-PeCDD	--	--	--	1/33	3.4E-10	3.4E-10	1.30E-09	2.88E-09	1.17E-09	5.10E-09
PeCDDs (total)	--	--	--	3/33	3.9E-09	0.000000012	2.20E-09	3.87E-09	1.56E-09	5.74E-09
1,2,3,4,7,8-HxCDD	--	--	--	1/33	3.6E-10	3.6E-10	2.00E-09	2.95E-09	1.23E-09	5.09E-09
1,2,3,6,7,8-HxCDD	--	--	--	4/33	2.4E-10	0.000000014	1.60E-09	3.35E-09	1.27E-09	5.49E-09
1,2,3,7,8,9-HxCDD	--	--	--	5/33	1.4E-09	0.000000013	2.00E-09	3.00E-09	1.30E-09	5.06E-09
HxCDDs (total)	--	--	--	11/33	6.1E-12	0.000000076	2.60E-09	7.66E-09	2.23E-09	1.61E-08
1,2,3,4,6,7,8-HpCDD	--	--	--	9/33	6.2E-12	0.000000052	2.70E-09	6.84E-09	2.52E-09	1.15E-08
HpCDDs (total)	--	--	--	12/33	6.2E-12	0.000000095	2.90E-09	1.06E-08	3.29E-09	2.10E-08
OCDD	--	--	--	15/33	2E-11	0.000000043	8.00E-09	5.17E-08	9.64E-09	1.12E-07
Total TEQs (1998 WHO TEFs)	--	4.00E-05	4.00E-04	33/33	2E-12	0.000000068	5.00E-09	1.11E-08	4.44E-09	1.70E-08
<b>Inorganics</b>										
Barium	--	50	100	4/5	0.012	0.06	0.0270	0.0430	0.0315	0.0370
Chromium	--	0.3	3	1/5	0.0029	0.0029	0.00500	0.00488	0.00473	0.00128
Copper	--	0.23	--	2/5	0.0035	0.0079	0.0125	0.0106	0.00935	0.00499
Selenium	--	0.1	1	1/5	0.0054	0.0054	0.00250	0.00318	0.00302	0.00126
Sulfide	--	--	--	4/32	1	6.4	1.00	1.58	1.17	1.42
Zinc	--	0.9	50	3/5	0.02	0.027	0.0200	0.0186	0.0174	0.00702

**Table D-15**  
**Summary of Groundwater Sample Analytical Results - OPCA-MW-7**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**On-Plant Consolidation Area**  
**General Electric Company - Pittsfield, Massachusetts**  
**(Results are presented in parts per million, ppm)**



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Inorganics-filtered</b>										
Antimony	--	8	80	1/31	0.0096	0.0096	0.0200	0.0201	0.0161	0.00852
Arsenic	--	0.9	9	1/30	0.0016	0.0016	0.00500	0.00695	0.00532	0.00897
Barium	--	50	100	20/31	0.00848	0.341	0.0500	0.0824	0.0463	0.0925
Beryllium	--	0.2	2	3/31	0.00043	0.00872	0.00200	0.00301	0.00195	0.00229
Cadmium	--	0.004	0.05	12/31	0.00015	0.0034	0.00208	0.00194	0.00150	0.00120
Calcium	--	--	--	1/1	167	167	167	167	167	NA
Chromium	--	0.3	3	10/31	0.00072	0.0038	0.00500	0.00400	0.00325	0.00235
Cobalt	--	0.075	--	5/31	0.00022	0.00463	0.00500	0.0111	0.00663	0.00989
Copper	--	0.23	--	3/31	0.0016	0.0073	0.0100	0.0239	0.0105	0.0350
Cyanide	--	0.03	2	1/6	0.0014	0.0014	0.00500	0.00440	0.00404	0.00147
Lead	--	0.01	0.15	4/31	0.00008	0.00827	0.00250	0.00337	0.00243	0.00208
Magnesium	--	--	--	1/1	77.8	77.8	77.8	77.8	77.8	NA
Manganese	--	--	--	1/1	0.0154	0.0154	0.0154	0.0154	0.0154	NA
Mercury	--	0.02	0.2	2/31	0.0000227	0.00005	0.000100	0.000116	0.000103	0.0000604
Nickel	--	0.2	2	7/31	0.00095	0.0376	0.0200	0.0142	0.00998	0.00988
Potassium	--	--	--	1/1	1.25	1.25	1.25	1.25	1.25	NA
Selenium	--	0.1	1	6/31	0.00072	0.00889	0.00889	0.00728	0.00574	0.00480
Silver	--	0.007	1	2/31	0.00054	0.00177	0.00250	0.00222	0.00172	0.00126
Sodium	--	--	--	1/1	73.9	73.9	73.9	73.9	73.9	NA
Thallium	--	3	30	2/31	0.0101	0.0148	0.00500	0.00488	0.00427	0.00247
Tin	--	--	--	1/30	0.00611	0.00611	0.0500	0.0330	0.0256	0.0190
Vanadium	--	4	40	3/31	0.0026	0.00657	0.0250	0.0217	0.0186	0.00771
Zinc	--	0.9	50	14/31	0.007	0.279	0.0106	0.0254	0.0161	0.0481

- Notes:**
1. Samples were collected by Arcadis between 1991 and 2017 and were submitted to SGS Environmental Services, Inc. and Accutest Laboratories for analysis of PCBs and Appendix IX+3 constituents.
  2. Samples have been validated in accordance with the applicable EPA-approved Field Sampling/Quality Assurance Project Plan (FSP/QAPP).
  3. Only constituents which were detected during at least one prior sampling event and were analyzed during the spring 2017 sampling event are summarized.
  4. The statistical information presented above was calculated based on all analytical results reported for each constituent, incorporating a value of one-half of the associated detection limit for any non-detected results.
  5. For PCDD/PCDF compounds, total Toxicity Equivalency Quotient (TEQ) concentrations were calculated using the Toxicity Equivalency Factors (TEFs) published by the World Health Organization in 1998 (van den Berg et al., Environ. Health Perspectives, vol. 106, no. 12), as required by the Statement of Work for Removal Actions Outside the River, and representing non-detected compounds as one-half the detection limit.
  6. ND - Analyte was not detected.



Table D-16

Summary of Groundwater Sample Analytical Results - OPCA-MW-8&OPCA-MW-8R  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 On-Plant Consolidation Area  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>PCBs</b>										
Aroclor-1254	--	--	--	4/7	0.000095	0.00068	0.0000950	0.000176	0.0000998	0.000231
Aroclor-1260	--	--	--	2/7	0.00011	0.00024	0.0000330	0.0000760	0.0000552	0.0000776
Total PCBs	0.005	0.01	0.1	4/7	0.000095	0.00092	0.0000950	0.000226	0.000111	0.000321
<b>PCBs-Filtered</b>										
Aroclor-1254	--	--	--	7/32	0.000016	0.00033	0.0000355	0.0000620	0.0000482	0.0000619
Aroclor-1260	--	--	--	2/32	0.000025	0.000029	0.0000340	0.0000432	0.0000393	0.0000265
Total PCBs	0.005	0.01	0.1	7/32	0.000016	0.00036	0.0000355	0.0000637	0.0000491	0.0000661
<b>Volatile Organics</b>										
1,2-Dichloroethane	0.005	20	100	1/34	0.0018	0.0018	0.000500	0.00123	0.000905	0.000962
Acetone	50	50	100	5/34	0.0023	0.09	0.00500	0.0126	0.00700	0.0189
Chloroform	0.05	20	100	2/34	0.00016	0.00027	0.000500	0.00119	0.000838	0.000985
Chloromethane	--	--	--	2/34	0.00058	0.00067	0.000585	0.00129	0.000953	0.00110
Toluene	50	40	100	5/34	0.00012	0.011	0.000500	0.00150	0.000918	0.00194
Trichloroethene	0.005	5	50	1/34	0.0011	0.0011	0.000500	0.00122	0.000903	0.000962
Total VOCs	5	--	--	13/34	0.00027	0.09	0.0500	0.0448	0.0189	0.0382
<b>Semivolatile Organics</b>										
bis(2-Ethylhexyl)phthalate	--	50	100	3/34	0.00087	0.0017	0.00275	0.00275	0.00257	0.000943
Total PAHs	--	--	--	3/3	0.0051	0.0054	0.00530	0.00527	0.00527	0.000153
<b>Organochlorine Pesticides</b>										
None Detected	--	--	--	0/2	--	--	--	--	--	--
<b>Organophosphate Pesticides</b>										
None Detected	--	--	--	0/2	--	--	--	--	--	--
<b>Herbicides</b>										
None Detected	--	--	--	0/2	--	--	--	--	--	--

Table D-16

Summary of Groundwater Sample Analytical Results - OPCA-MW-8&OPCA-MW-8R  
 GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
 On-Plant Consolidation Area  
 General Electric Company - Pittsfield, Massachusetts  
 (Results are presented in parts per million, ppm)



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Furans</b>										
2,3,7,8-TCDF	--	--	--	2/34	1.4E-09	5.5E-09	8.25E-10	1.45E-09	7.66E-10	1.65E-09
TCDFs (total)	--	--	--	7/34	1.4E-09	0.00000061	1.25E-09	2.35E-08	1.44E-09	1.05E-07
1,2,3,7,8-PeCDF	--	--	--	1/34	0.000000027	0.000000027	1.40E-09	3.91E-09	1.25E-09	6.94E-09
2,3,4,7,8-PeCDF	--	--	--	3/34	5.8E-09	0.000000027	1.35E-09	3.83E-09	1.25E-09	6.93E-09
PeCDFs (total)	--	--	--	6/34	3.7E-10	0.00000014	2.30E-09	5.20E-08	2.42E-09	2.40E-07
1,2,3,4,7,8-HxCDF	--	--	--	3/34	0.00000002	0.00000012	1.55E-09	7.90E-09	1.54E-09	2.12E-08
1,2,3,6,7,8-HxCDF	--	--	--	1/34	0.000000027	0.000000027	1.25E-09	3.72E-09	1.05E-09	6.97E-09
1,2,3,7,8,9-HxCDF	--	--	--	2/34	0.000000027	0.000000027	1.35E-09	3.85E-09	1.17E-09	6.95E-09
2,3,4,6,7,8-HxCDF	--	--	--	1/34	0.000000027	0.000000027	1.25E-09	3.76E-09	1.08E-09	6.97E-09
HxCDFs (total)	--	--	--	6/34	5.6E-10	0.00000062	2.40E-09	2.56E-08	2.23E-09	1.06E-07
1,2,3,4,6,7,8-HpCDF	--	--	--	4/34	5.2E-12	1.4E-09	1.25E-09	2.84E-09	1.01E-09	5.46E-09
1,2,3,4,7,8,9-HpCDF	--	--	--	2/34	0.000000027	0.000000027	1.70E-09	4.07E-09	1.24E-09	7.02E-09
HpCDFs (total)	--	--	--	5/34	2.4E-10	0.000000012	1.90E-09	3.94E-09	1.44E-09	6.05E-09
OCDF	--	--	--	4/34	1.1E-09	0.000000018	4.45E-09	7.01E-09	2.70E-09	1.11E-08
<b>Dioxins</b>										
2,3,7,8-TCDD	--	--	--	1/34	5.5E-09	5.5E-09	7.25E-10	1.34E-09	7.59E-10	1.35E-09
TCDDs (total)	--	--	--	4/34	9E-10	5.5E-09	1.10E-09	1.60E-09	9.57E-10	1.56E-09
1,2,3,7,8-PeCDD	--	--	--	1/34	0.000000027	0.000000027	2.10E-09	4.19E-09	1.63E-09	6.83E-09
PeCDDs (total)	--	--	--	4/34	7.5E-10	0.000000027	2.25E-09	4.37E-09	2.01E-09	6.75E-09
1,2,3,4,7,8-HxCDD	--	--	--	2/34	1.9E-10	0.000000027	1.55E-09	3.96E-09	1.36E-09	6.91E-09
1,2,3,6,7,8-HxCDD	--	--	--	2/34	2.2E-10	0.000000027	1.40E-09	3.94E-09	1.31E-09	6.95E-09
1,2,3,7,8,9-HxCDD	--	--	--	3/34	1.1E-09	0.000000027	1.55E-09	4.03E-09	1.46E-09	6.89E-09
HxCDDs (total)	--	--	--	6/34	4.1E-10	0.000000027	2.50E-09	4.59E-09	1.81E-09	6.97E-09
1,2,3,4,6,7,8-HpCDD	--	--	--	5/34	1.1E-09	0.000000015	2.30E-09	4.27E-09	1.77E-09	6.16E-09
HpCDDs (total)	--	--	--	8/34	1E-10	0.000000012	2.55E-09	4.65E-09	1.88E-09	6.31E-09
OCDD	--	--	--	9/34	7.6E-09	0.000000086	7.55E-09	1.34E-08	6.31E-09	1.73E-08
Total TEQs (1998 WHO TEFs)	--	4.00E-05	4.00E-04	34/34	1E-11	0.00000007	6.15E-09	1.02E-08	4.57E-09	1.64E-08
<b>Inorganics</b>										
Antimony	--	8	80	2/7	0.0042	0.011	0.0300	0.0236	0.0196	0.0111
Barium	--	50	100	5/7	0.029	0.086	0.0410	0.0608	0.0534	0.0328
Chromium	--	0.3	3	4/7	0.0027	0.007	0.00500	0.00507	0.00486	0.00150
Cobalt	--	0.075	--	1/7	0.0012	0.0012	0.0250	0.0223	0.0166	0.00950
Copper	--	0.23	--	1/7	0.0035	0.0035	0.0125	0.0118	0.0108	0.00395
Cyanide	--	0.03	2	3/7	0.0024	0.026	0.00500	0.00886	0.00680	0.00797
Lead	--	0.01	0.15	2/7	0.003	0.0049	0.00250	0.0114	0.00361	0.0237
Mercury	--	0.02	0.2	1/7	0.00022	0.00022	0.000100	0.000139	0.000128	0.0000664
Nickel	--	0.2	2	1/7	0.0024	0.0024	0.0200	0.0189	0.0157	0.00818
Sulfide	--	--	--	2/34	6.4	8	1.00	1.65	1.18	1.64
Vanadium	--	4	40	4/7	0.0019	0.0044	0.00440	0.0130	0.00705	0.0129
Zinc	--	0.9	50	6/7	0.011	0.18	0.0420	0.0691	0.0450	0.0621

**Table D-16**  
**Summary of Groundwater Sample Analytical Results - OPCA-MW-8&OPCA-MW-8R**  
**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**On-Plant Consolidation Area**  
**General Electric Company - Pittsfield, Massachusetts**  
**(Results are presented in parts per million, ppm)**



Date Collected: Sample Name:	Method 1 GW-2 Standards	METHOD 1/ METHOD 2 GW-3 STANDARDS	MCP UCL for GroundWater	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
<b>Inorganics-filtered</b>										
Antimony	--	8	80	2/33	0.0065	0.012	0.0200	0.0196	0.0152	0.00919
Barium	--	50	100	22/33	0.00521	0.124	0.0500	0.0573	0.0387	0.0576
Beryllium	--	0.2	2	4/33	0.00038	0.0124	0.00200	0.00285	0.00177	0.00263
Cadmium	--	0.004	0.05	3/33	0.0001	0.00287	0.00250	0.00183	0.00124	0.00126
Calcium	--	--	--	1/1	78.8	78.8	78.8	78.8	78.8	NA
Chromium	--	0.3	3	15/33	0.00076	0.0054	0.00500	0.00404	0.00349	0.00216
Cobalt	--	0.075	--	3/33	0.00015	0.0023	0.00500	0.0127	0.00776	0.0102
Copper	--	0.23	--	5/33	0.00207	0.0053	0.0100	0.0204	0.0102	0.0311
Cyanide	--	0.03	2	3/8	0.0014	0.0058	0.00500	0.00438	0.00404	0.00148
Lead	--	0.01	0.15	3/33	0.00007	0.00848	0.00250	0.00318	0.00242	0.00195
Magnesium	--	--	--	1/1	43.3	43.3	43.3	43.3	43.3	NA
Manganese	--	--	--	1/1	0.0029	0.0029	0.00290	0.00290	0.00290	NA
Mercury	--	0.02	0.2	2/33	0.000035	0.00024	0.000100	0.000124	0.000111	0.0000651
Nickel	--	0.2	2	10/33	0.0014	0.0403	0.00780	0.0124	0.00888	0.00967
Potassium	--	--	--	1/1	1.07	1.07	1.07	1.07	1.07	NA
Selenium	--	0.1	1	2/33	0.0021	0.0043	0.0100	0.00716	0.00577	0.00473
Silver	--	0.007	1	1/33	0.00013	0.00013	0.00250	0.00214	0.00158	0.00129
Sodium	--	--	--	1/1	159	159	159	159	159	NA
Thallium	--	3	30	7/33	0.00003	0.00992	0.00500	0.00481	0.00371	0.00223
Tin	--	--	--	1/32	0.00412	0.00412	0.0375	0.0325	0.0258	0.0184
Vanadium	--	4	40	2/33	0.002	0.0047	0.0250	0.0224	0.0194	0.00717
Zinc	--	0.9	50	18/33	0.00292	0.298	0.0100	0.0291	0.0147	0.0533

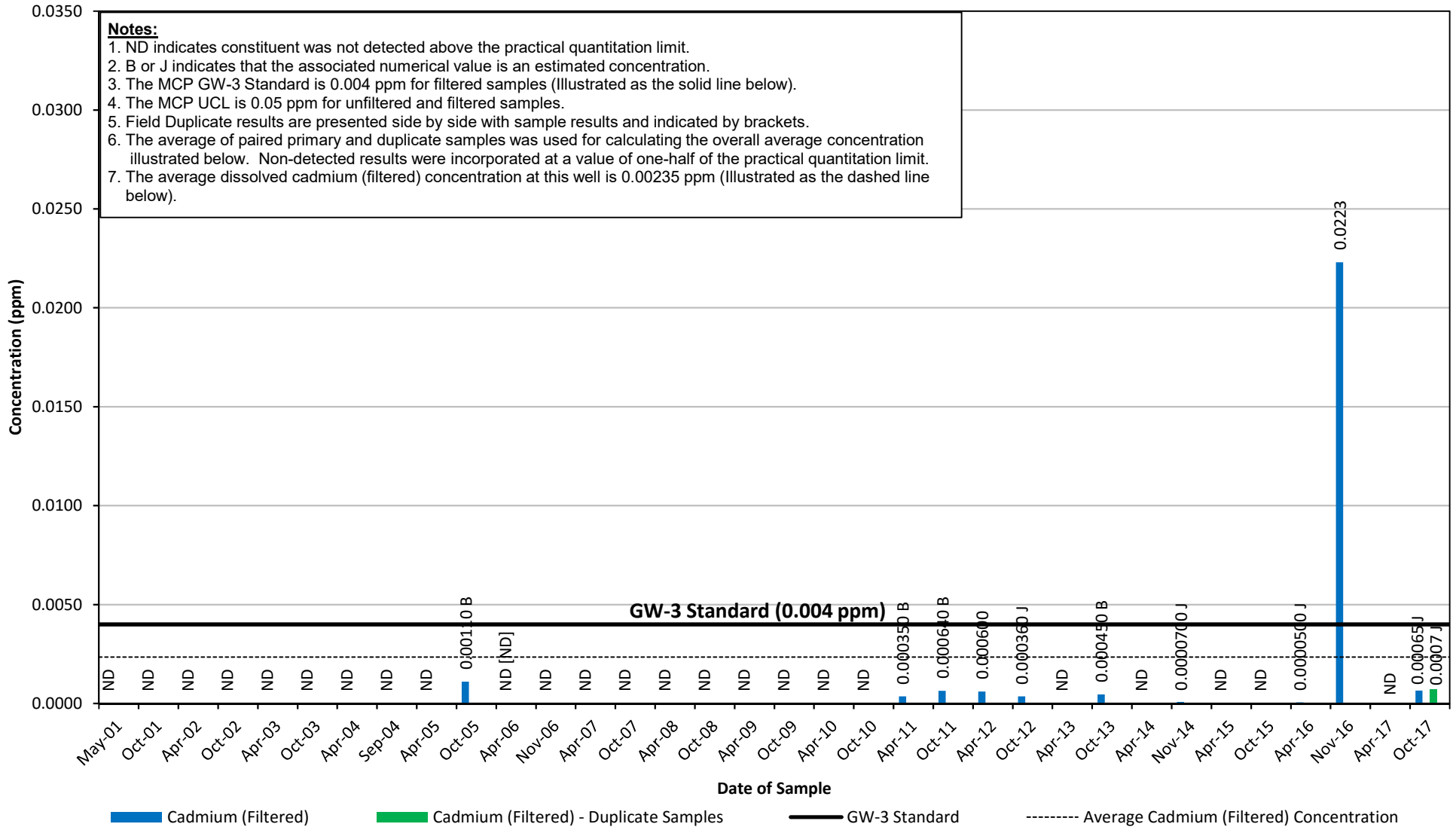
- Notes:**
1. Samples were collected by Arcadis between 1991 and 2017 and were submitted to SGS Environmental Services, Inc. and Accutest Laboratories for analysis of PCBs and Appendix IX+3 constituents.
  2. Samples have been validated in accordance with the applicable EPA-approved Field Sampling/Quality Assurance Project Plan (FSP/QAPP).
  3. Only constituents which were detected during at least one prior sampling event and were analyzed during the spring 2017 sampling event are summarized.
  4. The statistical information presented above was calculated based on all analytical results reported for each constituent, incorporating a value of one-half of the associated detection limit for any non-detected results.
  5. For PCDD/PCDF compounds, total Toxicity Equivalency Quotient (TEQ) concentrations were calculated using the Toxicity Equivalency Factors (TEFs) published by the World Health Organization in 1998 (van den Berg et al., Environ. Health Perspectives, vol. 106, no. 12), as required by the Statement of Work for Removal Actions Outside the River, and representing non-detected compounds as one-half the detection limit.
  6. ND - Analyte was not detected.

OPCA Graphs



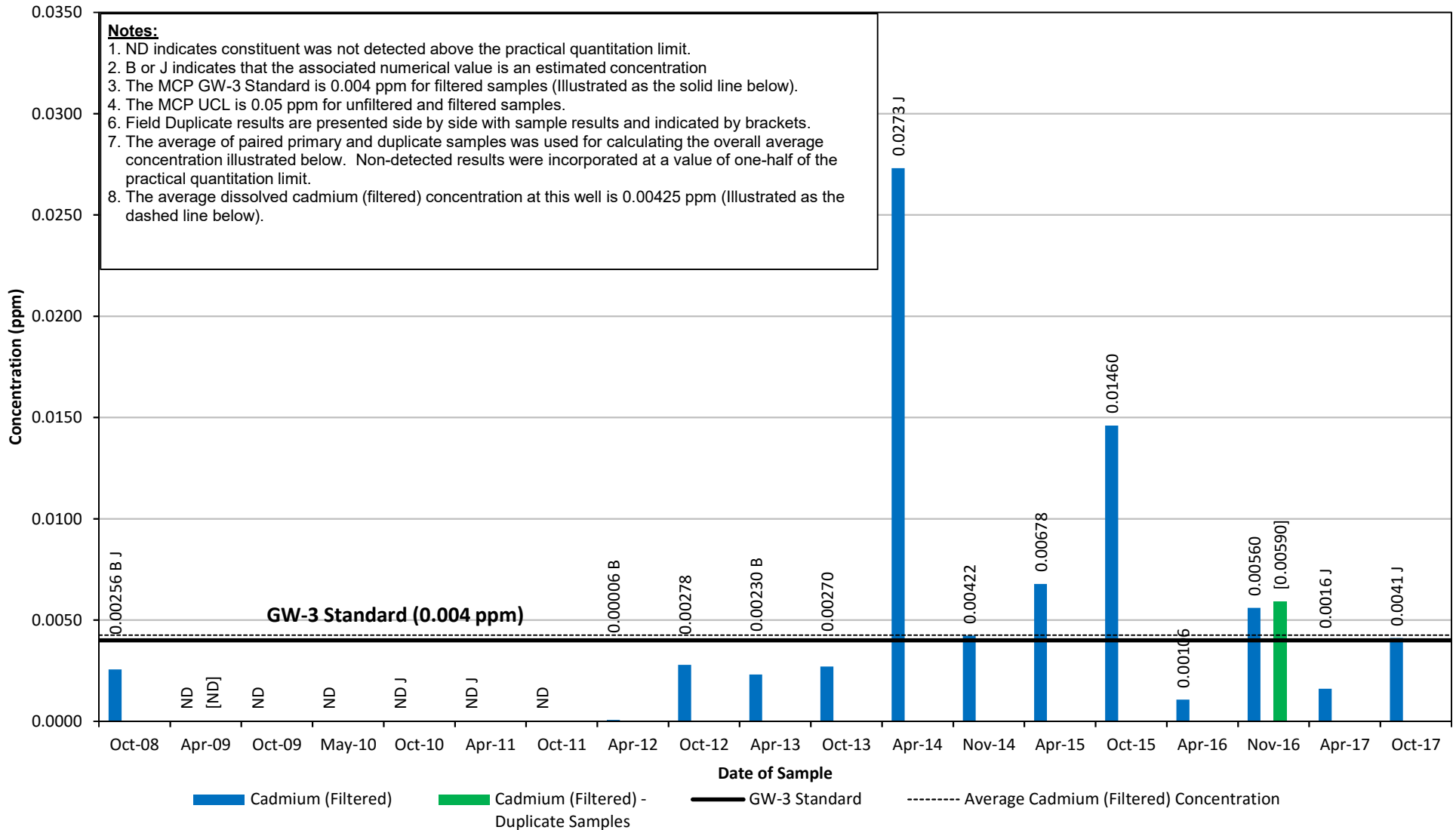
**Appendix D**  
**Well 78-1 Historical Dissolved Cadmium (Filtered) Concentrations**

**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**Groundwater Management Area 4 and On-Plant Consolidation Area**  
**General Electric Company - Pittsfield, Massachusetts**



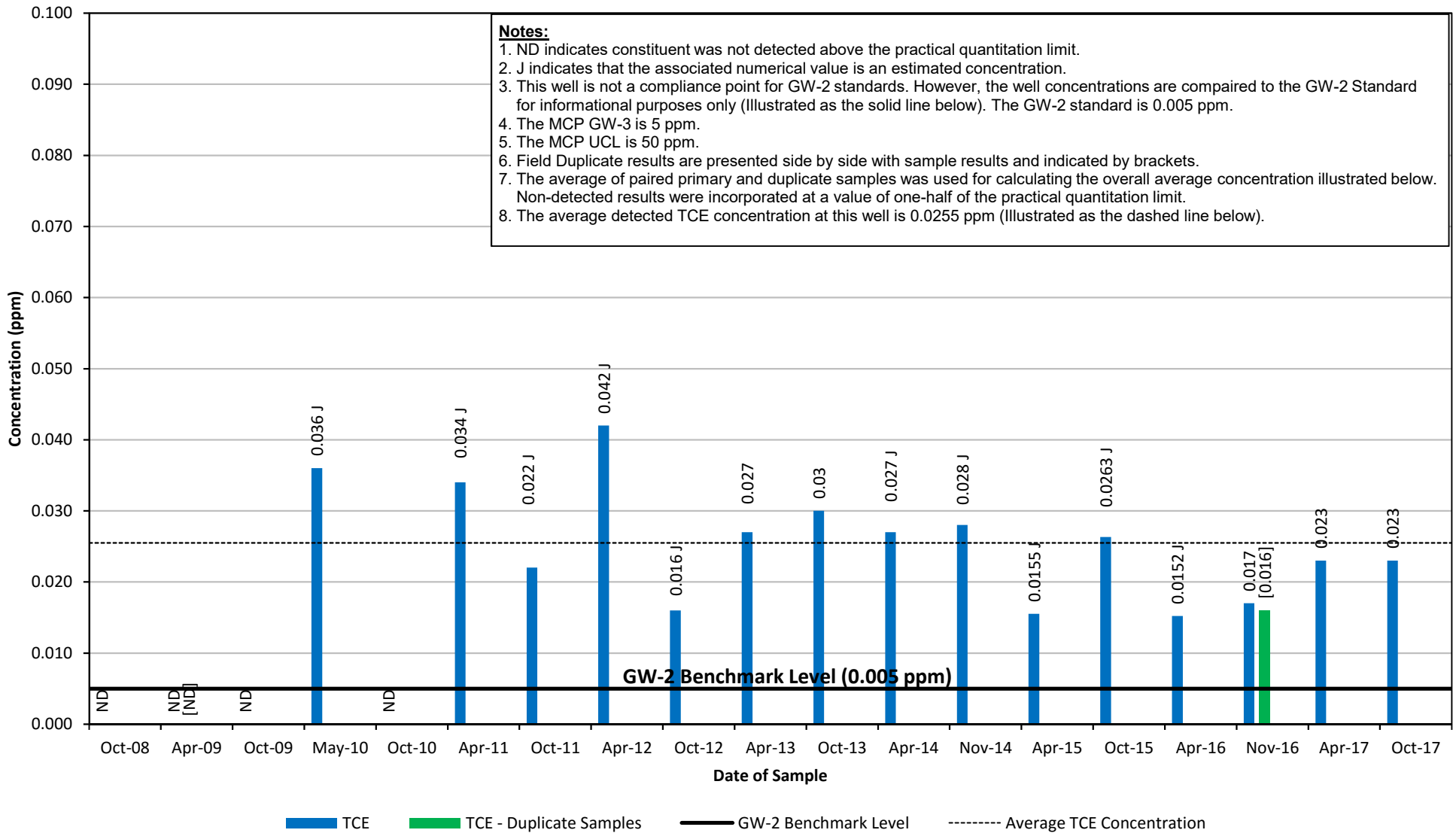
**Appendix D**  
**Well OPCA-MW-1RR Historical Dissolved Cadmium (Filtered) Concentrations**

**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**Groundwater Management Area 4 and On-Plant Consolidation Area**  
**General Electric Company - Pittsfield, Massachusetts**



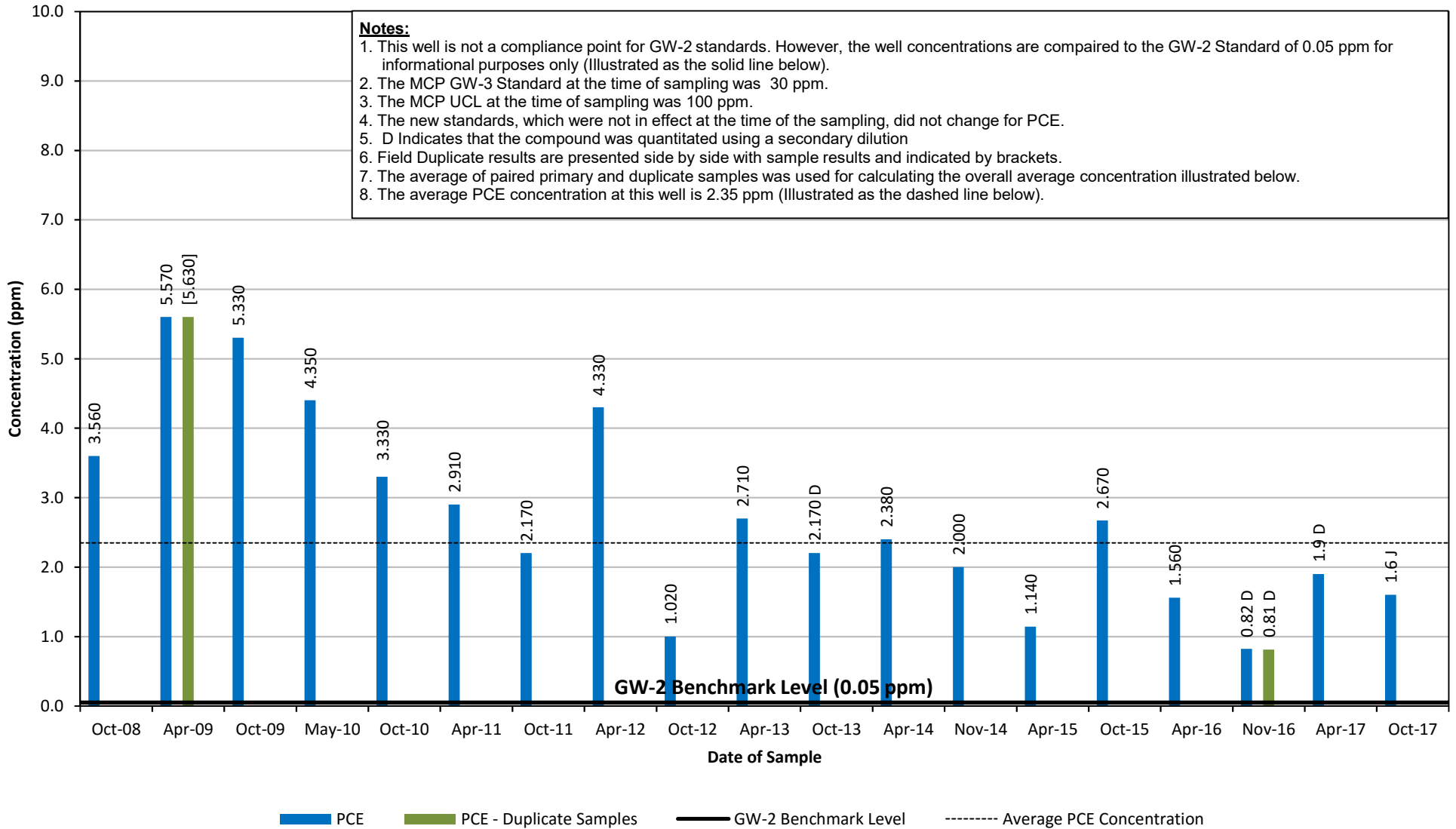
Appendix D  
Well OPCA-MW-1RR Historical Trichloroethene (TCE) Concentrations

GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017  
Groundwater Management Area 4 and On-Plant Consolidation Area  
General Electric Company - Pittsfield, Massachusetts



**Appendix D**  
**Well OPCA-MW-1RR Historical Tetrachloroethene (PCE) Concentrations**

**GMA 4 Long-Term and OPCA Post-Closure Groundwater Quality Monitoring Programs - Fall 2017**  
**Groundwater Management Area 4 and On-Plant Consolidation Area**  
**General Electric Company - Pittsfield, Massachusetts**





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