



## Site Investigation Report Addendum No. 1

GM Janesville Assembly Plant  
1000 General Motors Drive  
Janesville, Wisconsin  
BRRTS # 02 54 560205

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058505 | Report No 13 | January 26 2016

# Executive Summary

GHD Services Inc. (GHD) (formerly Conestoga-Rovers & Associates, Inc. [CRA]) and Ramboll Environ have prepared this Site Investigation Report Addendum No. 1 (Report) on behalf of General Motors, LLC (GM) for the GM Janesville Assembly Plant (Plant) located at 1000 General Motors Drive in Janesville, Rock County, Wisconsin (Site) under Wisconsin Department of Natural Resources (WDNR) Bureau for Remediation and Redevelopment Tracking System (BRRTS) Number (#) 02-54-560205. This Report was prepared to document the activities completed pursuant to the Work Plan Addendum Scope of Work (SOW) presented in the Site Investigation Report (SIR) prepared by GHD/Ramboll Environ and submitted to the WDNR on December 17, 2014.

The purpose of the Work Plan Addendum SOW was to assess potentially unacceptable risks associated with non-industrial exposure to groundwater via vapor intrusion at the property boundaries (monitoring wells MW4 and MW-10S). Concentrations of the following chemicals detected in on-Site downgradient perimeter wells in 2014 resulted in an HI for non-industrial exposure to groundwater via vapor intrusion above Wisconsin's risk limit:

- 1,2,4-trimethylbenzene (TMB), 1,3,5-TMB, naphthalene, and xylenes (total) detected at MW4
- 1,2,4-TMB, 1,3,5-TMB, and xylenes (total) detected at MW-10S

The Work Plan Addendum SOW consisted of quarterly groundwater sampling of select on-Site wells (MW4 and MW-10S) and one annual sampling event including all existing on-Site wells (MW-1S through MW-25S, MW-1D through MW-7D, MW2, MW4, and MW5) and off-Site wells (MW-26S and MW-27S).

The site-specific human health risk analysis presented in the SIR has been updated to incorporate the groundwater data collected in 2015. This update of the 2014 groundwater evaluation was conducted in accordance with WDNR guidance and consistent with the methods described in the SIR. In addition to evaluating the data collected in 2015 under the Work Plan Addendum SOW, this Report provides an update of the groundwater risk evaluation previously presented in the SIR. The results of this update do not change the conclusions of the SIR, which were as follows:

## ***On-Site Receptors:***

- No groundwater at the Site has an upper-bound cumulative cancer risk or HI that exceeds the WDNR risk limits.
- No groundwater at the Site has an  $E_m$  above 0.01.

## ***Off-Site Receptors:***

- No groundwater at downgradient perimeter wells has an upper-bound cumulative cancer risk or HI that exceeds the WDNR risk limits, except for MW4 and MW-10S, which have upper-bound HIs that exceed 1 for non-industrial vapor intrusion if the petroleum hydrocarbon concentrations at these locations were to migrate off-site unattenuated. However, the 2014 and 2015 monitoring data from downgradient off-site monitoring wells MW-26S and MW-27S demonstrate that such migration is not occurring.

- Groundwater at the Site is not expected to have an adverse effect on recreational use of surface water in the Rock River.

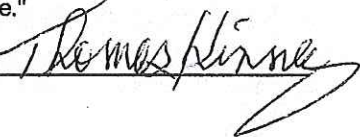
The objectives of the Work Plan Addendum SOW (i.e., confirm the VOC concentrations at MW-10S and MW4 and that VOCs are non-detect in the downgradient, off-Site wells) were met. The concentrations of 1,2,4-TMB, 1,3,5-TMB, and xylenes (total) detected at MW-10S and MW4 in the quarterly 2015 sampling were all lower than the maximum concentrations reported in 2014 at those wells. VOCs were not detected in the downgradient, off-site wells (MW-26S and MW-27S) in the August 2015 Site-wide sampling event.

At this time, no further investigative activities are currently recommended in association with BRRTS # 02-54-560205.

A Phase I Environmental Site Assessment (ESA) and a Phase II ESA are tentatively scheduled to commence in the first quarter of 2016 to support the future sale of the Site. A Phase II ESA report will be prepared and submitted to the WDNR for review in May 2016.

"I, Thomas Kinney, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS.2, Wis. Adm. Code, or licensed in accordance with the requirements of ch. GHSS 3, Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

Senior Geologist, PG #636



01/26/2016

Signature and title

Date

Environmental Consultant Manager

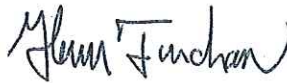


01/26/2016

Signature and title

Date

Environmental Consultant Director, P.Eng



01/26/2016

Signature and title

Date

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## List of Acronyms

#	Number
2013 Work Plan	Draft Site Investigation Work Plan (CRA, 2013)
µg/L	Micrograms per Liter
AMSL	Above Mean Sea Level
bgs	Below Ground Surface
BRRTS	Bureau for Remediation and Redevelopment Tracking System
ch.	Chapter
COC	Chain-of-Custody
CRA	Conestoga-Rovers & Associates, Inc.
CVOCs	chlorinated VOCs
DRO	Diesel Range Organics
DO	Dissolved Oxygen
Em	Equivalent Mixture
EPA	Environmental Protection Agency

## List of Acronyms (cont'd)

ES	Enforcement Standard (ch. NR 140, Wis. Adm. Code)
FMG	Field Method Guidelines
GHD	GHD Services Inc.
GM	General Motors, LLC
GMC	General Motors Corporation
GRO	Gasoline Range Organics
HI	Hazard Index
HQ	Hazard Quotient
IDW	Investigative-Derived Waste
MCL	Maximum Contaminant Level
MS/MSD	Matrix Spike/Matrix Spike Duplicate
ORP	Oxidation Reduction Potential
OSHA	Occupational Safety and Health Administration
PAL	Preventive Action Limit (ch. NR 140, Wis. Adm. Code)
PCBs	Polychlorinated Biphenyls
PID	Photoionization Detector
Plant	GM Janesville Assembly Plant
ppb	Parts per Billion
PVC	Polyvinyl Chloride
QA/QC	Quality Assurance /Quality Control
RCRA	Resource Conservation and Recovery Act
RELS	Recommended Exposure Levels
Report	Site Investigation Report Addendum No. 1 (GHD, 2016)
Revised SOW	Revised Scope of Work (CRA, 2014)
RP	Responsible Party
RR	Bureau of Remediation and Redevelopment
RR-800	WDNR RR Publication RR-800 Addressing Vapor Intrusion at Remediation and Redevelopment Sites in Wisconsin (WDNR, 2012)
s.	Section (Wis. Adm. Code)
Site	1000 General Motors Drive, Janesville, Rock County, Wisconsin
SIR	Site Investigation Report (CRA, 2014)
SOW	Scope of Work
SVOCs	Semi-Volatile Organic Compounds

## List of Acronyms (cont'd)

TAL	Target Analyte List
TAT	Turnaround Time
TCL	Target Compound List
TCLP	Toxicity Characteristic Leaching Procedure
TMB	Trimethylbenzene
TPH	Total Petroleum Hydrocarbons
U.S.	United States
UST	Underground Storage Tank
VOCs	Volatile Organic Compounds
WDNR	Wisconsin Department of Natural Resources
Wis. Adm. Code	Wisconsin Administrative Code
WPDES	Wisconsin Pollutant Discharge Elimination System
WWTP	Wastewater Treatment Plant



# 1. Introduction

GHD Services Inc. (GHD) (formerly Conestoga-Rovers & Associates, Inc. [CRA]) and Ramboll Environ have prepared this Site Investigation Report Addendum No. 1 (Report) on behalf of General Motors, LLC (GM) for the GM Janesville Assembly Plant (Plant) located at 1000 General Motors Drive in Janesville, Rock County, Wisconsin (Site) under Wisconsin Department of Natural Resources (WDNR) Bureau for Remediation and Redevelopment Tracking System (BRRTS) Number (#) 02-54-560205. This Report was prepared to document the activities completed pursuant to the Work Plan Addendum Scope of Work (SOW) presented in the Site Investigation Report (SIR) prepared by GHD/Ramboll Environ and submitted to the WDNR on December 17, 2014. The Work Plan Addendum SOW presented in the SIR consisted of quarterly groundwater sampling of select on-Site wells and one annual sampling event including all existing on-Site and off-Site wells. The WDNR approved the proposed groundwater sampling plan via email on March 20, 2015. The SIR and associated Work Plan Addendum SOW were officially approved by the WDNR via letter on May 8, 2015.

## 1.1 Purpose

The purpose of the Work Plan Addendum SOW was to assess potentially unacceptable risks associated with non-industrial exposure to groundwater via vapor intrusion identified in the SIR.

## 1.2 Contacts

The contact information for the person(s) responsible for completing this Site Investigation (Responsible Party [RP]), the environmental consultant conducting this work on behalf of the RP, and the WDNR contact are all provided below.

- **RP Contact**  
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- **WDNR Contact**

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### 1.3 Site Location

The Site is located at 1000 General Motors Drive in Janesville, Rock County, Wisconsin. The Site is located across the following quarter-quarter sections : SW ¼, NW ¼, S1, T2N, R12E; SE ¼, NW ¼, S1, T2N, R12E; NW ¼, SW ¼, S1, T2N, R12E; NE ¼, SW ¼, S1, T2N, R12E; SE ¼, SW ¼, S1, T2N, R12E; SW ¼, NE ¼, S1, T2N, R12E; NW ¼, SE ¼, S1, T2N, R12E; NE ¼, SE ¼, S1, T2N, R12E; SW ¼, SE ¼, S1, T2N, R12E. Figure 1.1 presents the Site location. Figures 1.2 presents the Site plan and detailed building layout. The Wisconsin Transverse Mercator `91 coordinates for the Site are presented on Figure 1.2.

### 1.4 Site Setting

The information presented in this section (Section 1.4) is the same as Section 1.4 of the SIR.

#### 1.4.1 Current Site Use

The Site is currently owned by GM. A copy of the deed for the property and associated certified survey maps were previously provided in Appendix A to the SIR. The Site zoning is currently identified as Heavy Manufacturing, Commercial, and Vacant. The Site is located in a mixed manufacturing, commercial, and residential area in the City of Janesville, Wisconsin. Additional details regarding the Site and surrounding land use was presented in Sections 2.2.1 and 2.2.2 of the Draft Site Investigation Work Plan prepared by GHD/Environ Ramboll on behalf of GM and submitted to the WDNR on September 20, 2013 (2013 Work Plan).

The Site comprises approximately 145 acres of land, including approximately 4.8 million square feet of floor space located in the Main Assembly Building, as well as several ancillary structures (wastewater treatment plant [WWTP], Power House, Maintenance Storage Buildings 1, 2, and 3, Hazardous Materials Building, South Paint Mix Room, Guard Houses, South Tank Farm and associated buildings, North Tank Farm and associated buildings, Facilities Service Center, Care Building, Tire Building, associated tunnels [to Cherry Street, to WWTP Tanks, WWTP to railroad, and from Power House], railroad tracks, and landscaped areas). The WWTP is located approximately one quarter-mile to the west of the main plant property. The Site has an active perimeter security fence.

The Site is currently closed with no manufacturing or assembly operations conducted.

#### 1.4.2 Physiography and Topography

The topography of the Site is influenced by the Rock River, located approximately 200 feet north of the northern Site boundary. The ground surface elevations at the Site range from 766 feet above mean seal level (AMSL) at the northern Site boundary to 787 feet AMSL at the southern Site

boundary. Additional details regarding Site physiography and topography were presented in Section 2.2.3 of the 2013 Work Plan.

#### 1.4.3 Surface Water Hydrology

Stormwater runoff generated at the Site either infiltrates the unpaved surfaces or flows via sheet flow across paved surfaces or from the building roofs to on-Site stormwater catch basins. Stormwater collected from the main assembly plant property discharges via an outfall to the Rock River. Stormwater from the parking lots and the WWTP property discharges directly to the City of Janesville storm sewer system. Additional details regarding Site surface water hydrology were presented in Section 2.2.6 of the 2013 Work Plan. Additional details regarding the Site sewer system layout were presented in Section 6.0 of the SIR.

#### 1.4.4 Geology

The generalized Site stratigraphy includes silt and/or silty sands, underlain by sand and gravel. At greater depths, sandy clayey silt alternates with silty clayey sand and is present between the extensive sand and gravel layer. The sand and gravel, or at select shallow bedrock locations, sandy silt and silty sand (MW-16S and MW-19S, respectively) is underlain by bedrock, which was encountered between 2.5 feet below ground surface (bgs) (MW-19S, near the WWTP) and 260 feet bgs (MW-7D at the southern Site boundary).

The Site is comprised of the following stratigraphic units in descending order:

- Surficial fill
- Silt and/or silty sand
- Upper sand and gravel
- Sandy clayey silt (not present at depths less than 100 feet bgs)
- Lower sand and gravel
- Sandstone bedrock

Geologic cross-sections and additional details regarding Site geology were presented in Section 2.2.4 of the 2013 Work Plan.

#### 1.4.5 Hydrogeology

Based on data collected during the fourth quarterly sampling event conducted at the Site in October 2015, groundwater is present at the Site between 5.2 and 23.0 feet bgs. Groundwater flow is to the north-northwest toward the Rock River, which follows the general Site topography. Additional details are presented in Section 4.1.1 of this Report.

#### 1.4.6 Groundwater Use

The Site is provided with municipal water by the City of Janesville. No potable groundwater wells are present on Site. In addition, there is a groundwater use restriction in place at the Site that prevents use of shallow groundwater. The closest public supply well in the shallow aquifer is 2,500 feet northeast of the Site and in the deep aquifer is 1,500 feet northeast of the Site. These potable wells are cross-gradient to the Site. Additional details regarding Site groundwater use were presented in Section 2.2.7 of the 2013 Work Plan.

## 2. Background

### 2.1 Site Use History

The Site was used by General Motors Corporation (GMC) since 1918. Prior to 1918, the Site consisted of vacant land or residential properties. Approximately 55 acres of the main plant property were purchased by GMC, to produce Samson Tractors in 1918. Since the original property acquisition in 1918, the Site has undergone numerous additions, both in the acreage included in the properties comprising the Site and various structures. The Plant was “idled” on April 24, 2009 when the Isuzu assembly operations located in the Tire Building ceased. Additional details regarding Site use history were presented in Section 1.2 of the 2013 Work Plan. Historical Plant additions are presented on Figure 2.1. The GM Janesville Assembly plant was officially “closed” in November 2015.

### 2.2 Previous Environmental Investigations

As discussed in Section 2.2 of the SIR, environmental investigations and some remedial actions have been completed at the Site in conjunction with changes in land use or plant expansions during the past 30 to 40 years. The basic strategy of past remedial actions included source remediation (usually by excavation and off-Site disposal) followed by natural attenuation (with some groundwater monitoring). Brief summaries of the releases associated with the Site, information regarding underground storage tanks (USTs) and spills, and information regarding the conversion of the Power House from coal to natural gas were provided in Section 1.3 of the 2013 Work Plan. Historical sample locations are presented on Figures 2.2 through 2.5.

### 2.3 BRRTS # 02-54-560205

Subsurface investigative activities were completed in 2011 at the downgradient Site boundaries to investigate the potential for impacts in groundwater to migrate off Site when the plant was “idled” as good practice. On December 17, 2012, GM, GHD, and Ramboll Environ participated in a meeting with the WDNR in Janesville, Wisconsin to submit and discuss a draft environmental data package. The draft data package included all known and available analytical results associated with historical environmental investigations conducted at the Site and the results of the 2011 investigation activities.

On February 15, 2013, GHD submitted a Non-Emergency Notification of Hazardous Substance Discharge Form (Form 4400-225) based on the laboratory analytical results contained in the data package provided to the WDNR on December 17, 2012. A letter entitled "Reported Contamination: General Motors (GM) Property located at 1000 General Motors Drive in Janesville WI" and dated March 18, 2012 was sent from the WDNR to GM identifying GM as the Responsible Party (RP) and Bureau for Remediation and Redevelopment Tracking System (BRRTS) # 02-54-560205 was assigned.

On behalf of GM, GHD/Environ Ramboll prepared and submitted the 2013 Work Plan. On November 19, 2013, GM, GHD, and Ramboll Environ met with the WDNR at the Site to discuss and review background information, the Site Investigation SOW presented in the 2013 Work Plan, and the interior conditions of the Plant building. The 2013 Work Plan was approved by the WDNR on February 3, 2014 with suggested revisions included in the Revised Site Investigation SOW



presented in the letter entitled “Revised Scope of Work (SOW)” prepared by GHD and dated March 3, 2014 (Revised SOW). The Revised SOW was approved by the WDNR on April 24, 2014.

A Site Investigation was completed in 2014 pursuant to the 2013 Work Plan and the Revised SOW. The results of the Site Investigation were presented in the SIR. As previously discussed, the SIR included the proposed Work Plan Addendum SOW which consisted of quarterly groundwater sampling of select on-Site wells and one annual sampling event including all existing on-Site and off-Site wells.

Following WDNR approval on March 20, 2015, the first quarterly sampling event was completed between March 25, 2015 and March 26, 2015. As previously discussed, the SIR and associated Work Plan Addendum SOW were officially approved by the WDNR via letter on May 8, 2015. The second quarterly sampling event was completed between June 1, 2015 and June 2, 2015. The third quarterly sampling event which also included the annual sampling event was completed between August 24, 2015 and August 28, 2015. The fourth quarterly sampling event was completed between October 26, 2015 and October 27, 2015.

## 3. Methods of Investigation

### 3.1 Work Plan Addendum SOW

The Work Plan Addendum SOW presented in the SIR was developed to address the upper bound cumulative cancer risk and noncancer Hazard Index (HI) estimates that exceeded Wisconsin's cumulative cancer risk limit of  $10^{-5}$  and/or noncancer HI of 1 identified during the human health risk analysis (see Section 5.0 of the SIR). The purpose of the Work Plan Addendum SOW was to assess potentially unacceptable risks associated with non-industrial exposure to groundwater via vapor intrusion at the property boundaries (monitoring wells MW4 and MW-10S). Concentrations of the following chemicals detected in on-Site downgradient perimeter wells in 2014 resulted in an HI for non-industrial exposure to groundwater via vapor intrusion above Wisconsin's risk limit:

- i) 1,2,4-trimethylbenzene (TMB), 1,3,5-TMB, naphthalene, and xylenes (total) detected at MW4
- ii) 1,2,4-TMB, 1,3,5-TMB, and xylenes (total) detected at MW-10S

Site Investigation scoping was previously completed as required by Section (s.) NR 716.07, Wisconsin Administrative Code (Wis. Adm. Code) and the results were presented in Section 4.0 of the 2013 Work Plan.

Per the Work Plan Addendum SOW, groundwater samples were collected in 2015 from existing monitoring wells MW4 and MW-10S on a quarterly basis. Groundwater samples were also collected in 2015 from the existing off-site monitoring wells (MW-26S and MW-27S) and all existing on-Site monitoring wells (MW-1S through MW-25S, MW-1D through MW-7D, and MW2 and MW5) on an annual basis.

Additionally, groundwater elevations were measured in 2015 at existing on-Site monitoring wells MW-1S through MW-25S, MW-1D through MW-7D, and MW2, MW4, and MW5 concurrently with each sampling event. During the annual sampling event, groundwater elevations were measured at all on-Site and off-Site wells.

Groundwater samples were analyzed for Target Compound List (TCL) volatile organic compounds (VOCs) (including 1,2,4-TMB and 1,3,5-TMB), TCL semi-volatile organic compounds (SVOCs), Target Analyte List (TAL) Metals total and dissolved (less earth metals), and hexavalent chromium.

A summary of the activities completed in 2015 is presented in Table 3.1. Historical and current (2014 and 2015) sample locations are presented on Figure 2.2 through Figure 2.5.

### 3.2 Deviations from the Revised SOW

Field activities were completed in general accordance with the Work Plan Addendum SOW presented in the SIR with the exception of hydraulic monitoring. Water levels were collected from the off-Site wells MW-26S and MW-27S during the first and second quarter.

### 3.3 Hydraulic Monitoring

Groundwater elevations were measured at the existing monitoring wells MW-1S through MW-25S, MW-1D through MW-7D, and MW2, MW4, and MW5 on March 25, 2015, June 1, 2015, August 24, 2015, and October 26, 2015 concurrently with each sampling event. Off-Site wells MW-26S and MW-27S were included during the March, June, and August monitoring events. A summary of the groundwater monitoring well details is presented in Table 3.2.

### 3.4 Groundwater Sampling

One groundwater sample was collected from existing monitoring wells MW4 and MW-10S (quarterly) and MW-1S through MW-27S, MW-1D through MW-7D, and MW2 and MW5 (annually). The groundwater samples were analyzed for TCL VOCs (including 1,2,4-TMB and 1,3,5-TMB) by the United States Environmental Protection Agency (U.S. EPA) method SW-846 8260 and TCL SVOCs by U.S. EPA Method SW-846 8270 in accordance with s. NR 716.13(3), Wis. Adm. Code. The groundwater samples were also analyzed for TAL Metals total and dissolved (less earth metals) by U.S. EPA Method SW-846 6020/7470 to confirm previous results and evaluate potential migration of groundwater contamination at the property boundaries. In addition, groundwater samples were analyzed for hexavalent chromium by U.S. EPA Method SW-846 7196 in accordance with s. NR 716.13, Wis. Adm. Code.

Conductivity, dissolved oxygen [DO], oxidation reduction potential [ORP], pH, temperature, and turbidity readings were also collected concurrently with groundwater sampling.

The groundwater samples were placed in laboratory-supplied containers and shipped under standard chain of custody (COC) protocol to a laboratory certified under ch. NR 149, Wis. Adm. Code for analysis of the parameters listed above on a two-week turnaround time (TAT). Groundwater sampling was conducted in accordance with the WDNR Bureau of Water and Groundwater Publication PUBL-DG-038 96, Groundwater Sampling Field Manual, September 1996 and the applicable GM Field Method Guideline (FMG) (FMG 6.4 – Groundwater Sampling, Low Flow) included in Appendix J of the 2013 Work Plan.

### 3.5 Decontamination of Field Equipment

Prior to sampling, all non-disposable sampling equipment was washed in an Alconox solution and then rinsed with distilled water. Sampling equipment used during field activities (including nitrile gloves and plastic bags) was disposed between sampling intervals to prevent cross-contaminating

the samples. All sample collection equipment was subject to scrubbing and a potable water rinse for additional cleaning when required, and prior to leaving the Site.

### 3.6 Quality Assurance/Quality Control (QA/QC)

QA/QC sampling includes equipment blanks, field duplicates, matrix spike/matrix spike duplicate (MS/MSD). Equipment blanks were collected at a frequency of 1 per 10 groundwater samples collected, at a minimum of 1 per day (when dedicated equipment was not being used). Field duplicates were collected at a frequency of 1 per 10 groundwater samples collected. MS/MSD samples were submitted at a frequency of 1 per 20 groundwater samples collected. Trip blanks were submitted with each shipment of samples for VOC analysis. It should be noted, temperature blanks were not required as samples were shipped on ice. The following is a brief discussion defining each type of field derived QC sample that was collected.

- **Equipment Blanks** - Equipment field blanks are defined as QA/QC samples used to determine if cleaning procedures are effective and adequate. Equipment field blanks are prepared by collecting laboratory distilled de-ionized water which has been "run through" or "poured over" the cleaned sample collection equipment. If dedicated, new sampling devices are used; an equipment blank is not required.
- **Field Duplicates** - Field duplicates will be collected and submitted to assess the potential for laboratory data inconsistency and the adequacy of the sampling and handling procedures. A duplicate sample is collected from the same source utilizing identical collection procedures and typically submitted "blind" to the laboratory by providing a false identification number. The sampling key to ensure proper sample identification must be submitted to the appropriate personnel to enable completion of the QA/QC review process.
- **Laboratory QA/QC Sample Volumes** – MS/MSD sample volumes are additional sample aliquots provided to the laboratory to evaluate the accuracy and precision of the sample preparation and analysis technique. Typically, three times the normal sample aliquot is required to conduct MS/MSD procedures. Sample collection is identical to the technique described for collection of field duplicates. Sample labeling identifies the respective sample location and each additional container that is labeled as the "MS/MSD" volume.

A summary of the QA/QC sampling conducted is presented in Table 3.1.

### 3.7 Investigative-Derived Wastes (IDW)

Purge and development water and decontamination water was placed into a 300-gallon plastic tote, properly labeled, and staged on Site pending waste characterization and subsequent off-Site disposal.

One composite water sample was collected from each plastic tote containing water and submitted for laboratory analysis of Toxicity Characteristic Leaching Procedure (TCLP) metals by U.S. EPA Method SW-846 6010/6020/7470, TCLP VOCs by U.S. EPA Method SW-846 8260B, Total Petroleum Hydrocarbons (TPH) as Gasoline Range Organics (GRO) and TPH as Diesel Range Organics (DRO) by the Wisconsin Modified Method, and pH by U.S. EPA Method SW-846 9045.

Sampling analysis methods were in accordance with s. NR 716.13, Wis. Adm. Code.

The composite water sample was placed in laboratory-supplied containers and shipped under standard COC protocol to a laboratory certified under ch. NR 149, Wis. Adm. Code for analysis of

the parameters listed above on a two-week TAT. Composite water sampling was conducted in accordance with Section 5.7 of the 2013 Work Plan and applicable requirements of ch. NR 716, Wis. Adm. Code.

The IDW tote was transported off Site as RCRA non-hazardous waste by Waste Management on January 5, 2016. The IDW was transported to Waste Management's Deer Track Park Landfill located at N6756 Waldman Lane, Watertown, Wisconsin. Waste characterization results are presented in Appendix A.

## 4. Results

### 4.1 Groundwater Investigation

#### 4.1.1 Hydrogeology

Based on data collected during the fourth quarterly sampling event conducted at the Site in October 2015, groundwater is present at the Site between 5.2 feet bgs and 23.0 feet bgs.

Groundwater elevations were measured on March 25, 2015, June 1, 2015, August 24, 2015, and October 26, 2015. Groundwater contours for monitoring wells screened at or near the water table, and intermediate wells screened within the upper sand, are presented on Figure 4.1 (March 25, 2015), Figure 4.2 (June 1, 2015), Figure 4.3 (August 24, 2015), and Figure 4.4 (October 26, 2015). Groundwater flow is to the north-northwest toward the Rock River, which follows the general Site topography. The groundwater elevation(s) at the three bedrock wells (MW-1D, MW-4D, and MW-7D) are also presented on the groundwater elevation contour Figures (Figure 4.1 through Figure 4.4); however, elevations were not used in contouring since these wells monitor a separate hydrogeologic unit.

Groundwater elevations ranged between the following during 2015:

- 759.11 feet AMSL and 764.66 feet AMSL at the northern Site boundary (MW-4D) and southeastern Site boundary (MW-7S), respectively, on March 25, 2015
- 761.24 feet AMSL and 764.69 feet AMSL at the northwestern Site boundary (MW-1D) and southeastern Site boundary (MW-7S), respectively on June 1, 2015
- 757.77 feet AMSL and 764.31 feet AMSL at the northern Site boundary (MW-4D) and southeastern Site boundary (MW-7S), respectively, on August 25, 2015
- 760.54 feet AMSL and 764.30 feet AMSL at the northern Site boundary (MW-4D) and southeastern Site boundary (MW-7S/7D), respectively, on October 26, 2015

Groundwater elevations measured in 2015 were generally consistent with those collected during previous investigations in 2011 and 2014. Groundwater elevations ranged between 761.73 feet AMSL at the northwestern Site boundary (MW-1D) and 765.66 feet AMSL at the southeastern Site boundary (MW-7S) on June 2, 2014, and between 760.59 feet AMSL at the northern Site boundary (MW-4D) and 765.11 feet AMSL at the southeastern Site boundary (MW-7D) on September 15, 2014. Groundwater elevations ranged between 759.65 feet AMSL at the northern Site boundary (MW-4D) and 765.7 feet AMSL at the southeastern Site boundary (MW-7S) on August 24, 2011, and between 761.1 feet AMSL at the northwestern Site boundary (MW-1D) and 765.64 feet AMSL



at the southeastern Site boundary (MW-7D) on October 24, 2011. A summary of the hydraulic monitoring conducted at the Site to date is presented in Table 3.2.

The hydraulic conductivity was calculated from the grain size analysis conducted during the 2011 investigation and is approximately 0.0014 feet per foot. Additional details were presented in Section 2.2.5 of the 2013 Work Plan.

#### 4.1.2 Groundwater Analytical Results

The laboratory analytical reports are included as Appendix A. A summary of the 2014 and 2015 analytical results for groundwater compared to the ch. NR 140, Wis. Adm. Code Enforcement Standard (ES) and ch. NR 140, Wis. Adm. Code Preventive Action Limits (PALs) are presented in Table 4.1. Groundwater analytical results were also evaluated as part of the human health risk analysis further discussed in Section 5.0. Historical and current sample locations are presented on Figure 2.2 through Figure 2.5.

A QC review of the data was performed by GHD. The Analytical Data Verification Memorandums are presented in Appendix B. The QC elements reviewed included holding time period compliance, method blank sample data, surrogate compounds data, laboratory control sample data, and matrix spike analyses data. All groundwater data were deemed acceptable with the specific exceptions and qualifiers noted (see Table 4.1).

## 5. Human Health Risk Analysis

The site-specific human health risk analysis presented in the SIR has been updated to incorporate the groundwater data collected in 2015 (and is discussed in Section 3.1). This update of the 2014 groundwater evaluation was conducted in accordance with WDNR guidance and consistent with the methods described in the SIR. The subsections below present updates to the corresponding subsections of the SIR.

### 5.1 Current and Future Land and Groundwater Use

The current and reasonably expected future land and groundwater uses at and around the Site are presented in Section 5.1 of the SIR. As discussed in Section 5.1 of the SIR and in Section 1.4.1 of this Report, the Site is currently zoned as Heavy Manufacturing, Commercial, and Vacant. It is located in a mixed manufacturing, commercial, and residential area. The land use of the Site and surrounding area is expected to remain the same in the future. The City of Janesville provides water to the Site and surrounding area, as discussed in Section 1.4.6 of this Report.

### 5.2 Receptors and Potential Exposure Pathways

Based on the available information regarding land and groundwater uses at and surrounding the Site, the on- and off-site receptors with potential exposure to groundwater under current and reasonably expected future conditions are summarized on Table 5.1 and below. Table 5.1 is the same as Table 5.1 in the SIR, except the pathways not related to groundwater have been colored gray.

#### **On-Site**

- Industrial workers via inhalation of vapors indoors and outdoors

- Maintenance workers and construction workers via incidental ingestion, dermal contact, and vapor inhalation during excavations that extend to the water table
- Trespassers via inhalation of vapor outdoors

#### **Off-Site (Downgradient)**

- Non-industrial receptors via inhalation of vapors indoors and outdoors
- Maintenance workers via incidental ingestion, dermal contact, and vapor inhalation during excavations that extend to the water table
- Recreators in Rock River via incidental ingestion, dermal contact, and vapor inhalation of surface water and via fish ingestion

Discussion of these receptors was presented in Section 5.2 of the SIR.

### **5.3 Data Screening**

The groundwater data collected in 2014 and 2015 were screened against site-specific screening levels to assess the adequacy of sampling and current groundwater conditions.

#### **5.3.1 Data Evaluation**

As outlined in the SIR, groundwater samples were collected quarterly at MW4 and MW-10S in 2015, and at all monitoring wells in August 2015. The groundwater data from the 2015 samples are summarized on Figure 5.1 to Figure 5.5. These figures also include groundwater data from 2014, for comparison.

#### **5.3.2 Data Screening Methodology**

The groundwater data were compared to risk-based screening levels which were developed for the groundwater exposure scenarios in Table 5.1. The risk-based groundwater screening levels and their derivation were presented in Section 5.3.2 of the SIR. For this update, the groundwater data were also compared to screening criteria in the WDNR Vapor Intrusion Guidance (RR-800).

#### **5.3.3 Data Screening Results**

The groundwater data comparison to screening levels is presented on Figure 5.1 through Figure 5.5. As shown on these figures, the exceedances of screening levels are as follows:

#### **2014 Groundwater Data**

- Industrial vapor intrusion at on-site well MW5 for 1,2,4-TMB and at on-Site, downgradient, perimeter wells MW4 and MW-10S for 1,2,4-TMB and 1,3,5-TMB
- Non-industrial vapor intrusion at on-Site, downgradient, perimeter wells MW4 for 1,2,4-TMB, 1,3,5-TMB, xylenes (total), and naphthalene, and MW-10S for 1,2,4-TMB, 1,3,5-TMB and xylenes (total)<sup>1</sup>

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<sup>1</sup> The PAL for xylenes is 2,000 micrograms per liter (ug/L), which is far above the nonresidential vapor intrusion screening level of 90 ug/L. U.S. EPA recognizes that concentrations at Maximum Contaminant Levels (MCLs) are not considered significant vapor intrusion threats (U.S. EPA 2002)

- Maintenance worker groundwater contact at MW-1S, MW-3S, MW-7S, MW-12S, MW-13S, MW-21S and MW-22S for chromium (total)

The chromium (total) exceedances of maintenance worker contact screening levels are based on the sample results from the June 2014 sampling event. For the subsequent sampling event in September 2014, hexavalent chromium was analyzed in addition to chromium (total). The results of all hexavalent chromium analyses from these seven wells were non-detect, as shown on Figure 5.2 through Figure 5.5. Therefore, no further evaluation of maintenance worker contact with chromium in groundwater was necessary.

### **2015 Groundwater Data**

- Industrial vapor intrusion at on-site, downgradient, perimeter well MW-10S for 1,2,4-TMB
- Non-industrial vapor intrusion at on-site, downgradient, perimeter wells MW4 and MW-10S for 1,2,4-TMB, 1,3,5-TMB, xylenes (total) <sup>1</sup>

Risks for industrial and nonindustrial groundwater vapor intrusion exposure are discussed in Sections 5.4.3.1 and 5.4.3.5, respectively.

#### 5.3.4 Vapor Intrusion Pathway Screening

Vapor intrusion pathway screening is used to determine whether or not the potential for vapor intrusion exists on or off a contaminated property, according to Section IV of RR-800. The discussion below compares the 2014 and 2015 groundwater data with the WDNR vapor intrusion pathway screening criteria for petroleum and chlorinated VOCs (CVOCs) in groundwater. Upon the collection of additional soil data (see Section 6.0 of this Report), the vapor intrusion pathway will be re-evaluated.

#### **Screening criteria for petroleum vapors:**

- |            |   |
|------------|---|
| Criterion: | Free-phase product that has the potential for off-gasing vapors underlies a building or is within 30 feet, horizontally or vertically, of a building foundation.  |
| Result:    | Free-phase product has not been identified at the Site during the investigations conducted between 2011 and 2015.   |
| Criterion: | Benzene concentration in groundwater underlying a building is >1,000 parts per billion (ppb) and there is less than 20 feet of unsaturated soil between the groundwater and the building foundation.  |
| Result:    | Benzene was not detected in groundwater, as shown on Table 4.1. Therefore, this criterion is not met.   |
| Criterion: | Groundwater contaminated with petroleum product above Wisconsin's groundwater preventive action limit (PAL) is entering a building or in contact with the building's foundation, or is in water intercepted by the building's foundation drain system, including sumps.                                       |
| Result:    | PAL exceedances associated with petroleum product (VOCs and SVOCs) were identified in the following monitoring wells during the 2014 and 2015 monitoring events: MW-3S (2014 and 2015), MW4 (2014 and 2015), MW5 (2014 only), MW-8S (2014 and 2015), MW-10S (2014 and 2015), MW-17S (2014 only), MW-20S (2014 |

only), and MW-24S (2014 and 2015) (see Table 4.1). Groundwater does not enter any on-Site buildings as all on-site buildings are slab-on-grade, with the exception of the South Employee Entrance, Power House, and the WWTP. The South Employee Entrance, Power House, and the WWTP are located upgradient or crossgradient to these monitoring well locations. The depth to groundwater in the vicinity of MW-3S, MW4, MW5, MW-8S, MW-10S, MW-17S, MW-20S, and MW-24S ranges between 5.75 and 10.37 feet bgs. As the majority of the buildings are slab-on-grade, no building foundation drain systems were identified in the vicinity of these wells. The highest VOC and SVOC concentrations were observed at monitoring wells MW4, MW5, and MW-10S. VOCs and SVOCs (with the exception of chloroform) were not detected in off-Site monitoring wells MW-26S and MW-27S which are located downgradient of monitoring wells MW4, MW5, and MW-10S. Chloroform was detected at an estimated concentration in monitoring well MW-26S below the associated PAL during the 2014 sampling event. MW-26S is located within approximately 100 feet of MW4 and MW-10S. Based on available data, this criterion does not apply.

- Criterion:** Petroleum vapors are present that may migrate from the petroleum source and move through preferential pathways (sewer lines, fractured bedrock, etc.) into a building.
- Result:** Soil vapor sampling has not been conducted at the Site. PAL exceedances associated with petroleum product (VOCs and SVOCs) were identified in the following monitoring wells during the 2014 and 2015 monitoring events: MW-3S (2014 and 2015), MW4 (2014 and 2015), MW5 (2014 only), MW-8S (2014 and 2015), MW-10S (2014 and 2015), MW-17S (2014 only), MW-20S (2014 only), and MW-24S (2014 and 2015) (see Table 4.1). The locations of known utilities on Site are presented on Figure 5.6 through Figure 5.14. As indicated on Figure 5.6, Figure 5.7, and Figure 5.13, there are no preferential pathways from these monitoring wells into a building. The closest preferential pathway identified is a below grade sewer line present approximately 25 feet east (cross-gradient) of MW-17S. The highest VOC and SVOC concentrations were observed at monitoring wells MW4, MW5, and MW-10S. VOCs and SVOCs (with the exception of chloroform) were not detected in off-Site monitoring wells MW-26S and MW-27S which are located downgradient of monitoring wells MW4, MW5, and MW-10S. Chloroform was detected at an estimated concentration in monitoring well MW-26S below the associated PAL during the 2014 sampling event. MW-26S is located within approximately 100 feet of MW4 and MW-10S. Based on available data, this criterion does not apply.

#### **Screening for CVOC vapors:**

- Criterion:** Any buildings overlying a CVOC groundwater plume located at the water table with groundwater concentrations above Wisconsin's groundwater enforcement standards (ES).
- Result:** No CVOC groundwater concentration exceeds the ES, as shown in Table 4.1. Therefore, this criterion is not met.
- Criterion:** CVOC contaminated groundwater above Wisconsin's groundwater PAL is entering a building or in contact with the building's foundation, or is in water intercepted by the building's foundation drain system, including sumps.

- Result:** The only CVOC groundwater concentration that exceeds the PAL is trichloroethene detected in monitoring well MW-24S during the 2014 and 2015 sampling events. Monitoring well MW-24S is located along the southern Site boundary (see Figure 5.5 and Figure 5.13). No buildings or associated foundation drain systems (on-Site or off-Site) are present within 40 feet of MW-24S. The main plant building is located 150 feet north (downgradient) of MW-24S. Due to the depth of groundwater in the vicinity of MW-24S (10.37 feet bgs) it is unlikely that groundwater is in contact with the building's foundation. Based on available data, this criterion does not apply.
- Criterion:** CVOC vapors have the potential to enter preferential pathways (sewer lines, fractured bedrock, foundation cracks or openings, etc.) that connect contaminated areas to a building and migrate into that building.
- Result:** Soil vapor sampling has not been conducted at the Site. The only CVOC groundwater concentration that exceeds the PAL is trichloroethene detected in monitoring well MW-24S during the 2014 and 2015 sampling events. The locations of known utilities on Site in the vicinity of MW-24S are presented on Figure 5.13. As indicated on Figure 5.13, there are no preferential pathways from this monitoring well into a building. Based on available data, this criterion does not apply.

Since none of the vapor intrusion pathway screening criteria are met, a vapor intrusion pathway from groundwater does not exist at this time based on Section IV of WDNR's Vapor Intrusion Guidance (RR-800). Upon the collection of additional soil and groundwater data (see Section 6.0 of this Report), the vapor intrusion pathway will be re-evaluated.

## 5.4 Human Health Risk Assessment

### 5.4.1 Data Evaluation

To evaluate any changes to the conclusions of the risk assessment presented in the SIR, only groundwater data from the 2015 sampling events are included in the risk assessment.

### 5.4.2 Risk Estimation Methodology

Estimates of cumulative cancer risk and HI were calculated using the methods presented in the SIR, for the potential exposure to groundwater summarized in Table 5.1. The cumulative cancer and HI estimates were then compared to the Wisconsin cumulative cancer risk limit of  $10^{-5}$  and noncancer HI limit of 1 (NR 720.11 (3), Wis. Adm. Code). In addition, modeled indoor air concentrations of contaminants that may volatilize from groundwater and migrate through cracks in on-site buildings were compared to occupational exposure limits, as discussed in Section 5.4.2 of the SIR.

Consistent with the discussion in Section 5.4.2 of the SIR, the highest concentration in the 2015 data for each constituent at each monitoring well was used to streamline risk calculations. This provides upper-bound estimates on the actual exposure concentrations, and as such, these cumulative cancer and HI estimates are considered upper-bound estimates.

Details of the cumulative cancer risk and HI calculations were presented in Section 3 and Appendix H of the 2013 Work Plan.

### 5.4.3 Risk Analysis Results

Cumulative cancer risk and HI estimates based on the 2015 groundwater data are summarized on Table 5.3. The nature and extent of contamination are further reviewed in Section 6.0, and recommendations for any additional sampling are presented.

#### 5.4.3.1 Industrial Worker

The upper-bound vapor intrusion cumulative cancer risk and HI estimates are presented on Table 5.3. As shown on Table 5.3, no location has an upper-bound cumulative cancer risk or HI that exceeds the WDNR risk limits. Table 5.3 also presents upper-bound estimates of occupational exposure from vapor intrusion ( $E_m$ ). The method for calculating  $E_m$ , was discussed in Section 5.4.2 of the SIR. These estimates are relevant if the Site is maintained as an occupational Safety and Health Administration (OSHA) -regulated workplace. As shown in Table 5.3, no location has an  $E_m$  above 0.01. Table 5.4 presents the single-chemical cancer risks and Hazard Quotients (HQs) that were used in deriving the cumulative cancer risks and HIs in Table 5.3. Table 5.4 also provides the occupational ratios that were used in deriving the  $E_m$ s in Table 5.3.

Potential exposure to groundwater vapor may occur if groundwater constituents migrate to outdoor air in unpaved areas of the main plant, or areas at the satellite lots where slabs or pavement is removed. As shown in Table 5.3, no location has an upper-bound cumulative cancer risk or HI that exceeds the WDNR risk limits. Table 5.4 presents the single-chemical cancer risks and HQs that were used in deriving the cumulative cancer risks and HIs in Table 5.3.

In summary, potential industrial worker exposure to groundwater at the Site does not result in risk estimates that would warrant further evaluation

#### 5.4.3.2 Maintenance Workers

The upper-bound estimates of cumulative cancer risk and HI for exposures during excavations are summarized in Table 5.3. Table 5.4 presents the single-chemical cancer risks and HQs that were used in deriving the cumulative estimates in Table 5.3. As shown in Table 5.3, no location has an upper-bound cumulative cancer risk or HI that exceeds the WDNR risk limits.

Therefore, potential maintenance worker exposure to groundwater at the Site does not result in risk estimates that would warrant further evaluation.

#### 5.4.3.3 Construction Workers

The upper-bound estimates of cumulative cancer risk and HI for exposures during excavations are summarized in Table 5.3. Table 5.4 presents the single-chemical cancer risks and HQs that are used in deriving the cumulative risks and HIs in Table 5.3. As shown in Table 5.3, no location has an upper-bound cumulative cancer risk or HI that exceeds the WDNR risk limits.

Therefore, potential construction worker exposure to groundwater at the Site does not result in risk estimates that would warrant further evaluation.

#### 5.4.3.4 Trespassers

Potential exposure of trespassers to constituents in groundwater that migrate into outdoor air is evaluated indirectly using exposure estimates for on-site industrial workers, as discussed in

Section 5.4.3.4 of the SIR. As discussed above, there are no locations with upper-bound cumulative cancer risk or HI for industrial workers that exceed the WDNR risk limits.

#### 5.4.3.5 Off-Site Nonindustrial Receptors (e.g., Residential)

The upper-bound estimates of cumulative cancer risk and HI for indoor and outdoor inhalation exposures are summarized on Table 5.3. These estimates are based on groundwater data from the downgradient Site boundary, as discussed in Section 5.4.3.5 of the SIR. As shown in Table 5.3, locations MW4 and MW-10S have upper-bound vapor intrusion HIs that exceed the WDNR limit. Table 5.4 presents the single-chemical cancer risks and HQs that were used in deriving the cumulative risks and HIs in Table 5.3.

As shown in Table 5.4, the following chemicals in on-site downgradient perimeter wells MW4 and MW-10S cause the HI for non-industrial exposure via vapor intrusion to exceed 1:

- 1,2,4-TMB
- 1,3,5-TMB
- naphthalene
- xylenes (total)

These locations are shown on Figure 5.3. As discussed in Section 5.3.1, samples were collected quarterly at MW4 and MW-10S in 2015. While the maximum detected concentration from the 2015 groundwater monitoring events were used to calculate the risk estimates shown in Tables 5.3 and 5.4, the concentrations of 1,2,4-TMB, 1,3,5-TMB, naphthalene, and xylenes (total) decreased by one to two orders of magnitude from the March and June sampling events to the August and October sampling events in both wells, as shown on Figure 5.3. The HI for non-industrial exposure to groundwater via vapor intrusion for MW-10S and MW4 for each quarterly sampling event in 2015, as well as the HI previously presented in the SIR, are summarized in the table below. The HIs for the 2015 sampling events are lower than the HI using the 2014 data, and the HIs are below 1 for the August and October sampling events. Additionally, no VOCs or SVOCs were detected during the August 2015 sampling event at MW-26S and MW-27S, which are downgradient of MW-10S and MW4.

Non-Industrial Groundwater Vapor Intrusion Hazard Index					
Well	2014 SIR	March 2015	June 2015	August 2015	October 2015
MW10S	<b>2E+01</b>	<b>1E+01</b>	<b>9E+00</b>	4E-01	5E-02
MW4	<b>2E+01</b>	<b>4E+00</b>	<b>7E+00</b>	2E-01	1E-01

HI estimates in excess of 1 are shaded and bolded.

Potential exposure to groundwater vapor may occur if groundwater constituents migrate to outdoor air in unpaved off-site areas or off-site areas where slabs or pavement is removed. As shown in Table 5.3, no location has an upper-bound cumulative cancer risk or HI that exceed the WDNR risk limits. Table 5.4 presents the single chemical cancer risks and HQs that were used in deriving the cumulative cancer risks and HIs in Table 5.3.

#### 5.4.3.6 Adolescent Recreators

Recreational exposure to groundwater constituents is possible if on-site groundwater were to migrate into the Rock River. Exposure to surface water may include ingestion, dermal contact, and inhalation of vapors during recreational activities. Exposure via fish ingestion may also be possible.



To evaluate such potential exposures, groundwater data from on-site downgradient perimeter wells and off-site wells were compared to surface water criteria for this part of the Rock River, as discussed in Section 5.3.2 of the SIR. This comparison is highly conservative since it does not account for the mixing of groundwater with surface water in Rock River. The surface water concentration that results from perimeter groundwater traveling off-site and then discharging to the Rock River is expected to be at least 10 times less than the groundwater concentration as a result of mixing (i.e., the dilution factor is at least 10).

As shown on Table 5.2, no downgradient perimeter or off-Site well has a ratio of groundwater concentration to surface water criteria greater than 10, except for the mercury concentration of 0.15 micrograms per liter ( $\mu\text{g/L}$ ) at MW-2S, which is 100 times the human threshold criteria of  $1.5 \times 10^{-3} \mu\text{g/L}$  (based on fish consumption). However, this mercury concentration does not indicate consumption of fish from the Rock River would pose an unacceptable risk, for the following reasons:

- It is questionable whether the mercury concentration at MW-2S is representative of the actual groundwater quality at that location. The mercury concentration is near the limit ( $0.09 \mu\text{g/L}$ ) and is J-qualified (i.e., an estimated value). Also this is the only detection of mercury in groundwater at the downgradient Site perimeter, or elsewhere at the Site other than once (August 2011) at two wells (MW-22S and MW-24S) which are located sidegradient of the Site.
- Even if the mercury concentration at MW-2S is representative of actual groundwater quality at that location and depth (mercury was not detected in MW-2D), it would not have an adverse impact on the Rock River, because the mixing of groundwater from this location with surface water in the Rock River would reduce the concentration to a level well below the water quality criterion. As shown in Appendix C, a conservative dilution factor for the area represented by MW-2S was determined to be 15,000. With this dilution factor, the mercury concentration in the Rock River attributable to groundwater from the area around MW-2S would be  $1.0 \times 10^{-5} \mu\text{g/L}$ , which is well below the criterion (and detection limit).

In summary, groundwater at the Site is not expected to have an adverse effect on recreational use of surface water in the Rock River and, therefore, further groundwater evaluation is not warranted.

## 6. Conclusions and Recommendations

### 6.1 BRRTS # 02-54-560205

In addition to evaluating the data collected in 2015 under the Work Plan Addendum SOW, this Report provides an update of the groundwater risk evaluation previously presented in the SIR. The results of this update do not change the conclusions of the SIR, which were as follows:

#### **On-Site Receptors:**

- No groundwater at the Site has an upper-bound cumulative cancer risk or HI that exceeds the WDNR risk limits.
- No groundwater at the Site has an  $E_m$  above 0.01.

#### **Off-Site Receptors:**

- No groundwater at downgradient perimeter wells has an upper-bound cumulative cancer risk or HI that exceeds the WDNR risk limits, except for MW4 and MW-10S, which have upper-bound

HIs that exceed 1 for non-industrial vapor intrusion if the petroleum hydrocarbon concentrations at these locations were to migrate off-site unattenuated. However, the 2014 and 2015 monitoring data from downgradient off-site monitoring wells MW-26S and MW-27S demonstrate that such migration is not occurring. No VOCs have been detected in these wells with the exception of chloroform which was detected at an estimated concentration of 0.21 µg/L in monitoring well MW-26S during the 2014 sampling event.

- Groundwater at the Site is not expected to have an adverse effect on recreational use of surface water in the Rock River.

The objectives of the Work Plan Addendum SOW (i.e., confirm the VOC concentrations at MW-10S and MW4 and that VOCs are non-detect in the downgradient, off-Site wells) were met. The concentrations of 1,2,4-TMB, 1,3,5-TMB, and xylenes (total) detected at MW-10S and MW4 in the quarterly 2015 sampling were all lower than the maximum concentrations reported in 2014 at those wells. VOCs were not detected in the downgradient, off-site wells (MW-26S and MW-27S) in the August 2015 Site-wide sampling event.

At this time, no further investigative activities are currently recommended in association with BRRTS # 02-54-560205. Details regarding upcoming activities at the Site are further discussed in Section 6.2 below.

## 6.2 Due Diligence Activities

As previously mentioned in Section 2.1, the GM Janesville Assembly plant was officially “closed” in November 2015. A Phase I Environmental Site Assessment (ESA) and a Phase II ESA are scheduled to commence in the first quarter of 2016 to support the future sale of the Site.

The first stage (Stage 1) of the Phase II ESA was developed to further characterize the Site and identify any areas that may require additional investigation and/or delineation. The Phase II ESA Figures and Tables were provided to the WDNR for reference on January 21, 2016.

The tasks to be completed as part of Stage 1 of the Phase II ESA are summarized as follows:

- Advancement of 299 soil borings to the water table present at depths ranging between 5.2 and 23.0 feet bgs and associated soil sampling activities.
- Installation of shallow groundwater monitoring wells into 59 of the 299 soil borings and associated groundwater sampling activities.
- Collection of eight sediment cores in the vicinity of the stormwater discharge location present north of the Site along the south bank of the Rock River and associated sediment sampling activities.

A Phase II ESA report presenting the results of the subsurface investigation and sediment investigation will be prepared and submitted to the WDNR for review in May 2016. All data generated from Stage 1 of the Phase II ESA will be combined with the existing environmental database (including activities conducted under BRRTS # 02-54-560205), and the data evaluation will include a risk-based assessment consistent with prior submittals to the WDNR.

In the event the results of Stage 1 of the Phase II ESA indicate that further investigation and/or delineation is required, a supplemental staged Phase II ESA will be conducted (e.g., Stage 2, Stage 3, etc.) to better define the extent of contamination.

## 7. References

CRA. 2013. Draft Site Investigation Work Plan. September 20

CRA. 2014. Site Investigation Report. December 17

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WDNR, PUB-RR-800, Madison, Wisconsin, July

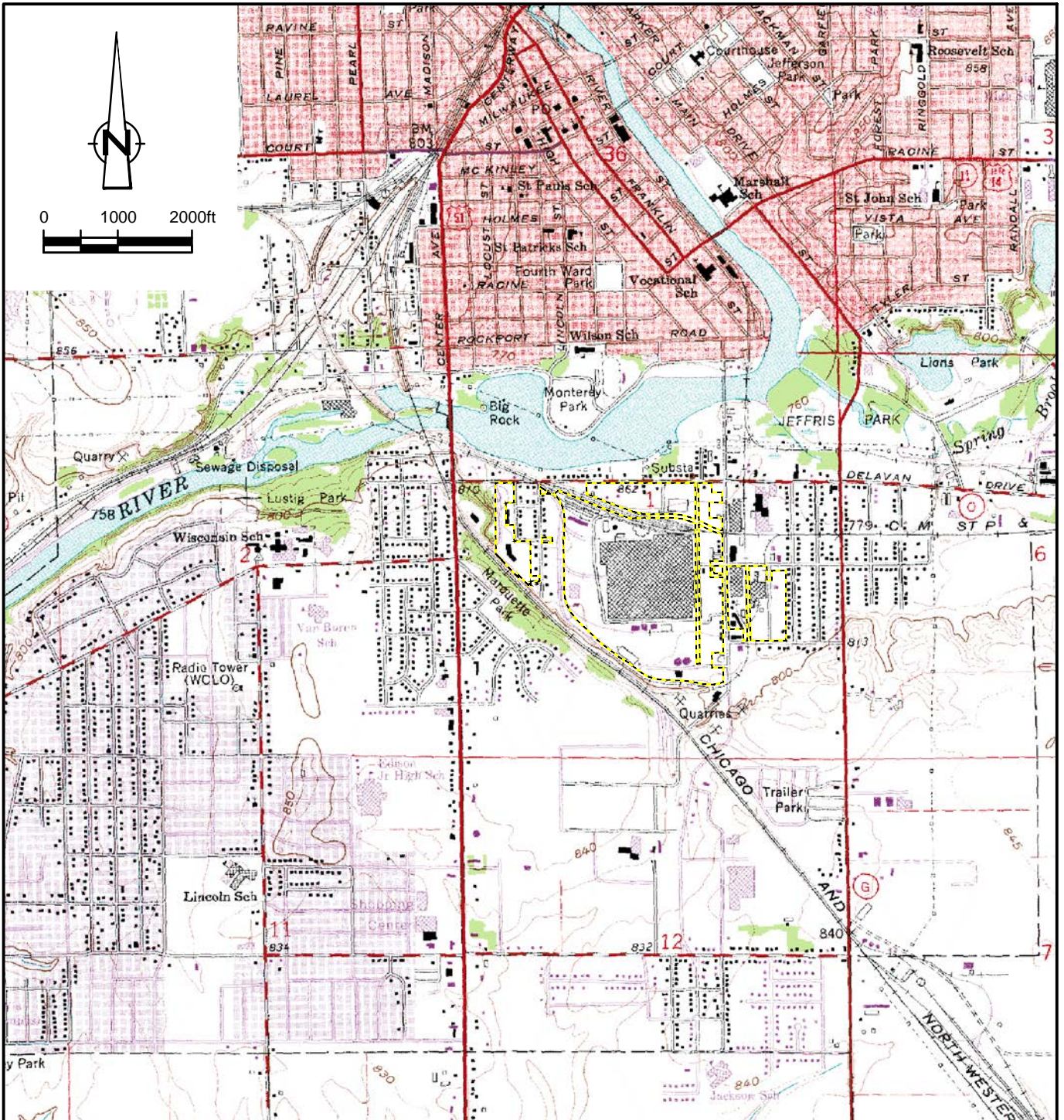
WDNR. 2013. Ch. NR 720, Wis. Adm. Code. November

WDNR. 2013. Ch. NR 716, Wis. Adm. Code. November

WDNR. 2014. Ch. NR 149, Wis. Adm. Code. July

WDNR. 2015. Ch. NR 140, Wis. Adm. Code. July





SOURCE: USGS QUADRANGLE MAP;  
 JANESVILLE WEST, WISCONSIN,  
 PHOTOREVISED 1971 AND 1976

**LEGEND**

--- GM JANESVILLE ASSEMBLY PLANT  
 PROPERTY BOUNDARY

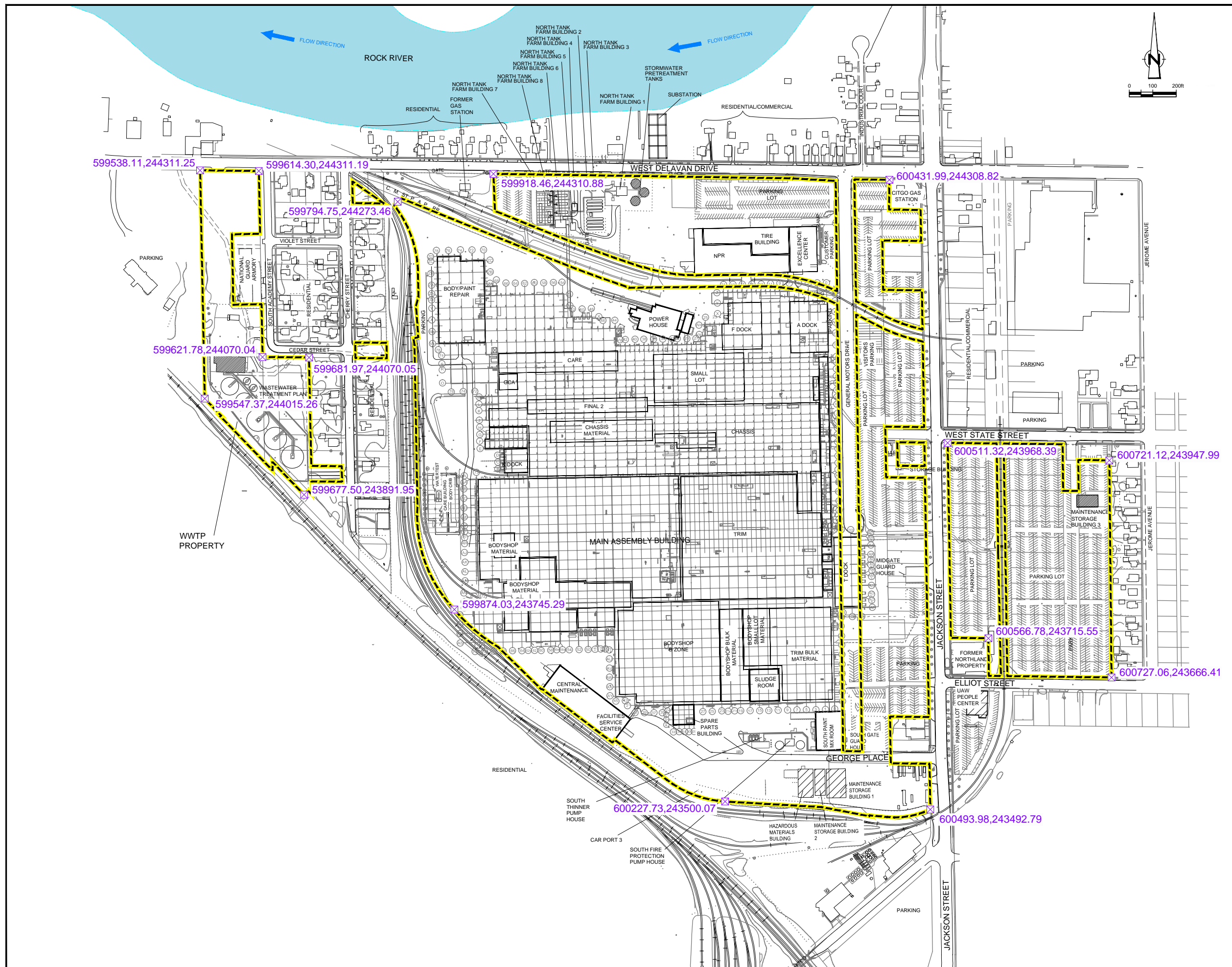
NOTE:  
 THIS FIGURE WAS PREVIOUSLY PRESENTED  
 IN THE 2014 SIR AS FIGURE 1.1



JANESVILLE  
 WISCONSIN

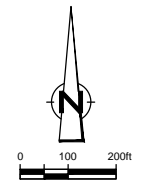
figure 1.1  
**SITE LOCATION**  
**GM JANESVILLE ASSEMBLY PLANT**  
*Janesville, Wisconsin*





**LEGEND**  
 - - - - - PROPERTY BOUNDARY  
 ——— RAILROAD  
 ——— FENCE LINE  
 X PROPERTY CORNER POINT

NOTE:  
 1) DISPLAYED COORDINATES HAVE BEEN PROJECTED ONTO WISCONSIN TRANSVERSE MERCATOR '91 IN ACCORDANCE WITH S. NR 716.15 (5)(D)2, WIS. ADM. CODE  
 2) THIS FIGURE WAS PREVIOUSLY PRESENTED IN THE 2014 SIR AS FIGURE 1.2



**SCALE VERIFICATION**  
 THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

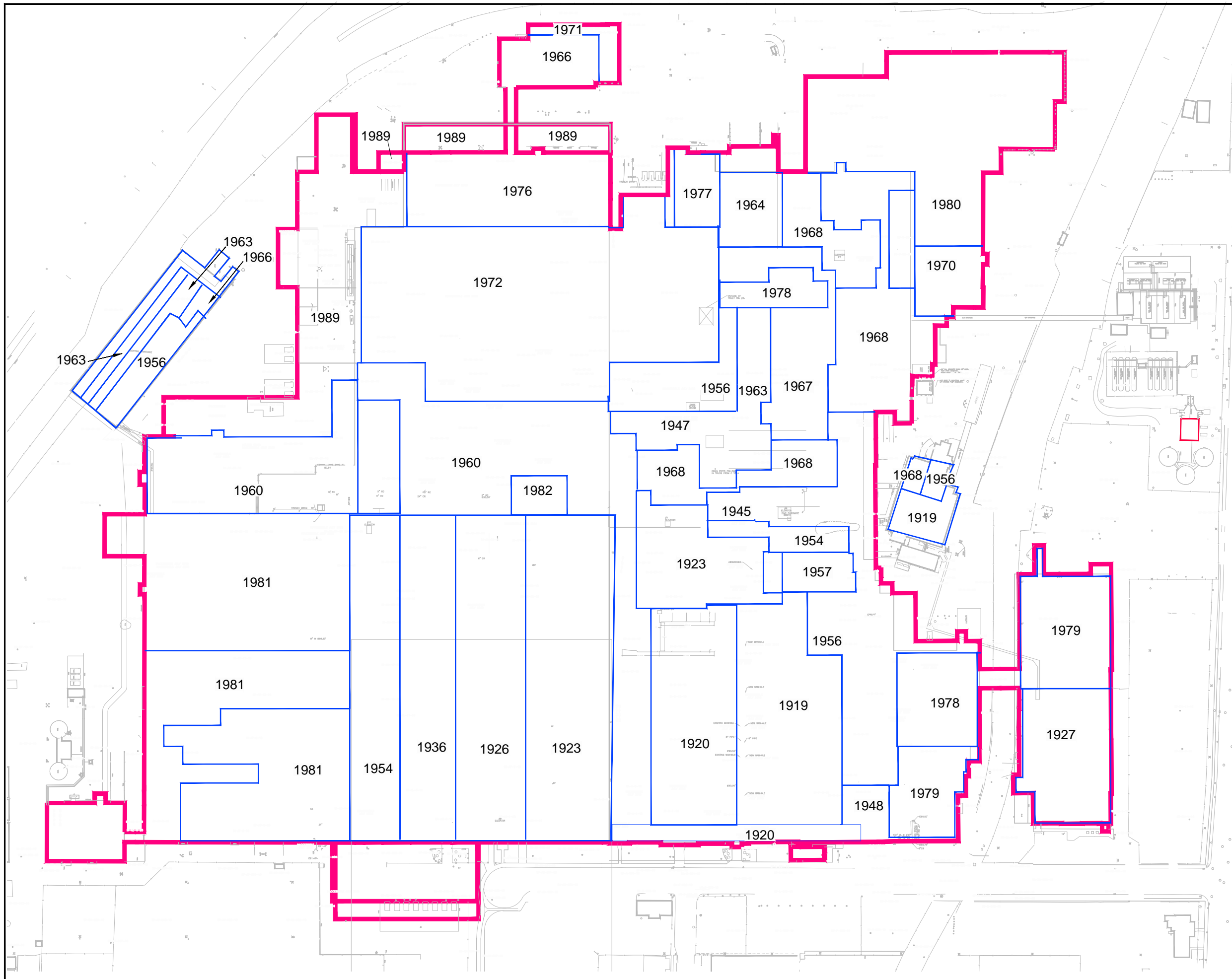
**GM JANESVILLE ASSEMBLY PLANT  
 JANESVILLE, WISCONSIN**

**SITE PLAN**

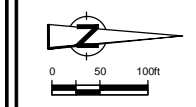


Source Reference:  
 CSG JOB NUMBER: 1020101, FILE NAME: 10A05ASS.DWG, SHEETS 1 TO 10 OF 10, CROWN SERVICES GROUP, 03/09/2011.



Project Manager: J. CHARLTON	Reviewed By: J. CHARLTON	Date: DECEMBER 2014
Scale: AS SHOWN	Project No: 58505-01	Report No: 013
		Drawing No: figure 1.2



No.	Revision	Date	Initial




**LEGEND**

	ADDITION BREAK LINES
	EXTERIOR BUILDING WALL

**NOTE:**

- 1) THIS FIGURE REPRESENTS AN INTERPRETATION OF HISTORICAL PLANT ADDITIONS AS ESTIMATED BY CONESTOGA-ROVERS & ASSOCIATES, INC. AND IS NOT INTENDED TO BE USED AS EXACT DOCUMENTATION OF ADDITION DATES OR LOCATIONS.
- 2) THIS FIGURE WAS PREVIOUSLY PRESENTED IN THE 2014 SIR AS FIGURE 2.1

**SCALE VERIFICATION**  
THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.



Approved

**DRAWING STATUS**

Status	Date	Initial

**GM JANESVILLE ASSEMBLY PLANT  
JANESVILLE, WISCONSIN**

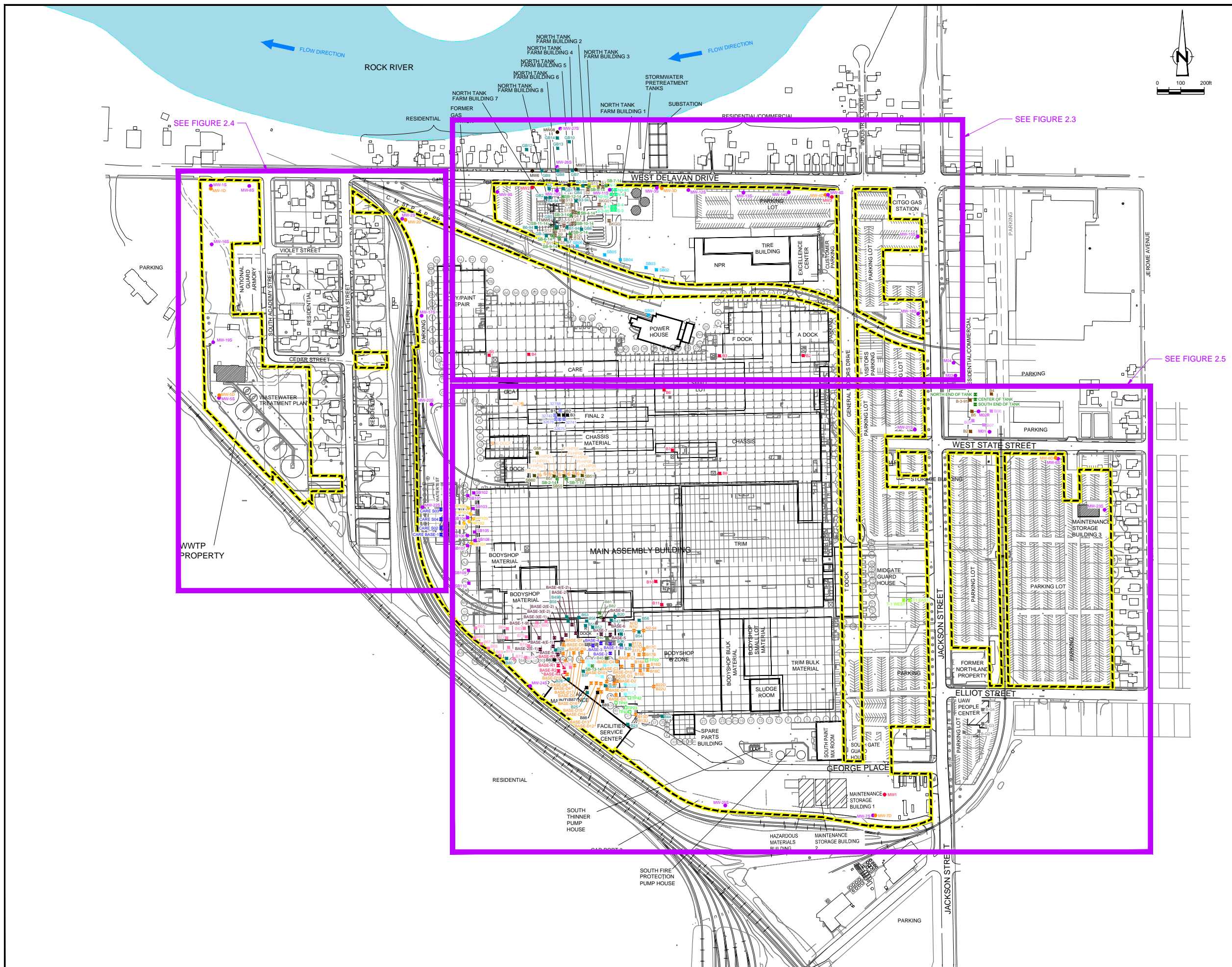
**HISTORICAL PLANT ADDITIONS**



Source Reference:

Project Manager: J. CHARLTON	Reviewed By: J. CHARLTON	Date: DECEMBER 2014
Scale: AS SHOWN	Project No: 58505-01	Report No: 013
		Drawing No: figure 2.1





**LEGEND**

	PROPERTY BOUNDARY
	RAILROAD
	FENCE LINE
	MW1 MONITORING WELL LOCATION, WARZYN, 1988
	B2 SOIL BORING LOCATION, LIESCH ASSOCIATES, 1991
	MW3 MONITORING WELL LOCATION, WARZYN, 1991
	MW4 SOIL BORING LOCATION, WARZYN, 1991
	T1 WEST CONFIRMATORY SOIL SAMPLE LOCATION, WARZYN, 1994
	T1 WEST CONFIRMATORY SOIL SAMPLE, MONTGOMERY WATSON, 1996
	SB99 SOIL BORING LOCATION, MONTGOMERY WATSON, 2007
	CARE S1 SOIL BORING LOCATION, MONTGOMERY WATSON, 1994
	CARE BASE-1 CONFIRMATORY SOIL SAMPLE, MONTGOMERY WATSON, 1994
	SB104 SOIL BORING LOCATION, MONTGOMERY WATSON, 1996
	WPT01 HYDRAULIC PROBE LOCATION, MONTGOMERY WATSON, 1996
	MW4 MONITORING WELL LOCATION, MONTGOMERY WATSON, 1995
	SB12 SOIL BORING LOCATION, MONTGOMERY WATSON, 1994
	MW2R MONITORING WELL LOCATION, WARZYN, 1992
	B1 SOIL BORING LOCATION, WARZYN, 1989
	SB278 SOIL SAMPLE LOCATION, WARZYN, 1989
	N1 SOIL SAMPLE LOCATION, MONTGOMERY WATSON, 1995
	B-G1 SOIL BORING LOCATION, WARZYN, 1997
	MW4 MONITORING WELL LOCATION, WARZYN, 1994
	S1 SOIL SAMPLE LOCATION, MONTGOMERY WATSON, 1994
	B1 SOIL BORING LOCATION, WARZYN, 1994
	WPT01 HYDRAULIC PROBE LOCATION, MONTGOMERY WATSON, 1998
	SB90 SOIL BORING LOCATION, MONTGOMERY WATSON, 1998
	SB2 SOIL BORING LOCATION, MONTGOMERY WATSON, 1998
	TPT23 TEST PIT, WARZYN 1994
	BASE-01 CONFIRMATORY SOIL SAMPLE LOCATION, WARZYN, 1994
	BASE-3 CONFIRMATORY SOIL SAMPLE LOCATION, WARZYN, 1993
	SB10 SOIL BORING LOCATION, WARZYN, 1993
	SB00 SOIL BORING LOCATION, MONTGOMERY WATSON, 1995
	BASE-1 CONFIRMATORY SOIL SAMPLE LOCATION, MONTGOMERY WATSON, 1995
	SB01 SOIL BORING LOCATION, MONTGOMERY WATSON, UNKNOWN YEAR
	BASE-R1 SOIL SAMPLE LOCATION, MONTGOMERY WATSON, 1997
	SB3 SOIL BORING LOCATION, MONTGOMERY WATSON, 1997
	MW-15 SHALLOW MONITORING WELL LOCATION, CRA, 2011
	MW-10 DEEP MONITORING WELL LOCATION, CRA, 2011
	SB-1-14 SOIL BORING LOCATION, CRA, 2014
	MW-275 SHALLOW MONITORING WELL LOCATION, CRA, 2014

NOTE:  
THIS FIGURE WAS PREVIOUSLY PRESENTED  
IN THE 2014 SIR AS FIGURE 2.4

**SCALE VERIFICATION**

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

**GM JANESVILLE ASSEMBLY PLANT  
JANESVILLE, WISCONSIN**

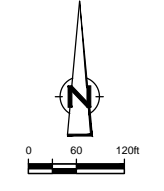
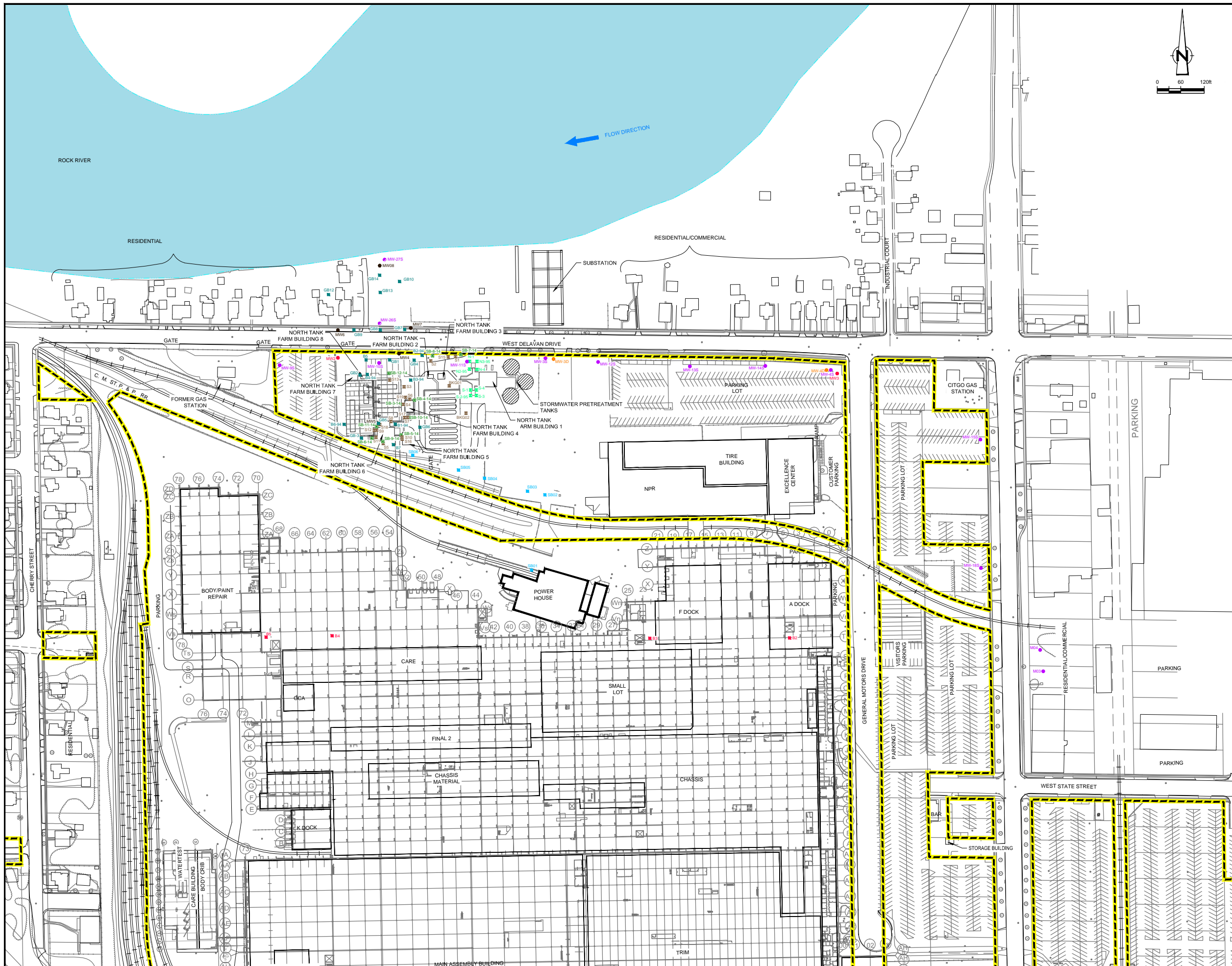
**HISTORICAL AND CURRENT  
SAMPLING LOCATIONS**



Source Reference:  
CSG JOB NUMBER: 1020101, FILE NAME: 10A05ASS.DWG, SHEETS 1 TO 10 OF 10,  
CROWN SERVICES GROUP, 03/09/2011.

Project Manager: J. CHARLTON	Reviewed By: J. CHARLTON	Date: DECEMBER 2014
Scale: AS SHOWN	Project No: 58505-01	Report No: 013
		Drawing No: figure 2.2

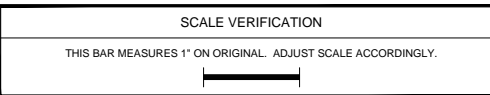




**LEGEND**

	PROPERTY BOUNDARY
	RAILROAD
	FENCE LINE
	MONITORING WELL LOCATION, WARZYN, 1988
	SOIL BORING LOCATION, LIESCH ASSOCIATES, 1991
	MONITORING WELL LOCATION, WARZYN, 1991
	SOIL BORING LOCATION, WARZYN, 1991
	CONFIRMATORY SOIL SAMPLE LOCATION, WARZYN, 1991
	CONFIRMATORY SOIL SAMPLE, MONTGOMERY WATSON, 1996
	SOIL BORING LOCATION, MONTGOMERY WATSON, 2007
	SOIL BORING LOCATION, MONTGOMERY WATSON, 1994
	CONFIRMATORY SOIL SAMPLE, MONTGOMERY WATSON, 1994
	SOIL BORING LOCATION, MONTGOMERY WATSON, 1996
	HYDRAULIC PROBE LOCATION, MONTGOMERY WATSON, 1996
	MONITORING WELL LOCATION, MONTGOMERY WATSON, 1995
	SOIL BORING LOCATION, MONTGOMERY WATSON, 1994
	MONITORING WELL LOCATION, WARZYN, 1992
	SOIL BORING LOCATION, WARZYN, 1989
	SOIL SAMPLE LOCATION, WARZYN, 1989
	SOIL SAMPLE LOCATION, MONTGOMERY WATSON, 1995
	SOIL BORING LOCATION, WARZYN, 1997
	MONITORING WELL LOCATION, WARZYN, 1994
	SOIL BORING LOCATION, WARZYN, 1994
	HYDRAULIC PROBE LOCATION, MONTGOMERY WATSON, 1998
	SOIL BORING LOCATION, MONTGOMERY WATSON, 1998
	SOIL BORING LOCATION, MONTGOMERY WATSON, 1998
	TEST PIT, WARZYN 1994
	CONFIRMATORY SOIL SAMPLE LOCATION, WARZYN, 1994
	CONFIRMATORY SOIL SAMPLE LOCATION, WARZYN, 1993
	SOIL BORING LOCATION, WARZYN, 1993
	SOIL BORING LOCATION, MONTGOMERY WATSON, 1995
	CONFIRMATORY SOIL SAMPLE LOCATION, MONTGOMERY WATSON, 1995
	SOIL BORING LOCATION, MONTGOMERY WATSON, UNKNOWN YEAR
	SOIL SAMPLE LOCATION, MONTGOMERY WATSON, 1997
	SOIL BORING LOCATION, MONTGOMERY WATSON, 1997
	SHALLOW MONITORING WELL LOCATION, CRA, 2011
	DEEP MONITORING WELL LOCATION, CRA, 2011
	SOIL BORING LOCATION, CRA, 2014
	SHALLOW MONITORING WELL LOCATION, CRA, 2014

NOTE:  
THIS FIGURE WAS PREVIOUSLY PRESENTED  
IN THE 2014 SIR AS FIGURE 2.5



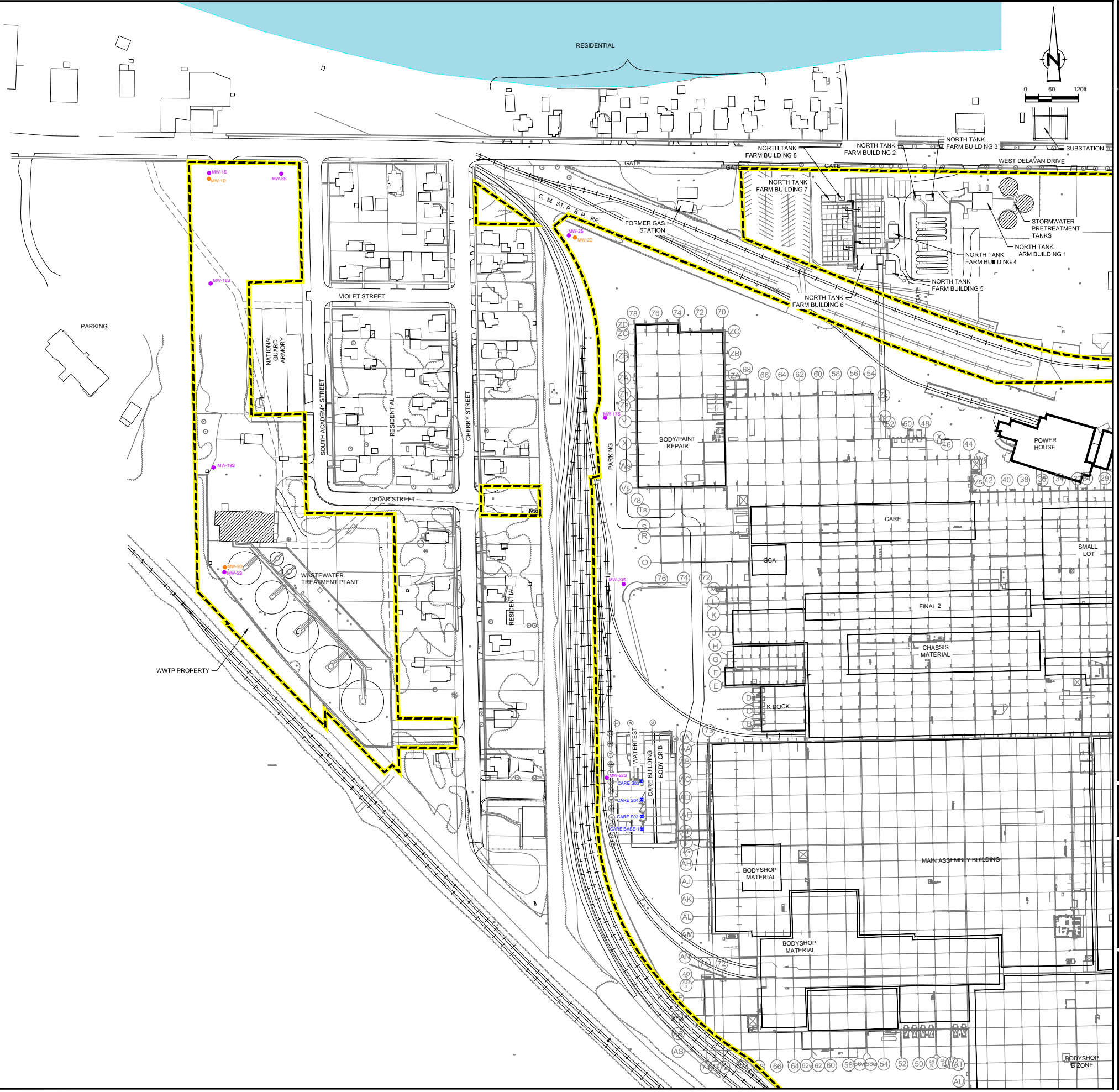
**GM JANESVILLE ASSEMBLY PLANT  
JANESVILLE, WISCONSIN**

**HISTORICAL AND CURRENT  
SAMPLING LOCATIONS - NORTH AND EAST**



Source Reference:  
CSG JOB NUMBER: 1020101, FILE NAME: 10A05ASS.DWG, SHEETS 1 TO 10 OF 10,  
CROWN SERVICES GROUP, 03/09/2011.

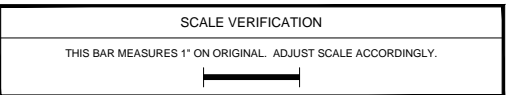
Project Manager: J. CHARLTON	Reviewed By: J. CHARLTON	Date: DECEMBER 2014
Scale: AS SHOWN	Project No: 58505-01	Report No: 013
		Drawing No: figure 2.3



**LEGEND**

	PROPERTY BOUNDARY
	RAILROAD
	FENCE LINE
	MONITORING WELL LOCATION, WARZYN, 1988
	SOIL BORING LOCATION, LIESCH ASSOCIATES, 1991
	MONITORING WELL LOCATION, WARZYN, 1991
	SOIL BORING LOCATION, WARZYN, 1991
	CONFIRMATORY SOIL SAMPLE LOCATION, WARZYN, 1991
	CONFIRMATORY SOIL SAMPLE, MONTGOMERY WATSON, 1996
	SOIL BORING LOCATION, MONTGOMERY WATSON, 2007
	SOIL BORING LOCATION, MONTGOMERY WATSON, 1994
	CONFIRMATORY SOIL SAMPLE, MONTGOMERY WATSON, 1994
	SOIL BORING LOCATION, MONTGOMERY WATSON, 1996
	HYDRAULIC PROBE LOCATION, MONTGOMERY WATSON, 1996
	MONITORING WELL LOCATION, MONTGOMERY WATSON, 1995
	MONITORING WELL LOCATION, WARZYN, 1992
	SOIL BORING LOCATION, WARZYN, 1989
	SOIL SAMPLE LOCATION, MONTGOMERY WATSON, 1995
	SOIL BORING LOCATION, WARZYN, 1997
	MONITORING WELL LOCATION, WARZYN, 1994
	SOIL BORING LOCATION, WARZYN, 1994
	HYDRAULIC PROBE LOCATION, MONTGOMERY WATSON, 1998
	SOIL BORING LOCATION, MONTGOMERY WATSON, 1998
	SOIL BORING LOCATION, MONTGOMERY WATSON, 1995
	TEST PIT, WARZYN 1994
	CONFIRMATORY SOIL SAMPLE LOCATION, WARZYN, 1994
	CONFIRMATORY SOIL SAMPLE LOCATION, WARZYN, 1993
	SOIL BORING LOCATION, WARZYN, 1993
	SOIL BORING LOCATION, MONTGOMERY WATSON, 1995
	CONFIRMATORY SOIL SAMPLE LOCATION, MONTGOMERY WATSON, 1995
	SOIL BORING LOCATION, MONTGOMERY WATSON, UNKNOWN YEAR
	SOIL SAMPLE LOCATION, MONTGOMERY WATSON, 1997
	SOIL BORING LOCATION, MONTGOMERY WATSON, 1997
	SHALLOW MONITORING WELL LOCATION, CRA, 2011
	DEEP MONITORING WELL LOCATION, CRA, 2011
	SOIL BORING LOCATION, CRA, 2014
	SHALLOW MONITORING WELL LOCATION, CRA, 2014

NOTE:  
THIS FIGURE WAS PREVIOUSLY PRESENTED  
IN THE 2014 SIR AS FIGURE 2.6



**GM JANESVILLE ASSEMBLY PLANT  
JANESVILLE, WISCONSIN**

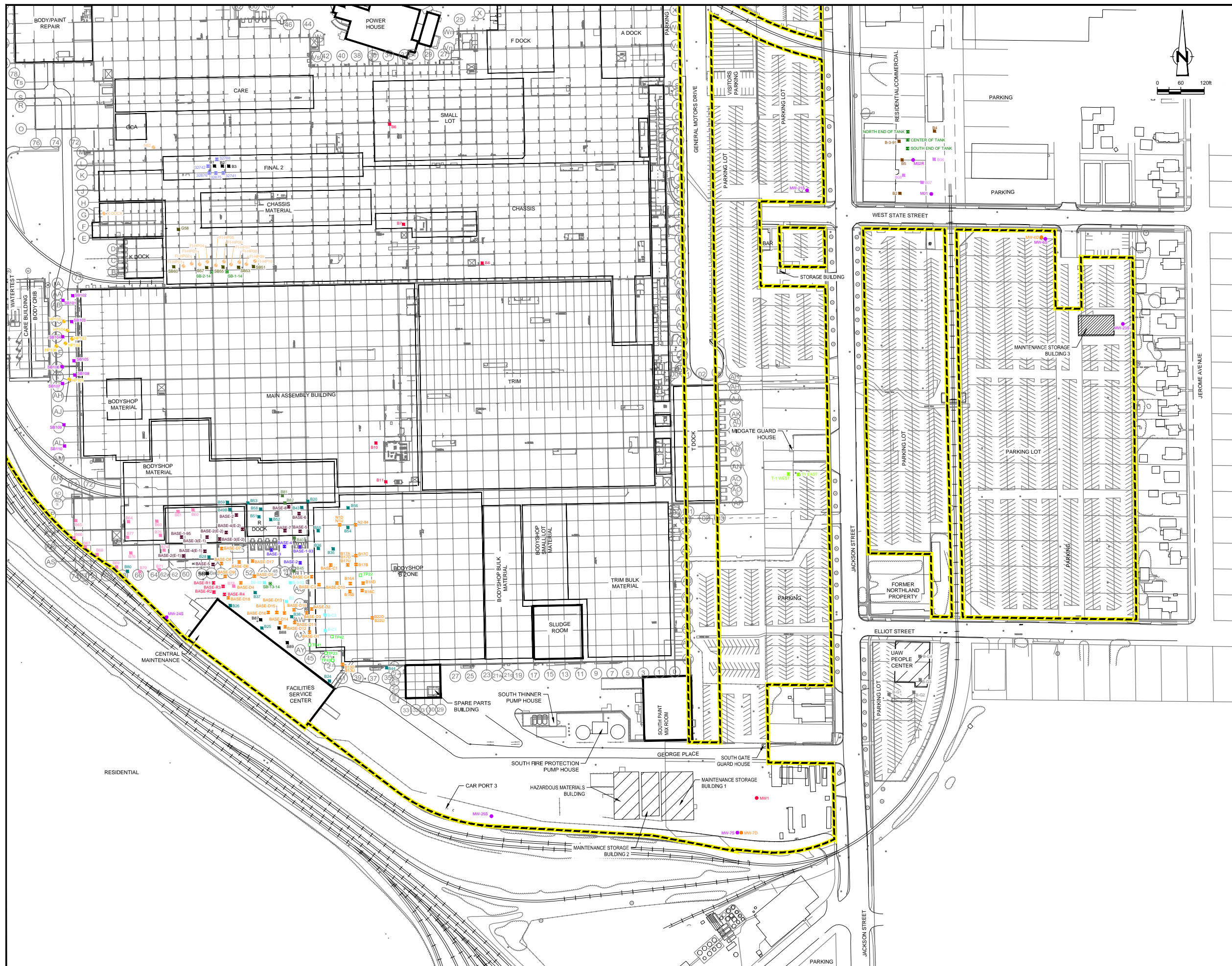
**HISTORICAL AND CURRENT  
SAMPLING LOCATIONS - WEST**

**GHD**

Source Reference:  
CSG JOB NUMBER: 1020101, FILE NAME: 10A05ASS.DWG, SHEETS 1 TO 10 OF 10,  
CROWN SERVICES GROUP, 03/09/2011.

Project Manager: J. CHARLTON	Reviewed By: J. CHARLTON	Date: DECEMBER 2014
Scale: AS SHOWN	Project No: 58505-01	Report No: 013
		Drawing No: figure 2.4





**LEGEND**

	PROPERTY BOUNDARY
	RAILROAD
	FENCE LINE
	MONITORING WELL LOCATION, WARZYN, 1988
	SOIL BORING LOCATION, LIESCH ASSOCIATES, 1991
	MONITORING WELL LOCATION, WARZYN, 1991
	SOIL BORING LOCATION, WARZYN, 1991
	CONFIRMATORY SOIL SAMPLE LOCATION, WARZYN, 1991
	CONFIRMATORY SOIL SAMPLE, MONTGOMERY WATSON, 1996
	SOIL BORING LOCATION, MONTGOMERY WATSON, 2007
	SOIL BORING LOCATION, MONTGOMERY WATSON, 1994
	CONFIRMATORY SOIL SAMPLE, MONTGOMERY WATSON, 1994
	SOIL BORING LOCATION, MONTGOMERY WATSON, 1996
	HYDRAULIC PROBE LOCATION, MONTGOMERY WATSON, 1996
	MONITORING WELL LOCATION, MONTGOMERY WATSON, 1995
	MONITORING WELL LOCATION, WARZYN, 1992
	SOIL BORING LOCATION, WARZYN, 1989
	SOIL SAMPLE LOCATION, MONTGOMERY WATSON, 1995
	SOIL BORING LOCATION, WARZYN, 1997
	MONITORING WELL LOCATION, WARZYN, 1994
	SOIL BORING LOCATION, WARZYN, 1994
	HYDRAULIC PROBE LOCATION, MONTGOMERY WATSON, 1998
	SOIL BORING LOCATION, MONTGOMERY WATSON, 1998
	SOIL BORING LOCATION, SOIL TESTING SERVICES, INC., 1971
	TEST PIT, WARZYN 1994
	CONFIRMATORY SOIL SAMPLE LOCATION, WARZYN, 1994
	CONFIRMATORY SOIL SAMPLE LOCATION, WARZYN, 1993
	SOIL BORING LOCATION, WARZYN, 1993
	SOIL BORING LOCATION, MONTGOMERY WATSON, 1995
	CONFIRMATORY SOIL SAMPLE LOCATION, MONTGOMERY WATSON, 1995
	SOIL BORING LOCATION, MONTGOMERY WATSON, UNKNOWN YEAR
	SOIL SAMPLE LOCATION, MONTGOMERY WATSON, 1997
	SOIL BORING LOCATION, MONTGOMERY WATSON, 1997
	SHALLOW MONITORING WELL LOCATION, CRA, 2011
	DEEP MONITORING WELL LOCATION, CRA, 2011
	SOIL BORING LOCATION, CRA, 2014
	SHALLOW MONITORING WELL LOCATION, CRA, 2014

NOTE:  
THIS FIGURE WAS PREVIOUSLY PRESENTED  
IN THE 2014 SIR AS FIGURE 2.7

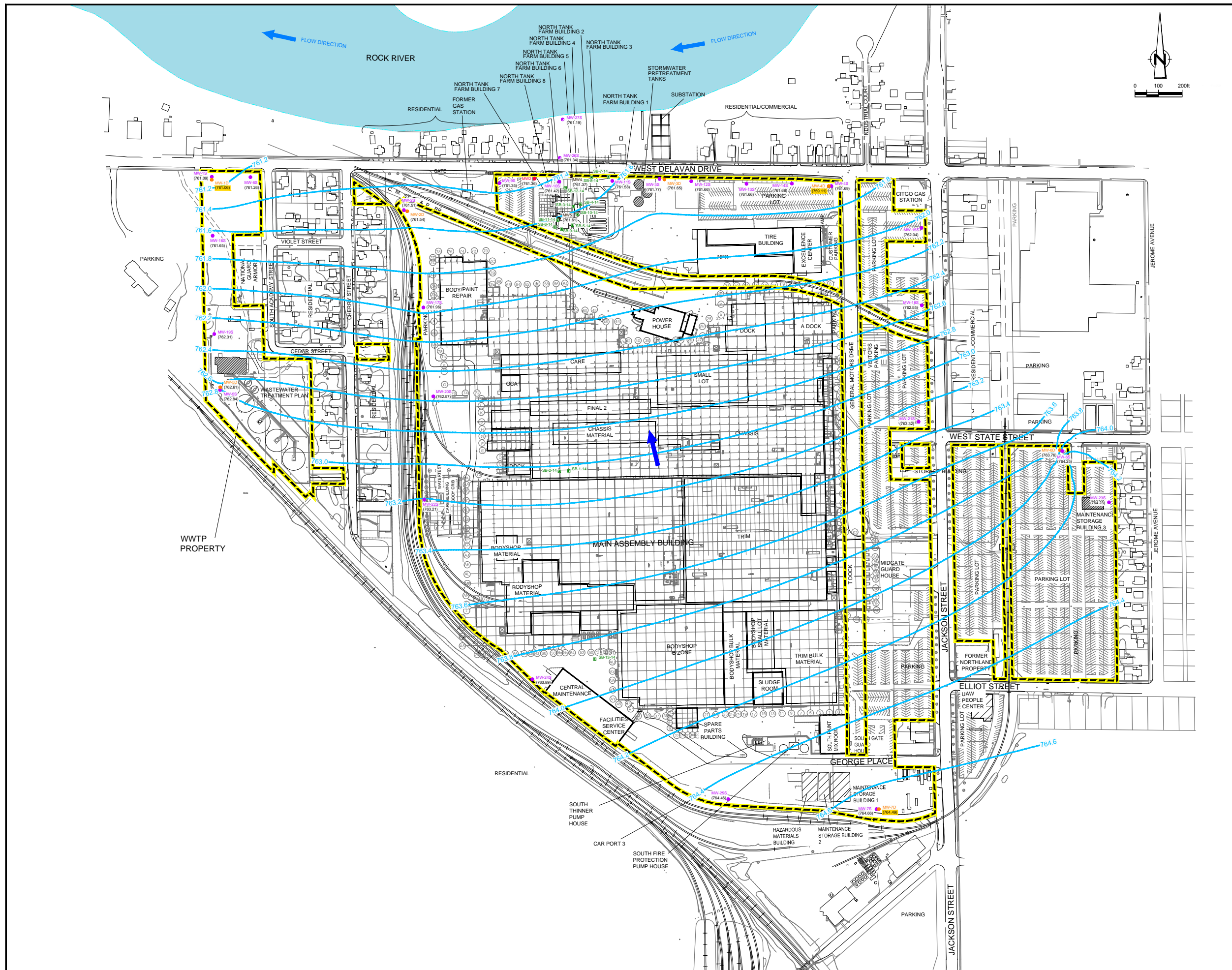
**SCALE VERIFICATION**  
THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

**GM JANESVILLE ASSEMBLY PLANT  
JANESVILLE, WISCONSIN**

**HISTORICAL AND CURRENT  
SAMPLING LOCATIONS - SOUTH**

Source Reference: CSG JOB NUMBER: 1020101, FILE NAME: 10A05ASS.DWG, SHEETS 1 TO 10 OF 10, CROWN SERVICES GROUP, 03/09/2011.			
Project Manager: J. CHARLTON	Reviewed By: J. CHARLTON	Date: DECEMBER 2014	
Scale: AS SHOWN	Project No: 58505-01	Report No: 013	Drawing No: figure 2.5





**LEGEND**

- PROPERTY BOUNDARY
- RAILROAD
- FENCE LINE
- MW1 MONITORING WELL LOCATION, WARZYN, 1988
- MW-15 SHALLOW MONITORING WELL LOCATION, CRA, 2011
- SB-1-14 DEEP MONITORING WELL LOCATION, CRA, 2011
- SB-1-14 SOIL BORING LOCATION, CRA, 2014
- MW-275 SHALLOW MONITORING WELL LOCATION, CRA, 2014
- MW4 MONITORING WELL LOCATION, WARZYN, 1994
- (764.33) GROUNDWATER ELEVATION (feet AMSL)
- 764.4 GROUNDWATER ELEVATION CONTOUR (feet AMSL)  
DASHED WHERE INFERRED
- RESULT NOT USED IN CONTOURING
- (NM) NOT MEASURED
- ▲ AMSL ABOVE MEAN SEA LEVEL
- GROUNDWATER FLOW DIRECTION MARCH 25, 2015

NOTE: WATER LEVELS WERE INADVERTENTLY COLLECTED FROM OFF-SITE WELLS MW-265 AND MW-275 DURING THE FIRST QUARTER.

**SCALE VERIFICATION**

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

**GM JANESVILLE ASSEMBLY PLANT  
JANESVILLE, WISCONSIN**

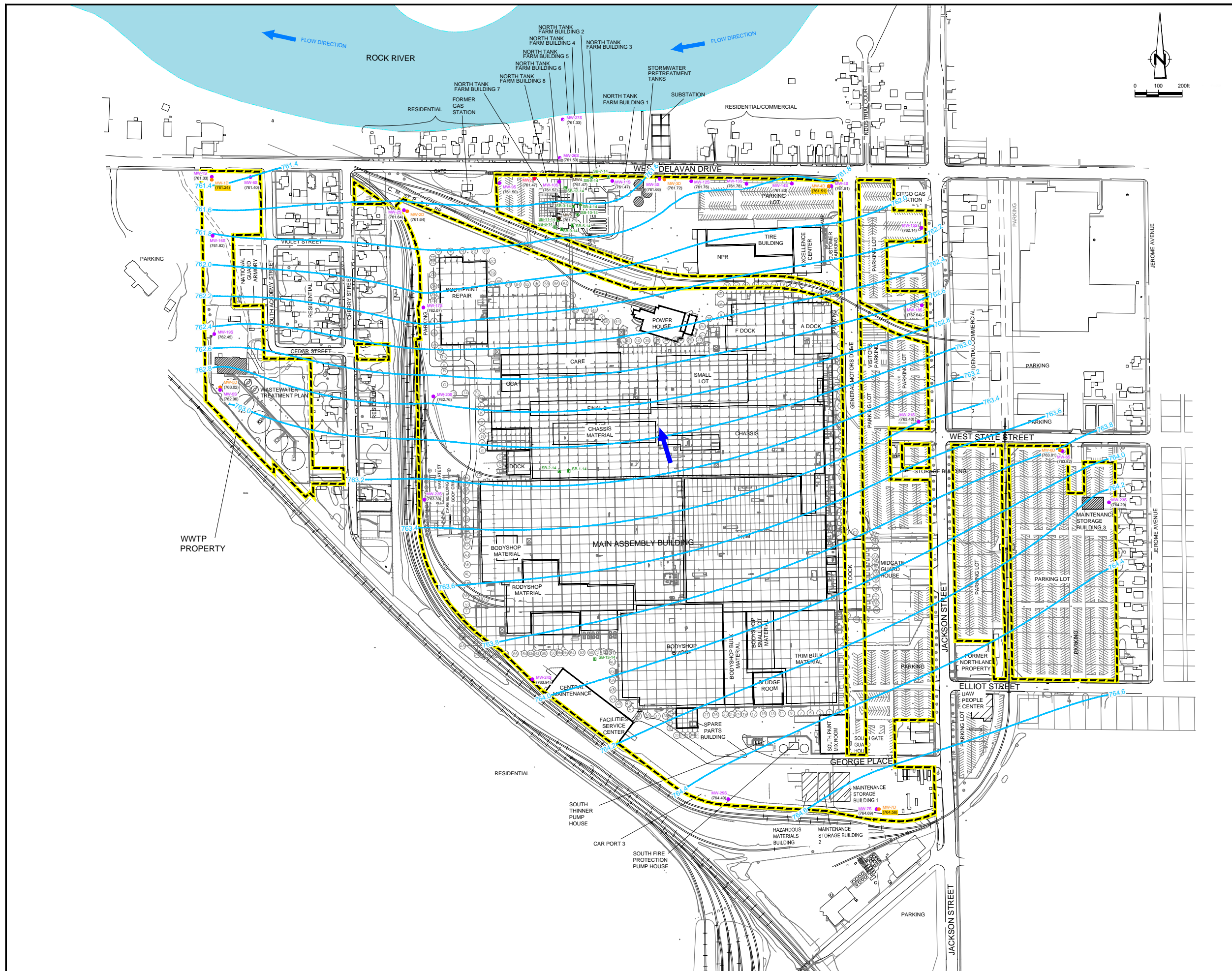
**GROUNDWATER CONTOURS  
MARCH 25, 2015**



Source Reference:  
CSG JOB NUMBER: 1020101, FILE NAME: 10A05AS5.DWG, SHEETS 1 TO 10 OF 10,  
CROWN SERVICES GROUP, 03/09/2011.

Project Manager:	Reviewed By:	Date:	
J. CHARLTON	J. CHARLTON	DECEMBER 2015	
Scale:	Project No.:	Report No.:	Drawing No.:
AS SHOWN	58505-01	013	figure 4.1





**LEGEND**

- PROPERTY BOUNDARY
- RAILROAD
- FENCE LINE
- MW1 MONITORING WELL LOCATION, WARZYN, 1988
- MW-15 SHALLOW MONITORING WELL LOCATION, CRA, 2011
- MW-1D DEEP MONITORING WELL LOCATION, CRA, 2011
- SB-1-14 SOIL BORING LOCATION, CRA, 2014
- MW-275 SHALLOW MONITORING WELL LOCATION, CRA, 2014
- MW4 MONITORING WELL LOCATION, WARZYN, 1994
- (761.83) GROUNDWATER ELEVATION (feet AMSL)
- 764.4 GROUNDWATER ELEVATION CONTOUR (feet AMSL) DASHED WHERE INFERRED
- RESULT NOT USED IN CONTOURING
- (NM) NOT MEASURED
- AMSL ABOVE MEAN SEA LEVEL
- GROUNDWATER FLOW DIRECTION JUNE 1, 2015

NOTE: WATER LEVELS WERE INADVERTENTLY COLLECTED FROM OFF-SITE WELLS MW-265 AND MW-275 DURING THE SECOND QUARTER.

**SCALE VERIFICATION**

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

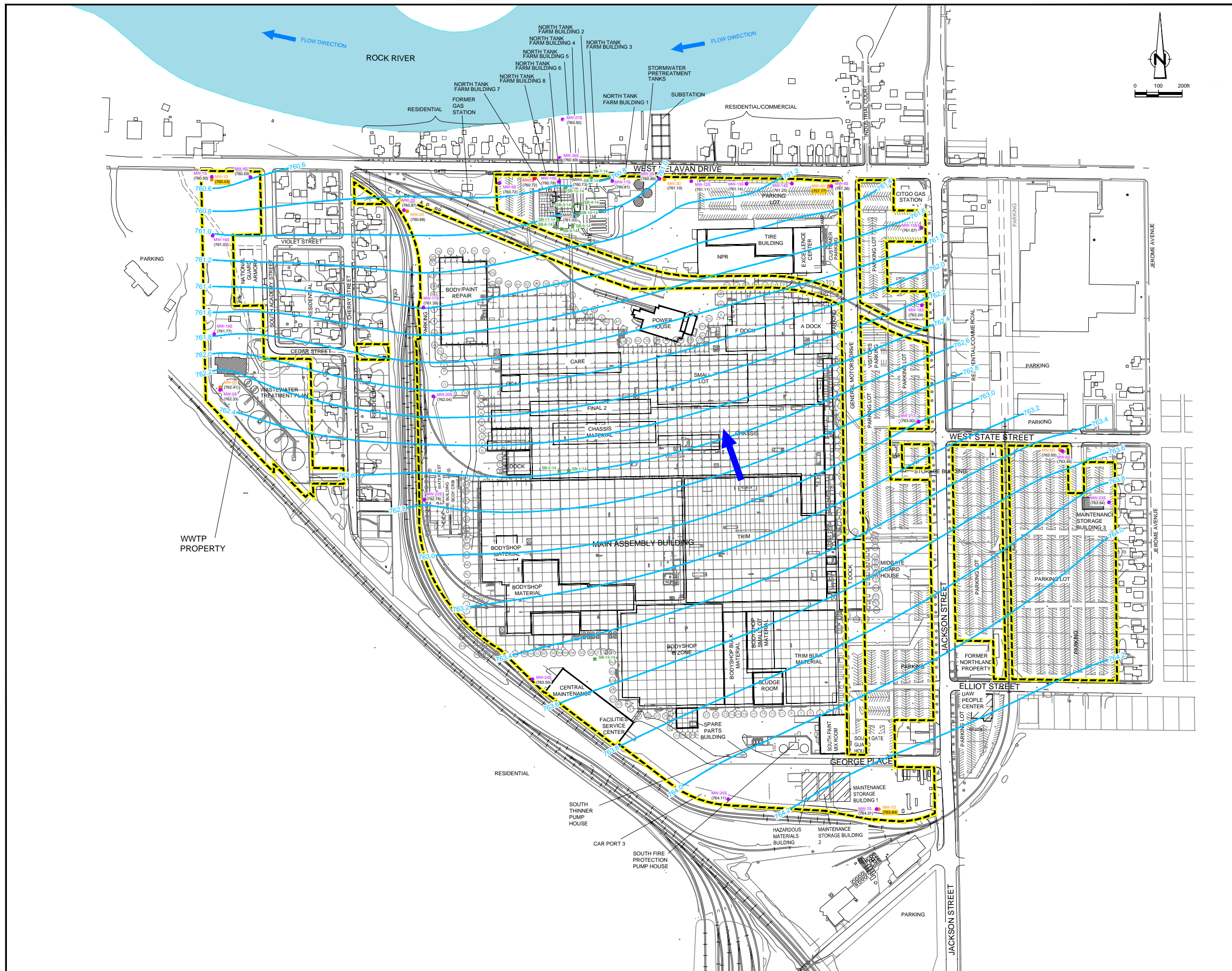
**GM JANESVILLE ASSEMBLY PLANT  
JANESVILLE, WISCONSIN**

**GROUNDWATER CONTOURS  
JUNE 1, 2015**

Source Reference:  
CSG JOB NUMBER: 1020101, FILE NAME: 10A05AS5.DWG, SHEETS 1 TO 10 OF 10, CROWN SERVICES GROUP, 03/09/2011.

Project Manager: J. CHARLTON	Reviewed By: J. CHARLTON	Date: DECEMBER 2015
Scale: AS SHOWN	Project No.: 58505-01	Report No.: 013
		Drawing No.: figure 4.2





- LEGEND**
- PROPERTY BOUNDARY
  - RAILROAD
  - FENCE LINE
  - MONITORING WELL LOCATION, WARZYN, 1988
  - SHALLOW MONITORING WELL LOCATION, CRA, 2011
  - DEEP MONITORING WELL LOCATION, CRA, 2011
  - SOIL BORING LOCATION, CRA, 2014
  - SHALLOW MONITORING WELL LOCATION, CRA, 2014
  - MONITORING WELL LOCATION, WARZYN, 1994
  - GROUNDWATER ELEVATION (feet AMSL)
  - GROUNDWATER ELEVATION CONTOUR (feet AMSL)  
DASHED WHERE INFERRED
  - RESULT NOT USED IN CONTOURING
  - NOT MEASURED
  - AMSL
  - GROUNDWATER FLOW DIRECTION AUGUST 24, 2015

**SCALE VERIFICATION**  
THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

**GM JANESVILLE ASSEMBLY PLANT  
JANESVILLE, WISCONSIN**

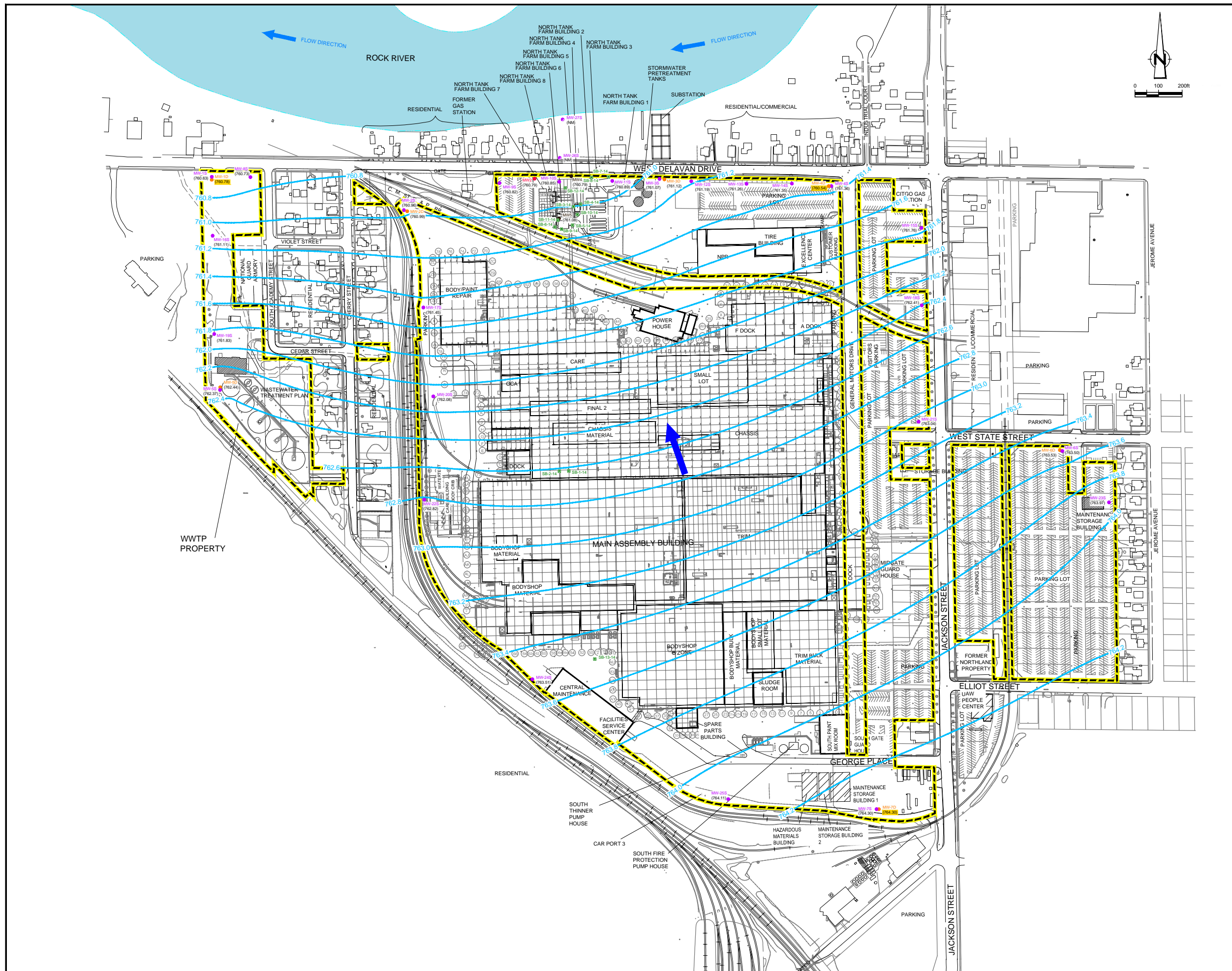
**GROUNDWATER CONTOURS  
AUGUST 24, 2015**



Source Reference:  
CSG JOB NUMBER: 1020101, FILE NAME: 10A05AS5.DWG, SHEETS 1 TO 10 OF 10,  
CROWN SERVICES GROUP, 03/09/2011.

Project Manager: J. CHARLTON	Reviewed By: J. CHARLTON	Date: DECEMBER 2015
Scale: AS SHOWN	Project No.: 58505-01	Report No.: 013
		Drawing No.: figure 4.3





**LEGEND**

- PROPERTY BOUNDARY
- RAILROAD
- FENCE LINE
- MW1 MONITORING WELL LOCATION, WARZYN, 1988
- MW-15 SHALLOW MONITORING WELL LOCATION, CRA, 2011
- MW-10 DEEP MONITORING WELL LOCATION, CRA, 2011
- SB-1-14 SOIL BORING LOCATION, CRA, 2014
- MW-275 SHALLOW MONITORING WELL LOCATION, CRA, 2014
- MW4 MONITORING WELL LOCATION, WARZYN, 1994
- (761.76) GROUNDWATER ELEVATION (feet AMSL)
- 761.6 GROUNDWATER ELEVATION CONTOUR (feet AMSL)  
DASHED WHERE INFERRED
- RESULT NOT USED IN CONTOURING
- (NM) NOT MEASURED
- AMSL ABOVE MEAN SEA LEVEL
- GROUNDWATER FLOW DIRECTION OCTOBER 26, 2015

**SCALE VERIFICATION**

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

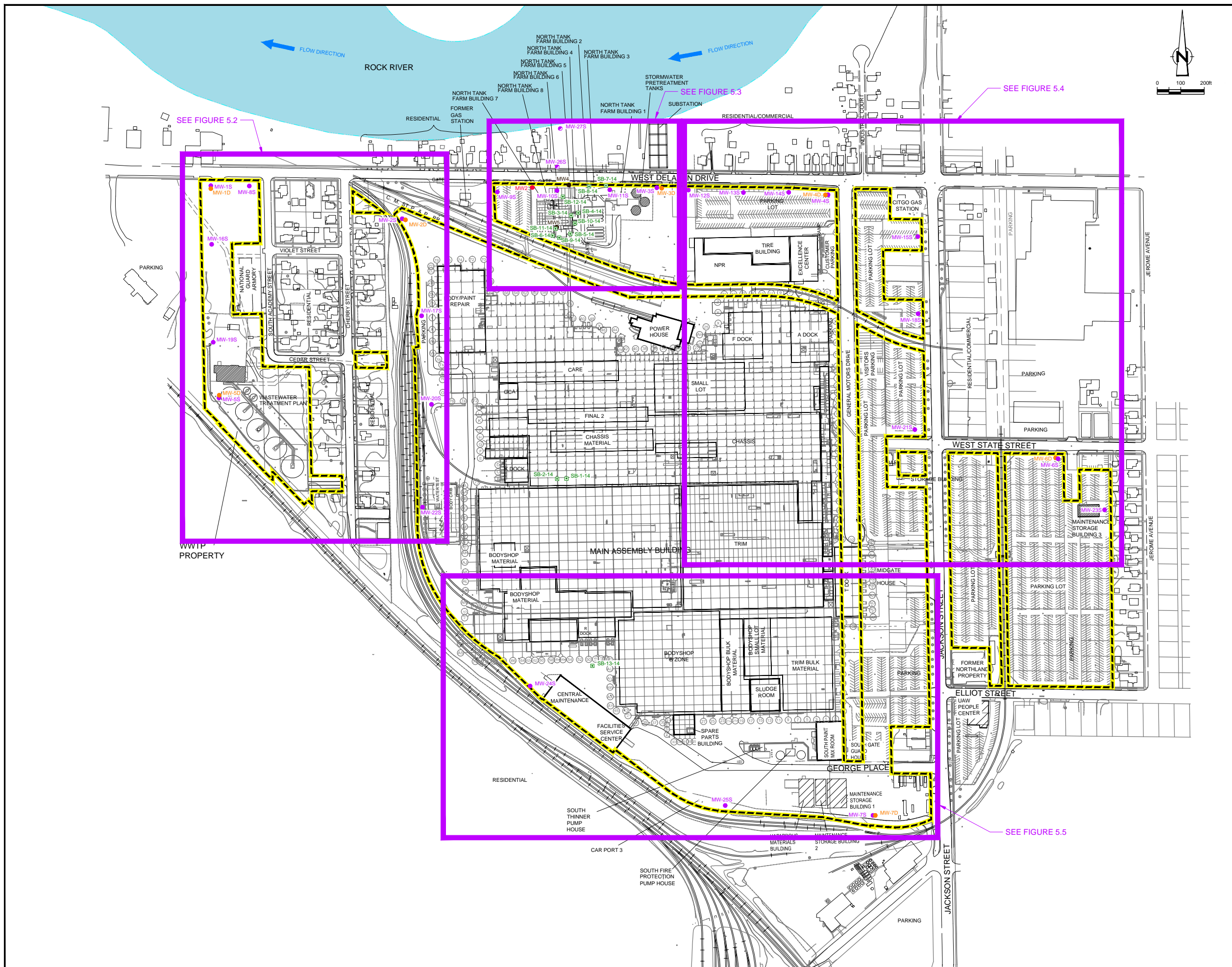
**GM JANESVILLE ASSEMBLY PLANT  
JANESVILLE, WISCONSIN**

**GROUNDWATER CONTOURS  
OCTOBER 26, 2015**

Source Reference:  
CSG JOB NUMBER: 1020101, FILE NAME: 10A05AS5.DWG, SHEETS 1 TO 10 OF 10,  
CROWN SERVICES GROUP, 03/09/2011.

Project Manager: J. CHARLTON	Reviewed By: J. CHARLTON	Date: DECEMBER 2015
Scale: AS SHOWN	Project No: 58505-01	Report No: 013
		Drawing No: figure 4.4





**LEGEND**

- PROPERTY BOUNDARY
- RAILROAD
- FENCE LINE
- MW4 MONITORING WELL LOCATION, WARZYN, 1994
- MW1 MONITORING WELL LOCATION, WARZYN, 1988
- MW1S SHALLOW MONITORING WELL LOCATION, CRA, 2011
- MW1D DEEP MONITORING WELL LOCATION, CRA, 2011
- MW27S SHALLOW MONITORING WELL LOCATION, CRA, 2014
- SB-1-14 SOIL BORING LOCATION, CRA, 2014

**SCALE VERIFICATION**

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

**GM JANESVILLE ASSEMBLY PLANT  
JANESVILLE, WISCONSIN**

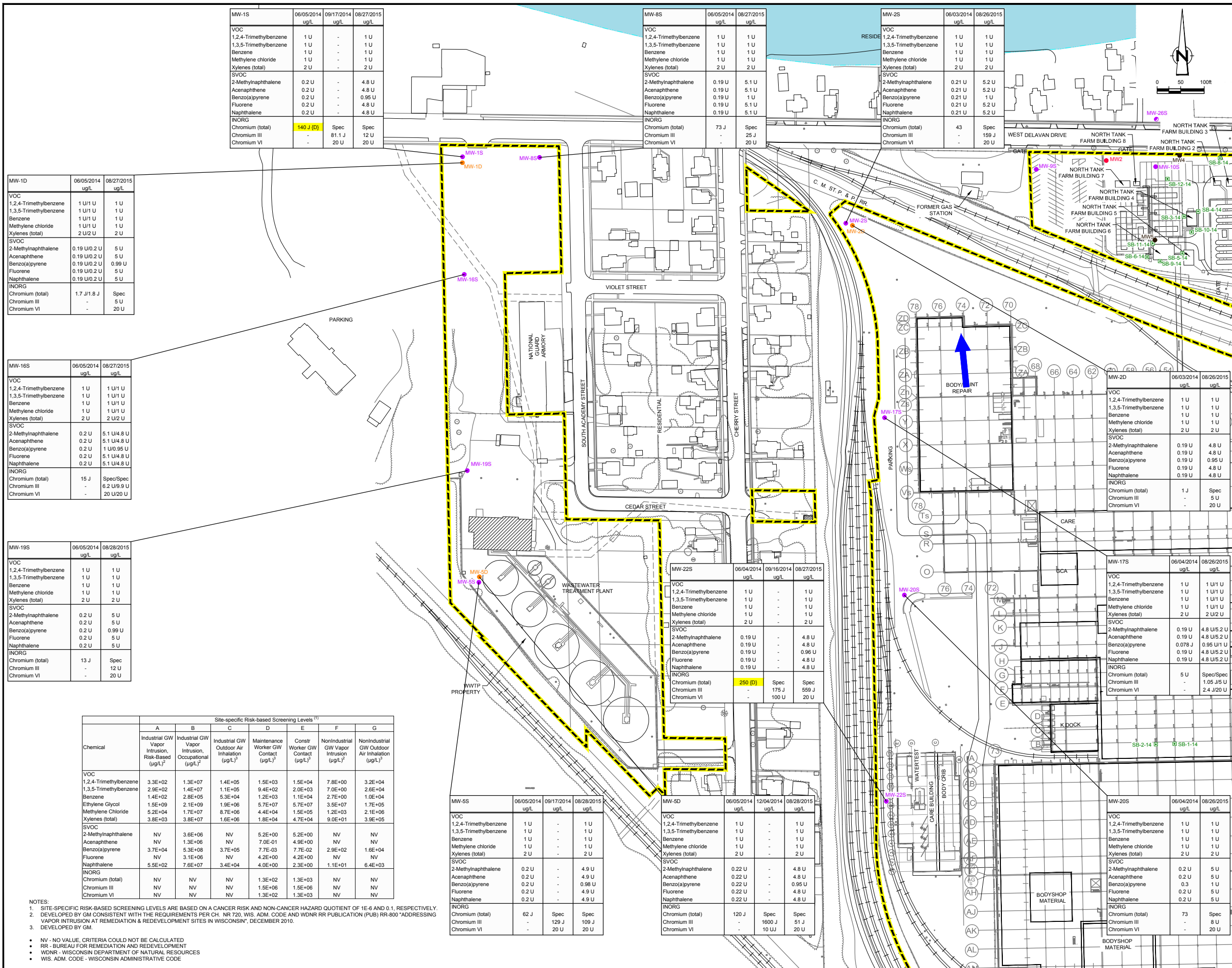
**SUMMARY OF GROUNDWATER ANALYTICAL  
RESULTS - SAMPLE LOCATIONS**

Source Reference:  
CSG JOB NUMBER: 1020101, FILE NAME: 10A05AS.DWG, SHEETS 1 TO 10 OF 10,  
CROWN SERVICES GROUP, 03/09/2011.

Project Manager: J. CHARLTON	Reviewed By: J. CHARLTON	Date: DECEMBER 2015
Scale: AS SHOWN	Project N°: 58505-01	Report N°: 013
		Drawing N°: figure 5.1

58505-01(013)GN-WA006 JAN 21, 2016





**LEGEND**

- PROPERTY BOUNDARY
- RAILROAD
- - - FENCE LINE
- MW4 MONITORING WELL LOCATION, WARZYN, 1994
- MW1 MONITORING WELL LOCATION, WARZYN, 1988
- MW1S SHALLOW MONITORING WELL LOCATION, CRA, 2011
- MW1D DEEP MONITORING WELL LOCATION, CRA, 2011
- MW-27S SHALLOW MONITORING WELL LOCATION, CRA, 2014
- SB-1-14 SOIL BORING LOCATION, CRA, 2014
- GROUNDWATER FLOW DIRECTION AUGUST 24, 2015
- 140 J (D) RESULT EXCEEDS CRITERIA INDICATED IN PARENTHESIS
- AN EXCEEDANCE IS INDICATED IF THE RATIO OF THE CONCENTRATION DETECTED TO THE CRITERIA VALUE IS GREATER THAN OR EQUAL TO 1.05 (CONSIDERING SIGNIFICANT DIGITS)
- NOT ANALYZED
- PARENT RESULT/DUPLICATE RESULT
- INORG INORGANIC (METALS)
- J APPROXIMATE VALUE
- ug/L MICROGRAMS PER LITER
- SVOC SEMI-VOLATILE ORGANIC COMPOUND
- U NOT PRESENT AT OR ABOVE THE ASSOCIATED VALUE
- UJ NOT DETECTED, ASSOCIATED REPORTING LIMIT IS ESTIMATED
- VOC VOLATILE ORGANIC COMPOUND
- Spec SEE SPECIATED CHROMIUM RESULTS

**TABLE: MW-19S**

PARAMETER	06/05/2014	08/28/2015
VOC		
1,2,4-Trimethylbenzene	1 U	1 U
1,3,5-Trimethylbenzene	1 U	1 U
Benzene	1 U	1 U
Methylene chloride	1 U	1 U
Xylenes (total)	2 U	2 U
SVOC		
2-Methylnaphthalene	0.2 U	5 U
Acenaphthene	0.2 U	5 U
Benzo(a)pyrene	0.2 U	0.99 U
Fluorene	0.2 U	5 U
Naphthalene	0.2 U	5 U
INORG		
Chromium (total)	13 J	Spec
Chromium III	-	12 U
Chromium VI	-	20 U

**TABLE: MW-19S (Detailed)**

PARAMETER	06/05/2014	08/28/2015
VOC		
1,2,4-Trimethylbenzene	1 U	1 U
1,3,5-Trimethylbenzene	1 U	1 U
Benzene	1 U	1 U
Methylene chloride	1 U	1 U
Xylenes (total)	2 U	2 U
SVOC		
2-Methylnaphthalene	0.2 U	5 U
Acenaphthene	0.2 U	5 U
Benzo(a)pyrene	0.2 U	0.99 U
Fluorene	0.2 U	5 U
Naphthalene	0.2 U	5 U
INORG		
Chromium (total)	13 J	Spec
Chromium III	-	12 U
Chromium VI	-	20 U

**SCALE VERIFICATION**

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

**GM JANESVILLE ASSEMBLY PLANT  
JANESVILLE, WISCONSIN**

**SUMMARY OF GROUNDWATER  
ANALYTICAL RESULTS - WEST**

**GHD**

Source Reference:  
CSG JOB NUMBER: 1020110, FILE NAME: 10A05ASS.DWG, SHEETS 1 TO 10 OF 10, CROWN SERVICES GROUP, 03/09/2011.

Project Manager: J. CHARLTON | Reviewed By: J. CHARLTON | Date: DECEMBER 2015

Scale: AS SHOWN | Project No: 58505-01 | Report No: 013 | Drawing No: figure 5.2

**TABLE: MW-1D**

PARAMETER	06/05/2014	08/27/2015
VOC		
1,2,4-Trimethylbenzene	1 U/1 U	1 U
1,3,5-Trimethylbenzene	1 U/1 U	1 U
Benzene	1 U/1 U	1 U
Methylene chloride	1 U/1 U	1 U
Xylenes (total)	2 U/2 U	2 U
SVOC		
2-Methylnaphthalene	0.19 U/0.2 U	5 U
Acenaphthene	0.19 U/0.2 U	5 U
Benzo(a)pyrene	0.19 U/0.2 U	0.99 U
Fluorene	0.19 U/0.2 U	5 U
Naphthalene	0.19 U/0.2 U	5 U
INORG		
Chromium (total)	1.7 J/1.8 J	Spec
Chromium III	-	5 U
Chromium VI	-	20 U

**TABLE: MW-16S**

PARAMETER	06/05/2014	08/27/2015
VOC		
1,2,4-Trimethylbenzene	1 U	1 U/1 U
1,3,5-Trimethylbenzene	1 U	1 U/1 U
Benzene	1 U	1 U/1 U
Methylene chloride	1 U	1 U/1 U
Xylenes (total)	2 U	2 U/2 U
SVOC		
2-Methylnaphthalene	0.2 U	5.1 U/4.8 U
Acenaphthene	0.2 U	5.1 U/4.8 U
Benzo(a)pyrene	0.2 U	1 U/0.95 U
Fluorene	0.2 U	5.1 U/4.8 U
Naphthalene	0.2 U	5.1 U/4.8 U
INORG		
Chromium (total)	15 J	Spec/Spec
Chromium III	-	6.2 U/9.9 U
Chromium VI	-	20 U/20 U

**TABLE: MW-19S**

PARAMETER	06/05/2014	08/28/2015
VOC		
1,2,4-Trimethylbenzene	1 U	1 U
1,3,5-Trimethylbenzene	1 U	1 U
Benzene	1 U	1 U
Methylene chloride	1 U	1 U
Xylenes (total)	2 U	2 U
SVOC		
2-Methylnaphthalene	0.2 U	5 U
Acenaphthene	0.2 U	5 U
Benzo(a)pyrene	0.2 U	0.99 U
Fluorene	0.2 U	5 U
Naphthalene	0.2 U	5 U
INORG		
Chromium (total)	13 J	Spec
Chromium III	-	12 U
Chromium VI	-	20 U

**Table: Site-specific Risk-based Screening Levels<sup>(1)</sup>**

Chemical	Site-specific Risk-based Screening Levels <sup>(1)</sup>						
	A	B	C	D	E	F	G
VOC							
1,2,4-Trimethylbenzene	3.3E+02	1.3E+07	1.4E+05	1.5E+03	1.5E+04	7.8E+00	3.2E+04
1,3,5-Trimethylbenzene	2.9E+02	1.4E+07	1.1E+05	9.4E+02	2.0E+03	7.0E+00	2.6E+04
Benzene	1.4E+02	2.8E+05	5.3E+04	1.2E+03	1.1E+04	2.7E+00	1.0E+04
Ethylene Glycol	1.5E+09	2.1E+09	1.9E+08	5.7E+07	5.7E+07	3.5E+07	1.7E+05
Methylene Chloride	5.2E+04	1.7E+07	8.7E+06	4.4E+04	1.5E+05	1.2E+03	2.1E+06
Xylenes (total)	3.8E+03	3.8E+07	1.6E+06	1.8E+04	4.7E+04	9.0E+01	3.9E+05
SVOC							
2-Methylnaphthalene	NV	3.6E+06	NV	5.2E+00	5.2E+00	NV	NV
Acenaphthene	NV	1.3E+06	NV	7.0E-61	4.9E+00	NV	NV
Benzo(a)pyrene	3.7E+04	5.3E+08	3.7E+05	7.7E-63	7.7E-62	2.9E+02	1.6E+04
Fluorene	NV	3.1E+06	NV	4.2E+00	4.2E+00	NV	NV
Naphthalene	5.5E+02	7.6E+07	3.4E+04	4.0E+00	2.3E+00	1.1E+01	6.4E+03
INORG							
Chromium (total)	NV	NV	NV	1.3E+02	1.3E+03	NV	NV
Chromium III	NV	NV	NV	1.5E+06	1.5E+06	NV	NV
Chromium VI	NV	NV	NV	1.3E+02	1.3E+03	NV	NV

**NOTES:**

- SITE-SPECIFIC RISK-BASED SCREENING LEVELS ARE BASED ON A CANCER RISK AND NON-CANCER HAZARD QUOTIENT OF 1E-6 AND 0.1, RESPECTIVELY.
- DEVELOPED BY GM CONSISTENT WITH THE REQUIREMENTS PER CH. NR 720, WIS. ADM. CODE AND WDNR RR PUBLICATION (PUB) RR-800 "ADDRESSING VAPOR INTRUSION AT REMEDIATION & REDEVELOPMENT SITES IN WISCONSIN", DECEMBER 2010.
- DEVELOPED BY GM.

- NV - NO VALUE, CRITERIA COULD NOT BE CALCULATED
- RR - BUREAU FOR REMEDIATION AND REDEVELOPMENT
- WDNR - WISCONSIN DEPARTMENT OF NATURAL RESOURCES
- WIS. ADM. CODE - WISCONSIN ADMINISTRATIVE CODE

**TABLE: MW-5S**

PARAMETER	06/05/2014	09/17/2014	08/28/2015
VOC			
1,2,4-Trimethylbenzene	1 U	-	1 U
1,3,5-Trimethylbenzene	1 U	-	1 U
Benzene	1 U	-	1 U
Methylene chloride	1 U	-	1 U
Xylenes (total)	2 U	-	2 U
SVOC			
2-Methylnaphthalene	0.2 U	-	4.9 U
Acenaphthene	0.2 U	-	4.9 U
Benzo(a)pyrene	0.2 U	-	0.98 U
Fluorene	0.2 U	-	4.9 U
Naphthalene	0.2 U	-	4.9 U
INORG			
Chromium (total)	62 J	Spec	Spec
Chromium III	-	129 J	109 J
Chromium VI	-	20 U	20 U

**TABLE: MW-5D**

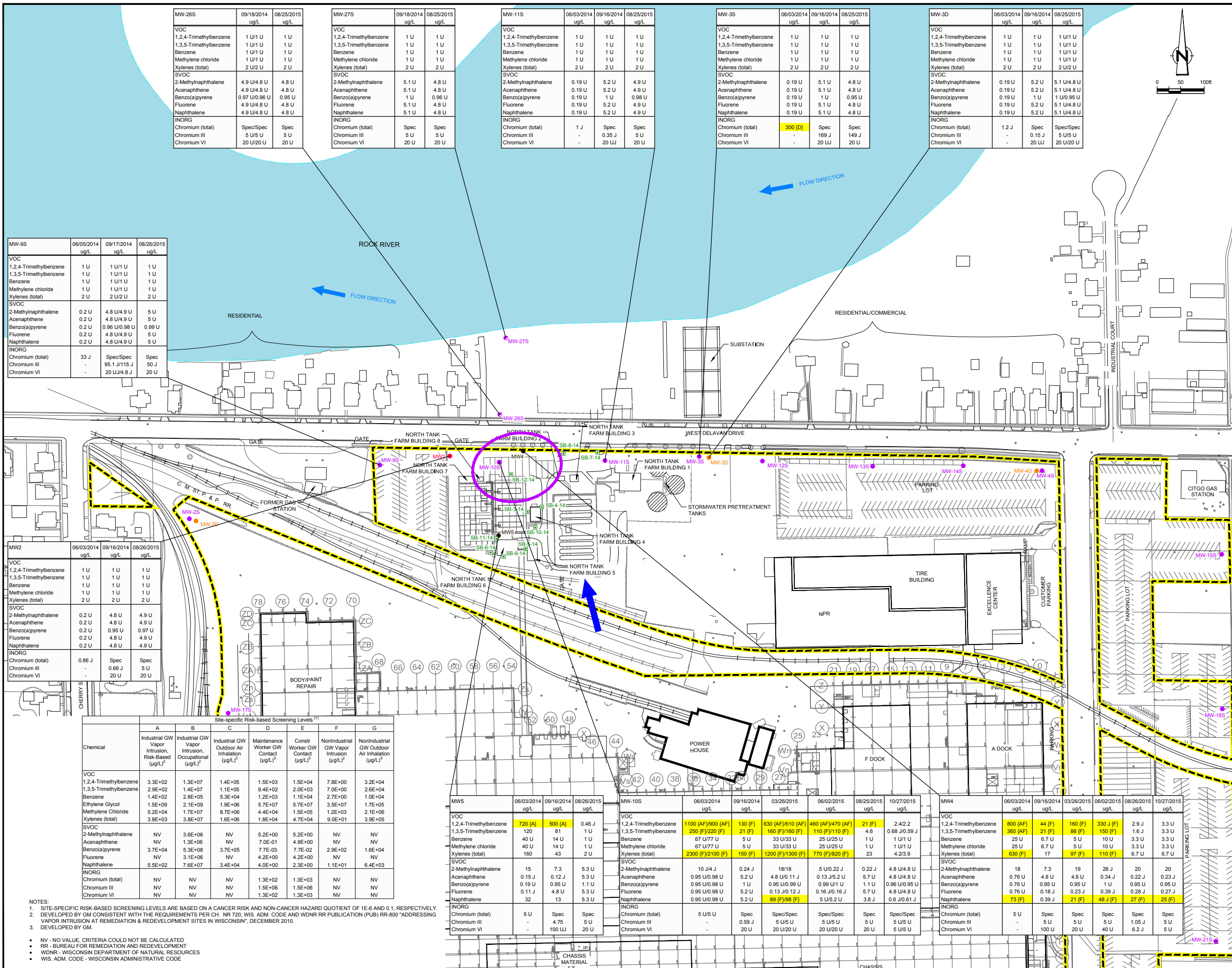
PARAMETER	06/05/2014	12/04/2014	08/28/2015
VOC			
1,2,4-Trimethylbenzene	1 U	-	1 U
1,3,5-Trimethylbenzene	1 U	-	1 U
Benzene	1 U	-	1 U
Methylene chloride	1 U	-	1 U
Xylenes (total)	2 U	-	2 U
SVOC			
2-Methylnaphthalene	0.22 U	-	4.8 U
Acenaphthene	0.22 U	-	4.8 U
Benzo(a)pyrene	0.22 U	-	0.95 U
Fluorene	0.22 U	-	4.8 U
Naphthalene	0.22 U	-	4.8 U
INORG			
Chromium (total)	120 J	Spec	Spec
Chromium III	-	1600 J	51 J
Chromium VI	-	10 U	20 U

**TABLE: MW-2D**

PARAMETER	06/03/2014	08/26/2015
VOC		
1,2,4-Trimethylbenzene	1 U	1 U
1,3,5-Trimethylbenzene	1 U	1 U
Benzene	1 U	1 U
Methylene chloride	1 U	1 U
Xylenes (total)	2 U	2 U
SVOC		
2-Methylnaphthalene	0.19 U	4.8 U
Acenaphthene	0.19 U	4.8 U
Benzo(a)pyrene	0.19 U	0.95 U
Fluorene	0.19 U	4.8 U
Naphthalene	0.19 U	4.8 U
INORG		
Chromium (total)	1 J	Spec
Chromium III	-	5 U
Chromium VI	-	20 U

**TABLE: MW-17S**

PARAMETER	06/04/2014	08/26/2015
VOC		
1,2,4-Trimethylbenzene	1 U	1 U/1 U
1,3,5-Trimethylbenzene	1 U	1 U/1 U
Benzene	1 U	1 U/1 U
Methylene chloride	1 U	1 U/1 U
Xylenes (total)	2 U	2 U/2 U
SVOC		
2-Methylnaphthalene	0.19 U	4.8 U/5.2 U
Acenaphthene	0.19 U	4.8 U/5.2 U
Benzo(a)pyrene	0.078 J	0.95 U/1 U
Fluorene	0.19 U	4.8 U/5.2 U
Naphthalene	0.19 U	4.8 U/5.2 U
INORG		
Chromium (total)	5 U	Spec/Spec
Chromium III	-	1.05 J/5 U
Chromium VI	-	2.4 J/20 U



**LEGEND**

- PROPERTY BOUNDARY
- RAILROAD
- FENCE LINE
- MW4 MONITORING WELL LOCATION, WARZYN, 1994
- MW1 MONITORING WELL LOCATION, WARZYN, 1988
- MW15 SHALLOW MONITORING WELL LOCATION, CRA, 2011
- MW1D DEEP MONITORING WELL LOCATION, CRA, 2011
- MW-27S SHALLOW MONITORING WELL LOCATION, CRA, 2014
- SB-1-14 SOIL BORING LOCATION, CRA, 2014
- 300 (D) GROUNDWATER FLOW DIRECTION AUGUST 24, 2015

RESULT EXCEEDS CRITERIA INDICATED IN PARENTHESES

AN EXCEEDANCE IS INDICATED IF THE RATIO OF THE CONCENTRATION DETECTED TO THE CRITERIA VALUE IS GREATER THAN OR EQUAL TO 1.05 (CONSIDERING SIGNIFICANT DIGITS)

NOT ANALYZED

PARENT RESULT/DUPLICATE RESULT

INORG INORGANIC (METALS)

J APPROXIMATE VALUE

ug/L MICROGRAMS PER LITER

SVOC SEMI-VOLATILE ORGANIC COMPOUND

U NOT PRESENT AT OR ABOVE THE ASSOCIATED VALUE

UJ NOT DETECTED; ASSOCIATED REPORTING LIMIT IS ESTIMATED

VOC VOLATILE ORGANIC COMPOUND

ES ENFORCEMENT STANDARD

PAL PREVENTIVE ACTION LIMIT

**SAMPLE IDENTIFIER**

MW-26S	09/18/2014	08/25/2015	DATE SAMPLE COLLECTED
VOC			
1,2,4-Trimethylbenzene	1 U/1 U	1 U	CONCENTRATION (ug/L)
1,3,5-Trimethylbenzene	1 U/1 U	1 U	
Benzene	1 U/1 U	1 U	
Methylene chloride	1 U/1 U	1 U	
Xylenes (total)	2 U/2 U	2 U	
SVOC			
2-Methylnaphthalene	4.9 U/4.8 U	4.8 U	
Acenaphthene	4.9 U/4.8 U	4.8 U	
Benzo(a)pyrene	0.97 U/0.96 U	0.95 U	
Fluorene	4.9 U/4.8 U	4.8 U	
Naphthalene	4.9 U/4.8 U	4.8 U	
INORG			
Chromium (total)	Spec/Spec	Spec	PARAMETER
Chromium III	5 U/5 U	5 U	
Chromium VI	20 U/20 U	20 U	

**SCALE VERIFICATION**

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

**GM JANESVILLE ASSEMBLY PLANT  
JANESVILLE, WISCONSIN**

**SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - NORTH CENTRAL**

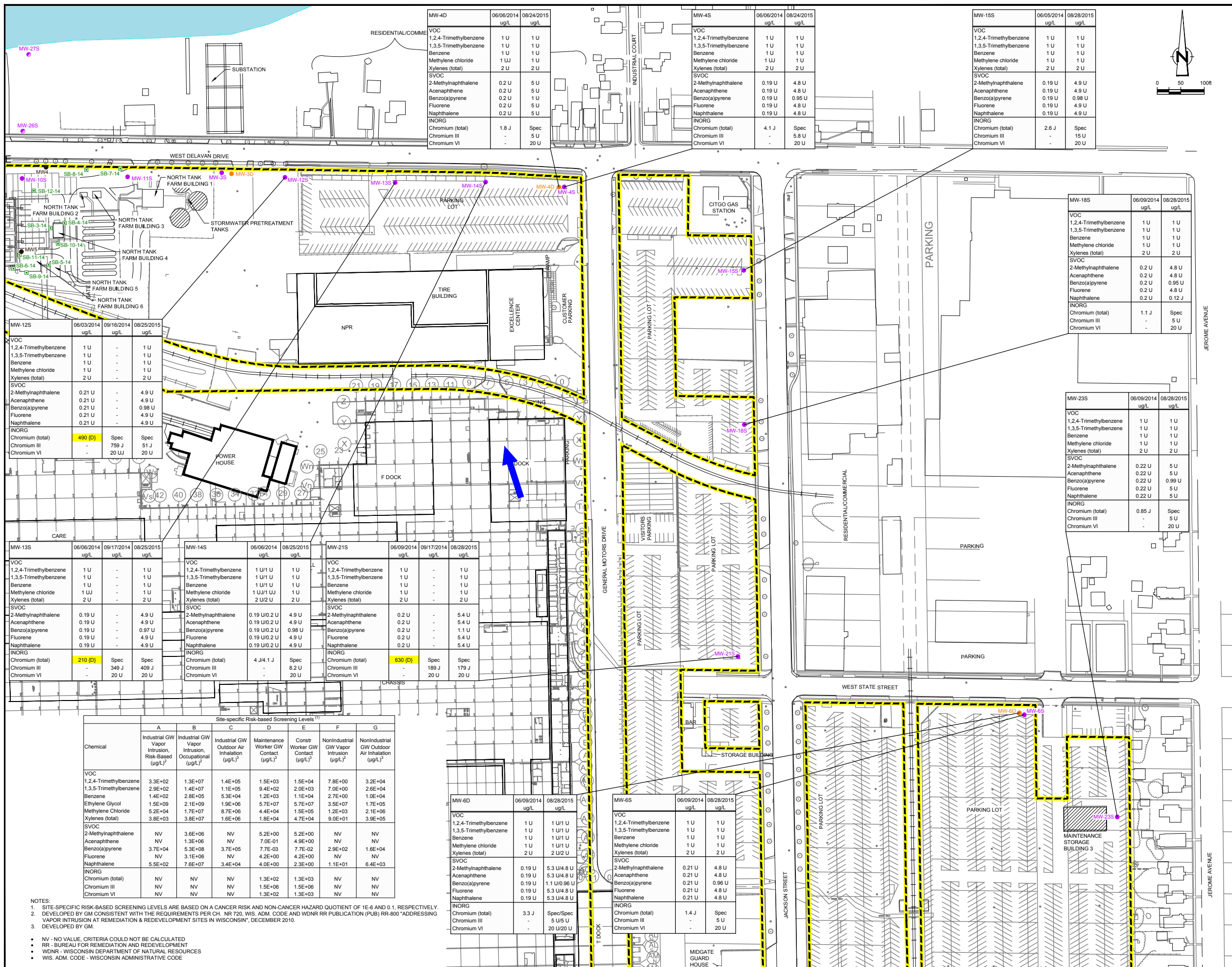
Chemical	A	B	C	D	E	F	G
VOC							
1,2,4-Trimethylbenzene	3.3E+02	1.3E+07	1.4E+05	1.5E+03	1.5E+04	7.8E+00	3.2E+04
1,3,5-Trimethylbenzene	2.9E+02	1.4E+07	1.1E+05	9.4E+02	2.0E+03	7.0E+00	2.6E+04
Benzene	1.4E+02	2.8E+05	5.3E+04	1.2E+03	1.1E+04	2.7E+00	1.0E+04
Methylene Glycol	1.5E+09	2.1E+09	1.9E+08	5.7E+07	5.7E+07	3.5E+07	1.7E+05
Methylene Chloride	5.2E+04	1.7E+07	8.7E+06	4.4E+04	1.5E+05	1.2E+03	2.1E+06
Xylenes (total)	3.8E+03	3.8E+07	1.6E+06	1.8E+04	4.7E+04	9.0E+01	3.9E+05
SVOC							
2-Methylnaphthalene	NV	3.6E+06	NV	5.2E+00	5.2E+00	NV	NV
Acenaphthene	NV	1.3E+06	NV	7.0E-01	4.9E+00	NV	NV
Benzo(a)pyrene	3.7E+04	5.3E+08	3.7E+05	7.7E-03	7.7E-02	2.9E+02	1.6E+04
Fluorene	NV	3.1E+06	NV	4.2E+00	4.2E+00	NV	NV
Naphthalene	5.5E+02	7.6E+07	3.4E+04	4.0E+00	2.3E+00	1.1E+01	6.4E+03
INORG							
Chromium (total)	NV	NV	NV	1.3E+02	1.3E+03	NV	NV
Chromium III	NV	NV	NV	1.5E+06	1.5E+06	NV	NV
Chromium VI	NV	NV	NV	1.3E+02	1.3E+03	NV	NV

NOTES:

- SITE-SPECIFIC RISK-BASED SCREENING LEVELS ARE BASED ON A CANCER RISK AND NON-CANCER HAZARD QUOTIENT OF 1E-6 AND 0.1, RESPECTIVELY.
- DEVELOPED BY GM CONSISTENT WITH THE REQUIREMENTS PER CH. NR 720, WIS. ADM. CODE AND WDNR RR PUBLICATION (PUB) RR-800 "ADDRESSING VAPOR INTRUSION AT REMEDIATION & REDEVELOPMENT SITES IN WISCONSIN", DECEMBER 2010.
- DEVELOPED BY GM.

- NV - NO VALUE, CRITERIA COULD NOT BE CALCULATED
- RR - BUREAU FOR REMEDIATION AND REDEVELOPMENT
- WDNR - WISCONSIN DEPARTMENT OF NATURAL RESOURCES
- WIS. ADM. CODE - WISCONSIN ADMINISTRATIVE CODE





**LEGEND**

- PROPERTY BOUNDARY
- RAILROAD
- - - FENCE LINE
- MW4 MONITORING WELL LOCATION, WARZYN, 1994
- MW1 MONITORING WELL LOCATION, WARZYN, 1988
- MW1S SHALLOW MONITORING WELL LOCATION, CRA, 2011
- MW1D DEEP MONITORING WELL LOCATION, CRA, 2011
- MW-27S SHALLOW MONITORING WELL LOCATION, CRA, 2014
- SB-1-14 SOIL BORING LOCATION, CRA, 2014
- GROUNDWATER FLOW DIRECTION AUGUST 24, 2015
- 630 (D) RESULT EXCEEDS CRITERIA INDICATED IN PARENTHESIS
- AN EXCEEDANCE IS INDICATED IF THE RATIO OF THE CONCENTRATION DETECTED TO THE CRITERIA VALUE IS GREATER THAN OR EQUAL TO 1.05 (CONSIDERING SIGNIFICANT DIGITS)
- NOT ANALYZED
- PARENT RESULT/DUPLICATE RESULT
- INORG INORGANIC (METALS)
- J APPROXIMATE VALUE
- ug/L MICROGRAMS PER LITER
- SVOC SEMI-VOLATILE ORGANIC COMPOUND
- U NOT PRESENT AT OR ABOVE THE ASSOCIATED VALUE
- UJ NOT DETECTED; ASSOCIATED REPORTING LIMIT IS ESTIMATED
- VOC VOLATILE ORGANIC COMPOUND
- Spec SEE SPECIATED CHROMIUM RESULTS

**TABLE 1: MONITORING WELL DATA**

Well ID	06/06/2014 ug/L	08/24/2015 ug/L
MW-4D	1 U	1 U
MW-4S	1 U	1 U
MW-15S	1 U	1 U

**TABLE 2: MONITORING WELL DATA**

Well ID	06/09/2014 ug/L	08/28/2015 ug/L
MW-18S	1 U	1 U
MW-23S	1 U	1 U

**TABLE 3: MONITORING WELL DATA**

Well ID	06/09/2014 ug/L	08/28/2015 ug/L
MW-23S	1 U	1 U
MW-23S	1 U	1 U

**TABLE 4: MONITORING WELL DATA**

Well ID	06/09/2014 ug/L	08/28/2015 ug/L
MW-23S	1 U	1 U
MW-23S	1 U	1 U

**SCALE VERIFICATION**  
THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

**GM JANESVILLE ASSEMBLY PLANT  
JANESVILLE, WISCONSIN**

**SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - EAST**

**GHD**

Source Reference:  
CSG JOB NUMBER: 1020110, FILE NAME: 10A05ASS.DWG, SHEETS 1 TO 10 OF 10, CROWN SERVICES GROUP, 03/09/2011.

Project Manager: J. CHARLTON | Reviewed By: J. CHARLTON | Date: DECEMBER 2015

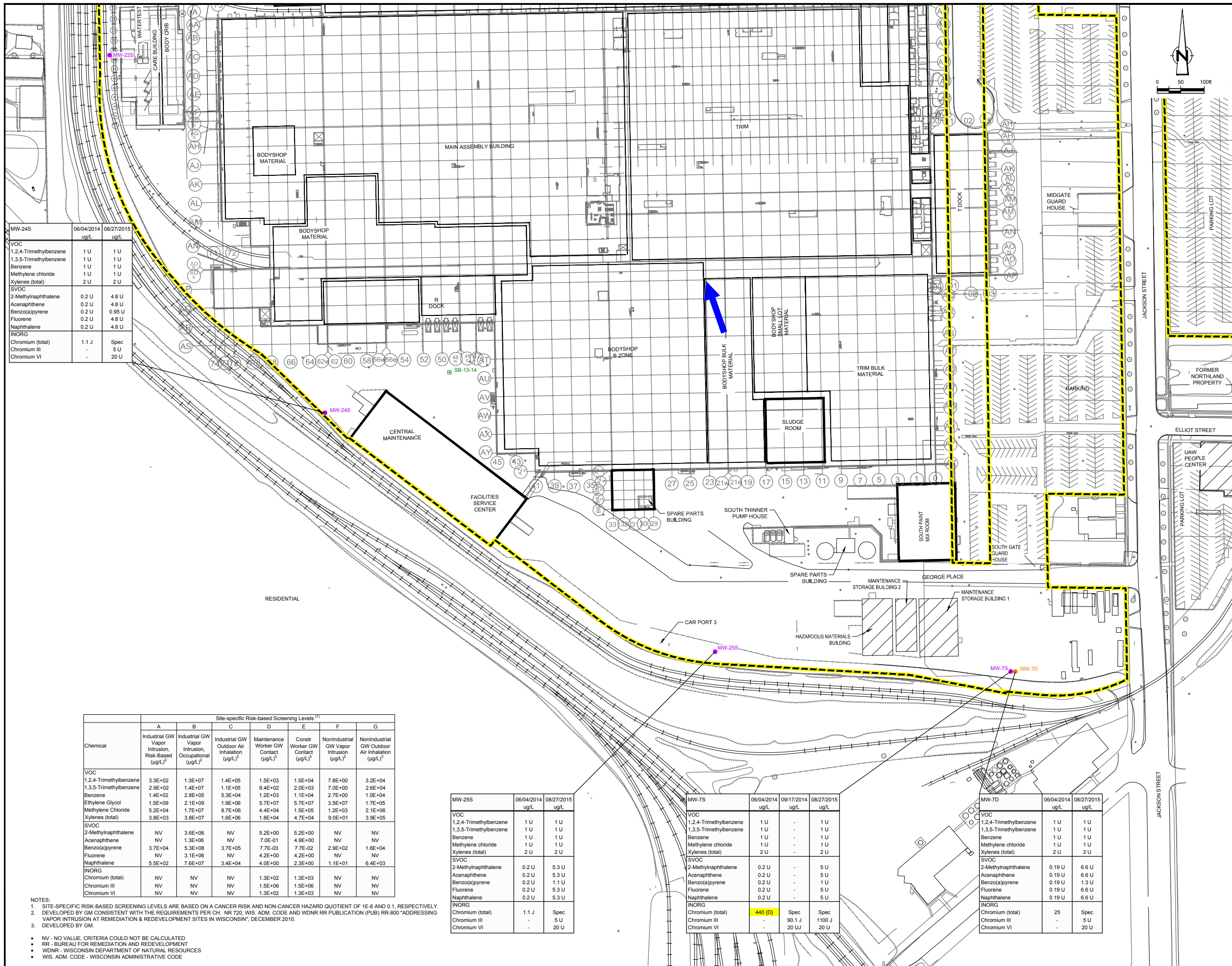
Scale: AS SHOWN | Project No: 58505-01 | Report No: 013 | Drawing No: figure 5.4

**Site-specific Risk-based Screening Levels<sup>(1)</sup>**

Chemical	A Industrial GW Vapor Intrusion, Risk-Based (µg/L) <sup>2</sup>	B Industrial GW Vapor Intrusion, Occupational (µg/L) <sup>2</sup>	C Industrial GW Outdoor Air Inhalation (µg/L) <sup>3</sup>	D Maintenance Worker GW Contact (µg/L) <sup>3</sup>	E Constr Worker GW Contact (µg/L) <sup>3</sup>	F Nonindustrial GW Vapor Intrusion (µg/L) <sup>2</sup>	G Nonindustrial GW Outdoor Air Inhalation (µg/L) <sup>3</sup>
VOC							
1,2,4-Trimethylbenzene	3.3E+02	1.3E+07	1.4E+05	1.5E+03	1.5E+04	7.8E+00	3.2E+04
1,3,5-Trimethylbenzene	2.9E+02	1.4E+07	1.1E+05	9.4E+02	2.0E+03	7.0E+00	2.6E+04
Benzene	1.4E+02	2.8E+05	5.3E+04	1.2E+03	1.1E+04	2.7E+00	1.0E+04
Ethylene Glycol	1.5E+09	2.1E+09	1.9E+08	5.7E+07	5.7E+07	3.5E+07	1.7E+05
Methylene Chloride	5.2E+04	1.7E+07	8.7E+06	4.4E+04	1.5E+05	1.2E+03	2.1E+06
Xylenes (total)	3.8E+03	3.9E+07	1.6E+06	1.8E+04	4.7E+04	9.0E+01	3.9E+05
SVOC							
2-Methylnaphthalene	NV	3.6E+06	NV	5.2E+00	5.2E+00	NV	NV
Acenaphthene	NV	1.3E+06	NV	7.0E-01	4.9E+00	NV	NV
Benzo(a)pyrene	3.7E+04	5.3E+08	3.7E+05	7.7E-03	7.7E-02	2.9E+02	1.6E+04
Fluorene	3.1E+06	NV	NV	4.2E+00	4.2E+00	NV	NV
Naphthalene	5.5E+02	7.6E+07	3.4E+04	4.0E+00	2.3E+00	1.1E+01	6.4E+03
INORG							
Chromium (total)	NV	NV	NV	1.3E+02	1.3E+03	NV	NV
Chromium III	NV	NV	NV	1.5E+06	1.5E+06	NV	NV
Chromium VI	NV	NV	NV	1.3E+02	1.3E+03	NV	NV

NOTES:  
1. SITE-SPECIFIC RISK-BASED SCREENING LEVELS ARE BASED ON A CANCER RISK AND NON-CANCER HAZARD QUOTIENT OF 1E-6 AND 0.1, RESPECTIVELY.  
2. DEVELOPED BY GM CONSISTENT WITH THE REQUIREMENTS PER CH. NR 720, WIS. ADM. CODE AND WDNR RR PUBLICATION (PUB) RR-800 "ADDRESSING VAPOR INTRUSION AT REMEDIATION & REDEVELOPMENT SITES IN WISCONSIN", DECEMBER 2010.  
3. DEVELOPED BY GM.





**LEGEND**

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- 440 (D) RESULT "EXCEEDS" CRITERIA INDICATED IN PARENTHESIS
- AN EXCEEDANCE IS INDICATED IF THE RATIO OF THE CONCENTRATION DETECTED TO THE CRITERIA VALUE IS GREATER THAN OR EQUAL TO 1.05 (CONSIDERING SIGNIFICANT DIGITS)
- NOT ANALYZED
- INORG INORGANIC (METALS)
- J APPROXIMATE VALUE
- ug/L MICROGRAMS PER LITER
- SVOC SEMI-VOLATILE ORGANIC COMPOUND
- U NOT PRESENT AT OR ABOVE THE ASSOCIATED VALUE
- UJ NOT DETECTED; ASSOCIATED REPORTING LIMIT IS ESTIMATED
- VOC VOLATILE ORGANIC COMPOUND
- Spec SEE SPECIATED CHROMIUM RESULTS

**MW-24S**

	06/04/2014	08/27/2015
	ug/L	ug/L
VOC		
1,2,4-Trimethylbenzene	1 U	1 U
1,3,5-Trimethylbenzene	1 U	1 U
Benzene	1 U	1 U
Methylene chloride	1 U	1 U
Xylenes (total)	2 U	2 U
SVOC		
2-Methylnaphthalene	0.2 U	4.8 U
Acenaphthene	0.2 U	4.8 U
Benzo(a)pyrene	0.2 U	0.95 U
Fluorene	0.2 U	4.8 U
Naphthalene	0.2 U	4.8 U
INORG		
Chromium (total)	1.1 J	Spec
Chromium III	-	5 U
Chromium VI	-	20 U

**MW-25S**

	06/04/2014	08/27/2015
	ug/L	ug/L
VOC		
1,2,4-Trimethylbenzene	1 U	1 U
1,3,5-Trimethylbenzene	1 U	1 U
Benzene	1 U	1 U
Methylene chloride	1 U	1 U
Xylenes (total)	2 U	2 U
SVOC		
2-Methylnaphthalene	0.2 U	5.3 U
Acenaphthene	0.2 U	5.3 U
Benzo(a)pyrene	0.2 U	1.1 U
Fluorene	0.2 U	5.3 U
Naphthalene	0.2 U	5.3 U
INORG		
Chromium (total)	1.1 J	Spec
Chromium III	-	5 U
Chromium VI	-	20 U

**MW-24S**

	06/04/2014	08/27/2015
	ug/L	ug/L
VOC		
1,2,4-Trimethylbenzene	1 U	1 U
1,3,5-Trimethylbenzene	1 U	1 U
Benzene	1 U	1 U
Methylene chloride	1 U	1 U
Xylenes (total)	2 U	2 U
SVOC		
2-Methylnaphthalene	0.2 U	4.8 U
Acenaphthene	0.2 U	4.8 U
Benzo(a)pyrene	0.2 U	0.95 U
Fluorene	0.2 U	4.8 U
Naphthalene	0.2 U	4.8 U
INORG		
Chromium (total)	1.1 J	Spec
Chromium III	-	5 U
Chromium VI	-	20 U

**Site-specific Risk-based Screening Levels<sup>(1)</sup>**

Chemical	Site-specific Risk-based Screening Levels <sup>(1)</sup>						
	A	B	C	D	E	F	G
Industrial GW Vapor Intrusion, Risk-Based (µg/L) <sup>2</sup>							
Industrial GW Vapor Intrusion, Occupational (µg/L) <sup>2</sup>							
Industrial GW Outdoor Air Inhalation (µg/L) <sup>2</sup>							
Maintenance Worker GW Contact (µg/L) <sup>2</sup>							
Constr Worker GW Contact (µg/L) <sup>2</sup>							
Nonindustrial GW Vapor Intrusion (µg/L) <sup>2</sup>							
Nonindustrial GW Outdoor Air Inhalation (µg/L) <sup>2</sup>							
VOC							
1,2,4-Trimethylbenzene	3.3E+02	1.3E+07	1.4E+05	1.5E+03	1.5E+04	7.8E+00	3.2E+04
1,3,5-Trimethylbenzene	2.9E+02	1.4E+07	1.1E+05	9.4E+02	2.0E+03	7.0E+00	2.6E+04
Benzene	1.4E+02	2.8E+05	5.3E+04	1.2E+03	1.1E+04	2.7E+00	1.0E+04
Ethylene Glycol	1.5E+09	2.1E+09	1.9E+08	5.7E+07	5.7E+07	3.5E+07	1.7E+05
Methylene Chloride	5.2E+04	1.7E+07	8.7E+06	4.4E+04	1.5E+05	1.2E+03	2.1E+06
Xylenes (total)	3.8E+03	3.8E+07	1.6E+06	1.8E+04	4.7E+04	9.0E+01	3.9E+05
SVOC							
2-Methylnaphthalene	NV	3.6E+06	NV	5.2E+00	5.2E+00	NV	NV
Acenaphthene	NV	1.3E+06	NV	7.0E-01	4.9E+00	NV	NV
Benzo(a)pyrene	3.7E+04	5.3E+08	3.7E+05	7.7E-03	7.7E-02	2.9E+02	1.6E+04
Fluorene	NV	3.1E+06	NV	4.2E+00	4.2E+00	NV	NV
Naphthalene	5.5E+02	7.6E+07	3.4E+04	4.0E+00	2.3E+00	1.1E+01	6.4E+03
INORG							
Chromium (total)	NV	NV	NV	1.3E+02	1.3E+03	NV	NV
Chromium III	NV	NV	NV	1.5E+06	1.5E+06	NV	NV
Chromium VI	NV	NV	NV	1.3E+02	1.3E+03	NV	NV

**MW-25S**

	06/04/2014	08/27/2015
	ug/L	ug/L
VOC		
1,2,4-Trimethylbenzene	1 U	1 U
1,3,5-Trimethylbenzene	1 U	1 U
Benzene	1 U	1 U
Methylene chloride	1 U	1 U
Xylenes (total)	2 U	2 U
SVOC		
2-Methylnaphthalene	0.2 U	5.3 U
Acenaphthene	0.2 U	5.3 U
Benzo(a)pyrene	0.2 U	1.1 U
Fluorene	0.2 U	5.3 U
Naphthalene	0.2 U	5.3 U
INORG		
Chromium (total)	1.1 J	Spec
Chromium III	-	5 U
Chromium VI	-	20 U

**MW-7S**

	06/04/2014	09/17/2014	08/27/2015
	ug/L	ug/L	ug/L
VOC			
1,2,4-Trimethylbenzene	1 U	-	1 U
1,3,5-Trimethylbenzene	1 U	-	1 U
Benzene	1 U	-	1 U
Methylene chloride	1 U	-	1 U
Xylenes (total)	2 U	-	2 U
SVOC			
2-Methylnaphthalene	0.2 U	-	5 U
Acenaphthene	0.2 U	-	5 U
Benzo(a)pyrene	0.2 U	-	1 U
Fluorene	0.2 U	-	5 U
Naphthalene	0.2 U	-	5 U
INORG			
Chromium (total)	440 (D)	Spec	Spec
Chromium III	-	90.1 J	1100 J
Chromium VI	-	20 UJ	20 U

**MW-7D**

	06/04/2014	08/27/2015
	ug/L	ug/L
VOC		
1,2,4-Trimethylbenzene	1 U	1 U
1,3,5-Trimethylbenzene	1 U	1 U
Benzene	1 U	1 U
Methylene chloride	1 U	1 U
Xylenes (total)	2 U	2 U
SVOC		
2-Methylnaphthalene	0.19 U	6.6 U
Acenaphthene	0.19 U	6.6 U
Benzo(a)pyrene	0.19 U	1.3 U
Fluorene	0.19 U	6.6 U
Naphthalene	0.19 U	6.6 U
INORG		
Chromium (total)	25	Spec
Chromium III	-	5 U
Chromium VI	-	20 U

**NOTES:**

- SITE-SPECIFIC RISK-BASED SCREENING LEVELS ARE BASED ON A CANCER RISK AND NON-CANCER HAZARD QUOTIENT OF 1E-6 AND 0.1, RESPECTIVELY.
- DEVELOPED BY GM CONSISTENT WITH THE REQUIREMENTS PER CH. NR 720, WIS. ADM. CODE AND WDNR RR PUBLICATION (PUB) RR-800 "ADDRESSING VAPOR INTRUSION AT REMEDIATION & REDEVELOPMENT SITES IN WISCONSIN", DECEMBER 2010.
- DEVELOPED BY GM.

- NV - NO VALUE, CRITERIA COULD NOT BE CALCULATED
- RR - BUREAU FOR REMEDIATION AND REDEVELOPMENT
- WDNR - WISCONSIN DEPARTMENT OF NATURAL RESOURCES
- WIS. ADM. CODE - WISCONSIN ADMINISTRATIVE CODE

**SCALE VERIFICATION**

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

**GM JANESVILLE ASSEMBLY PLANT  
JANESVILLE, WISCONSIN**

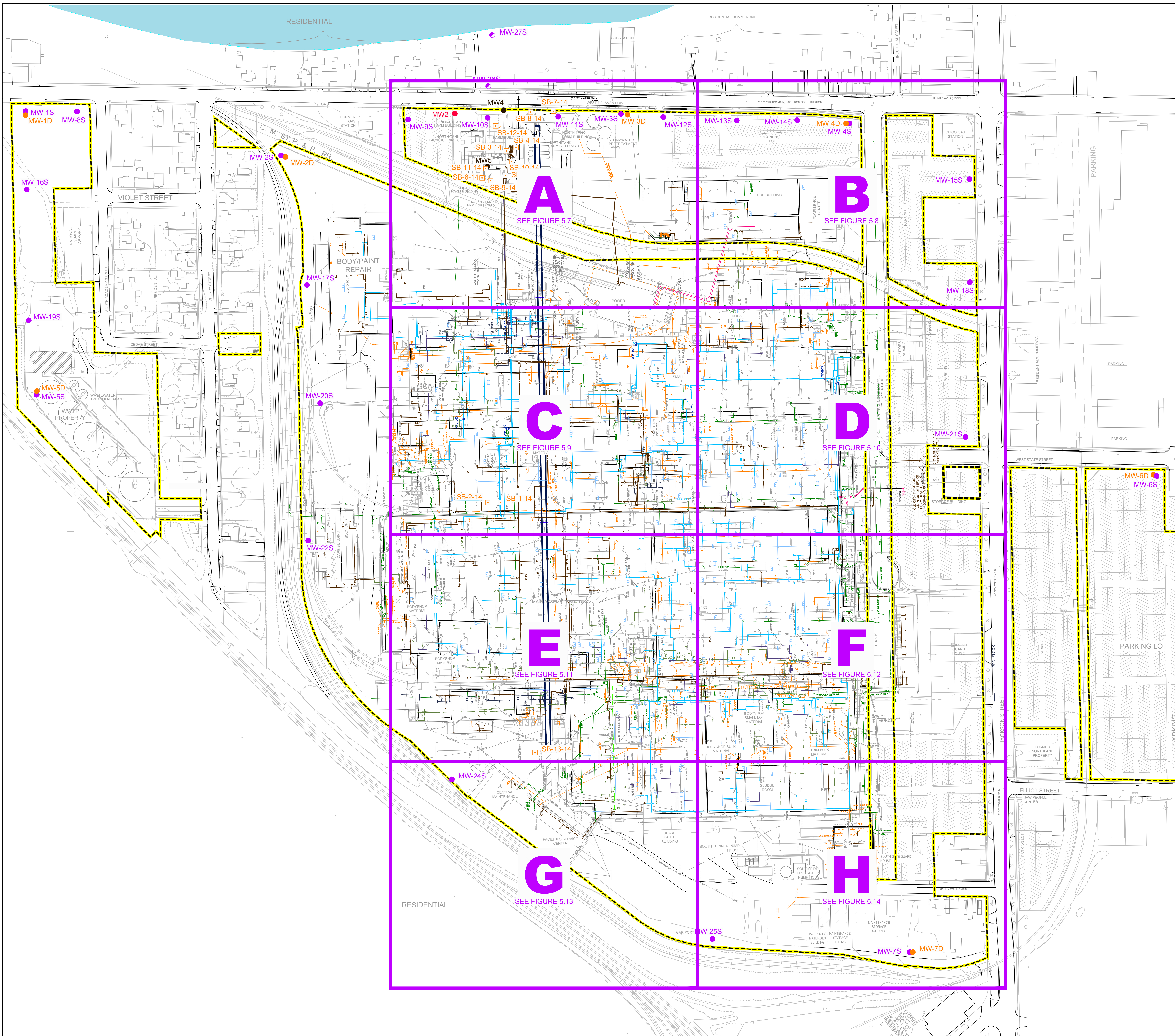
**SUMMARY OF GROUNDWATER  
ANALYTICAL RESULTS - SOUTH**



Source Reference:  
CSG JOB NUMBER: 1020110, FILE NAME: 10A05ASS.DWG, SHEETS 1 TO 10 OF 10, CROWN SERVICES GROUP, 03/09/2011.

Project Manager: J. CHARLTON	Reviewed By: J. CHARLTON	Date: DECEMBER 2015
Scale: AS SHOWN	Project No: 58505-01	Report No: 013
		Drawing No: figure 5.5





No.	Revision	Date	Initial

**LEGEND**

- PROPERTY BOUNDARY
- RAILROAD
- FENCE LINE
- MW1 MONITORING WELL LOCATION, WARZYN, 1984
- MW1S SHALLOW MONITORING WELL LOCATION, CRA, 2011
- MW1D DEEP MONITORING WELL LOCATION, CRA, 2011
- MW27S SHALLOW MONITORING WELL LOCATION, CRA, 2014
- SB-1-14 SOIL BORING LOCATION, CRA, 2014
- SANITARY SEWER
- STORM SEWER
- INDUSTRIAL SEWER
- ABANDONED LINE
- FIRST FLOOR GAS LINE
- SECOND FLOOR GAS LINE
- 2ND FLOOR PIPING
- 3RD FLOOR PIPING
- REDUCED PRESSURE BACK-FLOW PREVENTER
- REDUCER
- TYPICAL VALVE
- BRANCH TO HEADER CONNECTION
- C.W. CITY WATER
- WATER FLOW METER
- DRINKING FOUNTAIN 1st FLOOR
- DRINKING FOUNTAIN 2nd FLOOR
- DRINKING FOUNTAIN 3rd FLOOR
- END CAP
- W.M. WATER MAIN

**ABBREVIATIONS**

- CB CATCH BASIN
- CI CAST IRON
- CO CLEAN OUT
- DF DRINKING FOUNTAIN
- FD FLOOR DRAIN
- MI MAN HOLE
- RC ROOF CONDUCTOR
- HO HUB OUTLET
- TD TRUCK DRAIN
- DS DOWN SPOUT
- SP SOUP PUMP
- BD BOOTH DRAIN
- WD WASHER DRAIN
- TDS TOLLET DOWN SPOUT
- SD SPRINKLER DRAIN
- SBDS SPRAY BOOTH DOWN SPOUT
- VTR VENT THROUGH ROOF
- SHD SPRINKLER HUB OUTLET
- PVI POST INDICATOR VALVE
- ASR AUTOMATIC SPRINKLER RISER
- APR ABANDONED IN PLACE

**REFERENCE DRAWINGS**

1. JA 2754-7, FIRST FLOOR SEWER LAYOUT
2. PROJ. #8320 M-1 MECHANICAL UNDERGROUND PIPING BODY SHOP/PAIN MK BLD. ADTNS
3. PROJ. #825 M-1 MECHANICAL UNDERGROUND PIPING BATTERY CHARGING BLD.
4. PROJ. #8054 M-1 UNDERGROUND FLOOR PLAN COLMN. #5 A 48-66 TO H 48-66
5. DRW. M-1 CUSHION ROOM C4 PROJECT (REVISED)
6. PROJ. #7243001 M-1, N.E. BLD. ADDITION
7. PROJ. #78153001 M-1, TRUCK UNLOADING DOCK ADDITION
8. PROJ. #2448 SHT. NO. P-3, WHEEL AND TIRE ASSEMBLY BUILDING

**SCALE VERIFICATION**  
THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

Approved: \_\_\_\_\_

**DRAWING STATUS**

Status	Date	Initial

**GM JANESVILLE ASSEMBLY PLANT  
JANESVILLE, WISCONSIN**

**SITE UTILITY MAP**

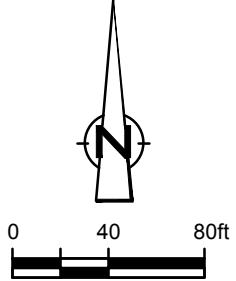
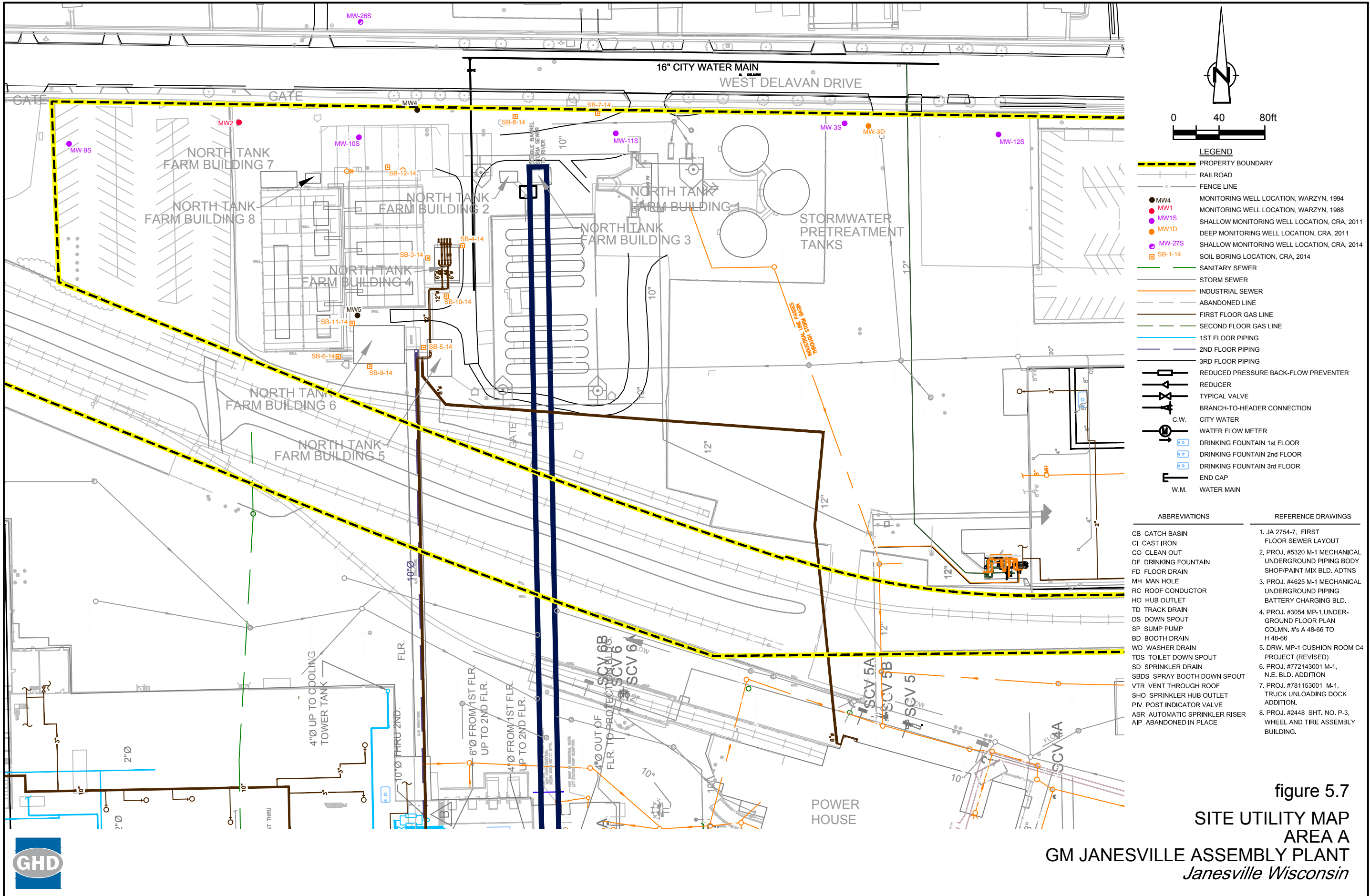
**GHD**

Source Reference:

Project Manager: J. CHARLTON	Reviewed By:	Date: 12/23/15
Scale: AS SHOWN	Project No: 58505-01	Report No: 013 Drawing No: figure 5.6

58505-01(013)GN-WA011 JAN 22, 2016





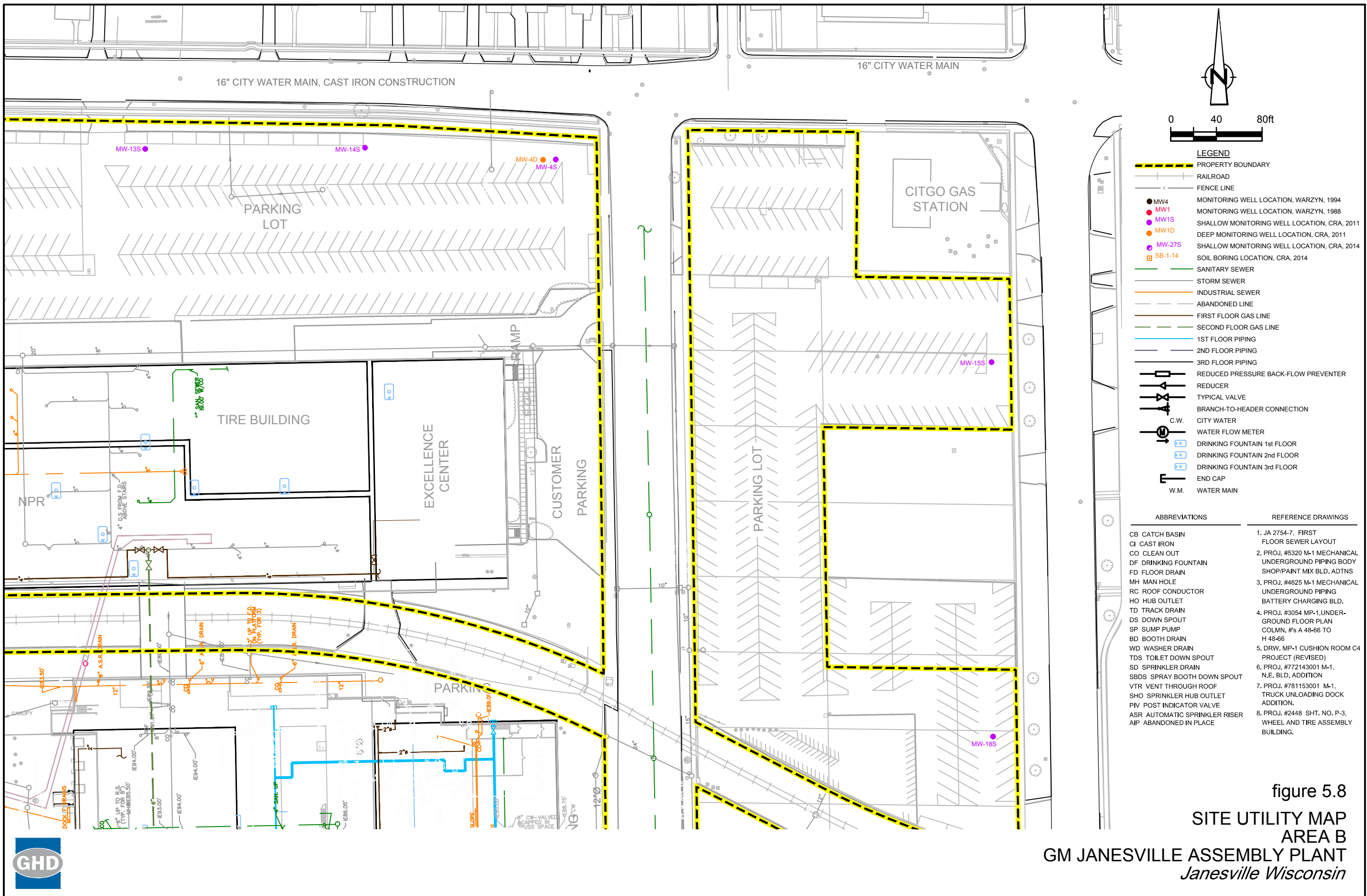
- LEGEND**
- PROPERTY BOUNDARY
  - RAILROAD
  - FENCE LINE
  - MW4 MONITORING WELL LOCATION, WARZYN, 1994
  - MW1 MONITORING WELL LOCATION, WARZYN, 1988
  - MW1S SHALLOW MONITORING WELL LOCATION, CRA, 2011
  - MW1D DEEP MONITORING WELL LOCATION, CRA, 2011
  - MW-27S SHALLOW MONITORING WELL LOCATION, CRA, 2014
  - SB-1-14 SOIL BORING LOCATION, CRA, 2014
  - SANITARY SEWER
  - STORM SEWER
  - INDUSTRIAL SEWER
  - ABANDONED LINE
  - FIRST FLOOR GAS LINE
  - SECOND FLOOR GAS LINE
  - 1ST FLOOR PIPING
  - 2ND FLOOR PIPING
  - 3RD FLOOR PIPING
  - REDUCED PRESSURE BACK-FLOW PREVENTER
  - REDUCER
  - TYPICAL VALVE
  - BRANCH-TO-HEADER CONNECTION
  - C.W. CITY WATER
  - WATER FLOW METER
  - DRINKING FOUNTAIN 1st FLOOR
  - DRINKING FOUNTAIN 2nd FLOOR
  - DRINKING FOUNTAIN 3rd FLOOR
  - END CAP
  - W.M. WATER MAIN

ABBREVIATIONS	REFERENCE DRAWINGS
CB CATCH BASIN	1. JA 2754-7, FIRST FLOOR SEWER LAYOUT
CI CAST IRON	2. PROJ. #5320 M-1 MECHANICAL UNDERGROUND PIPING BODY SHOP/PAINT MIX BLD. ADTNS
CO CLEAN OUT	3. PROJ. #4625 M-1 MECHANICAL UNDERGROUND PIPING BATTERY CHARGING BLD.
DF DRINKING FOUNTAIN	4. PROJ. #3054 MP-1, UNDERGROUND FLOOR PLAN COLMN. #s A 48-66 TO H 48-66
FD FLOOR DRAIN	5. DRW. MP-1 CUSHION ROOM C4 PROJECT (REVISED)
MH MAN HOLE	6. PROJ. #772143001 M-1, N.E. BLD. ADDITION
RC ROOF CONDUCTOR	7. PROJ. #781153001 M-1, TRUCK UNLOADING DOCK ADDITION.
HO HUB OUTLET	8. PROJ. #2448 SHT. NO. P-3, WHEEL AND TIRE ASSEMBLY BUILDING.
TD TRACK DRAIN	
DS DOWN SPOUT	
SP SUMP PUMP	
BD BOOTH DRAIN	
WD WASHER DRAIN	
TDS TOILET DOWN SPOUT	
SD SPRINKLER DRAIN	
SBDS SPRAY BOOTH DOWN SPOUT	
VTR VENT THROUGH ROOF	
SHO SPRINKLER HUB OUTLET	
PIV POST INDICATOR VALVE	
ASR AUTOMATIC SPRINKLER RISER	
AIP ABANDONED IN PLACE	

figure 5.7  
**SITE UTILITY MAP**  
**AREA A**  
**GM JANESVILLE ASSEMBLY PLANT**  
*Janesville Wisconsin*





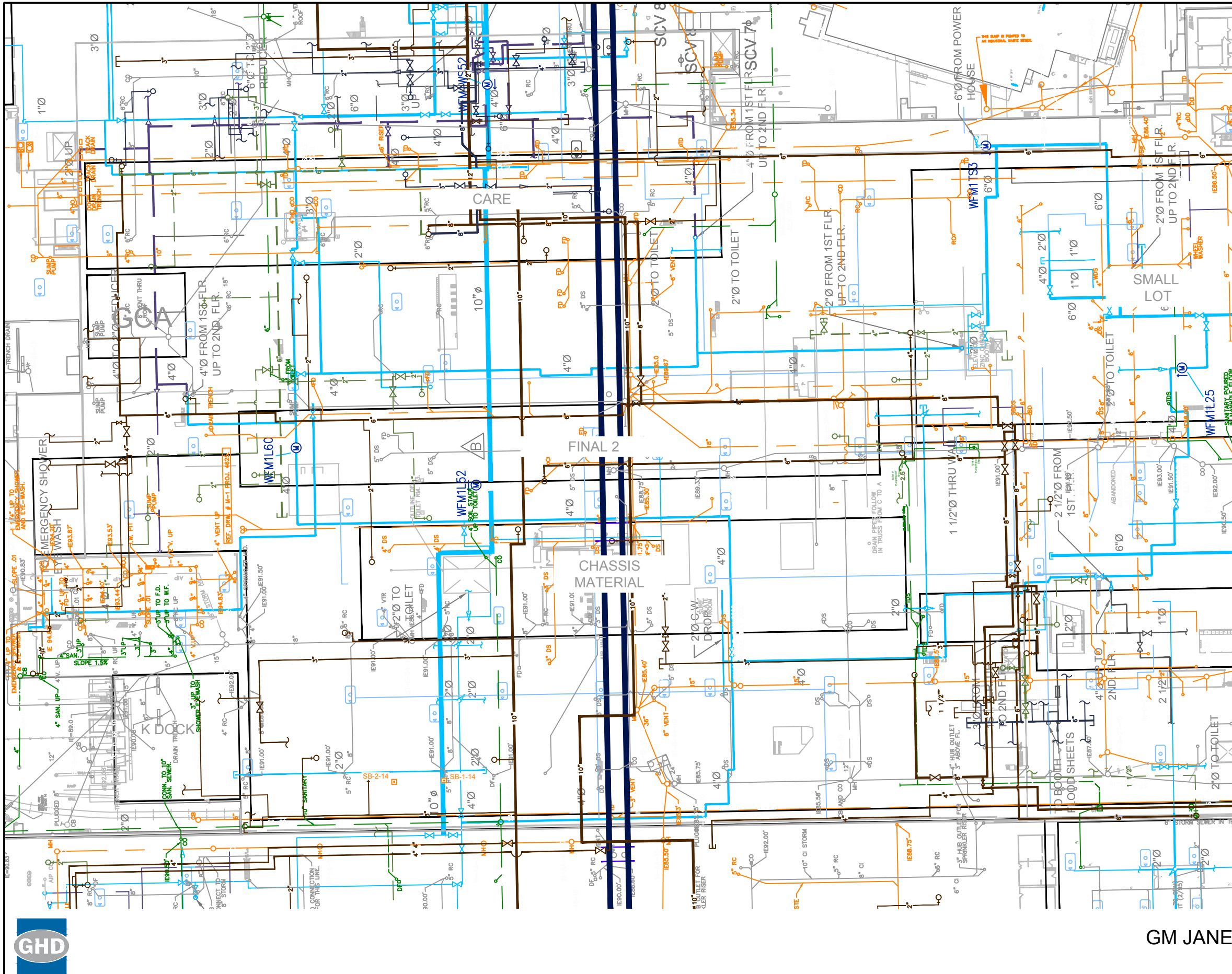


- LEGEND**
- PROPERTY BOUNDARY
  - RAILROAD
  - FENCE LINE
  - MW4 MONITORING WELL LOCATION, WARZYN, 1994
  - MW1 MONITORING WELL LOCATION, WARZYN, 1988
  - MW1S SHALLOW MONITORING WELL LOCATION, CRA, 2011
  - MW1D DEEP MONITORING WELL LOCATION, CRA, 2011
  - MW-27S SHALLOW MONITORING WELL LOCATION, CRA, 2014
  - SB-1-14 SOIL BORING LOCATION, CRA, 2014
  - SANITARY SEWER
  - STORM SEWER
  - INDUSTRIAL SEWER
  - ABANDONED LINE
  - FIRST FLOOR GAS LINE
  - SECOND FLOOR GAS LINE
  - 1ST FLOOR PIPING
  - 2ND FLOOR PIPING
  - 3RD FLOOR PIPING
  - REDUCED PRESSURE BACK-FLOW PREVENTER
  - REDUCER
  - TYPICAL VALVE
  - BRANCH-TO-HEADER CONNECTION
  - C.W. CITY WATER
  - WATER FLOW METER
  - DRINKING FOUNTAIN 1st FLOOR
  - DRINKING FOUNTAIN 2nd FLOOR
  - DRINKING FOUNTAIN 3rd FLOOR
  - END CAP
  - W.M. WATER MAIN

ABBREVIATIONS	REFERENCE DRAWINGS
CB CATCH BASIN	1. JA 2754-7, FIRST FLOOR SEWER LAYOUT
CI CAST IRON	2. PROJ. #5320 M-1 MECHANICAL UNDERGROUND PIPING BODY
CO CLEAN OUT	SHOP/PAINT MIX BLD. ADTNS
DF DRINKING FOUNTAIN	3. PROJ. #4625 M-1 MECHANICAL UNDERGROUND PIPING BATTERY CHARGING BLD.
FD FLOOR DRAIN	4. PROJ. #3054 MP-1, UNDERGROUND FLOOR PLAN COLMN. #'s A 48-66 TO H 48-66
MH MAN HOLE	5. DRW. MP-1 CUSHION ROOM C4 PROJECT (REVISED)
RC ROOF CONDUCTOR	6. PROJ. #772143001 M-1, N.E. BLD. ADDITION
HO HUB OUTLET	7. PROJ. #781153001 M-1, TRUCK UNLOADING DOCK ADDITION.
TD TRACK DRAIN	8. PROJ. #2448 SHT. NO. P-3, WHEEL AND TIRE ASSEMBLY BUILDING.
DS DOWN SPOUT	
SP SUMP PUMP	
BD BOOTH DRAIN	
WD WASHER DRAIN	
TDS TOILET DOWN SPOUT	
SD SPRINKLER DRAIN	
SBDS SPRAY BOOTH DOWN SPOUT	
VTR VENT THROUGH ROOF	
SHO SPRINKLER HUB OUTLET	
PIV POST INDICATOR VALVE	
ASR AUTOMATIC SPRINKLER RISER	
AIP ABANDONED IN PLACE	

figure 5.8  
**SITE UTILITY MAP**  
**AREA B**  
**GM JANESVILLE ASSEMBLY PLANT**  
*Janesville Wisconsin*





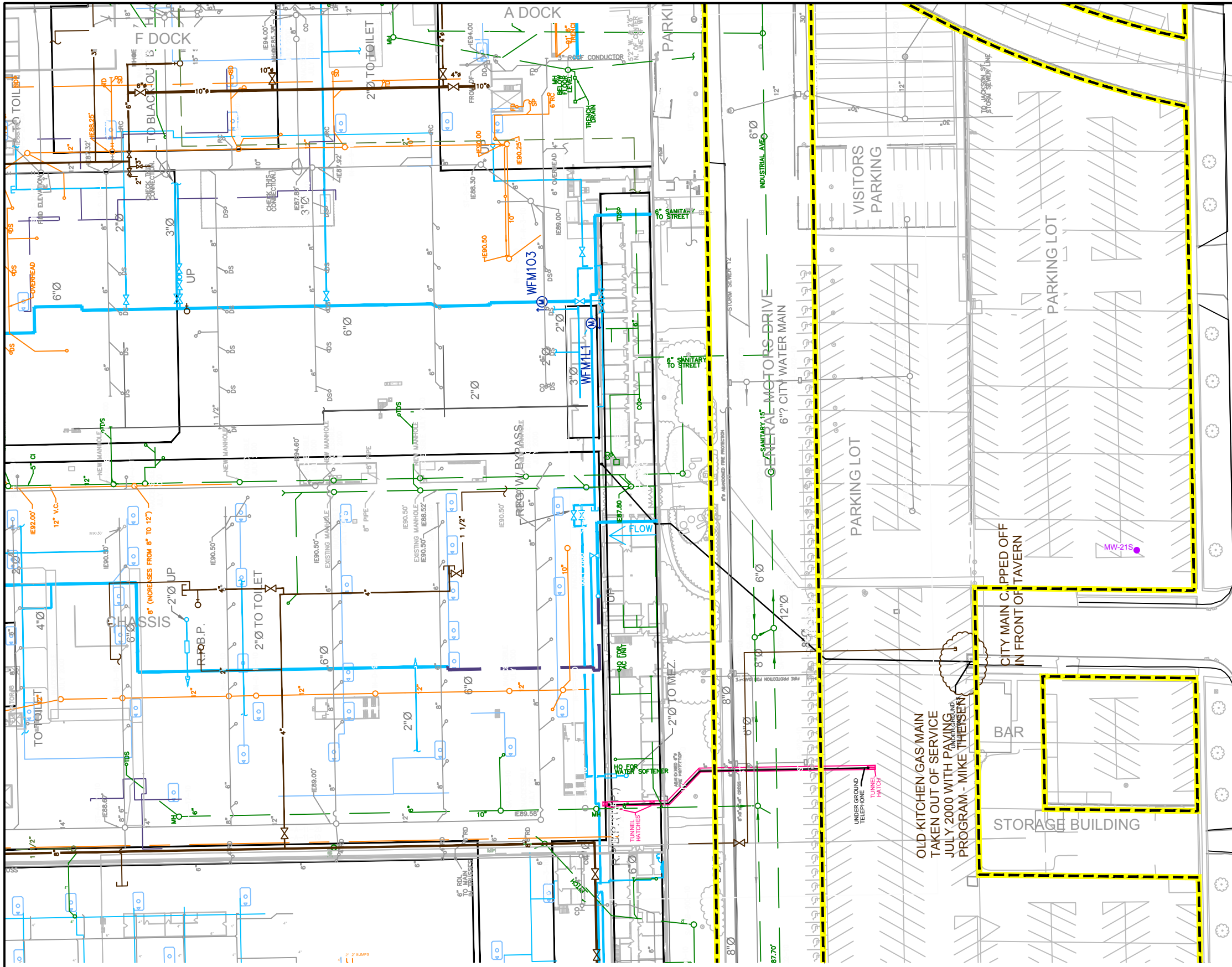
- LEGEND**
- PROPERTY BOUNDARY
  - RAILROAD
  - FENCE LINE
  - MONITORING WELL LOCATION, WARZYN, 1994
  - MONITORING WELL LOCATION, WARZYN, 1988
  - SHALLOW MONITORING WELL LOCATION, CRA, 2011
  - DEEP MONITORING WELL LOCATION, CRA, 2011
  - SHALLOW MONITORING WELL LOCATION, CRA, 2014
  - SOIL BORING LOCATION, CRA, 2014
  - SANITARY SEWER
  - STORM SEWER
  - INDUSTRIAL SEWER
  - ABANDONED LINE
  - FIRST FLOOR GAS LINE
  - SECOND FLOOR GAS LINE
  - 1ST FLOOR PIPING
  - 2ND FLOOR PIPING
  - 3RD FLOOR PIPING
  - REDUCED PRESSURE BACK-FLOW PREVENTER
  - REDUCER
  - TYPICAL VALVE
  - BRANCH-TO-HEADER CONNECTION
  - CITY WATER
  - WATER FLOW METER
  - DRINKING FOUNTAIN 1st FLOOR
  - DRINKING FOUNTAIN 2nd FLOOR
  - DRINKING FOUNTAIN 3rd FLOOR
  - END CAP
  - WATER MAIN


ABBREVIATIONS	REFERENCE DRAWINGS
CB CATCH BASIN	1. JA 2754-7, FIRST FLOOR SEWER LAYOUT
CI CAST IRON	2. PROJ. #5320 M-1 MECHANICAL UNDERGROUND PIPING BODY
CO CLEAN OUT	SHOP/PAINT MIX BLD. ADTNS
DF DRINKING FOUNTAIN	3. PROJ. #4625 M-1 MECHANICAL UNDERGROUND PIPING BATTERY CHARGING BLD.
FD FLOOR DRAIN	4. PROJ. #3054 MP-1, UNDERGROUND FLOOR PLAN COLMN. #'s A 48-66 TO H 48-66
MH MAN HOLE	5. DRW. MP-1 CUSHION ROOM C4 PROJECT (REVISED)
RC ROOF CONDUCTOR	6. PROJ. #772143001 M-1, N.E. BLD. ADDITION
HO HUB OUTLET	7. PROJ. #781153001 M-1, TRUCK UNLOADING DOCK ADDITION.
TD TRACK DRAIN	8. PROJ. #2448 SHT. NO. P-3, WHEEL AND TIRE ASSEMBLY BUILDING.
DS DOWN SPOUT	
SP SUMP PUMP	
BD BOOTH DRAIN	
WD WASHER DRAIN	
TDS TOILET DOWN SPOUT	
SD SPRINKLER DRAIN	
SBDS SPRAY BOOTH DOWN SPOUT	
VTR VENT THROUGH ROOF	
SHO SPRINKLER HUB OUTLET	
PIV POST INDICATOR VALVE	
ASR AUTOMATIC SPRINKLER RISER	
AIP ABANDONED IN PLACE	

figure 5.9  
 SITE UTILITY MAP  
 AREA C  
 GM JANESVILLE ASSEMBLY PLANT  
 Janesville Wisconsin




















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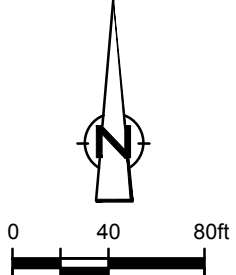
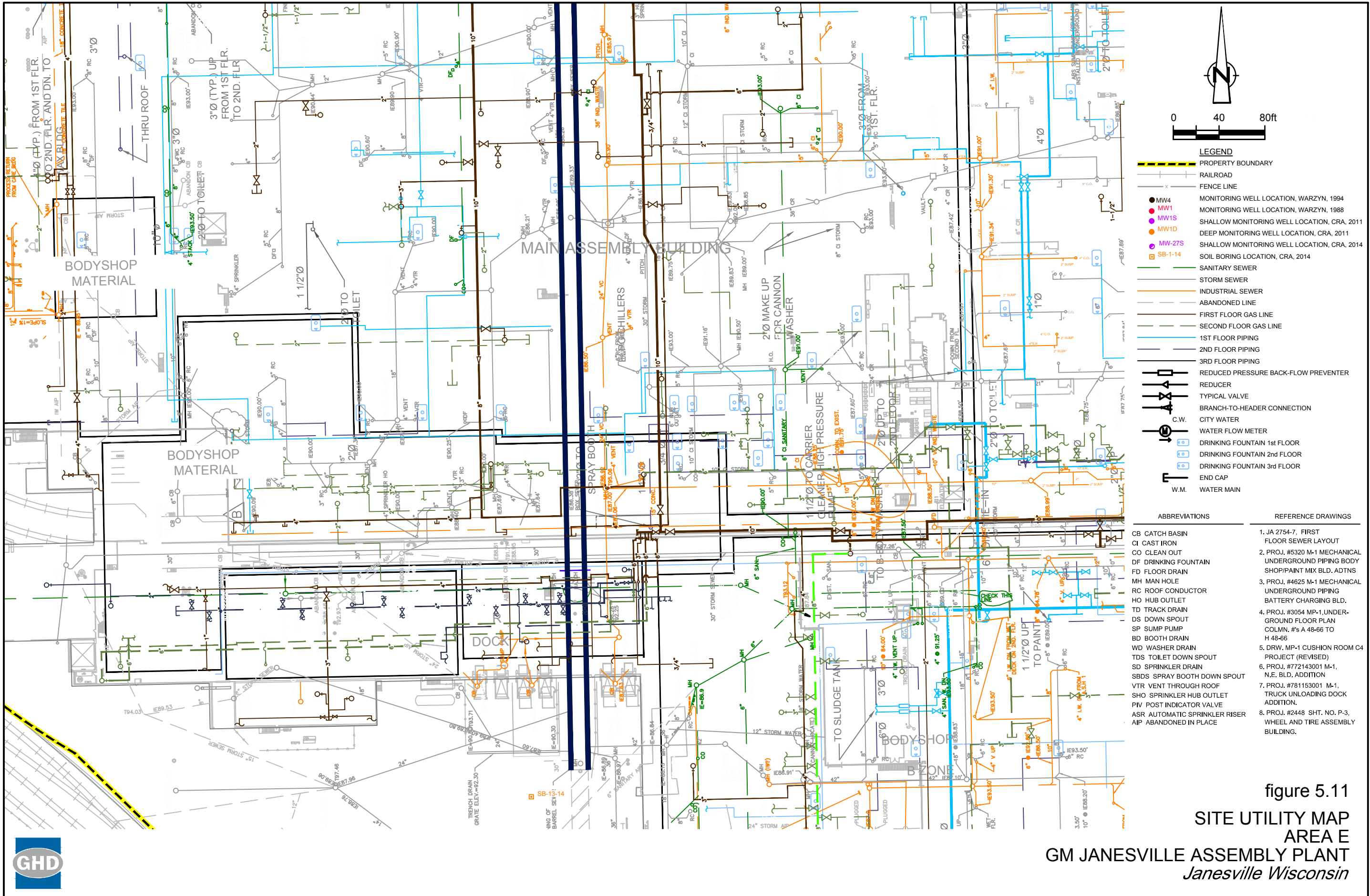
**LEGEND**

- PROPERTY BOUNDARY
- RAILROAD
- FENCE LINE
- MW4 MONITORING WELL LOCATION, WARZYN, 1994
- MW1 MONITORING WELL LOCATION, WARZYN, 1988
- MW1S SHALLOW MONITORING WELL LOCATION, CRA, 2011
- MW1D DEEP MONITORING WELL LOCATION, CRA, 2011
- MW-27S SHALLOW MONITORING WELL LOCATION, CRA, 2014
- SB-1-14 SOIL BORING LOCATION, CRA, 2014
- SANITARY SEWER
- STORM SEWER
- INDUSTRIAL SEWER
- ABANDONED LINE
- FIRST FLOOR GAS LINE
- SECOND FLOOR GAS LINE
- 1ST FLOOR PIPING
- 2ND FLOOR PIPING
- 3RD FLOOR PIPING
-  REDUCED PRESSURE BACK-FLOW PREVENTER
-  REDUCER
-  TYPICAL VALVE
-  BRANCH-TO-HEADER CONNECTION
-  C.W. CITY WATER
-  WATER FLOW METER
-  DRINKING FOUNTAIN 1st FLOOR
-  DRINKING FOUNTAIN 2nd FLOOR
-  DRINKING FOUNTAIN 3rd FLOOR
-  END CAP
-  W.M. WATER MAIN

ABBREVIATIONS	REFERENCE DRAWINGS
CB CATCH BASIN	1. JA 2754-7, FIRST FLOOR SEWER LAYOUT
CI CAST IRON	2. PROJ. #5320 M-1 MECHANICAL UNDERGROUND PIPING BODY SHOP/PAINT MIX BLD. ADTNS
CO CLEAN OUT	3. PROJ. #4625 M-1 MECHANICAL UNDERGROUND PIPING BATTERY CHARGING BLD.
DF DRINKING FOUNTAIN	4. PROJ. #3054 MP-1, UNDERGROUND FLOOR PLAN COLMN. #s A 48-66 TO H 48-66
FD FLOOR DRAIN	5. DRW. MP-1 CUSHION ROOM C4 PROJECT (REVISED)
MH MAN HOLE	6. PROJ. #772143001 M-1, N.E. BLD. ADDITION
RC ROOF CONDUCTOR	7. PROJ. #781153001 M-1, TRUCK UNLOADING DOCK ADDITION.
HO HUB OUTLET	8. PROJ. #2448 SHT. NO. P-3, WHEEL AND TIRE ASSEMBLY BUILDING.
TD TRACK DRAIN	
DS DOWN SPOUT	
SP SUMP PUMP	
BD BOOTH DRAIN	
WD WASHER DRAIN	
TDS TOILET DOWN SPOUT	
SD SPRINKLER DRAIN	
SBDS SPRAY BOOTH DOWN SPOUT	
VTR VENT THROUGH ROOF	
SHO SPRINKLER HUB OUTLET	
PIV POST INDICATOR VALVE	
ASR AUTOMATIC SPRINKLER RISER	
AIP ABANDONED IN PLACE	

figure 5.10  
**SITE UTILITY MAP**  
**AREA D**  
**GM JANESVILLE ASSEMBLY PLANT**  
*Janesville Wisconsin*





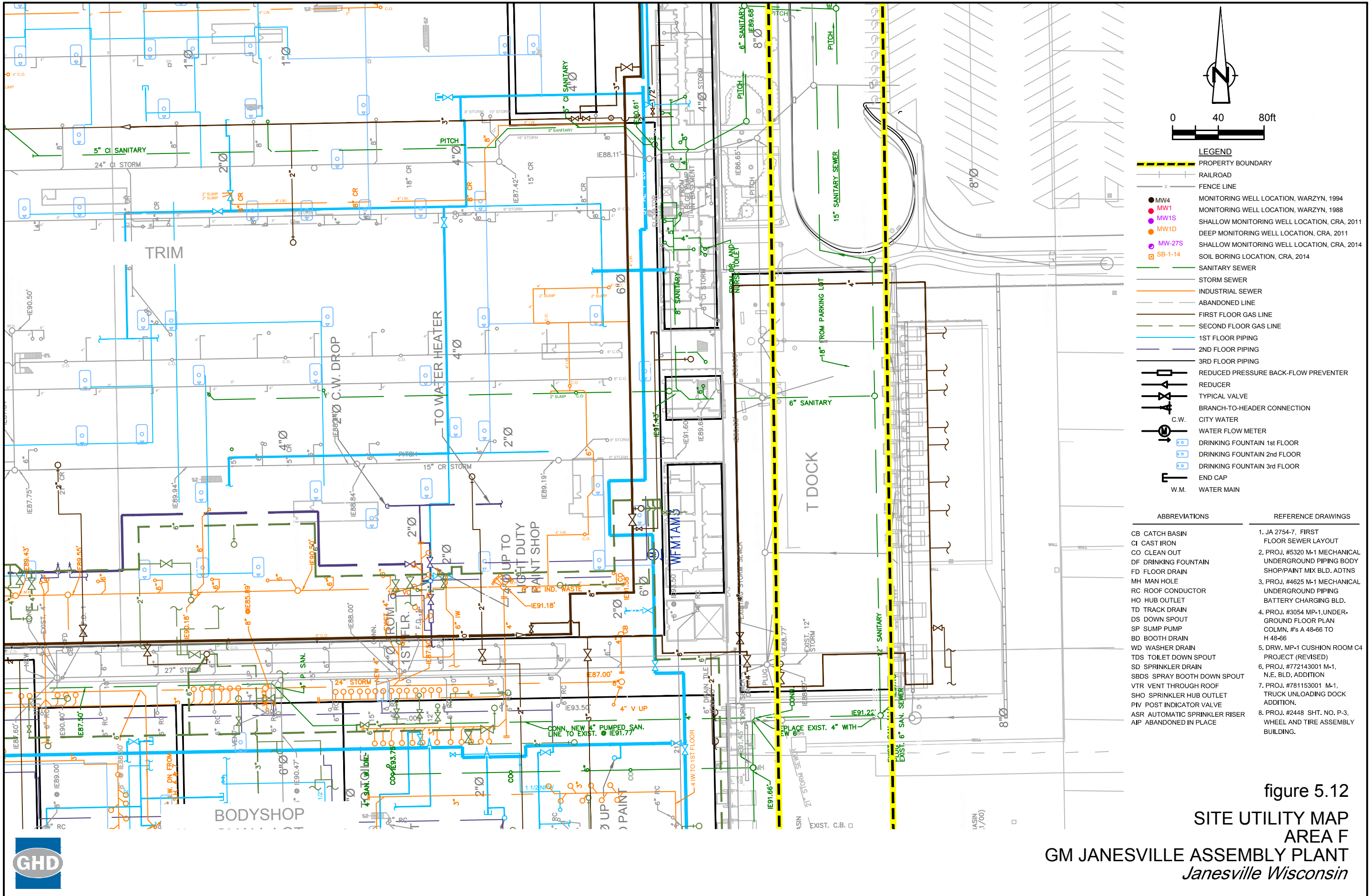
- LEGEND**
- PROPERTY BOUNDARY
  - RAILROAD
  - FENCE LINE
  - MW4 MONITORING WELL LOCATION, WARZYN, 1994
  - MW1 MONITORING WELL LOCATION, WARZYN, 1988
  - MW1S SHALLOW MONITORING WELL LOCATION, CRA, 2011
  - MW1D DEEP MONITORING WELL LOCATION, CRA, 2011
  - MW-27S SHALLOW MONITORING WELL LOCATION, CRA, 2014
  - SB-1-14 SOIL BORING LOCATION, CRA, 2014
  - SANITARY SEWER
  - STORM SEWER
  - INDUSTRIAL SEWER
  - ABANDONED LINE
  - FIRST FLOOR GAS LINE
  - SECOND FLOOR GAS LINE
  - 1ST FLOOR PIPING
  - 2ND FLOOR PIPING
  - 3RD FLOOR PIPING
  - REDUCED PRESSURE BACK-FLOW PREVENTER
  - REDUCER
  - TYPICAL VALVE
  - BRANCH-TO-HEADER CONNECTION
  - C.W. CITY WATER
  - WATER FLOW METER
  - DRINKING FOUNTAIN 1st FLOOR
  - DRINKING FOUNTAIN 2nd FLOOR
  - DRINKING FOUNTAIN 3rd FLOOR
  - END CAP
  - W.M. WATER MAIN

ABBREVIATIONS	REFERENCE DRAWINGS
CB CATCH BASIN	1. JA 2754-7, FIRST FLOOR SEWER LAYOUT
CI CAST IRON	2. PROJ. #5320 M-1 MECHANICAL UNDERGROUND PIPING BODY SHOP/PAINT MIX BLD. ADTNS
CO CLEAN OUT	3. PROJ. #4625 M-1 MECHANICAL UNDERGROUND PIPING BATTERY CHARGING BLD.
DF DRINKING FOUNTAIN	4. PROJ. #3054 MP-1, UNDERGROUND FLOOR PLAN COLMN. #'s A 48-66 TO H 48-66
MH MAN HOLE	5. DRW. MP-1 CUSHION ROOM C4 PROJECT (REVISED)
RC ROOF CONDUCTOR	6. PROJ. #772143001 M-1, N.E. BLD. ADDITION
HO HUB OUTLET	7. PROJ. #781153001 M-1, TRUCK UNLOADING DOCK ADDITION.
TD TRACK DRAIN	8. PROJ. #2448 SHT. NO. P-3, WHEEL AND TIRE ASSEMBLY BUILDING.
DS DOWN SPOUT	
SP SUMP PUMP	
BD BOOTH DRAIN	
WD WASHER DRAIN	
TDS TOILET DOWN SPOUT	
SD SPRINKLER DRAIN	
SBDS SPRAY BOOTH DOWN SPOUT	
VTR VENT THROUGH ROOF	
SHO SPRINKLER HUB OUTLET	
PIV POST INDICATOR VALVE	
ASR AUTOMATIC SPRINKLER RISER	
AIP ABANDONED IN PLACE	

figure 5.11  
**SITE UTILITY MAP**  
**AREA E**  
**GM JANESVILLE ASSEMBLY PLANT**  
*Janesville Wisconsin*







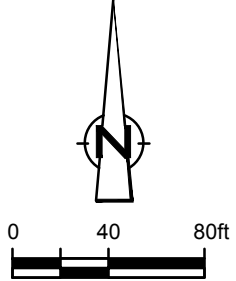
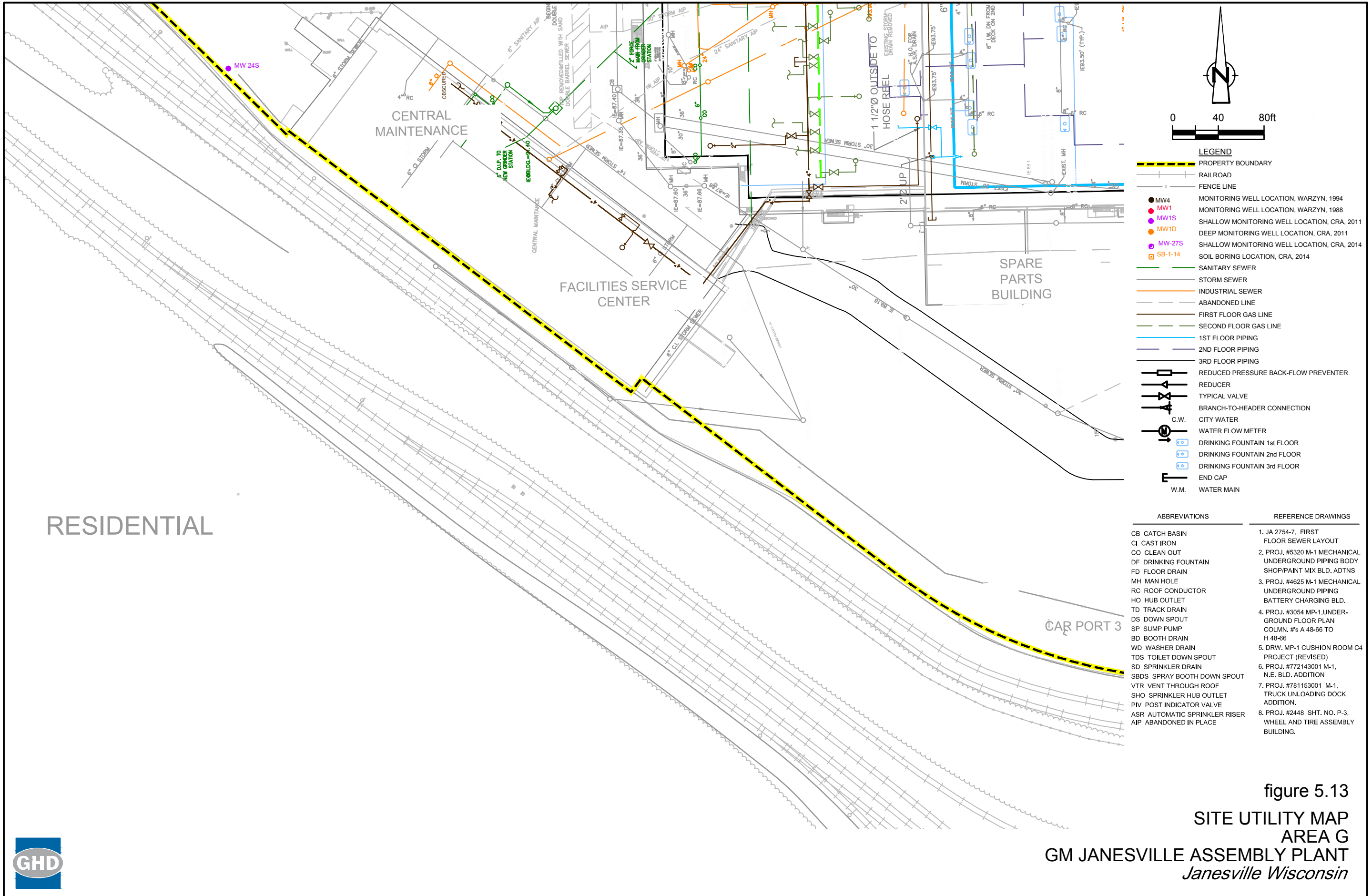
**LEGEND**

- PROPERTY BOUNDARY
- RAILROAD
- FENCE LINE
- MW4 MONITORING WELL LOCATION, WARZYN, 1994
- MW1 MONITORING WELL LOCATION, WARZYN, 1988
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- MW1D DEEP MONITORING WELL LOCATION, CRA, 2011
- MW-27S SHALLOW MONITORING WELL LOCATION, CRA, 2014
- SB-1-14 SOIL BORING LOCATION, CRA, 2014
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- STORM SEWER
- INDUSTRIAL SEWER
- ABANDONED LINE
- FIRST FLOOR GAS LINE
- SECOND FLOOR GAS LINE
- 1ST FLOOR PIPING
- 2ND FLOOR PIPING
- 3RD FLOOR PIPING
- REDUCED PRESSURE BACK-FLOW PREVENTER
- REDUCER
- TYPICAL VALVE
- BRANCH-TO-HEADER CONNECTION
- C.W. CITY WATER
- WATER FLOW METER
- DRINKING FOUNTAIN 1st FLOOR
- DRINKING FOUNTAIN 2nd FLOOR
- DRINKING FOUNTAIN 3rd FLOOR
- END CAP
- W.M. WATER MAIN

ABBREVIATIONS	REFERENCE DRAWINGS
CB CATCH BASIN	1. JA 2754-7, FIRST FLOOR SEWER LAYOUT
CI CAST IRON	2. PROJ. #5320 M-1 MECHANICAL UNDERGROUND PIPING BODY SHOP/PAINT MIX BLD. ADTNS
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DF DRINKING FOUNTAIN	4. PROJ. #3054 MP-1, UNDERGROUND FLOOR PLAN COLMN. #'s A 48-66 TO H 48-66
FD FLOOR DRAIN	5. DRW. MP-1 CUSHION ROOM C4 PROJECT (REVISED)
MH MAN HOLE	6. PROJ. #772143001 M-1, N.E. BLD. ADDITION
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HO HUB OUTLET	8. PROJ. #2448 SHT. NO. P-3, WHEEL AND TIRE ASSEMBLY BUILDING.
DS DOWN SPOUT	
SP SUMP PUMP	
BD BOOTH DRAIN	
WD WASHER DRAIN	
TDS TOILET DOWN SPOUT	
SD SPRINKLER DRAIN	
SBDS SPRAY BOOTH DOWN SPOUT	
VTR VENT THROUGH ROOF	
SHO SPRINKLER HUB OUTLET	
PIV POST INDICATOR VALVE	
ASR AUTOMATIC SPRINKLER RISER	
AIP ABANDONED IN PLACE	

figure 5.12  
**SITE UTILITY MAP**  
**AREA F**  
**GM JANESVILLE ASSEMBLY PLANT**  
*Janesville Wisconsin*





- LEGEND**
- PROPERTY BOUNDARY
  - RAILROAD
  - FENCE LINE
  - MW4 MONITORING WELL LOCATION, WARZYN, 1994
  - MW1 MONITORING WELL LOCATION, WARZYN, 1988
  - MW1S SHALLOW MONITORING WELL LOCATION, CRA, 2011
  - MW1D DEEP MONITORING WELL LOCATION, CRA, 2011
  - MW-27S SHALLOW MONITORING WELL LOCATION, CRA, 2014
  - SB-1-14 SOIL BORING LOCATION, CRA, 2014
  - SANITARY SEWER
  - STORM SEWER
  - INDUSTRIAL SEWER
  - ABANDONED LINE
  - FIRST FLOOR GAS LINE
  - SECOND FLOOR GAS LINE
  - 1ST FLOOR PIPING
  - 2ND FLOOR PIPING
  - 3RD FLOOR PIPING
  - REDUCED PRESSURE BACK-FLOW PREVENTER
  - REDUCER
  - TYPICAL VALVE
  - BRANCH-TO-HEADER CONNECTION
  - C.W. CITY WATER
  - WATER FLOW METER
  - DRINKING FOUNTAIN 1st FLOOR
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  - DRINKING FOUNTAIN 3rd FLOOR
  - END CAP
  - W.M. WATER MAIN

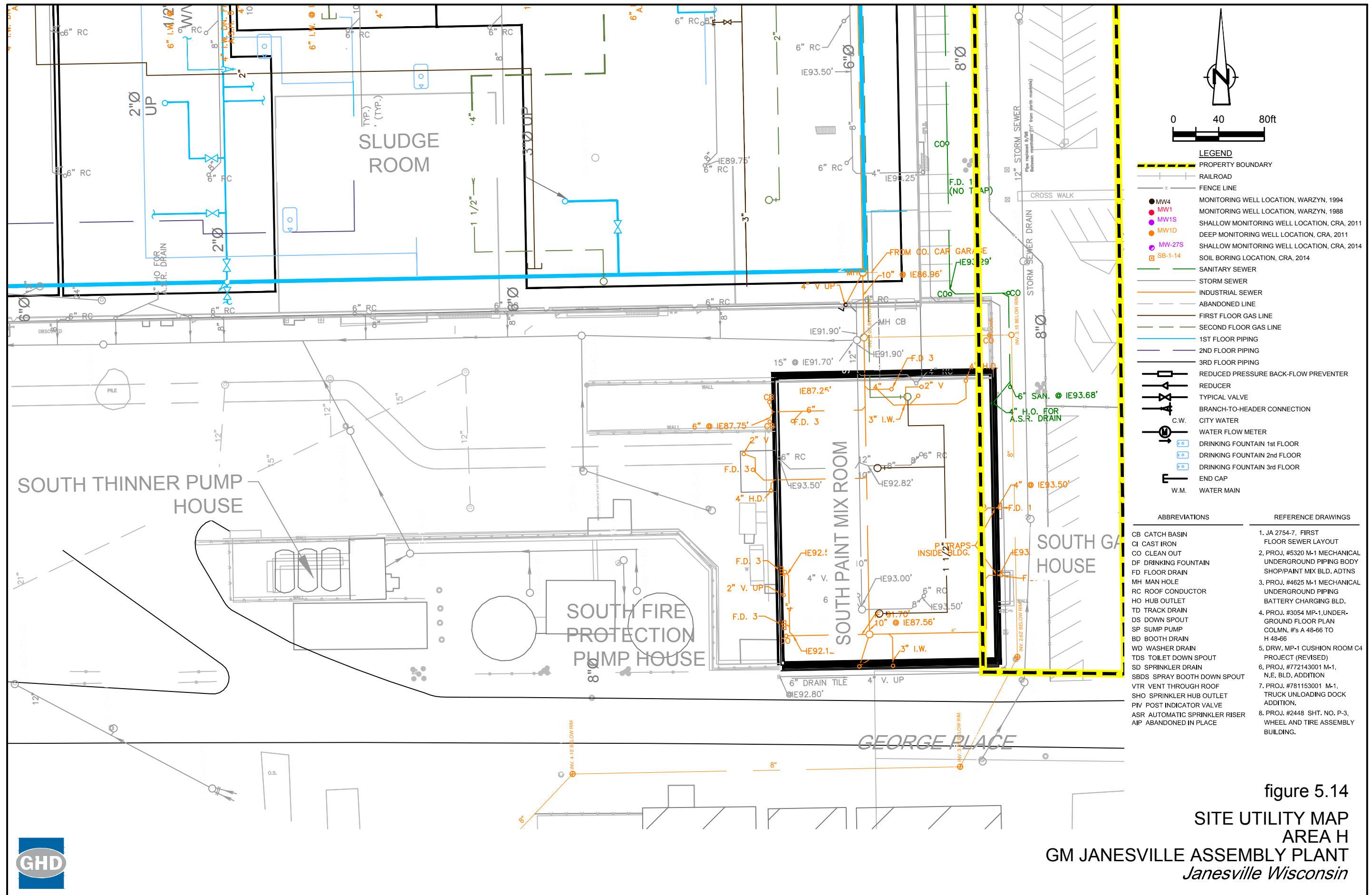
ABBREVIATIONS	REFERENCE DRAWINGS
CB CATCH BASIN	1. JA 2754-7, FIRST FLOOR SEWER LAYOUT
CI CAST IRON	2. PROJ. #5320 M-1 MECHANICAL UNDERGROUND PIPING BODY
CO CLEAN OUT	SHOP/PAINT MIX BLD. ADTNS
DF DRINKING FOUNTAIN	3. PROJ. #4625 M-1 MECHANICAL UNDERGROUND PIPING BATTERY CHARGING BLD.
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SP SUMP PUMP	
BD BOOTH DRAIN	
WD WASHER DRAIN	
TDS TOILET DOWN SPOUT	
SD SPRINKLER DRAIN	
SBDS SPRAY BOOTH DOWN SPOUT	
VTR VENT THROUGH ROOF	
SHO SPRINKLER HUB OUTLET	
PIV POST INDICATOR VALVE	
ASR AUTOMATIC SPRINKLER RISER	
AIP ABANDONED IN PLACE	

RESIDENTIAL

CAR PORT 3

figure 5.13  
 SITE UTILITY MAP  
 AREA G  
 GM JANESVILLE ASSEMBLY PLANT  
 Janesville Wisconsin





- LEGEND**
- PROPERTY BOUNDARY
  - RAILROAD
  - FENCE LINE
  - MW4 MONITORING WELL LOCATION, WARZYN, 1994
  - MW1 MONITORING WELL LOCATION, WARZYN, 1988
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  - MW-27S SHALLOW MONITORING WELL LOCATION, CRA, 2014
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  - REDUCED PRESSURE BACK-FLOW PREVENTER
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  - TYPICAL VALVE
  - BRANCH-TO-HEADER CONNECTION
  - C.W. CITY WATER
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ABBREVIATIONS	REFERENCE DRAWINGS
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WD WASHER DRAIN	
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SD SPRINKLER DRAIN	
SBDS SPRAY BOOTH DOWN SPOUT	
VTR VENT THROUGH ROOF	
SHO SPRINKLER HUB OUTLET	
PIV POST INDICATOR VALVE	
ASR AUTOMATIC SPRINKLER RISER	
AIP ABANDONED IN PLACE	

figure 5.14

SITE UTILITY MAP  
AREA H  
GM JANESVILLE ASSEMBLY PLANT  
Janesville Wisconsin





**Table 3.1**  
**Groundwater Sampling and Analysis Plan**  
**GM Janesville Assembly Plant**  
**Janesville, Wisconsin**

Existing Well Location	Area	Rationale	Cumulative Cancer Risks Above 10 <sup>-5</sup> , Noncancer HIs Above 1, or Occupational Sum of Fractions Above 10 <sup>-2</sup>						Proposed Monitoring Frequency <sup>(5)</sup>	Total No. of Samples Annually	Analytical Parameters	Field Parameters	Quality Control Samples			
			Media	Parameter	Cumulative Cancer Risk	Noncancer HI	Occupational Sum of Fractions	Exposure Scenario					Field Blanks <sup>(3)</sup>	Field Duplicates	MS/MSD	Trip Blank <sup>(4)</sup>
MW-10S	North Tank Farm	Assess potential vapor intrusion exposure and confirm current concentrations	Groundwater	1,2,4 TMB 1,3,5 TMB xylenes (total)	NC	2E+01	NA	Non-Industrial Vapor Intrusion Pathway	Quarterly	4	TCL VOC <sup>(1)</sup> TCL SVOC TAL Metals (less earth metals) <sup>(2)</sup> Hexavalent Chromium	conductivity, DO, ORP, pH, temperature, and turbidity	1/10	1/10	1/20	1/cooler
MW4	North Tank Farm	Assess potential vapor intrusion exposure and confirm current concentrations	Groundwater	1,2,4 TMB 1,3,5 TMB naphthalene xylenes (total)	7E-06	2E+01	NA	Non-Industrial Vapor Intrusion Pathway	Quarterly	4	TCL VOC <sup>(1)</sup> TCL SVOC TAL Metals (less earth metals) <sup>(2)</sup> Hexavalent Chromium	conductivity, DO, ORP, pH, temperature, and turbidity	1/10	1/10	1/20	1/cooler
MW-26S MW-27S	Off-Site and Downgradient from North Tank Farm	Evaluate potential migration of groundwater contamination at the property boundaries	Groundwater	NA	No exceedance	No exceedance	No exceedance	NA	Annually	2	TCL VOC <sup>(1)</sup> TCL SVOC TAL Metals (less earth metals) <sup>(2)</sup> Hexavalent Chromium	conductivity, DO, ORP, pH, temperature, and turbidity	1/10	1/10	1/20	1/cooler
MW2, MW5 MW-1S - MW-9S MW-11S-MW-25S MW-1D - MW-7D	Site wide	Evaluate potential migration of groundwater contamination at the property boundaries	Groundwater	NA	No exceedance	No exceedance	No exceedance	NA	Annually	33	TCL VOC <sup>(1)</sup> TCL SVOC TAL Metals (less earth metals) <sup>(2)</sup> Hexavalent Chromium	conductivity, DO, ORP, pH, temperature, and turbidity	1/10	1/10	1/20	1/cooler
<b>Total Number of Groundwater Samples</b>										<b>43</b>	<b>Total Number of Quality Control Samples</b>		<b>7</b>	<b>7</b>	<b>5</b>	<b>9</b>

Notes:

- (1) Includes reporting 1,2,4-TMB and 1,3,5-TMB
  - (2) TAL metals is included as part of the Site boundaries evaluation and will include the collection of both total and dissolved (field filtered). Earth metals include: aluminum, calcium, iron, magnesium, potassium, and sodium.
  - (3) Field blank samples will not be required if dedicated or disposable sampling equipment is used. Field blanks are required at a minimum of one per day.
  - (4) Trip blanks will be submitted with each shipment of samples for VOC analysis.
  - (5) The proposed groundwater sampling and analysis plan will be conducted for a period of one year (2015). Upon review of the results, a revised groundwater sampling and analysis plan will be presented to the WDNR (if required).
  - (6) This table was previously presented in the 2014 SIR as Table 7.1
- BTEX Benzene, toluene, ethylbenzene, and xylene:  
 DO Dissolved Oxygen  
 HI Hazard Index  
 MS/MSD Matrix Spike/Matrix Spike Duplicate  
 NC Risk estimates could not be calculated since either no toxicity value exists for the detected constituents at this location or no constituents were detected above background concentrations in this area.  
 NA Not applicable  
 ORP Oxidation Reduction Potential  
 SVOCs Semi-volatile organic compounds  
 TCL Target Compound List  
 TAL Target Analyte List  
 TMB Trimethylbenzene  
 VOCs Volatile organic compounds

Table 3.2

**Well Detail Summary  
GM Janesville Assembly Plant  
Janesville, Wisconsin**

Well ID	WDNR Well Identification Number	Easting (X -coordinate)	Northing (Y-coordinate)	Top of Flushmount Cover ft (amsl)	Top of Casing ft (amsl)	Ground Surface ft (amsl)	Screen Interval		Screen Interval		August 24, 2011		
							Screen Top ft bgs	Screen Bottom ft bgs	Screen Top ft (amsl)	Screen Bottom ft (amsl)	Depth to Water (ft BTOC)	Water Elevation (ft amsl)	Depth to Water (ft bgs)
MW-1S	VM552	491563.78	263367.7935	768.74	768.38	768.78	6.0	16.0	762.78	752.78	7.4	761.01	7.8
MW-2S	VM573	492377.29	263226.7915	772.68	772.31	772.69	8.8	18.8	763.89	753.89	10.9	761.41	11.3
MW-3S	VM578	493459.35	263358.9504	766.84	766.29	766.82	4.0	14.0	762.82	752.82	4.7	761.56	5.3
MW-4S	VM555	494187.22	263328.7987	766.58	766.11	766.55	4.4	14.4	762.15	752.15	4.4	761.74	4.8
MW-5S	VM554	491598.37	262464.9331	775.75	775.33	775.73	8.7	18.7	767.03	757.03	12.0	763.31	12.4
MW-6S	VM560	495164.90	262206.3891	769.86	769.30	769.84	4.7	14.7	765.14	755.14	5.0	764.33	5.5
MW-7S	VM565	494378.40	260689.5587	787.28	786.74	787.29	18.1	28.1	769.19	759.19	21.0	765.70	21.6
MW-8S	VM551	491727.22	263366.4468	767.53	767.23	767.55	5.2	15.2	762.35	752.35	6.1	761.11	6.4
MW-9S	VM558	492781.65	263341.0557	767.06	766.72	767.06	4.5	14.5	762.56	752.56	NM <sup>(1)</sup>	NM <sup>(1)</sup>	NM <sup>(1)</sup>
MW-10S	VM575	493034.92	263346.7515	766.75	766.35	766.75	4.0	14.0	762.75	752.75	5.0	761.35	5.4
MW-11S	VM577	493259.35	263350.2283	766.54	766.05	766.53	4.0	14.0	762.53	752.53	4.7	761.37	5.2
MW-12S	VM559	493593.72	263349.1868	766.94	766.46	766.99	4.5	14.5	762.49	752.49	4.8	761.68	5.3
MW-13S	VM557	493827.75	263338.0626	766.86	766.49	766.90	4.4	14.4	762.5	752.50	4.8	761.71	5.2
MW-14S	VM556	494020.15	263339.1137	767.25	766.88	767.28	3.9	13.9	763.38	753.38	5.1	761.78	5.5
MW-15S	VM564	494568.74	263151.2754	767.27	766.77	767.23	4.1	14.1	763.13	753.13	4.6	762.15	5.1
MW-16S	VM550	491567.31	263118.203	769.43	769.17	769.54	6.5	16.5	763.04	753.04	7.5	761.63	7.9
MW-17S	VM572	492459.54	262814.2603	770.33	769.84	770.38	6.5	16.5	763.88	753.88	7.7	762.12	8.3
MW-18S	VM563	494570.12	262823.3532	769.46	768.94	769.43	4.5	14.5	764.93	754.93	6.2	762.79	6.6
MW-19S	VM553	491573.86	262701.852	771.20	770.80	771.20	6.9	16.9	764.3	754.30	8.2	762.63	8.6
MW-20S	VM571	492501.56	262437.771	769.94	769.46	769.93	3.0	13.0	766.93	756.93	6.5	762.99	6.9
MW-21S	VM562	494556.33	262330.2903	770.06	769.65	770.05	4.6	14.6	765.45	755.45	5.9	763.77	6.3
MW-22S	VM570	492463.39	262000.1757	770.46	770.00	770.55	5.0	15.0	765.55	755.55	6.2	763.85	6.7
MW-23S	VM561	495362.79	261988.9412	771.44	770.94	771.44	4.3	14.3	767.14	757.14	6.0	764.91	6.5
MW-24S	VM569	492920.97	261239.7664	773.83	773.43	773.88	7.0	17.0	766.88	756.88	8.6	764.82	9.1
MW-25S	VM566	493750.35	260731.5587	779.41	779.01	779.47	13.0	23.0	766.47	756.47	13.5	765.48	14.0
MW-26S	VO157	493036.48	263447.5798	766.97	766.64	767.00	3.5	13.5	763.501	753.50	NM <sup>(3)</sup>	NM <sup>(3)</sup>	NM <sup>(3)</sup>
MW-27S	VO158	493049.07	263610.3535	765.44	765.07	765.49	3.0	13.0	762.488	752.49	NM <sup>(3)</sup>	NM <sup>(3)</sup>	NM <sup>(3)</sup>
MW2	N/A	492930.21	263359.8963	769.59	768.97	767.29	N/A	N/A	N/A	N/A	NM <sup>(4)</sup>	NM <sup>(4)</sup>	NM <sup>(4)</sup>

Table 3.2

**Well Detail Summary  
GM Janesville Assembly Plant  
Janesville, Wisconsin**

Well ID	WDNR Well Identification Number	Easting (X -coordinate)	Northing (Y-coordinate)	Top of Flushmount Cover ft (amsl)	Top of Casing ft (amsl)	Ground Surface ft (amsl)	Screen Interval		Screen Interval		August 24, 2011		
							Screen Top ft bgs	Screen Bottom ft bgs	Screen Top ft (amsl)	Screen Bottom ft (amsl)	Depth to Water (ft BTOC)	Water Elevation (ft amsl)	Depth to Water (ft bgs)
MW4	N/A	493085.85	263370.6421	769.43	769.23	766.59	N/A	N/A	N/A	N/A	NM <sup>(4)</sup>	NM <sup>(4)</sup>	NM <sup>(4)</sup>
MW5	N/A	493033.62	263191.1427	770.04	769.78	768.16	N/A	N/A	N/A	N/A	NM <sup>(4)</sup>	NM <sup>(4)</sup>	NM <sup>(4)</sup>
MW-1D	VM584	491563.46	263355.1962	768.54	768.18	768.55	58.5	68.5	710.05	700.05	7.3	760.91	7.6
MW-2D	VM754	492391.27	263222.0953	772.60	772.06	772.57	70.0	80.0	702.57	692.57	10.6	761.42	11.2
MW-3D	VM580	493480.12	263356.7235	766.61	766.10	766.61	70.0	80.0	696.61	686.61	4.5	761.60	5.0
MW-4D	VM583	494176.07	263328.4951	766.44	765.94	766.44	274.0	284.0	492.44	482.44	6.3	759.65	6.8
MW-5D	VM579	491599.41	262476.3328	775.81	775.56	776.52	27.0	37.0	749.52	739.52	12.2	763.35	13.2
MW-6D	VM581	495154.53	262210.3876	770.02	769.58	770.07	70.0	80.0	700.07	690.07	5.2	764.34	5.7
MW-7D	VM582	494388.29	260689.4754	787.24	786.79	787.24	286.0	296.0	501.24	491.24	21.4	765.36	21.9

## Notes:

(1) Not collected inadvertently

(2) Water present above protective casing, flooded within flushmount cover

(3) Measurements were collected prior to monitoring well installation

(4) Monitoring well was not included in gauging program

(5) Water levels in off-site wells were only to be measured during the annual event and were inadvertently measured during the first and second quarter

D - Deep Well. MW-2D, MW-3D, MW-5D, and MW-6D are intermediate wells screened in the upper sand unit. MW-1D, MW-4D, and MW-7D are bedrock wells

ft BTOC - Feet below top of casing

ft amsl - Feet above mean sea level.

ft bgs - Feet below ground surface

N/A - Not available. Monitoring well was installed by others. Based on measured total depth, monitoring well is assumed to be shallow.

NM - Not Measured

S - Shallow Well (screened across watertable)

WDNR - Wisconsin Department of Natural Resources

Table 3.2

**Well Detail Summary  
GM Janesville Assembly Plant  
Janesville, Wisconsin**

WDNR Well Identification		October 24, 2011			June 2, 2014			September 15, 2014			March 25, 2015		
Well ID	Number	Depth to Water (ft BTOC)	Water Elevation (ft amsl)	Depth to Water (ft bgs)	Depth to Water (ft BTOC)	Water Elevation (ft amsl)	Depth to Water (ft bgs)	Depth to Water (ft BTOC)	Water Elevation (ft amsl)	Depth to Water (ft bgs)	Depth to Water (ft BTOC)	Water Elevation (ft amsl)	Depth to Water (ft bgs)
MW-1S	VM552	7.2	761.19	7.6	6.4	762.01	6.8	7.4	760.99	7.8	7.29	761.09	7.69
MW-2S	VM573	10.7	761.59	11.1	10.0	762.30	10.4	10.9	761.42	11.3	10.80	761.51	11.18
MW-3S	VM578	4.6	761.68	5.1	4.0	762.27	4.6	4.8	761.51	5.3	4.52	761.77	5.05
MW-4S	VM555	4.3	761.86	4.7	3.7	762.37	4.2	4.4	761.67	4.9	4.42	761.69	4.86
MW-5S	VM554	12.0	763.29	12.4	11.6	763.78	11.9	12.3	763.00	12.7	12.49	762.84	12.89
MW-6S	VM560	5.0	764.30	5.5	4.8	764.54	5.3	5.3	764.04	5.8	5.05	764.25	5.59
MW-7S	VM565	21.2	765.54	21.8	21.1	765.66	21.6	21.6	765.11	22.2	22.08	764.66	22.63
MW-8S	VM551	6.0	761.28	6.3	5.1	762.09	5.5	6.1	761.09	6.5	5.97	761.26	6.29
MW-9S	VM558	5.3	761.43	5.6	4.6	762.16	4.9	5.5	761.25	5.8	5.37	761.35	5.71
MW-10S	VM575	4.9	761.50	5.3	4.4	761.98	4.8	5.0	761.32	5.4	4.93	761.42	5.33
MW-11S	VM577	4.5	761.51	5.0	4.0	762.06	4.5	4.7	761.32	5.2	4.47	761.58	4.95
MW-12S	VM559	4.7	761.78	5.2	4.0	762.42	4.6	4.9	761.61	5.4	4.80	761.66	5.33
MW-13S	VM557	4.7	761.81	5.1	4.1	762.40	4.5	4.9	761.60	5.3	4.83	761.66	5.24
MW-14S	VM556	5.0	761.89	5.4	4.5	762.41	4.9	5.2	761.66	5.6	5.20	761.68	5.60
MW-15S	VM564	4.5	762.25	5.0	4.1	762.68	4.6	4.7	762.10	5.1	4.73	762.04	5.19
MW-16S	VM550	7.4	761.73	7.8	6.7	762.50	7.0	7.6	761.56	8.0	7.52	761.65	7.89
MW-17S	VM572	7.6	762.21	8.2	7.0	762.82	7.6	7.9	761.99	8.4	7.88	761.96	8.42
MW-18S	VM563	6.1	762.86	6.6	5.8	763.14	6.3	6.3	762.67	6.8	6.39	762.55	6.88
MW-19S	VM553	8.2	762.60	8.6	7.6	763.24	8.0	8.4	762.42	8.8	8.49	762.31	8.89
MW-20S	VM571	6.5	762.92	7.0	6.1	763.41	6.5	6.8	762.67	7.3	6.89	762.57	7.36
MW-21S	VM562	5.9	763.75	6.3	5.6	764.05	6.0	6.1	763.53	6.5	6.33	763.32	6.73
MW-22S	VM570	6.2	763.79	6.8	5.9	764.13	6.4	6.5	763.48	7.1	6.79	763.21	7.34
MW-23S	VM561	6.08 <sup>(2)</sup>	764.86	6.6	5.9	765.07	6.4	6.4	764.54	6.9	6.71	764.23	7.21
MW-24S	VM569	8.8	764.67	9.2	8.6	764.87	9.0	9.2	764.28	9.6	9.54	763.89	9.99
MW-25S	VM566	13.7	765.33	14.1	13.6	765.45	14.0	14.1	764.91	14.6	14.55	764.46	15.01
MW-26S	VO157	NM <sup>(3)</sup>	NM <sup>(3)</sup>	NM <sup>(3)</sup>	NM <sup>(3)</sup>	NM <sup>(3)</sup>	NM <sup>(3)</sup>	5.4	761.26	5.7	5.30	761.34	5.66
MW-27S	VO158	NM <sup>(3)</sup>	NM <sup>(3)</sup>	NM <sup>(3)</sup>	NM <sup>(3)</sup>	NM <sup>(3)</sup>	NM <sup>(3)</sup>	4.1	761.00	4.5	3.88	761.19	4.30
MW2	N/A	NM <sup>(4)</sup>	NM <sup>(4)</sup>	NM <sup>(4)</sup>	6.8	762.16	5.1	7.7	761.24	6.0	7.61	761.36	5.93

Table 3.2

**Well Detail Summary  
GM Janesville Assembly Plant  
Janesville, Wisconsin**

Well ID	WDNR Well Identification Number	October 24, 2011			June 2, 2014			September 15, 2014			March 25, 2015		
		Depth to Water (ft BTOC)	Water Elevation (ft amsl)	Depth to Water (ft bgs)	Depth to Water (ft BTOC)	Water Elevation (ft amsl)	Depth to Water (ft bgs)	Depth to Water (ft BTOC)	Water Elevation (ft amsl)	Depth to Water (ft bgs)	Depth to Water (ft BTOC)	Water Elevation (ft amsl)	Depth to Water (ft bgs)
MW4	N/A	NM <sup>(4)</sup>	NM <sup>(4)</sup>	NM <sup>(4)</sup>	7.1	762.13	4.5	8.0	761.26	5.3	7.86	761.37	5.22
MW5	N/A	NM <sup>(4)</sup>	NM <sup>(4)</sup>	NM <sup>(4)</sup>	7.4	762.41	5.8	8.2	761.56	6.6	8.17	761.61	6.55
MW-1D	VM584	7.1	761.10	7.5	6.5	761.73	6.8	7.2	760.96	7.6	7.12	761.06	7.49
MW-2D	VM754	10.5	761.61	11.0	9.7	762.35	10.2	10.6	761.44	11.1	10.52	761.54	11.03
MW-3D	VM580	4.4	761.74	4.9	3.8	762.35	4.3	4.5	761.60	5.0	4.45	761.65	4.96
MW-4D	VM583	4.4	761.54	4.9	3.7	762.29	4.1	5.4	760.59	5.9	6.83	759.11	7.33
MW-5D	VM579	12.2	763.32	13.2	11.7	763.84	12.7	12.5	763.06	13.5	12.95	762.61	13.91
MW-6D	VM581	5.3	764.31	5.8	5.0	764.56	5.5	5.5	764.06	6.0	5.82	763.76	6.31
MW-7D	VM582	21.2	765.64	21.6	21.2	765.58	21.7	21.9	764.94	22.3	22.30	764.49	22.75

## Notes:

- (1) Not collected inadvertently  
(2) Water present above protective casing, flooded within flushmount cover  
(3) Measurements were collected prior to monitoring well installation  
(4) Monitoring well was not included in gauging program  
(5) Water levels in off-site wells were only to be measured during the annual event and were inadvertently measured during the first and second quarter  
D - Deep Well. MW-2D, MW-3D, MW-5D, and MW-6D are intermediate wells screened in the upper sand unit. MW-1D, MW-4D, and MW-7D are bedrock wells  
ft BTOC - Feet below top of casing  
ft amsl - Feet above mean sea level.  
ft bgs - Feet below ground surface  
N/A - Not available. Monitoring well was installed by others. Based on measured total depth, monitoring well is assumed to be shallow.  
NM - Not Measured  
S - Shallow Well (screened across watertable)  
WDNR - Wisconsin Department of Natural Resources



Table 3.2

**Well Detail Summary  
GM Janesville Assembly Plant  
Janesville, Wisconsin**

Well ID	WDNR Well Identification Number	June 1, 2015			August 24, 2015			October 26, 2015		
		Depth to Water (ft BTOC)	Water Elevation (ft amsl)	Depth to Water (ft bgs)	Depth to Water (ft BTOC)	Water Elevation (ft amsl)	Depth to Water (ft bgs)	Depth to Water (ft BTOC)	Water Elevation (ft amsl)	Depth to Water (ft bgs)
MW-1S	VM552	7.05	761.33	7.45	7.88	760.50	8.28	7.75	760.63	8.15
MW-2S	VM573	10.67	761.64	11.05	11.44	760.87	11.82	11.35	760.96	11.73
MW-3S	VM578	4.63	761.66	5.16	5.30	760.99	5.83	5.22	761.07	5.75
MW-4S	VM555	4.30	761.81	4.74	4.85	761.26	5.29	4.75	761.36	5.19
MW-5S	VM554	12.37	762.96	12.77	13.00	762.33	13.40	12.96	762.37	13.36
MW-6S	VM560	5.48	763.82	6.02	5.84	763.46	6.38	5.80	763.50	6.34
MW-7S	VM565	22.05	764.69	22.60	22.43	764.31	22.98	22.44	764.30	22.99
MW-8S	VM551	5.83	761.40	6.15	6.64	760.59	6.96	6.50	760.73	6.82
MW-9S	VM558	5.22	761.50	5.56	6.00	760.72	6.34	5.90	760.82	6.24
MW-10S	VM575	4.83	761.52	5.23	5.57	760.78	5.97	5.50	760.85	5.90
MW-11S	VM577	4.58	761.47	5.06	5.24	760.81	5.72	5.16	760.89	5.64
MW-12S	VM559	4.70	761.76	5.23	5.35	761.11	5.88	5.27	761.19	5.80
MW-13S	VM557	4.71	761.78	5.12	5.35	761.14	5.76	5.23	761.26	5.64
MW-14S	VM556	5.05	761.83	5.45	5.63	761.25	6.03	5.53	761.35	5.93
MW-15S	VM564	4.63	762.14	5.09	5.10	761.67	5.56	5.01	761.76	5.47
MW-16S	VM550	7.35	761.82	7.72	8.15	761.02	8.52	8.06	761.11	8.43
MW-17S	VM572	7.77	762.07	8.31	8.45	761.39	8.99	8.39	761.45	8.93
MW-18S	VM563	6.30	762.64	6.79	6.70	762.24	7.19	6.53	762.41	7.02
MW-19S	VM553	8.35	762.45	8.75	9.03	761.77	9.43	8.97	761.83	9.37
MW-20S	VM571	6.70	762.76	7.17	7.42	762.04	7.89	7.38	762.08	7.85
MW-21S	VM562	6.25	763.40	6.65	6.65	763.00	7.05	6.61	763.04	7.01
MW-22S	VM570	6.70	763.30	7.25	7.22	762.78	7.77	7.18	762.82	7.73
MW-23S	VM561	6.65	764.29	7.15	7.00	763.94	7.50	6.97	763.97	7.47
MW-24S	VM569	9.49	763.94	9.94	9.93	763.50	10.38	9.92	763.51	10.37
MW-25S	VM566	14.52	764.49	14.98	14.90	764.11	15.36	14.90	764.11	15.36
MW-26S	VO157	5.05	761.59	5.41	5.95	760.69	6.31	NM <sup>(5)</sup>	NM <sup>(5)</sup>	NM <sup>(5)</sup>
MW-27S	VO158	3.74	761.33	4.16	4.57	760.50	4.99	NM <sup>(5)</sup>	NM <sup>(5)</sup>	NM <sup>(5)</sup>
MW2	N/A	7.50	761.47	5.82	8.25	760.72	6.57	8.18	760.79	6.50

Table 3.2

**Well Detail Summary  
GM Janesville Assembly Plant  
Janesville, Wisconsin**

Well ID	WDNR Well Identification Number	June 1, 2015			August 24, 2015			October 26, 2015		
		Depth to Water (ft BTOC)	Water Elevation (ft amsl)	Depth to Water (ft bgs)	Depth to Water (ft BTOC)	Water Elevation (ft amsl)	Depth to Water (ft bgs)	Depth to Water (ft BTOC)	Water Elevation (ft amsl)	Depth to Water (ft bgs)
MW4	N/A	7.76	761.47	5.12	8.50	760.73	5.86	8.44	760.79	5.80
MW5	N/A	8.07	761.71	6.45	8.75	761.03	7.13	8.70	761.08	7.08
MW-1D	VM584	6.94	761.24	7.31	7.75	760.43	8.12	7.40	760.78	7.77
MW-2D	VM754	10.42	761.64	10.93	11.18	760.88	11.69	11.07	760.99	11.58
MW-3D	VM580	4.38	761.72	4.89	5.00	761.10	5.51	4.98	761.12	5.49
MW-4D	VM583	4.43	761.51	4.93	8.17	757.77	8.67	5.40	760.54	5.90
MW-5D	VM579	12.54	763.02	13.50	13.15	762.41	14.11	13.12	762.44	14.08
MW-6D	VM581	5.77	763.81	6.26	6.08	763.50	6.57	6.05	763.53	6.54
MW-7D	VM582	22.23	764.56	22.68	22.95	763.84	23.40	22.49	764.30	22.94

## Notes:

- (1) Not collected inadvertently
  - (2) Water present above protective casing, flooded within flushmount cover
  - (3) Measurements were collected prior to monitoring well installation
  - (4) Monitoring well was not included in gauging program
  - (5) Water levels in off-site wells were only to be measured during the annual event and were inadvertently measured during the first and second quarter
- D - Deep Well. MW-2D, MW-3D, MW-5D, and MW-6D are intermediate wells screened in the upper sand unit. MW-1D, MW-4D, and MW-7D are bedrock wells
- ft BTOC - Feet below top of casing
- ft amsl - Feet above mean sea level.
- ft bgs - Feet below ground surface
- N/A - Not available. Monitoring well was installed by others. Based on measured total depth, monitoring well is assumed to be shallow.
- NM - Not Measured
- S - Shallow Well (screened across watertable)
- WDNR - Wisconsin Department of Natural Resources

Table 4.1

**Groundwater Analytical Results - Summary Of Ch. Nr 140, Wis. Adm. Code Exceedances  
GM Janesville Assembly Plant  
Janesville, Wisconsin**

Sample Location: Sample Identification: Sample Date: Sample Type: Water Elevation (ft AMSL)	NR 140, Wis. Adm. Code <sup>(1)</sup>		MW-1D	MW-1D	MW-1D	MW-1S	MW-1S	MW-1S	MW2	MW2	MW2	MW-2D	MW-2D	MW-2S
	ES	PAL	GW-060514-JK-24	GW-060514-JK-25	GW-082715-JL-31	GW-060514-JK-22	GW-091714-JK-13	GW-082715-JL-28	GW-060314-JK-07	GW-091614-JK-08	GW-082615-JL-13	GW-060314-JK-10	GW-082615-JL-18	GW-060314-JK-11
	a	b	6/5/2014	6/5/2014 Duplicate	8/27/2015	6/5/2014	9/17/2014	8/27/2015	6/3/2014	9/16/2014	8/26/2015	6/3/2014	8/26/2015	6/3/2014
	Units					761.33	760.99	760.50	762.16	761.24	760.72	762.35	760.88	762.30
<b>Volatile Organic Compounds (VOCs)</b>														
1,1,1-Trichloroethane	µg/L	200	40	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	0.2	0.02	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	850	85	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	7	0.7	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	70	14	1.0 U	1.0 U	1.0 U	0.16 J	--	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	480	96	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	0.2	0.02	2.0 U	2.0 U	2.0 U	2.0 UJ	--	2.0 U	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.05	0.005	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	600	60	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	480	96	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	600	120	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	75	15	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	4000	800	10 U	10 U	10 U	10 U	--	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	NV	NV	10 U	10 U	10 U	10 U	--	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	500000	50000	10 U	10 U	10 U	10 U	--	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	µg/L	9000	1800	10 U	10 U	10 U	10 UJ	--	10 U	1.1 J	10 U	10 U	10 U	10 U
Benzene	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	0.6	0.06	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	4.4	0.44	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	10	1	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1000	200	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	400	80	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	6	0.6	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	30	3	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	700	7	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	60	6	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1000	200	1.0 UJ	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	140	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	NV	NV	10 U	10 U	10 U	10 U	--	10 U	10 U	10 U	10 U	10 U	10 U
Methyl cyclohexane	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	60	12	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	100	10	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	800	160	0.19 J	0.17 J	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	100	20	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 UJ	--	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrchloroethane (CFC-113)	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	0.2	0.02	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	2000	400	2.0 U	2.0 U	2.0 U	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
<b>Semi-Volatile Organic Compounds (SVOCs)</b>														
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	NV	NV	1.0 U	0.96 U	5.0 U	1.0 U	--	4.8 U	1.0 U	4.8 U	4.9 U	0.97 U	4.8 U
2,4,5-Trichlorophenol	µg/L	NV	NV	5.0 U	4.8 U	5.0 U	5.1 U	--	4.8 U	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U
2,4,6-Trichlorophenol	µg/L	NV	NV	5.0 U	4.8 U	4.0 U	5.1 U	--	3.8 U	5.0 U	3.8 U	3.9 U	3.8 U	5.2 U
2,4-Dichlorophenol	µg/L	NV	NV	2.0 U	1.9 U	0.24 J	0.40 J	--	9.5 U	2.0 U	9.5 U	9.7 U	1.9 U	2.1 U
2,4-Dimethylphenol	µg/L	NV	NV	2.0 U	1.9 U	5.0 U	5.0 U	--	4.8 U	2.0 U	4.8 U	4.9 U	4.8 U	2.1 U
2,4-Dinitrophenol	µg/L	NV	NV	5.0 U	4.8 U	20 U	5.1 U	--	19 U	5.0 U	19 U	19 U	4.9 U	5.2 U
2,4-Dinitrotoluene	µg/L	0.05	0.005	5.0 U	4.8 U	5.0 U	5.1 U	--	4.8 U	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U
2,6-Dinitrotoluene	µg/L	0.05	0.005	5.0 U	4.8 U	5.0 U	5.1 U	--	4.8 U	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U
2-Chloronaphthalene	µg/L	NV	NV	1.0 U	0.96 U	5.0 U	1.0 U	--	4.8 U	1.0 U	4.8 U	4.9 U	0.97 U	4.8 U
2-Chlorophenol	µg/L	NV	NV	1.0 U	0.96 U	5.0 U	1.0 U	--	4.8 U	1.0 U	4.8 U	4.9 U	0.97 U	4.8 U



Table 4.1

Groundwater Analytical Results - Summary Of Ch. Nr 140, Wis. Adm. Code Exceedances  
GM Janesville Assembly Plant  
Janesville, Wisconsin

Sample Location:				MW-1D	MW-1D	MW-1D	MW-1S	MW-1S	MW-1S	MW2	MW2	MW2	MW-2D	MW-2D	MW-2S	
Sample Identification:				GW-060514-JK-24	GW-060514-JK-25	GW-082715-JL-31	GW-060514-JK-22	GW-091714-JK-13	GW-082715-JL-28	GW-060314-JK-07	GW-091614-JK-08	GW-082615-JL-13	GW-060314-JK-10	GW-082615-JL-18	GW-060314-JK-11	
Sample Date:				6/5/2014	6/5/2014	8/27/2015	6/5/2014	9/17/2014	8/27/2015	6/3/2014	9/16/2014	8/26/2015	6/3/2014	8/26/2015	6/3/2014	
Sample Type:					Duplicate											
Water Elevation (ft AMSL)							761.33	760.99	760.50	762.16	761.24	760.72	762.35	760.88	762.30	
	NR 140, Wis. Adm. Code <sup>(1)</sup>															
	ES	PAL														
	a	b														
Units																
<b>SVOCs (cont'd)</b>																
2-Methylnaphthalene	µg/L	NV	NV	0.20 U	0.19 U	5.0 U	0.20 U	--	4.8 U	0.20 U	4.8 U	4.9 U	0.19 U	4.8 U	0.21 U	
2-Methylphenol	µg/L	NV	NV	1.0 U	0.96 U	5.0 U	1.0 U	--	4.8 U	1.0 U	4.8 U	4.9 U	0.97 U	4.8 U	1.0 U	
2-Nitroaniline	µg/L	NV	NV	2.0 U	1.9 U	20 U	2.0 U	--	19 U	2.0 U	19 U	19 U	1.9 U	19 U	2.1 U	
2-Nitrophenol	µg/L	NV	NV	2.0 U	1.9 U	5.0 U	2.0 U	--	4.8 U	2.0 U	4.8 U	4.9 U	1.9 U	4.8 U	2.1 U	
3&4-Methylphenol	µg/L	NV	NV	2.0 U	1.9 U	5.0 U	2.0 U	--	4.8 U	2.0 U	4.8 U	4.9 U	1.9 U	4.8 U	2.1 U	
3,3'-Dichlorobenzidine	µg/L	NV	NV	5.0 U	4.8 U	0.99 U	5.1 U	--	0.95 U	5.0 U	0.95 U	0.97 U	4.9 U	0.95 U	5.2 U	
3-Nitroaniline	µg/L	NV	NV	2.0 U	1.9 U	20 U	2.0 U	--	19 U	2.0 U	19 U	19 U	1.9 U	19 U	2.1 U	
4,6-Dinitro-2-methylphenol	µg/L	NV	NV	5.0 U	4.8 U	20 U	5.1 U	--	19 U	5.0 U	19 U	19 U	4.9 U	19 U	5.2 U	
4-Bromophenyl phenyl ether	µg/L	NV	NV	2.0 U	1.9 U	5.0 U	2.0 U	--	4.8 U	2.0 U	4.8 U	4.9 U	1.9 U	4.8 U	2.1 U	
4-Chloro-3-methylphenol	µg/L	NV	NV	2.0 U	1.9 U	5.0 U	2.0 U	--	4.8 U	2.0 U	4.8 U	4.9 U	1.9 U	4.8 U	2.1 U	
4-Chloroaniline	µg/L	NV	NV	2.0 U	1.9 U	9.9 U	2.0 U	--	9.5 U	2.0 U	9.5 U	9.7 U	1.9 U	9.5 U	2.1 U	
4-Chlorophenyl phenyl ether	µg/L	NV	NV	2.0 U	1.9 U	5.0 U	2.0 U	--	4.8 U	2.0 U	4.8 U	4.9 U	1.9 U	4.8 U	2.1 U	
4-Nitroaniline	µg/L	NV	NV	2.0 U	1.9 U	20 U	2.0 U	--	19 U	2.0 U	19 U	19 U	1.9 U	19 U	2.1 U	
4-Nitrophenol	µg/L	NV	NV	5.0 U	4.8 U	20 U	5.1 U	--	19 U	5.0 U	19 U	19 U	4.9 U	19 U	5.2 U	
Acenaphthene	µg/L	NV	NV	0.20 U	0.19 U	5.0 U	0.20 U	--	4.8 U	0.20 U	4.8 U	4.9 U	0.19 U	4.8 U	0.21 U	
Acenaphthylene	µg/L	NV	NV	0.20 U	0.19 U	5.0 U	0.20 U	--	4.8 U	0.20 U	4.8 U	4.9 U	0.19 U	4.8 U	0.21 U	
Acetophenone	µg/L	NV	NV	1.0 U	0.96 U	5.0 U	1.0 U	--	4.8 U	1.0 U	4.8 U	4.9 U	0.97 U	4.8 U	1.0 U	
Anthracene	µg/L	3000	600	0.20 U	0.19 U	5.0 U	0.20 U	--	4.8 U	0.20 U	4.8 U	4.9 U	0.19 U	4.8 U	0.21 U	
Atrazine	µg/L	3	0.3	1.0 U	0.96 U	3.0 U	1.0 U	--	2.9 U	1.0 U	2.9 U	2.9 U	0.97 U	2.9 U	1.0 U	
Benzaldehyde	µg/L	NV	NV	1.0 U	0.96 U	5.0 U	1.0 U	--	4.8 U	1.0 U	4.8 U	4.9 U	0.97 U	4.8 U	1.0 U	
Benzo(a)anthracene	µg/L	NV	NV	0.20 U	0.19 U	0.99 U	0.20 U	--	0.95 U	0.20 U	0.95 U	0.97 U	0.19 U	0.95 U	0.21 U	
Benzo(a)pyrene	µg/L	0.2	0.02	0.20 U	0.19 U	0.99 U	0.20 U	--	0.95 U	0.20 U	0.95 U	0.97 U	0.19 U	0.95 U	0.21 U	
Benzo(b)fluoranthene	µg/L	0.2	0.02	0.20 U	0.19 U	0.99 U	0.20 U	--	0.95 U	0.20 U	0.95 U	0.97 U	0.19 U	0.95 U	0.21 U	
Benzo(g,h,i)perylene	µg/L	NV	NV	0.20 U	0.19 U	0.99 U	0.20 U	--	0.95 U	0.20 U	0.95 U	0.97 U	0.19 U	0.95 U	0.21 U	
Benzo(k)fluoranthene	µg/L	NV	NV	0.20 U	0.19 U	0.99 U	0.20 U	--	0.95 U	0.20 U	0.95 U	0.97 U	0.19 U	0.95 U	0.21 U	
Biphenyl (1,1'-Biphenyl)	µg/L	NV	NV	1.0 U	0.96 U	5.0 U	1.0 U	--	4.8 U	1.0 U	4.8 U	4.9 U	0.97 U	4.8 U	1.0 U	
bis(2-Chloroethoxy)methane	µg/L	NV	NV	1.0 U	0.96 U	5.0 U	1.0 U	--	4.8 U	1.0 U	4.8 U	4.9 U	0.97 U	4.8 U	1.0 U	
bis(2-Chloroethyl)ether	µg/L	NV	NV	1.0 U	0.96 U	0.99 U	1.0 U	--	0.95 U	1.0 U	0.95 U	0.97 U	0.97 U	0.95 U	1.0 U	
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	NV	NV	5.0 U	4.8 U	5.0 U	5.1 U	--	4.8 U	5.0 U	4.8 U	4.9 U	4.8 U	4.8 U	5.2 U	
Butyl benzylphthalate (BBP)	µg/L	NV	NV	2.0 U	1.9 U	5.0 U	2.0 U	--	4.8 U	2.0 U	4.8 U	4.9 U	1.9 U	4.8 U	2.1 U	
Caprolactam	µg/L	NV	NV	5.0 U	4.8 U	9.9 U	5.1 U	--	9.5 U	5.0 U	9.5 U	9.7 U	4.9 U	9.5 U	5.2 U	
Carbazole	µg/L	NV	NV	1.0 U	0.96 U	9.9 U	1.0 U	--	9.5 U	1.0 U	9.5 U	9.7 U	0.97 U	9.5 U	1.0 U	
Chrysene	µg/L	0.2	0.02	0.20 U	0.19 U	0.99 U	0.20 U	--	0.95 U	0.20 U	0.95 U	0.97 U	0.19 U	0.95 U	0.21 U	
Dibenz(a,h)anthracene	µg/L	NV	NV	0.20 U	0.19 U	2.0 U	0.20 U	--	1.9 U	0.20 U	1.9 U	1.9 U	0.19 U	1.9 U	0.21 U	
Dibenzofuran	µg/L	NV	NV	1.0 U	0.96 U	4.0 U	1.0 U	--	3.8 U	1.0 U	3.8 U	3.9 U	0.97 U	3.8 U	1.0 U	
Diethyl phthalate	µg/L	NV	NV	2.0 U	1.9 U	5.0 U	2.0 U	--	4.8 U	2.0 U	4.8 U	4.9 U	1.9 U	4.8 U	2.1 U	
Dimethyl phthalate	µg/L	NV	NV	2.0 U	1.9 U	5.0 U	2.0 U	--	4.8 U	2.0 U	4.8 U	4.9 U	1.9 U	4.8 U	2.1 U	
Di-n-butylphthalate (DBP)	µg/L	1000	100	5.0 U	4.8 U	5.0 U	5.1 U	--	4.8 U	5.0 U	4.8 U	4.9 U	4.8 U	4.8 U	5.2 U	
Di-n-octyl phthalate (DnOP)	µg/L	NV	NV	2.0 U	1.9 U	5.0 U	2.0 U	--	4.8 U	2.0 U	4.8 U	4.9 U	1.9 U	4.8 U	2.1 U	
Fluoranthene	µg/L	400	80	0.20 U	0.19 U	0.99 U	0.20 U	--	0.95 U	0.20 U	0.95 U	0.97 U	0.19 U	0.95 U	0.21 U	
Fluorene	µg/L	400	80	0.20 U	0.19 U	5.0 U	0.20 U	--	4.8 U	0.20 U	4.8 U	4.9 U	0.19 U	4.8 U	0.21 U	
Hexachlorobenzene	µg/L	1	0.1	0.20 U	0.19 U	0.20 U	0.20 U	--	0.19 U	0.20 U	0.19 U	0.19 U	0.19 U	0.19 U	0.21 U	
Hexachlorobutadiene	µg/L	NV	NV	1.0 U	0.96 U	0.99 U	1.0 U	--	0.95 U	1.0 U	0.95 U	0.97 U	0.97 U	0.95 U	1.0 U	
Hexachlorocyclopentadiene	µg/L	NV	NV	10 U	9.6 U	5.0 U	10 U	--	4.8 U	10 U	4.8 U	4.9 U	9.7 U	4.8 U	10 U	
Hexachloroethane	µg/L	NV	NV	1.0 U	0.96 U	5.0 U	1.0 U	--	4.8 U	1.0 U	4.8 U	4.9 U	0.97 U	4.8 U	1.0 U	
Indeno(1,2,3-cd)pyrene	µg/L	NV	NV	0.20 U	0.19 U	2.0 U	0.20 U	--	1.9 U	0.20 U	1.9 U	1.9 U	0.19 U	1.9 U	0.21 U	
Isophorone	µg/L	NV	NV	1.0 U	0.96 U	5.0 U	1.0 U	--	4.8 U	1.0 U	4.8 U	4.8 U	0.97 U	4.8 U	1.0 U	
Naphthalene	µg/L	100	10	0.20 U	0.19 U	5.0 U	0.20 U	--	4.8 U	0.20 U	4.8 U	4.9 U	0.19 U	4.8 U	0.21 U	
Nitrobenzene	µg/L	NV	NV	1.0 U	0.96 U	3.0 U	1.0 U	--	2.9 U	1.0 U	2.9 U	2.9 U	0.97 U	2.9 U	1.0 U	
N-Nitrosodi-n-propylamine	µg/L	NV	NV	1.0 U	0.96 U	5.0 U	1.0 U	--	4.8 U	1.0 U	4.8 U	4.9 U	0.97 U	4.8 U	1.0 U	
N-Nitrosodiphenylamine	µg/L	7	0.7	1.0 U	0.96 U	5.0 U	1.0 U	--	4.8 U	1.0 U	4.8 U	4.9 U	0.97 U	4.8 U	1.0 U	
Pentachlorophenol	µg/L	1	0.1	5.0 U	4.8 U	5.0 U	5.1 U	--	4.8 U	5.0 U	4.8 U	4.9 U	4.8 U	4.8 U	5.2 U	
Phenanthrene	µg/L	NV	NV	0.20 U	0.19 U	2.0 U	0.20 U	--	1.9 U	0.20 U	1.9 U	1.9 U	0.19 U	1.9 U	0.21 U	
Phenol	µg/L	2000	400	1.0 U	0.96 U	5.0 U	1.0 U	--	4.8 U	1.0 U	4.8 U	4.9 U	0.97 U	4.8 U	1.0 U	
Pyrene	µg/L	250	50	0.20 U	0.19 U	5.0 U	0.20 U	--	4.8 U	0.20 U	4.8 U	4.9 U	0.19 U	4.8 U	0.21 U	
<b>Metals</b>																
Aluminum	µg/L	200	40	50 U	50 U	--	50 U	--	--	50 U	--	--	50 U	--	50 U	
Aluminum (dissolved)	µg/L	NV	NV	50 U	50 U	--	50 U	--	--	50 U	--	--	50 U	--	50 U	
Antimony	µg/L	6	1.2	2.0 U	2.0 U	2.0 U	2.0 U	--	2.0 U	0.45 J	2.0 U	1.2 J <sup>b</sup>	2.0 U	2.0 U	2.0 U	
Antimony (dissolved)	µg/L	NV	NV	2.0 U	2.0 U	2.0 U	2.0 U	--	2.0 U	2.0 U	0.91 J	0.92 J	2.0 U	2.0 U	2.0 U	
Arsenic	µg/L	10	1	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Arsenic (dissolved)	µg/L	NV	NV	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	0.30 J	5.0 U	5.0 U	5.0 U	5.0 U	

Table 4.1

Groundwater Analytical Results - Summary Of Ch. Nr 140, Wis. Adm. Code Exceedances  
GM Janesville Assembly Plant  
Janesville, Wisconsin

Sample Location: Sample Identification: Sample Date: Sample Type: Water Elevation (ft AMSL)				MW-1D GW-060514-JK-24 6/5/2014	MW-1D GW-060514-JK-25 6/5/2014 Duplicate	MW-1D GW-082715-JL-31 8/27/2015	MW-1S GW-060514-JK-22 6/5/2014	MW-1S GW-091714-JK-13 9/17/2014	MW-1S GW-082715-JL-28 8/27/2015	MW2 GW-060314-JK-07 6/3/2014	MW2 GW-091614-JK-08 9/16/2014	MW2 GW-082615-JL-13 8/26/2015	MW-2D GW-060314-JK-10 6/3/2014	MW-2D GW-082615-JL-18 8/26/2015	MW-2S GW-060314-JK-11 6/3/2014	
							761.33	760.99	760.50	762.16	761.24	760.72	762.35	760.88	762.30	
		NR 140, Wis. Adm. Code <sup>(1)</sup>														
		ES	PAL													
		a	b													
	Units															
<b>Metals (cont'd)</b>																
Barium	µg/L	2000	400	32 J	33 J	35 J	61 J	--	57 J	88 J	95 J	90 J	27 J	30 J	67 J	
Barium (dissolved)	µg/L	NV	NV	35 J	33 J	30 J	62 J	--	58 J	93 J	92 J	90 J	28 J	29 J	67 J	
Beryllium	µg/L	4	0.4	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	0.40 J <sup>b</sup>	1.0 U	1.0 U	1.0 U	
Beryllium (dissolved)	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	0.22 J	1.0 U	0.053 J	1.0 U	
Cadmium	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	0.35 J	1.0 U	1.0 U	1.0 U	
Cadmium (dissolved)	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	0.11 J	1.0 U	1.0 U	1.0 U	
Chromium	µg/L	100	10	1.8 J	1.7 J	5.0 U	140 J <sup>ab</sup>	82 <sup>b</sup>	12 U	5.0 U	0.66 J	5.0 U	5.0 U	5.0 U	43 <sup>b</sup>	
Chromium (dissolved)	µg/L	NV	NV	0.89 J	5.0 U	5.0 U	1.3 J	--	5.0 U	0.86 J	0.77 J	5.0 U	1.0 J	5.0 U	5.0 U	
Chromium III (trivalent)	µg/L	NV	NV	--	--	20 U	--	82	12 J	--	20 U	20 U	--	20 U	--	
Chromium VI (hexavalent)	µg/L	NV	NV	--	--	20 U	--	20 U	20 U	--	20 U	20 U	--	20 U	--	
Cobalt	µg/L	40	8	7.0 U	7.0 U	0.12 J	7.0 U	--	0.18 J	7.0 U	0.077 J	0.30 J	7.0 U	0.087 J	7.0 U	
Cobalt (dissolved)	µg/L	NV	NV	7.0 U	7.0 U	0.090 J	7.0 U	--	0.17 J	7.0 U	0.047 J	0.16 J	7.0 U	0.086 J	7.0 U	
Copper	µg/L	1300	130	0.58 J	0.52 J	2.0 U	4.7	--	1.1 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	3.3 U	
Copper (dissolved)	µg/L	NV	NV	0.32 J	0.46 J	2.0 U	1.1 J	--	0.91 J	2.4	2.0 U	2.0 U	1.6 J	2.0 U	2.0 U	
Iron	µg/L	NV	NV	200 U	200 U	--	330	--	--	200 U	--	--	200 U	--	280	
Iron (dissolved)	µg/L	NV	NV	200 U	200 U	--	200 U	--	--	200 U	--	--	200 U	--	200 U	
Lead	µg/L	15	1.5	3.0 U	3.0 U	3.0 U	3.0 U	--	3.0 U	3.0 U	3.0 U	0.28 J	3.0 U	3.0 U	3.0 U	
Lead (dissolved)	µg/L	NV	NV	3.0 U	3.0 U	3.0 U	3.0 U	--	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	
Manganese	µg/L	300	60	7.1 J	5.8 J	2.0 J	210 <sup>b</sup>	--	220 <sup>b</sup>	15 U	6.6 J	5.2 J	15 U	15 U	15 U	
Manganese (dissolved)	µg/L	NV	NV	3.6 J	4.6 J	1.5 J	220	--	240	15 U	15 U	15 U	15 U	15 U	15 U	
Mercury	µg/L	2	0.2	0.20 U	0.20 U	0.20 U	0.20 U	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
Mercury (dissolved)	µg/L	NV	NV	0.20 U	0.20 U	0.20 U	0.20 UJ	--	0.20 U	0.20 UJ	0.20 U	0.20 U	0.20 UJ	0.20 U	0.20 U	
Nickel	µg/L	100	20	57 <sup>b</sup>	52 <sup>b</sup>	8.9 J	37 <sup>b</sup>	--	3.2 J	20 U	0.50 J	0.59 J	20 U	0.29 J	25 <sup>b</sup>	
Nickel (dissolved)	µg/L	NV	NV	56	59	7.9 J	33	--	3.1 J	20 U	7.7 J	0.45 J	20 U	0.26 J	22	
Selenium	µg/L	50	10	5.0 U	5.0 U	0.33 J	0.45 J	--	0.61 J	0.41 J	5.0 U	5.0 U	0.65 J	5.0 U	0.68 J	
Selenium (dissolved)	µg/L	NV	NV	5.0 U	5.0 U	0.42 J	0.35 J	--	0.62 J	0.35 J	0.30 J	5.0 U	0.50 J	5.0 U	0.63 J	
Silver	µg/L	50	10	0.20 U	0.20 U	0.20 U	0.20 U	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
Silver (dissolved)	µg/L	NV	NV	0.20 U	0.20 U	0.20 U	0.20 U	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
Thallium	µg/L	2	0.4	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	0.18 J	1.0 U	1.0 U	1.0 U	
Thallium (dissolved)	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Vanadium	µg/L	30	6	4.0 U	4.0 U	4.0 U	4.0 UJ	--	4.0 U	4.0 U	0.29 J	4.0 U	4.0 U	4.0 U	4.0 U	
Vanadium (dissolved)	µg/L	NV	NV	4.0 U	4.0 U	4.0 U	4.0 U	--	4.0 U	0.45 J	0.58 J	4.0 U	0.54 J	4.0 U	0.48 J	
Zinc	µg/L	NV	NV	20 U	20 U	20 U	20 U	--	20 U	20 U	20 U	7.5 J	20 U	20 U	20 U	
Zinc (dissolved)	µg/L	NV	NV	20 U	20 U	20 U	20 U	--	20 U	20 U	20 U	20 U	20 U	20 U	20 U	
<b>Glycol</b>																
Ethylene glycol	µg/L	14000	2800	--	--	--	--	--	--	10000 U	--	--	--	--	--	
<b>Field Parameters</b>																
Conductivity, field	mS/cm	NV	NV	0.627	0.627	0.443	1.173	1157	0.876	0.784	982	0.69	0.523	0.465	0.827	
Dissolved oxygen (DO), field	µg/L	NV	NV	6660	6660	7590	5220	3040	3030	6760	5370	6350	3690	5200	2660	
Oxidation reduction potential (ORP), field	millivolts	NV	NV	-34.7	-34.7	157.2	-30.1	-39.8	145.3	-11.2	-187.8	153.1	-47.4	152.1	-32	
pH, field	s.u.	NV	NV	7.71	7.71	7.36	7.51	7	7.04	7.12	6.9	7.33	7.26	7.39	7.48	
Temperature, field	Deg C	NV	NV	--	--	13.62	--	--	16.39	--	--	15.22	--	14.57	--	
Temperature, sample	Deg C	NV	NV	13.24	13.24	--	11.44	15.58	--	13.13	15.59	--	15.24	--	13.11	
Turbidity, field	NTU	NV	NV	6	6	1.03	9.8	7.4	1.13	0.81	0.71	0.76	1.37	0.68	7.1	

Notes:

- (1) Chapter (ch.) NR 140, Wisconsin Administrative Code (Wis. Adm. Code)
- 290 - *Italicized result indicates concentration is above associated PAL*
- 440 - **Bolded italicized result indicates concentration is above associated PAL and ES**
- ES - Enforcement Standard (ch. NR 140, Wis. Adm. Code)
- ft AMSL - feet above mean sea level
- J - Estimated concentration
- NV No value, criteria is not promulgated
- PAL Preventive Action Limit (ch. NR 140, Wis. Adm. Code)
- U - Not detected at the associated reporting limit
- µg/L - micrograms per Liter
- UJ - Not detected; associated reporting limit is estimated.
- R - Rejected

Table 4.1

**Groundwater Analytical Results - Summary Of Ch. Nr 140, Wis. Adm. Code Exceedances  
GM Janesville Assembly Plant  
Janesville, Wisconsin**

Sample Location:				MW-2S	MW-3D	MW-3D	MW-3D	MW-3D	MW-3S	MW-3S	MW-3S	MW4	MW4	MW4	MW4	
Sample Identification:				GW-082615-JL-17	GW-060314-JK-01	GW-091614-JK-01	GW-082515-JL-09	GW-082515-JL-10	GW-060314-JK-02	GW-091614-JK-02	GW-082515-JL-07	GW-060314-JK-09	GW-091614-JK-06	GW-032615-JK-03	GW-060215-JK-03	
Sample Date:				8/26/2015	6/3/2014	9/16/2014	8/25/2015	8/25/2015	6/3/2014	9/16/2014	8/25/2015	6/3/2014	9/16/2014	3/26/2015	6/2/2015	
Sample Type:								Duplicate								
Water Elevation (ft AMSL)				760.87	762.35	761.60	761.10	761.10	762.27	761.51	760.99	762.13	761.26	761.37	761.47	
	NR 140, Wis. Adm. Code <sup>(1)</sup>															
	ES	PAL														
	a	b														
Units																
<b>Volatile Organic Compounds (VOCs)</b>																
1,1,1-Trichloroethane	µg/L	200	40	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
1,1,2,2-Tetrachloroethane	µg/L	0.2	0.02	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
1,1,2-Trichloroethane	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
1,1-Dichloroethane	µg/L	850	85	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
1,1-Dichloroethene	µg/L	7	0.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
1,2,4-Trichlorobenzene	µg/L	70	14	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 UJ	6.7 U	5.0 U	10 U	
1,2,4-Trimethylbenzene	µg/L	480	96	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	800 <sup>ab</sup>	44	160 <sup>b</sup>	330 <sup>J</sup>	
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	0.2	0.02	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	50 UJ	13 U	10 U	20 U	
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.05	0.005	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
1,2-Dichlorobenzene	µg/L	600	60	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
1,2-Dichloroethane	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
1,2-Dichloropropane	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
1,3,5-Trimethylbenzene	µg/L	480	96	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	360 <sup>b</sup>	21	88	150 <sup>b</sup>	
1,3-Dichlorobenzene	µg/L	600	120	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
1,4-Dichlorobenzene	µg/L	75	15	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	4000	800	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	67 U	50 U	100 U	
2-Hexanone	µg/L	NV	NV	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	67 U	50 U	100 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	500000	50000	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	67 U	50 U	100 U	
Acetone	µg/L	9000	1800	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	67 U	50 U	100 U	
Benzene	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
Bromodichloromethane	µg/L	0.6	0.06	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.38 <sup>J</sup>	0.91 <sup>J</sup>	0.50 <sup>J</sup>	25 U	6.7 U	5.0 U	10 U	
Bromoform	µg/L	4.4	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
Bromomethane (Methyl bromide)	µg/L	10	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
Carbon disulfide	µg/L	1000	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
Carbon tetrachloride	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
Chlorobenzene	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
Chloroethane	µg/L	400	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
Chloroform (Trichloromethane)	µg/L	6	0.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.43 <sup>J</sup>	1.2 <sup>b</sup>	0.68 <sup>J</sup>	25 U	6.7 U	5.0 U	10 U	
Chloromethane (Methyl chloride)	µg/L	30	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
cis-1,2-Dichloroethene	µg/L	700	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
cis-1,3-Dichloropropene	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
Cyclohexane	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	29	24	31	31	
Dibromochloromethane	µg/L	60	6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
Dichlorodifluoromethane (CFC-12)	µg/L	1000	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
Ethylbenzene	µg/L	700	140	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	120	53	31	59	
Isopropyl benzene	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	80	88	57 <sup>J</sup>	91	
Methyl acetate	µg/L	NV	NV	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	67 U	50 U	100 U	
Methyl cyclohexane	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 J	11	14	12	
Methyl tert butyl ether (MTBE)	µg/L	60	12	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
Methylene chloride	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
Styrene	µg/L	100	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
Tetrachloroethene	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
Toluene	µg/L	800	160	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
trans-1,2-Dichloroethene	µg/L	100	20	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
trans-1,3-Dichloropropene	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
Trichloroethene	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
Trichlorofluoromethane (CFC-11)	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 UJ	6.7 U	5.0 U	10 U	
Trifluorotrchloroethane (CFC-113)	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
Vinyl chloride	µg/L	0.2	0.02	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	6.7 U	5.0 U	10 U	
Xylenes (total)	µg/L	2000	400	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	630 <sup>b</sup>	17	97	110	
<b>Semi-Volatile Organic Compounds (SVOCs)</b>																
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	NV	NV	5.2 U	0.97 U	5.2 U	4.8 U	5.1 U	0.96 U	5.1 U	4.8 U	3.8 U	4.8 U	4.8 U	5.1 U	
2,4,5-Trichlorophenol	µg/L	NV	NV	5.2 U	4.9 U	5.2 U	4.8 U	5.1 U	4.8 U	5.1 U	4.8 U	19 U	4.8 U	4.8 U	5.1 U	
2,4,6-Trichlorophenol	µg/L	NV	NV	4.1 U	4.9 U	4.2 U	3.8 U	4.1 U	4.8 U	4.0 U	3.8 U	19 U	3.8 U	3.8 U	4.0 U	
2,4-Dichlorophenol	µg/L	NV	NV	10 U	1.9 U	10 U	9.5 U	10 U	1.9 U	10 U	9.5 U	7.6 U	9.5 U	9.5 U	10 U	
2,4-Dimethylphenol	µg/L	NV	NV	5.2 U	1.9 U	5.2 U	4.8 U	5.1 U	1.9 U	5.1 U	4.8 U	7.6 U	4.8 U	4.8 U	0.28 <sup>J</sup>	
2,4-Dinitrophenol	µg/L	NV	NV	21 U	4.9 U	21 U	19 U	20 U	4.8 U	20 U	19 U	19 U	19 U	19 U	20 U	
2,4-Dinitrotoluene	µg/L	0.05	0.005	5.2 U	4.9 U	5.2 U	4.8 U	5.1 U	4.8 U	5.1 U	4.8 U	19 U	4.8 U	4.8 U	5.1 U	
2,6-Dinitrotoluene	µg/L	0.05	0.005	5.2 U	4.9 U	5.2 U	4.8 U	5.1 U	4.8 U	5.1 U	4.8 U	19 U	4.8 U	4.8 U	5.1 U	
2-Chloronaphthalene	µg/L	NV	NV	5.2 U	0.97 U	5.2 U	4.8 U	5.1 U	0.96 U	5.1 U	4.8 U	3.8 U	4.8 U	4.8 U	5.1 U	
2-Chlorophenol	µg/L	NV	NV	5.2 U	0.97 U	5.2 U	4.8 U	5.1 U	0.96 U	5.1 U	4.8 U	3.8 U	4.8 U	4.8 U	5.1 U	



Table 4.1

Groundwater Analytical Results - Summary Of Ch. Nr 140, Wis. Adm. Code Exceedances  
GM Janesville Assembly Plant  
Janesville, Wisconsin

Sample Location:				MW-2S	MW-3D	MW-3D	MW-3D	MW-3D	MW-3S	MW-3S	MW-3S	MW4	MW4	MW4	MW4	
Sample Identification:				GW-082615-JL-17	GW-060314-JK-01	GW-091614-JK-01	GW-082515-JL-09	GW-082515-JL-10	GW-060314-JK-02	GW-091614-JK-02	GW-082515-JL-07	GW-060314-JK-09	GW-091614-JK-06	GW-032615-JK-03	GW-060215-JK-03	
Sample Date:				8/26/2015	6/3/2014	9/16/2014	8/25/2015	8/25/2015	6/3/2014	9/16/2014	8/25/2015	6/3/2014	9/16/2014	3/26/2015	6/2/2015	
Sample Type:								Duplicate								
Water Elevation (ft AMSL)				760.87	762.35	761.60	761.10	761.10	762.27	761.51	760.99	762.13	761.26	761.37	761.47	
	NR 140, Wis. Adm. Code <sup>(1)</sup>															
	ES	PAL														
	a	b														
Units																
<b>SVOCs (cont'd)</b>																
2-Methylnaphthalene	µg/L	NV	NV	5.2 U	0.19 U	5.2 U	4.8 U	5.1 U	0.19 U	5.1 U	4.8 U	18	7.3	19	26 J	
2-Methylphenol	µg/L	NV	NV	5.2 U	0.97 U	5.2 U	4.8 U	5.1 U	0.96 U	5.1 U	4.8 U	3.8 U	4.8 U	4.8 U	5.1 U	
2-Nitroaniline	µg/L	NV	NV	21 U	1.9 U	21 U	19 U	20 U	1.9 U	20 U	19 U	7.6 U	19 U	19 U	20 U	
2-Nitrophenol	µg/L	NV	NV	5.2 U	1.9 U	5.2 U	4.8 U	5.1 U	1.9 U	5.1 U	4.8 U	7.6 U	4.8 U	4.8 U	5.1 U	
3&4-Methylphenol	µg/L	NV	NV	5.2 U	1.9 U	5.2 U	4.8 U	5.1 U	1.9 U	5.1 U	4.8 U	7.6 U	4.8 U	4.8 U	5.1 U	
3,3'-Dichlorobenzidine	µg/L	NV	NV	1.0 U	4.9 U	1.0 U	0.95 U	1.0 U	4.8 U	1.0 U	0.95 U	19 U	0.95 U	0.95 U	1.0 U	
3-Nitroaniline	µg/L	NV	NV	21 U	1.9 U	21 U	19 U	20 U	1.9 U	20 U	19 U	7.6 U	19 U	19 U	20 U	
4,6-Dinitro-2-methylphenol	µg/L	NV	NV	21 U	4.9 U	21 U	19 U	20 U	4.8 U	20 U	19 U	19 U	19 U	19 U	20 U	
4-Bromophenyl phenyl ether	µg/L	NV	NV	5.2 U	1.9 U	5.2 U	4.8 U	5.1 U	1.9 U	5.1 U	4.8 U	7.6 U	4.8 U	4.8 U	5.1 U	
4-Chloro-3-methylphenol	µg/L	NV	NV	5.2 U	1.9 U	5.2 U	4.8 U	5.1 U	1.9 U	5.1 U	4.8 U	7.6 U	4.8 U	4.8 U	5.1 U	
4-Chloroaniline	µg/L	NV	NV	10 U	1.9 U	10 U	9.5 U	10 U	1.9 U	10 U	9.5 U	7.6 U	9.5 U	9.5 U	10 U	
4-Chlorophenyl phenyl ether	µg/L	NV	NV	5.2 U	1.9 U	5.2 U	4.8 U	5.1 U	1.9 U	5.1 U	4.8 U	7.6 U	4.8 U	4.8 U	5.1 U	
4-Nitroaniline	µg/L	NV	NV	21 U	1.9 U	21 U	19 U	20 U	1.9 U	20 U	19 U	7.6 U	19 U	19 U	20 U	
4-Nitrophenol	µg/L	NV	NV	21 U	4.9 U	21 U	19 U	20 U	4.8 U	20 U	19 U	19 U	19 U	19 U	20 U	
Acenaphthene	µg/L	NV	NV	5.2 U	0.19 U	5.2 U	4.8 U	5.1 U	0.19 U	5.1 U	4.8 U	0.76 U	4.8 U	4.8 U	0.34 J	
Acenaphthylene	µg/L	NV	NV	5.2 U	0.19 U	5.2 U	4.8 U	5.1 U	0.19 U	5.1 U	4.8 U	0.76 U	4.8 U	4.8 U	5.1 U	
Acetophenone	µg/L	NV	NV	5.2 U	0.97 U	5.2 U	4.8 U	5.1 U	0.96 U	5.1 U	4.8 U	3.8 U	4.8 U	4.8 U	5.1 U	
Anthracene	µg/L	3000	600	5.2 U	0.19 U	5.2 U	4.8 U	5.1 U	0.19 U	5.1 U	4.8 U	0.76 U	4.8 U	4.8 U	5.1 U	
Atrazine	µg/L	3	0.3	3.1 U	0.97 U	3.1 U	2.9 U	3.1 U	0.96 U	3.0 U	2.9 U	3.8 U	2.9 U	2.9 U	3.0 U	
Benzaldehyde	µg/L	NV	NV	5.2 U	0.97 U	5.2 U	4.8 U	5.1 U	0.96 U	5.1 U	4.8 U	3.8 U	4.8 U	4.8 U	5.1 U	
Benzo(a)anthracene	µg/L	NV	NV	1.0 U	0.19 U	1.0 U	0.95 U	1.0 U	0.19 U	1.0 U	0.95 U	0.76 U	0.95 U	0.95 U	1.0 U	
Benzo(a)pyrene	µg/L	0.2	0.02	1.0 U	0.19 U	1.0 U	0.95 U	1.0 U	0.19 U	1.0 U	0.95 U	0.76 U	0.95 U	0.95 U	1.0 U	
Benzo(b)fluoranthene	µg/L	0.2	0.02	1.0 U	0.19 U	1.0 U	0.95 U	1.0 U	0.19 U	1.0 U	0.95 U	0.76 U	0.95 U	0.95 U	1.0 U	
Benzo(g,h,i)perylene	µg/L	NV	NV	1.0 U	0.19 U	1.0 U	0.95 U	1.0 U	0.19 U	1.0 U	0.95 U	0.76 U	0.95 U	0.95 U	1.0 U	
Benzo(k)fluoranthene	µg/L	NV	NV	1.0 U	0.19 U	1.0 U	0.95 U	1.0 U	0.19 U	1.0 U	0.95 U	0.76 U	0.95 U	0.95 U	1.0 U	
Biphenyl (1,1'-Biphenyl)	µg/L	NV	NV	5.2 U	0.97 U	5.2 U	4.8 U	5.1 U	0.96 U	5.1 U	4.8 U	0.72 J	0.42 J	0.56 J	0.84 J	
bis(2-Chloroethoxy)methane	µg/L	NV	NV	5.2 U	0.97 U	5.2 U	4.8 U	5.1 U	0.96 U	5.1 U	4.8 U	3.8 U	4.8 U	4.8 U	5.1 U	
bis(2-Chloroethyl)ether	µg/L	NV	NV	1.0 U	0.97 U	1.0 U	0.95 U	1.0 U	0.96 U	1.0 U	0.95 U	3.8 U	4.8 U	4.8 U	5.1 U	
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	NV	NV	5.2 U	4.9 U	5.2 U	4.8 U	5.1 U	4.8 U	5.1 U	4.8 U	19 U	4.8 U	4.8 U	5.1 U	
Butyl benzylphthalate (BBP)	µg/L	NV	NV	5.2 U	1.9 U	5.2 U	4.8 U	5.1 U	1.9 U	5.1 U	4.8 U	7.6 U	4.8 U	4.8 U	5.1 U	
Caprolactam	µg/L	NV	NV	0.29 J	4.9 U	10 U	9.5 U	10 U	4.8 U	10 U	9.5 U	19 U	9.5 U	9.5 U	10 U	
Carbazole	µg/L	NV	NV	10 U	0.97 U	10 U	9.5 U	10 U	0.96 U	10 U	9.5 U	3.8 U	9.5 U	9.5 U	10 U	
Chrysene	µg/L	0.2	0.02	1.0 U	0.19 U	1.0 U	0.95 U	1.0 U	0.19 U	1.0 U	0.95 U	0.76 U	0.95 U	0.95 U	1.0 U	
Dibenz(a,h)anthracene	µg/L	NV	NV	2.1 U	0.19 U	2.1 U	1.9 U	2.0 U	0.19 U	2.0 U	1.9 U	0.76 U	1.9 U	1.9 U	2.0 U	
Dibenzofuran	µg/L	NV	NV	4.1 U	0.97 U	4.2 U	3.8 U	4.1 U	0.96 U	4.0 U	3.8 U	0.18 J	0.16 J	0.18 J	0.30 J	
Diethyl phthalate	µg/L	NV	NV	5.2 U	1.9 U	5.2 U	4.8 U	5.1 U	1.9 U	5.1 U	4.8 U	7.6 U	4.8 U	4.8 U	5.1 U	
Dimethyl phthalate	µg/L	NV	NV	5.2 U	1.9 U	5.2 U	4.8 U	5.1 U	1.9 U	5.1 U	4.8 U	7.6 U	4.8 U	4.8 U	5.1 U	
Di-n-butylphthalate (DBP)	µg/L	1000	100	5.2 U	4.9 U	5.2 U	4.8 U	5.1 U	4.8 U	5.1 U	4.8 U	19 U	4.8 U	4.8 U	5.1 U	
Di-n-octyl phthalate (DnOP)	µg/L	NV	NV	5.2 U	1.9 U	5.2 U	4.8 U	5.1 U	1.9 U	5.1 U	4.8 U	7.6 U	4.8 U	4.8 U	5.1 U	
Fluoranthene	µg/L	400	80	1.0 U	0.19 U	0.12 J	0.95 U	1.0 U	0.19 U	1.0 U	0.95 U	0.76 U	0.95 U	0.95 U	1.0 U	
Fluorene	µg/L	400	80	5.2 U	0.19 U	5.2 U	4.8 U	5.1 U	0.19 U	5.1 U	4.8 U	0.76 U	0.18 J	0.23 J	0.39 J	
Hexachlorobenzene	µg/L	1	0.1	0.21 U	0.19 U	0.21 U	0.19 U	0.20 U	0.19 U	0.20 U	0.19 U	0.76 U	0.19 U	0.19 U	0.20 U	
Hexachlorobutadiene	µg/L	NV	NV	1.0 U	0.97 U	1.0 U	0.95 U	1.0 U	0.96 U	1.0 U	0.95 U	3.8 U	0.95 U	0.95 U	1.0 U	
Hexachlorocyclopentadiene	µg/L	NV	NV	5.2 U	9.7 U	5.2 U	4.8 U	5.1 U	9.6 U	5.1 U	4.8 U	38 U	4.8 U	4.8 U	5.1 U	
Hexachloroethane	µg/L	NV	NV	5.2 U	0.97 U	5.2 U	4.8 U	5.1 U	0.96 U	5.1 U	4.8 U	3.8 U	4.8 U	R	5.1 U	
Indeno(1,2,3-cd)pyrene	µg/L	NV	NV	2.1 U	0.19 U	2.1 U	1.9 U	2.0 U	0.19 U	2.0 U	1.9 U	0.76 U	1.9 U	1.9 U	2.0 U	
Isophorone	µg/L	NV	NV	5.2 U	0.97 U	5.2 U	4.8 U	5.1 U	0.96 U	5.1 U	4.8 U	3.8 U	4.8 U	4.8 U	5.1 U	
Naphthalene	µg/L	100	10	5.2 U	0.19 U	5.2 U	4.8 U	5.1 U	0.19 U	5.1 U	4.8 U	73 <sup>b</sup>	0.39 J	21 <sup>b</sup>	48 J <sup>b</sup>	
Nitrobenzene	µg/L	NV	NV	3.1 U	0.97 U	3.1 U	2.9 U	3.1 U	0.96 U	3.0 U	2.9 U	3.8 U	2.9 U	2.9 U	3.0 U	
N-Nitrosodi-n-propylamine	µg/L	NV	NV	5.2 U	0.97 U	5.2 U	4.8 U	5.1 U	0.96 U	5.1 U	4.8 U	3.8 U	4.8 U	4.8 U	5.1 U	
N-Nitrosodiphenylamine	µg/L	7	0.7	5.2 U	0.97 U	5.2 U	4.8 U	5.1 U	0.96 U	5.1 U	4.8 U	3.8 U	4.8 U	4.8 U	5.1 U	
Pentachlorophenol	µg/L	1	0.1	5.2 U	4.9 U	5.2 U	4.8 U	5.1 U	4.8 U	5.1 U	4.8 U	19 U	4.8 U	4.8 U	5.1 U	
Phenanthrene	µg/L	NV	NV	2.1 U	0.19 U	2.1 U	1.9 U	2.0 U	0.19 U	2.0 U	1.9 U	0.76 U	1.9 U	1.9 U	0.13 J	
Phenol	µg/L	2000	400	5.2 U	0.97 U	5.2 U	4.8 U	5.1 U	0.96 U	5.1 U	4.8 U	3.8 U	4.8 U	4.8 U	5.1 U	
Pyrene	µg/L	250	50	5.2 U	0.19 U	5.2 U	4.8 U	5.1 U	0.19 U	5.1 U	4.8 U	0.76 U	4.8 U	4.8 U	5.1 U	
<b>Metals</b>																
Aluminum	µg/L	200	40	--	8.1 J	--	--	--	50 <sup>b</sup>	--	--	50 U	--	--	--	
Aluminum (dissolved)	µg/L	NV	NV	--	50 U	--	--	--	50 U	--	--	50 U	--	--	--	
Antimony	µg/L	6	1.2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Antimony (dissolved)	µg/L	NV	NV	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.17 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Arsenic	µg/L	10	1	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.9 J <sup>b</sup>	5.0 U	5.0 U	5.0 U	
Arsenic (dissolved)	µg/L	NV	NV	5.0 U	5.0 U	0.41 J	5.0 U	5.0 U	5.0 U	0.32 J	5.0 U	5.0 U	2.2 J	5.0 U	5.0 U	

Table 4.1

Groundwater Analytical Results - Summary Of Ch. Nr 140, Wis. Adm. Code Exceedances  
GM Janesville Assembly Plant  
Janesville, Wisconsin

Sample Location: Sample Identification: Sample Date: Sample Type: Water Elevation (ft AMSL)				MW-2S GW-082615-JL-17 8/26/2015	MW-3D GW-060314-JK-01 6/3/2014	MW-3D GW-091614-JK-01 9/16/2014	MW-3D GW-082515-JL-09 8/25/2015	MW-3D GW-082515-JL-10 8/25/2015	MW-3S GW-060314-JK-02 6/3/2014	MW-3S GW-091614-JK-02 9/16/2014	MW-3S GW-082515-JL-07 8/25/2015	MW4 GW-060314-JK-09 6/3/2014	MW4 GW-091614-JK-06 9/16/2014	MW4 GW-032615-JK-03 3/26/2015	MW4 GW-060215-JK-03 6/2/2015
				760.87	762.35	761.60	761.10	Duplicate 761.10	762.27	761.51	760.99	762.13	761.26	761.37	761.47
	NR 140, Wis. Adm. Code <sup>(1)</sup>														
	ES	PAL													
	a	b													
	Units														
<b>Metals (cont'd)</b>															
Barium	µg/L	2000	400	70 J	81 J	84 J	80 J	85 J	58 J	77 J	75 J	95 J	120	100	98 J
Barium (dissolved)	µg/L	NV	NV	64 J	83 J	80 J	81 J	82 J	28 J	73 J	76 J	90 J	110	110	100
Beryllium	µg/L	4	0.4	0.074 J	1.0 U	0.064 J	1.0 U	1.0 U	1.0 U	0.060 J	1.0 U	1.0 U	0.057 J	1.0 U	1.0 U
Beryllium (dissolved)	µg/L	NV	NV	0.070 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium (dissolved)	µg/L	NV	NV	1.0 U	1.0 U	0.17 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chromium	µg/L	100	10	<b>160<sup>ab</sup></b>	5.0 U	1.1 J	5.0 U	5.0 U	<b>300<sup>ab</sup></b>	<b>170<sup>ab</sup></b>	<b>150<sup>ab</sup></b>	5.0 U	5.0 U	5.0 U	5.0 U
Chromium (dissolved)	µg/L	NV	NV	5.0 U	1.2 J	1.1 J	5.0 U	5.0 U	1.7 J	0.80 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chromium III (trivalent)	µg/L	NV	NV	160	--	20 U	20 U	20 U	--	20 U	150	--	20 U	20 U	20 U
Chromium VI (hexavalent)	µg/L	NV	NV	20 U	--	20 UJ	20 U	20 U	--	20 UJ	20 U	--	100 U	20 U	40 U
Cobalt	µg/L	40	8	1.3 J	7.0 U	0.088 J	0.18 J	0.16 J	1.5 J	0.61 J	0.90 J	7.0 U	0.20 J	0.35 J	7.0 U
Cobalt (dissolved)	µg/L	NV	NV	0.26 J	7.0 U	0.18 J	0.092 J	0.091 J	7.0 U	0.13 J	0.10 J	7.0 U	0.11 J	0.28 J	7.0 U
Copper	µg/L	1300	130	5.7	2.0 U	2.0 U	1.2 J	0.96 J	11	4.4	5.6	2.0 U	2.0 U	2.0 U	2.0 U
Copper (dissolved)	µg/L	NV	NV	0.84 J	2.0	2.0 U	2.0 U	2.0 U	3.1	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Iron	µg/L	NV	NV	--	200 U	--	--	--	1500	--	--	2300	--	--	--
Iron (dissolved)	µg/L	NV	NV	--	200 U	--	--	--	200 U	--	--	200 U	--	--	--
Lead	µg/L	15	1.5	3.0 U	3.0 U	0.12 J	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	0.15 J	0.15 J	3.0 U
Lead (dissolved)	µg/L	NV	NV	3.0 U	3.0 U	0.18 J	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Manganese	µg/L	300	60	17	15 U	1.7 J	3.6 J	3.0 J	15 U	3.1 J	6.1 J	<b>370<sup>ab</sup></b>	<b>420<sup>ab</sup></b>	<b>470<sup>ab</sup></b>	<b>500<sup>ab</sup></b>
Manganese (dissolved)	µg/L	NV	NV	3.1 J	15 U	15 U	15 U	15 U	15 U	15 U	15 U	350	430	500	510
Mercury	µg/L	2	0.2	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Mercury (dissolved)	µg/L	NV	NV	0.15 J	0.20 UJ	0.20 U	0.20 U	0.20 U	0.20 UJ	0.20 U	0.20 U	0.20 UJ	0.20 U	0.20 U	0.20 U
Nickel	µg/L	100	20	15 J	20 U	0.27 J	0.71 J	0.49 J	20 <sup>b</sup>	11 J	10 J	0.51 J	0.55 J	0.55 J	20 U
Nickel (dissolved)	µg/L	NV	NV	8.5 J	20 U	0.44 J	0.35 J	0.36 J	20 U	0.82 J	1.1 J	20 U	0.39 J	0.44 J	20 U
Selenium	µg/L	50	10	5.0 U	1.1 J	5.0 U	5.0 U	5.0 U	0.45 J	5.0 U	5.0 U	0.40 J	5.0 U	0.33 J	5.0 U
Selenium (dissolved)	µg/L	NV	NV	5.0 U	0.68 J	0.42 J	5.0 U	5.0 U	2.0 J	0.35 J	5.0 U	0.49 J	5.0 U	0.46 J	5.0 U
Silver	µg/L	50	10	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Silver (dissolved)	µg/L	NV	NV	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Thallium	µg/L	2	0.4	1.0 U	1.7 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.19 J	1.0 U
Thallium (dissolved)	µg/L	NV	NV	1.0 U	1.0 U	0.40 J	1.0 U	1.0 U	1.0 U	0.28 J	1.0 U	1.0 U	0.12 J	1.0 U	1.0 U
Vanadium	µg/L	30	6	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 UJ	4.0 U	4.0 U	4.0 U	4.0 U	0.39 J	4.0 U
Vanadium (dissolved)	µg/L	NV	NV	4.0 U	0.61 J	0.63 J	4.0 U	4.0 U	0.43 J	0.52 J	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Zinc	µg/L	NV	NV	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Zinc (dissolved)	µg/L	NV	NV	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
<b>Glycol</b>															
Ethylene glycol	µg/L	14000	2800	--	10000 U	--	--	--	10000 U	--	--	10000 U	--	--	--
<b>Field Parameters</b>															
Conductivity, field	mS/cm	NV	NV	0.992	0.878	880	0.829	0.829	0.508	716	0.689	0.573	775	0.866	0.75
Dissolved oxygen (DO), field	µg/L	NV	NV	2450	8250	7390	6540	6540	6340	5350	5940	690	470	1760	990
Oxidation reduction potential (ORP), field	millivolts	NV	NV	90.6	18.6	-43.9	128.8	128.8	-16.1	-184.2	100.1	-116.2	-87.5	-86.7	-82.3
pH, field	s.u.	NV	NV	6.82	7.12	7.23	7.34	7.34	7.1	7.05	7.41	6.97	7.12	7.43	7.03
Temperature, field	Deg C	NV	NV	16.12	--	--	17.69	17.69	--	--	20.12	--	--	--	13.89
Temperature, sample	Deg C	NV	NV	--	13.59	15.62	--	--	15.27	18.88	--	15.43	19	6.11	--
Turbidity, field	NTU	NV	NV	12	5.1	6.3	4.72	4.72	10.48	6.29	15	2.82	6.6	4.69	1.21

Notes:

- (1) Chapter (ch.) NR 140, Wisconsin Administrative Code (Wis. Adm. Code)
- 290 - *Italicized result indicates concentration is above associated PAL*
- 440 - *Bolded italicized result indicates concentration is above associated PAL and ES***
- ES - Enforcement Standard (ch. NR 140, Wis. Adm. Code)
- ft AMSL - feet above mean sea level
- J - Estimated concentration
- NV No value, criteria is not promulgated
- PAL Preventive Action Limit (ch. NR 140, Wis. Adm. Code)
- U - Not detected at the associated reporting limit
- µg/L - micrograms per Liter
- UJ - Not detected; associated reporting limit is estimated.
- R - Rejected

Table 4.1

**Groundwater Analytical Results - Summary Of Ch. Nr 140, Wis. Adm. Code Exceedances  
GM Janesville Assembly Plant  
Janesville, Wisconsin**

Sample Location:				MW4	MW4	MW-4D	MW-4D	MW-4S	MW-4S	MW5	MW5	MW5	MW-5D	MW-5D	MW-5D	
Sample Identification:				GW-082615-JL-14	GW-102715-JK-03	GW-060614-JK-31	GW-082415-JL-01	GW-060614-JK-30	GW-082415-JL-02	GW-060314-JK-08	GW-091614-JK-05	GW-082615-JL-15	GW-060514-JK-27	GW-120414-JK-01	GW-082815-JL-32	
Sample Date:				8/26/2015	10/27/2015	6/6/2014	8/24/2015	6/6/2014	8/24/2015	6/3/2014	9/16/2014	8/26/2015	6/5/2014	12/4/2014	8/28/2015	
Sample Type:																
Water Elevation (ft AMSL)				760.73	760.79	762.29	757.77	762.37	761.26	762.41	761.56	761.03	763.84	763.06	762.41	
	NR 140, Wis. Adm. Code <sup>(1)</sup>															
	ES	PAL														
	a	b														
Units																
<b>Volatile Organic Compounds (VOCs)</b>																
1,1,1-Trichloroethane	µg/L	200	40	3.3 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
1,1,2,2-Tetrachloroethane	µg/L	0.2	0.02	3.3 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
1,1,2-Trichloroethane	µg/L	5	0.5	3.3 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
1,1-Dichloroethane	µg/L	850	85	3.3 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
1,1-Dichloroethene	µg/L	7	0.7	3.3 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
1,2,4-Trichlorobenzene	µg/L	70	14	3.3 U	3.3 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	40 UJ	14 U	1.0 U	1.0 UJ	--	1.0 U	
1,2,4-Trimethylbenzene	µg/L	480	96	2.9 J	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U	720 <sup>ab</sup>	500 <sup>ab</sup>	0.46 J	1.0 U	--	1.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	0.2	0.02	6.7 U	6.7 U	2.0 UJ	2.0 U	2.0 UJ	2.0 U	80 UJ	29 U	2.0 U	2.0 UJ	--	2.0 U	
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.05	0.005	3.3 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
1,2-Dichlorobenzene	µg/L	600	60	3.3 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
1,2-Dichloroethane	µg/L	5	0.5	3.3 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
1,2-Dichloropropane	µg/L	5	0.5	3.3 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
1,3,5-Trimethylbenzene	µg/L	480	96	1.6 J	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U	720 <sup>b</sup>	81	1.0 U	1.0 U	--	1.0 U	
1,3-Dichlorobenzene	µg/L	600	120	3.3 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
1,4-Dichlorobenzene	µg/L	75	15	3.3 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	4000	800	33 U	33 U	10 U	0.69 J	10 U	10 U	400 U	140 U	10 U	10 U	--	10 U	
2-Hexanone	µg/L	NV	NV	33 U	33 U	10 U	10 U	10 U	10 U	400 U	140 U	10 U	10 U	--	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	500000	50000	33 U	33 U	10 U	10 U	10 U	10 U	400 U	140 U	10 U	10 U	--	10 U	
Acetone	µg/L	9000	1800	33 U	33 U	10 UJ	10 U	10 UJ	10 U	110 J	140 U	10 U	10 UJ	--	10 U	
Benzene	µg/L	5	0.5	3.3 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
Bromodichloromethane	µg/L	0.6	0.06	3.3 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
Bromoform	µg/L	4.4	0.44	3.3 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
Bromomethane (Methyl bromide)	µg/L	10	1	3.3 U	3.3 U	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
Carbon disulfide	µg/L	1000	200	3.3 U	3.3 U	7.7 J	8.3	1.0 U	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
Carbon tetrachloride	µg/L	5	0.5	3.3 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
Chlorobenzene	µg/L	NV	NV	3.3 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
Chloroethane	µg/L	400	80	3.3 U	3.3 U	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
Chloroform (Trichloromethane)	µg/L	6	0.6	3.3 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
Chloromethane (Methyl chloride)	µg/L	30	3	3.3 U	3.3 U	0.30 J	1.0 U	1.0 U	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
cis-1,2-Dichloroethene	µg/L	700	7	3.3 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
cis-1,3-Dichloropropene	µg/L	NV	NV	3.3 U	3.3 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
Cyclohexane	µg/L	NV	NV	17	18	1.0 U	1.0 U	1.0 U	1.0 U	40 U	39	1.0 U	1.0 U	--	1.0 U	
Dibromochloromethane	µg/L	60	6	3.3 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
Dichlorodifluoromethane (CFC-12)	µg/L	1000	200	3.3 U	3.3 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
Ethylbenzene	µg/L	700	140	6.0	5.6	1.0 U	1.0 U	1.0 U	1.0 U	130	76	1.0 U	1.0 U	--	1.0 U	
Isopropyl benzene	µg/L	NV	NV	63	55	1.0 U	1.0 U	1.0 U	1.0 U	23 J	24	1.0 U	1.0 U	--	1.0 U	
Methyl acetate	µg/L	NV	NV	33 U	33 U	10 U	10 U	10 U	10 U	400 U	140 U	10 U	10 U	--	10 U	
Methyl cyclohexane	µg/L	NV	NV	8.5	8.9	1.0 U	1.0 U	1.0 U	1.0 U	12 J	15	1.0 U	1.0 U	--	1.0 U	
Methyl tert butyl ether (MTBE)	µg/L	60	12	3.3 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
Methylene chloride	µg/L	5	0.5	3.3 U	3.3 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
Styrene	µg/L	100	10	3.3 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
Tetrachloroethene	µg/L	5	0.5	3.3 U	3.3 U	1.0 U	1.0 U	0.30 J	1.0 U	40 U	14 U	0.45 J	1.0 U	--	1.0 U	
Toluene	µg/L	800	160	3.3 U	3.3 U	0.16 J	0.70 J	1.0 U	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
trans-1,2-Dichloroethene	µg/L	100	20	3.3 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
trans-1,3-Dichloropropene	µg/L	NV	NV	3.3 U	3.3 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
Trichloroethene	µg/L	5	0.5	3.3 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
Trichlorofluoromethane (CFC-11)	µg/L	NV	NV	3.3 U	3.3 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	40 UJ	14 U	1.0 U	1.0 UJ	--	1.0 U	
Trifluorotrchloroethane (CFC-113)	µg/L	NV	NV	3.3 U	3.3 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
Vinyl chloride	µg/L	0.2	0.02	3.3 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	14 U	1.0 U	1.0 U	--	1.0 U	
Xylenes (total)	µg/L	2000	400	6.7 U	6.7 U	2.0 U	2.0 U	2.0 U	2.0 U	160	43	2.0 U	2.0 U	--	2.0 U	
<b>Semi-Volatile Organic Compounds (SVOCs)</b>																
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	NV	NV	4.8 U	4.8 U	0.99 U	5.0 U	0.96 U	4.8 U	0.95 U	4.8 U	5.3 U	1.1 U	--	4.8 U	
2,4,5-Trichlorophenol	µg/L	NV	NV	4.8 U	4.8 U	5.0 U	5.0 U	4.8 U	4.8 U	4.8 U	4.8 U	5.3 U	5.4 U	--	4.8 U	
2,4,6-Trichlorophenol	µg/L	NV	NV	3.8 U	3.8 U	5.0 U	4.0 U	4.8 U	3.8 U	4.8 U	3.8 U	4.2 U	5.4 U	--	3.8 U	
2,4-Dichlorophenol	µg/L	NV	NV	9.5 U	9.5 U	2.0 U	0.20 J	1.9 U	9.5 U	1.9 U	9.5 U	11 U	2.2 U	--	9.5 U	
2,4-Dimethylphenol	µg/L	NV	NV	4.8 U	4.8 U	2.0 U	5.0 U	1.9 U	4.8 U	1.9 U	4.8 U	5.3 U	2.2 U	--	4.8 U	
2,4-Dinitrophenol	µg/L	NV	NV	19 U	19 U	5.0 U	20 U	4.8 U	19 U	4.8 U	19 U	21 U	5.4 U	--	19 U	
2,4-Dinitrotoluene	µg/L	0.05	0.005	4.8 U	4.8 U	5.0 U	5.0 U	4.8 U	4.8 U	4.8 U	4.8 U	5.3 U	5.4 U	--	4.8 U	
2,6-Dinitrotoluene	µg/L	0.05	0.005	4.8 U	4.8 U	5.0 U	5.0 U	4.8 U	4.8 U	4.8 U	4.8 U	5.3 U	5.4 U	--	4.8 U	
2-Chloronaphthalene	µg/L	NV	NV	4.8 U	4.8 U	0.99 U	5.0 U	0.96 U	4.8 U	0.95 U	4.8 U	5.3 U	1.1 U	--	4.8 U	
2-Chlorophenol	µg/L	NV	NV	4.8 U	4.8 U	0.99 U	5.0 U	0.96 U	4.8 U	0.95 U	4.8 U	5.3 U	1.1 U	--	4.8 U	



Table 4.1

Groundwater Analytical Results - Summary Of Ch. Nr 140, Wis. Adm. Code Exceedances  
GM Janesville Assembly Plant  
Janesville, Wisconsin

Sample Location:				MW4	MW4	MW-4D	MW-4D	MW-4S	MW-4S	MW5	MW5	MW5	MW-5D	MW-5D	MW-5D	
Sample Identification:				GW-082615-JL-14	GW-102715-JK-03	GW-060614-JK-31	GW-082415-JL-01	GW-060614-JK-30	GW-082415-JL-02	GW-060314-JK-08	GW-091614-JK-05	GW-082615-JL-15	GW-060514-JK-27	GW-120414-JK-01	GW-082815-JL-32	
Sample Date:				8/26/2015	10/27/2015	6/6/2014	8/24/2015	6/6/2014	8/24/2015	6/3/2014	9/16/2014	8/26/2015	6/5/2014	12/4/2014	8/28/2015	
Sample Type:																
Water Elevation (ft AMSL)				760.73	760.79	762.29	757.77	762.37	761.26	762.41	761.56	761.03	763.84	763.06	762.41	
	NR 140, Wis. Adm. Code <sup>(1)</sup>															
	ES	PAL														
	a	b														
Units																
<b>SVOCs (cont'd)</b>																
2-Methylnaphthalene	µg/L	NV	NV	20	20	0.20 U	5.0 U	0.19 U	4.8 U	15	7.3	5.3 U	0.22 U	--	4.8 U	
2-Methylphenol	µg/L	NV	NV	4.8 U	4.8 U	0.99 U	5.0 U	0.96 U	4.8 U	0.95 U	4.8 U	5.3 U	1.1 U	--	4.8 U	
2-Nitroaniline	µg/L	NV	NV	19 U	19 U	2.0 U	20 U	1.9 U	19 U	1.9 U	19 U	21 U	2.2 U	--	19 U	
2-Nitrophenol	µg/L	NV	NV	4.8 U	4.8 U	2.0 U	5.0 U	1.9 U	4.8 U	1.9 U	4.8 U	5.3 U	2.2 U	--	4.8 U	
3&4-Methylphenol	µg/L	NV	NV	4.8 U	4.8 U	2.0 U	5.0 U	1.9 U	4.8 U	1.9 U	4.8 U	5.3 U	2.2 U	--	4.8 U	
3,3'-Dichlorobenzidine	µg/L	NV	NV	0.95 U	R	5.0 U	1.0 U	4.8 U	0.95 U	4.8 U	0.95 U	1.1 U	5.4 U	--	0.95 U	
3-Nitroaniline	µg/L	NV	NV	19 U	19 U	2.0 U	20 U	1.9 U	19 U	1.9 U	19 U	21 U	2.2 U	--	19 U	
4,6-Dinitro-2-methylphenol	µg/L	NV	NV	19 U	19 U	5.0 U	20 U	4.8 U	19 U	4.8 U	19 U	21 U	5.4 U	--	19 U	
4-Bromophenyl phenyl ether	µg/L	NV	NV	4.8 U	4.8 U	2.0 U	5.0 U	1.9 U	4.8 U	1.9 U	4.8 U	5.3 U	2.2 U	--	4.8 U	
4-Chloro-3-methylphenol	µg/L	NV	NV	4.8 U	4.8 U	2.0 U	5.0 U	1.9 U	4.8 U	1.9 U	4.8 U	5.3 U	2.2 U	--	4.8 U	
4-Chloroaniline	µg/L	NV	NV	9.5 U	R	2.0 U	10 U	1.9 U	9.5 U	1.9 U	9.5 U	11 U	2.2 U	--	9.5 U	
4-Chlorophenyl phenyl ether	µg/L	NV	NV	4.8 U	4.8 U	2.0 U	5.0 U	1.9 U	4.8 U	1.9 U	4.8 U	5.3 U	2.2 U	--	4.8 U	
4-Nitroaniline	µg/L	NV	NV	19 U	19 U	2.0 U	20 U	1.9 U	19 U	1.9 U	19 U	21 U	2.2 U	--	19 U	
4-Nitrophenol	µg/L	NV	NV	19 U	19 U	5.0 U	20 U	4.8 U	19 U	4.8 U	19 U	21 U	5.4 U	--	19 U	
Acenaphthene	µg/L	NV	NV	0.22 J	0.23 J	0.20 U	5.0 U	0.19 U	4.8 U	0.15 J	0.12 J	5.3 U	0.22 U	--	4.8 U	
Acenaphthylene	µg/L	NV	NV	4.8 U	4.8 U	0.20 U	5.0 U	0.19 U	4.8 U	0.19 U	4.8 U	5.3 U	0.22 U	--	4.8 U	
Acetophenone	µg/L	NV	NV	4.8 U	4.8 U	0.99 U	0.35 J	0.96 U	4.8 U	0.95 U	4.8 U	5.3 U	1.1 U	--	4.8 U	
Anthracene	µg/L	3000	600	4.8 U	4.8 U	0.20 U	5.0 U	0.19 U	4.8 U	0.19 U	4.8 U	5.3 U	0.22 U	--	4.8 U	
Atrazine	µg/L	3	0.3	2.9 U	2.9 U	0.99 U	3.0 U	0.96 U	2.9 U	0.95 U	2.9 U	3.2 U	1.1 U	--	2.9 U	
Benzaldehyde	µg/L	NV	NV	4.8 U	4.8 U	0.99 U	5.0 U	0.96 U	4.8 U	0.95 U	4.8 U	5.3 U	1.1 U	--	4.8 U	
Benzo(a)anthracene	µg/L	NV	NV	0.95 U	0.95 U	0.20 U	1.0 U	0.19 U	0.95 U	0.19 U	0.95 U	1.1 U	0.22 U	--	0.95 U	
Benzo(a)pyrene	µg/L	0.2	0.02	0.95 U	0.95 U	0.20 U	1.0 U	0.19 U	0.95 U	0.19 U	0.95 U	1.1 U	0.22 U	--	0.95 U	
Benzo(b)fluoranthene	µg/L	0.2	0.02	0.95 U	0.95 U	0.20 U	1.0 U	0.19 U	0.95 U	0.19 U	0.95 U	1.1 U	0.22 U	--	0.95 U	
Benzo(g,h,i)perylene	µg/L	NV	NV	0.95 U	0.95 U	0.20 U	1.0 U	0.19 U	0.95 U	0.19 U	0.95 U	1.1 U	0.22 U	--	0.95 U	
Benzo(k)fluoranthene	µg/L	NV	NV	0.95 U	0.95 U	0.20 U	1.0 U	0.19 U	0.95 U	0.19 U	0.95 U	1.1 U	0.22 U	--	0.95 U	
Biphenyl (1,1'-Biphenyl)	µg/L	NV	NV	0.57 J	0.52 J	0.99 U	5.0 U	0.96 U	4.8 U	0.61 J	0.17 J	5.3 U	1.1 U	--	4.8 U	
bis(2-Chloroethoxy)methane	µg/L	NV	NV	4.8 U	4.8 U	0.99 U	5.0 U	0.96 U	4.8 U	0.95 U	4.8 U	5.3 U	1.1 U	--	4.8 U	
bis(2-Chloroethyl)ether	µg/L	NV	NV	0.95 U	0.95 U	0.99 U	1.0 U	0.96 U	0.95 U	0.95 U	0.95 U	1.1 U	1.1 U	--	0.95 U	
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	NV	NV	4.8 U	4.8 U	5.0 U	5.0 U	4.8 U	4.8 U	4.8 U	4.8 U	5.3 U	4.8 U	--	4.8 U	
Butyl benzylphthalate (BBP)	µg/L	NV	NV	4.8 U	4.8 U	2.0 U	5.0 U	1.9 U	4.8 U	1.9 U	4.8 U	5.3 U	2.2 U	--	4.8 U	
Caprolactam	µg/L	NV	NV	9.5 U	R	5.0 U	1.1 J	4.8 U	0.45 J	4.8 U	9.5 U	11 U	5.4 U	--	9.5 U	
Carbazole	µg/L	NV	NV	9.5 U	9.5 U	0.99 U	10 U	0.96 U	9.5 U	0.95 U	9.5 U	11 U	1.1 U	--	9.5 U	
Chrysene	µg/L	0.2	0.02	0.95 U	0.95 U	0.20 U	1.0 U	0.19 U	0.95 U	0.19 U	0.95 U	1.1 U	0.22 U	--	0.95 U	
Dibenz(a,h)anthracene	µg/L	NV	NV	1.9 U	1.9 U	0.20 U	2.0 U	0.19 U	1.9 U	0.19 U	1.9 U	2.1 U	0.22 U	--	1.9 U	
Dibenzofuran	µg/L	NV	NV	0.22 J	0.23 J	0.99 U	4.0 U	0.96 U	3.8 U	0.95 U	3.8 U	4.2 U	1.1 U	--	3.8 U	
Diethyl phthalate	µg/L	NV	NV	4.8 U	4.8 U	2.0 U	5.0 U	1.9 U	4.8 U	1.9 U	4.8 U	5.3 U	2.2 U	--	4.8 U	
Dimethyl phthalate	µg/L	NV	NV	4.8 U	4.8 U	2.0 U	5.0 U	1.9 U	4.8 U	1.9 U	4.8 U	5.3 U	2.2 U	--	4.8 U	
Di-n-butylphthalate (DBP)	µg/L	1000	100	4.8 U	4.8 U	5.0 U	5.0 U	4.8 U	4.8 U	4.8 U	4.8 U	5.3 U	5.4 U	--	4.8 U	
Di-n-octyl phthalate (DnOP)	µg/L	NV	NV	4.8 U	4.8 U	2.0 U	5.0 U	1.9 U	4.8 U	1.9 U	4.8 U	5.3 U	2.2 U	--	4.8 U	
Fluoranthene	µg/L	400	80	0.95 U	0.95 U	0.20 U	1.0 U	0.19 U	0.95 U	0.19 U	0.95 U	1.1 U	0.22 U	--	0.95 U	
Fluorene	µg/L	400	80	0.28 J	0.27 J	0.20 U	5.0 U	0.19 U	4.8 U	0.11 J	4.8 U	5.3 U	0.22 U	--	4.8 U	
Hexachlorobenzene	µg/L	1	0.1	0.19 U	0.19 U	0.20 U	0.20 U	0.19 U	0.19 U	0.19 U	0.19 U	0.21 U	0.22 U	--	0.19 U	
Hexachlorobutadiene	µg/L	NV	NV	0.95 U	0.95 U	0.99 U	1.0 U	0.96 U	0.95 U	0.95 U	0.95 U	1.1 U	1.1 U	--	0.95 U	
Hexachlorocyclopentadiene	µg/L	NV	NV	4.8 U	4.8 U	9.9 U	5.0 U	9.6 U	4.8 U	9.5 U	4.8 U	5.3 U	11 U	--	4.8 U	
Hexachloroethane	µg/L	NV	NV	4.8 U	4.8 U	0.99 U	5.0 U	0.96 U	4.8 U	0.95 U	4.8 U	5.3 U	1.1 U	--	4.8 U	
Indeno(1,2,3-cd)pyrene	µg/L	NV	NV	1.9 U	1.9 U	0.20 U	2.0 U	0.19 U	1.9 U	0.19 U	1.9 U	2.1 U	0.22 U	--	1.9 U	
Isophorone	µg/L	NV	NV	4.8 U	4.8 U	0.99 U	5.0 U	0.96 U	4.8 U	0.95 U	4.8 U	5.3 U	1.1 U	--	4.8 U	
Naphthalene	µg/L	100	10	27 <sup>b</sup>	25 <sup>b</sup>	0.20 U	5.0 U	0.19 U	4.8 U	32 <sup>b</sup>	13 <sup>b</sup>	5.3 U	0.22 U	--	4.8 U	
Nitrobenzene	µg/L	NV	NV	2.9 U	2.9 U	0.99 U	3.0 U	0.96 U	2.9 U	0.95 U	2.9 U	3.2 U	1.1 U	--	2.9 U	
N-Nitrosodi-n-propylamine	µg/L	NV	NV	4.8 U	4.8 U	0.99 U	5.0 U	0.96 U	4.8 U	0.95 U	4.8 U	5.3 U	1.1 U	--	4.8 U	
N-Nitrosodiphenylamine	µg/L	7	0.7	4.8 U	4.8 U	0.99 U	5.0 U	0.96 U	4.8 U	0.95 U	4.8 U	5.3 U	1.1 U	--	4.8 U	
Pentachlorophenol	µg/L	1	0.1	4.8 U	4.8 U	5.0 U	5.0 U	4.8 U	4.8 U	4.8 U	4.8 U	5.3 U	5.4 U	--	4.8 U	
Phenanthrene	µg/L	NV	NV	0.11 J	0.10 J	0.20 U	2.0 U	0.19 U	1.9 U	0.19 U	1.9 U	2.1 U	0.22 U	--	1.9 U	
Phenol	µg/L	2000	400	4.8 U	4.8 U	2.0	0.65 J	0.96 U	4.8 U	0.95 U	4.8 U	5.3 U	1.1 U	--	4.8 U	
Pyrene	µg/L	250	50	4.8 U	4.8 U	0.20 U	5.0 U	0.19 U	4.8 U	0.19 U	4.8 U	5.3 U	0.22 U	--	4.8 U	
<b>Metals</b>																
Aluminum	µg/L	200	40	--	--	50 U	--	12 J	--	50 U	--	--	50 U	--	--	
Aluminum (dissolved)	µg/L	NV	NV	--	--	50 U	--	50 U	--	50 U	--	--	50 U	--	--	
Antimony	µg/L	6	1.2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	--	0.19 J	
Antimony (dissolved)	µg/L	NV	NV	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.16 J	2.0 U	2.0 U	--	2.0 U	
Arsenic	µg/L	10	1	5.0 U	2.0 J <sup>b</sup>	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	6.8 <sup>b</sup>	5.0 U	0.88 J	--	5.0 U	
Arsenic (dissolved)	µg/L	NV	NV	5.0 U	2.6 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	6.6	5.0 U	0.63 J	--	5.0 U	

Table 4.1

Groundwater Analytical Results - Summary Of Ch. Nr 140, Wis. Adm. Code Exceedances  
GM Janesville Assembly Plant  
Janesville, Wisconsin

Sample Location: Sample Identification: Sample Date: Sample Type: Water Elevation (ft AMSL)		MW4 GW-082615-JL-14 8/26/2015	MW4 GW-102715-JK-03 10/27/2015	MW-4D GW-060614-JK-31 6/6/2014	MW-4D GW-082415-JL-01 8/24/2015	MW-4S GW-060614-JK-30 6/6/2014	MW-4S GW-082415-JL-02 8/24/2015	MW5 GW-060314-JK-08 6/3/2014	MW5 GW-091614-JK-05 9/16/2014	MW5 GW-082615-JL-15 8/26/2015	MW-5D GW-060514-JK-27 6/5/2014	MW-5D GW-120414-JK-01 12/4/2014	MW-5D GW-082815-JL-32 8/28/2015		
	NR 140, Wis. Adm. Code <sup>(1)</sup>														
	ES a														
	PAL b														
	Units														
<b>Metals (cont'd)</b>															
Barium	µg/L	2000	400	110	110	0.77 J	2.3 J	63 J	62 J	60 J	69 J	62 J	68 J	--	73 J
Barium (dissolved)	µg/L	NV	NV	110	100	1.5 J	2.0 J	68 J	62 J	59 J	64 J	59 J	62 J	--	75 J
Beryllium	µg/L	4	0.4	0.13 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.061 J	0.090 J	1.0 U	--	0.13 J
Beryllium (dissolved)	µg/L	NV	NV	0.11 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.074 J	1.0 U	--	0.10 J
Cadmium	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	0.15 J
Cadmium (dissolved)	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	0.067 J
Chromium	µg/L	100	10	5.0 U	5.0 U	1.8 J	5.0 U	4.1 J	5.8 U	5.0 U	5.0 U	5.0 U	120 J <sup>ab</sup>	1600 <sup>ab</sup>	52 <sup>b</sup>
Chromium (dissolved)	µg/L	NV	NV	5.0 U	5.0 U	0.22 J	5.0 U	1.8 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
Chromium III (trivalent)	µg/L	NV	NV	20 U	5.0 U	--	20 U	--	20 U	--	20 U	--	1600	--	52
Chromium VI (hexavalent)	µg/L	NV	NV	6.2 J	5.0 U	--	20 U	--	20 U	--	100 UJ	--	10 UJ	--	20 U
Cobalt	µg/L	40	8	0.21 J	0.22 J	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	0.30 J	0.24 J	1.0 J	--	0.49 J
Cobalt (dissolved)	µg/L	NV	NV	0.19 J	0.33 J	7.0 U	7.0 U	7.0 U	7.0 U	0.84 J	0.26 J	0.14 J	7.0 U	--	0.27 J
Copper	µg/L	1300	130	2.0 U	2.0 U	2.0 U	2.0 U	0.25 J	2.0 U	2.0 U	2.0 U	1.3 J	4.9	--	2.6
Copper (dissolved)	µg/L	NV	NV	2.0 U	2.0 U	2.0 U	2.0 U	1.9 J	2.0 U	2.0 U	2.0 U	2.0 U	0.44 J	--	0.78 J
Iron	µg/L	NV	NV	--	--	200 U	--	200 U	--	12000	--	--	680	--	--
Iron (dissolved)	µg/L	NV	NV	--	--	200 U	--	200 U	--	11000	--	--	200 U	--	--
Lead	µg/L	15	1.5	0.16 J	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	0.17 J	3.0 U	3.0 U	--	0.49 J
Lead (dissolved)	µg/L	NV	NV	3.0 U	0.12 J	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	--	0.11 J
Manganese	µg/L	300	60	460 <sup>ab</sup>	490 <sup>ab</sup>	2.0 J	15 U	2.3 J	1.4 J	620 <sup>ab</sup>	530 <sup>ab</sup>	17	11 J	--	2.4 J
Manganese (dissolved)	µg/L	NV	NV	480	500	15 U	15 U	0.87 J	15 U	590	470	7.2 J	1.8 J	--	15 U
Mercury	µg/L	2	0.2	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	--	0.20 U
Mercury (dissolved)	µg/L	NV	NV	0.20 U	0.20 U	0.20 UJ	0.20 U	0.20 UJ	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	--	0.20 U
Nickel	µg/L	100	20	0.49 J	0.49 J	2.3 J	2.5 J	4.4 J	5.3 J	2.0 U	0.43 J	0.90 J	16 J	--	8.2 J
Nickel (dissolved)	µg/L	NV	NV	0.44 J	0.58 J	1.9 J	2.2 J	5.3 J	5.5 J	20 U	0.41 J	0.62 J	9.5 J	--	4.8 J
Selenium	µg/L	50	10	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.5 J	--	5.0 U
Selenium (dissolved)	µg/L	NV	NV	5.0 U	5.0 U	0.50 J	5.0 U	0.54 J	5.0 U	0.40 J	5.0 U	5.0 U	1.4 J	--	5.0 U
Silver	µg/L	50	10	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.029 J	0.20 U	--	0.20 U
Silver (dissolved)	µg/L	NV	NV	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	--	0.20 U
Thallium	µg/L	2	0.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	0.077 J
Thallium (dissolved)	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.15 J	1.0 U	1.0 U	--	1.0 U
Vanadium	µg/L	30	6	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 UJ	--	4.0 U
Vanadium (dissolved)	µg/L	NV	NV	4.0 U	4.0 U	4.0 U	4.0 U	0.39 J	4.0 U	4.0 U	4.0 U	0.43 J	--	--	4.0 U
Zinc	µg/L	NV	NV	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	--	20 U
Zinc (dissolved)	µg/L	NV	NV	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	--	20 U
<b>Glycol</b>															
Ethylene glycol	µg/L	14000	2800	--	--	--	--	--	--	10000 U	--	--	--	--	--
<b>Field Parameters</b>															
Conductivity, field	mS/cm	NV	NV	0.782	0.75	0.613	0.68	0.728	0.706	0.536	714	0.965	0.97	0.982	1.175
Dissolved oxygen (DO), field	µg/L	NV	NV	840	990	490	1430	8170	5400	1060	670	3000	9070	8870	8220
Oxidation reduction potential (ORP), field	millivolts	NV	NV	-81.8	-82.3	-203.9	-157.6	-77.3	123.2	-176.5	-87.8	46.1	1.9	3.4	105.8
pH, field	s.u.	NV	NV	6.9	7.03	9.8	10.05	7.04	6.86	9.23	7.3	6.95	7.42	7.43	7.02
Temperature, field	Deg C	NV	NV	18.64	13.89	--	18.88	--	20.14	--	--	15.82	--	--	13.34
Temperature, sample	Deg C	NV	NV	--	--	15.27	--	13.8	--	11.83	15.24	--	13.4	12.33	--
Turbidity, field	NTU	NV	NV	5.57	1.21	4.7	4.01	1.47	21.61	7.4	6.4	3.65	17	5	8.1

Notes:

- (1) Chapter (ch.) NR 140, Wisconsin Administrative Code (Wis. Adm. Code)
- 290 - *Italicized result indicates concentration is above associated PAL*
- 440 - Bolded italicized result indicates concentration is above associated PAL and ES**
- ES - Enforcement Standard (ch. NR 140, Wis. Adm. Code)
- ft AMSL - feet above mean sea level
- J - Estimated concentration
- NV No value, criteria is not promulgated
- PAL Preventive Action Limit (ch. NR 140, Wis. Adm. Code)
- U - Not detected at the associated reporting limit
- µg/L - micrograms per Liter
- UJ - Not detected; associated reporting limit is estimated.
- R - Rejected

Table 4.1

**Groundwater Analytical Results - Summary Of Ch. Nr 140, Wis. Adm. Code Exceedances**  
**GM Janesville Assembly Plant**  
**Janesville, Wisconsin**

Sample Location: Sample Identification: Sample Date: Sample Type: Water Elevation (ft AMSL)	NR 140, Wis. Adm. Code <sup>(1)</sup>		MW-5S	MW-5S	MW-5S	MW-6D	MW-6D	MW-6D	MW-6S	MW-6S	MW-7D	MW-7D	MW-7S	MW-7S
	ES a	PAL b	GW-060514-JK-26 6/5/2014	GW-091714-JK-16 9/17/2014	GW-082815-JL-33 8/28/2015	GW-060914-JK-38 6/9/2014	GW-082815-JL-37 8/28/2015	GW-082815-JL-38 8/28/2015	GW-060914-JK-37 6/9/2014	GW-082815-JL-35 8/28/2015	GW-060414-JK-18 6/4/2014	GW-082715-JL-27 8/27/2015	GW-060414-JK-17 6/4/2014	GW-091714-JK-12 9/17/2014
			763.78	763.00	762.33	764.56	763.50	Duplicate 763.50	764.54	763.46	765.58	763.84	765.66	765.11
	Units													
<b>Volatile Organic Compounds (VOCs)</b>														
1,1,1-Trichloroethane	µg/L	200	40	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
1,1,2,2-Tetrachloroethane	µg/L	0.2	0.02	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
1,1,2-Trichloroethane	µg/L	5	0.5	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
1,1-Dichloroethane	µg/L	850	85	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
1,1-Dichloroethene	µg/L	7	0.7	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
1,2,4-Trichlorobenzene	µg/L	70	14	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
1,2,4-Trimethylbenzene	µg/L	480	96	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	0.2	0.02	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	--
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.05	0.005	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
1,2-Dichlorobenzene	µg/L	600	60	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
1,2-Dichloroethane	µg/L	5	0.5	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
1,2-Dichloropropane	µg/L	5	0.5	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
1,3,5-Trimethylbenzene	µg/L	480	96	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
1,3-Dichlorobenzene	µg/L	600	120	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
1,4-Dichlorobenzene	µg/L	75	15	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	4000	800	10 U	--	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	--
2-Hexanone	µg/L	NV	NV	10 U	--	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	--
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	50000	50000	10 U	--	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	--
Acetone	µg/L	9000	1800	10 U	--	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U	--
Benzene	µg/L	5	0.5	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
Bromodichloromethane	µg/L	0.6	0.06	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
Bromoform	µg/L	4.4	0.44	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
Bromomethane (Methyl bromide)	µg/L	10	1	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
Carbon disulfide	µg/L	1000	200	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
Carbon tetrachloride	µg/L	5	0.5	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
Chlorobenzene	µg/L	NV	NV	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
Chloroethane	µg/L	400	80	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
Chloroform (Trichloromethane)	µg/L	6	0.6	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
Chloromethane (Methyl chloride)	µg/L	30	3	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
cis-1,2-Dichloroethene	µg/L	700	7	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
cis-1,3-Dichloropropene	µg/L	NV	NV	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
Cyclohexane	µg/L	NV	NV	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
Dibromochloromethane	µg/L	60	6	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
Dichlorodifluoromethane (CFC-12)	µg/L	1000	200	1.0 UJ	--	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
Ethylbenzene	µg/L	700	140	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
Isopropyl benzene	µg/L	NV	NV	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
Methyl acetate	µg/L	NV	NV	10 U	--	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	--
Methyl cyclohexane	µg/L	NV	NV	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
Methyl tert butyl ether (MTBE)	µg/L	60	12	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
Methylene chloride	µg/L	5	0.5	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
Styrene	µg/L	100	10	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
Tetrachloroethene	µg/L	5	0.5	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
Toluene	µg/L	800	160	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
trans-1,2-Dichloroethene	µg/L	100	20	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
trans-1,3-Dichloropropene	µg/L	NV	NV	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
Trichloroethene	µg/L	5	0.5	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
Trichlorofluoromethane (CFC-11)	µg/L	NV	NV	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
Trifluorotrchloroethane (CFC-113)	µg/L	NV	NV	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
Vinyl chloride	µg/L	0.2	0.02	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
Xylenes (total)	µg/L	2000	400	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	--
<b>Semi-Volatile Organic Compounds (SVOCs)</b>														
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	NV	NV	0.98 U	--	4.9 U	0.97 U	4.8 U	5.3 U	1.0 U	4.8 U	0.96 U	6.6 U	1.0 U
2,4,5-Trichlorophenol	µg/L	NV	NV	4.9 U	--	4.9 U	4.9 U	4.8 U	5.3 U	4.8 U	4.8 U	6.6 U	6.6 U	5.0 U
2,4,6-Trichlorophenol	µg/L	NV	NV	4.9 U	--	3.9 U	4.9 U	3.8 U	4.3 U	5.2 U	3.8 U	4.8 U	5.3 U	5.0 U
2,4-Dichlorophenol	µg/L	NV	NV	2.0 U	--	9.8 U	1.9 U	9.6 U	11 U	2.1 U	9.6 U	1.9 U	13 U	2.0 U
2,4-Dimethylphenol	µg/L	NV	NV	2.0 U	--	4.9 U	1.9 U	4.8 U	5.3 U	2.1 U	4.8 U	1.9 U	6.6 U	2.0 U
2,4-Dinitrophenol	µg/L	NV	NV	4.9 U	--	20 U	4.9 U	19 U	21 U	5.2 U	19 U	4.8 U	26 U	5.0 U
2,4-Dinitrotoluene	µg/L	0.05	0.005	4.9 U	--	4.9 U	4.9 U	4.8 U	5.3 U	5.2 U	4.8 U	4.8 U	6.6 U	5.0 U
2,6-Dinitrotoluene	µg/L	0.05	0.005	4.9 U	--	4.9 U	4.9 U	4.8 U	5.3 U	5.2 U	4.8 U	4.8 U	6.6 U	5.0 U
2-Chloronaphthalene	µg/L	NV	NV	0.98 U	--	4.9 U	0.97 U	4.8 U	5.3 U	1.0 U	4.8 U	0.96 U	6.6 U	1.0 U
2-Chlorophenol	µg/L	NV	NV	0.98 U	--	4.9 U	0.97 U	4.8 U	5.3 U	1.0 U	4.8 U	0.96 U	6.6 U	1.0 U

Table 4.1

**Groundwater Analytical Results - Summary Of Ch. Nr 140, Wis. Adm. Code Exceedances  
GM Janesville Assembly Plant  
Janesville, Wisconsin**

Sample Location:				MW-5S	MW-5S	MW-5S	MW-6D	MW-6D	MW-6D	MW-6S	MW-6S	MW-7D	MW-7D	MW-7S	MW-7S	
Sample Identification:				GW-060514-JK-26	GW-091714-JK-16	GW-082815-JL-33	GW-060914-JK-38	GW-082815-JL-37	GW-082815-JL-38	GW-060914-JK-37	GW-082815-JL-35	GW-060414-JK-18	GW-082715-JL-27	GW-060414-JK-17	GW-091714-JK-12	
Sample Date:				6/5/2014	9/17/2014	8/28/2015	6/9/2014	8/28/2015	8/28/2015	6/9/2014	8/28/2015	6/4/2014	8/27/2015	6/4/2014	9/17/2014	
Sample Type:																
Water Elevation (ft AMSL)				763.78	763.00	762.33	764.56	763.50	Duplicate 763.50	764.54	763.46	765.58	763.84	765.66	765.11	
	NR 140, Wis. Adm. Code <sup>(1)</sup>															
	ES	PAL														
	a	b														
Units																
<b>SVOCs (cont'd)</b>																
2-Methylnaphthalene	µg/L	NV	NV	0.20 U	--	4.9 U	0.19 U	4.8 U	5.3 U	0.21 U	4.8 U	0.19 U	6.6 U	0.20 U	--	
2-Methylphenol	µg/L	NV	NV	0.98 U	--	4.9 U	0.97 U	4.8 U	5.3 U	1.0 U	4.8 U	0.96 U	6.6 U	1.0 U	--	
2-Nitroaniline	µg/L	NV	NV	2.0 U	--	20 U	1.9 U	19 U	21 U	2.1 U	19 U	1.9 U	26 U	2.0 U	--	
2-Nitrophenol	µg/L	NV	NV	2.0 U	--	4.9 U	1.9 U	4.8 U	5.3 U	2.1 U	4.8 U	1.9 U	6.6 U	2.0 U	--	
3&4-Methylphenol	µg/L	NV	NV	2.0 U	--	4.9 U	1.9 U	4.8 U	5.3 U	2.1 U	4.8 U	1.9 U	6.6 U	2.0 U	--	
3,3'-Dichlorobenzidine	µg/L	NV	NV	4.9 U	--	0.98 U	4.9 U	0.96 U	1.1 U	5.2 U	0.96 U	4.8 U	1.3 U	5.0 U	--	
3-Nitroaniline	µg/L	NV	NV	2.0 U	--	20 U	1.9 U	19 U	21 U	2.1 U	19 U	1.9 U	26 U	2.0 U	--	
4,6-Dinitro-2-methylphenol	µg/L	NV	NV	4.9 U	--	20 U	4.9 U	19 U	21 U	5.2 U	19 U	4.8 U	26 U	5.0 U	--	
4-Bromophenyl phenyl ether	µg/L	NV	NV	2.0 U	--	4.9 U	1.9 U	4.8 U	5.3 U	2.1 U	4.8 U	1.9 U	6.6 U	2.0 U	--	
4-Chloro-3-methylphenol	µg/L	NV	NV	2.0 U	--	4.9 U	1.9 U	4.8 U	5.3 U	2.1 U	4.8 U	1.9 U	6.6 U	2.0 U	--	
4-Chloroaniline	µg/L	NV	NV	2.0 U	--	9.8 U	1.9 U	9.6 U	11 U	2.1 U	9.6 U	1.9 U	13 U	2.0 U	--	
4-Chlorophenyl phenyl ether	µg/L	NV	NV	2.0 U	--	4.9 U	1.9 U	4.8 U	5.3 U	2.1 U	4.8 U	1.9 U	6.6 U	2.0 U	--	
4-Nitroaniline	µg/L	NV	NV	2.0 U	--	20 U	1.9 U	19 U	21 U	2.1 U	19 U	1.9 U	26 U	2.0 U	--	
4-Nitrophenol	µg/L	NV	NV	4.9 U	--	20 U	4.9 U	19 U	21 U	5.2 U	19 U	4.8 U	26 U	5.0 U	--	
Acenaphthene	µg/L	NV	NV	0.20 U	--	4.9 U	0.19 U	4.8 U	5.3 U	0.21 U	4.8 U	0.19 U	6.6 U	0.20 U	--	
Acenaphthylene	µg/L	NV	NV	0.20 U	--	4.9 U	0.19 U	4.8 U	5.3 U	0.21 U	4.8 U	0.19 U	6.6 U	0.20 U	--	
Acetophenone	µg/L	NV	NV	0.98 U	--	4.9 U	0.97 U	4.8 U	5.3 U	1.0 U	4.8 U	0.96 U	6.6 U	1.0 U	--	
Anthracene	µg/L	3000	600	0.20 U	--	4.9 U	0.19 U	4.8 U	5.3 U	0.21 U	4.8 U	0.19 U	6.6 U	0.20 U	--	
Atrazine	µg/L	3	0.3	0.98 U	--	2.9 U	0.97 U	2.9 U	3.2 U	1.0 U	2.9 U	0.96 U	3.9 U	1.0 U	--	
Benzaldehyde	µg/L	NV	NV	0.98 U	--	4.9 U	0.97 U	4.8 U	5.3 U	1.0 U	4.8 U	0.96 U	6.6 U	1.0 U	--	
Benzo(a)anthracene	µg/L	NV	NV	0.20 U	--	0.98 U	0.19 U	0.96 U	1.1 U	0.21 U	0.96 U	0.19 U	1.3 U	0.20 U	--	
Benzo(a)pyrene	µg/L	0.2	0.02	0.20 U	--	0.98 U	0.19 U	0.96 U	1.1 U	0.21 U	0.96 U	0.19 U	1.3 U	0.20 U	--	
Benzo(b)fluoranthene	µg/L	0.2	0.02	0.20 U	--	0.98 U	0.19 U	0.96 U	1.1 U	0.21 U	0.96 U	0.19 U	1.3 U	0.20 U	--	
Benzo(g,h,i)perylene	µg/L	NV	NV	0.20 U	--	0.98 U	0.19 U	0.96 U	1.1 U	0.21 U	0.96 U	0.19 U	1.3 U	0.20 U	--	
Benzo(k)fluoranthene	µg/L	NV	NV	0.20 U	--	0.98 U	0.19 U	0.96 U	1.1 U	0.21 U	0.96 U	0.19 U	1.3 U	0.20 U	--	
Biphenyl (1,1'-Biphenyl)	µg/L	NV	NV	0.98 U	--	4.9 U	0.97 U	4.8 U	5.3 U	1.0 U	4.8 U	0.96 U	6.6 U	1.0 U	--	
bis(2-Chloroethoxy)methane	µg/L	NV	NV	0.98 U	--	4.9 U	0.97 U	4.8 U	5.3 U	1.0 U	4.8 U	0.96 U	6.6 U	1.0 U	--	
bis(2-Chloroethyl)ether	µg/L	NV	NV	0.98 U	--	0.98 U	0.97 U	0.96 U	1.1 U	1.0 U	0.96 U	0.96 U	1.3 U	1.0 U	--	
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	NV	NV	4.9 U	--	4.9 U	4.9 U	4.8 U	5.3 U	5.2 U	4.8 U	4.8 U	6.6 U	5.0 U	--	
Butyl benzylphthalate (BBP)	µg/L	NV	NV	2.0 U	--	4.9 U	1.9 U	4.8 U	5.3 U	2.1 U	4.8 U	1.9 U	6.6 U	2.0 U	--	
Caprolactam	µg/L	NV	NV	4.9 U	--	9.8 U	4.9 U	0.36 J	0.34 J	5.2 U	9.6 U	4.8 U	13 U	5.0 U	--	
Carbazole	µg/L	NV	NV	0.98 U	--	9.8 U	0.97 U	9.6 U	11 U	1.0 U	9.6 U	0.96 U	13 U	1.0 U	--	
Chrysene	µg/L	0.2	0.02	0.20 U	--	0.98 U	0.19 U	0.96 U	1.1 U	0.21 U	0.96 U	0.19 U	1.3 U	0.20 U	--	
Dibenz(a,h)anthracene	µg/L	NV	NV	0.20 U	--	2.0 U	0.19 U	1.9 U	2.1 U	0.21 U	1.9 U	0.19 U	2.6 U	0.20 U	--	
Dibenzofuran	µg/L	NV	NV	0.98 U	--	3.9 U	0.97 U	3.8 U	4.3 U	1.0 U	3.8 U	0.96 U	5.3 U	1.0 U	--	
Diethyl phthalate	µg/L	NV	NV	2.0 U	--	4.9 U	1.9 U	4.8 U	5.3 U	2.1 U	4.8 U	1.9 U	6.6 U	2.0 U	--	
Dimethyl phthalate	µg/L	NV	NV	2.0 U	--	4.9 U	1.9 U	4.8 U	5.3 U	2.1 U	4.8 U	1.9 U	6.6 U	2.0 U	--	
Di-n-butylphthalate (DBP)	µg/L	1000	100	4.9 U	--	4.9 U	4.9 U	4.8 U	5.3 U	5.2 U	4.8 U	4.8 U	6.6 U	5.0 U	--	
Di-n-octyl phthalate (DnOP)	µg/L	NV	NV	2.0 U	--	4.9 U	1.9 U	4.8 U	5.3 U	2.1 U	4.8 U	1.9 U	6.6 U	2.0 U	--	
Fluoranthene	µg/L	400	80	0.20 U	--	0.11 J	0.19 U	0.96 U	1.1 U	0.21 U	0.96 U	0.19 U	1.3 U	0.20 U	--	
Fluorene	µg/L	400	80	0.20 U	--	4.9 U	0.19 U	4.8 U	5.3 U	0.21 U	4.8 U	0.19 U	6.6 U	0.20 U	--	
Hexachlorobenzene	µg/L	1	0.1	0.20 U	--	0.20 U	0.19 U	0.19 U	0.21 U	0.21 U	0.19 U	0.19 U	0.26 U	0.20 U	--	
Hexachlorobutadiene	µg/L	NV	NV	0.98 U	--	0.98 U	0.97 U	0.96 U	1.1 U	1.0 U	0.96 U	0.96 U	1.3 U	1.0 U	--	
Hexachlorocyclopentadiene	µg/L	NV	NV	9.8 U	--	4.9 U	9.7 U	4.8 U	5.3 U	10 U	4.8 U	9.6 U	6.6 U	10 U	--	
Hexachloroethane	µg/L	NV	NV	0.98 U	--	4.9 U	0.97 U	4.8 U	5.3 U	1.0 U	4.8 U	0.96 U	6.6 U	1.0 U	--	
Indeno(1,2,3-cd)pyrene	µg/L	NV	NV	0.20 U	--	2.0 U	0.19 U	1.9 U	2.1 U	0.21 U	1.9 U	0.19 U	2.6 U	0.20 U	--	
Isophorone	µg/L	NV	NV	0.98 U	--	4.9 U	0.97 U	4.8 U	5.3 U	1.0 U	4.8 U	0.96 U	6.6 U	1.0 U	--	
Naphthalene	µg/L	100	10	0.20 U	--	4.9 U	0.19 U	4.8 U	5.3 U	0.21 U	4.8 U	0.19 U	6.6 U	0.20 U	--	
Nitrobenzene	µg/L	NV	NV	0.98 U	--	2.9 U	0.97 U	2.9 U	3.2 U	1.0 U	2.9 U	0.96 U	3.9 U	1.0 U	--	
N-Nitrosodi-n-propylamine	µg/L	NV	NV	0.98 U	--	4.9 U	0.97 U	4.8 U	5.3 U	1.0 U	4.8 U	0.96 U	6.6 U	1.0 U	--	
N-Nitrosodiphenylamine	µg/L	7	0.7	0.98 U	--	4.9 U	0.97 U	4.8 U	5.3 U	1.0 U	4.8 U	0.96 U	6.6 U	1.0 U	--	
Pentachlorophenol	µg/L	1	0.1	4.9 U	--	4.9 U	4.9 U	4.8 U	5.3 U	5.2 U	4.8 U	4.8 U	6.6 U	5.0 U	--	
Phenanthrene	µg/L	NV	NV	0.20 U	--	2.0 U	0.19 U	1.9 U	2.1 U	0.21 U	1.9 U	0.19 U	2.6 U	0.20 U	--	
Phenol	µg/L	2000	400	0.98 U	--	4.9 U	0.97 U	4.8 U	5.3 U	1.0 U	4.8 U	0.96 U	6.6 U	1.0 U	--	
Pyrene	µg/L	250	50	0.20 U	--	4.9 U	0.19 U	4.8 U	5.3 U	0.21 U	4.8 U	0.19 U	6.6 U	0.20 U	--	
<b>Metals</b>																
Aluminum	µg/L	200	40	9.9 J	--	--	140 <sup>b</sup>	--	--	24 J	--	830 <sup>ab</sup>	--	36 J	--	
Aluminum (dissolved)	µg/L	NV	NV	50 U	--	--	50 U	--	--	50 U	--	11 J	--	50 U	--	
Antimony	µg/L	6	1.2	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.33 J	2.0 U	2.0 U	2.0 U	--	
Antimony (dissolved)	µg/L	NV	NV	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.35 J	2.0 U	2.0 U	2.0 U	--	
Arsenic	µg/L	10	1	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	
Arsenic (dissolved)	µg/L	NV	NV	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	



Table 4.1

Groundwater Analytical Results - Summary Of Ch. Nr 140, Wis. Adm. Code Exceedances  
GM Janesville Assembly Plant  
Janesville, Wisconsin

Sample Location:				MW-5S	MW-5S	MW-5S	MW-6D	MW-6D	MW-6D	MW-6S	MW-6S	MW-7D	MW-7D	MW-7S	MW-7S	
Sample Identification:				GW-060514-JK-26	GW-091714-JK-16	GW-082815-JL-33	GW-060914-JK-38	GW-082815-JL-37	GW-082815-JL-38	GW-060914-JK-37	GW-082815-JL-35	GW-060414-JK-18	GW-082715-JL-27	GW-060414-JK-17	GW-091714-JK-12	
Sample Date:				6/5/2014	9/17/2014	8/28/2015	6/9/2014	8/28/2015	8/28/2015	6/9/2014	8/28/2015	6/4/2014	8/27/2015	6/4/2014	9/17/2014	
Sample Type:									Duplicate							
Water Elevation (ft AMSL)				763.78	763.00	762.33	764.56	763.50	763.50	764.54	763.46	765.58	763.84	765.66	765.11	
	NR 140, Wis. Adm. Code <sup>(1)</sup>															
	ES	PAL														
	a	b														
Units																
<b>Metals (cont'd)</b>																
Barium	µg/L	2000	400	47 J	--	68 J	63 J	61 J	64 J	15 J	18 J	32 J	31 J	120	--	
Barium (dissolved)	µg/L	NV	NV	46 J	--	57 J	65 J	55 J	56 J	16 J	18 J	28 J	33 J	110	--	
Beryllium	µg/L	4	0.4	1.0 U	--	0.083 J	1.0 U	1.0 U	1.0 U	0.063 J	0.061 J	1.0 U	1.0 U	1.0 U	--	
Beryllium (dissolved)	µg/L	NV	NV	1.0 U	--	0.060 J	1.0 U	1.0 U	1.0 U	1.0 U	0.068 J	1.0 U	1.0 U	1.0 U	--	
Cadmium	µg/L	5	0.5	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.083 J	1.0 U	--	
Cadmium (dissolved)	µg/L	NV	NV	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	
Chromium	µg/L	100	10	62 J <sup>b</sup>	<b>130<sup>ab</sup></b>	<b>110<sup>ab</sup></b>	3.3 J	5.0 U	5.0 U	1.4 J	5.0 U	25 <sup>b</sup>	5.0 U	<b>440<sup>ab</sup></b>	91 <sup>b</sup>	
Chromium (dissolved)	µg/L	NV	NV	1.2 J	--	5.0 U	0.99 J	5.0 U	5.0 U	1.0 J	5.0 U	2.0 J	5.0 U	1.8 J	--	
Chromium III (trivalent)	µg/L	NV	NV	--	130	110	--	20 U	20 U	--	20 U	--	20 U	--	91	
Chromium VI (hexavalent)	µg/L	NV	NV	--	20 U	20 U	--	20 U	20 U	--	20 U	--	20 U	--	20 UJ	
Cobalt	µg/L	40	8	7.0 U	--	0.92 J	0.16 J	0.15 J	0.15 J	0.087 J	0.12 J	0.53 J	0.18 J	2.8 J	--	
Cobalt (dissolved)	µg/L	NV	NV	7.0 U	--	0.18 J	7.0 U	0.11 J	0.11 J	7.0 U	0.10 J	0.56 J	0.28 J	1.1 J	--	
Copper	µg/L	1300	130	4.3	--	5.5	2.0 U	0.84 J	2.0 U	2.0 U	2.0 U	2.1 U	2.3	17	--	
Copper (dissolved)	µg/L	NV	NV	1.1 J	--	1.1 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.2 J	2.2 U	--	
Iron	µg/L	NV	NV	500	--	--	300	--	--	72 J	--	2000	--	3300	--	
Iron (dissolved)	µg/L	NV	NV	200 U	--	--	200 U	--	--	200 U	--	210	--	36 J	--	
Lead	µg/L	15	1.5	3.0 U	--	0.13 J	0.35 J	0.18 J	0.11 J	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	--	
Lead (dissolved)	µg/L	NV	NV	3.0 U	--	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	--	
Manganese	µg/L	300	60	3.0 J	--	5.3 J	8.1 J	1.7 J	1.6 J	6.6 J	15 U	75 <sup>b</sup>	31	19	--	
Manganese (dissolved)	µg/L	NV	NV	0.68 J	--	15 U	15 U	15 U	15 U	15 U	15 U	23	25	8.5 J	--	
Mercury	µg/L	2	0.2	0.20 U	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	--	
Mercury (dissolved)	µg/L	NV	NV	0.20 U	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 UJ	0.20 U	0.20 U	0.20 U	0.20 U	--	
Nickel	µg/L	100	20	7.5 J	--	11 J	0.53 J	0.62 J	0.46 J	0.50 J	0.47 J	13 J	1.4 J	<b>120<sup>ab</sup></b>	--	
Nickel (dissolved)	µg/L	NV	NV	4.1 J	--	6.7 J	20 U	0.39 J	0.43 J	20 U	0.43 J	2.4 J	4.6 J	100	--	
Selenium	µg/L	50	10	0.76 J	--	5.0 U	0.46 J	5.0 U	5.0 U	0.71 J	5.0 U	5.0 U	5.0 U	4.6 J	--	
Selenium (dissolved)	µg/L	NV	NV	0.80 J	--	5.0 U	0.36 J	5.0 U	5.0 U	0.55 J	5.0 U	5.0 U	5.0 U	4.7 J	--	
Silver	µg/L	50	10	0.20 U	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	--	
Silver (dissolved)	µg/L	NV	NV	0.20 U	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	--	
Thallium	µg/L	2	0.4	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	
Thallium (dissolved)	µg/L	NV	NV	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	
Vanadium	µg/L	30	6	4.0 U	--	4.0 U	0.62 J	4.0 U	4.0 U	0.46 J	4.0 U	4.0 U	4.0 U	4.0 UJ	--	
Vanadium (dissolved)	µg/L	NV	NV	4.0 U	--	4.0 U	0.34 J	4.0 U	4.0 U	0.47 J	4.0 U	4.0 U	4.0 U	4.0 U	--	
Zinc	µg/L	NV	NV	20 U	--	20 U	3.5 J	20 U	20 U	3.0 J	20 U	9.6 J	17 J	20 U	--	
Zinc (dissolved)	µg/L	NV	NV	20 U	--	20 U	20 U	9.8 J	10 J	20 U	9.1 J	20 U	8.7 J	20 U	--	
<b>Glycol</b>																
Ethylene glycol	µg/L	14000	2800	--	--	--	--	--	--	--	--	--	--	--	--	
<b>Field Parameters</b>																
Conductivity, field	mS/cm	NV	NV	0.626	1182	0.734	0.737	0.533	0.533	0.449	0.362	0.503	0.499	1.717	2580	
Dissolved oxygen (DO), field	µg/L	NV	NV	9910	7390	8610	8550	7810	7810	6550	2670	860	820	4510	3070	
Oxidation reduction potential (ORP), field	millivolts	NV	NV	-52.8	-170.4	166.7	26.7	164.1	164.1	17.9	142.3	-132.1	-130.9	-57.6	-202.6	
pH, field	s.u.	NV	NV	7.05	6.9	7.44	7.61	7.37	7.37	7.68	7.56	7.63	7.6	6.81	6.77	
Temperature, field	Deg C	NV	NV	--	--	15.42	--	14.15	14.15	--	20.7	--	13.08	--	--	
Temperature, sample	Deg C	NV	NV	13.63	15.52	--	13.03	--	--	13.57	--	13.11	--	14.86	15.29	
Turbidity, field	NTU	NV	NV	11.7	6.28	9.63	26	3.37	3.37	4.7	1.44	11	5.1	27.9	--	

Notes:

- (1) Chapter (ch.) NR 140, Wisconsin Administrative Code (Wis. Adm. Code)
- 290 - *Italicized result indicates concentration is above associated PAL*
- 440 - *Bolded italicized result indicates concentration is above associated PAL and ES***
- ES - Enforcement Standard (ch. NR 140, Wis. Adm. Code)
- ft AMSL - feet above mean sea level
- J - Estimated concentration
- NV No value, criteria is not promulgated
- PAL Preventive Action Limit (ch. NR 140, Wis. Adm. Code)
- U - Not detected at the associated reporting limit
- µg/L - micrograms per Liter
- UJ - Not detected; associated reporting limit is estimated.
- R - Rejected

Table 4.1

**Groundwater Analytical Results - Summary Of Ch. Nr 140, Wis. Adm. Code Exceedances  
GM Janesville Assembly Plant  
Janesville, Wisconsin**

Sample Location: Sample Identification: Sample Date: Sample Type: Water Elevation (ft AMSL)	NR 140, Wis. Adm. Code <sup>(1)</sup>		MW-7S	MW-8S	MW-8S	MW-9S	MW-9S	MW-9S	MW-9S	MW-10S	MW-10S	MW-10S	MW-10S	MW-10S	
	ES a	PAL b	GW-082715-JL-25	GW-060514-JK-21	GW-082715-JL-26	GW-060514-JK-20	GW-091714-JK-10	GW-091714-JK-11	GW-082615-JL-16	GW-060314-JK-05	GW-060314-JK-06	GW-091614-JK-07	GW-032615-JK-01	GW-032615-JK-02	
			8/27/2015	6/5/2014	8/27/2015	6/5/2014	9/17/2014	9/17/2014	8/26/2015	6/3/2014	6/3/2014	9/16/2014	3/26/2015	3/26/2015	
			764.31	762.09	760.59	762.16	761.25	Duplicate 761.25	760.72	761.98	Duplicate 761.98	761.32	761.42	Duplicate 761.42	
	Units														
<b>Volatile Organic Compounds (VOCs)</b>															
1,1,1-Trichloroethane	µg/L	200	40	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
1,1,1,2,2-Tetrachloroethane	µg/L	0.2	0.02	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
1,1,2-Trichloroethane	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
1,1-Dichloroethane	µg/L	850	85	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
1,1-Dichloroethene	µg/L	7	0.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
1,2,4-Trichlorobenzene	µg/L	70	14	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 U	77 UJ	67 UJ	5.0 U	33 U	33 U	
1,2,4-Trimethylbenzene	µg/L	480	96	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	<b>900<sup>ab</sup></b>	<b>1100<sup>ab</sup></b>	<b>130<sup>b</sup></b>	<b>610<sup>ab</sup></b>	<b>630<sup>ab</sup></b>	
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	0.2	0.02	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 U	2.0 U	150 UJ	130 UJ	10 U	67 U	67 U	
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.05	0.005	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
1,2-Dichlorobenzene	µg/L	600	60	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
1,2-Dichloroethane	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
1,2-Dichloropropane	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
1,3,5-Trimethylbenzene	µg/L	480	96	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	220 <sup>b</sup>	250 <sup>b</sup>	21	160 <sup>b</sup>	160 <sup>b</sup>	
1,3-Dichlorobenzene	µg/L	600	120	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
1,4-Dichlorobenzene	µg/L	75	15	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	4000	800	10 U	10 U	10 U	10 U	10 U	10 U	770 U	670 U	50 U	330 U	330 U	
2-Hexanone	µg/L	NV	NV	10 U	10 U	10 U	10 U	10 U	10 U	770 U	670 U	50 U	330 U	330 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	500000	50000	10 U	10 U	10 U	10 U	10 U	10 U	770 U	670 U	50 U	330 U	330 U	
Acetone	µg/L	9000	1800	10 U	10 UJ	10 U	10 UJ	10 U	10 U	160 J	670 U	50 U	330 U	330 U	
Benzene	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
Bromodichloromethane	µg/L	0.6	0.06	1.0 U	0.26 J <sup>b</sup>	0.43 J <sup>b</sup>	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
Bromoform	µg/L	4.4	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
Bromomethane (Methyl bromide)	µg/L	10	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
Carbon disulfide	µg/L	1000	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
Carbon tetrachloride	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
Chlorobenzene	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
Chloroethane	µg/L	400	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
Chloroform (Trichloromethane)	µg/L	6	0.6	1.0 U	0.24 J	0.37 J	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
Chloromethane (Methyl chloride)	µg/L	30	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
cis-1,2-Dichloroethene	µg/L	700	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
cis-1,3-Dichloropropene	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
Cyclohexane	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	55 J	60 J	30	74	76	
Dibromochloromethane	µg/L	60	6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
Dichlorodifluoromethane (CFC-12)	µg/L	1000	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
Ethylbenzene	µg/L	700	140	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	590 <sup>b</sup>	650 <sup>b</sup>	140 <sup>b</sup>	410 <sup>b</sup>	410 <sup>b</sup>	
Isopropyl benzene	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	34 J	38 J	14	29 J	29 J	
Methyl acetate	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	770 U	670 U	50 U	330 U	330 U	
Methyl cyclohexane	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	13 J	16 J	11	21 J	22 J	
Methyl tert butyl ether (MTBE)	µg/L	60	12	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
Methylene chloride	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
Styrene	µg/L	100	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	12 J <sup>b</sup>	5.0 U	33 U	33 U	
Tetrachloroethene	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
Toluene	µg/L	800	160	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
trans-1,2-Dichloroethene	µg/L	100	20	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
trans-1,3-Dichloropropene	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
Trichloroethene	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
Trichlorofluoromethane (CFC-11)	µg/L	NV	NV	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 U	77 UJ	67 UJ	5.0 U	33 U	33 U	
Trifluorotrchloroethane (CFC-113)	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
Vinyl chloride	µg/L	0.2	0.02	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	77 U	67 U	5.0 U	33 U	33 U	
Xylenes (total)	µg/L	2000	400	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	<b>2100<sup>ab</sup></b>	<b>2300<sup>ab</sup></b>	150	<b>1300<sup>b</sup></b>	<b>1200<sup>b</sup></b>	
<b>Semi-Volatile Organic Compounds (SVOCs)</b>															
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	NV	NV	5.0 U	0.97 U	5.1 U	0.99 U	4.9 U	4.8 U	5.0 U	4.9 U	5.2 U	5.0 U	4.8 U	
2,4,5-Trichlorophenol	µg/L	NV	NV	5.0 U	4.9 U	5.1 U	5.0 U	4.9 U	4.8 U	5.0 U	25 U	5.2 U	5.0 U	4.8 U	
2,4,6-Trichlorophenol	µg/L	NV	NV	4.0 U	4.9 U	4.1 U	5.0 U	3.9 U	3.8 U	4.0 U	25 U	4.1 U	4.0 U	3.8 U	
2,4-Dichlorophenol	µg/L	NV	NV	0.94 J	1.9 U	10 U	2.0 U	9.8 U	9.6 U	9.9 U	9.5 U	10 U	9.9 U	9.5 U	
2,4-Dimethylphenol	µg/L	NV	NV	5.0 U	1.9 U	5.1 U	2.0 U	4.9 U	4.8 U	5.0 U	9.8 U	5.2 U	3.9 J	2.9 J	
2,4-Dinitrophenol	µg/L	NV	NV	20 U	4.9 U	20 U	5.0 U	20 U	19 U	20 U	25 U	21 U	20 U	19 U	
2,4-Dinitrotoluene	µg/L	0.05	0.005	5.0 U	4.9 U	5.1 U	5.0 U	4.9 U	4.8 U	5.0 U	24 U	5.2 U	5.0 U	4.8 U	
2,6-Dinitrotoluene	µg/L	0.05	0.005	5.0 U	4.9 U	5.1 U	5.0 U	4.9 U	4.8 U	5.0 U	24 U	5.2 U	5.0 U	4.8 U	
2-Chloronaphthalene	µg/L	NV	NV	5.0 U	0.97 U	5.1 U	0.99 U	4.9 U	4.8 U	5.0 U	4.9 U	5.2 U	5.0 U	4.8 U	
2-Chlorophenol	µg/L	NV	NV	5.0 U	0.97 U	5.1 U	0.99 U	4.9 U	4.8 U	5.0 U	4.9 U	5.2 U	5.0 U	4.8 U	

Table 4.1

Groundwater Analytical Results - Summary Of Ch. Nr 140, Wis. Adm. Code Exceedances  
GM Janesville Assembly Plant  
Janesville, Wisconsin

Sample Location: Sample Identification: Sample Date: Sample Type: Water Elevation (ft AMSL)		MW-7S GW-082715-JL-25 8/27/2015	MW-8S GW-060514-JK-21 6/5/2014	MW-8S GW-082715-JL-26 8/27/2015	MW-9S GW-060514-JK-20 6/5/2014	MW-9S GW-091714-JK-10 9/17/2014	MW-9S GW-091714-JK-11 9/17/2014	MW-9S GW-082615-JL-16 8/26/2015	MW-10S GW-060314-JK-05 6/3/2014	MW-10S GW-060314-JK-06 6/3/2014	MW-10S GW-091614-JK-07 9/16/2014	MW-10S GW-032615-JK-01 3/26/2015	MW-10S GW-032615-JK-02 3/26/2015		
	NR 140, Wis. Adm. Code <sup>(1)</sup>	764.31	762.09	760.59	762.16	761.25	Duplicate 761.25	760.72	761.98	Duplicate 761.98	761.32	761.42	Duplicate 761.42		
	ES a														
	PAL b														
	Units														
<b>SVOCs (cont'd)</b>															
2-Methylnaphthalene	µg/L	NV	NV	5.0 U	0.19 U	5.1 U	0.20 U	4.9 U	4.8 U	5.0 U	4.0 J	10 J	0.24 J	18	18
2-Methylphenol	µg/L	NV	NV	5.0 U	0.97 U	5.1 U	0.99 U	4.9 U	4.8 U	5.0 U	4.9 U	4.8 U	5.2 U	5.0 U	4.8 U
2-Nitroaniline	µg/L	NV	NV	20 U	1.9 U	20 U	2.0 U	20 U	19 U	20 U	9.8 U	9.5 U	21 U	20 U	19 U
2-Nitrophenol	µg/L	NV	NV	5.0 U	1.9 U	5.1 U	2.0 U	4.9 U	4.8 U	5.0 U	9.8 U	9.5 U	5.2 U	5.0 U	4.8 U
3&4-Methylphenol	µg/L	NV	NV	5.0 U	1.9 U	5.1 U	2.0 U	4.9 U	4.8 U	5.0 U	9.8 U	9.5 U	5.2 U	5.0 U	4.8 U
3,3'-Dichlorobenzidine	µg/L	NV	NV	1.0 U	4.9 U	1.0 U	5.0 U	0.98 U	0.96 U	0.99 U	25 U	24 U	1.0 U	0.99 U	0.95 U
3-Nitroaniline	µg/L	NV	NV	20 U	1.9 U	20 U	2.0 U	20 U	19 U	20 U	9.8 U	9.5 U	21 U	20 U	19 U
4,6-Dinitro-2-methylphenol	µg/L	NV	NV	20 U	4.9 U	20 U	5.0 U	20 U	19 U	20 U	25 U	24 U	21 U	20 U	19 U
4-Bromophenyl phenyl ether	µg/L	NV	NV	5.0 U	1.9 U	5.1 U	2.0 U	4.9 U	4.8 U	5.0 U	9.8 U	9.5 U	5.2 U	5.0 U	4.8 U
4-Chloro-3-methylphenol	µg/L	NV	NV	5.0 U	1.9 U	5.1 U	2.0 U	4.9 U	4.8 U	5.0 U	9.8 U	9.5 U	5.2 U	5.0 U	4.8 U
4-Chloroaniline	µg/L	NV	NV	10 U	1.9 U	10 U	2.0 U	9.8 U	9.6 U	9.9 U	9.8 U	9.5 U	10 U	9.9 U	9.5 U
4-Chlorophenyl phenyl ether	µg/L	NV	NV	5.0 U	1.9 U	5.1 U	2.0 U	4.9 U	4.8 U	5.0 U	9.8 U	9.5 U	5.2 U	5.0 U	4.8 U
4-Nitroaniline	µg/L	NV	NV	20 U	1.9 U	20 U	2.0 U	20 U	19 U	20 U	9.8 U	9.5 U	21 U	20 U	19 U
4-Nitrophenol	µg/L	NV	NV	20 U	4.9 U	20 U	5.0 U	20 U	19 U	20 U	25 U	24 U	21 U	20 U	19 U
Acenaphthene	µg/L	NV	NV	5.0 U	0.19 U	5.1 U	0.20 U	4.9 U	4.8 U	5.0 U	0.98 U	0.95 U	5.2 U	5.0 U	4.8 U
Acenaphthylene	µg/L	NV	NV	5.0 U	0.19 U	5.1 U	0.20 U	4.9 U	4.8 U	5.0 U	0.98 U	0.95 U	5.2 U	5.0 U	4.8 U
Acetophenone	µg/L	NV	NV	5.0 U	0.97 U	5.1 U	0.99 U	4.9 U	4.8 U	5.0 U	4.9 U	4.8 U	19	5.0 U	4.8 U
Anthracene	µg/L	3000	600	5.0 U	0.19 U	5.1 U	0.20 U	4.9 U	4.8 U	5.0 U	0.98 U	0.95 U	5.2 U	5.0 U	4.8 U
Atrazine	µg/L	3	0.3	3.0 U	0.97 U	3.1 U	0.99 U	2.9 U	2.9 U	3.0 U	4.9 U	4.8 U	3.1 U	3.0 U	2.9 U
Benzaldehyde	µg/L	NV	NV	5.0 U	0.97 U	5.1 U	0.99 U	4.9 U	4.8 U	5.0 U	4.9 U	4.8 U	9.5	5.0 U	4.8 U
Benzo(a)anthracene	µg/L	NV	NV	1.0 U	0.19 U	1.0 U	0.20 U	0.98 U	0.96 U	0.99 U	0.98 U	0.95 U	1.0 U	0.99 U	0.95 U
Benzo(a)pyrene	µg/L	0.2	0.02	1.0 U	0.19 U	1.0 U	0.20 U	0.98 U	0.96 U	0.99 U	0.98 U	0.95 U	1.0 U	0.99 U	0.95 U
Benzo(b)fluoranthene	µg/L	0.2	0.02	1.0 U	0.19 U	1.0 U	0.20 U	0.98 U	0.96 U	0.99 U	0.98 U	0.95 U	1.0 U	0.99 U	0.95 U
Benzo(g,h,i)perylene	µg/L	NV	NV	1.0 U	0.19 U	1.0 U	0.20 U	0.98 U	0.96 U	0.99 U	0.98 U	0.95 U	1.0 U	0.99 U	0.95 U
Benzo(k)fluoranthene	µg/L	NV	NV	1.0 U	0.19 U	1.0 U	0.20 U	0.98 U	0.96 U	0.99 U	0.98 U	0.95 U	1.0 U	0.99 U	0.95 U
Biphenyl (1,1'-Biphenyl)	µg/L	NV	NV	5.0 U	0.97 U	5.1 U	0.99 U	4.9 U	4.8 U	5.0 U	4.9 U	4.8 U	0.15 J	0.26 J	0.27 J
bis(2-Chloroethoxy)methane	µg/L	NV	NV	5.0 U	0.97 U	5.1 U	0.99 U	4.9 U	4.8 U	5.0 U	4.9 U	4.8 U	5.2 U	5.0 U	4.8 U
bis(2-Chloroethyl)ether	µg/L	NV	NV	1.0 U	0.97 U	1.0 U	0.99 U	0.98 U	0.96 U	0.99 U	4.9 U	4.8 U	1.0 U	0.99 U	0.95 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	NV	NV	5.0 U	4.9 U	5.1 U	5.0 U	4.9 U	4.8 U	5.0 U	25 U	24 U	5.2 U	5.0 U	4.8 U
Butyl benzylphthalate (BBP)	µg/L	NV	NV	5.0 U	1.9 U	5.1 U	2.0 U	4.9 U	4.8 U	5.0 U	9.8 U	9.5 U	5.2 U	5.0 U	4.8 U
Caprolactam	µg/L	NV	NV	10 U	4.9 U	10 U	5.0 U	9.8 U	9.6 U	R	25 U	24 U	10 U	9.9 U	9.5 U
Carbazole	µg/L	NV	NV	10 U	0.97 U	10 U	0.99 U	9.8 U	9.6 U	9.9 U	4.9 U	4.8 U	10 U	9.9 U	9.5 U
Chrysene	µg/L	0.2	0.02	1.0 U	0.19 U	1.0 U	0.20 U	0.98 U	0.96 U	0.99 U	0.98 U	0.95 U	1.0 U	0.99 U	0.95 U
Dibenz(a,h)anthracene	µg/L	NV	NV	2.0 U	0.19 U	2.0 U	0.20 U	2.0 U	1.9 U	2.0 U	0.98 U	0.95 U	2.1 U	2.0 U	1.9 U
Dibenzofuran	µg/L	NV	NV	4.0 U	0.97 U	4.1 U	0.99 U	3.9 U	3.8 U	4.0 U	4.9 U	4.8 U	4.1 U	4.0 U	3.8 U
Diethyl phthalate	µg/L	NV	NV	5.0 U	1.9 U	5.1 U	2.0 U	4.9 U	4.8 U	5.0 U	9.8 U	9.5 U	5.2 U	5.0 U	4.8 U
Dimethyl phthalate	µg/L	NV	NV	5.0 U	1.9 U	5.1 U	2.0 U	4.9 U	4.8 U	5.0 U	9.8 U	9.5 U	5.2 U	5.0 U	4.8 U
Di-n-butylphthalate (DBP)	µg/L	1000	100	5.0 U	4.9 U	5.1 U	5.0 U	4.9 U	4.8 U	5.0 U	25 U	24 U	5.2 U	5.0 U	4.8 U
Di-n-octyl phthalate (DnOP)	µg/L	NV	NV	5.0 U	1.9 U	5.1 U	2.0 U	4.9 U	4.8 U	5.0 U	9.8 U	9.5 U	5.2 U	5.0 U	4.8 U
Fluoranthene	µg/L	400	80	1.0 U	0.19 U	1.0 U	0.20 U	0.98 U	0.96 U	0.99 U	0.98 U	0.95 U	1.0 U	0.99 U	0.95 U
Fluorene	µg/L	400	80	5.0 U	0.19 U	5.1 U	0.20 U	4.9 U	4.8 U	5.0 U	0.98 U	0.95 U	5.2 U	5.0 U	4.8 U
Hexachlorobenzene	µg/L	1	0.1	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U	0.98 U	0.95 U	0.21 U	0.20 U	0.19 U
Hexachlorobutadiene	µg/L	NV	NV	1.0 U	0.97 U	1.0 U	0.99 U	0.98 U	0.96 U	0.99 U	4.9 U	4.8 U	1.0 U	0.99 U	0.95 U
Hexachlorocyclopentadiene	µg/L	NV	NV	5.0 U	9.7 U	5.1 U	9.9 U	4.9 U	4.8 U	5.0 U	49 U	48 U	5.2 U	5.0 U	4.8 U
Hexachloroethane	µg/L	NV	NV	5.0 U	0.97 U	5.1 U	0.99 U	4.9 U	4.8 U	5.0 U	4.9 U	4.8 U	5.2 U	5.0 U	4.8 U
Indeno(1,2,3-cd)pyrene	µg/L	NV	NV	2.0 U	0.19 U	2.0 U	0.20 U	2.0 U	1.9 U	2.0 U	0.98 U	0.95 U	2.1 U	2.0 U	1.9 U
Isophorone	µg/L	NV	NV	5.0 U	0.97 U	5.1 U	0.99 U	4.9 U	4.8 U	5.0 U	4.9 U	4.8 U	5.2 U	5.0 U	4.8 U
Naphthalene	µg/L	100	10	5.0 U	0.19 U	5.1 U	0.20 U	4.9 U	4.8 U	5.0 U	0.98 U	0.95 U	5.2 U	5.0 U	4.8 U
Nitrobenzene	µg/L	NV	NV	3.0 U	0.97 U	3.1 U	0.99 U	2.9 U	2.9 U	3.0 U	4.9 U	4.8 U	3.1 U	3.0 U	2.9 U
N-Nitrosodi-n-propylamine	µg/L	NV	NV	5.0 U	0.97 U	5.1 U	0.99 U	4.9 U	4.8 U	5.0 U	4.9 U	4.8 U	5.2 U	5.0 U	4.8 U
N-Nitrosodiphenylamine	µg/L	7	0.7	5.0 U	0.97 U	5.1 U	0.99 U	4.9 U	4.8 U	5.0 U	4.9 U	4.8 U	5.2 U	5.0 U	4.8 U
Pentachlorophenol	µg/L	1	0.1	5.0 U	4.9 U	5.1 U	5.0 U	4.9 U	4.8 U	5.0 U	25 U	24 U	5.2 U	5.0 U	4.8 U
Phenanthrene	µg/L	NV	NV	2.0 U	0.19 U	2.0 U	0.20 U	2.0 U	1.9 U	2.0 U	0.98 U	0.95 U	2.1 U	2.0 U	1.9 U
Phenol	µg/L	2000	400	5.0 U	0.97 U	5.1 U	0.99 U	4.9 U	4.8 U	5.0 U	4.9 U	4.8 U	5.2 U	5.0 U	4.8 U
Pyrene	µg/L	250	50	5.0 U	0.19 U	5.1 U	0.20 U	4.9 U	4.8 U	5.0 U	0.98 U	0.95 U	5.2 U	5.0 U	4.8 U
<b>Metals</b>															
Aluminum	µg/L	200	40	--	50 U	--	50 U	--	--	--	18 J	50 U	--	--	--
Aluminum (dissolved)	µg/L	NV	NV	--	50 U	--	50 U	--	--	--	50 U	50 U	--	--	--
Antimony	µg/L	6	1.2	0.25 J	2.0 U	2.0 U	2.0 U	0.33 J	0.30 J	0.54 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Antimony (dissolved)	µg/L	NV	NV	0.24 J	2.0 U	2.0 U	2.0 U	0.32 J	0.25 J	0.44 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Arsenic	µg/L	10	1	5.0 U	0.65 J	5.0 U	0.79 J	0.45 J	0.36 J	5.0 U	3.7 J <sup>b</sup>	3.6 J <sup>b</sup>	5.0 U	5.0 U	5.0 U
Arsenic (dissolved)	µg/L	NV	NV	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.1 J	1.0 J	1.4 J	5.0 U	5.0 U

Table 4.1

Groundwater Analytical Results - Summary Of Ch. Nr 140, Wis. Adm. Code Exceedances  
GM Janesville Assembly Plant  
Janesville, Wisconsin

Sample Location: Sample Identification: Sample Date: Sample Type: Water Elevation (ft AMSL)		MW-7S GW-082715-JL-25 8/27/2015	MW-8S GW-060514-JK-21 6/5/2014	MW-8S GW-082715-JL-26 8/27/2015	MW-9S GW-060514-JK-20 6/5/2014	MW-9S GW-091714-JK-10 9/17/2014	MW-9S GW-091714-JK-11 9/17/2014	MW-9S GW-082615-JL-16 8/26/2015	MW-10S GW-060314-JK-05 6/3/2014	MW-10S GW-060314-JK-06 6/3/2014	MW-10S GW-091614-JK-07 9/16/2014	MW-10S GW-032615-JK-01 3/26/2015	MW-10S GW-032615-JK-02 3/26/2015
	NR 140, Wis. Adm. Code <sup>(1)</sup>												
	ES a												
	PAL b												
	Units												
<b>Metals (cont'd)</b>													
Barium	µg/L	2000	400	120	75 J	75 J	69 J	76 J	77 J	82 J	120	120	120
Barium (dissolved)	µg/L	NV	NV	130	81 J	73 J	69 J	100 U	100 U	80 J	120	110	120
Beryllium	µg/L	4	0.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.35 J	1.0 U	1.0 U	1.0 U
Beryllium (dissolved)	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.17 J	1.0 U	1.0 U	1.0 U
Cadmium	µg/L	5	0.5	0.066 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.39 J	1.0 U	1.0 U	1.0 U
Cadmium (dissolved)	µg/L	NV	NV	0.087 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.25 J	1.0 U	1.0 U	1.0 U
Chromium	µg/L	100	10	<b>110<sup>ab</sup></b>	<b>73 J<sup>b</sup></b>	<b>26<sup>b</sup></b>	<b>33 J<sup>b</sup></b>	<b>120<sup>ab</sup></b>	<b>96<sup>b</sup></b>	<b>51<sup>b</sup></b>	5.0 U	5.0 U	5.0 U
Chromium (dissolved)	µg/L	NV	NV	5.2 U	0.82 J	5.0 U	1.2 J	0.84 J	0.95 J	5.0 U	5.0 U	5.0 U	5.0 U
Chromium III (trivalent)	µg/L	NV	NV	1100	--	26	--	110	96	51	--	--	20 U
Chromium VI (hexavalent)	µg/L	NV	NV	20 U	--	20 U	--	4.8 J	20 UJ	20 U	--	--	20 U
Cobalt	µg/L	40	8	2.3 J	7.0 U	0.22 J	0.78 J	0.30 J	0.30 J	0.65 J	7.0 U	7.0 U	0.14 J
Cobalt (dissolved)	µg/L	NV	NV	1.3 J	7.0 U	0.14 J	7.0 U	7.0 U	7.0 U	0.25 J	7.0 U	7.0 U	0.26 J
Copper	µg/L	1300	130	21	2.8	1.5 J	3.4	3.1	3.1	2.5	2.0 U	2.0 U	2.0 U
Copper (dissolved)	µg/L	NV	NV	3.0	3.7	2.0 U	0.75 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Iron	µg/L	NV	NV	--	320	--	230	--	--	--	4300	4200	--
Iron (dissolved)	µg/L	NV	NV	--	200 U	--	200 U	--	--	--	18 J	20 J	--
Lead	µg/L	15	1.5	3.0 U	3.0 U	3.0 U	0.17 J	3.0 U	3.0 U	0.19 J	3.0 U	3.0 U	3.0 U
Lead (dissolved)	µg/L	NV	NV	3.0 U	3.0 U	3.0 U	3.0 U	0.23 J	3.0 U	0.13 J	3.0 U	3.0 U	3.0 U
Manganese	µg/L	300	60	11 J	2.4 J	1.1 J	8.1 J	2.3 J	2.6 J	3.5 J	<b>450<sup>ab</sup></b>	<b>440<sup>ab</sup></b>	<b>290<sup>b</sup></b>
Manganese (dissolved)	µg/L	NV	NV	6.7 J	15 U	15 U	5.7 J	15 U	15 U	15 U	470	460	290
Mercury	µg/L	2	0.2	0.20 U	0.20 UJ	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Mercury (dissolved)	µg/L	NV	NV	0.20 U	0.20 UJ	0.20 U	0.20 U	0.20 U	0.20 U	0.20 UJ	0.20 UJ	0.20 UJ	0.20 U
Nickel	µg/L	100	20	<b>110<sup>ab</sup></b>	4.4 J	2.7 J	4.4 J	19 J	19 J	31 <sup>b</sup>	20 U	1.6 J	1.2 J
Nickel (dissolved)	µg/L	NV	NV	75	1.9 J	1.6 J	27	14 J	6.6 J	10 J	1.5 J	1.6 J	1.4 J
Selenium	µg/L	50	10	4.4 J	0.55 J	0.60 J	1.0 J	0.47 J	0.42 J	5.0 U	0.40 J	5.0 U	0.83 J
Selenium (dissolved)	µg/L	NV	NV	5.5	0.63 J	0.42 J	0.66 J	5.0 U	5.0 U	0.41 J	5.0 U	5.0 U	0.80 J
Silver	µg/L	50	10	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Silver (dissolved)	µg/L	NV	NV	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Thallium	µg/L	2	0.4	1.0 U	1.0 U	1.0 U	1.3 U	0.28 J	1.0 U	0.12 J	1.0 U	1.0 U	0.25 J
Thallium (dissolved)	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	µg/L	30	6	20 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	0.48 J
Vanadium (dissolved)	µg/L	NV	NV	4.0 U	0.49 J	4.0 U	0.43 J	0.34 J	0.35 J	4.0 U	4.0 U	4.0 U	0.30 J
Zinc	µg/L	NV	NV	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Zinc (dissolved)	µg/L	NV	NV	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
<b>Glycol</b>													
Ethylene glycol	µg/L	14000	2800	--	--	--	10000 U	--	--	--	10000 U	10000 U	--
<b>Field Parameters</b>													
Conductivity, field	mS/cm	NV	NV	1.998	1.002	0.817	0.941	1029	1029	0.794	0.541	0.541	0.847
Dissolved oxygen (DO), field	µg/L	NV	NV	1310	5930	4720	5150	3380	3380	3450	1040	1040	2220
Oxidation reduction potential (ORP), field	millivolts	NV	NV	124.9	-84.3	146.9	-64.3	-33	-33	132.8	-88	-88	-210.8
pH, field	s.u.	NV	NV	7.11	6.94	7.26	7.76	6.99	6.99	7.2	7.66	7.66	6.91
Temperature, field	Deg C	NV	NV	15.18	--	18.6	--	--	--	18	--	--	--
Temperature, sample	Deg C	NV	NV	--	11.89	--	13.01	16.84	16.84	--	13.9	13.9	18.12
Turbidity, field	NTU	NV	NV	4.72	4.58	1.55	8.9	12	12	3.85	4.7	4.7	1.18

Notes:

- (1) Chapter (ch.) NR 140, Wisconsin Administrative Code (Wis. Adm. Code)
- 290 - *Italicized result indicates concentration is above associated PAL*
- 440 - Bolded italicized result indicates concentration is above associated PAL and ES**
- ES - Enforcement Standard (ch. NR 140, Wis. Adm. Code)
- ft AMSL - feet above mean sea level
- J - Estimated concentration
- NV No value, criteria is not promulgated
- PAL Preventive Action Limit (ch. NR 140, Wis. Adm. Code)
- U - Not detected at the associated reporting limit
- µg/L - micrograms per Liter
- UJ - Not detected; associated reporting limit is estimated.
- R - Rejected



Table 4.1

Groundwater Analytical Results - Summary Of Ch. Nr 140, Wis. Adm. Code Exceedances  
GM Janesville Assembly Plant  
Janesville, Wisconsin

Sample Location:				MW-10S	MW-10S	MW-10S	MW-10S	MW-10S	MW-11S	MW-11S	MW-11S	MW-12S	MW-12S	MW-12S	MW-13S	
Sample Identification:				GW-060215-JK-01	GW-060215-JK-02	GW-082515-JL-12	GW-102715-JK-01	GW-102715-JK-02	GW-060314-JK-04	GW-091614-JK-04	GW-082515-JL-11	GW-060314-JK-03	GW-091614-JK-03	GW-082515-JL-08	GW-060614-JK-34	
Sample Date:				6/2/2015	6/2/2015	8/25/2015	10/27/2015	10/27/2015	6/3/2014	9/16/2014	8/25/2015	6/3/2014	9/16/2014	8/25/2015	6/6/2014	
Sample Type:					Duplicate			Duplicate								
Water Elevation (ft AMSL)				761.52	761.52	760.78	760.85	760.85	762.06	761.32	761.58	762.42	761.61	761.66	762.40	
	NR 140, Wis. Adm. Code <sup>(1)</sup>															
	ES	PAL														
	a	b														
	Units															
<b>Volatile Organic Compounds (VOCs)</b>																
1,1,1-Trichloroethane	µg/L	200	40	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	µg/L	0.2	0.02	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
1,1,2-Trichloroethane	µg/L	5	0.5	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
1,1-Dichloroethane	µg/L	850	85	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
1,1-Dichloroethene	µg/L	7	0.7	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
1,2,4-Trichlorobenzene	µg/L	70	14	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
1,2,4-Trimethylbenzene	µg/L	480	96	470 <sup>b</sup>	460 <sup>b</sup>	21	2.2	2.4	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	0.2	0.02	50 U	50 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	--	2.0 U	2.0 UJ	
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.05	0.005	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
1,2-Dichlorobenzene	µg/L	600	60	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
1,2-Dichloroethane	µg/L	5	0.5	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
1,2-Dichloropropane	µg/L	5	0.5	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
1,3,5-Trimethylbenzene	µg/L	480	96	110 <sup>b</sup>	110 <sup>b</sup>	4.6	0.59 J	0.68 J	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
1,3-Dichlorobenzene	µg/L	600	120	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
1,4-Dichlorobenzene	µg/L	75	15	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	4000	800	250 U	250 U	0.98 J	10 U	10 U	10 U	10 U	10 U	10 U	--	10 U	10 U	
2-Hexanone	µg/L	NV	NV	250 U	250 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	--	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	500000	50000	250 U	250 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	--	10 U	10 U	
Acetone	µg/L	9000	1800	250 U	250 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	--	10 U	10 UJ	
Benzene	µg/L	5	0.5	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
Bromodichloromethane	µg/L	0.6	0.06	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
Bromoform	µg/L	4.4	0.44	25 U	25 U	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	µg/L	10	1	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 UJ	
Carbon disulfide	µg/L	1000	200	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
Carbon tetrachloride	µg/L	5	0.5	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
Chlorobenzene	µg/L	NV	NV	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
Chloroethane	µg/L	400	80	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 UJ	
Chloroform (Trichloromethane)	µg/L	6	0.6	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.26 J	1.0 U	--	1.0 U	1.0 U	
Chloromethane (Methyl chloride)	µg/L	30	3	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
cis-1,2-Dichloroethene	µg/L	700	7	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
cis-1,3-Dichloropropene	µg/L	NV	NV	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 UJ	
Cyclohexane	µg/L	NV	NV	53	51	7.3	2.7	3.3	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
Dibromochloromethane	µg/L	60	6	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
Dichlorodifluoromethane (CFC-12)	µg/L	1000	200	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 UJ	
Ethylbenzene	µg/L	700	140	300 <sup>b</sup>	290 <sup>b</sup>	11	1.5	1.9	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
Isopropyl benzene	µg/L	NV	NV	25	24 J	3.9	1.3	1.7	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
Methyl acetate	µg/L	NV	NV	250 U	250 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	--	10 U	10 U	
Methyl cyclohexane	µg/L	NV	NV	16 J	15 J	1.5	1.0 U	0.45 J	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
Methyl tert butyl ether (MTBE)	µg/L	60	12	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
Methylene chloride	µg/L	5	0.5	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 UJ	
Styrene	µg/L	100	10	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
Tetrachloroethene	µg/L	5	0.5	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
Toluene	µg/L	800	160	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
trans-1,2-Dichloroethene	µg/L	100	20	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
trans-1,3-Dichloropropene	µg/L	NV	NV	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 UJ	
Trichloroethene	µg/L	5	0.5	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
Trichlorofluoromethane (CFC-11)	µg/L	NV	NV	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 UJ	
Trifluorotrichloroethane (CFC-113)	µg/L	NV	NV	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 UJ	
Vinyl chloride	µg/L	0.2	0.02	25 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	
Xylenes (total)	µg/L	2000	400	820 <sup>b</sup>	770 <sup>b</sup>	23	3.9	4.2	2.0 U	2.0 U	2.0 U	2.0 U	--	2.0 U	2.0 U	
<b>Semi-Volatile Organic Compounds (SVOCs)</b>																
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	NV	NV	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	0.97 U	5.2 U	4.9 U	1.1 U	--	4.9 U	0.96 U	
2,4,5-Trichlorophenol	µg/L	NV	NV	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	4.9 U	5.2 U	4.9 U	5.3 U	--	4.9 U	4.8 U	
2,4,6-Trichlorophenol	µg/L	NV	NV	4.1 U	4.0 U	4.5 U	3.8 U	3.8 U	4.9 U	4.1 U	3.9 U	5.3 U	--	3.9 U	4.8 U	
2,4-Dichlorophenol	µg/L	NV	NV	10 U	9.9 U	11 U	9.5 U	9.6 U	1.9 U	10 U	9.8 U	2.1 U	--	9.8 U	1.9 U	
2,4-Dimethylphenol	µg/L	NV	NV	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	1.9 U	5.2 U	4.9 U	2.1 U	--	4.9 U	1.9 U	
2,4-Dinitrophenol	µg/L	NV	NV	21 U	20 U	23 U	19 U	19 U	4.9 U	21 U	20 U	5.3 U	--	20 U	4.8 U	
2,4-Dinitrotoluene	µg/L	0.05	0.005	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	4.9 U	5.2 U	4.9 U	5.3 U	--	4.9 U	4.8 U	
2,6-Dinitrotoluene	µg/L	0.05	0.005	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	4.9 U	5.2 U	4.9 U	5.3 U	--	4.9 U	4.8 U	
2-Chloronaphthalene	µg/L	NV	NV	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	0.97 U	5.2 U	4.9 U	1.1 U	--	4.9 U	0.96 U	
2-Chlorophenol	µg/L	NV	NV	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	0.97 U	5.2 U	4.9 U	1.1 U	--	4.9 U	0.96 U	

Table 4.1

**Groundwater Analytical Results - Summary Of Ch. Nr 140, Wis. Adm. Code Exceedances  
GM Janesville Assembly Plant  
Janesville, Wisconsin**

Sample Location: Sample Identification: Sample Date: Sample Type: Water Elevation (ft AMSL)	NR 140, Wis. Adm. Code <sup>(1)</sup>			MW-10S	MW-10S	MW-10S	MW-10S	MW-10S	MW-11S	MW-11S	MW-11S	MW-12S	MW-12S	MW-12S	MW-13S
				GW-060215-JK-01	GW-060215-JK-02	GW-082515-JL-12	GW-102715-JK-01	GW-102715-JK-02	GW-060314-JK-04	GW-091614-JK-04	GW-082515-JL-11	GW-060314-JK-03	GW-091614-JK-03	GW-082515-JL-08	GW-060614-JK-34
				6/2/2015	6/2/2015 Duplicate	8/25/2015	10/27/2015	10/27/2015 Duplicate	6/3/2014	9/16/2014	8/25/2015	6/3/2014	9/16/2014	8/25/2015	6/6/2014
	ES	PAL	761.52	761.52	760.78	760.85	760.85	760.85	762.06	761.32	761.58	762.42	761.61	761.66	762.40
	a	b													
Units															
<b>SVOCs (cont'd)</b>															
2-Methylnaphthalene	µg/L	NV	NV	0.22 J	5.0 U	0.22 J	4.8 U	4.8 U	0.19 U	5.2 U	4.9 U	0.21 U	--	4.9 U	0.19 U
2-Methylphenol	µg/L	NV	NV	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	0.97 U	5.2 U	4.9 U	1.1 U	--	4.9 U	0.96 U
2-Nitroaniline	µg/L	NV	NV	21 U	20 U	23 U	19 U	19 U	1.9 U	21 U	20 U	2.1 U	--	20 U	1.9 U
2-Nitrophenol	µg/L	NV	NV	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	1.9 U	5.2 U	4.9 U	2.1 U	--	4.9 U	1.9 U
3&4-Methylphenol	µg/L	NV	NV	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	1.9 U	5.2 U	4.9 U	2.1 U	--	4.9 U	1.9 U
3,3'-Dichlorobenzidine	µg/L	NV	NV	1.0 U	0.99 U	1.1 U	0.95 UJ	0.96 UJ	4.9 U	1.0 U	0.98 U	5.3 U	--	0.98 U	4.8 U
3-Nitroaniline	µg/L	NV	NV	21 U	20 U	23 U	19 UJ	19 UJ	1.9 U	21 U	20 U	2.1 U	--	20 U	1.9 U
4,6-Dinitro-2-methylphenol	µg/L	NV	NV	21 U	20 U	23 U	19 U	19 U	4.9 U	21 U	20 U	5.3 U	--	20 U	4.8 U
4-Bromophenyl phenyl ether	µg/L	NV	NV	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	1.9 U	5.2 U	4.9 U	2.1 U	--	4.9 U	1.9 U
4-Chloro-3-methylphenol	µg/L	NV	NV	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	1.9 U	5.2 U	4.9 U	2.1 U	--	4.9 U	1.9 U
4-Chloroaniline	µg/L	NV	NV	10 U	9.9 U	11 U	9.5 U	9.6 U	1.9 U	10 U	9.8 U	2.1 U	--	9.8 U	1.9 U
4-Chlorophenyl phenyl ether	µg/L	NV	NV	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	1.9 U	5.2 U	4.9 U	2.1 U	--	4.9 U	1.9 U
4-Nitroaniline	µg/L	NV	NV	21 U	20 U	23 U	19 U	19 U	1.9 U	21 U	20 U	2.1 U	--	20 U	1.9 U
4-Nitrophenol	µg/L	NV	NV	21 U	20 U	23 U	19 U	19 U	4.9 U	21 U	20 U	5.3 U	--	20 U	4.8 U
Acenaphthene	µg/L	NV	NV	5.2 U	0.13 J	5.7 U	4.8 U	4.8 U	0.19 U	5.2 U	4.9 U	0.21 U	--	4.9 U	0.19 U
Acenaphthylene	µg/L	NV	NV	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	0.19 U	5.2 U	4.9 U	0.21 U	--	4.9 U	0.19 U
Acetophenone	µg/L	NV	NV	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	0.97 U	5.2 U	4.9 U	1.1 U	--	4.9 U	0.96 U
Anthracene	µg/L	3000	600	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	0.19 U	5.2 U	4.9 U	0.21 U	--	4.9 U	0.19 U
Atrazine	µg/L	3	0.3	3.1 U	3.0 U	3.4 U	2.9 U	2.9 U	0.97 U	3.1 U	2.9 U	1.1 U	--	2.9 U	0.96 U
Benzaldehyde	µg/L	NV	NV	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	0.97 U	5.2 U	4.9 U	1.1 U	--	4.9 U	0.96 U
Benzo(a)anthracene	µg/L	NV	NV	1.0 U	0.99 U	1.1 U	0.95 U	0.96 U	0.19 U	1.0 U	0.98 U	0.21 U	--	0.98 U	0.19 U
Benzo(a)pyrene	µg/L	0.2	0.02	1.0 U	0.99 U	1.1 U	0.95 U	0.96 U	0.19 U	1.0 U	0.98 U	0.21 U	--	0.98 U	0.19 U
Benzo(b)fluoranthene	µg/L	0.2	0.02	1.0 U	0.99 U	1.1 U	0.95 U	0.96 U	0.19 U	1.0 U	0.98 U	0.21 U	--	0.98 U	0.19 U
Benzo(g,h,i)perylene	µg/L	NV	NV	1.0 U	0.99 U	1.1 U	0.95 U	0.96 U	0.19 U	1.0 U	0.98 U	0.21 U	--	0.98 U	0.19 U
Benzo(k)fluoranthene	µg/L	NV	NV	1.0 U	0.99 U	1.1 U	0.95 U	0.96 U	0.19 U	1.0 U	0.98 U	0.21 U	--	0.98 U	0.19 U
Biphenyl (1,1'-Biphenyl)	µg/L	NV	NV	0.30 J	0.31 J	5.7 U	4.8 U	4.8 U	0.97 U	5.2 U	4.9 U	1.1 U	--	4.9 U	0.96 U
bis(2-Chloroethoxy)methane	µg/L	NV	NV	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	0.97 U	5.2 U	4.9 U	1.1 U	--	4.9 U	0.96 U
bis(2-Chloroethyl)ether	µg/L	NV	NV	1.0 U	0.99 U	1.1 U	0.95 U	0.96 U	0.97 U	1.0 U	0.98 U	1.1 U	--	0.98 U	0.96 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	NV	NV	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	4.9 U	5.2 U	4.9 U	5.3 U	--	4.9 U	4.8 U
Butyl benzylphthalate (BBP)	µg/L	NV	NV	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	1.9 U	5.2 U	4.9 U	2.1 U	--	4.9 U	1.9 U
Caprolactam	µg/L	NV	NV	10 U	9.9 U	11 U	9.5 U	9.6 U	4.9 U	10 U	9.8 U	5.3 U	--	9.8 U	4.8 U
Carbazole	µg/L	NV	NV	10 U	9.9 U	11 U	9.5 U	9.6 U	0.97 U	10 U	9.8 U	1.1 U	--	9.8 U	0.96 U
Chrysene	µg/L	0.2	0.02	1.0 U	0.99 U	1.1 U	0.95 U	0.96 U	0.19 U	1.0 U	0.98 U	0.21 U	--	0.98 U	0.19 U
Dibenz(a,h)anthracene	µg/L	NV	NV	2.1 U	2.0 U	2.3 U	1.9 U	1.9 U	0.19 U	2.1 U	2.0 U	0.21 U	--	2.0 U	0.19 U
Dibenzofuran	µg/L	NV	NV	4.1 U	4.0 U	4.5 U	3.8 U	3.8 U	0.97 U	4.1 U	3.9 U	1.1 U	--	3.9 U	0.96 U
Diethyl phthalate	µg/L	NV	NV	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	1.9 U	5.2 U	4.9 U	2.1 U	--	4.9 U	1.9 U
Dimethyl phthalate	µg/L	NV	NV	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	1.9 U	5.2 U	4.9 U	2.1 U	--	4.9 U	1.9 U
Di-n-butylphthalate (DBP)	µg/L	1000	100	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	4.9 U	5.2 U	4.9 U	5.3 U	--	4.9 U	4.8 U
Di-n-octyl phthalate (DnOP)	µg/L	NV	NV	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	1.9 U	5.2 U	4.9 U	2.1 U	--	4.9 U	1.9 U
Fluoranthene	µg/L	400	80	1.0 U	0.99 U	1.1 U	0.95 U	0.96 U	0.19 U	1.0 U	0.98 U	0.21 U	--	0.98 U	0.19 U
Fluorene	µg/L	400	80	0.16 J	0.16 J	5.7 U	4.8 U	4.8 U	0.19 U	5.2 U	4.9 U	0.21 U	--	4.9 U	0.19 U
Hexachlorobenzene	µg/L	1	0.1	0.21 U	0.20 U	0.23 U	0.19 U	0.19 U	0.19 U	0.21 U	0.20 U	0.21 U	--	0.20 U	0.19 U
Hexachlorobutadiene	µg/L	NV	NV	1.0 U	0.99 U	1.1 U	0.95 U	0.96 U	0.97 U	1.0 U	0.98 U	1.1 U	--	0.98 U	0.96 U
Hexachlorocyclopentadiene	µg/L	NV	NV	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	9.7 U	5.2 U	4.9 U	1.1 U	--	4.9 U	9.6 U
Hexachloroethane	µg/L	NV	NV	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	0.97 U	5.2 U	4.9 U	1.1 U	--	4.9 U	0.96 U
Indeno(1,2,3-cd)pyrene	µg/L	NV	NV	2.1 U	2.0 U	2.3 U	1.9 U	1.9 U	0.19 U	2.1 U	2.0 U	0.21 U	--	2.0 U	0.19 U
Isophorone	µg/L	NV	NV	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	0.97 U	5.2 U	4.9 U	1.1 U	--	4.9 U	0.96 U
Naphthalene	µg/L	100	10	5.2 U	5.0 U	3.8 J	0.61 J	0.60 J	0.19 U	5.2 U	4.9 U	0.21 U	--	4.9 U	0.19 U
Nitrobenzene	µg/L	NV	NV	3.1 U	3.0 U	3.4 U	2.9 U	2.9 U	0.97 U	3.1 U	2.9 U	1.1 U	--	2.9 U	0.96 U
N-Nitrosodi-n-propylamine	µg/L	NV	NV	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	0.97 U	5.2 U	4.9 U	1.1 U	--	4.9 U	0.96 U
N-Nitrosodiphenylamine	µg/L	7	0.7	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	0.97 U	5.2 U	4.9 U	1.1 U	--	4.9 U	0.96 U
Pentachlorophenol	µg/L	1	0.1	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	4.9 U	5.2 U	4.9 U	5.3 U	--	4.9 U	4.8 U
Phenanthrene	µg/L	NV	NV	0.10 J	2.0 U	2.3 U	1.9 U	1.9 U	1.9 U	2.1 U	2.0 U	0.21 U	--	2.0 U	0.19 U
Phenol	µg/L	2000	400	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	0.97 U	5.2 U	4.9 U	1.1 U	--	4.9 U	0.96 U
Pyrene	µg/L	250	50	5.2 U	5.0 U	5.7 U	4.8 U	4.8 U	0.19 U	5.2 U	4.9 U	0.21 U	--	4.9 U	0.19 U
<b>Metals</b>															
Aluminum	µg/L	200	40	--	--	--	--	--	50 U	--	--	12 J	--	--	50 U
Aluminum (dissolved)	µg/L	NV	NV	--	--	--	--	--	50 U	--	--	50 U	--	--	50 U
Antimony	µg/L	6	1.2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	--	0.18 J	2.0 U
Antimony (dissolved)	µg/L	NV	NV	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	--	0.17 J	2.0 U
Arsenic	µg/L	10	1	5.0 U	5.0 U	5.0 U	1.0 J <sup>b</sup>	0.87 J	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U	0.41 J
Arsenic (dissolved)	µg/L	NV	NV	5.0 U	5.0 U	5.0 U	0.72 J	0.97 J	5.0 U	0.37 J	5.0 U	5.0 U	--	5.0 U	5.0 U



Table 4.1

**Groundwater Analytical Results - Summary Of Ch. Nr 140, Wis. Adm. Code Exceedances  
GM Janesville Assembly Plant  
Janesville, Wisconsin**

Sample Location: Sample Identification: Sample Date: Sample Type: Water Elevation (ft AMSL)	NR 140, Wis. Adm. Code <sup>(1)</sup> ES a	PAL b	MW-13S	MW-13S	MW-14S	MW-14S	MW-14S	MW-14S	MW-15S	MW-15S	MW-16S	MW-16S	MW-16S	MW-17S	MW-17S
			GW-091714-JK-14	GW-082515-JL-04	GW-060614-JK-32	GW-060614-JK-33	GW-082515-JL-03	GW-060514-JK-28	GW-082815-JL-41	GW-060514-JK-23	GW-082715-JL-29	GW-082715-JL-30	GW-060414-JK-13	GW-082615-JL-19	
			9/17/2014	8/25/2015	6/6/2014	6/6/2014	8/25/2015	6/5/2014	8/28/2015	6/5/2014	8/27/2015	8/27/2015	6/4/2014	8/26/2015	
Units			761.60	761.14	762.41	Duplicate 762.41	761.25	762.68	761.67	762.50	761.02	Duplicate 761.02	762.82	761.39	
<b>Volatile Organic Compounds (VOCs)</b>															
1,1,1-Trichloroethane	µg/L	200	40	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	0.2	0.02	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	5	0.5	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	850	85	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	7	0.7	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	70	14	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	480	96	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	0.2	0.02	--	2.0 U	2.0 UJ	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.05	0.005	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	600	60	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	0.5	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	0.5	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	480	96	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	600	120	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	75	15	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	4000	800	--	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	NV	NV	--	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	500000	50000	--	10 U	0.49 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	µg/L	9000	1800	--	10 U	10 UJ	10 UJ	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U
Benzene	µg/L	5	0.5	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	0.6	0.06	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	4.4	0.44	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	10	1	--	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1000	200	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	0.5	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	NV	NV	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	400	80	--	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	6	0.6	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	30	3	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	700	7	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	NV	NV	--	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	NV	NV	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	60	6	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1000	200	--	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U
Ethylbenzene	µg/L	700	140	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	NV	NV	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	NV	NV	--	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methyl cyclohexane	µg/L	NV	NV	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	60	12	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	5	0.5	--	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	100	10	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	0.5	--	1.0 U	0.36 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	800	160	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	100	20	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	NV	NV	--	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	0.5	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	NV	NV	--	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrchloroethane (CFC-113)	µg/L	NV	NV	--	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	0.2	0.02	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	2000	400	--	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
<b>Semi-Volatile Organic Compounds (SVOCs)</b>															
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	NV	NV	--	4.9 U	0.98 U	0.97 U	4.9 U	0.95 U	4.9 U	0.99 U	4.8 U	5.1 U	0.95 U	5.2 U
2,4,5-Trichlorophenol	µg/L	NV	NV	--	4.9 U	4.9 U	4.9 U	4.9 U	4.8 U	4.9 U	5.0 U	4.8 U	5.1 U	4.8 U	5.2 U
2,4,6-Trichlorophenol	µg/L	NV	NV	--	3.9 U	4.9 U	4.9 U	3.9 U	4.8 U	3.9 U	5.0 U	3.8 U	4.1 U	4.8 U	4.1 U
2,4-Dichlorophenol	µg/L	NV	NV	--	1.6 J	2.0 U	1.9 U	9.8 U	1.9 U	9.8 U	2.0 U	9.5 U	10 U	1.9 U	10 U
2,4-Dimethylphenol	µg/L	NV	NV	--	4.9 U	2.0 U	1.9 U	4.9 U	1.9 U	4.9 U	2.0 U	4.8 U	5.1 U	1.9 U	5.2 U
2,4-Dinitrophenol	µg/L	NV	NV	--	19 U	4.9 U	4.9 U	20 U	4.8 U	20 U	5.0 U	19 U	20 U	4.8 U	21 U
2,4-Dinitrotoluene	µg/L	0.05	0.005	--	4.9 U	4.9 U	4.9 U	4.9 U	4.8 U	4.9 U	5.0 U	4.8 U	5.1 U	4.8 U	5.2 U
2,6-Dinitrotoluene	µg/L	0.05	0.005	--	4.9 U	4.9 U	4.9 U	4.9 U	4.8 U	4.9 U	5.0 U	4.8 U	5.1 U	4.8 U	5.2 U
2-Chloronaphthalene	µg/L	NV	NV	--	4.9 U	0.98 U	0.97 U	4.9 U	0.95 U	4.9 U	0.99 U	4.8 U	5.1 U	0.95 U	5.2 U
2-Chlorophenol	µg/L	NV	NV	--	4.9 U	0.98 U	0.97 U	4.9 U	0.95 U	4.9 U	0.99 U	4.8 U	5.1 U	0.95 U	5.2 U



Table 4.1

Groundwater Analytical Results - Summary Of Ch. Nr 140, Wis. Adm. Code Exceedances  
GM Janesville Assembly Plant  
Janesville, Wisconsin

Sample Location:				MW-13S	MW-13S	MW-14S	MW-14S	MW-14S	MW-14S	MW-15S	MW-15S	MW-16S	MW-16S	MW-16S	MW-17S	MW-17S
Sample Identification:				GW-091714-JK-14	GW-082515-JL-04	GW-060614-JK-32	GW-060614-JK-33	GW-082515-JL-03	GW-060514-JK-28	GW-082815-JL-41	GW-060514-JK-23	GW-082715-JL-29	GW-082715-JL-30	GW-060414-JK-13	GW-082615-JL-19	
Sample Date:				9/17/2014	8/25/2015	6/6/2014	6/6/2014	8/25/2015	6/5/2014	8/28/2015	6/5/2014	8/27/2015	8/27/2015	6/4/2014	8/26/2015	
Sample Type:							Duplicate						Duplicate			
Water Elevation (ft AMSL)				761.60	761.14	762.41	762.41	761.25	762.68	761.67	762.50	761.02	761.02	762.82	761.39	
	NR 140, Wis. Adm. Code <sup>(1)</sup>															
	ES	PAL														
	a	b														
Units																
<b>SVOCs (cont'd)</b>																
2-Methylnaphthalene	µg/L	NV	NV	--	4.9 U	0.20 U	0.19 U	4.9 U	0.19 U	4.9 U	0.20 U	4.8 U	5.1 U	0.19 U	5.2 U	
2-Methylphenol	µg/L	NV	NV	--	4.9 U	0.98 U	0.97 U	4.9 U	0.95 U	4.9 U	0.99 U	4.8 U	5.1 U	0.95 U	5.2 U	
2-Nitroaniline	µg/L	NV	NV	--	19 U	2.0 U	1.9 U	20 U	1.9 U	20 U	2.0 U	19 U	20 U	1.9 U	21 U	
2-Nitrophenol	µg/L	NV	NV	--	4.9 U	2.0 U	1.9 U	4.9 U	1.9 U	4.9 U	2.0 U	4.8 U	5.1 U	1.9 U	5.2 U	
3&4-Methylphenol	µg/L	NV	NV	--	4.9 U	2.0 U	1.9 U	4.9 U	1.9 U	4.9 U	2.0 U	4.8 U	5.1 U	1.9 U	5.2 U	
3,3'-Dichlorobenzidine	µg/L	NV	NV	--	0.97 U	4.9 U	4.9 U	0.98 U	4.8 U	0.98 U	5.0 U	0.95 U	1.0 U	4.8 U	1.0 U	
3-Nitroaniline	µg/L	NV	NV	--	19 U	2.0 U	1.9 U	20 U	1.9 U	20 U	2.0 U	19 U	20 U	1.9 U	21 U	
4,6-Dinitro-2-methylphenol	µg/L	NV	NV	--	19 U	4.9 U	4.9 U	20 U	4.8 U	20 U	5.0 U	19 U	20 U	4.8 U	21 U	
4-Bromophenyl phenyl ether	µg/L	NV	NV	--	4.9 U	2.0 U	1.9 U	4.9 U	1.9 U	4.9 U	2.0 U	4.8 U	5.1 U	1.9 U	5.2 U	
4-Chloro-3-methylphenol	µg/L	NV	NV	--	4.9 U	2.0 U	1.9 U	4.9 U	1.9 U	4.9 U	2.0 U	4.8 U	5.1 U	1.9 U	5.2 U	
4-Chloroaniline	µg/L	NV	NV	--	9.7 U	2.0 U	1.9 U	9.8 U	1.9 U	9.8 U	2.0 U	9.5 U	10 U	1.9 U	10 U	
4-Chlorophenyl phenyl ether	µg/L	NV	NV	--	4.9 U	2.0 U	1.9 U	4.9 U	1.9 U	4.9 U	2.0 U	4.8 U	5.1 U	1.9 U	5.2 U	
4-Nitroaniline	µg/L	NV	NV	--	19 U	2.0 U	1.9 U	20 U	1.9 U	20 U	2.0 U	19 U	20 U	1.9 U	21 U	
4-Nitrophenol	µg/L	NV	NV	--	19 U	4.9 U	4.9 U	20 U	4.8 U	20 U	5.0 U	19 U	20 U	4.8 U	21 U	
Acenaphthene	µg/L	NV	NV	--	4.9 U	0.20 U	0.19 U	4.9 U	0.19 U	4.9 U	0.20 U	4.8 U	5.1 U	0.19 U	5.2 U	
Acenaphthylene	µg/L	NV	NV	--	4.9 U	0.20 U	0.19 U	4.9 U	0.19 U	4.9 U	0.20 U	4.8 U	5.1 U	0.19 U	5.2 U	
Acetophenone	µg/L	NV	NV	--	4.9 U	0.98 U	0.97 U	4.9 U	0.95 U	4.9 U	0.99 U	4.8 U	5.1 U	0.95 U	5.2 U	
Anthracene	µg/L	3000	600	--	4.9 U	0.20 U	0.19 U	4.9 U	0.19 U	4.9 U	0.20 U	4.8 U	5.1 U	0.19 U	5.2 U	
Atrazine	µg/L	3	0.3	--	2.9 U	0.98 U	0.97 U	2.9 U	0.95 U	2.9 U	0.99 U	2.9 U	3.1 U	0.95 U	3.1 U	
Benzaldehyde	µg/L	NV	NV	--	4.9 U	0.98 U	0.97 U	4.9 U	0.95 U	4.9 U	0.99 U	4.8 U	5.1 U	0.95 U	5.2 U	
Benzo(a)anthracene	µg/L	NV	NV	--	0.97 U	0.20 U	0.19 U	0.98 U	0.19 U	0.98 U	0.20 U	0.95 U	1.0 U	0.14 J	1.0 U	
Benzo(a)pyrene	µg/L	0.2	0.02	--	0.97 U	0.20 U	0.19 U	0.98 U	0.19 U	0.98 U	0.20 U	0.95 U	1.0 U	0.078 J <sup>b</sup>	1.0 U	
Benzo(b)fluoranthene	µg/L	0.2	0.02	--	0.97 U	0.20 U	0.19 U	0.98 U	0.19 U	0.98 U	0.20 U	0.95 U	1.0 U	0.22 <sup>ab</sup>	1.0 U	
Benzo(g,h,i)perylene	µg/L	NV	NV	--	0.97 U	0.20 U	0.19 U	0.98 U	0.19 U	0.98 U	0.20 U	0.95 U	1.0 U	0.19 U	1.0 U	
Benzo(k)fluoranthene	µg/L	NV	NV	--	0.97 U	0.20 U	0.19 U	0.98 U	0.19 U	0.98 U	0.20 U	0.95 U	1.0 U	0.097 J	1.0 U	
Biphenyl (1,1'-Biphenyl)	µg/L	NV	NV	--	4.9 U	0.98 U	0.97 U	4.9 U	0.95 U	4.9 U	0.99 U	4.8 U	5.1 U	0.95 U	5.2 U	
bis(2-Chloroethoxy)methane	µg/L	NV	NV	--	4.9 U	0.98 U	0.97 U	4.9 U	0.95 U	4.9 U	0.99 U	4.8 U	5.1 U	0.95 U	5.2 U	
bis(2-Chloroethyl)ether	µg/L	NV	NV	--	0.97 U	0.98 U	0.97 U	0.98 U	0.95 U	0.98 U	0.99 U	0.95 U	1.0 U	0.95 U	1.0 U	
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	NV	NV	--	4.9 U	4.9 U	4.9 U	4.9 U	4.8 U	4.9 U	5.0 U	4.8 U	5.1 U	4.8 U	5.2 U	
Butyl benzylphthalate (BBP)	µg/L	NV	NV	--	4.9 U	2.0 U	1.9 U	4.9 U	1.9 U	4.9 U	2.0 U	4.8 U	5.1 U	1.9 U	5.2 U	
Caprolactam	µg/L	NV	NV	--	9.7 U	4.9 U	4.9 U	9.8 U	0.42 J	9.8 U	5.0 U	9.5 U	10 U	0.20 J	10 U	
Carbazole	µg/L	NV	NV	--	9.7 U	0.98 U	0.97 U	9.8 U	0.95 U	9.8 U	0.99 U	9.5 U	10 U	0.95 U	10 U	
Chrysene	µg/L	0.2	0.02	--	0.97 U	0.20 U	0.19 U	0.98 U	0.19 U	0.98 U	0.20 U	0.95 U	1.0 U	0.13 J <sup>b</sup>	1.0 U	
Dibenz(a,h)anthracene	µg/L	NV	NV	--	1.9 U	0.20 U	0.19 U	2.0 U	0.19 U	2.0 U	0.20 U	1.9 U	2.0 U	0.19 U	2.1 U	
Dibenzofuran	µg/L	NV	NV	--	3.9 U	0.98 U	0.97 U	3.9 U	0.95 U	3.9 U	0.99 U	3.8 U	4.1 U	0.95 U	4.1 U	
Diethyl phthalate	µg/L	NV	NV	--	4.9 U	2.0 U	1.9 U	4.9 U	1.9 U	4.9 U	2.0 U	4.8 U	5.1 U	1.9 U	5.2 U	
Dimethyl phthalate	µg/L	NV	NV	--	4.9 U	2.0 U	1.9 U	4.9 U	1.9 U	4.9 U	2.0 U	4.8 U	5.1 U	1.9 U	5.2 U	
Di-n-butylphthalate (DBP)	µg/L	1000	100	--	4.9 U	4.9 U	4.9 U	4.9 U	4.8 U	4.9 U	5.0 U	4.8 U	5.1 U	4.8 U	5.2 U	
Di-n-octyl phthalate (DnOP)	µg/L	NV	NV	--	4.9 U	2.0 U	1.9 U	4.9 U	1.9 U	4.9 U	2.0 U	4.8 U	5.1 U	1.9 U	5.2 U	
Fluoranthene	µg/L	400	80	--	0.97 U	0.20 U	0.19 U	0.98 U	0.19 U	0.98 U	0.20 U	0.95 U	1.0 U	0.19 U	1.0 U	
Fluorene	µg/L	400	80	--	4.9 U	0.20 U	0.19 U	4.9 U	0.19 U	4.9 U	0.20 U	4.8 U	5.1 U	0.19 U	5.2 U	
Hexachlorobenzene	µg/L	1	0.1	--	0.19 U	0.20 U	0.19 U	0.20 U	0.19 U	0.20 U	0.20 U	0.19 U	0.20 U	0.19 U	0.21 U	
Hexachlorobutadiene	µg/L	NV	NV	--	0.97 U	0.98 U	0.97 U	0.98 U	0.95 U	0.98 U	0.99 U	0.95 U	1.0 U	0.95 U	1.0 U	
Hexachlorocyclopentadiene	µg/L	NV	NV	--	4.9 U	9.8 U	9.7 U	4.9 U	9.5 U	4.9 U	9.9 U	4.8 U	5.1 U	9.5 U	5.2 U	
Hexachloroethane	µg/L	NV	NV	--	4.9 U	0.98 U	0.97 U	4.9 U	0.95 U	4.9 U	0.99 U	4.8 U	5.1 U	0.95 U	5.2 U	
Indeno(1,2,3-cd)pyrene	µg/L	NV	NV	--	1.9 U	0.20 U	0.19 U	2.0 U	0.19 U	2.0 U	0.20 U	1.9 U	2.0 U	0.19 U	2.1 U	
Isophorone	µg/L	NV	NV	--	4.9 U	0.98 U	0.97 U	4.9 U	0.95 U	4.9 U	0.99 U	4.8 U	5.1 U	0.95 U	5.2 U	
Naphthalene	µg/L	100	10	--	4.9 U	0.20 U	0.19 U	4.9 U	0.19 U	4.9 U	0.20 U	4.8 U	5.1 U	0.19 U	5.2 U	
Nitrobenzene	µg/L	NV	NV	--	2.9 U	0.98 U	0.97 U	2.9 U	0.95 U	2.9 U	0.99 U	2.9 U	3.1 U	0.95 U	3.1 U	
N-Nitrosodi-n-propylamine	µg/L	NV	NV	--	4.9 U	0.98 U	0.97 U	4.9 U	0.95 U	4.9 U	0.99 U	4.8 U	5.1 U	0.95 U	5.2 U	
N-Nitrosodiphenylamine	µg/L	7	0.7	--	4.9 U	0.98 U	0.97 U	4.9 U	0.95 U	4.9 U	0.99 U	4.8 U	5.1 U	0.95 U	5.2 U	
Pentachlorophenol	µg/L	1	0.1	--	4.9 U	4.9 U	4.9 U	4.9 U	4.8 U	4.9 U	5.0 U	4.8 U	5.1 U	4.8 U	5.2 U	
Phenanthrene	µg/L	NV	NV	--	1.9 U	0.20 U	0.19 U	2.0 U	0.19 U	2.0 U	0.20 U	1.9 U	2.0 U	0.19 U	2.1 U	
Phenol	µg/L	2000	400	--	4.9 U	0.98 U	0.97 U	4.9 U	0.68 J	4.9 U	0.99 U	4.8 U	5.1 U	0.95 U	5.2 U	
Pyrene	µg/L	250	50	--	4.9 U	0.20 U	0.19 U	4.9 U	0.19 U	4.9 U	0.20 U	4.8 U	5.1 U	0.19 U	5.2 U	
<b>Metals</b>																
Aluminum	µg/L	200	40	--	--	50 U	50 U	--	50 U	--	50 U	--	--	26 J	--	
Aluminum (dissolved)	µg/L	NV	NV	--	--	50 U	50 U	--	50 U	--	50 U	--	--	50 U	--	
Antimony	µg/L	6	1.2	--	0.24 J	2.0 U	2.0 U	0.38 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Antimony (dissolved)	µg/L	NV	NV	--	0.19 J	2.0 U	2.0 U	0.45 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Arsenic	µg/L	10	1	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	8.6 <sup>b</sup>	11 <sup>ab</sup>	
Arsenic (dissolved)	µg/L	NV	NV	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	9.1	

Table 4.1

Groundwater Analytical Results - Summary Of Ch. Nr 140, Wis. Adm. Code Exceedances  
GM Janesville Assembly Plant  
Janesville, Wisconsin

Sample Location: Sample Identification: Sample Date: Sample Type: Water Elevation (ft AMSL)				MW-13S GW-091714-JK-14 9/17/2014	MW-13S GW-082515-JL-04 8/25/2015	MW-14S GW-060614-JK-32 6/6/2014	MW-14S GW-060614-JK-33 6/6/2014 Duplicate	MW-14S GW-082515-JL-03 8/25/2015	MW-15S GW-060514-JK-28 6/5/2014	MW-15S GW-082815-JL-41 8/28/2015	MW-16S GW-060514-JK-23 6/5/2014	MW-16S GW-082715-JL-29 8/27/2015	MW-16S GW-082715-JL-30 8/27/2015 Duplicate	MW-17S GW-060414-JK-13 6/4/2014	MW-17S GW-082615-JL-19 8/26/2015	
				761.60	761.14	762.41	762.41	761.25	762.68	761.67	762.50	761.02	761.02	762.82	761.39	
	NR 140, Wis. Adm. Code <sup>(1)</sup>															
	ES	PAL														
	a	b														
	Units															
<b>Metals (cont'd)</b>																
Barium	µg/L	2000	400	--	90 J	68 J	65 J	76 J	60 J	70 J	66 J	55 J	54 J	120	93 J	
Barium (dissolved)	µg/L	NV	NV	--	85 J	71 J	71 J	66 J	64 J	73 J	69 J	60 J	61 J	92 J	92 J	
Beryllium	µg/L	4	0.4	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.065 J	
Beryllium (dissolved)	µg/L	NV	NV	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Cadmium	µg/L	5	0.5	--	0.10 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.082 J	
Cadmium (dissolved)	µg/L	NV	NV	--	0.079 J	1.0 U	1.0 U	0.072 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chromium	µg/L	100	10	<b>350<sup>ab</sup></b>	<b>410<sup>ab</sup></b>	4.1 J	4.0 J	2.6 J	2.6 J	15 U	15 J <sup>b</sup>	9.9 U	6.2 U	5.0 U	5.0 U	
Chromium (dissolved)	µg/L	NV	NV	--	5.0 U	1.9 J	1.9 J	5.0 U	0.97 J	5.0 U	0.36 J	5.0 U	5.0 U	5.0 U	5.0 U	
Chromium III (trivalent)	µg/L	NV	NV	350	410	--	--	20 U	--	15 J	--	9.9 J	6.2 J	--	20 U	
Chromium VI (hexavalent)	µg/L	NV	NV	20 U	20 U	--	--	20 U	--	20 U	--	20 U	20 U	--	20 U	
Cobalt	µg/L	40	8	--	0.85 J	7.0 U	7.0 U	0.69 J	7.0 U	0.21 J	4.9 J	1.7 J	1.5 J	2.0 J	1.4 J	
Cobalt (dissolved)	µg/L	NV	NV	--	0.20 J	7.0 U	7.0 U	0.58 J	7.0 U	0.13 J	2.1 J	0.79 J	0.68 J	1.8 J	1.3 J	
Copper	µg/L	1300	130	--	12	0.71 J	0.78 J	0.79 J	0.34 J	0.83 J	0.78 J	2.0 U	2.0 U	2.0 U	2.0 U	
Copper (dissolved)	µg/L	NV	NV	--	0.75 J	3.1	2.8	2.0 U	1.9 J	2.0 U	1.4 J	2.0 U	2.0 U	2.0 U	2.0 U	
Iron	µg/L	NV	NV	--	--	200 U	200 U	--	200 U	--	400	--	--	9600	--	
Iron (dissolved)	µg/L	NV	NV	--	--	200 U	200 U	--	15 J	--	200 U	--	--	200 U	--	
Lead	µg/L	15	1.5	--	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	0.14 J	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	
Lead (dissolved)	µg/L	NV	NV	--	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	
Manganese	µg/L	300	60	--	7.2 J	1.9 J	2.1 J	5.1 J	0.64 J	6.7 J	79 <sup>b</sup>	22	20	<b>810<sup>ab</sup></b>	<b>550<sup>ab</sup></b>	
Manganese (dissolved)	µg/L	NV	NV	--	1.5 J	4.6 J	2.8 J	3.9 J	15 U	15 U	31	8.6 J	14 J	750	520	
Mercury	µg/L	2	0.2	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
Mercury (dissolved)	µg/L	NV	NV	--	0.20 U	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	
Nickel	µg/L	100	20	--	<b>26<sup>b</sup></b>	9.2 J	9.4 J	26 <sup>b</sup>	1.3 J	1.3 J	<b>390<sup>ab</sup></b>	<b>260<sup>ab</sup></b>	<b>200<sup>ab</sup></b>	4.2 J	2.6 J	
Nickel (dissolved)	µg/L	NV	NV	--	4.0 J	26	14 J	21	20 U	0.48 J	420	210	260	3.4 J	2.4 J	
Selenium	µg/L	50	10	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.7 J	1.9 J	2.0 J	5.0 U	5.0 U	
Selenium (dissolved)	µg/L	NV	NV	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.5 J	2.4 J	2.2 J	5.0 U	5.0 U	
Silver	µg/L	50	10	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
Silver (dissolved)	µg/L	NV	NV	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
Thallium	µg/L	2	0.4	--	0.10 J	1.0 U	1.0 U	0.14 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.65 J <sup>b</sup>	1.0 U	
Thallium (dissolved)	µg/L	NV	NV	--	1.0 U	1.0 U	1.0 U	0.27 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Vanadium	µg/L	30	6	--	4.0 U	0.17 J	4.0 U	4.0 U	0.15 J	4.0 U	4.0 U	4.0 U	4.0 U	0.15 J	4.0 U	
Vanadium (dissolved)	µg/L	NV	NV	--	4.0 U	0.21 J	0.37 J	4.0 U	0.36 J	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	
Zinc	µg/L	NV	NV	--	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	14 J	13 J	
Zinc (dissolved)	µg/L	NV	NV	--	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	5.1 J	20 U	
<b>Glycol</b>																
Ethylene glycol	µg/L	14000	2800	--	--	--	--	--	--	--	--	--	--	--	--	
<b>Field Parameters</b>																
Conductivity, field	mS/cm	NV	NV	1138	0.779	0.767	0.767	0.854	0.789	0.874	0.849	1.097	1.097	0.561	0.58	
Dissolved oxygen (DO), field	µg/L	NV	NV	3150	3510	6610	6610	4890	8430	6630	5850	5990	5990	830	830	
Oxidation reduction potential (ORP), field	millivolts	NV	NV	-190.6	135.6	-71.6	-71.6	60.2	0.3	130.1	-61.8	42	42	-110.1	-112.3	
pH, field	s.u.	NV	NV	6.76	7.23	7.04	7.04	7.22	7.56	7.04	6.95	6.89	6.89	8.04	6.99	
Temperature, field	Deg C	NV	NV	--	19.8	--	--	17.71	--	16.89	--	13.88	13.88	--	17.38	
Temperature, sample	Deg C	NV	NV	20.24	--	13.96	13.96	--	12.75	--	11.5	--	--	11.87	--	
Turbidity, field	NTU	NV	NV	6.28	3.97	0.92	0.92	6.31	4.8	9	3.12	7.06	7.06	4.8	5.1	

Notes:

- (1) Chapter (ch.) NR 140, Wisconsin Administrative Code (Wis. Adm. Code)
- 290 - *Italicized result indicates concentration is above associated PAL*
- 440 - Bolded italicized result indicates concentration is above associated PAL and ES**
- ES - Enforcement Standard (ch. NR 140, Wis. Adm. Code)
- ft AMSL - feet above mean sea level
- J - Estimated concentration
- NV No value, criteria is not promulgated
- PAL Preventive Action Limit (ch. NR 140, Wis. Adm. Code)
- U - Not detected at the associated reporting limit
- µg/L - micrograms per Liter
- UJ - Not detected; associated reporting limit is estimated.
- R - Rejected

Table 4.1

**Groundwater Analytical Results - Summary Of Ch. Nr 140, Wis. Adm. Code Exceedances  
GM Janesville Assembly Plant  
Janesville, Wisconsin**

Sample Location:				MW-17S	MW-18S	MW-18S	MW-19S	MW-19S	MW-20S	MW-20S	MW-21S	MW-21S	MW-21S	MW-22S	MW-22S	
Sample Identification:				GW-082615-JL-20	GW-060914-JK-36	GW-082815-JL-40	GW-060514-JK-29	GW-082815-JL-34	GW-060414-JK-12	GW-082615-JL-21	GW-060914-JK-35	GW-091714-JK-15	GW-082815-JL-39	GW-060414-JK-15	GW-091614-JK-09	
Sample Date:				8/26/2015	6/9/2014	8/28/2015	6/5/2014	8/28/2015	6/4/2014	8/26/2015	6/9/2014	9/17/2014	8/28/2015	6/4/2014	9/16/2014	
Sample Type:				Duplicate												
Water Elevation (ft AMSL)				761.39	763.14	762.24	763.24	761.77	763.41	762.04	764.05	763.53	763.00	764.13	763.48	
	NR 140, Wis. Adm. Code <sup>(1)</sup>															
	ES	PAL														
	a	b														
Units																
<b>Volatile Organic Compounds (VOCs)</b>																
1,1,1-Trichloroethane	µg/L	200	40	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
1,1,2,2-Tetrachloroethane	µg/L	0.2	0.02	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
1,1,2-Trichloroethane	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
1,1-Dichloroethane	µg/L	850	85	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
1,1-Dichloroethene	µg/L	7	0.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
1,2,4-Trichlorobenzene	µg/L	70	14	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
1,2,4-Trimethylbenzene	µg/L	480	96	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	0.2	0.02	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U	--	2.0 U	2.0 U	--	
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.05	0.005	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
1,2-Dichlorobenzene	µg/L	600	60	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
1,2-Dichloroethane	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
1,2-Dichloropropane	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
1,3,5-Trimethylbenzene	µg/L	480	96	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
1,3-Dichlorobenzene	µg/L	600	120	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
1,4-Dichlorobenzene	µg/L	75	15	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	4000	800	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	--	10 U	10 U	--	
2-Hexanone	µg/L	NV	NV	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	--	10 U	10 U	--	
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	50000	50000	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	--	10 U	10 U	--	
Acetone	µg/L	9000	1800	10 U	10 UJ	10 U	10 UJ	1.1 J	10 U	10 U	10 UJ	--	10 U	10 U	--	
Benzene	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Bromodichloromethane	µg/L	0.6	0.06	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Bromoform	µg/L	4.4	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Bromomethane (Methyl bromide)	µg/L	10	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Carbon disulfide	µg/L	1000	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Carbon tetrachloride	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Chlorobenzene	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Chloroethane	µg/L	400	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Chloroform (Trichloromethane)	µg/L	6	0.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Chloromethane (Methyl chloride)	µg/L	30	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
cis-1,2-Dichloroethene	µg/L	700	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
cis-1,3-Dichloropropene	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Cyclohexane	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Dibromochloromethane	µg/L	60	6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Dichlorodifluoromethane (CFC-12)	µg/L	1000	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	--	1.0 U	1.0 UJ	--	
Ethylbenzene	µg/L	700	140	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Isopropyl benzene	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Methyl acetate	µg/L	NV	NV	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	--	10 U	10 U	--	
Methyl cyclohexane	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Methyl tert butyl ether (MTBE)	µg/L	60	12	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Methylene chloride	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Styrene	µg/L	100	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Tetrachloroethene	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Toluene	µg/L	800	160	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
trans-1,2-Dichloroethene	µg/L	100	20	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
trans-1,3-Dichloropropene	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Trichloroethene	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Trichlorofluoromethane (CFC-11)	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Trifluorotrchloroethane (CFC-113)	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Vinyl chloride	µg/L	0.2	0.02	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Xylenes (total)	µg/L	2000	400	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	--	2.0 U	2.0 U	--	
<b>Semi-Volatile Organic Compounds (SVOCs)</b>																
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	NV	NV	4.8 U	1.0 U	4.8 U	0.99 U	5.0 U	1.0 U	5.0 U	1.0 U	--	5.4 U	0.97 U	--	
2,4,5-Trichlorophenol	µg/L	NV	NV	4.8 U	5.0 U	4.8 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.4 U	4.9 U	--	
2,4,6-Trichlorophenol	µg/L	NV	NV	3.8 U	5.0 U	3.8 U	5.0 U	4.0 U	5.0 U	4.0 U	5.0 U	--	4.3 U	4.9 U	--	
2,4-Dichlorophenol	µg/L	NV	NV	9.5 U	2.0 U	9.5 U	2.0 U	9.9 U	2.0 U	10 U	2.0 U	--	11 U	1.9 U	--	
2,4-Dimethylphenol	µg/L	NV	NV	4.8 U	2.0 U	4.8 U	2.0 U	5.0 U	2.0 U	5.0 U	2.0 U	--	5.4 U	1.9 U	--	
2,4-Dinitrophenol	µg/L	NV	NV	19 U	5.0 U	19 U	5.0 U	20 U	5.0 U	20 U	5.0 U	--	22 U	4.9 U	--	
2,4-Dinitrotoluene	µg/L	0.05	0.005	4.8 U	5.0 U	4.8 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.4 U	4.9 U	--	
2,6-Dinitrotoluene	µg/L	0.05	0.005	4.8 U	5.0 U	4.8 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.4 U	4.9 U	--	
2-Chloronaphthalene	µg/L	NV	NV	4.8 U	1.0 U	4.8 U	0.99 U	5.0 U	1.0 U	5.0 U	1.0 U	--	5.4 U	0.97 U	--	
2-Chlorophenol	µg/L	NV	NV	4.8 U	1.0 U	4.8 U	0.99 U	5.0 U	1.0 U	5.0 U	1.0 U	--	5.4 U	0.97 U	--	

Table 4.1

**Groundwater Analytical Results - Summary Of Ch. Nr 140, Wis. Adm. Code Exceedances**  
**GM Janesville Assembly Plant**  
**Janesville, Wisconsin**

Sample Location:				MW-17S	MW-18S	MW-18S	MW-19S	MW-19S	MW-20S	MW-20S	MW-21S	MW-21S	MW-21S	MW-22S	MW-22S	
Sample Identification:				GW-082615-JL-20	GW-060914-JK-36	GW-082815-JL-40	GW-060514-JK-29	GW-082815-JL-34	GW-060414-JK-12	GW-082615-JL-21	GW-060914-JK-35	GW-091714-JK-15	GW-082815-JL-39	GW-060414-JK-15	GW-091614-JK-09	
Sample Date:				8/26/2015	6/9/2014	8/28/2015	6/5/2014	8/28/2015	6/4/2014	8/26/2015	6/9/2014	9/17/2014	8/28/2015	6/4/2014	9/16/2014	
Sample Type:				Duplicate												
Water Elevation (ft AMSL)				761.39	763.14	762.24	763.24	761.77	763.41	762.04	764.05	763.53	763.00	764.13	763.48	
	NR 140, Wis. Adm. Code <sup>(1)</sup>															
	ES	PAL														
	a	b														
Units																
<b>SVOCs (cont'd)</b>																
2-Methylnaphthalene	µg/L	NV	NV	4.8 U	0.20 U	4.8 U	0.20 U	5.0 U	0.20 U	5.0 U	0.20 U	--	5.4 U	0.19 U	--	
2-Methylphenol	µg/L	NV	NV	4.8 U	1.0 U	4.8 U	0.99 U	5.0 U	1.0 U	5.0 U	1.0 U	--	5.4 U	0.97 U	--	
2-Nitroaniline	µg/L	NV	NV	19 U	2.0 U	19 U	2.0 U	20 U	2.0 U	20 U	2.0 U	--	22 U	1.9 U	--	
2-Nitrophenol	µg/L	NV	NV	4.8 U	2.0 U	4.8 U	2.0 U	5.0 U	2.0 U	5.0 U	2.0 U	--	5.4 U	1.9 U	--	
3&4-Methylphenol	µg/L	NV	NV	4.8 U	2.0 U	4.8 U	2.0 U	5.0 U	2.0 U	5.0 U	2.0 U	--	5.4 U	1.9 U	--	
3,3'-Dichlorobenzidine	µg/L	NV	NV	0.95 U	5.0 U	0.95 U	5.0 U	0.99 U	5.0 U	1.0 U	5.0 U	--	1.1 U	4.9 U	--	
3-Nitroaniline	µg/L	NV	NV	19 U	2.0 U	19 U	2.0 U	20 U	2.0 U	20 U	2.0 U	--	22 U	1.9 U	--	
4,6-Dinitro-2-methylphenol	µg/L	NV	NV	19 U	5.0 U	19 U	5.0 U	20 U	5.0 U	20 U	5.0 U	--	22 U	4.9 U	--	
4-Bromophenyl phenyl ether	µg/L	NV	NV	4.8 U	2.0 U	4.8 U	2.0 U	5.0 U	2.0 U	5.0 U	2.0 U	--	5.4 U	1.9 U	--	
4-Chloro-3-methylphenol	µg/L	NV	NV	4.8 U	2.0 U	4.8 U	2.0 U	5.0 U	2.0 U	5.0 U	2.0 U	--	5.4 U	1.9 U	--	
4-Chloroaniline	µg/L	NV	NV	9.5 U	2.0 U	9.5 U	2.0 U	R	2.0 U	10 U	2.0 U	--	11 U	1.9 U	--	
4-Chlorophenyl phenyl ether	µg/L	NV	NV	4.8 U	2.0 U	4.8 U	2.0 U	5.0 U	2.0 U	5.0 U	2.0 U	--	5.4 U	1.9 U	--	
4-Nitroaniline	µg/L	NV	NV	19 U	2.0 U	19 U	2.0 U	20 U	2.0 U	20 U	2.0 U	--	22 U	1.9 U	--	
4-Nitrophenol	µg/L	NV	NV	19 U	5.0 U	19 U	5.0 U	20 U	5.0 U	20 U	5.0 U	--	22 U	4.9 U	--	
Acenaphthene	µg/L	NV	NV	4.8 U	0.20 U	4.8 U	0.20 U	5.0 U	0.20 U	5.0 U	0.20 U	--	5.4 U	0.19 U	--	
Acenaphthylene	µg/L	NV	NV	4.8 U	0.20 U	4.8 U	0.20 U	5.0 U	0.13 J	5.0 U	0.20 U	--	5.4 U	0.19 U	--	
Acetophenone	µg/L	NV	NV	4.8 U	1.0 U	4.8 U	0.99 U	5.0 U	1.0 U	5.0 U	1.0 U	--	5.4 U	0.97 U	--	
Anthracene	µg/L	3000	600	4.8 U	0.20 U	4.8 U	0.20 U	5.0 U	0.14 J	5.0 U	0.20 U	--	5.4 U	0.17 J	--	
Atrazine	µg/L	3	0.3	2.9 U	1.0 U	2.9 U	0.99 U	3.0 U	1.0 U	3.0 U	1.0 U	--	3.3 U	0.97 U	--	
Benzaldehyde	µg/L	NV	NV	4.8 U	1.0 U	4.8 U	0.99 U	5.0 U	1.0 U	5.0 U	1.0 U	--	5.4 U	0.97 U	--	
Benzo(a)anthracene	µg/L	NV	NV	0.95 U	0.20 U	0.95 U	0.20 U	0.99 U	0.40	1.0 U	0.20 U	--	1.1 U	0.19 U	--	
Benzo(a)pyrene	µg/L	0.2	0.02	0.95 U	0.20 U	0.95 U	0.20 U	0.99 U	0.30 <sup>ab</sup>	1.0 U	0.20 U	--	1.1 U	0.19 U	--	
Benzo(b)fluoranthene	µg/L	0.2	0.02	0.95 U	0.20 U	0.95 U	0.20 U	0.99 U	0.60 <sup>ab</sup>	1.0 U	0.20 U	--	1.1 U	0.19 U	--	
Benzo(g,h,i)perylene	µg/L	NV	NV	0.95 U	0.20 U	0.95 U	0.20 U	0.99 U	0.22	1.0 U	0.20 U	--	1.1 U	0.19 U	--	
Benzo(k)fluoranthene	µg/L	NV	NV	0.95 U	0.20 U	0.95 U	0.20 U	0.99 U	0.25	1.0 U	0.20 U	--	1.1 U	0.19 U	--	
Biphenyl (1,1'-Biphenyl)	µg/L	NV	NV	4.8 U	1.0 U	4.8 U	0.99 U	5.0 U	1.0 U	5.0 U	1.0 U	--	5.4 U	0.97 U	--	
bis(2-Chloroethoxy)methane	µg/L	NV	NV	4.8 U	1.0 U	4.8 U	0.99 U	5.0 U	1.0 U	5.0 U	1.0 U	--	5.4 U	0.97 U	--	
bis(2-Chloroethyl)ether	µg/L	NV	NV	0.95 U	1.0 U	0.95 U	0.99 U	0.99 U	1.0 U	1.0 U	1.0 U	--	1.1 U	0.97 U	--	
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	NV	NV	4.8 U	5.0 U	4.8 U	5.0 U	5.0 U	1.7 J	5.0 U	5.0 U	--	5.4 U	4.9 U	--	
Butyl benzylphthalate (BBP)	µg/L	NV	NV	4.8 U	2.0 U	4.8 U	2.0 U	5.0 U	2.0 U	5.0 U	2.0 U	--	5.4 U	1.9 U	--	
Caprolactam	µg/L	NV	NV	9.5 U	5.0 U	9.5 U	5.0 U	R	0.24 J	10 U	5.0 U	--	0.31 J	4.9 U	--	
Carbazole	µg/L	NV	NV	9.5 U	1.0 U	9.5 U	0.99 U	9.9 U	1.0 U	10 U	1.0 U	--	11 U	0.97 U	--	
Chrysene	µg/L	0.2	0.02	0.95 U	0.20 U	0.95 U	0.20 U	0.99 U	0.51 <sup>ab</sup>	1.0 U	0.20 U	--	1.1 U	0.19 U	--	
Dibenz(a,h)anthracene	µg/L	NV	NV	1.9 U	0.20 U	1.9 U	0.20 U	2.0 U	0.20 U	2.0 U	0.20 U	--	2.2 U	0.19 U	--	
Dibenzofuran	µg/L	NV	NV	3.8 U	1.0 U	3.8 U	0.99 U	4.0 U	1.0 U	4.0 U	1.0 U	--	4.3 U	0.97 U	--	
Diethyl phthalate	µg/L	NV	NV	4.8 U	2.0 U	4.8 U	2.0 U	5.0 U	2.0 U	5.0 U	2.0 U	--	5.4 U	1.9 U	--	
Dimethyl phthalate	µg/L	NV	NV	4.8 U	2.0 U	4.8 U	2.0 U	5.0 U	2.0 U	5.0 U	2.0 U	--	5.4 U	1.9 U	--	
Di-n-butylphthalate (DBP)	µg/L	1000	100	4.8 U	5.0 U	4.8 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.4 U	4.9 U	--	
Di-n-octyl phthalate (DnOP)	µg/L	NV	NV	4.8 U	2.0 U	4.8 U	2.0 U	5.0 U	2.0 U	5.0 U	2.0 U	--	5.4 U	1.9 U	--	
Fluoranthene	µg/L	400	80	0.95 U	0.20 U	0.95 U	0.20 U	0.99 U	0.91	1.0 U	0.20 U	--	1.1 U	0.19 U	--	
Fluorene	µg/L	400	80	4.8 U	0.20 U	4.8 U	0.20 U	5.0 U	0.20 U	5.0 U	0.20 U	--	5.4 U	0.19 U	--	
Hexachlorobenzene	µg/L	1	0.1	0.19 U	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	--	0.22 U	0.19 U	--	
Hexachlorobutadiene	µg/L	NV	NV	0.95 U	1.0 U	0.95 U	0.99 U	0.99 U	1.0 U	1.0 U	1.0 U	--	1.1 U	0.97 U	--	
Hexachlorocyclopentadiene	µg/L	NV	NV	4.8 U	10 U	4.8 U	9.9 U	10 U	5.0 U	10 U	5.0 U	--	5.4 U	9.7 U	--	
Hexachloroethane	µg/L	NV	NV	4.8 U	1.0 U	4.8 U	0.99 U	5.0 U	1.0 U	5.0 U	1.0 U	--	5.4 U	0.97 U	--	
Indeno(1,2,3-cd)pyrene	µg/L	NV	NV	1.9 U	0.20 U	1.9 U	0.20 U	2.0 U	0.16 J	2.0 U	0.20 U	--	2.2 U	0.19 U	--	
Isophorone	µg/L	NV	NV	4.8 U	1.0 U	4.8 U	0.99 U	5.0 U	1.0 U	5.0 U	1.0 U	--	5.4 U	0.97 U	--	
Naphthalene	µg/L	100	10	4.8 U	0.20 U	0.12 J	0.20 U	5.0 U	0.20 U	5.0 U	0.20 U	--	5.4 U	0.19 U	--	
Nitrobenzene	µg/L	NV	NV	2.9 U	1.0 U	2.9 U	0.99 U	3.0 U	1.0 U	3.0 U	1.0 U	--	3.3 U	0.97 U	--	
N-Nitrosodi-n-propylamine	µg/L	NV	NV	4.8 U	1.0 U	4.8 U	0.99 U	5.0 U	1.0 U	5.0 U	1.0 U	--	5.4 U	0.97 U	--	
N-Nitrosodiphenylamine	µg/L	7	0.7	4.8 U	1.0 U	4.8 U	0.99 U	5.0 U	1.0 U	5.0 U	1.0 U	--	5.4 U	0.97 U	--	
Pentachlorophenol	µg/L	1	0.1	4.8 U	5.0 U	4.8 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.4 U	4.9 U	--	
Phenanthrene	µg/L	NV	NV	1.9 U	0.20 U	1.9 U	0.20 U	2.0 U	0.26	2.0 U	0.20 U	--	2.2 U	0.19 U	--	
Phenol	µg/L	2000	400	4.8 U	1.0 U	4.8 U	0.89 J	5.0 U	1.0 U	5.0 U	1.0 U	--	0.88 J	0.97 U	--	
Pyrene	µg/L	250	50	4.8 U	0.20 U	4.8 U	0.20 U	5.0 U	0.87	5.0 U	0.20 U	--	5.4 U	0.19 U	--	
<b>Metals</b>																
Aluminum	µg/L	200	40	--	50 U	--	50 U	--	90 <sup>b</sup>	--	16 J	--	--	1400 <sup>ab</sup>	--	
Aluminum (dissolved)	µg/L	NV	NV	--	50 U	--	50 U	--	50 U	--	50 U	--	--	600	--	
Antimony	µg/L	6	1.2	2.0 U	2.0 U	2.0 U	2.0 U	0.51 J	2.0 U	0.93 J	2.0 U	--	2.0 U	2.0 U	--	
Antimony (dissolved)	µg/L	NV	NV	2.0 U	2.0 U	2.0 U	2.0 U	0.52 J	2.0 U	0.92 J	2.0 U	--	2.0 U	2.0 U	--	
Arsenic	µg/L	10	1	9.5 <sup>b</sup>	5.0 U	5.0 U	5.0 U	5.0 U	1.2 J <sup>b</sup>	5.0 U	5.0 U	--	5.0 U	2.0 J <sup>b</sup>	--	
Arsenic (dissolved)	µg/L	NV	NV	8.9	5.0 U	5.0 U	5.0 U	5.0 U	1.2 J	5.0 U	5.0 U	--	5.0 U	1.4 J	--	



Table 4.1

Groundwater Analytical Results - Summary Of Ch. Nr 140, Wis. Adm. Code Exceedances  
GM Janesville Assembly Plant  
Janesville, Wisconsin

Sample Location: Sample Identification: Sample Date: Sample Type: Water Elevation (ft AMSL)				MW-17S GW-082615-JL-20 8/26/2015 Duplicate 761.39	MW-18S GW-060914-JK-36 6/9/2014 763.14	MW-18S GW-082815-JL-40 8/28/2015 762.24	MW-19S GW-060514-JK-29 6/5/2014 763.24	MW-19S GW-082815-JL-34 8/28/2015 761.77	MW-20S GW-060414-JK-12 6/4/2014 763.41	MW-20S GW-082615-JL-21 8/26/2015 762.04	MW-21S GW-060914-JK-35 6/9/2014 764.05	MW-21S GW-091714-JK-15 9/17/2014 763.53	MW-21S GW-082815-JL-39 8/28/2015 763.00	MW-22S GW-060414-JK-15 6/4/2014 764.13	MW-22S GW-091614-JK-09 9/16/2014 763.48	
	NR 140, Wis. Adm. Code <sup>(1)</sup>															
	ES	PAL														
	a	b														
Units																
<b>Metals (cont'd)</b>																
Barium	µg/L	2000	400	91 J	74 J	68 J	71 J	70 J	49 J	48 J	73 J	--	74 J	24 J	--	
Barium (dissolved)	µg/L	NV	NV	86 J	67 J	81 J	75 J	72 J	25 J	42 J	68 J	--	66 J	20 J	--	
Beryllium	µg/L	4	0.4	1.0 U	1.0 U	1.0 U	1.0 U	0.17 J	1.0 U	1.0 U	0.12 J	--	1.0 U	1.0 U	--	
Beryllium (dissolved)	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	0.26 J	1.0 U	1.0 U	0.081 J	--	1.0 U	1.0 U	--	
Cadmium	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	0.26 J	1.0 U	0.071 J	0.037 J	--	1.0 U	1.0 U	--	
Cadmium (dissolved)	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	0.42 J	1.0 U	1.0 U	0.034 J	--	1.0 U	1.0 U	--	
Chromium	µg/L	100	10	5.0 U	0.87 J	5.0 U	13 J <sup>b</sup>	12 U	73 <sup>b</sup>	8.0 U	630 <sup>ab</sup>	190 <sup>ab</sup>	180 <sup>ab</sup>	250 <sup>ab</sup>	180 <sup>ab</sup>	
Chromium (dissolved)	µg/L	NV	NV	5.0 U	1.1 J	5.0 U	0.53 J	5.0 U	5.0 U	5.0 U	2.8 J	--	5.0 U	5.3	--	
Chromium III (trivalent)	µg/L	NV	NV	20 U	--	20 U	--	12 J	--	8 J	--	190	180	--	180	
Chromium VI (hexavalent)	µg/L	NV	NV	2.4 J	--	20 U	--	20 U	--	20 U	--	20 U	20 U	--	100 U	
Cobalt	µg/L	40	8	1.3 J	0.069 J	0.12 J	0.98 J	3.2 J	7.0 U	0.078 J	2.4 J	--	1.5 J	0.59 J	--	
Cobalt (dissolved)	µg/L	NV	NV	1.3 J	7.0 U	0.12 J	0.58 J	3.2 J	7.0 U	0.062 J	0.40 J	--	0.83 J	0.46 J	--	
Copper	µg/L	1300	130	2.0 U	2.0 U	2.0 U	0.97 J	1.3 J	2.2 U	0.75 J	19	--	7.2	9.4	--	
Copper (dissolved)	µg/L	NV	NV	2.0 U	2.0 U	2.0 U	2.8	1.1 J	2.0 U	2.0 U	2.0 U	--	0.77 J	5.1	--	
Iron	µg/L	NV	NV	--	200 U	--	200 U	--	1100	--	2300	--	--	1900	--	
Iron (dissolved)	µg/L	NV	NV	--	200 U	--	200 U	--	14 J	--	19 J	--	--	420	--	
Lead	µg/L	15	1.5	3.0 U	3.0 U	3.0 U	3.0 U	0.23 J	3.0 U	3.0 U	0.20 J	--	0.12 J	3.0 U	--	
Lead (dissolved)	µg/L	NV	NV	3.0 U	0.18 J	3.0 U	3.0 U	0.25 J	3.0 U	3.0 U	3.0 U	--	3.0 U	3.0 U	--	
Manganese	µg/L	300	60	500 <sup>ab</sup>	15 U	15 U	18	39	71 <sup>b</sup>	24	16	--	7.6 J	8.9 J	--	
Manganese (dissolved)	µg/L	NV	NV	500	15 U	5.0 J	6.9 J	35	47	15	3.6 J	--	3.9 J	5.4 J	--	
Mercury	µg/L	2	0.2	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	--	0.20 U	0.20 U	--	
Mercury (dissolved)	µg/L	NV	NV	0.20 U	0.20 UJ	0.20 U	0.20 UJ	0.20 U	0.20 U	0.20 U	0.20 U	--	0.20 U	0.20 U	--	
Nickel	µg/L	100	20	2.4 J	0.12 J	0.52 J	92 <sup>b</sup>	140 <sup>ab</sup>	2.7 J	0.80 J	39 <sup>b</sup>	--	78 <sup>b</sup>	15 J	--	
Nickel (dissolved)	µg/L	NV	NV	2.4 J	20 U	0.51 J	90	150	20 U	0.55 J	13 J	--	54	10 J	--	
Selenium	µg/L	50	10	5.0 U	0.45 J	5.0 U	0.86 J	5.0 U	5.0 U	5.0 U	0.51 J	--	5.0 U	1.9 J	--	
Selenium (dissolved)	µg/L	NV	NV	5.0 U	0.59 J	5.0 U	1.4 J	5.0 U	0.52 J	5.0 U	0.46 J	--	5.0 U	1.6 J	--	
Silver	µg/L	50	10	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	--	0.20 U	0.20 U	--	
Silver (dissolved)	µg/L	NV	NV	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	--	0.20 U	0.20 U	--	
Thallium	µg/L	2	0.4	1.0 U	1.0 U	1.0 U	1.0 U	0.17 J	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Thallium (dissolved)	µg/L	NV	NV	1.0 U	1.0	1.0 U	1.0 U	0.27 J	1.0	1.0 U	1.0 U	--	1.0 U	1.0 U	--	
Vanadium	µg/L	30	6	4.0 U	0.32 J	4.0 U	4.0 U	4.0 U	2.6 J	7.5 <sup>b</sup>	8.0 UJ	--	4.0 U	4.0 U	--	
Vanadium (dissolved)	µg/L	NV	NV	4.0 U	0.47 J	4.0 U	4.0 U	4.0 U	5.5	7.4	4.0 U	--	4.0 U	4.0	--	
Zinc	µg/L	NV	NV	20 U	20 U	7.5 J	20 U	7.4 J	20 U	20 U	20 U	--	8.8 J	3.6 J	--	
Zinc (dissolved)	µg/L	NV	NV	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	--	20 U	20 U	--	
<b>Glycol</b>																
Ethylene glycol	µg/L	14000	2800	--	--	--	--	--	--	--	--	--	--	--	--	
<b>Field Parameters</b>																
Conductivity, field	mS/cm	NV	NV	0.58	0.77	0.633	0.752	0.936	0.256	0.317	0.83	881	0.96	0.357	409	
Dissolved oxygen (DO), field	µg/L	NV	NV	830	9050	5910	9340	7580	2290	420	7670	6910	5160	3060	2220	
Oxidation reduction potential (ORP), field	millivolts	NV	NV	-112.3	49	166.3	-52.9	127.8	-64.8	101.7	32.4	-45.7	83.3	-45.1	-8.7	
pH, field	s.u.	NV	NV	6.99	7.47	7.34	6.93	7.07	6.48	7.08	7.43	7.04	7.02	13.12	6.42	
Temperature, field	Deg C	NV	NV	17.38	--	17.43	--	15.85	--	20.25	--	--	18.43	--	--	
Temperature, sample	Deg C	NV	NV	--	12.21	--	13.19	--	13.69	--	13.17	17.53	--	13.12	18.5	
Turbidity, field	NTU	NV	NV	5.1	4.4	1.3	2.29	6.3	5.87	1.28	31	13	16	19.9	45	

Notes:

- (1) Chapter (ch.) NR 140, Wisconsin Administrative Code (Wis. Adm. Code)
- 290 - *Italicized result indicates concentration is above associated PAL*
- 440 - **Bolded italicized result indicates concentration is above associated PAL and ES**
- ES - Enforcement Standard (ch. NR 140, Wis. Adm. Code)
- ft AMSL - feet above mean sea level
- J - Estimated concentration
- NV No value, criteria is not promulgated
- PAL Preventive Action Limit (ch. NR 140, Wis. Adm. Code)
- U - Not detected at the associated reporting limit
- µg/L - micrograms per Liter
- UJ - Not detected; associated reporting limit is estimated.
- R - Rejected

Table 4.1

**Groundwater Analytical Results - Summary Of Ch. Nr 140, Wis. Adm. Code Exceedances  
GM Janesville Assembly Plant  
Janesville, Wisconsin**

Sample Location:				MW-22S	MW-23S	MW-23S	MW-24S	MW-24S	MW-25S	MW-25S	MW-26S	MW-26S	MW-26S	MW-27S	MW-27S	
Sample Identification:				GW-082715-JL-22	GW-060914-JK-39	GW-082815-JL-36	GW-060414-JK-14	GW-082715-JL-23	GW-060414-JK-16	GW-082715-JL-24	GW-091814-JK-17	GW-091814-JK-18	GW-082515-JL-05	GW-091814-JK-19	GW-082515-JL-06	
Sample Date:				8/27/2015	6/9/2014	8/28/2015	6/4/2014	8/27/2015	6/4/2014	8/27/2015	9/18/2014	9/18/2014	8/25/2015	9/18/2014	8/25/2015	
Sample Type:																
Water Elevation (ft AMSL)				762.78	765.07	763.94	764.87	763.50	765.45	764.11	NM <sup>(3)</sup>	Duplicate NM <sup>(3)</sup>	760.69	NM <sup>(3)</sup>	760.50	
	NR 140, Wis. Adm. Code <sup>(1)</sup>															
	ES	PAL														
	a	b														
	Units															
<b>Volatile Organic Compounds (VOCs)</b>																
1,1,1-Trichloroethane	µg/L	200	40	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	0.2	0.02	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	850	85	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	7	0.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	70	14	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	480	96	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	0.2	0.02	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.05	0.005	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	600	60	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	480	96	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	600	120	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	75	15	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	4000	800	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	NV	NV	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	500000	50000	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	µg/L	9000	1800	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	0.6	0.06	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	4.4	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	10	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1000	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.17 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	400	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	6	0.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.21 J	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	30	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	700	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	60	6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1000	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	140	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	NV	NV	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methyl cyclohexane	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	60	12	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	100	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	800	160	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	100	20	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	0.5	1.0 U	1.0 U	1.0 U	2.0 <sup>b</sup>	1.5 <sup>b</sup>	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrchloroethane (CFC-113)	µg/L	NV	NV	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	0.2	0.02	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	2000	400	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
<b>Semi-Volatile Organic Compounds (SVOCs)</b>																
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	NV	NV	4.8 U	1.1 U	5.0 U	0.98 U	4.8 U	1.0 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	4.8 U
2,4,5-Trichlorophenol	µg/L	NV	NV	4.8 U	5.5 U	5.0 U	4.9 U	4.8 U	5.1 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	4.8 U
2,4,6-Trichlorophenol	µg/L	NV	NV	3.8 U	5.5 U	4.0 U	4.9 U	3.8 U	5.1 U	4.3 U	3.8 U	3.9 U	3.8 U	4.0 U	3.8 U	3.8 U
2,4-Dichlorophenol	µg/L	NV	NV	9.6 U	2.2 U	9.9 U	2.0 U	9.5 U	2.0 U	5.2 J	9.6 U	9.7 U	9.5 U	10 U	9.6 U	9.6 U
2,4-Dimethylphenol	µg/L	NV	NV	4.8 U	2.2 U	5.0 U	2.0 U	4.8 U	2.0 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	4.8 U
2,4-Dinitrophenol	µg/L	NV	NV	19 U	5.5 U	20 U	4.9 U	19 U	5.1 U	21 U	19 U	19 U	19 U	20 U	19 U	19 U
2,4-Dinitrotoluene	µg/L	0.05	0.005	4.8 U	5.5 U	5.0 U	4.9 U	4.8 U	5.1 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	4.8 U
2,6-Dinitrotoluene	µg/L	0.05	0.005	4.8 U	5.5 U	5.0 U	4.9 U	4.8 U	5.1 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	4.8 U
2-Chloronaphthalene	µg/L	NV	NV	4.8 U	1.1 U	5.0 U	0.98 U	4.8 U	1.0 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	4.8 U
2-Chlorophenol	µg/L	NV	NV	4.8 U	1.1 U	5.0 U	0.98 U	4.8 U	1.0 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	4.8 U

Table 4.1

**Groundwater Analytical Results - Summary Of Ch. Nr 140, Wis. Adm. Code Exceedances  
GM Janesville Assembly Plant  
Janesville, Wisconsin**

Sample Location:				MW-22S	MW-23S	MW-23S	MW-24S	MW-24S	MW-25S	MW-25S	MW-26S	MW-26S	MW-26S	MW-27S	MW-27S	
Sample Identification:				GW-082715-JL-22	GW-060914-JK-39	GW-082815-JL-36	GW-060414-JK-14	GW-082715-JL-23	GW-060414-JK-16	GW-082715-JL-24	GW-091814-JK-17	GW-091814-JK-18	GW-082515-JL-05	GW-091814-JK-19	GW-082515-JL-06	
Sample Date:				8/27/2015	6/9/2014	8/28/2015	6/4/2014	8/27/2015	6/4/2014	8/27/2015	9/18/2014	9/18/2014	8/25/2015	9/18/2014	8/25/2015	
Sample Type:																
Water Elevation (ft AMSL)				762.78	765.07	763.94	764.87	763.50	765.45	764.11	NM <sup>(3)</sup>	Duplicate NM <sup>(3)</sup>	760.69	NM <sup>(3)</sup>	760.50	
	NR 140, Wis. Adm. Code <sup>(1)</sup>															
	ES	PAL														
	a	b														
	Units															
<b>SVOCs (cont'd)</b>																
2-Methylnaphthalene	µg/L	NV	NV	4.8 U	0.22 U	5.0 U	0.20 U	4.8 U	0.20 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
2-Methylphenol	µg/L	NV	NV	4.8 U	1.1 U	5.0 U	0.98 U	4.8 U	1.0 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
2-Nitroaniline	µg/L	NV	NV	19 U	2.2 U	20 U	2.0 UJ	19 U	2.0 U	21 U	19 U	19 U	19 U	20 U	19 U	
2-Nitrophenol	µg/L	NV	NV	4.8 U	2.2 U	5.0 U	2.0 U	4.8 U	2.0 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
3&4-Methylphenol	µg/L	NV	NV	4.8 U	2.2 U	5.0 U	2.0 U	4.8 U	2.0 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
3,3'-Dichlorobenzidine	µg/L	NV	NV	0.96 U	5.5 U	0.99 U	4.9 U	0.95 U	5.1 U	1.1 U	0.96 U	0.97 U	0.95 U	1.0 U	0.96 U	
3-Nitroaniline	µg/L	NV	NV	19 U	2.2 U	20 U	2.0 U	19 U	2.0 U	21 U	19 U	19 U	19 U	20 U	19 U	
4,6-Dinitro-2-methylphenol	µg/L	NV	NV	19 U	5.5 U	20 U	4.9 U	19 U	5.1 U	21 U	19 U	19 U	19 U	20 U	19 U	
4-Bromophenyl phenyl ether	µg/L	NV	NV	4.8 U	2.2 U	5.0 U	2.0 U	4.8 U	2.0 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
4-Chloro-3-methylphenol	µg/L	NV	NV	4.8 U	2.2 U	5.0 U	2.0 U	4.8 U	2.0 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
4-Chloroaniline	µg/L	NV	NV	9.6 U	2.2 U	9.9 U	2.0 U	9.5 U	2.0 U	11 U	9.6 U	9.7 U	9.5 U	10 U	9.6 U	
4-Chlorophenyl phenyl ether	µg/L	NV	NV	4.8 U	2.2 U	5.0 U	2.0 U	4.8 U	2.0 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
4-Nitroaniline	µg/L	NV	NV	19 U	2.2 U	20 U	2.0 U	19 U	2.0 U	21 U	19 U	19 U	19 U	20 U	19 U	
4-Nitrophenol	µg/L	NV	NV	19 U	5.5 UJ	20 U	4.9 UJ	19 U	5.1 UJ	21 U	19 U	19 U	19 U	20 U	19 U	
Acenaphthene	µg/L	NV	NV	4.8 U	0.22 U	5.0 U	0.20 U	4.8 U	0.20 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
Acenaphthylene	µg/L	NV	NV	4.8 U	0.22 U	5.0 U	0.20 U	4.8 U	0.20 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
Acetophenone	µg/L	NV	NV	4.8 U	1.1 U	5.0 U	0.98 U	4.8 U	1.0 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
Anthracene	µg/L	3000	600	4.8 U	0.22 U	5.0 U	0.20 U	4.8 U	0.20 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
Atrazine	µg/L	3	0.3	2.9 U	1.1 U	3.0 U	0.98 U	2.9 U	1.0 U	3.2 U	2.9 U	2.9 U	2.9 U	3.0 U	2.9 U	
Benzaldehyde	µg/L	NV	NV	4.8 U	1.1 U	5.0 U	0.98 U	4.8 U	1.0 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
Benzo(a)anthracene	µg/L	NV	NV	0.96 U	0.22 U	0.99 U	0.20 U	0.95 U	0.20 U	1.1 U	0.96 U	0.97 U	0.95 U	1.0 U	0.96 U	
Benzo(a)pyrene	µg/L	0.2	0.02	0.96 U	0.22 U	0.99 U	0.20 U	0.95 U	0.20 U	1.1 U	0.96 U	0.97 U	0.95 U	1.0 U	0.96 U	
Benzo(b)fluoranthene	µg/L	0.2	0.02	0.96 U	0.22 U	0.99 U	0.20 U	0.95 U	0.20 U	1.1 U	0.96 U	0.97 U	0.95 U	1.0 U	0.96 U	
Benzo(g,h,i)perylene	µg/L	NV	NV	0.96 U	0.22 U	0.99 U	0.20 U	0.95 U	0.20 U	1.1 U	0.96 U	0.97 U	0.95 U	1.0 U	0.96 U	
Benzo(k)fluoranthene	µg/L	NV	NV	0.96 U	0.22 U	0.99 U	0.20 U	0.95 U	0.20 U	1.1 U	0.96 U	0.97 U	0.95 U	1.0 U	0.96 U	
Biphenyl (1,1'-Biphenyl)	µg/L	NV	NV	4.8 U	1.1 U	5.0 U	0.98 U	4.8 U	1.0 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
bis(2-Chloroethoxy)methane	µg/L	NV	NV	4.8 U	1.1 U	5.0 U	0.98 U	4.8 U	1.0 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
bis(2-Chloroethyl)ether	µg/L	NV	NV	0.96 U	1.1 U	0.99 U	0.98 U	0.95 U	1.0 U	1.1 U	0.96 U	0.97 U	0.95 U	1.0 U	0.96 U	
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	NV	NV	4.8 U	5.5 U	5.0 U	4.9 U	4.8 U	5.1 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
Butyl benzylphthalate (BBP)	µg/L	NV	NV	4.8 U	2.2 U	5.0 U	2.0 U	4.8 U	2.0 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
Caprolactam	µg/L	NV	NV	9.6 U	5.5 U	9.9 U	4.9 U	9.5 U	5.1 U	11 U	9.6 U	9.7 U	9.5 U	10 U	9.6 U	
Carbazole	µg/L	NV	NV	9.6 U	1.1 U	9.9 U	0.98 U	9.5 U	1.0 U	11 U	9.6 U	9.7 U	9.5 U	10 U	9.6 U	
Chrysene	µg/L	0.2	0.02	0.96 U	0.22 U	0.99 U	0.20 U	0.95 U	0.20 U	1.1 U	0.96 U	0.97 U	0.95 U	1.0 U	0.96 U	
Dibenz(a,h)anthracene	µg/L	NV	NV	1.9 U	0.22 U	2.0 U	0.20 U	1.9 U	0.20 U	2.1 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U	
Dibenzofuran	µg/L	NV	NV	3.8 U	1.1 U	4.0 U	0.98 U	3.8 U	1.0 U	4.3 U	3.8 U	3.9 U	3.8 U	4.0 U	3.8 U	
Diethyl phthalate	µg/L	NV	NV	4.8 U	2.2 U	5.0 U	2.0 U	4.8 U	2.0 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
Dimethyl phthalate	µg/L	NV	NV	4.8 U	2.2 U	5.0 U	2.0 U	4.8 U	2.0 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
Di-n-butylphthalate (DBP)	µg/L	1000	100	4.8 U	5.5 U	5.0 U	4.9 U	4.8 U	5.1 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
Di-n-octyl phthalate (DnOP)	µg/L	NV	NV	4.8 U	2.2 UJ	5.0 U	2.0 U	4.8 U	2.0 UJ	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
Fluoranthene	µg/L	400	80	0.96 U	0.22 U	0.99 U	0.20 U	0.95 U	0.20 U	1.1 U	0.96 U	0.97 U	0.95 U	1.0 U	0.96 U	
Fluorene	µg/L	400	80	4.8 U	0.22 U	5.0 U	0.20 U	4.8 U	0.20 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
Hexachlorobenzene	µg/L	1	0.1	0.19 U	0.22 U	0.20 U	0.20 U	0.19 U	0.20 U	0.21 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	
Hexachlorobutadiene	µg/L	NV	NV	0.96 U	1.1 U	0.99 U	0.98 U	0.95 U	1.0 U	1.1 U	0.96 U	0.97 U	0.95 U	1.0 U	0.96 U	
Hexachlorocyclopentadiene	µg/L	NV	NV	4.8 U	11 U	5.0 U	9.8 U	4.8 U	10 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
Hexachloroethane	µg/L	NV	NV	4.8 U	1.1 U	5.0 U	0.98 U	4.8 U	1.0 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
Indeno(1,2,3-cd)pyrene	µg/L	NV	NV	1.9 U	0.22 U	2.0 U	0.20 U	1.9 U	0.20 U	2.1 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U	
Isophorone	µg/L	NV	NV	4.8 U	1.1 U	5.0 U	0.98 U	4.8 U	1.0 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
Naphthalene	µg/L	100	10	4.8 U	0.22 U	5.0 U	0.20 U	4.8 U	0.20 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
Nitrobenzene	µg/L	NV	NV	2.9 U	1.1 U	3.0 U	0.98 U	2.9 U	1.0 U	3.2 U	2.9 U	2.9 U	2.9 U	3.0 U	2.9 U	
N-Nitrosodi-n-propylamine	µg/L	NV	NV	4.8 U	1.1 U	5.0 U	0.98 U	4.8 U	1.0 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
N-Nitrosodiphenylamine	µg/L	7	0.7	4.8 U	1.1 U	5.0 U	0.98 U	4.8 U	1.0 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
Pentachlorophenol	µg/L	1	0.1	4.8 U	5.5 U	5.0 U	4.9 U	4.8 U	5.1 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
Phenanthrene	µg/L	NV	NV	1.9 U	0.22 U	2.0 U	0.20 U	1.9 U	0.20 U	2.1 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U	
Phenol	µg/L	2000	400	4.8 U	1.1 U	5.0 U	0.98 U	4.8 U	1.0 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
Pyrene	µg/L	250	50	4.8 U	0.22 U	5.0 U	0.20 U	4.8 U	0.20 U	5.3 U	4.8 U	4.9 U	4.8 U	5.1 U	4.8 U	
<b>Metals</b>																
Aluminum	µg/L	200	40	--	21 J	--	50 U	--	8.1 J	--	--	--	--	--	--	
Aluminum (dissolved)	µg/L	NV	NV	--	50 U	--	--	--	--	--	--	--	--	--	--	
Antimony	µg/L	6	1.2	0.60 J	2.0 U	2.0 U	2.0 U	0.28 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Antimony (dissolved)	µg/L	NV	NV	0.58 J	2.0 U	2.0 U	--	0.20 J	--	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Arsenic	µg/L	10	1	5.7 <sup>b</sup>	5.0 U	5.0 U	5.0 U	5.0 U	0.49 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Arsenic (dissolved)	µg/L	NV	NV	5.0 U	5.0 U	5.0 U	--	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	



Table 4.1

Groundwater Analytical Results - Summary Of Ch. Nr 140, Wis. Adm. Code Exceedances  
GM Janesville Assembly Plant  
Janesville, Wisconsin

Sample Location: Sample Identification: Sample Date: Sample Type: Water Elevation (ft AMSL)		MW-22S GW-082715-JL-22 8/27/2015	MW-23S GW-060914-JK-39 6/9/2014	MW-23S GW-082815-JL-36 8/28/2015	MW-24S GW-060414-JK-14 6/4/2014	MW-24S GW-082715-JL-23 8/27/2015	MW-25S GW-060414-JK-16 6/4/2014	MW-25S GW-082715-JL-24 8/27/2015	MW-26S GW-091814-JK-17 9/18/2014	MW-26S GW-091814-JK-18 9/18/2014	MW-26S GW-082515-JL-05 8/25/2015	MW-27S GW-091814-JK-19 9/18/2014	MW-27S GW-082515-JL-06 8/25/2015
	NR 140, Wis. Adm. Code <sup>(1)</sup>												
	ES												
	a												
	b												
	Units												
<b>Metals (cont'd)</b>													
Barium	µg/L	2000	400	59 J	25 J	33 J	61 J	57 J	33 J	32 J	87 J	95 J	97 J
Barium (dissolved)	µg/L	NV	NV	17 J	23 J	38 J	--	54 J	--	40 J	97 J	90 J	100
Beryllium	µg/L	4	0.4	<i>0.51 J<sup>b</sup></i>	1.0 U	1.0 U	1.0 U	0.070 J	1.0 U	0.073 J	1.0 U	1.0 U	1.0 U
Beryllium (dissolved)	µg/L	NV	NV	0.20 J	1.0 U	1.0 U	--	0.065 J	--	0.054 J	1.0 U	1.0 U	1.0 U
Cadmium	µg/L	5	0.5	0.33 J	1.0 U	1.0 U	1.0 U	0.12 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium (dissolved)	µg/L	NV	NV	0.30 J	1.0 U	1.0 U	--	0.086 J	--	1.0 U	1.0 U	1.0 U	1.0 U
Chromium	µg/L	100	10	<b>560<sup>ab</sup></b>	0.85 J	5.0 U	1.1 J	5.0 U	1.1 J	5.0 U	5.0 U	5.0 U	5.0 U
Chromium (dissolved)	µg/L	NV	NV	6.9 U	0.59 J	5.0 U	--	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U
Chromium III (trivalent)	µg/L	NV	NV	560	--	20 U	--	20 U	--	20 U	20 U	20 U	20 U
Chromium VI (hexavalent)	µg/L	NV	NV	20 U	--	20 U	--	20 U	--	20 U	20 U	20 U	20 U
Cobalt	µg/L	40	8	2.6 J	7.0 U	0.24 J	7.0 U	0.13 J	7.0 U	0.13 J	0.25 J	0.15 J	0.12 J
Cobalt (dissolved)	µg/L	NV	NV	0.43 J	7.0 U	0.15 J	--	0.11 J	--	0.11 J	7.0 U	7.0 U	0.12 J
Copper	µg/L	1300	130	19	2.0 U	1.1 J	2.0 U	2.0 U	2.0 U	1.2 J	2.0 U	2.0 U	0.94 J
Copper (dissolved)	µg/L	NV	NV	6.0	2.1 U	2.5	--	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U
Iron	µg/L	NV	NV	--	66 J	--	200 U	--	14 J	--	--	--	--
Iron (dissolved)	µg/L	NV	NV	--	200 U	--	--	--	--	--	--	--	--
Lead	µg/L	15	1.5	<i>3.3<sup>b</sup></i>	3.0 U	0.11 J	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Lead (dissolved)	µg/L	NV	NV	3.0 U	3.0 U	0.11 J	--	3.0 U	--	3.0 U	3.0 U	3.0 U	3.0 U
Manganese	µg/L	300	60	55	7.5 J	11 J	15 U	15 U	15 U	1.3 J	58 J	5.8 J	13 J
Manganese (dissolved)	µg/L	NV	NV	1.6 J	0.48 J	15 U	--	15 U	--	15 U	5.5 J	9.1 J	4.0 J
Mercury	µg/L	2	0.2	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Mercury (dissolved)	µg/L	NV	NV	0.20 U	0.20 UJ	0.20 U	--	0.20 U	--	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	100	20	<i>24<sup>b</sup></i>	0.61 J	0.89 J	20 U	0.42 J	20 U	0.54 J	20 U	20 U	0.49 J
Nickel (dissolved)	µg/L	NV	NV	4.1 J	20 U	0.65 J	--	0.39 J	--	0.34 J	20 U	20 U	0.46 J
Selenium	µg/L	50	10	3.0 J	0.45 J	5.0 U	1.2 J	1.0 J	0.70 J	1.1 J	5.0 U	5.0 U	5.0 U
Selenium (dissolved)	µg/L	NV	NV	2.2 J	0.43 J	5.0 U	--	0.81 J	--	1.4 J	5.0 U	5.0 U	5.0 U
Silver	µg/L	50	10	0.036 J	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Silver (dissolved)	µg/L	NV	NV	0.20 U	0.20 U	0.20 U	--	0.20 U	--	0.20 U	0.20 U	0.20 U	0.20 U
Thallium	µg/L	2	0.4	0.21 J	1.0 U	1.0 U	<i>0.40 J<sup>b</sup></i>	1.0 U	1.0 U	1.0 U	<i>1.1<sup>b</sup></i>	1.0 U	1.0 U
Thallium (dissolved)	µg/L	NV	NV	0.14 J	1.0 U	1.0 U	--	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	µg/L	30	6	<i>25<sup>b</sup></i>	0.64 J	4.0 U	0.57 J	4.0 U	0.47 J	4.0 U	4.0 U	4.0 U	4.0 U
Vanadium (dissolved)	µg/L	NV	NV	6.6	0.64 J	4.0 U	--	4.0 U	--	4.0 U	4.0 U	4.0 U	4.0 U
Zinc	µg/L	NV	NV	38	20 U	9.4 J	20 U	20 U	20 U	9.4 J	20 U	20 U	20 U
Zinc (dissolved)	µg/L	NV	NV	20 U	20 U	20 U	--	20 U	--	20 U	20 U	20 U	20 U
<b>Glycol</b>													
Ethylene glycol	µg/L	14000	2800	--	--	--	--	--	--	--	10000 U	10000 U	--
<b>Field Parameters</b>													
Conductivity, field	mS/cm	NV	NV	0.41	0.654	0.788	0.453	0.416	0.429	0.555	899	899	0.898
Dissolved oxygen (DO), field	µg/L	NV	NV	3660	2500	5130	453	6930	9980	7950	4420	4420	4750
Oxidation reduction potential (ORP), field	millivolts	NV	NV	92.1	23.5	138	-16.6	129.3	-53.4	115.9	-187.2	-187.2	97.8
pH, field	s.u.	NV	NV	6.34	7.55	7.05	7.71	7.45	7.32	7.24	6.96	6.96	7.27
Temperature, field	Deg C	NV	NV	18.67	--	16.62	--	17.19	--	16.57	--	--	16.65
Temperature, sample	Deg C	NV	NV	--	12.75	--	10.75	--	11.1	--	14.76	14.76	--
Turbidity, field	NTU	NV	NV	85.9	4.6	7.2	3.8	0.9	4.5	5.35	0.62	0.62	3.22

Notes:

- (1) Chapter (ch.) NR 140, Wisconsin Administrative Code (Wis. Adm. Code)
- 290 - *Italicized result indicates concentration is above associated PAL*
- 440 - *Bolded italicized result indicates concentration is above associated PAL and ES***
- ES - Enforcement Standard (ch. NR 140, Wis. Adm. Code)
- ft AMSL - feet above mean sea level
- J - Estimated concentration
- NV No value, criteria is not promulgated
- PAL Preventive Action Limit (ch. NR 140, Wis. Adm. Code)
- U - Not detected at the associated reporting limit
- µg/L - micrograms per Liter
- UJ - Not detected; associated reporting limit is estimated.
- R - Rejected

Table 5.1

**Scenarios for Potential Human Exposure  
Janesville Assembly Plant  
Janesville, Wisconsin**

Receptor Population	Exposure Medium	Exposure Route	Possible Currently?	Possible in Future?	Type of Analysis	Comments
<b>O n - S i t e<sup>3</sup></b>						
Industrial Workers	surface soil	ingestion, dermal contact, and inhalation of airborne particulates and vapors in outdoor air	Yes	Yes	Quantitative	The Site is currently in an idled state such that workers are not currently present, but security personnel are currently present at the Site. The majority of the Site is developed with structures or paved areas. An environmental covenant will be put in place to prevent removal of building slabs from the main plant property (not including satellite lots) in the future. Potential future exposures may occur in unpaved areas of the main plant, or areas at the satellite lots where slabs or pavement is removed. In covered areas, exposure to constituents via inhalation of vapors that could volatilize and migrate to outdoor air would be significantly reduced since the pavement will prevent significant vapor migration and other pathways would be eliminated.
		inhalation of vapors that migrate through building foundations	Yes	Yes		Potential future exposures may occur indoors if vapors migrate through cracks in foundations of on-site slab-on-grade buildings.
	subsurface soil	ingestion and dermal contact	No	No	Not Applicable	Industrial worker activities are such that ingestion and dermal contact exposure to subsurface soil (e.g., > 2 ft bgs) is not reasonably expected.
		inhalation of vapors in outdoor air	Yes	Yes	Quantitative	In the portions of the Site that will remain covered (slabs, pavement) in the future, exposure to constituents via inhalation of vapors that could volatilize and migrate to outdoor air would be significantly reduced since the cover will prevent significant vapor migration. If cover were to be removed at the satellite lots, exposure in these areas to vapors that have migrated to outdoor air could be higher.
		inhalation of vapors that migrate through building foundations	Yes	Yes		Potential future exposures may occur indoors if vapors migrate through cracks in foundations of on-site slab-on-grade buildings.
	shallow and deep groundwater	ingestion, dermal contact, and inhalation of vapors during potable and nonpotable use	No	No	Not Applicable	Currently there are no active drinking or industrial water production wells at the Site. Therefore, potable and nonpotable groundwater exposures are not current exposure pathways. In addition, an environmental covenant (i.e., deed restriction) restricts the use of groundwater for any purpose on-site without the approval of the Department of Natural Resources' Bureau of Drinking Water and Groundwater. Given this restriction, future potable and nonpotable use of groundwater at the Site is not reasonably expected.
	shallow groundwater	inhalation of vapors in outdoor air	Yes	Yes	Quantitative	In the portions of the Site which are currently covered paved or will be covered in the future, exposure to constituents via inhalation of vapors that could volatilize and migrate to outdoor air would be significantly reduced since the pavement will prevent significant vapor migration. If cover were to be removed at the satellite lots, exposure in these areas to vapors which have migrated to outdoor air could be higher.
		inhalation of vapors that migrate through building foundations	Yes	Yes		Potential future exposures may occur indoors if vapors migrate through cracks in foundations of on-site slab-on-grade buildings.

Table 5.1

**Scenarios for Potential Human Exposure  
Janesville Assembly Plant  
Janesville, Wisconsin**

Receptor Population	Exposure Medium	Exposure Route	Possible Currently?	Possible in Future?	Type of Analysis	Comments	
<b>O n - S i t e ( c o n t . )</b>							
Maintenance Workers	surface and subsurface soil	ingestion, dermal contact, and inhalation of airborne particulates and vapors	No	Yes	Quantitative	In the future underground utilities at the Site will require occasional maintenance. Underground utilities may also be present at depths at which workers could encounter shallow groundwater. Future exposure are possible during maintenance activities unless institutional controls are put into place that would limit worker exposure during such activities (e.g., required health and safety measures and personal protective equipment).	
	shallow groundwater	ingestion, dermal contact, and inhalation of vapors	No	Yes			
Construction Workers	surface and subsurface soil	ingestion, dermal contact, and inhalation of airborne particulates and vapors	No	Yes	Quantitative	Currently there are no plans for redevelopment or construction activities on-site. Construction worker exposures would be possible in the future in the event that redevelopment/construction activities occur. It is assumed that subsurface construction activities may occur to depths that could encounter shallow groundwater.	
	shallow groundwater	ingestion, dermal contact, and inhalation of vapors	No	Yes			
Trespassers	surface soil	ingestion, dermal contact, and inhalation of airborne particulates and vapors	Yes	Yes	Inferred from Industrial Workers	While fencing and security personnel limit access to the Site, potential trespasser exposure is possible. Potential current and future exposures may occur in uncovered areas or areas where slab or pavement is removed at the satellite lots. An environmental covenant will be put in place to prevent removal of building slabs from the main plant property (not including satellite lots) in the future. Potential future exposures may occur in unpaved areas of the main plant, or areas at the satellite lots where slabs or pavement is removed. In covered areas, exposure to airborne particulates from soil would be eliminated and exposure to constituents via inhalation of vapors that could volatilize and migrate to outdoor air would be significantly reduced since the cover will prevent significant vapor migration and other pathways would be eliminated.	
	subsurface soil	ingestion and dermal contact	No	No			Trespasser activities are such that ingestion and dermal contact exposure to subsurface soil (e.g., > 2 ft bgs) is not reasonably expected.
		inhalation of vapors in outdoor air	Yes	Yes			
shallow groundwater	inhalation of vapors in outdoor air	Yes	Yes				

Table 5.1

**Scenarios for Potential Human Exposure  
Janesville Assembly Plant  
Janesville, Wisconsin**

Receptor Population	Exposure Medium	Exposure Route	Possible Currently?	Possible in Future?	Type of Analysis	Comments
<b>Off - Site</b>						
Non-Industrial Receptors (i.e., Residents)	on-site soil	inhalation of airborne particulates and vapors	Yes	Yes	Quantitative	Potential airborne exposure to particulates and vapors migrating from uncovered on-site areas to off-site residential areas is possible.
	on-site shallow groundwater	inhalation of vapors in outdoor air	Yes	Yes		Potential airborne exposure to vapors migrating from uncovered on-site areas to off-site residential areas is possible.
	off-site shallow and deep groundwater	ingestion, dermal contact, and inhalation of vapors during potable use and nonpotable	No	No	Not Applicable	The City of Janesville provides water to the Site and surrounding area. The closest public supply well in the shallow aquifer is 2,500 feet northeast of the Site (BG810) and in the deep aquifer is 1,500 feet northeast of the site (BG808). On- and off-site use of groundwater for potable and nonpotable purposes are not current or reasonably expected future exposure scenarios.
	off-site shallow groundwater	inhalation of vapors in outdoor air	Yes	Yes	Quantitative	In areas off-site that are currently covered or will be covered in the future, exposure to constituents via inhalation of vapors that could volatilize and migrate to outdoor air would be significantly reduced since the cover will prevent significant vapor migration. If cover were to be removed at the satellite lots, exposure in these areas to vapors which have migrated to outdoor air could be higher.
inhalation of vapors that migrate through building foundations		Yes	Yes	Quantitative	Potential current and future exposures may occur indoors if vapors migrate through cracks in foundations of off-site buildings.	
Industrial Workers	on-site soil	inhalation of airborne particulates and vapors	Yes	Yes	Inferred from Off-Site Residents	Potential airborne exposure to particulates and vapors migrating from uncovered on-site areas to off-site areas is possible.
	on-site shallow groundwater	inhalation of vapors in outdoor air	Yes	Yes		Potential airborne exposure to vapors migrating from uncovered on-site areas to off-site areas is possible.
	off-site shallow and deep groundwater	ingestion, dermal contact, and inhalation of vapors during potable and nonpotable use	No	No	Not Applicable	The City of Janesville provides water to the Site and surrounding area. The closest public supply well in the shallow aquifer is 2,500 feet northeast of the Site (BG810) and in the deep aquifer is 1,500 feet northeast of the site (BG808). On- and off-site use of groundwater for potable and nonpotable purposes are not current or reasonably expected future exposure scenarios.
	off-site shallow groundwater	inhalation of vapors in outdoor air	No	Yes	Quantitative	In areas off-site that will be covered in the future, exposure to constituents via inhalation of vapors that could volatilize and migrate to outdoor air would be significantly reduced since the cover will prevent significant vapor migration. If cover were to be removed at the satellite lots, exposure in these areas to vapors which have migrated to outdoor air could be higher.
inhalation of vapors that migrate through building foundations		No	Yes	Potential future exposures may occur indoors if vapors migrate through cracks in foundations of off-site buildings.		



Table 5.1

**Scenarios for Potential Human Exposure  
Janesville Assembly Plant  
Janesville, Wisconsin**

Receptor Population	Exposure Medium	Exposure Route	Possible Currently?	Possible in Future?	Type of Analysis	Comments
<b>Off-Site (cont.)</b>						
Maintenance Workers	on-site soil	inhalation of airborne particulates and vapors	Yes	Yes	Inferred from Off-Site Residents	Potential airborne exposure to particulates and vapors from uncovered on-site areas is possible.
	on-site shallow groundwater	inhalation of vapors in outdoor air	Yes	Yes		Potential airborne exposure to vapors migrating from uncovered on-site areas is possible.
	off-site shallow groundwater	ingestion, dermal contact, and inhalation of vapors	Yes	Yes	Quantitative	It is assumed that off-site utilities exist, or may exist in the future, at depths below ground surface such that during maintenance activities, workers may encounter shallow groundwater.
Construction Workers	on-site soil	inhalation of airborne particulates and vapors	Yes	Yes	Inferred from Off-Site Residents	Potential airborne exposure to particulates and vapors from uncovered on-site areas is possible.
	on-site shallow groundwater	inhalation of vapors in outdoor air	Yes	Yes		Potential airborne exposure to vapors migrating from uncovered on-site areas is possible.
	off-site shallow groundwater	ingestion, dermal contact, and inhalation of vapors	Yes	Yes	Quantitative	Construction worker exposures would be possible in the event that redevelopment/construction activities occur. It is assumed that subsurface construction activities may occur to depths that could encounter shallow groundwater.
Adolescent Recreators	off-site surface water	ingestion, dermal contact, and inhalation of vapors	Yes	Yes	Quantitative	Rock River is located downgradient of the Site. Recreational exposure may be possible if on-site groundwater were to migrate off-site and into Rock River. Exposure to off-site surface water would include ingestion, dermal contact, and inhalation of vapors during recreational activities. Exposure via fish ingestion may also be possible.
	fish	ingestion	Yes	Yes		

## Notes:

1. "On-site" refers to areas within the GM Site property boundary - including satellite properties located in close proximity.
2. "Off-site" refers to any areas outside of the GM property boundary.
3. Non-Industrial receptor exposure on-site is currently not possible and deed restrictions will prevent future residential use of the Site.
4. This table is the same as Table 5.1 from the 2014 SIR. Pathways not relevant for groundwater exposures are grayed out.

Table 5.2

**Groundwater Screening Results Summary - Surface Water Quality Criteria  
Janesville Assembly Plant  
Janesville, Wisconsin**

Location	Wellzone	Chem Group	Chemical	CASRN	Meas Basis	Analyzed	Detected	Min Detected (µg/L)	Max Detected (µg/L)	Acute Toxicity Criteria for Ambient Water (µg/L)	Ratio of Max Detect to Acute Toxicity Criteria	Chronic Toxicity Criteria for Ambient Water (µg/L)	Ratio of Max Detect to Chronic Toxicity Criteria	Human Threshold Criteria for Ambient Water (µg/L)	Ratio of Max Detect to Human Threshold Criteria for Ambient Water (µg/L)
MW-10S	Shallow	INORG	Arsenic	7440-38-2	D	7	2	7.20E-01	9.70E-01	3.4E+02	2.9E-03	1.5E+02	6.4E-03	1.3E+01	7.3E-02
MW-10S	Shallow	INORG	Arsenic	7440-38-2	T	7	2	8.70E-01	1.00E+00	3.4E+02	2.9E-03	1.5E+02	6.6E-03	1.3E+01	7.5E-02
MW-10S	Shallow	INORG	Barium	7440-39-3	D	7	7	9.40E+01	1.20E+02						
MW-10S	Shallow	INORG	Barium	7440-39-3	T	7	7	9.50E+01	1.20E+02						
MW-10S	Shallow	INORG	Cobalt	7440-48-4	D	7	5	1.40E-01	1.90E-01						
MW-10S	Shallow	INORG	Cobalt	7440-48-4	T	7	5	1.40E-01	2.90E-01						
MW-10S	Shallow	INORG	Copper	7440-50-8	T	7	2	8.60E-01	9.20E-01	3.0E+01	3.1E-02	1.9E+01	4.9E-02		
MW-10S	Shallow	INORG	Lead	7439-92-1	T	7	2	1.50E-01	1.80E-01	2.1E+02	8.6E-04	5.5E+01	3.3E-03	1.4E+02	1.3E-03
MW-10S	Shallow	INORG	Manganese	7439-96-5	D	7	7	4.00E+01	4.60E+02						
MW-10S	Shallow	INORG	Manganese	7439-96-5	T	7	7	2.40E+01	4.40E+02						
MW-10S	Shallow	INORG	Nickel	7440-02-0	D	7	5	6.70E-01	1.10E+00	8.4E+02	1.3E-03	9.4E+01	1.2E-02	4.3E+04	2.6E-05
MW-10S	Shallow	INORG	Nickel	7440-02-0	T	7	5	6.60E-01	1.20E+00	8.4E+02	1.4E-03	9.4E+01	1.3E-02	4.3E+04	2.8E-05
MW-10S	Shallow	INORG	Selenium	7782-49-2	D	7	4	7.00E-01	9.60E-01			5.0E+00	1.9E-01	2.6E+03	3.7E-04
MW-10S	Shallow	INORG	Selenium	7782-49-2	T	7	4	6.60E-01	1.10E+00			5.0E+00	2.2E-01	2.6E+03	4.2E-04
MW-10S	Shallow	INORG	Thallium	7440-28-0	T	7	1	2.50E-01	2.50E-01						
MW-10S	Shallow	INORG	Vanadium	7440-62-2	D	7	1	3.00E-01	3.00E-01						
MW-10S	Shallow	INORG	Vanadium	7440-62-2	T	7	2	3.20E-01	4.80E-01						
MW-10S	Shallow	INORG	Zinc	7440-66-6	T	7	1	2.00E+01	2.00E+01	2.2E+02	9.1E-02	2.2E+02	9.1E-02		
MW-10S	Shallow	SVOC	Acenaphthene	83-32-9	T	7	2	1.10E-01	1.30E-01						
MW-10S	Shallow	SVOC	1,1-Biphenyl	92-52-4	T	7	4	2.60E-01	3.10E-01						
MW-10S	Shallow	SVOC	2,4-Dimethylphenol	105-67-9	T	7	2	2.90E+00	3.90E+00					1.1E+04	3.5E-04
MW-10S	Shallow	SVOC	Fluorene	86-73-7	T	7	4	1.20E-01	1.60E-01						
MW-10S	Shallow	SVOC	2-Methylnaphthalene	91-57-6	T	7	4	2.20E-01	1.80E+01						
MW-10S	Shallow	SVOC	Naphthalene	91-20-3	T	7	5	6.00E-01	9.80E+01						
MW-10S	Shallow	SVOC	Phenanthrene	85-01-8	T	7	1	1.00E-01	1.00E-01						
MW-10S	Shallow	VOC	2-Butanone	78-93-3	T	7	1	9.80E-01	9.80E-01						
MW-10S	Shallow	VOC	Cumene	98-82-8	T	7	7	1.30E+00	2.90E+01						
MW-10S	Shallow	VOC	Cyclohexane	110-82-7	T	7	7	2.70E+00	7.60E+01						
MW-10S	Shallow	VOC	Ethyl Benzene	100-41-4	T	7	7	1.50E+00	4.10E+02					2.9E+03	1.4E-01
MW-10S	Shallow	VOC	Methylcyclohexane	108-87-2	T	7	6	4.50E-01	2.20E+01						
MW-10S	Shallow	VOC	1,2,4-Trimethylbenzene	95-63-6	T	7	7	2.20E+00	6.30E+02						
MW-10S	Shallow	VOC	1,3,5-Trimethylbenzene	108-67-8	T	7	7	5.90E-01	1.60E+02						
MW-10S	Shallow	VOC	Xylenes (total)	1330-20-7	T	7	7	3.90E+00	1.30E+03						
MW-11S	Shallow	INORG	Barium	7440-39-3	D	1	1	8.10E+01	8.10E+01						
MW-11S	Shallow	INORG	Barium	7440-39-3	T	1	1	7.90E+01	7.90E+01						
MW-11S	Shallow	INORG	Cobalt	7440-48-4	D	1	1	4.00E-01	4.00E-01						
MW-11S	Shallow	INORG	Cobalt	7440-48-4	T	1	1	5.80E-01	5.80E-01						
MW-11S	Shallow	INORG	Copper	7440-50-8	D	1	1	1.10E+00	1.10E+00	3.0E+01	3.7E-02	1.9E+01	5.9E-02		
MW-11S	Shallow	INORG	Manganese	7439-96-5	D	1	1	2.50E+00	2.50E+00						
MW-11S	Shallow	INORG	Manganese	7439-96-5	T	1	1	3.60E+00	3.60E+00						

Table 5.2

**Groundwater Screening Results Summary - Surface Water Quality Criteria  
Janesville Assembly Plant  
Janesville, Wisconsin**

Location	Wellzone	Chem Group	Chemical	CASRN	Meas Basis	Analyzed	Detected	Min Detected (µg/L)	Max Detected (µg/L)	Acute Toxicity Criteria for Ambient Water (µg/L)	Ratio of Max Detect to Acute Toxicity Criteria	Chronic Toxicity Criteria for Ambient Water (µg/L)	Ratio of Max Detect to Chronic Toxicity Criteria	Human Threshold Criteria for Ambient Water (µg/L)	Ratio of Max Detect to Human Threshold Criteria for Ambient Water (µg/L)
MW-11S	Shallow	INORG	Nickel	7440-02-0	D	1	1	8.70E+00	8.70E+00	8.4E+02	1.0E-02	9.4E+01	9.3E-02	4.3E+04	2.0E-04
MW-11S	Shallow	INORG	Nickel	7440-02-0	T	1	1	1.20E+01	1.20E+01	8.4E+02	1.4E-02	9.4E+01	1.3E-01	4.3E+04	2.8E-04
MW-11S	Shallow	VOC	Chloroform	67-66-3	T	1	1	2.60E-01	2.60E-01					2.0E+03	1.3E-04
MW-12S	Shallow	INORG	Antimony	7440-36-0	D	1	1	1.70E-01	1.70E-01					3.7E+02	4.6E-04
MW-12S	Shallow	INORG	Antimony	7440-36-0	T	1	1	1.80E-01	1.80E-01					3.7E+02	4.8E-04
MW-12S	Shallow	INORG	Barium	7440-39-3	D	1	1	5.00E+01	5.00E+01						
MW-12S	Shallow	INORG	Barium	7440-39-3	T	1	1	5.00E+01	5.00E+01						
MW-12S	Shallow	INORG	Chromium III	16065-83-1	T	1	1	5.10E+01	5.10E+01	3.2E+03	1.6E-02	2.3E+02	2.2E-01	3.8E+06	1.3E-05
MW-12S	Shallow	INORG	Cobalt	7440-48-4	D	1	1	1.10E-01	1.10E-01						
MW-12S	Shallow	INORG	Cobalt	7440-48-4	T	1	1	2.60E-01	2.60E-01						
MW-12S	Shallow	INORG	Copper	7440-50-8	D	1	1	7.80E-01	7.80E-01	3.0E+01	2.6E-02	1.9E+01	4.2E-02		
MW-12S	Shallow	INORG	Copper	7440-50-8	T	1	1	2.70E+00	2.70E+00	3.0E+01	9.0E-02	1.9E+01	1.4E-01		
MW-12S	Shallow	INORG	Manganese	7439-96-5	T	1	1	3.60E+00	3.60E+00						
MW-12S	Shallow	INORG	Nickel	7440-02-0	D	1	1	4.40E-01	4.40E-01	8.4E+02	5.2E-04	9.4E+01	4.7E-03	4.3E+04	1.0E-05
MW-12S	Shallow	INORG	Nickel	7440-02-0	T	1	1	4.10E+00	4.10E+00	8.4E+02	4.9E-03	9.4E+01	4.4E-02	4.3E+04	9.5E-05
MW-13S	Shallow	INORG	Antimony	7440-36-0	D	1	1	1.90E-01	1.90E-01					3.7E+02	5.1E-04
MW-13S	Shallow	INORG	Antimony	7440-36-0	T	1	1	2.40E-01	2.40E-01					3.7E+02	6.4E-04
MW-13S	Shallow	INORG	Barium	7440-39-3	D	1	1	8.50E+01	8.50E+01						
MW-13S	Shallow	INORG	Barium	7440-39-3	T	1	1	9.00E+01	9.00E+01						
MW-13S	Shallow	INORG	Cadmium	7440-43-9	D	1	1	7.90E-02	7.90E-02	2.3E+01	3.5E-03	3.8E+00	2.1E-02	3.7E+02	2.1E-04
MW-13S	Shallow	INORG	Cadmium	7440-43-9	T	1	1	1.00E-01	1.00E-01	2.3E+01	4.4E-03	3.8E+00	2.6E-02	3.7E+02	2.7E-04
MW-13S	Shallow	INORG	Chromium III	16065-83-1	T	1	1	4.09E+02	4.09E+02	3.2E+03	1.3E-01	2.3E+02	<b>1.8E+00</b>	3.8E+06	1.1E-04
MW-13S	Shallow	INORG	Cobalt	7440-48-4	D	1	1	2.00E-01	2.00E-01						
MW-13S	Shallow	INORG	Cobalt	7440-48-4	T	1	1	8.50E-01	8.50E-01						
MW-13S	Shallow	INORG	Copper	7440-50-8	D	1	1	7.50E-01	7.50E-01	3.0E+01	2.5E-02	1.9E+01	4.0E-02		
MW-13S	Shallow	INORG	Copper	7440-50-8	T	1	1	1.20E+01	1.20E+01	3.0E+01	4.0E-01	1.9E+01	6.4E-01		
MW-13S	Shallow	INORG	Manganese	7439-96-5	D	1	1	1.50E+00	1.50E+00						
MW-13S	Shallow	INORG	Manganese	7439-96-5	T	1	1	7.20E+00	7.20E+00						
MW-13S	Shallow	INORG	Nickel	7440-02-0	D	1	1	4.00E+00	4.00E+00	8.4E+02	4.7E-03	9.4E+01	4.3E-02	4.3E+04	9.3E-05
MW-13S	Shallow	INORG	Nickel	7440-02-0	T	1	1	2.60E+01	2.60E+01	8.4E+02	3.1E-02	9.4E+01	2.8E-01	4.3E+04	6.0E-04
MW-13S	Shallow	INORG	Thallium	7440-28-0	T	1	1	1.00E-01	1.00E-01						
MW-13S	Shallow	SVOC	2,4-Dichlorophenol	120-83-2	T	1	1	1.60E+00	1.60E+00					5.8E+02	2.8E-03
MW-14S	Shallow	INORG	Antimony	7440-36-0	D	1	1	4.50E-01	4.50E-01					3.7E+02	1.2E-03
MW-14S	Shallow	INORG	Antimony	7440-36-0	T	1	1	3.80E-01	3.80E-01					3.7E+02	1.0E-03
MW-14S	Shallow	INORG	Barium	7440-39-3	D	1	1	6.60E+01	6.60E+01						
MW-14S	Shallow	INORG	Barium	7440-39-3	T	1	1	7.60E+01	7.60E+01						
MW-14S	Shallow	INORG	Cadmium	7440-43-9	D	1	1	7.20E-02	7.20E-02	2.3E+01	3.2E-03	3.8E+00	1.9E-02	3.7E+02	1.9E-04
MW-14S	Shallow	INORG	Cobalt	7440-48-4	D	1	1	5.80E-01	5.80E-01						
MW-14S	Shallow	INORG	Cobalt	7440-48-4	T	1	1	6.90E-01	6.90E-01						
MW-14S	Shallow	INORG	Copper	7440-50-8	T	1	1	7.90E-01	7.90E-01	3.0E+01	2.6E-02	1.9E+01	4.2E-02		
MW-14S	Shallow	INORG	Manganese	7439-96-5	D	1	1	3.90E+00	3.90E+00						

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**Groundwater Screening Results Summary - Surface Water Quality Criteria  
Janesville Assembly Plant  
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Location	Wellzone	Chem Group	Chemical	CASRN	Meas Basis	Analyzed	Detected	Min Detected (µg/L)	Max Detected (µg/L)	Acute Toxicity Criteria for Ambient Water (µg/L)	Ratio of Max Detect to Acute Toxicity Criteria	Chronic Toxicity Criteria for Ambient Water (µg/L)	Ratio of Max Detect to Chronic Toxicity Criteria	Human Threshold Criteria for Ambient Water (µg/L)	Ratio of Max Detect to Human Threshold Criteria for Ambient Water (µg/L)
MW-14S	Shallow	INORG	Manganese	7439-96-5	T	1	1	5.10E+00	5.10E+00						
MW-14S	Shallow	INORG	Nickel	7440-02-0	D	1	1	2.10E+01	2.10E+01	8.4E+02	2.5E-02	9.4E+01	2.2E-01	4.3E+04	4.9E-04
MW-14S	Shallow	INORG	Nickel	7440-02-0	T	1	1	2.60E+01	2.60E+01	8.4E+02	3.1E-02	9.4E+01	2.8E-01	4.3E+04	6.0E-04
MW-14S	Shallow	INORG	Thallium	7440-28-0	D	1	1	2.70E-01	2.70E-01						
MW-14S	Shallow	INORG	Thallium	7440-28-0	T	1	1	1.40E-01	1.40E-01						
MW-1D	Deep	INORG	Barium	7440-39-3	D	1	1	3.00E+01	3.00E+01						
MW-1D	Deep	INORG	Barium	7440-39-3	T	1	1	3.50E+01	3.50E+01						
MW-1D	Deep	INORG	Cobalt	7440-48-4	D	1	1	9.00E-02	9.00E-02						
MW-1D	Deep	INORG	Cobalt	7440-48-4	T	1	1	1.20E-01	1.20E-01						
MW-1D	Deep	INORG	Manganese	7439-96-5	D	1	1	1.50E+00	1.50E+00						
MW-1D	Deep	INORG	Manganese	7439-96-5	T	1	1	2.00E+00	2.00E+00						
MW-1D	Deep	INORG	Nickel	7440-02-0	D	1	1	7.90E+00	7.90E+00	8.4E+02	9.4E-03	9.4E+01	8.4E-02	4.3E+04	1.8E-04
MW-1D	Deep	INORG	Nickel	7440-02-0	T	1	1	8.90E+00	8.90E+00	8.4E+02	1.1E-02	9.4E+01	9.5E-02	4.3E+04	2.1E-04
MW-1D	Deep	INORG	Selenium	7782-49-2	D	1	1	4.20E-01	4.20E-01			5.0E+00	8.4E-02	2.6E+03	1.6E-04
MW-1D	Deep	INORG	Selenium	7782-49-2	T	1	1	3.30E-01	3.30E-01			5.0E+00	6.6E-02	2.6E+03	1.3E-04
MW-1D	Deep	SVOC	2,4-Dichlorophenol	120-83-2	T	1	1	2.40E-01	2.40E-01					5.8E+02	4.1E-04
MW-1S	Shallow	INORG	Barium	7440-39-3	D	1	1	5.80E+01	5.80E+01						
MW-1S	Shallow	INORG	Barium	7440-39-3	T	1	1	5.70E+01	5.70E+01						
MW-1S	Shallow	INORG	Cobalt	7440-48-4	D	1	1	1.70E-01	1.70E-01						
MW-1S	Shallow	INORG	Cobalt	7440-48-4	T	1	1	1.80E-01	1.80E-01						
MW-1S	Shallow	INORG	Copper	7440-50-8	D	1	1	9.10E-01	9.10E-01	3.0E+01	3.0E-02	1.9E+01	4.9E-02		
MW-1S	Shallow	INORG	Copper	7440-50-8	T	1	1	1.10E+00	1.10E+00	3.0E+01	3.7E-02	1.9E+01	5.9E-02		
MW-1S	Shallow	INORG	Manganese	7439-96-5	D	1	1	2.40E+02	2.40E+02						
MW-1S	Shallow	INORG	Manganese	7439-96-5	T	1	1	2.20E+02	2.20E+02						
MW-1S	Shallow	INORG	Nickel	7440-02-0	D	1	1	3.10E+00	3.10E+00	8.4E+02	3.7E-03	9.4E+01	3.3E-02	4.3E+04	7.2E-05
MW-1S	Shallow	INORG	Nickel	7440-02-0	T	1	1	3.20E+00	3.20E+00	8.4E+02	3.8E-03	9.4E+01	3.4E-02	4.3E+04	7.4E-05
MW-1S	Shallow	INORG	Selenium	7782-49-2	D	1	1	6.20E-01	6.20E-01			5.0E+00	1.2E-01	2.6E+03	2.4E-04
MW-1S	Shallow	INORG	Selenium	7782-49-2	T	1	1	6.10E-01	6.10E-01			5.0E+00	1.2E-01	2.6E+03	2.3E-04
MW2	Shallow	INORG	Antimony	7440-36-0	D	1	1	9.20E-01	9.20E-01					3.7E+02	2.5E-03
MW2	Shallow	INORG	Antimony	7440-36-0	T	1	1	1.20E+00	1.20E+00					3.7E+02	3.2E-03
MW2	Shallow	INORG	Barium	7440-39-3	D	1	1	9.00E+01	9.00E+01						
MW2	Shallow	INORG	Barium	7440-39-3	T	1	1	9.00E+01	9.00E+01						
MW2	Shallow	INORG	Beryllium	7440-41-7	D	1	1	2.20E-01	2.20E-01					3.3E-01	6.7E-01
MW2	Shallow	INORG	Beryllium	7440-41-7	T	1	1	4.00E-01	4.00E-01					3.3E-01	<b>1.2E+00</b>
MW2	Shallow	INORG	Cadmium	7440-43-9	D	1	1	1.10E-01	1.10E-01	2.3E+01	4.8E-03	3.8E+00	2.9E-02	3.7E+02	3.0E-04
MW2	Shallow	INORG	Cadmium	7440-43-9	T	1	1	3.50E-01	3.50E-01	2.3E+01	1.5E-02	3.8E+00	9.2E-02	3.7E+02	9.5E-04
MW2	Shallow	INORG	Cobalt	7440-48-4	D	1	1	1.60E-01	1.60E-01						
MW2	Shallow	INORG	Cobalt	7440-48-4	T	1	1	3.00E-01	3.00E-01						
MW2	Shallow	INORG	Lead	7439-92-1	T	1	1	2.80E-01	2.80E-01	2.1E+02	1.3E-03	5.5E+01	5.1E-03	1.4E+02	2.0E-03
MW2	Shallow	INORG	Manganese	7439-96-5	T	1	1	5.20E+00	5.20E+00						
MW2	Shallow	INORG	Nickel	7440-02-0	D	1	1	4.50E-01	4.50E-01	8.4E+02	5.3E-04	9.4E+01	4.8E-03	4.3E+04	1.0E-05



**Table 5.2**  
**Groundwater Screening Results Summary - Surface Water Quality Criteria**  
**Janesville Assembly Plant**  
**Janesville, Wisconsin**

Location	Wellzone	Chem Group	Chemical	CASRN	Meas Basis	Analyzed	Detected	Min Detected (µg/L)	Max Detected (µg/L)	Acute Toxicity Criteria for Ambient Water (µg/L)	Ratio of Max Detect to Acute Toxicity Criteria	Chronic Toxicity Criteria for Ambient Water (µg/L)	Ratio of Max Detect to Chronic Toxicity Criteria	Human Threshold Criteria for Ambient Water (µg/L)	Ratio of Max Detect to Human Threshold Criteria for Ambient Water (µg/L)
MW2	Shallow	INORG	Nickel	7440-02-0	T	1	1	5.90E-01	5.90E-01	8.4E+02	7.0E-04	9.4E+01	6.3E-03	4.3E+04	1.4E-05
MW2	Shallow	INORG	Thallium	7440-28-0	T	1	1	1.80E-01	1.80E-01						
MW2	Shallow	INORG	Zinc	7440-66-6	T	1	1	7.50E+00	7.50E+00	2.2E+02	3.4E-02	2.2E+02	3.4E-02		
MW-2D	Intermediate	INORG	Barium	7440-39-3	D	1	1	2.90E+01	2.90E+01						
MW-2D	Intermediate	INORG	Barium	7440-39-3	T	1	1	3.00E+01	3.00E+01						
MW-2D	Intermediate	INORG	Beryllium	7440-41-7	D	1	1	5.30E-02	5.30E-02					3.3E-01	1.6E-01
MW-2D	Intermediate	INORG	Cobalt	7440-48-4	D	1	1	8.60E-02	8.60E-02						
MW-2D	Intermediate	INORG	Cobalt	7440-48-4	T	1	1	8.70E-02	8.70E-02						
MW-2D	Intermediate	INORG	Nickel	7440-02-0	D	1	1	2.60E-01	2.60E-01	8.4E+02	3.1E-04	9.4E+01	2.8E-03	4.3E+04	6.0E-06
MW-2D	Intermediate	INORG	Nickel	7440-02-0	T	1	1	2.90E-01	2.90E-01	8.4E+02	3.4E-04	9.4E+01	3.1E-03	4.3E+04	6.7E-06
MW-2S	Shallow	INORG	Barium	7440-39-3	D	1	1	6.40E+01	6.40E+01						
MW-2S	Shallow	INORG	Barium	7440-39-3	T	1	1	7.00E+01	7.00E+01						
MW-2S	Shallow	INORG	Beryllium	7440-41-7	D	1	1	7.00E-02	7.00E-02					3.3E-01	2.1E-01
MW-2S	Shallow	INORG	Beryllium	7440-41-7	T	1	1	7.40E-02	7.40E-02					3.3E-01	2.2E-01
MW-2S	Shallow	INORG	Chromium III	16065-83-1	T	1	1	1.59E+02	1.59E+02	3.2E+03	5.0E-02	2.3E+02	6.8E-01	3.8E+06	4.2E-05
MW-2S	Shallow	INORG	Cobalt	7440-48-4	D	1	1	2.60E-01	2.60E-01						
MW-2S	Shallow	INORG	Cobalt	7440-48-4	T	1	1	1.30E+00	1.30E+00						
MW-2S	Shallow	INORG	Copper	7440-50-8	D	1	1	8.40E-01	8.40E-01	3.0E+01	2.8E-02	1.9E+01	4.5E-02		
MW-2S	Shallow	INORG	Copper	7440-50-8	T	1	1	5.70E+00	5.70E+00	3.0E+01	1.9E-01	1.9E+01	3.0E-01		
MW-2S	Shallow	INORG	Manganese	7439-96-5	D	1	1	3.10E+00	3.10E+00						
MW-2S	Shallow	INORG	Manganese	7439-96-5	T	1	1	1.70E+01	1.70E+01						
MW-2S	Shallow	INORG	Mercury	7439-97-6	D	1	1	1.50E-01	1.50E-01	8.3E-01	1.8E-01	4.4E-01	3.4E-01	1.5E-03	1.0E+02
MW-2S	Shallow	INORG	Nickel	7440-02-0	D	1	1	8.50E+00	8.50E+00	8.4E+02	1.0E-02	9.4E+01	9.1E-02	4.3E+04	2.0E-04
MW-2S	Shallow	INORG	Nickel	7440-02-0	T	1	1	1.50E+01	1.50E+01	8.4E+02	1.8E-02	9.4E+01	1.6E-01	4.3E+04	3.5E-04
MW-2S	Shallow	SVOC	Caprolactam	105-60-2	T	1	1	2.90E-01	2.90E-01						
MW-3D	Intermediate	INORG	Barium	7440-39-3	D	2	2	8.10E+01	8.20E+01						
MW-3D	Intermediate	INORG	Barium	7440-39-3	T	2	2	8.00E+01	8.50E+01						
MW-3D	Intermediate	INORG	Cobalt	7440-48-4	D	2	2	9.10E-02	9.20E-02						
MW-3D	Intermediate	INORG	Cobalt	7440-48-4	T	2	2	1.60E-01	1.80E-01						
MW-3D	Intermediate	INORG	Copper	7440-50-8	T	2	2	9.60E-01	1.20E+00	3.0E+01	4.0E-02	1.9E+01	6.4E-02		
MW-3D	Intermediate	INORG	Manganese	7439-96-5	T	2	2	3.00E+00	3.60E+00						
MW-3D	Intermediate	INORG	Nickel	7440-02-0	D	2	2	3.50E-01	3.60E-01	8.4E+02	4.3E-04	9.4E+01	3.8E-03	4.3E+04	8.4E-06
MW-3D	Intermediate	INORG	Nickel	7440-02-0	T	2	2	4.90E-01	7.10E-01	8.4E+02	8.4E-04	9.4E+01	7.6E-03	4.3E+04	1.7E-05
MW-3S	Shallow	INORG	Barium	7440-39-3	D	1	1	7.60E+01	7.60E+01						
MW-3S	Shallow	INORG	Barium	7440-39-3	T	1	1	7.50E+01	7.50E+01						
MW-3S	Shallow	INORG	Chromium III	16065-83-1	T	1	1	1.49E+02	1.49E+02	3.2E+03	4.7E-02	2.3E+02	6.4E-01	3.8E+06	3.9E-05
MW-3S	Shallow	INORG	Cobalt	7440-48-4	D	1	1	1.00E-01	1.00E-01						
MW-3S	Shallow	INORG	Cobalt	7440-48-4	T	1	1	9.00E-01	9.00E-01						
MW-3S	Shallow	INORG	Copper	7440-50-8	T	1	1	5.60E+00	5.60E+00	3.0E+01	1.9E-01	1.9E+01	3.0E-01		
MW-3S	Shallow	INORG	Manganese	7439-96-5	T	1	1	6.10E+00	6.10E+00						
MW-3S	Shallow	INORG	Nickel	7440-02-0	D	1	1	1.10E+00	1.10E+00	8.4E+02	1.3E-03	9.4E+01	1.2E-02	4.3E+04	2.6E-05

**Table 5.2**  
**Groundwater Screening Results Summary - Surface Water Quality Criteria**  
**Janesville Assembly Plant**  
**Janesville, Wisconsin**

Location	Wellzone	Chem Group	Chemical	CASRN	Meas Basis	Analyzed	Detected	Min Detected (µg/L)	Max Detected (µg/L)	Acute Toxicity Criteria for Ambient Water (µg/L)	Ratio of Max Detect to Acute Toxicity Criteria	Chronic Toxicity Criteria for Ambient Water (µg/L)	Ratio of Max Detect to Chronic Toxicity Criteria	Human Threshold Criteria for Ambient Water (µg/L)	Ratio of Max Detect to Human Threshold Criteria for Ambient Water (µg/L)
MW-3S	Shallow	INORG	Nickel	7440-02-0	T	1	1	1.00E+01	1.00E+01	8.4E+02	1.2E-02	9.4E+01	1.1E-01	4.3E+04	2.3E-04
MW-3S	Shallow	VOC	Bromodichloromethane	75-27-4	T	1	1	5.00E-01	5.00E-01						
MW-3S	Shallow	VOC	Chloroform	67-66-3	T	1	1	6.80E-01	6.80E-01					2.0E+03	3.5E-04
MW4	Shallow	INORG	Arsenic	7440-38-2	D	4	1	2.60E+00	2.60E+00	3.4E+02	7.7E-03	1.5E+02	1.7E-02	1.3E+01	2.0E-01
MW4	Shallow	INORG	Arsenic	7440-38-2	T	4	1	2.00E+00	2.00E+00	3.4E+02	5.9E-03	1.5E+02	1.3E-02	1.3E+01	1.5E-01
MW4	Shallow	INORG	Barium	7440-39-3	D	4	4	1.00E+02	1.10E+02						
MW4	Shallow	INORG	Barium	7440-39-3	T	4	4	9.80E+01	1.10E+02						
MW4	Shallow	INORG	Beryllium	7440-41-7	D	4	1	1.10E-01	1.10E-01					3.3E-01	3.3E-01
MW4	Shallow	INORG	Beryllium	7440-41-7	T	4	1	1.30E-01	1.30E-01					3.3E-01	3.9E-01
MW4	Shallow	INORG	Chromium III	16065-83-1	T	4	1	1.05E+00	1.05E+00	3.2E+03	3.3E-04	2.3E+02	4.5E-03	3.8E+06	2.8E-07
MW4	Shallow	INORG	Chromium VI	18540-29-9	T	4	1	6.20E+00	6.20E+00	1.6E+01	3.9E-01	1.1E+01	5.6E-01	7.6E+03	8.1E-04
MW4	Shallow	INORG	Cobalt	7440-48-4	D	4	3	1.90E-01	3.30E-01						
MW4	Shallow	INORG	Cobalt	7440-48-4	T	4	3	2.10E-01	3.50E-01						
MW4	Shallow	INORG	Lead	7439-92-1	D	4	1	1.20E-01	1.20E-01	2.1E+02	5.7E-04	5.5E+01	2.2E-03	1.4E+02	8.6E-04
MW4	Shallow	INORG	Lead	7439-92-1	T	4	2	1.50E-01	1.60E-01	2.1E+02	7.7E-04	5.5E+01	2.9E-03	1.4E+02	1.1E-03
MW4	Shallow	INORG	Manganese	7439-96-5	D	4	4	4.80E+02	5.10E+02						
MW4	Shallow	INORG	Manganese	7439-96-5	T	4	4	4.60E+02	5.00E+02						
MW4	Shallow	INORG	Nickel	7440-02-0	D	4	3	4.40E-01	5.80E-01	8.4E+02	6.9E-04	9.4E+01	6.2E-03	4.3E+04	1.3E-05
MW4	Shallow	INORG	Nickel	7440-02-0	T	4	3	4.90E-01	5.50E-01	8.4E+02	6.5E-04	9.4E+01	5.9E-03	4.3E+04	1.3E-05
MW4	Shallow	INORG	Selenium	7782-49-2	D	4	1	4.60E-01	4.60E-01			5.0E+00	9.2E-02	2.6E+03	1.8E-04
MW4	Shallow	INORG	Selenium	7782-49-2	T	4	1	3.30E-01	3.30E-01			5.0E+00	6.6E-02	2.6E+03	1.3E-04
MW4	Shallow	INORG	Thallium	7440-28-0	T	4	1	1.90E-01	1.90E-01						
MW4	Shallow	INORG	Vanadium	7440-62-2	T	4	1	3.90E-01	3.90E-01						
MW4	Shallow	SVOC	Acenaphthene	83-32-9	T	4	3	2.20E-01	3.40E-01						
MW4	Shallow	SVOC	1,1-Biphenyl	92-52-4	T	4	4	5.20E-01	8.40E-01						
MW4	Shallow	SVOC	Dibenzofuran	132-64-9	T	4	4	1.80E-01	3.00E-01						
MW4	Shallow	SVOC	2,4-Dimethylphenol	105-67-9	T	4	1	2.80E-01	2.80E-01					1.1E+04	2.5E-05
MW4	Shallow	SVOC	Fluorene	86-73-7	T	4	4	2.30E-01	3.90E-01						
MW4	Shallow	SVOC	2-Methylnaphthalene	91-57-6	T	4	4	1.90E+01	2.60E+01						
MW4	Shallow	SVOC	Naphthalene	91-20-3	T	4	4	2.10E+01	4.80E+01						
MW4	Shallow	SVOC	Phenanthrene	85-01-8	T	4	3	1.00E-01	1.30E-01						
MW4	Shallow	VOC	Cumene	98-82-8	T	4	4	5.50E+01	9.10E+01						
MW4	Shallow	VOC	Cyclohexane	110-82-7	T	4	4	1.70E+01	3.10E+01						
MW4	Shallow	VOC	Ethyl Benzene	100-41-4	T	4	4	5.60E+00	5.90E+01					2.9E+03	2.0E-02
MW4	Shallow	VOC	Methylcyclohexane	108-87-2	T	4	4	8.50E+00	1.40E+01						
MW4	Shallow	VOC	1,2,4-Trimethylbenzene	95-63-6	T	4	3	2.90E+00	3.30E+02						
MW4	Shallow	VOC	1,3,5-Trimethylbenzene	108-67-8	T	4	3	1.60E+00	1.50E+02						
MW4	Shallow	VOC	Xylenes (total)	1330-20-7	T	4	2	9.70E+01	1.10E+02						
MW-4D	Deep	INORG	Barium	7440-39-3	D	1	1	2.00E+00	2.00E+00						
MW-4D	Deep	INORG	Barium	7440-39-3	T	1	1	2.30E+00	2.30E+00						
MW-4D	Deep	INORG	Nickel	7440-02-0	D	1	1	2.20E+00	2.20E+00	8.4E+02	2.6E-03	9.4E+01	2.3E-02	4.3E+04	5.1E-05

Table 5.2

**Groundwater Screening Results Summary - Surface Water Quality Criteria  
Janesville Assembly Plant  
Janesville, Wisconsin**

Location	Wellzone	Chem Group	Chemical	CASRN	Meas Basis	Analyzed	Detected	Min Detected (µg/L)	Max Detected (µg/L)	Acute Toxicity Criteria for Ambient Water (µg/L)	Ratio of Max Detect to Acute Toxicity Criteria	Chronic Toxicity Criteria for Ambient Water (µg/L)	Ratio of Max Detect to Chronic Toxicity Criteria	Human Threshold Criteria for Ambient Water (µg/L)	Ratio of Max Detect to Human Threshold Criteria for Ambient Water (µg/L)
MW-4D	Deep	INORG	Nickel	7440-02-0	T	1	1	2.50E+00	2.50E+00	8.4E+02	3.0E-03	9.4E+01	2.7E-02	4.3E+04	5.8E-05
MW-4D	Deep	SVOC	Acetophenone	98-86-2	T	1	1	3.50E-01	3.50E-01						
MW-4D	Deep	SVOC	Caprolactam	105-60-2	T	1	1	1.10E+00	1.10E+00						
MW-4D	Deep	SVOC	2,4-Dichlorophenol	120-83-2	T	1	1	2.00E-01	2.00E-01					5.8E+02	3.4E-04
MW-4D	Deep	SVOC	Phenol	108-95-2	T	1	1	6.50E-01	6.50E-01						
MW-4D	Deep	VOC	2-Butanone	78-93-3	T	1	1	6.90E-01	6.90E-01						
MW-4D	Deep	VOC	Carbon Disulfide	75-15-0	T	1	1	8.30E+00	8.30E+00						
MW-4D	Deep	VOC	Toluene	108-88-3	T	1	1	7.00E-01	7.00E-01					1.5E+04	4.6E-05
MW-4S	Shallow	INORG	Barium	7440-39-3	D	1	1	6.20E+01	6.20E+01						
MW-4S	Shallow	INORG	Barium	7440-39-3	T	1	1	6.20E+01	6.20E+01						
MW-4S	Shallow	INORG	Manganese	7439-96-5	T	1	1	1.40E+00	1.40E+00						
MW-4S	Shallow	INORG	Nickel	7440-02-0	D	1	1	5.50E+00	5.50E+00	8.4E+02	6.5E-03	9.4E+01	5.9E-02	4.3E+04	1.3E-04
MW-4S	Shallow	INORG	Nickel	7440-02-0	T	1	1	4.40E+00	4.40E+00	8.4E+02	5.2E-03	9.4E+01	4.7E-02	4.3E+04	1.0E-04
MW-4S	Shallow	SVOC	Caprolactam	105-60-2	T	1	1	4.50E-01	4.50E-01						
MW-8S	Shallow	INORG	Barium	7440-39-3	D	1	1	7.30E+01	7.30E+01						
MW-8S	Shallow	INORG	Barium	7440-39-3	T	1	1	7.50E+01	7.50E+01						
MW-8S	Shallow	INORG	Chromium III	16065-83-1	T	1	1	2.50E+01	2.50E+01	3.2E+03	7.8E-03	2.3E+02	1.1E-01	3.8E+06	6.5E-06
MW-8S	Shallow	INORG	Cobalt	7440-48-4	D	1	1	1.40E-01	1.40E-01						
MW-8S	Shallow	INORG	Cobalt	7440-48-4	T	1	1	2.20E-01	2.20E-01						
MW-8S	Shallow	INORG	Copper	7440-50-8	T	1	1	1.50E+00	1.50E+00	3.0E+01	5.0E-02	1.9E+01	8.0E-02		
MW-8S	Shallow	INORG	Manganese	7439-96-5	T	1	1	1.10E+00	1.10E+00						
MW-8S	Shallow	INORG	Nickel	7440-02-0	D	1	1	1.60E+00	1.60E+00	8.4E+02	1.9E-03	9.4E+01	1.7E-02	4.3E+04	3.7E-05
MW-8S	Shallow	INORG	Nickel	7440-02-0	T	1	1	2.70E+00	2.70E+00	8.4E+02	3.2E-03	9.4E+01	2.9E-02	4.3E+04	6.3E-05
MW-8S	Shallow	INORG	Selenium	7782-49-2	D	1	1	4.20E-01	4.20E-01			5.0E+00	8.4E-02	2.6E+03	1.6E-04
MW-8S	Shallow	INORG	Selenium	7782-49-2	T	1	1	6.00E-01	6.00E-01			5.0E+00	1.2E-01	2.6E+03	2.3E-04
MW-8S	Shallow	VOC	Bromodichloromethane	75-27-4	T	1	1	4.30E-01	4.30E-01						
MW-8S	Shallow	VOC	Chloroform	67-66-3	T	1	1	3.70E-01	3.70E-01					2.0E+03	1.9E-04
MW-9S	Shallow	INORG	Antimony	7440-36-0	D	1	1	4.40E-01	4.40E-01					3.7E+02	1.2E-03
MW-9S	Shallow	INORG	Antimony	7440-36-0	T	1	1	5.40E-01	5.40E-01					3.7E+02	1.4E-03
MW-9S	Shallow	INORG	Barium	7440-39-3	D	1	1	8.00E+01	8.00E+01						
MW-9S	Shallow	INORG	Barium	7440-39-3	T	1	1	8.20E+01	8.20E+01						
MW-9S	Shallow	INORG	Beryllium	7440-41-7	D	1	1	1.70E-01	1.70E-01					3.3E-01	5.2E-01
MW-9S	Shallow	INORG	Beryllium	7440-41-7	T	1	1	3.50E-01	3.50E-01					3.3E-01	<b>1.1E+00</b>
MW-9S	Shallow	INORG	Cadmium	7440-43-9	D	1	1	2.50E-01	2.50E-01	2.3E+01	1.1E-02	3.8E+00	6.5E-02	3.7E+02	6.8E-04
MW-9S	Shallow	INORG	Cadmium	7440-43-9	T	1	1	3.90E-01	3.90E-01	2.3E+01	1.7E-02	3.8E+00	1.0E-01	3.7E+02	1.1E-03
MW-9S	Shallow	INORG	Chromium III	16065-83-1	T	1	1	5.00E+01	5.00E+01	3.2E+03	1.6E-02	2.3E+02	2.1E-01	3.8E+06	1.3E-05
MW-9S	Shallow	INORG	Cobalt	7440-48-4	D	1	1	2.50E-01	2.50E-01						
MW-9S	Shallow	INORG	Cobalt	7440-48-4	T	1	1	6.50E-01	6.50E-01						
MW-9S	Shallow	INORG	Copper	7440-50-8	T	1	1	2.50E+00	2.50E+00	3.0E+01	8.4E-02	1.9E+01	1.3E-01		
MW-9S	Shallow	INORG	Lead	7439-92-1	D	1	1	1.30E-01	1.30E-01	2.1E+02	6.2E-04	5.5E+01	2.4E-03	1.4E+02	9.3E-04
MW-9S	Shallow	INORG	Lead	7439-92-1	T	1	1	1.90E-01	1.90E-01	2.1E+02	9.1E-04	5.5E+01	3.5E-03	1.4E+02	1.4E-03

Table 5.2

**Groundwater Screening Results Summary - Surface Water Quality Criteria  
Janesville Assembly Plant  
Janesville, Wisconsin**

Location	Wellzone	Chem Group	Chemical	CASRN	Meas Basis	Analyzed	Detected	Min Detected (µg/L)	Max Detected (µg/L)	Acute Toxicity Criteria for Ambient Water (µg/L)	Ratio of Max Detect to Acute Toxicity Criteria	Chronic Toxicity Criteria for Ambient Water (µg/L)	Ratio of Max Detect to Chronic Toxicity Criteria	Human Threshold Criteria for Ambient Water (µg/L)	Ratio of Max Detect to Human Threshold Criteria for Ambient Water (µg/L)
MW-9S	Shallow	INORG	Manganese	7439-96-5	T	1	1	3.50E+00	3.50E+00						
MW-9S	Shallow	INORG	Nickel	7440-02-0	D	1	1	1.00E+01	1.00E+01	8.4E+02	1.2E-02	9.4E+01	1.1E-01	4.3E+04	2.3E-04
MW-9S	Shallow	INORG	Nickel	7440-02-0	T	1	1	3.10E+01	3.10E+01	8.4E+02	3.7E-02	9.4E+01	3.3E-01	4.3E+04	7.2E-04
MW-9S	Shallow	INORG	Thallium	7440-28-0	T	1	1	1.20E-01	1.20E-01						
MW-26S	Shallow	INORG	Barium	7440-39-3	D	1	1	1.00E+02	1.00E+02						
MW-26S	Shallow	INORG	Barium	7440-39-3	T	1	1	9.70E+01	9.70E+01						
MW-26S	Shallow	INORG	Cobalt	7440-48-4	D	1	1	1.20E-01	1.20E-01						
MW-26S	Shallow	INORG	Cobalt	7440-48-4	T	1	1	1.20E-01	1.20E-01						
MW-26S	Shallow	INORG	Copper	7440-50-8	T	1	1	9.40E-01	9.40E-01	3.0E+01	3.2E-02	1.9E+01	5.0E-02		
MW-26S	Shallow	INORG	Manganese	7439-96-5	D	1	1	4.00E+00	4.00E+00						
MW-26S	Shallow	INORG	Manganese	7439-96-5	T	1	1	3.70E+00	3.70E+00						
MW-26S	Shallow	INORG	Nickel	7440-02-0	D	1	1	4.60E-01	4.60E-01	8.4E+02	5.5E-04	9.4E+01	4.9E-03	4.3E+04	1.1E-05
MW-26S	Shallow	INORG	Nickel	7440-02-0	T	1	1	4.90E-01	4.90E-01	8.4E+02	5.8E-04	9.4E+01	5.2E-03	4.3E+04	1.1E-05
MW-27S	Shallow	INORG	Barium	7440-39-3	D	1	1	9.50E+01	9.50E+01						
MW-27S	Shallow	INORG	Barium	7440-39-3	T	1	1	9.60E+01	9.60E+01						
MW-27S	Shallow	INORG	Cobalt	7440-48-4	D	1	1	1.10E-01	1.10E-01						
MW-27S	Shallow	INORG	Cobalt	7440-48-4	T	1	1	1.30E-01	1.30E-01						
MW-27S	Shallow	INORG	Nickel	7440-02-0	D	1	1	4.70E-01	4.70E-01	8.4E+02	5.6E-04	9.4E+01	5.0E-03	4.3E+04	1.1E-05
MW-27S	Shallow	INORG	Nickel	7440-02-0	T	1	1	4.80E-01	4.80E-01	8.4E+02	5.7E-04	9.4E+01	5.1E-03	4.3E+04	1.1E-05

Notes:

Only downgradient, perimeter and off-site wells are shown.

Only constituents detected at each location are shown.

Surface water quality criteria are from Wisconsin Department Natural Resources (WDNR). July 2010. Chapter NR 105 Surface Water Quality Criteria and Secondary Values for Toxic Substances.

The surface water quality criteria are those for warm water sportfish, warm water forage and limited forage fish, non-public water supply, a hardness of 200 and a pH of 7.8, where applicable.

The concentrations for the Xylene isomers (m/p and o) were summed before comparing to the criteria for Xylenes (total).

Chem Group - Chemical group

Meas Basis - Measured basis; T = total, D = dissolved

Groundwater data collected in 2015 is shown.



Table 5.3

**Upper-Bound Cumulative Cancer Risks and HIs and Occupational Equivalent Mixture Estimates for Groundwater for Each Location  
Janesville Assembly Plant  
Janesville, Wisconsin**

On/Off-Site	Location	Wellzone	Industrial						Maintenance Worker		Construction Worker		Non-Industrial			
			Vapor Intrusion			Outdoor Air Inhalation			Groundwater Contact		Groundwater Contact		Vapor Intrusion		Outdoor Air Inhalation	
			Risk	HI	E <sub>m</sub>	Risk	HI		Risk	HI	Risk	HI	Risk	HI	Risk	HI
On-Site	MW-24S	Shallow	1E-08	4E-03	6E-08	2E-11	5E-06	8E-10	5E-04	8E-11	5E-04	NA	NA	1E-10	2E-05	
On-Site	MW-25S	Shallow	NC	NC	NC	NC	NC	NC	1E-04	NC	3E-05	NA	NA	NC	NC	
On-Site	MW5	Shallow	3E-10	2E-04	6E-08	3E-13	4E-07	1E-11	6E-05	1E-12	3E-05	NA	NA	1E-12	2E-06	
On-Site	MW-7D	Deep	NC	NC	NC	NC	NC	NC	2E-05	NC	2E-05	NA	NA	NC	NC	
On-Site	MW-7S	Shallow	NC	NC	NC	NC	NC	NC	2E-04	NC	2E-04	NA	NA	NC	NC	
Perimeter	MW-10S	Shallow	2E-07	3E-01	1E-04	3E-09	8E-04	2E-07	8E-02	2E-08	3E-02	9E-06	<b>1E+01</b>	1E-08	3E-03	
Perimeter	MW-11S	Shallow	4E-09	1E-05	4E-08	1E-11	3E-08	4E-10	2E-05	4E-11	2E-05	2E-07	4E-04	7E-11	1E-07	
Perimeter	MW-12S	Shallow	NC	NC	NC	NC	NC	NC	2E-05	NC	2E-05	NC	NC	NC	NC	
Perimeter	MW-13S	Shallow	NC	NC	NC	NC	NC	NC	1E-04	NC	7E-05	NC	NC	NC	NC	
Perimeter	MW-14S	Shallow	NC	NC	NC	NC	NC	NC	4E-05	NC	4E-05	NC	NC	NC	NC	
Perimeter	MW-15S	Shallow	NC	NC	NC	NC	NC	NC	1E-05	NC	9E-06	NC	NC	NC	NC	
Perimeter	MW-16S	Shallow	NC	NC	NC	NC	NC	NC	1E-04	NC	1E-04	NC	NC	NC	NC	
Perimeter	MW-17S	Shallow	NC	NC	NC	NC	NC	2E-08	3E-04	2E-09	2E-04	NC	NC	NC	NC	
Perimeter	MW-18S	Shallow	2E-10	6E-06	2E-09	4E-12	1E-07	2E-10	3E-05	2E-11	2E-05	1E-08	3E-04	2E-11	4E-07	
Perimeter	MW-19S	Shallow	NC	7E-10	4E-11	NC	6E-11	NC	2E-04	NC	1E-04	NC	3E-08	NC	3E-10	
Perimeter	MW-1D	Deep	NC	NC	NC	NC	NC	NC	1E-05	NC	9E-06	NC	NC	NC	NC	
Perimeter	MW-1S	Shallow	NC	NC	NC	NC	NC	NC	5E-05	NC	5E-05	NC	NC	NC	NC	
Perimeter	MW2	Shallow	NC	NC	NC	NC	NC	NC	1E-04	NC	1E-04	NC	NC	NC	NC	
Perimeter	MW-20S	Shallow	NC	NC	NC	NC	NC	NC	1E-04	NC	8E-05	NC	NC	NC	NC	
Perimeter	MW-21S	Shallow	NC	NC	2E-11	NC	NC	NC	7E-05	NC	6E-05	NC	NC	NC	NC	
Perimeter	MW-22S	Shallow	NC	NC	NC	NC	NC	4E-09	5E-04	4E-10	3E-04	NC	NC	NC	NC	
Perimeter	MW-23S	Shallow	NC	NC	NC	NC	NC	NC	8E-06	NC	7E-06	NC	NC	NC	NC	
Perimeter	MW-2D	Intermediate	NC	NC	NC	NC	NC	NC	9E-06	NC	8E-06	NC	NC	NC	NC	
Perimeter	MW-2S	Shallow	NC	1E-03	7E-05	NC	2E-06	NC	2E-04	NC	2E-04	NC	6E-02	NC	8E-06	
Perimeter	MW-3D	Intermediate	NC	NC	NC	NC	NC	NC	1E-05	NC	1E-05	NC	NC	NC	NC	
Perimeter	MW-3S	Shallow	1E-08	2E-05	1E-07	4E-11	9E-08	1E-09	4E-05	1E-10	4E-05	5E-07	1E-03	2E-10	4E-07	
Perimeter	MW4	Shallow	9E-08	2E-01	7E-05	1E-09	4E-04	1E-07	5E-02	1E-08	2E-02	4E-06	<b>7E+00</b>	8E-09	2E-03	
Perimeter	MW-4D	Deep	NC	2E-04	1E-05	NC	1E-07	NC	1E-05	NC	1E-05	NC	8E-03	NC	5E-07	
Perimeter	MW-4S	Shallow	NC	NC	3E-13	NC	NC	NC	9E-06	NC	9E-06	NC	NC	NC	NC	
Perimeter	MW-5D	Intermediate	NC	NC	NC	NC	NC	NC	4E-05	NC	4E-05	NC	NC	NC	NC	
Perimeter	MW-5S	Shallow	NC	NC	6E-09	NC	NC	NC	4E-05	NC	3E-05	NC	NC	NC	NC	
Perimeter	MW-6D	Intermediate	NC	NC	2E-13	NC	NC	NC	8E-06	NC	7E-06	NC	NC	NC	NC	
Perimeter	MW-6S	Shallow	NC	NC	NC	NC	NC	NC	2E-05	NC	2E-05	NC	NC	NC	NC	
Perimeter	MW-8S	Shallow	6E-09	1E-05	6E-08	2E-11	5E-08	6E-10	2E-05	6E-11	2E-05	3E-07	6E-04	1E-10	2E-07	
Perimeter	MW-9S	Shallow	NC	NC	NC	NC	NC	NC	1E-04	NC	9E-05	NC	NC	NC	NC	
Off-Site	MW-26S	Shallow	NC	NC	NC	NC	NC	NC	1E-05	NC	1E-05	NC	NC	NC	NC	
Off-Site	MW-27S	Shallow	NC	NC	NC	NC	NC	NC	1E-05	NC	1E-05	NC	NC	NC	NC	

Notes:

Cumulative cancer risk and HI estimates in excess of 1E-5 and 1, respectively, are shaded and bolded.

Occupational equivalent mixtures less than 1E-2.

E<sub>m</sub> - Occupational Equivalent Mixtures.

Risk estimates were calculated using groundwater data collected in 2015.

NC - risk estimates could not be calculated since no toxicity value exists for the detected constituents at this location or no volatile constituents are detected at this location.

NA - Based on depth and/or location of the groundwater sampling locations(s), the receptor is not exposed to contamination via the indicated pathway.

Table 5.4

Upper-Bound Single-Chemical Cancer Risks and HQs and Occupation Ratios for Groundwater for Each Location  
Janesville Assembly Plant  
Janesville, Wisconsin

On/Off-site	Wellzone	Location	Chem Group	Chemical	CASRN	Wt	Max Detected (µg/L)	Max Limit (µg/L)	Industrial						Maintenance Worker		Construction Worker		Non-Industrial			
									Vapor Intrusion			Outdoor Air Inhalation			Groundwater Contact		Groundwater Contact		Vapor Intrusion		Outdoor Air Inhalation	
									Risk	HQ	Occ Ratio	Risk	HQ	Risk	HQ	Risk	HQ	Risk	HQ	Risk	HQ	Risk
On-Site	Shallow	MW-24S	INORG	Antimony	7440-36-0	ID	2.80E-01	1.60E-01	NC	NC	NC	NC	NC	NC	7.4E-06	NC	7.4E-06	NC	NC	NC	NC	
On-Site	Shallow	MW-24S	INORG	Barium	7440-39-3	NC	5.70E+01	1.10E+00	NC	NC	NC	NC	NC	NC	5.8E-06	NC	5.8E-06	NC	NC	NC	NC	
On-Site	Shallow	MW-24S	INORG	Beryllium	7440-41-7	B1	7.00E-02	5.30E-02	NC	NC	NC	NC	NC	NC	6.5E-06	NC	6.5E-06	NC	NC	NC	NC	
On-Site	Shallow	MW-24S	INORG	Cadmium	7440-43-9	B1	1.20E-01	6.10E-02	NC	NC	NC	NC	NC	NC	6.7E-06	NC	6.7E-06	NC	NC	NC	NC	
On-Site	Shallow	MW-24S	INORG	Cobalt	7440-48-4	LC	1.30E-01	2.10E-02	NC	NC	NC	NC	NC	NC	1.1E-06	NC	1.1E-07	NC	NC	NC	NC	
On-Site	Shallow	MW-24S	INORG	Nickel	7440-02-0	A	4.20E-01	2.30E-01	NC	NC	NC	NC	NC	NC	1.8E-07	NC	1.8E-07	NC	NC	NC	NC	
On-Site	Shallow	MW-24S	INORG	Selenium	7782-49-2	D	1.00E+00	2.50E-01	NC	NC	NC	NC	NC	NC	6.5E-07	NC	6.5E-07	NC	NC	NC	NC	
On-Site	Shallow	MW-24S	VOC	Trichloroethene	79-01-6	HC	1.50E+00	2.20E-01	1.0E-08	3.5E-03	5.8E-08	1.5E-11	5.2E-06	7.8E-10	4.6E-04	7.8E-11	4.6E-04	NC	NC	1.0E-10	2.2E-05	
On-Site	Shallow	MW-25S	INORG	Barium	7440-39-3	NC	4.00E+01	1.10E+00	NC	NC	NC	NC	NC	NC	4.1E-06	NC	4.1E-06	NC	NC	NC	NC	
On-Site	Shallow	MW-25S	INORG	Beryllium	7440-41-7	B1	7.30E-02	5.30E-02	NC	NC	NC	NC	NC	NC	6.8E-06	NC	6.8E-06	NC	NC	NC	NC	
On-Site	Shallow	MW-25S	INORG	Cobalt	7440-48-4	LC	1.30E-01	2.10E-02	NC	NC	NC	NC	NC	NC	1.1E-06	NC	1.1E-07	NC	NC	NC	NC	
On-Site	Shallow	MW-25S	INORG	Copper	7440-50-8	D	1.20E+00	7.50E-01	NC	NC	NC	NC	NC	NC	9.7E-08	NC	9.7E-08	NC	NC	NC	NC	
On-Site	Shallow	MW-25S	INORG	Manganese	7439-96-5	D	1.30E+00	1.10E+00	NC	NC	NC	NC	NC	NC	2.2E-07	NC	2.2E-07	NC	NC	NC	NC	
On-Site	Shallow	MW-25S	INORG	Nickel	7440-02-0	A	5.40E-01	2.30E-01	NC	NC	NC	NC	NC	NC	2.3E-07	NC	2.3E-07	NC	NC	NC	NC	
On-Site	Shallow	MW-25S	INORG	Selenium	7782-49-2	D	1.40E+00	2.50E-01	NC	NC	NC	NC	NC	NC	9.1E-07	NC	9.1E-07	NC	NC	NC	NC	
On-Site	Shallow	MW-25S	INORG	Zinc	7440-66-6	ID	9.40E+00	7.30E+00	NC	NC	NC	NC	NC	NC	8.6E-08	NC	8.6E-08	NC	NC	NC	NC	
On-Site	Shallow	MW-25S	SVOC	2,4-Dichlorophenol	120-83-2	ID	5.20E+00	2.00E-01	NC	NC	NC	NC	NC	NC	8.8E-05	NC	1.3E-05	NC	NC	NC	NC	
On-Site	Shallow	MW5	INORG	Barium	7440-39-3	NC	6.20E+01	1.10E+00	NC	NC	NC	NC	NC	NC	6.3E-06	NC	6.3E-06	NC	NC	NC	NC	
On-Site	Shallow	MW5	INORG	Beryllium	7440-41-7	B1	9.00E-02	5.30E-02	NC	NC	NC	NC	NC	NC	8.4E-06	NC	8.4E-06	NC	NC	NC	NC	
On-Site	Shallow	MW5	INORG	Cobalt	7440-48-4	LC	2.40E-01	2.10E-02	NC	NC	NC	NC	NC	NC	2.0E-06	NC	2.0E-07	NC	NC	NC	NC	
On-Site	Shallow	MW5	INORG	Copper	7440-50-8	D	1.30E+00	7.50E-01	NC	NC	NC	NC	NC	NC	1.1E-07	NC	1.1E-07	NC	NC	NC	NC	
On-Site	Shallow	MW5	INORG	Manganese	7439-96-5	D	1.70E+01	1.10E+00	NC	NC	NC	NC	NC	NC	2.9E-06	NC	2.9E-06	NC	NC	NC	NC	
On-Site	Shallow	MW5	INORG	Nickel	7440-02-0	A	9.00E-01	2.30E-01	NC	NC	NC	NC	NC	NC	3.8E-07	NC	3.8E-07	NC	NC	NC	NC	
On-Site	Shallow	MW5	INORG	Silver	7440-22-4	D	2.90E-02	2.00E-02	NC	NC	NC	NC	NC	NC	1.2E-07	NC	1.2E-07	NC	NC	NC	NC	
On-Site	Shallow	MW5	VOC	Tetrachloroethene	127-18-4	LC	4.50E-01	3.10E-01	3.2E-10	8.7E-05	2.2E-08	2.8E-13	7.6E-08	1.1E-11	6.7E-06	1.1E-12	4.8E-06	NC	NC	1.4E-12	3.1E-07	
On-Site	Shallow	MW5	VOC	1,2,4-Trimethylbenzene	95-63-6	ID	4.60E-01	4.10E-01	NC	1.4E-04	3.4E-08	NC	3.4E-07	NC	3.1E-05	NC	3.1E-06	NC	NC	NC	1.4E-06	
On-Site	Deep	MW-7D	INORG	Barium	7440-39-3	NC	3.30E+01	1.10E+00	NC	NC	NC	NC	NC	NC	3.4E-06	NC	3.4E-06	NC	NC	NC	NC	
On-Site	Deep	MW-7D	INORG	Cadmium	7440-43-9	B1	8.30E-02	6.10E-02	NC	NC	NC	NC	NC	NC	4.6E-06	NC	4.6E-06	NC	NC	NC	NC	
On-Site	Deep	MW-7D	INORG	Cobalt	7440-48-4	LC	2.80E-01	2.10E-02	NC	NC	NC	NC	NC	NC	2.3E-06	NC	2.3E-07	NC	NC	NC	NC	
On-Site	Deep	MW-7D	INORG	Copper	7440-50-8	D	2.30E+00	7.50E-01	NC	NC	NC	NC	NC	NC	1.9E-07	NC	1.9E-07	NC	NC	NC	NC	
On-Site	Deep	MW-7D	INORG	Manganese	7439-96-5	D	3.10E+01	1.10E+00	NC	NC	NC	NC	NC	NC	5.2E-06	NC	5.2E-06	NC	NC	NC	NC	
On-Site	Deep	MW-7D	INORG	Nickel	7440-02-0	A	4.60E+00	2.30E-01	NC	NC	NC	NC	NC	NC	1.9E-06	NC	1.9E-06	NC	NC	NC	NC	
On-Site	Deep	MW-7D	INORG	Zinc	7440-66-6	ID	1.70E+01	7.30E+00	NC	NC	NC	NC	NC	NC	1.5E-07	NC	1.5E-07	NC	NC	NC	NC	
On-Site	Shallow	MW-7S	INORG	Antimony	7440-36-0	ID	2.50E-01	1.60E-01	NC	NC	NC	NC	NC	NC	6.6E-06	NC	6.6E-06	NC	NC	NC	NC	
On-Site	Shallow	MW-7S	INORG	Barium	7440-39-3	NC	1.30E+02	1.10E+00	NC	NC	NC	NC	NC	NC	1.3E-05	NC	1.3E-05	NC	NC	NC	NC	
On-Site	Shallow	MW-7S	INORG	Cadmium	7440-43-9	B1	8.70E-02	6.10E-02	NC	NC	NC	NC	NC	NC	4.8E-06	NC	4.8E-06	NC	NC	NC	NC	
On-Site	Shallow	MW-7S	INORG	Chromium III	16065-83-1	D	1.10E+03	2.00E-01	NC	NC	NC	NC	NC	NC	7.4E-05	NC	7.4E-05	NC	NC	NC	NC	
On-Site	Shallow	MW-7S	INORG	Cobalt	7440-48-4	LC	2.30E+00	2.10E-02	NC	NC	NC	NC	NC	NC	1.9E-05	NC	1.9E-06	NC	NC	NC	NC	
On-Site	Shallow	MW-7S	INORG	Copper	7440-50-8	D	2.10E+01	7.50E-01	NC	NC	NC	NC	NC	NC	1.7E-06	NC	1.7E-06	NC	NC	NC	NC	
On-Site	Shallow	MW-7S	INORG	Manganese	7439-96-5	D	1.10E+01	1.10E+00	NC	NC	NC	NC	NC	NC	1.8E-06	NC	1.8E-06	NC	NC	NC	NC	
On-Site	Shallow	MW-7S	INORG	Nickel	7440-02-0	A	1.10E+02	2.30E-01	NC	NC	NC	NC	NC	NC	4.6E-05	NC	4.6E-05	NC	NC	NC	NC	
On-Site	Shallow	MW-7S	INORG	Selenium	7782-49-2	D	5.50E+00	2.50E-01	NC	NC	NC	NC	NC	NC	3.6E-06	NC	3.6E-06	NC	NC	NC	NC	
On-Site	Shallow	MW-7S	SVOC	2,4-Dichlorophenol	120-83-2	ID	9.40E-01	1.90E-01	NC	NC	NC	NC	NC	NC	1.6E-05	NC	2.4E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-10S	INORG	Arsenic	7440-38-2	A	9.35E-01	4.90E-01	NC	NC	NC	NC	NC	6.5E-10	1.0E-05	6.5E-11	6.1E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-10S	INORG	Barium	7440-39-3	NC	1.20E+02	1.10E+00	NC	NC	NC	NC	NC	NC	1.2E-05	NC	1.2E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-10S	INORG	Chromium III	16065-83-1	D	1.05E+00	6.00E-01	NC	NC	NC	NC	NC	NC	7.1E-08	NC	7.1E-08	NC	NC	NC	NC	
Perimeter	Shallow	MW-10S	INORG	Cobalt	7440-48-4	LC	2.35E-01	2.10E-02	NC	NC	NC	NC	NC	NC	1.9E-06	NC	1.9E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-10S	INORG	Copper	7440-50-8	D	8.60E-01	7.50E-01	NC	NC	NC	NC	NC	NC	7.0E-08	NC	7.0E-08	NC	NC	NC	NC	
Perimeter	Shallow	MW-10S	INORG	Manganese	7439-96-5	D	4.60E+02	1.10E+00	NC	NC	NC	NC	NC	NC	7.7E-05	NC	7.7E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-10S	INORG	Nickel	7440-02-0	A	1.15E+00	2.30E-01	NC	NC	NC	NC	NC	NC	4.8E-07	NC	4.8E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-10S	INORG	Selenium	7782-49-2	D	9.55E-01	2.50E-01	NC	NC	NC	NC	NC	NC	6.2E-07	NC	6.2E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-10S	INORG	Thallium	7440-28-0	ID	1.44E-01	7.40E-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
Perimeter	Shallow	MW-10S	INORG	Vanadium	7440-62-2	ID	4.00E-01	2.30E-01	NC	NC	NC	NC	NC	NC	4.1E-06	NC	2.1E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-10S	INORG	Zinc	7440-66-6	ID	2.00E+01	7.30E+00	NC	NC	NC	NC	NC	NC	1.8E-07	NC	1.8E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-10S	SVOC	Acenaphthene	83-32-9	ID	7.65E-02	5.00E-02	NC	NC	6.1E-08	NC	NC	NC	2.5E-07	NC	7.4E-08	NC	NC	NC	NC	
Perimeter	Shallow	MW-10S	SVOC	1,1-Biphenyl	92-52-4	SC	3.05E-01	1.50E-01	NC	9.4E-06	1.7E-07	NC	1.5E-07	8.8E-11	2.5E-05	8.8E-12	2.4E-05	NC	4.0E-04	NC	7.0E-07	
Perimeter	Shallow	MW-10S	SVOC	2,4-Dimethylphenol	105-67-9	ID	3.40E+00	2.80E-01	NC	NC	NC	NC	NC	NC	4.2E-06	NC	1.7E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-10S	SVOC	Fluorene	86-73-7	D	1.60E-01	4.60E-02	NC	NC	5.1E-08	NC	NC	NC	1.1E-06	NC	1.1E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-10S	SVOC	2-Methylnaphthalene	91-57-6	ID	1.80E+01	1.00E-01	NC	NC	5.1E-06	NC	NC	NC	8.5E-04	NC	8.5E-04	NC	NC	NC	NC	
Perimeter	Shallow	MW-10S	SVOC	Naphthalene	91-20-3	C	9.35E+01	2.45E-01	1.7E-07	4.7E-03	1.2E-06	2.7E-09	7.5E-05	1.6E-07	1.1E-02	1.6E-08	1.1E-02	8.6E-06	2.0E-01	1.5E-08	3.4E-04	

Table 5.4

Upper-Bound Single-Chemical Cancer Risks and HQs and Occupation Ratios for Groundwater for Each Location  
Janesville Assembly Plant  
Janesville, Wisconsin

On/Off-site	Wellzone	Location	Chem Group	Chemical	CASRN	Wt	Max Detected (µg/L)	Max Limit (µg/L)	Industrial						Maintenance Worker		Construction Worker		Non-Industrial			
									Vapor Intrusion			Outdoor Air Inhalation			Groundwater Contact		Groundwater Contact		Vapor Intrusion		Outdoor Air Inhalation	
									Risk	HQ	Occ Ratio	Risk	HQ	Risk	HQ	Risk	HQ	Risk	HQ	Risk	HQ	Risk
Perimeter	Shallow	MW-10S	SVOC	Phenanthrene	85-01-8	D	6.53E-02	7.00E-02	NC	NC	4.4E-09	NC	NC	NC	7.9E-07	NC	7.9E-08	NC	NC	NC	NC	
Perimeter	Shallow	MW-10S	VOC	2-Butanone	78-93-3	ID	9.80E-01	1.80E+01	NC	6.4E-09	2.4E-10	NC	3.0E-10	NC	5.0E-08	NC	4.6E-08	NC	2.7E-07	NC	1.5E-09	
Perimeter	Shallow	MW-10S	VOC	Cumene	98-82-8	D	2.90E+01	1.20E+01	NC	3.0E-04	2.1E-06	NC	3.9E-07	NC	7.2E-05	NC	4.4E-05	NC	1.3E-02	NC	1.6E-06	
Perimeter	Shallow	MW-10S	VOC	Cyclohexane	110-82-7	ID	7.50E+01	1.50E+01	NC	1.1E-03	2.8E-05	NC	1.3E-07	NC	7.3E-06	NC	7.3E-06	NC	4.7E-02	NC	5.3E-07	
Perimeter	Shallow	MW-10S	VOC	Ethyl Benzene	100-41-4	D	4.10E+02	8.30E+00	NC	1.3E-03	1.3E-05	NC	2.3E-06	NC	5.5E-04	NC	3.7E-04	NC	5.4E-02	NC	9.7E-06	
Perimeter	Shallow	MW-10S	VOC	Methylcyclohexane	108-87-2	ID	2.15E+01	1.40E+01	NC	1.4E-03	9.2E-06	NC	7.6E-08	NC	3.9E-06	NC	3.9E-06	NC	5.9E-02	NC	3.1E-07	
Perimeter	Shallow	MW-10S	VOC	1,2,4-Trimethylbenzene	95-63-6	ID	6.20E+02	1.40E+01	NC	1.9E-01	4.6E-05	NC	4.6E-04	NC	4.2E-02	NC	4.2E-03	NC	7.9E+00	NC	1.9E-03	
Perimeter	Shallow	MW-10S	VOC	1,3,5-Trimethylbenzene	108-67-8	ID	1.60E+02	1.60E+01	NC	5.4E-02	1.1E-05	NC	1.5E-04	NC	1.7E-02	NC	8.1E-03	NC	2.3E+00	NC	6.1E-04	
Perimeter	Shallow	MW-10S	VOC	Xylenes (total)	1330-20-7	ID	1.25E+03	1.70E+01	NC	3.3E-02	3.3E-05	NC	7.6E-05	NC	6.9E-03	NC	2.7E-03	NC	1.4E+00	NC	3.2E-04	
Perimeter	Shallow	MW-11S	INORG	Barium	7440-39-3	NC	8.10E+01	1.10E+00	NC	NC	NC	NC	NC	NC	8.3E-06	NC	8.3E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-11S	INORG	Cobalt	7440-48-4	LC	5.80E-01	2.10E-02	NC	NC	NC	NC	NC	NC	4.8E-06	NC	4.8E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-11S	INORG	Copper	7440-50-8	D	1.10E+00	7.50E-01	NC	NC	NC	NC	NC	NC	8.9E-08	NC	8.9E-08	NC	NC	NC	NC	
Perimeter	Shallow	MW-11S	INORG	Manganese	7439-96-5	D	3.60E+00	1.10E+00	NC	NC	NC	NC	NC	NC	6.0E-07	NC	6.0E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-11S	INORG	Nickel	7440-02-0	A	1.20E+01	2.30E-01	NC	NC	NC	NC	NC	NC	5.0E-06	NC	5.0E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-11S	VOC	Chloroform	67-66-3	B2	2.60E-01	2.50E-01	3.9E-09	9.5E-06	4.3E-08	1.4E-11	3.5E-08	4.2E-10	2.8E-06	4.2E-11	2.5E-06	2.0E-07	4.0E-04	7.2E-11	1.5E-07	
Perimeter	Shallow	MW-12S	INORG	Antimony	7440-36-0	ID	1.80E-01	1.60E-01	NC	NC	NC	NC	NC	NC	4.8E-06	NC	4.8E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-12S	INORG	Barium	7440-39-3	NC	5.00E+01	1.10E+00	NC	NC	NC	NC	NC	NC	5.1E-06	NC	5.1E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-12S	INORG	Chromium III	16065-83-1	D	5.10E+01	2.00E-01	NC	NC	NC	NC	NC	NC	3.4E-06	NC	3.4E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-12S	INORG	Cobalt	7440-48-4	LC	2.60E-01	2.10E-02	NC	NC	NC	NC	NC	NC	2.1E-06	NC	2.1E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-12S	INORG	Copper	7440-50-8	D	2.70E+00	7.50E-01	NC	NC	NC	NC	NC	NC	2.2E-07	NC	2.2E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-12S	INORG	Manganese	7439-96-5	D	3.60E+00	1.10E+00	NC	NC	NC	NC	NC	NC	6.0E-07	NC	6.0E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-12S	INORG	Nickel	7440-02-0	A	4.10E+00	2.30E-01	NC	NC	NC	NC	NC	NC	1.7E-06	NC	1.7E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-13S	INORG	Antimony	7440-36-0	ID	2.40E-01	1.60E-01	NC	NC	NC	NC	NC	NC	6.3E-06	NC	6.3E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-13S	INORG	Barium	7440-39-3	NC	9.00E+01	1.10E+00	NC	NC	NC	NC	NC	NC	9.2E-06	NC	9.2E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-13S	INORG	Cadmium	7440-43-9	B1	1.00E-01	6.10E-02	NC	NC	NC	NC	NC	NC	5.6E-06	NC	5.6E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-13S	INORG	Chromium III	16065-83-1	D	4.09E+02	2.00E-01	NC	NC	NC	NC	NC	NC	2.8E-05	NC	2.8E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-13S	INORG	Cobalt	7440-48-4	LC	8.50E-01	2.10E-02	NC	NC	NC	NC	NC	NC	7.0E-06	NC	7.0E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-13S	INORG	Copper	7440-50-8	D	1.20E+01	7.50E-01	NC	NC	NC	NC	NC	NC	9.7E-07	NC	9.7E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-13S	INORG	Manganese	7439-96-5	D	7.20E+00	1.10E+00	NC	NC	NC	NC	NC	NC	1.2E-06	NC	1.2E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-13S	INORG	Nickel	7440-02-0	A	2.60E+01	2.30E-01	NC	NC	NC	NC	NC	NC	1.1E-05	NC	1.1E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-13S	INORG	Thallium	7440-28-0	ID	1.00E-01	7.40E-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
Perimeter	Shallow	MW-13S	SVOC	2,4-Dichlorophenol	120-83-2	ID	1.60E+00	1.80E-01	NC	NC	NC	NC	NC	NC	2.7E-05	NC	4.1E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-14S	INORG	Antimony	7440-36-0	ID	4.50E-01	1.60E-01	NC	NC	NC	NC	NC	NC	1.2E-05	NC	1.2E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-14S	INORG	Barium	7440-39-3	NC	7.60E+01	1.10E+00	NC	NC	NC	NC	NC	NC	7.8E-06	NC	7.8E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-14S	INORG	Cadmium	7440-43-9	B1	7.20E-02	6.10E-02	NC	NC	NC	NC	NC	NC	4.0E-06	NC	4.0E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-14S	INORG	Cobalt	7440-48-4	LC	6.90E-01	2.10E-02	NC	NC	NC	NC	NC	NC	5.7E-06	NC	5.7E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-14S	INORG	Copper	7440-50-8	D	7.90E-01	7.50E-01	NC	NC	NC	NC	NC	NC	6.4E-08	NC	6.4E-08	NC	NC	NC	NC	
Perimeter	Shallow	MW-14S	INORG	Manganese	7439-96-5	D	5.10E+00	1.10E+00	NC	NC	NC	NC	NC	NC	8.6E-07	NC	8.6E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-14S	INORG	Nickel	7440-02-0	A	2.60E+01	2.30E-01	NC	NC	NC	NC	NC	NC	1.1E-05	NC	1.1E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-14S	INORG	Thallium	7440-28-0	ID	2.70E-01	7.40E-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
Perimeter	Shallow	MW-15S	INORG	Barium	7440-39-3	NC	7.30E+01	1.10E+00	NC	NC	NC	NC	NC	NC	7.4E-06	NC	7.4E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-15S	INORG	Cobalt	7440-48-4	LC	2.10E-01	2.10E-02	NC	NC	NC	NC	NC	NC	1.7E-06	NC	1.7E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-15S	INORG	Copper	7440-50-8	D	8.30E-01	7.50E-01	NC	NC	NC	NC	NC	NC	6.7E-08	NC	6.7E-08	NC	NC	NC	NC	
Perimeter	Shallow	MW-15S	INORG	Manganese	7439-96-5	D	6.70E+00	1.10E+00	NC	NC	NC	NC	NC	NC	1.1E-06	NC	1.1E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-15S	INORG	Nickel	7440-02-0	A	1.30E+00	2.30E-01	NC	NC	NC	NC	NC	NC	5.5E-07	NC	5.5E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-16S	INORG	Barium	7440-39-3	NC	6.05E+01	1.10E+00	NC	NC	NC	NC	NC	NC	6.2E-06	NC	6.2E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-16S	INORG	Chromium III	16065-83-1	D	1.05E+00	2.00E-01	NC	NC	NC	NC	NC	NC	7.1E-08	NC	7.1E-08	NC	NC	NC	NC	
Perimeter	Shallow	MW-16S	INORG	Cobalt	7440-48-4	LC	1.60E+00	2.10E-02	NC	NC	NC	NC	NC	NC	1.3E-05	NC	1.3E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-16S	INORG	Manganese	7439-96-5	D	2.10E+01	1.10E+00	NC	NC	NC	NC	NC	NC	3.5E-06	NC	3.5E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-16S	INORG	Nickel	7440-02-0	A	2.35E+02	2.30E-01	NC	NC	NC	NC	NC	NC	9.9E-05	NC	9.9E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-16S	INORG	Selenium	7782-49-2	D	2.30E+00	2.50E-01	NC	NC	NC	NC	NC	NC	1.5E-06	NC	1.5E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-17S	INORG	Arsenic	7440-38-2	A	1.03E+01	1.80E-01	NC	NC	NC	NC	NC	7.1E-09	1.1E-04	7.1E-10	6.7E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-17S	INORG	Barium	7440-39-3	NC	9.20E+01	1.10E+00	NC	NC	NC	NC	NC	NC	9.4E-06	NC	9.4E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-17S	INORG	Beryllium	7440-41-7	B1	4.58E-02	5.30E-02	NC	NC	NC	NC	NC	NC	4.3E-06	NC	4.3E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-17S	INORG	Cadmium	7440-43-9	B1	5.63E-02	6.10E-02	NC	NC	NC	NC	NC	NC	3.1E-06	NC	3.1E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-17S	INORG	Chromium III	16065-83-1	D	1.05E+00	2.00E-01	NC	NC	NC	NC	NC	NC	7.1E-08	NC	7.1E-08	NC	NC	NC	NC	
Perimeter	Shallow	MW-17S	INORG	Chromium VI	18540-29-9	A	1.73E+00	2.10E+00	NC	NC	NC	NC	NC	1.3E-08	6.1E-05	1.3E-09	3.6E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-17S	INORG	Cobalt	7440-48-4	LC	1.35E+00	2.10E-02	NC	NC	NC	NC	NC	NC	1.1E-05	NC	1.1E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-17S	INORG	Manganese	7439-96-5	D	5.25E+02	1.10E+00	NC	NC	NC	NC	NC	NC	8.8E-05	NC	8.8E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-17S	INORG	Nickel	7440-02-0	A	2.50E+00	2.30E-01	NC	NC	NC	NC	NC	NC	1.1E-06	NC	1.1E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-17S	INORG	Zinc	7440-66-6	ID	8.33E+00	7.30E+00	NC	NC	NC	NC	NC	NC	7.6E-08	NC	7.6E-08	NC	NC	NC	NC	

Table 5.4

Upper-Bound Single-Chemical Cancer Risks and HQs and Occupation Ratios for Groundwater for Each Location  
Janesville Assembly Plant  
Janesville, Wisconsin

On/Off-site	Wellzone	Location	Chem Group	Chemical	CASRN	Wt	Max Detected (µg/L)	Max Limit (µg/L)	Industrial						Maintenance Worker		Construction Worker		Non-Industrial			
									Vapor Intrusion			Outdoor Air Inhalation			Groundwater Contact		Groundwater Contact		Vapor Intrusion		Outdoor Air Inhalation	
									Risk	HQ	Occ Ratio	Risk	HQ	Risk	HQ	Risk	HQ	Risk	HQ	Risk	HQ	Risk
Perimeter	Shallow	MW-18S	INORG	Barium	7440-39-3	NC	8.10E+01	1.10E+00	NC	NC	NC	NC	NC	NC	8.3E-06	NC	8.3E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-18S	INORG	Cobalt	7440-48-4	LC	1.20E-01	2.10E-02	NC	NC	NC	NC	NC	NC	9.9E-07	NC	9.9E-08	NC	NC	NC	NC	
Perimeter	Shallow	MW-18S	INORG	Manganese	7439-96-5	D	5.00E+00	1.10E+00	NC	NC	NC	NC	NC	NC	8.4E-07	NC	8.4E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-18S	INORG	Nickel	7440-02-0	A	5.20E-01	2.30E-01	NC	NC	NC	NC	NC	NC	2.2E-07	NC	2.2E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-18S	INORG	Zinc	7440-66-6	ID	7.50E+00	7.30E+00	NC	NC	NC	NC	NC	NC	6.8E-08	NC	6.8E-08	NC	NC	NC	NC	
Perimeter	Shallow	MW-18S	SVOC	Naphthalene	91-20-3	C	1.20E-01	6.00E-02	2.2E-10	6.0E-06	1.6E-09	3.5E-12	9.6E-08	2.0E-10	1.5E-05	2.0E-11	1.4E-05	1.1E-08	2.5E-04	1.9E-11	4.3E-07	
Perimeter	Shallow	MW-19S	INORG	Antimony	7440-36-0	ID	5.20E-01	1.60E-01	NC	NC	NC	NC	NC	NC	1.4E-05	NC	1.4E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-19S	INORG	Barium	7440-39-3	NC	7.20E+01	1.10E+00	NC	NC	NC	NC	NC	NC	7.3E-06	NC	7.3E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-19S	INORG	Beryllium	7440-41-7	B1	2.60E-01	5.30E-02	NC	NC	NC	NC	NC	NC	2.4E-05	NC	2.4E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-19S	INORG	Cadmium	7440-43-9	B1	4.20E-01	6.10E-02	NC	NC	NC	NC	NC	NC	2.3E-05	NC	2.3E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-19S	INORG	Cobalt	7440-48-4	LC	3.20E+00	2.10E-02	NC	NC	NC	NC	NC	NC	2.6E-05	NC	2.6E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-19S	INORG	Copper	7440-50-8	D	1.30E+00	7.50E-01	NC	NC	NC	NC	NC	NC	1.1E-07	NC	1.1E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-19S	INORG	Manganese	7439-96-5	D	3.90E+01	1.10E+00	NC	NC	NC	NC	NC	NC	6.5E-06	NC	6.5E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-19S	INORG	Nickel	7440-02-0	A	1.50E+02	2.30E-01	NC	NC	NC	NC	NC	NC	6.3E-05	NC	6.3E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-19S	INORG	Thallium	7440-28-0	ID	2.70E-01	7.40E-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
Perimeter	Shallow	MW-19S	INORG	Zinc	7440-66-6	ID	7.40E+00	7.30E+00	NC	NC	NC	NC	NC	NC	6.7E-08	NC	6.7E-08	NC	NC	NC	NC	
Perimeter	Shallow	MW-19S	VOC	Acetone	67-64-1	ID	1.10E+00	9.40E-01	NC	6.9E-10	3.9E-11	NC	5.6E-11	NC	9.5E-09	NC	7.7E-09	NC	2.9E-08	NC	2.8E-10	
Perimeter	Deep	MW-1D	INORG	Barium	7440-39-3	NC	3.50E+01	1.10E+00	NC	NC	NC	NC	NC	NC	3.6E-06	NC	3.6E-06	NC	NC	NC	NC	
Perimeter	Deep	MW-1D	INORG	Cobalt	7440-48-4	LC	1.20E-01	2.10E-02	NC	NC	NC	NC	NC	NC	9.9E-07	NC	9.9E-08	NC	NC	NC	NC	
Perimeter	Deep	MW-1D	INORG	Manganese	7439-96-5	D	2.00E+00	1.10E+00	NC	NC	NC	NC	NC	NC	3.4E-07	NC	3.4E-07	NC	NC	NC	NC	
Perimeter	Deep	MW-1D	INORG	Nickel	7440-02-0	A	8.90E+00	2.30E-01	NC	NC	NC	NC	NC	NC	3.7E-06	NC	3.7E-06	NC	NC	NC	NC	
Perimeter	Deep	MW-1D	INORG	Selenium	7782-49-2	D	4.20E-01	2.50E-01	NC	NC	NC	NC	NC	NC	2.7E-07	NC	2.7E-07	NC	NC	NC	NC	
Perimeter	Deep	MW-1D	SVOC	2,4-Dichlorophenol	120-83-2	ID	2.40E-01	1.90E-01	NC	NC	NC	NC	NC	NC	4.1E-06	NC	6.1E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-1S	INORG	Barium	7440-39-3	NC	5.80E+01	1.10E+00	NC	NC	NC	NC	NC	NC	5.9E-06	NC	5.9E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-1S	INORG	Cobalt	7440-48-4	LC	1.80E-01	2.10E-02	NC	NC	NC	NC	NC	NC	1.5E-06	NC	1.5E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-1S	INORG	Copper	7440-50-8	D	1.10E+00	7.50E-01	NC	NC	NC	NC	NC	NC	8.9E-08	NC	8.9E-08	NC	NC	NC	NC	
Perimeter	Shallow	MW-1S	INORG	Manganese	7439-96-5	D	2.40E+02	1.10E+00	NC	NC	NC	NC	NC	NC	4.0E-05	NC	4.0E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-1S	INORG	Nickel	7440-02-0	A	3.20E+00	2.30E-01	NC	NC	NC	NC	NC	NC	1.3E-06	NC	1.3E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-1S	INORG	Selenium	7782-49-2	D	6.20E-01	2.50E-01	NC	NC	NC	NC	NC	NC	4.0E-07	NC	4.0E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW2	INORG	Antimony	7440-36-0	ID	1.20E+00	1.60E-01	NC	NC	NC	NC	NC	NC	3.2E-05	NC	3.2E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW2	INORG	Barium	7440-39-3	NC	9.00E+01	1.10E+00	NC	NC	NC	NC	NC	NC	9.2E-06	NC	9.2E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW2	INORG	Beryllium	7440-41-7	B1	4.00E-01	5.30E-02	NC	NC	NC	NC	NC	NC	3.7E-05	NC	3.7E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW2	INORG	Cadmium	7440-43-9	B1	3.50E-01	6.10E-02	NC	NC	NC	NC	NC	NC	1.9E-05	NC	1.9E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW2	INORG	Cobalt	7440-48-4	LC	3.00E-01	2.10E-02	NC	NC	NC	NC	NC	NC	2.5E-06	NC	2.5E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW2	INORG	Manganese	7439-96-5	D	5.20E+00	1.10E+00	NC	NC	NC	NC	NC	NC	8.7E-07	NC	8.7E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW2	INORG	Nickel	7440-02-0	A	5.90E-01	2.30E-01	NC	NC	NC	NC	NC	NC	2.5E-07	NC	2.5E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW2	INORG	Thallium	7440-28-0	ID	1.80E-01	7.40E-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
Perimeter	Shallow	MW2	INORG	Zinc	7440-66-6	ID	7.50E+00	7.30E+00	NC	NC	NC	NC	NC	NC	6.8E-08	NC	6.8E-08	NC	NC	NC	NC	
Perimeter	Shallow	MW-20S	INORG	Antimony	7440-36-0	ID	9.30E-01	1.60E-01	NC	NC	NC	NC	NC	NC	2.5E-05	NC	2.5E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-20S	INORG	Barium	7440-39-3	NC	4.80E+01	1.10E+00	NC	NC	NC	NC	NC	NC	4.9E-06	NC	4.9E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-20S	INORG	Cadmium	7440-43-9	B1	7.10E-02	6.10E-02	NC	NC	NC	NC	NC	NC	3.9E-06	NC	3.9E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-20S	INORG	Cobalt	7440-48-4	LC	7.80E-02	2.10E-02	NC	NC	NC	NC	NC	NC	6.4E-07	NC	6.4E-08	NC	NC	NC	NC	
Perimeter	Shallow	MW-20S	INORG	Copper	7440-50-8	D	7.50E-01	7.50E-01	NC	NC	NC	NC	NC	NC	6.1E-08	NC	6.1E-08	NC	NC	NC	NC	
Perimeter	Shallow	MW-20S	INORG	Manganese	7439-96-5	D	2.40E+01	1.10E+00	NC	NC	NC	NC	NC	NC	4.0E-06	NC	4.0E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-20S	INORG	Nickel	7440-02-0	A	8.00E-01	2.30E-01	NC	NC	NC	NC	NC	NC	3.4E-07	NC	3.4E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-20S	INORG	Vanadium	7440-62-2	ID	7.50E+00	2.30E-01	NC	NC	NC	NC	NC	NC	7.7E-05	NC	3.9E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-21S	INORG	Barium	7440-39-3	NC	7.40E+01	1.10E+00	NC	NC	NC	NC	NC	NC	7.6E-06	NC	7.6E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-21S	INORG	Chromium III	16065-83-1	D	1.79E+02	2.00E-01	NC	NC	NC	NC	NC	NC	1.2E-05	NC	1.2E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-21S	INORG	Cobalt	7440-48-4	LC	1.50E+00	2.10E-02	NC	NC	NC	NC	NC	NC	1.2E-05	NC	1.2E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-21S	INORG	Copper	7440-50-8	D	7.20E+00	7.50E-01	NC	NC	NC	NC	NC	NC	5.8E-07	NC	5.8E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-21S	INORG	Manganese	7439-96-5	D	7.60E+00	1.10E+00	NC	NC	NC	NC	NC	NC	1.3E-06	NC	1.3E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-21S	INORG	Nickel	7440-02-0	A	7.80E+01	2.30E-01	NC	NC	NC	NC	NC	NC	3.3E-05	NC	3.3E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-21S	INORG	Zinc	7440-66-6	ID	8.80E+00	7.30E+00	NC	NC	NC	NC	NC	NC	8.0E-08	NC	8.0E-08	NC	NC	NC	NC	
Perimeter	Shallow	MW-21S	SVOC	Caprolactam	105-60-2		3.10E-01	2.20E-01	NC	NC	1.8E-13	NC	NC	NC	1.5E-09	NC	1.5E-09	NC	NC	NC	NC	
Perimeter	Shallow	MW-21S	SVOC	Phenol	108-95-2	ID	8.80E-01	6.50E-01	NC	NC	2.4E-11	NC	NC	NC	2.8E-08	NC	2.8E-08	NC	NC	NC	NC	
Perimeter	Shallow	MW-22S	INORG	Antimony	7440-36-0	ID	6.00E-01	1.60E-01	NC	NC	NC	NC	NC	NC	1.6E-05	NC	1.6E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-22S	INORG	Arsenic	7440-38-2	A	5.70E+00	1.80E-01	NC	NC	NC	NC	NC	4.0E-09	6.2E-05	4.0E-10	3.7E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-22S	INORG	Barium	7440-39-3	NC	5.90E+01	1.10E+00	NC	NC	NC	NC	NC	NC	6.0E-06	NC	6.0E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-22S	INORG	Beryllium	7440-41-7	B1	5.10E-01	5.30E-02	NC	NC	NC	NC	NC	NC	4.8E-05	NC	4.8E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-22S	INORG	Cadmium	7440-43-9	B1	3.30E-01	6.10E-02	NC	NC	NC	NC	NC	NC	1.8E-05	NC	1.8E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-22S	INORG	Chromium III	16065-83-1	D	5.59E+02	2.00E-01	NC	NC	NC	NC	NC	NC	3.8E-05	NC	3.8E-05	NC	NC	NC	NC	



Table 5.4

Upper-Bound Single-Chemical Cancer Risks and HQs and Occupation Ratios for Groundwater for Each Location  
 Janesville Assembly Plant  
 Janesville, Wisconsin

On/Off-site	Wellzone	Location	Chem Group	Chemical	CASRN	Wt	Max Detected (µg/L)	Max Limit (µg/L)	Industrial						Maintenance Worker		Construction Worker		Non-Industrial			
									Vapor Intrusion			Outdoor Air Inhalation			Groundwater Contact		Groundwater Contact		Vapor Intrusion		Outdoor Air Inhalation	
									Risk	HQ	Occ Ratio	Risk	HQ	Risk	HQ	Risk	HQ	Risk	HQ	Risk	HQ	Risk
Perimeter	Shallow	MW-22S	INORG	Cobalt	7440-48-4	LC	2.60E+00	2.10E-02	NC	NC	NC	NC	NC	NC	2.1E-05	NC	2.1E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-22S	INORG	Copper	7440-50-8	D	1.90E+01	7.50E-01	NC	NC	NC	NC	NC	NC	1.5E-06	NC	1.5E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-22S	INORG	Manganese	7439-96-5	D	5.50E+01	1.10E+00	NC	NC	NC	NC	NC	NC	9.2E-06	NC	9.2E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-22S	INORG	Nickel	7440-02-0	A	2.40E+01	2.30E-01	NC	NC	NC	NC	NC	NC	1.0E-05	NC	1.0E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-22S	INORG	Selenium	7782-49-2	D	3.00E+00	2.50E-01	NC	NC	NC	NC	NC	NC	1.9E-06	NC	1.9E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-22S	INORG	Silver	7440-22-4	D	3.60E-02	2.00E-02	NC	NC	NC	NC	NC	NC	1.5E-07	NC	1.5E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-22S	INORG	Thallium	7440-28-0	ID	2.10E-01	7.40E-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
Perimeter	Shallow	MW-22S	INORG	Vanadium	7440-62-2	ID	2.50E+01	2.30E-01	NC	NC	NC	NC	NC	NC	2.6E-04	NC	1.3E-04	NC	NC	NC	NC	
Perimeter	Shallow	MW-22S	INORG	Zinc	7440-66-6	ID	3.80E+01	7.30E+00	NC	NC	NC	NC	NC	NC	3.5E-07	NC	3.5E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-23S	INORG	Barium	7440-39-3	NC	3.80E+01	1.10E+00	NC	NC	NC	NC	NC	NC	3.9E-06	NC	3.9E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-23S	INORG	Cobalt	7440-48-4	LC	2.40E-01	2.10E-02	NC	NC	NC	NC	NC	NC	2.0E-06	NC	2.0E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-23S	INORG	Copper	7440-50-8	D	2.50E+00	7.50E-01	NC	NC	NC	NC	NC	NC	2.0E-07	NC	2.0E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-23S	INORG	Manganese	7439-96-5	D	1.10E+01	1.10E+00	NC	NC	NC	NC	NC	NC	1.8E-06	NC	1.8E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-23S	INORG	Nickel	7440-02-0	A	8.90E-01	2.30E-01	NC	NC	NC	NC	NC	NC	3.7E-07	NC	3.7E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-23S	INORG	Zinc	7440-66-6	ID	9.40E+00	7.30E+00	NC	NC	NC	NC	NC	NC	8.6E-08	NC	8.6E-08	NC	NC	NC	NC	
Perimeter	Intermediate	MW-2D	INORG	Barium	7440-39-3	NC	3.00E+01	1.10E+00	NC	NC	NC	NC	NC	NC	3.1E-06	NC	3.1E-06	NC	NC	NC	NC	
Perimeter	Intermediate	MW-2D	INORG	Beryllium	7440-41-7	B1	5.30E-02	5.30E-02	NC	NC	NC	NC	NC	NC	4.9E-06	NC	4.9E-06	NC	NC	NC	NC	
Perimeter	Intermediate	MW-2D	INORG	Cobalt	7440-48-4	LC	8.70E-02	2.10E-02	NC	NC	NC	NC	NC	NC	7.2E-07	NC	7.2E-08	NC	NC	NC	NC	
Perimeter	Intermediate	MW-2D	INORG	Nickel	7440-02-0	A	2.90E-01	2.30E-01	NC	NC	NC	NC	NC	NC	1.2E-07	NC	1.2E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-2S	INORG	Barium	7440-39-3	NC	7.00E+01	1.10E+00	NC	NC	NC	NC	NC	NC	7.1E-06	NC	7.1E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-2S	INORG	Beryllium	7440-41-7	B1	7.40E-02	5.30E-02	NC	NC	NC	NC	NC	NC	6.9E-06	NC	6.9E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-2S	INORG	Chromium III	16065-83-1	D	1.59E+02	2.00E-01	NC	NC	NC	NC	NC	NC	1.1E-05	NC	1.1E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-2S	INORG	Cobalt	7440-48-4	LC	1.30E+00	2.10E-02	NC	NC	NC	NC	NC	NC	1.1E-05	NC	1.1E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-2S	INORG	Copper	7440-50-8	D	5.70E+00	7.50E-01	NC	NC	NC	NC	NC	NC	4.6E-07	NC	4.6E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-2S	INORG	Manganese	7439-96-5	D	1.70E+01	1.10E+00	NC	NC	NC	NC	NC	NC	2.9E-06	NC	2.9E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-2S	INORG	Mercury	7439-97-6	D	1.50E-01	9.00E-02	NC	1.4E-03	7.1E-05	NC	2.0E-06	NC	2.0E-04	NC	1.9E-04	NC	5.7E-02	NC	8.3E-06	
Perimeter	Shallow	MW-2S	INORG	Nickel	7440-02-0	A	1.50E+01	2.30E-01	NC	NC	NC	NC	NC	NC	6.3E-06	NC	6.3E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-2S	SVOC	Caprolactam	105-60-2		2.90E-01	2.10E-01	NC	NC	1.7E-13	NC	NC	NC	1.4E-09	NC	1.4E-09	NC	NC	NC	NC	
Perimeter	Intermediate	MW-3D	INORG	Barium	7440-39-3	NC	8.25E+01	1.10E+00	NC	NC	NC	NC	NC	NC	8.4E-06	NC	8.4E-06	NC	NC	NC	NC	
Perimeter	Intermediate	MW-3D	INORG	Chromium III	16065-83-1	D	1.05E+00	2.00E-01	NC	NC	NC	NC	NC	NC	7.1E-08	NC	7.1E-08	NC	NC	NC	NC	
Perimeter	Intermediate	MW-3D	INORG	Cobalt	7440-48-4	LC	1.70E-01	2.10E-02	NC	NC	NC	NC	NC	NC	1.4E-06	NC	1.4E-07	NC	NC	NC	NC	
Perimeter	Intermediate	MW-3D	INORG	Copper	7440-50-8	D	1.08E+00	7.50E-01	NC	NC	NC	NC	NC	NC	8.8E-08	NC	8.8E-08	NC	NC	NC	NC	
Perimeter	Intermediate	MW-3D	INORG	Manganese	7439-96-5	D	3.30E+00	1.10E+00	NC	NC	NC	NC	NC	NC	5.5E-07	NC	5.5E-07	NC	NC	NC	NC	
Perimeter	Intermediate	MW-3D	INORG	Nickel	7440-02-0	A	6.00E-01	2.30E-01	NC	NC	NC	NC	NC	NC	2.5E-07	NC	2.5E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-3S	INORG	Barium	7440-39-3	NC	7.60E+01	1.10E+00	NC	NC	NC	NC	NC	NC	7.8E-06	NC	7.8E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-3S	INORG	Chromium III	16065-83-1	D	1.49E+02	2.00E-01	NC	NC	NC	NC	NC	NC	1.0E-05	NC	1.0E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-3S	INORG	Cobalt	7440-48-4	LC	9.00E-01	2.10E-02	NC	NC	NC	NC	NC	NC	7.4E-06	NC	7.4E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-3S	INORG	Copper	7440-50-8	D	5.60E+00	7.50E-01	NC	NC	NC	NC	NC	NC	4.5E-07	NC	4.5E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-3S	INORG	Manganese	7439-96-5	D	6.10E+00	1.10E+00	NC	NC	NC	NC	NC	NC	1.0E-06	NC	1.0E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-3S	INORG	Nickel	7440-02-0	A	1.00E+01	2.30E-01	NC	NC	NC	NC	NC	NC	4.2E-06	NC	4.2E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-3S	VOC	Bromodichloromethane	75-27-4	B2	5.00E-01	2.90E-01	NC	NC	NC	NC	NC	5.7E-11	3.2E-07	5.7E-12	1.0E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-3S	VOC	Chloroform	67-66-3	B2	6.80E-01	2.50E-01	1.0E-08	2.5E-05	1.1E-07	3.7E-11	9.1E-08	1.1E-09	7.5E-06	1.1E-10	6.6E-06	5.2E-07	1.0E-03	1.9E-10	3.8E-07	
Perimeter	Shallow	MW4	INORG	Arsenic	7440-38-2	A	2.60E+00	4.90E-01	NC	NC	NC	NC	NC	1.8E-09	2.8E-05	1.8E-10	1.7E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW4	INORG	Barium	7440-39-3	NC	1.10E+02	1.10E+00	NC	NC	NC	NC	NC	NC	1.1E-05	NC	1.1E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW4	INORG	Beryllium	7440-41-7	B1	1.30E-01	5.30E-02	NC	NC	NC	NC	NC	NC	1.2E-05	NC	1.2E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW4	INORG	Chromium III	16065-83-1	D	1.05E+00	6.00E-01	NC	NC	NC	NC	NC	NC	7.1E-08	NC	7.1E-08	NC	NC	NC	NC	
Perimeter	Shallow	MW4	INORG	Chromium VI	18540-29-9	A	6.20E+00	4.20E+00	NC	NC	NC	NC	NC	4.7E-08	2.2E-04	4.7E-09	1.3E-04	NC	NC	NC	NC	
Perimeter	Shallow	MW4	INORG	Cobalt	7440-48-4	LC	3.50E-01	2.10E-02	NC	NC	NC	NC	NC	NC	2.9E-06	NC	2.9E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW4	INORG	Manganese	7439-96-5	D	5.10E+02	1.10E+00	NC	NC	NC	NC	NC	NC	8.6E-05	NC	8.6E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW4	INORG	Nickel	7440-02-0	A	5.80E-01	2.30E-01	NC	NC	NC	NC	NC	NC	2.4E-07	NC	2.4E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW4	INORG	Selenium	7782-49-2	D	4.60E-01	2.50E-01	NC	NC	NC	NC	NC	NC	3.0E-07	NC	3.0E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW4	INORG	Thallium	7440-28-0	ID	1.90E-01	7.40E-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
Perimeter	Shallow	MW4	INORG	Vanadium	7440-62-2	ID	3.90E-01	2.30E-01	NC	NC	NC	NC	NC	NC	4.0E-06	NC	2.0E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW4	SVOC	Acenaphthene	83-32-9	ID	3.40E-01	4.50E-02	NC	NC	2.7E-07	NC	NC	NC	1.1E-06	NC	3.3E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW4	SVOC	1,1-Biphenyl	92-52-4	SC	8.40E-01	1.30E-01	NC	2.6E-05	4.6E-07	NC	4.2E-07	2.4E-10	6.9E-05	2.4E-11	6.6E-05	NC	1.1E-03	NC	1.9E-06	
Perimeter	Shallow	MW4	SVOC	Dibenzofuran	132-64-9	D	3.00E-01	2.00E-02	NC	NC	NC	NC	NC	NC	1.0E-04	NC	2.6E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW4	SVOC	2,4-Dimethylphenol	105-67-9	ID	2.80E-01	2.50E-01	NC	NC	NC	NC	NC	NC	3.5E-07	NC	1.4E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW4	SVOC	Fluorene	86-73-7	D	3.90E-01	4.10E-02	NC	NC	1.3E-07	NC	NC	NC	2.6E-06	NC	2.6E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW4	SVOC	2-Methylnaphthalene	91-57-6	ID	2.60E+01	9.10E-02	NC	NC	7.3E-06	NC	NC	NC	1.2E-03	NC	1.2E-03	NC	NC	NC	NC	
Perimeter	Shallow	MW4	SVOC	Naphthalene	91-20-3	C	4.80E+01	6.30E-02	8.7E-08	2.4E-03	6.3E-07	1.4E-09	3.9E-05	8.2E-08	5.9E-03	8.2E-09	5.6E-03	4.4E-06	1.0E-01	7.6E-09	1.7E-04	
Perimeter	Shallow	MW4	SVOC	Phenanthrene	85-01-8	D	1.30E-01	6.30E-02	NC	NC	8.8E-09	NC	NC	NC	1.6E-06	NC	1.6E-07	NC	NC	NC	NC	

Table 5.4

Upper-Bound Single-Chemical Cancer Risks and HQs and Occupation Ratios for Groundwater for Each Location  
 Janesville Assembly Plant  
 Janesville, Wisconsin

On/Off-site	Wellzone	Location	Chem Group	Chemical	CASRN	Wt	Max Detected (µg/L)	Max Limit (µg/L)	Industrial						Maintenance Worker		Construction Worker		Non-Industrial			
									Vapor Intrusion			Outdoor Air Inhalation			Groundwater Contact		Groundwater Contact		Vapor Intrusion		Outdoor Air Inhalation	
									Risk	HQ	Occ Ratio	Risk	HQ	Risk	HQ	Risk	HQ	Risk	HQ	Risk	HQ	Risk
Perimeter	Shallow	MW4	VOC	Cumene	98-82-8	D	9.10E+01	3.50E+00	NC	9.4E-04	6.7E-06	NC	1.2E-06	NC	2.3E-04	NC	1.4E-04	NC	3.9E-02	NC	5.1E-06	
Perimeter	Shallow	MW4	VOC	Cyclohexane	110-82-7	ID	3.10E+01	4.50E+00	NC	4.6E-04	1.2E-05	NC	5.3E-08	NC	3.0E-06	NC	3.0E-06	NC	1.9E-02	NC	2.2E-07	
Perimeter	Shallow	MW4	VOC	Ethyl Benzene	100-41-4	D	5.90E+01	2.50E+00	NC	1.8E-04	1.9E-06	NC	3.3E-07	NC	8.0E-05	NC	5.3E-05	NC	7.8E-03	NC	1.4E-06	
Perimeter	Shallow	MW4	VOC	Methylcyclohexane	108-87-2	ID	1.40E+01	4.30E+00	NC	9.1E-04	6.0E-06	NC	4.9E-08	NC	2.5E-06	NC	2.5E-06	NC	3.8E-02	NC	2.0E-07	
Perimeter	Shallow	MW4	VOC	1,2,4-Trimethylbenzene	95-63-6	ID	3.30E+02	4.10E+00	NC	1.0E-01	2.5E-05	NC	2.4E-04	NC	2.3E-02	NC	2.3E-03	NC	4.2E+00	NC	1.0E-03	
Perimeter	Shallow	MW4	VOC	1,3,5-Trimethylbenzene	108-67-8	ID	1.50E+02	4.80E+00	NC	5.1E-02	1.1E-05	NC	1.4E-04	NC	1.6E-02	NC	7.6E-03	NC	2.1E+00	NC	5.8E-04	
Perimeter	Shallow	MW4	VOC	Xylenes (total)	1330-20-7	ID	1.10E+02	5.20E+00	NC	2.9E-03	2.9E-06	NC	6.7E-06	NC	6.1E-04	NC	2.4E-04	NC	1.2E-01	NC	2.8E-05	
Perimeter	Deep	MW-4D	INORG	Barium	7440-39-3	NC	2.30E+00	1.10E+00	NC	NC	NC	NC	NC	NC	2.3E-07	NC	2.3E-07	NC	NC	NC	NC	
Perimeter	Deep	MW-4D	INORG	Nickel	7440-02-0	A	2.50E+00	2.30E-01	NC	NC	NC	NC	NC	NC	1.1E-06	NC	1.1E-06	NC	NC	NC	NC	
Perimeter	Deep	MW-4D	SVOC	Acetophenone	98-86-2	D	3.50E-01	3.40E-01	NC	NC	1.3E-10	NC	NC	NC	3.2E-08	NC	3.2E-09	NC	NC	NC	NC	
Perimeter	Deep	MW-4D	SVOC	Caprolactam	105-60-2		1.10E+00	2.00E-01	NC	NC	6.4E-13	NC	NC	NC	5.4E-09	NC	5.4E-09	NC	NC	NC	NC	
Perimeter	Deep	MW-4D	SVOC	2,4-Dichlorophenol	120-83-2	ID	2.00E-01	1.90E-01	NC	NC	NC	NC	NC	NC	3.4E-06	NC	5.1E-07	NC	NC	NC	NC	
Perimeter	Deep	MW-4D	SVOC	Phenol	108-95-2	ID	6.50E-01	6.00E-01	NC	NC	1.8E-11	NC	NC	NC	2.1E-08	NC	2.1E-08	NC	NC	NC	NC	
Perimeter	Deep	MW-4D	VOC	2-Butanone	78-93-3	ID	6.90E-01	5.30E-01	NC	4.5E-09	1.7E-10	NC	2.1E-10	NC	3.5E-08	NC	3.2E-08	NC	1.9E-07	NC	1.0E-09	
Perimeter	Deep	MW-4D	VOC	Carbon Disulfide	75-15-0		8.30E+00	3.80E-01	NC	1.9E-04	9.6E-06	NC	1.1E-07	NC	9.1E-06	NC	9.1E-06	NC	8.2E-03	NC	4.6E-07	
Perimeter	Deep	MW-4D	VOC	Toluene	108-88-3	ID	7.00E-01	2.30E-01	NC	4.0E-07	1.2E-08	NC	8.7E-10	NC	5.5E-07	NC	1.2E-07	NC	1.7E-05	NC	3.6E-09	
Perimeter	Shallow	MW-4S	INORG	Barium	7440-39-3	NC	6.20E+01	1.10E+00	NC	NC	NC	NC	NC	NC	6.3E-06	NC	6.3E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-4S	INORG	Manganese	7439-96-5	D	1.40E+00	1.10E+00	NC	NC	NC	NC	NC	NC	2.3E-07	NC	2.3E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-4S	INORG	Nickel	7440-02-0	A	5.50E+00	2.30E-01	NC	NC	NC	NC	NC	NC	2.3E-06	NC	2.3E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-4S	SVOC	Caprolactam	105-60-2		4.50E-01	1.90E-01	NC	NC	2.6E-13	NC	NC	NC	2.2E-09	NC	2.2E-09	NC	NC	NC	NC	
Perimeter	Intermediate	MW-5D	INORG	Antimony	7440-36-0	ID	1.90E-01	1.60E-01	NC	NC	NC	NC	NC	NC	5.0E-06	NC	5.0E-06	NC	NC	NC	NC	
Perimeter	Intermediate	MW-5D	INORG	Barium	7440-39-3	NC	7.50E+01	1.10E+00	NC	NC	NC	NC	NC	NC	7.7E-06	NC	7.7E-06	NC	NC	NC	NC	
Perimeter	Intermediate	MW-5D	INORG	Beryllium	7440-41-7	B1	1.30E-01	5.30E-02	NC	NC	NC	NC	NC	NC	1.2E-05	NC	1.2E-05	NC	NC	NC	NC	
Perimeter	Intermediate	MW-5D	INORG	Cadmium	7440-43-9	B1	1.50E-01	6.10E-02	NC	NC	NC	NC	NC	NC	8.3E-06	NC	8.3E-06	NC	NC	NC	NC	
Perimeter	Intermediate	MW-5D	INORG	Chromium III	16065-83-1	D	5.10E+01	2.00E-01	NC	NC	NC	NC	NC	NC	3.4E-06	NC	3.4E-06	NC	NC	NC	NC	
Perimeter	Intermediate	MW-5D	INORG	Cobalt	7440-48-4	LC	4.90E-01	2.10E-02	NC	NC	NC	NC	NC	NC	4.0E-06	NC	4.0E-07	NC	NC	NC	NC	
Perimeter	Intermediate	MW-5D	INORG	Copper	7440-50-8	D	2.60E+00	7.50E-01	NC	NC	NC	NC	NC	NC	2.1E-07	NC	2.1E-07	NC	NC	NC	NC	
Perimeter	Intermediate	MW-5D	INORG	Manganese	7439-96-5	D	2.40E+00	1.10E+00	NC	NC	NC	NC	NC	NC	4.0E-07	NC	4.0E-07	NC	NC	NC	NC	
Perimeter	Intermediate	MW-5D	INORG	Nickel	7440-02-0	A	8.20E+00	2.30E-01	NC	NC	NC	NC	NC	NC	3.5E-06	NC	3.5E-06	NC	NC	NC	NC	
Perimeter	Intermediate	MW-5D	INORG	Thallium	7440-28-0	ID	7.70E-02	7.40E-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
Perimeter	Shallow	MW-5S	INORG	Barium	7440-39-3	NC	6.80E+01	1.10E+00	NC	NC	NC	NC	NC	NC	6.9E-06	NC	6.9E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-5S	INORG	Beryllium	7440-41-7	B1	8.30E-02	5.30E-02	NC	NC	NC	NC	NC	NC	7.7E-06	NC	7.7E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-5S	INORG	Chromium III	16065-83-1	D	1.09E+02	2.00E-01	NC	NC	NC	NC	NC	NC	7.4E-06	NC	7.4E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-5S	INORG	Cobalt	7440-48-4	LC	9.20E-01	2.10E-02	NC	NC	NC	NC	NC	NC	7.6E-06	NC	7.6E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-5S	INORG	Copper	7440-50-8	D	5.50E+00	7.50E-01	NC	NC	NC	NC	NC	NC	4.5E-07	NC	4.5E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-5S	INORG	Manganese	7439-96-5	D	5.30E+00	1.10E+00	NC	NC	NC	NC	NC	NC	8.9E-07	NC	8.9E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-5S	INORG	Nickel	7440-02-0	A	1.10E+01	2.30E-01	NC	NC	NC	NC	NC	NC	4.6E-06	NC	4.6E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-5S	SVOC	Fluoranthene	206-44-0	D	1.10E-01	4.40E-02	NC	NC	6.3E-09	NC	NC	NC	2.3E-06	NC	2.3E-07	NC	NC	NC	NC	
Perimeter	Intermediate	MW-6D	INORG	Barium	7440-39-3	NC	6.25E+01	1.10E+00	NC	NC	NC	NC	NC	NC	6.4E-06	NC	6.4E-06	NC	NC	NC	NC	
Perimeter	Intermediate	MW-6D	INORG	Chromium III	16065-83-1	D	1.05E+00	2.00E-01	NC	NC	NC	NC	NC	NC	7.1E-08	NC	7.1E-08	NC	NC	NC	NC	
Perimeter	Intermediate	MW-6D	INORG	Cobalt	7440-48-4	LC	1.50E-01	2.10E-02	NC	NC	NC	NC	NC	NC	1.2E-06	NC	1.2E-07	NC	NC	NC	NC	
Perimeter	Intermediate	MW-6D	INORG	Copper	7440-50-8	D	6.08E-01	7.50E-01	NC	NC	NC	NC	NC	NC	4.9E-08	NC	4.9E-08	NC	NC	NC	NC	
Perimeter	Intermediate	MW-6D	INORG	Manganese	7439-96-5	D	1.65E+00	1.10E+00	NC	NC	NC	NC	NC	NC	2.8E-07	NC	2.8E-07	NC	NC	NC	NC	
Perimeter	Intermediate	MW-6D	INORG	Nickel	7440-02-0	A	5.40E-01	2.30E-01	NC	NC	NC	NC	NC	NC	2.3E-07	NC	2.3E-07	NC	NC	NC	NC	
Perimeter	Intermediate	MW-6D	INORG	Zinc	7440-66-6	ID	9.90E+00	7.30E+00	NC	NC	NC	NC	NC	NC	9.0E-08	NC	9.0E-08	NC	NC	NC	NC	
Perimeter	Intermediate	MW-6D	SVOC	Caprolactam	105-60-2		3.50E-01	2.00E-01	NC	NC	2.0E-13	NC	NC	NC	1.7E-09	NC	1.7E-09	NC	NC	NC	NC	
Perimeter	Shallow	MW-6S	INORG	Antimony	7440-36-0	ID	3.50E-01	1.60E-01	NC	NC	NC	NC	NC	NC	9.2E-06	NC	9.2E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-6S	INORG	Barium	7440-39-3	NC	1.80E+01	1.10E+00	NC	NC	NC	NC	NC	NC	1.8E-06	NC	1.8E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-6S	INORG	Beryllium	7440-41-7	B1	6.80E-02	5.30E-02	NC	NC	NC	NC	NC	NC	6.3E-06	NC	6.3E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-6S	INORG	Cobalt	7440-48-4	LC	1.20E-01	2.10E-02	NC	NC	NC	NC	NC	NC	9.9E-07	NC	9.9E-08	NC	NC	NC	NC	
Perimeter	Shallow	MW-6S	INORG	Nickel	7440-02-0	A	4.70E-01	2.30E-01	NC	NC	NC	NC	NC	NC	2.0E-07	NC	2.0E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-6S	INORG	Zinc	7440-66-6	ID	9.10E+00	7.30E+00	NC	NC	NC	NC	NC	NC	8.3E-08	NC	8.3E-08	NC	NC	NC	NC	
Perimeter	Shallow	MW-8S	INORG	Barium	7440-39-3	NC	7.50E+01	1.10E+00	NC	NC	NC	NC	NC	NC	7.7E-06	NC	7.7E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-8S	INORG	Chromium III	16065-83-1	D	2.50E+01	2.00E-01	NC	NC	NC	NC	NC	NC	1.7E-06	NC	1.7E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-8S	INORG	Cobalt	7440-48-4	LC	2.20E-01	2.10E-02	NC	NC	NC	NC	NC	NC	1.8E-06	NC	1.8E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-8S	INORG	Copper	7440-50-8	D	1.50E+00	7.50E-01	NC	NC	NC	NC	NC	NC	1.2E-07	NC	1.2E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-8S	INORG	Manganese	7439-96-5	D	1.10E+00	1.10E+00	NC	NC	NC	NC	NC	NC	1.8E-07	NC	1.8E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-8S	INORG	Nickel	7440-02-0	A	2.70E+00	2.30E-01	NC	NC	NC	NC	NC	NC	1.1E-06	NC	1.1E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-8S	INORG	Selenium	7782-49-2	D	6.00E-01	2.50E-01	NC	NC	NC	NC	NC	NC	3.9E-07	NC	3.9E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-8S	VOC	Bromodichloromethane	75-27-4	B2	4.30E-01	2.90E-01	NC	NC	NC	NC	NC	4.9E-11	2.8E-07	4.9E-12	8.7E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-8S	VOC	Chloroform	67-66-3	B2	3.70E-01	2.50E-01	5.6E-09	1.4E-05	6.1E-08	2.0E-11	4.9E-08	6.0E-10	4.1E-06	6.0E-11	3.6E-06	2.8E-07	5.7E-04	1.0E-10	2.1E-07	

Table 5.4

**Upper-Bound Single-Chemical Cancer Risks and HQs and Occupation Ratios for Groundwater for Each Location  
Janesville Assembly Plant  
Janesville, Wisconsin**

On/Off-site	Wellzone	Location	Chem Group	Chemical	CASRN	Wt	Max Detected (µg/L)	Max Limit (µg/L)	Industrial						Maintenance Worker		Construction Worker		Non-Industrial			
									Vapor Intrusion			Outdoor Air Inhalation			Groundwater Contact		Groundwater Contact		Vapor Intrusion		Outdoor Air Inhalation	
									Risk	HQ	Occ Ratio	Risk	HQ	Risk	HQ	Risk	HQ	Risk	HQ	Risk	HQ	Risk
Perimeter	Shallow	MW-9S	INORG	Antimony	7440-36-0	ID	5.40E-01	1.60E-01	NC	NC	NC	NC	NC	NC	1.4E-05	NC	1.4E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-9S	INORG	Barium	7440-39-3	NC	8.20E+01	1.10E+00	NC	NC	NC	NC	NC	NC	8.4E-06	NC	8.4E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-9S	INORG	Beryllium	7440-41-7	B1	3.50E-01	5.30E-02	NC	NC	NC	NC	NC	NC	3.3E-05	NC	3.3E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-9S	INORG	Cadmium	7440-43-9	B1	3.90E-01	6.10E-02	NC	NC	NC	NC	NC	NC	2.2E-05	NC	2.2E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-9S	INORG	Chromium III	16065-83-1	D	5.00E+01	2.00E-01	NC	NC	NC	NC	NC	NC	3.4E-06	NC	3.4E-06	NC	NC	NC	NC	
Perimeter	Shallow	MW-9S	INORG	Cobalt	7440-48-4	LC	6.50E-01	2.10E-02	NC	NC	NC	NC	NC	NC	5.4E-06	NC	5.4E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-9S	INORG	Copper	7440-50-8	D	2.50E+00	7.50E-01	NC	NC	NC	NC	NC	NC	2.0E-07	NC	2.0E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-9S	INORG	Manganese	7439-96-5	D	3.50E+00	1.10E+00	NC	NC	NC	NC	NC	NC	5.9E-07	NC	5.9E-07	NC	NC	NC	NC	
Perimeter	Shallow	MW-9S	INORG	Nickel	7440-02-0	A	3.10E+01	2.30E-01	NC	NC	NC	NC	NC	NC	1.3E-05	NC	1.3E-05	NC	NC	NC	NC	
Perimeter	Shallow	MW-9S	INORG	Thallium	7440-28-0	ID	1.20E-01	7.40E-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
Off-Site	Shallow	MW-26S	INORG	Barium	7440-39-3	NC	1.00E+02	1.10E+00	NC	NC	NC	NC	NC	NC	1.0E-05	NC	1.0E-05	NC	NC	NC	NC	
Off-Site	Shallow	MW-26S	INORG	Cobalt	7440-48-4	LC	1.20E-01	2.10E-02	NC	NC	NC	NC	NC	NC	9.9E-07	NC	9.9E-08	NC	NC	NC	NC	
Off-Site	Shallow	MW-26S	INORG	Copper	7440-50-8	D	9.40E-01	7.50E-01	NC	NC	NC	NC	NC	NC	7.6E-08	NC	7.6E-08	NC	NC	NC	NC	
Off-Site	Shallow	MW-26S	INORG	Manganese	7439-96-5	D	4.00E+00	1.10E+00	NC	NC	NC	NC	NC	NC	6.7E-07	NC	6.7E-07	NC	NC	NC	NC	
Off-Site	Shallow	MW-26S	INORG	Nickel	7440-02-0	A	4.90E-01	2.30E-01	NC	NC	NC	NC	NC	NC	2.1E-07	NC	2.1E-07	NC	NC	NC	NC	
Off-Site	Shallow	MW-27S	INORG	Barium	7440-39-3	NC	9.60E+01	1.10E+00	NC	NC	NC	NC	NC	NC	9.8E-06	NC	9.8E-06	NC	NC	NC	NC	
Off-Site	Shallow	MW-27S	INORG	Cobalt	7440-48-4	LC	1.30E-01	2.10E-02	NC	NC	NC	NC	NC	NC	1.1E-06	NC	1.1E-07	NC	NC	NC	NC	
Off-Site	Shallow	MW-27S	INORG	Nickel	7440-02-0	A	4.80E-01	2.30E-01	NC	NC	NC	NC	NC	NC	2.0E-07	NC	2.0E-07	NC	NC	NC	NC	

Notes:  
 The concentrations for the Xylene isomers (m/p and o) were summed to Xylenes (total).  
 Chem Group - chemical group  
 Carc Class - USEPA Weight-of-Evidence Cancer Classification  
 NC - Risk estimates could not be calculated since either no toxicity value exists for the detected constituents at this location or no constituents were detected above background concentrations in this area.  
 NA - Based on depth and/or location of the groundwater sampling locations(s), the receptor is not exposed to contamination via the indicated pathway.  
 E<sub>m</sub> - Occupational Equivalent Mixtures  
 Risk estimates were calculated using groundwater data collected in 2015.

# Appendices



# Appendix A

## Laboratory Analytical Reports

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-48687-1

Client Project/Site: 58505, Janesville WI, SSOW 108011

For:

Conestoga-Rovers & Associates, Inc.

45 Farmington Valley Drive

Plainville, Connecticut 06062

Attn: Ms. Kathy Shaw



Authorized for release by:

4/6/2015 10:35:01 AM

Denise Heckler, Project Manager II

(330)966-9477

[denise.heckler@testamericainc.com](mailto:denise.heckler@testamericainc.com)



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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery exceeds the control limits
E	Result exceeded calibration range.

### GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD Recovery exceeds the control limits

### Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

### General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)



# Case Narrative

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

**Job ID: 240-48687-1**

**Laboratory: TestAmerica Canton**

Narrative

## CASE NARRATIVE

**Client: Conestoga-Rovers & Associates, Inc.**

**Project: 58505, Janesville WI, SSOW 108011**

**Report Number: 240-48687-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

### **RECEIPT**

The samples were received on 03/27/2015; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.5° C and 4.1° C.

### **VOLATILE ORGANIC COMPOUNDS (GCMS)**

Samples GW-032615-JK-01 (240-48687-1), GW-032615-JK-02 (240-48687-2), GW-032615-JK-03 (240-48687-3) and TRIP BLANK (240-48687-4) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 03/31/2015 and 04/01/2015.

Acetone was detected in method blank MB 240-174499/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Isopropylbenzene failed the recovery criteria high for the MS of sample GW-032615-JK-03MS (240-48687-3) in batch 240-174499.

Isopropylbenzene and m-Xylene & p-Xylene failed the recovery criteria high for the MSD of sample GW-032615-JK-03MSD (240-48687-3) in batch 240-174499.

Samples GW-032615-JK-01 (240-48687-1)[33.33X], GW-032615-JK-02 (240-48687-2)[33.33X] and GW-032615-JK-03 (240-48687-3)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

# Case Narrative

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

## Job ID: 240-48687-1 (Continued)

### Laboratory: TestAmerica Canton (Continued)

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

#### SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples GW-032615-JK-01 (240-48687-1), GW-032615-JK-02 (240-48687-2) and GW-032615-JK-03 (240-48687-3) were analyzed for semivolatle organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 03/30/2015 and analyzed on 03/31/2015 and 04/01/2015.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Hexachloroethane failed the recovery criteria low for the MS/MSD of sample GW-032615-JK-03MS (240-48687-3) in batch 240-174429. Benzaldehyde failed the recovery criteria high.

Samples GW-032615-JK-01 (240-48687-1)[4X] and GW-032615-JK-02 (240-48687-2)[4X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

#### DISSOLVED METALS (ICPMS)

Samples GW-032615-JK-01 (240-48687-1), GW-032615-JK-02 (240-48687-2) and GW-032615-JK-03 (240-48687-3) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 03/30/2015 and analyzed on 03/31/2015.

Some requested practical quantitation limits (PQLs) on the following samples fall below the laboratory's verified standard quantitation limit: GW-032615-JK-01 (240-48687-1), GW-032615-JK-02 (240-48687-2), GW-032615-JK-03 (240-48687-3). The continuing calibration blanks and method blanks may not support the lower PQL.

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

#### TOTAL RECOVERABLE METALS (ICPMS)

Samples GW-032615-JK-01 (240-48687-1), GW-032615-JK-02 (240-48687-2) and GW-032615-JK-03 (240-48687-3) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 03/30/2015 and analyzed on 03/31/2015.

Arsenic, Beryllium, Cadmium, Chromium and Copper were detected in method blank MB 240-174257/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Some requested practical quantitation limits (PQLs) on the following samples fall below the laboratory's verified standard quantitation limit: GW-032615-JK-01 (240-48687-1), GW-032615-JK-02 (240-48687-2), GW-032615-JK-03 (240-48687-3). The continuing calibration blanks and method blanks may not support the lower PQL.

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

#### HEXAVALENT CHROMIUM

Samples GW-032615-JK-01 (240-48687-1), GW-032615-JK-02 (240-48687-2) and GW-032615-JK-03 (240-48687-3) were analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples were analyzed on 03/27/2015.

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

#### DISSOLVED MERCURY (CVAA)

Samples GW-032615-JK-01 (240-48687-1), GW-032615-JK-02 (240-48687-2) and GW-032615-JK-03 (240-48687-3) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 03/31/2015.

# Case Narrative

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

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## Job ID: 240-48687-1 (Continued)

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### Laboratory: TestAmerica Canton (Continued)

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

#### TOTAL MERCURY

Samples GW-032615-JK-01 (240-48687-1), GW-032615-JK-02 (240-48687-2) and GW-032615-JK-03 (240-48687-3) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 03/31/2015.

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

#### TRIVALENT CHROMIUM

Samples GW-032615-JK-01 (240-48687-1), GW-032615-JK-02 (240-48687-2) and GW-032615-JK-03 (240-48687-3) were analyzed for trivalent chromium in accordance with EPA SW-846 Method 7196A\_CR3. The samples were analyzed on 04/02/2015.

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

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# Method Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
6020	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
7196A	Chromium, Hexavalent	SW846	TAL CAN
7196A	Chromium, Trivalent (Colorimetric)	SW846	TAL CAN

**Protocol References:**

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

**Laboratory References:**

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396





# Sample Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-48687-1	GW-032615-JK-01	Water	03/26/15 11:05	03/27/15 09:30
240-48687-2	GW-032615-JK-02	Water	03/26/15 11:35	03/27/15 09:30
240-48687-3	GW-032615-JK-03	Water	03/26/15 12:55	03/27/15 09:30
240-48687-4	TRIP BLANK	Water	03/26/15 00:00	03/27/15 09:30

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# Detection Summary

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

**Client Sample ID: GW-032615-JK-01**

**Lab Sample ID: 240-48687-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	610		33	14	ug/L	33.33		8260B	Total/NA
Ethylbenzene	410		33	8.3	ug/L	33.33		8260B	Total/NA
1,3,5-Trimethylbenzene	160		33	16	ug/L	33.33		8260B	Total/NA
Xylenes, Total	1300		67	17	ug/L	33.33		8260B	Total/NA
Cyclohexane	74		33	15	ug/L	33.33		8260B	Total/NA
Isopropylbenzene	29	J	33	12	ug/L	33.33		8260B	Total/NA
Methylcyclohexane	21	J	33	14	ug/L	33.33		8260B	Total/NA
Acenaphthene	0.11	J	5.0	0.044	ug/L	1		8270C	Total/NA
1,1'-Biphenyl	0.26	J	5.0	0.13	ug/L	1		8270C	Total/NA
2-Methylnaphthalene	18		5.0	0.090	ug/L	1		8270C	Total/NA
2,4-Dimethylphenol	3.9	J	5.0	0.25	ug/L	1		8270C	Total/NA
Fluorene	0.12	J	5.0	0.040	ug/L	1		8270C	Total/NA
Naphthalene - RA	98		20	0.25	ug/L	4		8270C	Total/NA
Antimony	0.57	J	2.0	0.16	ug/L	1		6020	Total
Arsenic	1.3	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	120		100	1.1	ug/L	1		6020	Total Recoverable
Beryllium	0.79	J B	1.0	0.053	ug/L	1		6020	Total Recoverable
Cadmium	0.46	J B	1.0	0.061	ug/L	1		6020	Total Recoverable
Cobalt	0.29	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	1.6	J B	5.0	0.20	ug/L	1		6020	Total Recoverable
Manganese	440		15	1.1	ug/L	1		6020	Total Recoverable
Nickel	1.2	J	20	0.23	ug/L	1		6020	Total Recoverable
Lead	0.15	J	3.0	0.11	ug/L	1		6020	Total Recoverable
Selenium	0.83	J	5.0	0.25	ug/L	1		6020	Total Recoverable
Thallium	0.25	J	1.0	0.074	ug/L	1		6020	Total Recoverable
Vanadium	0.48	J	4.0	0.23	ug/L	1		6020	Total Recoverable
Arsenic	1.4	J B	5.0	0.18	ug/L	1		6020	Dissolved
Beryllium	0.50	J B	1.0	0.053	ug/L	1		6020	Dissolved
Cadmium	0.21	J B	1.0	0.061	ug/L	1		6020	Dissolved
Cobalt	0.19	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	1.3	J B	5.0	0.20	ug/L	1		6020	Dissolved
Manganese	460		15	1.1	ug/L	1		6020	Dissolved
Nickel	0.88	J	20	0.23	ug/L	1		6020	Dissolved
Antimony	0.21	J	2.0	0.16	ug/L	1		6020	Dissolved
Selenium	0.80	J	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	0.30	J	4.0	0.23	ug/L	1		6020	Dissolved
Barium	120		100	1.1	ug/L	1		6020	Dissolved

**Client Sample ID: GW-032615-JK-02**

**Lab Sample ID: 240-48687-2**

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

## Detection Summary

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

**Client Sample ID: GW-032615-JK-02 (Continued)**

**Lab Sample ID: 240-48687-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	44	J B	330	31	ug/L	33.33		8260B	Total/NA
1,2,4-Trimethylbenzene	630		33	14	ug/L	33.33		8260B	Total/NA
Ethylbenzene	410		33	8.3	ug/L	33.33		8260B	Total/NA
1,3,5-Trimethylbenzene	160		33	16	ug/L	33.33		8260B	Total/NA
Xylenes, Total	1200		67	17	ug/L	33.33		8260B	Total/NA
Cyclohexane	76		33	15	ug/L	33.33		8260B	Total/NA
Isopropylbenzene	29	J	33	12	ug/L	33.33		8260B	Total/NA
Methylcyclohexane	22	J	33	14	ug/L	33.33		8260B	Total/NA
1,1'-Biphenyl	0.27	J	4.8	0.12	ug/L	1		8270C	Total/NA
2-Methylnaphthalene	18		4.8	0.086	ug/L	1		8270C	Total/NA
2,4-Dimethylphenol	2.9	J	4.8	0.24	ug/L	1		8270C	Total/NA
Fluorene	0.13	J	4.8	0.039	ug/L	1		8270C	Total/NA
Naphthalene - RA	89		19	0.24	ug/L	4		8270C	Total/NA
Arsenic	1.3	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	120		100	1.1	ug/L	1		6020	Total Recoverable
Beryllium	0.36	J B	1.0	0.053	ug/L	1		6020	Total Recoverable
Cadmium	0.14	J B	1.0	0.061	ug/L	1		6020	Total Recoverable
Cobalt	0.18	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	1.5	J B	5.0	0.20	ug/L	1		6020	Total Recoverable
Manganese	430		15	1.1	ug/L	1		6020	Total Recoverable
Nickel	1.1	J	20	0.23	ug/L	1		6020	Total Recoverable
Selenium	0.66	J	5.0	0.25	ug/L	1		6020	Total Recoverable
Vanadium	0.32	J	4.0	0.23	ug/L	1		6020	Total Recoverable
Arsenic	1.3	J B	5.0	0.18	ug/L	1		6020	Dissolved
Beryllium	0.32	J B	1.0	0.053	ug/L	1		6020	Dissolved
Cadmium	0.13	J B	1.0	0.061	ug/L	1		6020	Dissolved
Cobalt	0.18	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	1.4	J B	5.0	0.20	ug/L	1		6020	Dissolved
Manganese	460		15	1.1	ug/L	1		6020	Dissolved
Nickel	1.0	J	20	0.23	ug/L	1		6020	Dissolved
Selenium	0.70	J	5.0	0.25	ug/L	1		6020	Dissolved
Barium	120		100	1.1	ug/L	1		6020	Dissolved

**Client Sample ID: GW-032615-JK-03**

**Lab Sample ID: 240-48687-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	160		5.0	2.1	ug/L	5		8260B	Total/NA
Ethylbenzene	31		5.0	1.3	ug/L	5		8260B	Total/NA
1,3,5-Trimethylbenzene	88		5.0	2.4	ug/L	5		8260B	Total/NA
Xylenes, Total	97		10	2.6	ug/L	5		8260B	Total/NA
Cyclohexane	31		5.0	2.3	ug/L	5		8260B	Total/NA
Isopropylbenzene	57	F1	5.0	1.8	ug/L	5		8260B	Total/NA
Methylcyclohexane	14		5.0	2.2	ug/L	5		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

**Client Sample ID: GW-032615-JK-03 (Continued)**

**Lab Sample ID: 240-48687-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.56	J	4.8	0.12	ug/L	1		8270C	Total/NA
2-Methylnaphthalene	19		4.8	0.086	ug/L	1		8270C	Total/NA
Dibenzofuran	0.18	J	3.8	0.019	ug/L	1		8270C	Total/NA
Fluorene	0.23	J	4.8	0.039	ug/L	1		8270C	Total/NA
Naphthalene	21		4.8	0.060	ug/L	1		8270C	Total/NA
Antimony	0.47	J	2.0	0.16	ug/L	1		6020	Total Recoverable
Arsenic	1.6	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	100		100	1.1	ug/L	1		6020	Total Recoverable
Beryllium	0.41	J B	1.0	0.053	ug/L	1		6020	Total Recoverable
Cadmium	0.35	J B	1.0	0.061	ug/L	1		6020	Total Recoverable
Cobalt	0.35	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	1.4	J B	5.0	0.20	ug/L	1		6020	Total Recoverable
Copper	0.84	J B	2.0	0.75	ug/L	1		6020	Total Recoverable
Manganese	470		15	1.1	ug/L	1		6020	Total Recoverable
Nickel	0.55	J	20	0.23	ug/L	1		6020	Total Recoverable
Lead	0.15	J	3.0	0.11	ug/L	1		6020	Total Recoverable
Selenium	0.33	J	5.0	0.25	ug/L	1		6020	Total Recoverable
Thallium	0.19	J	1.0	0.074	ug/L	1		6020	Total Recoverable
Vanadium	0.39	J	4.0	0.23	ug/L	1		6020	Total Recoverable
Arsenic	1.9	J B	5.0	0.18	ug/L	1		6020	Dissolved
Beryllium	0.51	J B	1.0	0.053	ug/L	1		6020	Dissolved
Cadmium	0.25	J B	1.0	0.061	ug/L	1		6020	Dissolved
Cobalt	0.28	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	1.3	J B	5.0	0.20	ug/L	1		6020	Dissolved
Manganese	500		15	1.1	ug/L	1		6020	Dissolved
Nickel	0.44	J	20	0.23	ug/L	1		6020	Dissolved
Antimony	0.23	J	2.0	0.16	ug/L	1		6020	Dissolved
Selenium	0.46	J	5.0	0.25	ug/L	1		6020	Dissolved
Barium	110		100	1.1	ug/L	1		6020	Dissolved

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 240-48687-4**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	9.7	J	10	0.94	ug/L	1		8260B	Total/NA
Methylene Chloride	1.5		1.0	0.33	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton



# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

**Client Sample ID: GW-032615-JK-01**

**Lab Sample ID: 240-48687-1**

**Date Collected: 03/26/15 11:05**

**Matrix: Water**

**Date Received: 03/27/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	330	U	330	31	ug/L			03/31/15 14:56	33.33
Benzene	33	U	33	12	ug/L			03/31/15 14:56	33.33
Dichlorobromomethane	33	U	33	9.7	ug/L			03/31/15 14:56	33.33
Bromoform	33	U	33	19	ug/L			03/31/15 14:56	33.33
Bromomethane	33	U	33	15	ug/L			03/31/15 14:56	33.33
2-Butanone (MEK)	330	U	330	18	ug/L			03/31/15 14:56	33.33
Carbon disulfide	33	U	33	13	ug/L			03/31/15 14:56	33.33
Carbon tetrachloride	33	U	33	14	ug/L			03/31/15 14:56	33.33
Chlorobenzene	33	U	33	8.3	ug/L			03/31/15 14:56	33.33
Chloroethane	33	U	33	11	ug/L			03/31/15 14:56	33.33
Chloroform	33	U	33	8.3	ug/L			03/31/15 14:56	33.33
Chloromethane	33	U	33	15	ug/L			03/31/15 14:56	33.33
1,1-Dichloroethane	33	U	33	10	ug/L			03/31/15 14:56	33.33
1,2-Dichloroethane	33	U	33	7.7	ug/L			03/31/15 14:56	33.33
1,1-Dichloroethene	33	U	33	15	ug/L			03/31/15 14:56	33.33
1,2-Dichloropropane	33	U	33	8.3	ug/L			03/31/15 14:56	33.33
<b>1,2,4-Trimethylbenzene</b>	<b>610</b>		33	14	ug/L			03/31/15 14:56	33.33
cis-1,3-Dichloropropene	33	U	33	15	ug/L			03/31/15 14:56	33.33
trans-1,3-Dichloropropene	33	U	33	19	ug/L			03/31/15 14:56	33.33
<b>Ethylbenzene</b>	<b>410</b>		33	8.3	ug/L			03/31/15 14:56	33.33
2-Hexanone	330	U	330	16	ug/L			03/31/15 14:56	33.33
Methylene Chloride	33	U	33	11	ug/L			03/31/15 14:56	33.33
4-Methyl-2-pentanone (MIBK)	330	U	330	33	ug/L			03/31/15 14:56	33.33
Styrene	33	U	33	15	ug/L			03/31/15 14:56	33.33
1,1,2,2-Tetrachloroethane	33	U	33	7.3	ug/L			03/31/15 14:56	33.33
Tetrachloroethene	33	U	33	10	ug/L			03/31/15 14:56	33.33
Toluene	33	U	33	7.7	ug/L			03/31/15 14:56	33.33
Trichloroethene	33	U	33	7.3	ug/L			03/31/15 14:56	33.33
<b>1,3,5-Trimethylbenzene</b>	<b>160</b>		33	16	ug/L			03/31/15 14:56	33.33
Vinyl chloride	33	U	33	9.7	ug/L			03/31/15 14:56	33.33
<b>Xylenes, Total</b>	<b>1300</b>		67	17	ug/L			03/31/15 14:56	33.33
1,1,1-Trichloroethane	33	U	33	15	ug/L			03/31/15 14:56	33.33
1,1,2-Trichloroethane	33	U	33	8.0	ug/L			03/31/15 14:56	33.33
<b>Cyclohexane</b>	<b>74</b>		33	15	ug/L			03/31/15 14:56	33.33
1,2-Dibromo-3-Chloropropane	67	U	67	27	ug/L			03/31/15 14:56	33.33
Ethylene Dibromide	33	U	33	11	ug/L			03/31/15 14:56	33.33
Dichlorodifluoromethane	33	U	33	11	ug/L			03/31/15 14:56	33.33
cis-1,2-Dichloroethene	33	U	33	8.7	ug/L			03/31/15 14:56	33.33
trans-1,2-Dichloroethene	33	U	33	10	ug/L			03/31/15 14:56	33.33
<b>Isopropylbenzene</b>	<b>29</b>	<b>J</b>	33	12	ug/L			03/31/15 14:56	33.33
Methyl acetate	330	U	330	76	ug/L			03/31/15 14:56	33.33
Methyl tert-butyl ether	33	U	33	6.7	ug/L			03/31/15 14:56	33.33
1,1,2-Trichloro-1,2,2-trifluoroethane	33	U	33	15	ug/L			03/31/15 14:56	33.33
1,2,4-Trichlorobenzene	33	U	33	11	ug/L			03/31/15 14:56	33.33
1,2-Dichlorobenzene	33	U	33	8.3	ug/L			03/31/15 14:56	33.33
1,3-Dichlorobenzene	33	U	33	6.3	ug/L			03/31/15 14:56	33.33
1,4-Dichlorobenzene	33	U	33	9.0	ug/L			03/31/15 14:56	33.33
Trichlorofluoromethane	33	U	33	16	ug/L			03/31/15 14:56	33.33
Chlorodibromomethane	33	U	33	14	ug/L			03/31/15 14:56	33.33

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

**Client Sample ID: GW-032615-JK-01**

**Lab Sample ID: 240-48687-1**

Date Collected: 03/26/15 11:05

Matrix: Water

Date Received: 03/27/15 09:30

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Methylcyclohexane</b>	<b>21</b>	<b>J</b>	33	14	ug/L			03/31/15 14:56	33.33
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	92		63 - 129					03/31/15 14:56	33.33
4-Bromofluorobenzene (Surr)	98		66 - 120					03/31/15 14:56	33.33
Toluene-d8 (Surr)	96		74 - 120					03/31/15 14:56	33.33
Dibromofluoromethane (Surr)	91		75 - 121					03/31/15 14:56	33.33

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acenaphthene</b>	<b>0.11</b>	<b>J</b>	5.0	0.044	ug/L		03/30/15 08:43	04/01/15 11:57	1
Acenaphthylene	5.0	U	5.0	0.048	ug/L		03/30/15 08:43	04/01/15 11:57	1
Acetophenone	5.0	U	5.0	0.34	ug/L		03/30/15 08:43	04/01/15 11:57	1
Anthracene	5.0	U	5.0	0.087	ug/L		03/30/15 08:43	04/01/15 11:57	1
Atrazine	3.0	U	3.0	0.34	ug/L		03/30/15 08:43	04/01/15 11:57	1
Benzaldehyde	5.0	U	5.0	0.39	ug/L		03/30/15 08:43	04/01/15 11:57	1
Benzo[a]anthracene	0.99	U	0.99	0.029	ug/L		03/30/15 08:43	04/01/15 11:57	1
Benzo[b]fluoranthene	0.99	U	0.99	0.039	ug/L		03/30/15 08:43	04/01/15 11:57	1
Benzo[k]fluoranthene	0.99	U	0.99	0.044	ug/L		03/30/15 08:43	04/01/15 11:57	1
Benzo[g,h,i]perylene	0.99	U	0.99	0.046	ug/L		03/30/15 08:43	04/01/15 11:57	1
Benzo[a]pyrene	0.99	U	0.99	0.051	ug/L		03/30/15 08:43	04/01/15 11:57	1
Butyl benzyl phthalate	5.0	U	5.0	0.26	ug/L		03/30/15 08:43	04/01/15 11:57	1
<b>1,1'-Biphenyl</b>	<b>0.26</b>	<b>J</b>	5.0	0.13	ug/L		03/30/15 08:43	04/01/15 11:57	1
Bis(2-chloroethoxy)methane	5.0	U	5.0	0.32	ug/L		03/30/15 08:43	04/01/15 11:57	1
Bis(2-chloroethyl)ether	0.99	U	0.99	0.099	ug/L		03/30/15 08:43	04/01/15 11:57	1
Bis(2-ethylhexyl) phthalate	5.0	U	5.0	1.7	ug/L		03/30/15 08:43	04/01/15 11:57	1
4-Bromophenyl phenyl ether	5.0	U	5.0	0.22	ug/L		03/30/15 08:43	04/01/15 11:57	1
Caprolactam	9.9	U	9.9	0.20	ug/L		03/30/15 08:43	04/01/15 11:57	1
Carbazole	9.9	U	9.9	0.28	ug/L		03/30/15 08:43	04/01/15 11:57	1
4-Chloroaniline	9.9	U	9.9	0.21	ug/L		03/30/15 08:43	04/01/15 11:57	1
4-Chloro-3-methylphenol	5.0	U	5.0	0.21	ug/L		03/30/15 08:43	04/01/15 11:57	1
2-Chloronaphthalene	5.0	U	5.0	0.099	ug/L		03/30/15 08:43	04/01/15 11:57	1
2-Chlorophenol	5.0	U	5.0	0.29	ug/L		03/30/15 08:43	04/01/15 11:57	1
4-Chlorophenyl phenyl ether	5.0	U	5.0	0.30	ug/L		03/30/15 08:43	04/01/15 11:57	1
Chrysene	0.99	U	0.99	0.050	ug/L		03/30/15 08:43	04/01/15 11:57	1
<b>2-Methylnaphthalene</b>	<b>18</b>		5.0	0.090	ug/L		03/30/15 08:43	04/01/15 11:57	1
3 & 4 Methylphenol	5.0	U	5.0	0.79	ug/L		03/30/15 08:43	04/01/15 11:57	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.044	ug/L		03/30/15 08:43	04/01/15 11:57	1
Dibenzofuran	4.0	U	4.0	0.020	ug/L		03/30/15 08:43	04/01/15 11:57	1
3,3'-Dichlorobenzidine	0.99	U	0.99	0.37	ug/L		03/30/15 08:43	04/01/15 11:57	1
2,4-Dichlorophenol	9.9	U	9.9	0.19	ug/L		03/30/15 08:43	04/01/15 11:57	1
Diethyl phthalate	5.0	U	5.0	0.59	ug/L		03/30/15 08:43	04/01/15 11:57	1
<b>2,4-Dimethylphenol</b>	<b>3.9</b>	<b>J</b>	5.0	0.25	ug/L		03/30/15 08:43	04/01/15 11:57	1
Dimethyl phthalate	5.0	U	5.0	0.29	ug/L		03/30/15 08:43	04/01/15 11:57	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		03/30/15 08:43	04/01/15 11:57	1
2,4-Dinitrophenol	20	U	20	0.32	ug/L		03/30/15 08:43	04/01/15 11:57	1
2,4-Dinitrotoluene	5.0	U	5.0	0.25	ug/L		03/30/15 08:43	04/01/15 11:57	1
Di-n-butyl phthalate	5.0	U	5.0	1.7	ug/L		03/30/15 08:43	04/01/15 11:57	1
Di-n-octyl phthalate	5.0	U	5.0	0.23	ug/L		03/30/15 08:43	04/01/15 11:57	1
Fluoranthene	0.99	U	0.99	0.044	ug/L		03/30/15 08:43	04/01/15 11:57	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

**Client Sample ID: GW-032615-JK-01**

**Lab Sample ID: 240-48687-1**

**Date Collected: 03/26/15 11:05**

**Matrix: Water**

**Date Received: 03/27/15 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Fluorene</b>	<b>0.12</b>	<b>J</b>	5.0	0.040	ug/L		03/30/15 08:43	04/01/15 11:57	1
Hexachlorobenzene	0.20	U	0.20	0.084	ug/L		03/30/15 08:43	04/01/15 11:57	1
Hexachlorobutadiene	0.99	U	0.99	0.27	ug/L		03/30/15 08:43	04/01/15 11:57	1
Hexachlorocyclopentadiene	5.0	U	5.0	0.24	ug/L		03/30/15 08:43	04/01/15 11:57	1
Hexachloroethane	5.0	U	5.0	0.19	ug/L		03/30/15 08:43	04/01/15 11:57	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.043	ug/L		03/30/15 08:43	04/01/15 11:57	1
Isophorone	5.0	U	5.0	0.27	ug/L		03/30/15 08:43	04/01/15 11:57	1
2-Methylphenol	5.0	U	5.0	0.17	ug/L		03/30/15 08:43	04/01/15 11:57	1
2-Nitroaniline	20	U	20	0.21	ug/L		03/30/15 08:43	04/01/15 11:57	1
3-Nitroaniline	20	U	20	0.28	ug/L		03/30/15 08:43	04/01/15 11:57	1
4-Nitroaniline	20	U	20	0.22	ug/L		03/30/15 08:43	04/01/15 11:57	1
Nitrobenzene	3.0	U	3.0	0.040	ug/L		03/30/15 08:43	04/01/15 11:57	1
2-Nitrophenol	5.0	U	5.0	0.28	ug/L		03/30/15 08:43	04/01/15 11:57	1
4-Nitrophenol	20	U	20	0.29	ug/L		03/30/15 08:43	04/01/15 11:57	1
N-Nitrosodiphenylamine	5.0	U	5.0	0.31	ug/L		03/30/15 08:43	04/01/15 11:57	1
N-Nitrosodi-n-propylamine	5.0	U	5.0	0.24	ug/L		03/30/15 08:43	04/01/15 11:57	1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	0.40	ug/L		03/30/15 08:43	04/01/15 11:57	1
Pentachlorophenol	5.0	U	5.0	0.27	ug/L		03/30/15 08:43	04/01/15 11:57	1
Phenanthrene	2.0	U	2.0	0.061	ug/L		03/30/15 08:43	04/01/15 11:57	1
Phenol	5.0	U	5.0	0.59	ug/L		03/30/15 08:43	04/01/15 11:57	1
Pyrene	5.0	U	5.0	0.042	ug/L		03/30/15 08:43	04/01/15 11:57	1
2,4,5-Trichlorophenol	5.0	U	5.0	0.30	ug/L		03/30/15 08:43	04/01/15 11:57	1
2,4,6-Trichlorophenol	4.0	U	4.0	0.24	ug/L		03/30/15 08:43	04/01/15 11:57	1
2,6-Dinitrotoluene	5.0	U	5.0	0.79	ug/L		03/30/15 08:43	04/01/15 11:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	74		29 - 110	03/30/15 08:43	04/01/15 11:57	1
2-Fluorophenol (Surr)	43		15 - 110	03/30/15 08:43	04/01/15 11:57	1
2,4,6-Tribromophenol (Surr)	93		21 - 128	03/30/15 08:43	04/01/15 11:57	1
Nitrobenzene-d5 (Surr)	77		31 - 110	03/30/15 08:43	04/01/15 11:57	1
Phenol-d5 (Surr)	27		10 - 110	03/30/15 08:43	04/01/15 11:57	1
Terphenyl-d14 (Surr)	65		31 - 115	03/30/15 08:43	04/01/15 11:57	1

**Method: 8270C - Semivolatile Organic Compounds (GC/MS) - RA**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Naphthalene</b>	<b>98</b>		20	0.25	ug/L		03/30/15 08:43	04/01/15 20:09	4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	80		29 - 110	03/30/15 08:43	04/01/15 20:09	4
2-Fluorophenol (Surr)	43		15 - 110	03/30/15 08:43	04/01/15 20:09	4
2,4,6-Tribromophenol (Surr)	74		21 - 128	03/30/15 08:43	04/01/15 20:09	4
Nitrobenzene-d5 (Surr)	78		31 - 110	03/30/15 08:43	04/01/15 20:09	4
Phenol-d5 (Surr)	26		10 - 110	03/30/15 08:43	04/01/15 20:09	4
Terphenyl-d14 (Surr)	68		31 - 115	03/30/15 08:43	04/01/15 20:09	4

**Method: 6020 - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.57</b>	<b>J</b>	2.0	0.16	ug/L		03/30/15 09:50	03/31/15 11:18	1
<b>Arsenic</b>	<b>1.3</b>	<b>J B</b>	5.0	0.18	ug/L		03/30/15 09:50	03/31/15 11:18	1
<b>Barium</b>	<b>120</b>		100	1.1	ug/L		03/30/15 09:50	03/31/15 11:18	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

**Client Sample ID: GW-032615-JK-01**

**Lab Sample ID: 240-48687-1**

Date Collected: 03/26/15 11:05

Matrix: Water

Date Received: 03/27/15 09:30

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.79	J B	1.0	0.053	ug/L		03/30/15 09:50	03/31/15 11:18	1
Cadmium	0.46	J B	1.0	0.061	ug/L		03/30/15 09:50	03/31/15 11:18	1
Cobalt	0.29	J	7.0	0.021	ug/L		03/30/15 09:50	03/31/15 11:18	1
Chromium	1.6	J B	5.0	0.20	ug/L		03/30/15 09:50	03/31/15 11:18	1
Copper	2.0	U	2.0	0.75	ug/L		03/30/15 09:50	03/31/15 11:18	1
Manganese	440		15	1.1	ug/L		03/30/15 09:50	03/31/15 11:18	1
Nickel	1.2	J	20	0.23	ug/L		03/30/15 09:50	03/31/15 11:18	1
Lead	0.15	J	3.0	0.11	ug/L		03/30/15 09:50	03/31/15 11:18	1
Selenium	0.83	J	5.0	0.25	ug/L		03/30/15 09:50	03/31/15 11:18	1
Thallium	0.25	J	1.0	0.074	ug/L		03/30/15 09:50	03/31/15 11:18	1
Vanadium	0.48	J	4.0	0.23	ug/L		03/30/15 09:50	03/31/15 11:18	1
Zinc	20	U	20	7.3	ug/L		03/30/15 09:50	03/31/15 11:18	1
Silver	0.20	U	0.20	0.020	ug/L		03/30/15 09:50	03/31/15 11:18	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		03/30/15 09:50	03/31/15 11:22	1
Arsenic	1.4	J B	5.0	0.18	ug/L		03/30/15 09:50	03/31/15 11:22	1
Beryllium	0.50	J B	1.0	0.053	ug/L		03/30/15 09:50	03/31/15 11:22	1
Cadmium	0.21	J B	1.0	0.061	ug/L		03/30/15 09:50	03/31/15 11:22	1
Cobalt	0.19	J	7.0	0.021	ug/L		03/30/15 09:50	03/31/15 11:22	1
Chromium	1.3	J B	5.0	0.20	ug/L		03/30/15 09:50	03/31/15 11:22	1
Copper	2.0	U	2.0	0.75	ug/L		03/30/15 09:50	03/31/15 11:22	1
Manganese	460		15	1.1	ug/L		03/30/15 09:50	03/31/15 11:22	1
Nickel	0.88	J	20	0.23	ug/L		03/30/15 09:50	03/31/15 11:22	1
Lead	3.0	U	3.0	0.11	ug/L		03/30/15 09:50	03/31/15 11:22	1
Antimony	0.21	J	2.0	0.16	ug/L		03/30/15 09:50	03/31/15 11:22	1
Selenium	0.80	J	5.0	0.25	ug/L		03/30/15 09:50	03/31/15 11:22	1
Thallium	1.0	U	1.0	0.074	ug/L		03/30/15 09:50	03/31/15 11:22	1
Vanadium	0.30	J	4.0	0.23	ug/L		03/30/15 09:50	03/31/15 11:22	1
Zinc	20	U	20	7.3	ug/L		03/30/15 09:50	03/31/15 11:22	1
Barium	120		100	1.1	ug/L		03/30/15 09:50	03/31/15 11:22	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		03/31/15 07:35	03/31/15 11:22	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		03/31/15 07:35	03/31/15 11:23	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0019	mg/L			03/27/15 10:58	1
Cr (III)	0.020	U	0.020	0.0050	mg/L			04/02/15 05:00	1

TestAmerica Canton



# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

**Client Sample ID: GW-032615-JK-02**

**Lab Sample ID: 240-48687-2**

**Date Collected: 03/26/15 11:35**

**Matrix: Water**

**Date Received: 03/27/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>44</b>	<b>J B</b>	330	31	ug/L			03/31/15 15:18	33.33
Benzene	33	U	33	12	ug/L			03/31/15 15:18	33.33
Dichlorobromomethane	33	U	33	9.7	ug/L			03/31/15 15:18	33.33
Bromoform	33	U	33	19	ug/L			03/31/15 15:18	33.33
Bromomethane	33	U	33	15	ug/L			03/31/15 15:18	33.33
2-Butanone (MEK)	330	U	330	18	ug/L			03/31/15 15:18	33.33
Carbon disulfide	33	U	33	13	ug/L			03/31/15 15:18	33.33
Carbon tetrachloride	33	U	33	14	ug/L			03/31/15 15:18	33.33
Chlorobenzene	33	U	33	8.3	ug/L			03/31/15 15:18	33.33
Chloroethane	33	U	33	11	ug/L			03/31/15 15:18	33.33
Chloroform	33	U	33	8.3	ug/L			03/31/15 15:18	33.33
Chloromethane	33	U	33	15	ug/L			03/31/15 15:18	33.33
1,1-Dichloroethane	33	U	33	10	ug/L			03/31/15 15:18	33.33
1,2-Dichloroethane	33	U	33	7.7	ug/L			03/31/15 15:18	33.33
1,1-Dichloroethene	33	U	33	15	ug/L			03/31/15 15:18	33.33
1,2-Dichloropropane	33	U	33	8.3	ug/L			03/31/15 15:18	33.33
<b>1,2,4-Trimethylbenzene</b>	<b>630</b>		33	14	ug/L			03/31/15 15:18	33.33
cis-1,3-Dichloropropene	33	U	33	15	ug/L			03/31/15 15:18	33.33
trans-1,3-Dichloropropene	33	U	33	19	ug/L			03/31/15 15:18	33.33
<b>Ethylbenzene</b>	<b>410</b>		33	8.3	ug/L			03/31/15 15:18	33.33
2-Hexanone	330	U	330	16	ug/L			03/31/15 15:18	33.33
Methylene Chloride	33	U	33	11	ug/L			03/31/15 15:18	33.33
4-Methyl-2-pentanone (MIBK)	330	U	330	33	ug/L			03/31/15 15:18	33.33
Styrene	33	U	33	15	ug/L			03/31/15 15:18	33.33
1,1,2,2-Tetrachloroethane	33	U	33	7.3	ug/L			03/31/15 15:18	33.33
Tetrachloroethene	33	U	33	10	ug/L			03/31/15 15:18	33.33
Toluene	33	U	33	7.7	ug/L			03/31/15 15:18	33.33
Trichloroethene	33	U	33	7.3	ug/L			03/31/15 15:18	33.33
<b>1,3,5-Trimethylbenzene</b>	<b>160</b>		33	16	ug/L			03/31/15 15:18	33.33
Vinyl chloride	33	U	33	9.7	ug/L			03/31/15 15:18	33.33
<b>Xylenes, Total</b>	<b>1200</b>		67	17	ug/L			03/31/15 15:18	33.33
1,1,1-Trichloroethane	33	U	33	15	ug/L			03/31/15 15:18	33.33
1,1,2-Trichloroethane	33	U	33	8.0	ug/L			03/31/15 15:18	33.33
<b>Cyclohexane</b>	<b>76</b>		33	15	ug/L			03/31/15 15:18	33.33
1,2-Dibromo-3-Chloropropane	67	U	67	27	ug/L			03/31/15 15:18	33.33
Ethylene Dibromide	33	U	33	11	ug/L			03/31/15 15:18	33.33
Dichlorodifluoromethane	33	U	33	11	ug/L			03/31/15 15:18	33.33
cis-1,2-Dichloroethene	33	U	33	8.7	ug/L			03/31/15 15:18	33.33
trans-1,2-Dichloroethene	33	U	33	10	ug/L			03/31/15 15:18	33.33
<b>Isopropylbenzene</b>	<b>29</b>	<b>J</b>	33	12	ug/L			03/31/15 15:18	33.33
Methyl acetate	330	U	330	76	ug/L			03/31/15 15:18	33.33
Methyl tert-butyl ether	33	U	33	6.7	ug/L			03/31/15 15:18	33.33
1,1,2-Trichloro-1,2,2-trifluoroethane	33	U	33	15	ug/L			03/31/15 15:18	33.33
1,2,4-Trichlorobenzene	33	U	33	11	ug/L			03/31/15 15:18	33.33
1,2-Dichlorobenzene	33	U	33	8.3	ug/L			03/31/15 15:18	33.33
1,3-Dichlorobenzene	33	U	33	6.3	ug/L			03/31/15 15:18	33.33
1,4-Dichlorobenzene	33	U	33	9.0	ug/L			03/31/15 15:18	33.33
Trichlorofluoromethane	33	U	33	16	ug/L			03/31/15 15:18	33.33
Chlorodibromomethane	33	U	33	14	ug/L			03/31/15 15:18	33.33

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

**Client Sample ID: GW-032615-JK-02**

**Lab Sample ID: 240-48687-2**

Date Collected: 03/26/15 11:35

Matrix: Water

Date Received: 03/27/15 09:30

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	22	J	33	14	ug/L			03/31/15 15:18	33.33
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	93		63 - 129					03/31/15 15:18	33.33
4-Bromofluorobenzene (Surr)	99		66 - 120					03/31/15 15:18	33.33
Toluene-d8 (Surr)	95		74 - 120					03/31/15 15:18	33.33
Dibromofluoromethane (Surr)	91		75 - 121					03/31/15 15:18	33.33

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	4.8	U	4.8	0.042	ug/L		03/30/15 08:43	04/01/15 12:23	1
Acenaphthylene	4.8	U	4.8	0.046	ug/L		03/30/15 08:43	04/01/15 12:23	1
Acetophenone	4.8	U	4.8	0.32	ug/L		03/30/15 08:43	04/01/15 12:23	1
Anthracene	4.8	U	4.8	0.084	ug/L		03/30/15 08:43	04/01/15 12:23	1
Atrazine	2.9	U	2.9	0.32	ug/L		03/30/15 08:43	04/01/15 12:23	1
Benzaldehyde	4.8	U	4.8	0.37	ug/L		03/30/15 08:43	04/01/15 12:23	1
Benzo[a]anthracene	0.95	U	0.95	0.028	ug/L		03/30/15 08:43	04/01/15 12:23	1
Benzo[b]fluoranthene	0.95	U	0.95	0.038	ug/L		03/30/15 08:43	04/01/15 12:23	1
Benzo[k]fluoranthene	0.95	U	0.95	0.043	ug/L		03/30/15 08:43	04/01/15 12:23	1
Benzo[g,h,i]perylene	0.95	U	0.95	0.044	ug/L		03/30/15 08:43	04/01/15 12:23	1
Benzo[a]pyrene	0.95	U	0.95	0.049	ug/L		03/30/15 08:43	04/01/15 12:23	1
Butyl benzyl phthalate	4.8	U	4.8	0.25	ug/L		03/30/15 08:43	04/01/15 12:23	1
<b>1,1'-Biphenyl</b>	<b>0.27</b>	<b>J</b>	4.8	0.12	ug/L		03/30/15 08:43	04/01/15 12:23	1
Bis(2-chloroethoxy)methane	4.8	U	4.8	0.30	ug/L		03/30/15 08:43	04/01/15 12:23	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.095	ug/L		03/30/15 08:43	04/01/15 12:23	1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8	1.6	ug/L		03/30/15 08:43	04/01/15 12:23	1
4-Bromophenyl phenyl ether	4.8	U	4.8	0.21	ug/L		03/30/15 08:43	04/01/15 12:23	1
Caprolactam	9.5	U	9.5	0.19	ug/L		03/30/15 08:43	04/01/15 12:23	1
Carbazole	9.5	U	9.5	0.27	ug/L		03/30/15 08:43	04/01/15 12:23	1
4-Chloroaniline	9.5	U	9.5	0.20	ug/L		03/30/15 08:43	04/01/15 12:23	1
4-Chloro-3-methylphenol	4.8	U	4.8	0.20	ug/L		03/30/15 08:43	04/01/15 12:23	1
2-Chloronaphthalene	4.8	U	4.8	0.095	ug/L		03/30/15 08:43	04/01/15 12:23	1
2-Chlorophenol	4.8	U	4.8	0.28	ug/L		03/30/15 08:43	04/01/15 12:23	1
4-Chlorophenyl phenyl ether	4.8	U	4.8	0.29	ug/L		03/30/15 08:43	04/01/15 12:23	1
Chrysene	0.95	U	0.95	0.048	ug/L		03/30/15 08:43	04/01/15 12:23	1
<b>2-Methylnaphthalene</b>	<b>18</b>		4.8	0.086	ug/L		03/30/15 08:43	04/01/15 12:23	1
3 & 4 Methylphenol	4.8	U	4.8	0.76	ug/L		03/30/15 08:43	04/01/15 12:23	1
Dibenz(a,h)anthracene	1.9	U	1.9	0.042	ug/L		03/30/15 08:43	04/01/15 12:23	1
Dibenzofuran	3.8	U	3.8	0.019	ug/L		03/30/15 08:43	04/01/15 12:23	1
3,3'-Dichlorobenzidine	0.95	U	0.95	0.35	ug/L		03/30/15 08:43	04/01/15 12:23	1
2,4-Dichlorophenol	9.5	U	9.5	0.18	ug/L		03/30/15 08:43	04/01/15 12:23	1
Diethyl phthalate	4.8	U	4.8	0.57	ug/L		03/30/15 08:43	04/01/15 12:23	1
<b>2,4-Dimethylphenol</b>	<b>2.9</b>	<b>J</b>	4.8	0.24	ug/L		03/30/15 08:43	04/01/15 12:23	1
Dimethyl phthalate	4.8	U	4.8	0.28	ug/L		03/30/15 08:43	04/01/15 12:23	1
4,6-Dinitro-2-methylphenol	19	U	19	2.3	ug/L		03/30/15 08:43	04/01/15 12:23	1
2,4-Dinitrophenol	19	U	19	0.30	ug/L		03/30/15 08:43	04/01/15 12:23	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		03/30/15 08:43	04/01/15 12:23	1
Di-n-butyl phthalate	4.8	U	4.8	1.6	ug/L		03/30/15 08:43	04/01/15 12:23	1
Di-n-octyl phthalate	4.8	U	4.8	0.22	ug/L		03/30/15 08:43	04/01/15 12:23	1
Fluoranthene	0.95	U	0.95	0.042	ug/L		03/30/15 08:43	04/01/15 12:23	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

**Client Sample ID: GW-032615-JK-02**

**Lab Sample ID: 240-48687-2**

**Date Collected: 03/26/15 11:35**

**Matrix: Water**

**Date Received: 03/27/15 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Fluorene</b>	<b>0.13</b>	<b>J</b>	4.8	0.039	ug/L		03/30/15 08:43	04/01/15 12:23	1
Hexachlorobenzene	0.19	U	0.19	0.081	ug/L		03/30/15 08:43	04/01/15 12:23	1
Hexachlorobutadiene	0.95	U	0.95	0.26	ug/L		03/30/15 08:43	04/01/15 12:23	1
Hexachlorocyclopentadiene	4.8	U	4.8	0.23	ug/L		03/30/15 08:43	04/01/15 12:23	1
Hexachloroethane	4.8	U	4.8	0.18	ug/L		03/30/15 08:43	04/01/15 12:23	1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	0.041	ug/L		03/30/15 08:43	04/01/15 12:23	1
Isophorone	4.8	U	4.8	0.26	ug/L		03/30/15 08:43	04/01/15 12:23	1
2-Methylphenol	4.8	U	4.8	0.16	ug/L		03/30/15 08:43	04/01/15 12:23	1
2-Nitroaniline	19	U	19	0.20	ug/L		03/30/15 08:43	04/01/15 12:23	1
3-Nitroaniline	19	U	19	0.27	ug/L		03/30/15 08:43	04/01/15 12:23	1
4-Nitroaniline	19	U	19	0.21	ug/L		03/30/15 08:43	04/01/15 12:23	1
Nitrobenzene	2.9	U	2.9	0.038	ug/L		03/30/15 08:43	04/01/15 12:23	1
2-Nitrophenol	4.8	U	4.8	0.27	ug/L		03/30/15 08:43	04/01/15 12:23	1
4-Nitrophenol	19	U	19	0.28	ug/L		03/30/15 08:43	04/01/15 12:23	1
N-Nitrosodiphenylamine	4.8	U	4.8	0.30	ug/L		03/30/15 08:43	04/01/15 12:23	1
N-Nitrosodi-n-propylamine	4.8	U	4.8	0.23	ug/L		03/30/15 08:43	04/01/15 12:23	1
2,2'-oxybis[1-chloropropane]	4.8	U	4.8	0.38	ug/L		03/30/15 08:43	04/01/15 12:23	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		03/30/15 08:43	04/01/15 12:23	1
Phenanthrene	1.9	U	1.9	0.059	ug/L		03/30/15 08:43	04/01/15 12:23	1
Phenol	4.8	U	4.8	0.57	ug/L		03/30/15 08:43	04/01/15 12:23	1
Pyrene	4.8	U	4.8	0.040	ug/L		03/30/15 08:43	04/01/15 12:23	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		03/30/15 08:43	04/01/15 12:23	1
2,4,6-Trichlorophenol	3.8	U	3.8	0.23	ug/L		03/30/15 08:43	04/01/15 12:23	1
2,6-Dinitrotoluene	4.8	U	4.8	0.76	ug/L		03/30/15 08:43	04/01/15 12:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	73		29 - 110	03/30/15 08:43	04/01/15 12:23	1
2-Fluorophenol (Surr)	40		15 - 110	03/30/15 08:43	04/01/15 12:23	1
2,4,6-Tribromophenol (Surr)	94		21 - 128	03/30/15 08:43	04/01/15 12:23	1
Nitrobenzene-d5 (Surr)	76		31 - 110	03/30/15 08:43	04/01/15 12:23	1
Phenol-d5 (Surr)	25		10 - 110	03/30/15 08:43	04/01/15 12:23	1
Terphenyl-d14 (Surr)	60		31 - 115	03/30/15 08:43	04/01/15 12:23	1

**Method: 8270C - Semivolatile Organic Compounds (GC/MS) - RA**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Naphthalene</b>	<b>89</b>		19	0.24	ug/L		03/30/15 08:43	04/01/15 20:35	4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	70		29 - 110	03/30/15 08:43	04/01/15 20:35	4
2-Fluorophenol (Surr)	36		15 - 110	03/30/15 08:43	04/01/15 20:35	4
2,4,6-Tribromophenol (Surr)	69		21 - 128	03/30/15 08:43	04/01/15 20:35	4
Nitrobenzene-d5 (Surr)	70		31 - 110	03/30/15 08:43	04/01/15 20:35	4
Phenol-d5 (Surr)	22		10 - 110	03/30/15 08:43	04/01/15 20:35	4
Terphenyl-d14 (Surr)	57		31 - 115	03/30/15 08:43	04/01/15 20:35	4

**Method: 6020 - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		03/30/15 09:50	03/31/15 11:26	1
<b>Arsenic</b>	<b>1.3</b>	<b>J B</b>	5.0	0.18	ug/L		03/30/15 09:50	03/31/15 11:26	1
<b>Barium</b>	<b>120</b>		100	1.1	ug/L		03/30/15 09:50	03/31/15 11:26	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

**Client Sample ID: GW-032615-JK-02**

**Lab Sample ID: 240-48687-2**

Date Collected: 03/26/15 11:35

Matrix: Water

Date Received: 03/27/15 09:30

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.36	J B	1.0	0.053	ug/L		03/30/15 09:50	03/31/15 11:26	1
Cadmium	0.14	J B	1.0	0.061	ug/L		03/30/15 09:50	03/31/15 11:26	1
Cobalt	0.18	J	7.0	0.021	ug/L		03/30/15 09:50	03/31/15 11:26	1
Chromium	1.5	J B	5.0	0.20	ug/L		03/30/15 09:50	03/31/15 11:26	1
Copper	2.0	U	2.0	0.75	ug/L		03/30/15 09:50	03/31/15 11:26	1
Manganese	430		15	1.1	ug/L		03/30/15 09:50	03/31/15 11:26	1
Nickel	1.1	J	20	0.23	ug/L		03/30/15 09:50	03/31/15 11:26	1
Lead	3.0	U	3.0	0.11	ug/L		03/30/15 09:50	03/31/15 11:26	1
Selenium	0.66	J	5.0	0.25	ug/L		03/30/15 09:50	03/31/15 11:26	1
Thallium	1.0	U	1.0	0.074	ug/L		03/30/15 09:50	03/31/15 11:26	1
Vanadium	0.32	J	4.0	0.23	ug/L		03/30/15 09:50	03/31/15 11:26	1
Zinc	20	U	20	7.3	ug/L		03/30/15 09:50	03/31/15 11:26	1
Silver	0.20	U	0.20	0.020	ug/L		03/30/15 09:50	03/31/15 11:26	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		03/30/15 09:50	03/31/15 11:29	1
Arsenic	1.3	J B	5.0	0.18	ug/L		03/30/15 09:50	03/31/15 11:29	1
Beryllium	0.32	J B	1.0	0.053	ug/L		03/30/15 09:50	03/31/15 11:29	1
Cadmium	0.13	J B	1.0	0.061	ug/L		03/30/15 09:50	03/31/15 11:29	1
Cobalt	0.18	J	7.0	0.021	ug/L		03/30/15 09:50	03/31/15 11:29	1
Chromium	1.4	J B	5.0	0.20	ug/L		03/30/15 09:50	03/31/15 11:29	1
Copper	2.0	U	2.0	0.75	ug/L		03/30/15 09:50	03/31/15 11:29	1
Manganese	460		15	1.1	ug/L		03/30/15 09:50	03/31/15 11:29	1
Nickel	1.0	J	20	0.23	ug/L		03/30/15 09:50	03/31/15 11:29	1
Lead	3.0	U	3.0	0.11	ug/L		03/30/15 09:50	03/31/15 11:29	1
Antimony	2.0	U	2.0	0.16	ug/L		03/30/15 09:50	03/31/15 11:29	1
Selenium	0.70	J	5.0	0.25	ug/L		03/30/15 09:50	03/31/15 11:29	1
Thallium	1.0	U	1.0	0.074	ug/L		03/30/15 09:50	03/31/15 11:29	1
Vanadium	4.0	U	4.0	0.23	ug/L		03/30/15 09:50	03/31/15 11:29	1
Zinc	20	U	20	7.3	ug/L		03/30/15 09:50	03/31/15 11:29	1
Barium	120		100	1.1	ug/L		03/30/15 09:50	03/31/15 11:29	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		03/31/15 07:35	03/31/15 11:26	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		03/31/15 07:35	03/31/15 11:28	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0019	mg/L			03/27/15 10:56	1
Cr (III)	0.020	U	0.020	0.0050	mg/L			04/02/15 05:00	1

TestAmerica Canton



# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

**Client Sample ID: GW-032615-JK-03**

**Lab Sample ID: 240-48687-3**

**Date Collected: 03/26/15 12:55**

**Matrix: Water**

**Date Received: 03/27/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	50	U	50	4.7	ug/L			03/31/15 14:34	5
Benzene	5.0	U	5.0	1.8	ug/L			03/31/15 14:34	5
Dichlorobromomethane	5.0	U	5.0	1.5	ug/L			03/31/15 14:34	5
Bromoform	5.0	U	5.0	2.8	ug/L			03/31/15 14:34	5
Bromomethane	5.0	U	5.0	2.2	ug/L			03/31/15 14:34	5
2-Butanone (MEK)	50	U	50	2.7	ug/L			03/31/15 14:34	5
Carbon disulfide	5.0	U	5.0	1.9	ug/L			03/31/15 14:34	5
Carbon tetrachloride	5.0	U	5.0	2.2	ug/L			03/31/15 14:34	5
Chlorobenzene	5.0	U	5.0	1.3	ug/L			03/31/15 14:34	5
Chloroethane	5.0	U	5.0	1.6	ug/L			03/31/15 14:34	5
Chloroform	5.0	U	5.0	1.3	ug/L			03/31/15 14:34	5
Chloromethane	5.0	U	5.0	2.2	ug/L			03/31/15 14:34	5
1,1-Dichloroethane	5.0	U	5.0	1.5	ug/L			03/31/15 14:34	5
1,2-Dichloroethane	5.0	U	5.0	1.2	ug/L			03/31/15 14:34	5
1,1-Dichloroethene	5.0	U	5.0	2.3	ug/L			03/31/15 14:34	5
1,2-Dichloropropane	5.0	U	5.0	1.3	ug/L			03/31/15 14:34	5
<b>1,2,4-Trimethylbenzene</b>	<b>160</b>		5.0	2.1	ug/L			03/31/15 14:34	5
cis-1,3-Dichloropropene	5.0	U	5.0	2.3	ug/L			03/31/15 14:34	5
trans-1,3-Dichloropropene	5.0	U	5.0	2.8	ug/L			03/31/15 14:34	5
<b>Ethylbenzene</b>	<b>31</b>		5.0	1.3	ug/L			03/31/15 14:34	5
2-Hexanone	50	U	50	2.4	ug/L			03/31/15 14:34	5
Methylene Chloride	5.0	U	5.0	1.7	ug/L			03/31/15 14:34	5
4-Methyl-2-pentanone (MIBK)	50	U	50	5.0	ug/L			03/31/15 14:34	5
Styrene	5.0	U	5.0	2.3	ug/L			03/31/15 14:34	5
1,1,1,2-Tetrachloroethane	5.0	U	5.0	1.1	ug/L			03/31/15 14:34	5
Tetrachloroethene	5.0	U	5.0	1.6	ug/L			03/31/15 14:34	5
Toluene	5.0	U	5.0	1.2	ug/L			03/31/15 14:34	5
Trichloroethene	5.0	U	5.0	1.1	ug/L			03/31/15 14:34	5
<b>1,3,5-Trimethylbenzene</b>	<b>88</b>		5.0	2.4	ug/L			03/31/15 14:34	5
Vinyl chloride	5.0	U	5.0	1.5	ug/L			03/31/15 14:34	5
<b>Xylenes, Total</b>	<b>97</b>		10	2.6	ug/L			03/31/15 14:34	5
1,1,1-Trichloroethane	5.0	U	5.0	2.2	ug/L			03/31/15 14:34	5
1,1,2-Trichloroethane	5.0	U	5.0	1.2	ug/L			03/31/15 14:34	5
<b>Cyclohexane</b>	<b>31</b>		5.0	2.3	ug/L			03/31/15 14:34	5
1,2-Dibromo-3-Chloropropane	10	U	10	4.1	ug/L			03/31/15 14:34	5
Ethylene Dibromide	5.0	U	5.0	1.6	ug/L			03/31/15 14:34	5
Dichlorodifluoromethane	5.0	U	5.0	1.6	ug/L			03/31/15 14:34	5
cis-1,2-Dichloroethene	5.0	U	5.0	1.3	ug/L			03/31/15 14:34	5
trans-1,2-Dichloroethene	5.0	U	5.0	1.5	ug/L			03/31/15 14:34	5
<b>Isopropylbenzene</b>	<b>57 F1</b>		5.0	1.8	ug/L			03/31/15 14:34	5
Methyl acetate	50	U	50	11	ug/L			03/31/15 14:34	5
Methyl tert-butyl ether	5.0	U	5.0	1.0	ug/L			03/31/15 14:34	5
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	2.3	ug/L			03/31/15 14:34	5
1,2,4-Trichlorobenzene	5.0	U	5.0	1.6	ug/L			03/31/15 14:34	5
1,2-Dichlorobenzene	5.0	U	5.0	1.3	ug/L			03/31/15 14:34	5
1,3-Dichlorobenzene	5.0	U	5.0	0.95	ug/L			03/31/15 14:34	5
1,4-Dichlorobenzene	5.0	U	5.0	1.4	ug/L			03/31/15 14:34	5
Trichlorofluoromethane	5.0	U	5.0	2.5	ug/L			03/31/15 14:34	5
Chlorodibromomethane	5.0	U	5.0	2.2	ug/L			03/31/15 14:34	5

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

**Client Sample ID: GW-032615-JK-03**

**Lab Sample ID: 240-48687-3**

Date Collected: 03/26/15 12:55

Matrix: Water

Date Received: 03/27/15 09:30

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Methylcyclohexane</b>	<b>14</b>		5.0	2.2	ug/L			03/31/15 14:34	5
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	93		63 - 129				03/31/15 14:34	03/31/15 14:34	5
4-Bromofluorobenzene (Surr)	101		66 - 120				03/31/15 14:34	03/31/15 14:34	5
Toluene-d8 (Surr)	93		74 - 120				03/31/15 14:34	03/31/15 14:34	5
Dibromofluoromethane (Surr)	91		75 - 121				03/31/15 14:34	03/31/15 14:34	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	4.8	U	4.8	0.042	ug/L		03/30/15 08:43	03/31/15 11:34	1
Acenaphthylene	4.8	U	4.8	0.046	ug/L		03/30/15 08:43	03/31/15 11:34	1
Acetophenone	4.8	U	4.8	0.32	ug/L		03/30/15 08:43	03/31/15 11:34	1
Anthracene	4.8	U	4.8	0.084	ug/L		03/30/15 08:43	03/31/15 11:34	1
Atrazine	2.9	U	2.9	0.32	ug/L		03/30/15 08:43	03/31/15 11:34	1
Benzaldehyde	4.8	U F1	4.8	0.37	ug/L		03/30/15 08:43	03/31/15 11:34	1
Benzo[a]anthracene	0.95	U	0.95	0.028	ug/L		03/30/15 08:43	03/31/15 11:34	1
Benzo[b]fluoranthene	0.95	U	0.95	0.038	ug/L		03/30/15 08:43	03/31/15 11:34	1
Benzo[k]fluoranthene	0.95	U	0.95	0.043	ug/L		03/30/15 08:43	03/31/15 11:34	1
Benzo[g,h,i]perylene	0.95	U	0.95	0.044	ug/L		03/30/15 08:43	03/31/15 11:34	1
Benzo[a]pyrene	0.95	U	0.95	0.049	ug/L		03/30/15 08:43	03/31/15 11:34	1
Butyl benzyl phthalate	4.8	U	4.8	0.25	ug/L		03/30/15 08:43	03/31/15 11:34	1
<b>1,1'-Biphenyl</b>	<b>0.56</b>	<b>J</b>	4.8	0.12	ug/L		03/30/15 08:43	03/31/15 11:34	1
Bis(2-chloroethoxy)methane	4.8	U	4.8	0.30	ug/L		03/30/15 08:43	03/31/15 11:34	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.095	ug/L		03/30/15 08:43	03/31/15 11:34	1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8	1.6	ug/L		03/30/15 08:43	03/31/15 11:34	1
4-Bromophenyl phenyl ether	4.8	U	4.8	0.21	ug/L		03/30/15 08:43	03/31/15 11:34	1
Caprolactam	9.5	U	9.5	0.19	ug/L		03/30/15 08:43	03/31/15 11:34	1
Carbazole	9.5	U	9.5	0.27	ug/L		03/30/15 08:43	03/31/15 11:34	1
4-Chloroaniline	9.5	U	9.5	0.20	ug/L		03/30/15 08:43	03/31/15 11:34	1
4-Chloro-3-methylphenol	4.8	U	4.8	0.20	ug/L		03/30/15 08:43	03/31/15 11:34	1
2-Chloronaphthalene	4.8	U	4.8	0.095	ug/L		03/30/15 08:43	03/31/15 11:34	1
2-Chlorophenol	4.8	U	4.8	0.28	ug/L		03/30/15 08:43	03/31/15 11:34	1
4-Chlorophenyl phenyl ether	4.8	U	4.8	0.29	ug/L		03/30/15 08:43	03/31/15 11:34	1
Chrysene	0.95	U	0.95	0.048	ug/L		03/30/15 08:43	03/31/15 11:34	1
<b>2-Methylnaphthalene</b>	<b>19</b>		4.8	0.086	ug/L		03/30/15 08:43	03/31/15 11:34	1
3 & 4 Methylphenol	4.8	U	4.8	0.76	ug/L		03/30/15 08:43	03/31/15 11:34	1
Dibenz(a,h)anthracene	1.9	U	1.9	0.042	ug/L		03/30/15 08:43	03/31/15 11:34	1
<b>Dibenzofuran</b>	<b>0.18</b>	<b>J</b>	3.8	0.019	ug/L		03/30/15 08:43	03/31/15 11:34	1
3,3'-Dichlorobenzidine	0.95	U	0.95	0.35	ug/L		03/30/15 08:43	03/31/15 11:34	1
2,4-Dichlorophenol	9.5	U	9.5	0.18	ug/L		03/30/15 08:43	03/31/15 11:34	1
Diethyl phthalate	4.8	U	4.8	0.57	ug/L		03/30/15 08:43	03/31/15 11:34	1
2,4-Dimethylphenol	4.8	U	4.8	0.24	ug/L		03/30/15 08:43	03/31/15 11:34	1
Dimethyl phthalate	4.8	U	4.8	0.28	ug/L		03/30/15 08:43	03/31/15 11:34	1
4,6-Dinitro-2-methylphenol	19	U	19	2.3	ug/L		03/30/15 08:43	03/31/15 11:34	1
2,4-Dinitrophenol	19	U	19	0.30	ug/L		03/30/15 08:43	03/31/15 11:34	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		03/30/15 08:43	03/31/15 11:34	1
Di-n-butyl phthalate	4.8	U	4.8	1.6	ug/L		03/30/15 08:43	03/31/15 11:34	1
Di-n-octyl phthalate	4.8	U	4.8	0.22	ug/L		03/30/15 08:43	03/31/15 11:34	1
Fluoranthene	0.95	U	0.95	0.042	ug/L		03/30/15 08:43	03/31/15 11:34	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

**Client Sample ID: GW-032615-JK-03**

**Lab Sample ID: 240-48687-3**

Date Collected: 03/26/15 12:55

Matrix: Water

Date Received: 03/27/15 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Fluorene</b>	<b>0.23</b>	<b>J</b>	4.8	0.039	ug/L		03/30/15 08:43	03/31/15 11:34	1
Hexachlorobenzene	0.19	U	0.19	0.081	ug/L		03/30/15 08:43	03/31/15 11:34	1
Hexachlorobutadiene	0.95	U	0.95	0.26	ug/L		03/30/15 08:43	03/31/15 11:34	1
Hexachlorocyclopentadiene	4.8	U	4.8	0.23	ug/L		03/30/15 08:43	03/31/15 11:34	1
Hexachloroethane	4.8	U F1	4.8	0.18	ug/L		03/30/15 08:43	03/31/15 11:34	1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	0.041	ug/L		03/30/15 08:43	03/31/15 11:34	1
Isophorone	4.8	U	4.8	0.26	ug/L		03/30/15 08:43	03/31/15 11:34	1
2-Methylphenol	4.8	U	4.8	0.16	ug/L		03/30/15 08:43	03/31/15 11:34	1
<b>Naphthalene</b>	<b>21</b>		4.8	0.060	ug/L		03/30/15 08:43	03/31/15 11:34	1
2-Nitroaniline	19	U	19	0.20	ug/L		03/30/15 08:43	03/31/15 11:34	1
3-Nitroaniline	19	U	19	0.27	ug/L		03/30/15 08:43	03/31/15 11:34	1
4-Nitroaniline	19	U	19	0.21	ug/L		03/30/15 08:43	03/31/15 11:34	1
Nitrobenzene	2.9	U	2.9	0.038	ug/L		03/30/15 08:43	03/31/15 11:34	1
2-Nitrophenol	4.8	U	4.8	0.27	ug/L		03/30/15 08:43	03/31/15 11:34	1
4-Nitrophenol	19	U	19	0.28	ug/L		03/30/15 08:43	03/31/15 11:34	1
N-Nitrosodiphenylamine	4.8	U	4.8	0.30	ug/L		03/30/15 08:43	03/31/15 11:34	1
N-Nitrosodi-n-propylamine	4.8	U	4.8	0.23	ug/L		03/30/15 08:43	03/31/15 11:34	1
2,2'-oxybis[1-chloropropane]	4.8	U	4.8	0.38	ug/L		03/30/15 08:43	03/31/15 11:34	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		03/30/15 08:43	03/31/15 11:34	1
Phenanthrene	1.9	U	1.9	0.059	ug/L		03/30/15 08:43	03/31/15 11:34	1
Phenol	4.8	U	4.8	0.57	ug/L		03/30/15 08:43	03/31/15 11:34	1
Pyrene	4.8	U	4.8	0.040	ug/L		03/30/15 08:43	03/31/15 11:34	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		03/30/15 08:43	03/31/15 11:34	1
2,4,6-Trichlorophenol	3.8	U	3.8	0.23	ug/L		03/30/15 08:43	03/31/15 11:34	1
2,6-Dinitrotoluene	4.8	U	4.8	0.76	ug/L		03/30/15 08:43	03/31/15 11:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	76		29 - 110	03/30/15 08:43	03/31/15 11:34	1
2-Fluorophenol (Surr)	43		15 - 110	03/30/15 08:43	03/31/15 11:34	1
2,4,6-Tribromophenol (Surr)	97		21 - 128	03/30/15 08:43	03/31/15 11:34	1
Nitrobenzene-d5 (Surr)	79		31 - 110	03/30/15 08:43	03/31/15 11:34	1
Phenol-d5 (Surr)	28		10 - 110	03/30/15 08:43	03/31/15 11:34	1
Terphenyl-d14 (Surr)	60		31 - 115	03/30/15 08:43	03/31/15 11:34	1

**Method: 6020 - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.47</b>	<b>J</b>	2.0	0.16	ug/L		03/30/15 09:49	03/31/15 10:34	1
<b>Arsenic</b>	<b>1.6</b>	<b>J B</b>	5.0	0.18	ug/L		03/30/15 09:49	03/31/15 10:34	1
<b>Barium</b>	<b>100</b>		100	1.1	ug/L		03/30/15 09:49	03/31/15 10:34	1
<b>Beryllium</b>	<b>0.41</b>	<b>J B</b>	1.0	0.053	ug/L		03/30/15 09:49	03/31/15 10:34	1
<b>Cadmium</b>	<b>0.35</b>	<b>J B</b>	1.0	0.061	ug/L		03/30/15 09:49	03/31/15 10:34	1
<b>Cobalt</b>	<b>0.35</b>	<b>J</b>	7.0	0.021	ug/L		03/30/15 09:49	03/31/15 10:34	1
<b>Chromium</b>	<b>1.4</b>	<b>J B</b>	5.0	0.20	ug/L		03/30/15 09:49	03/31/15 10:34	1
<b>Copper</b>	<b>0.84</b>	<b>J B</b>	2.0	0.75	ug/L		03/30/15 09:49	03/31/15 10:34	1
<b>Manganese</b>	<b>470</b>		15	1.1	ug/L		03/30/15 09:49	03/31/15 10:34	1
<b>Nickel</b>	<b>0.55</b>	<b>J</b>	20	0.23	ug/L		03/30/15 09:49	03/31/15 10:34	1
<b>Lead</b>	<b>0.15</b>	<b>J</b>	3.0	0.11	ug/L		03/30/15 09:49	03/31/15 10:34	1
<b>Selenium</b>	<b>0.33</b>	<b>J</b>	5.0	0.25	ug/L		03/30/15 09:49	03/31/15 10:34	1
<b>Thallium</b>	<b>0.19</b>	<b>J</b>	1.0	0.074	ug/L		03/30/15 09:49	03/31/15 10:34	1
<b>Vanadium</b>	<b>0.39</b>	<b>J</b>	4.0	0.23	ug/L		03/30/15 09:49	03/31/15 10:34	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

**Client Sample ID: GW-032615-JK-03**

**Lab Sample ID: 240-48687-3**

Date Collected: 03/26/15 12:55

Matrix: Water

Date Received: 03/27/15 09:30

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		03/30/15 09:49	03/31/15 10:34	1
Silver	0.20	U	0.20	0.020	ug/L		03/30/15 09:49	03/31/15 10:34	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		03/30/15 09:50	03/31/15 11:00	1
Arsenic	1.9	J B	5.0	0.18	ug/L		03/30/15 09:50	03/31/15 11:00	1
Beryllium	0.51	J B	1.0	0.053	ug/L		03/30/15 09:50	03/31/15 11:00	1
Cadmium	0.25	J B	1.0	0.061	ug/L		03/30/15 09:50	03/31/15 11:00	1
Cobalt	0.28	J	7.0	0.021	ug/L		03/30/15 09:50	03/31/15 11:00	1
Chromium	1.3	J B	5.0	0.20	ug/L		03/30/15 09:50	03/31/15 11:00	1
Copper	2.0	U	2.0	0.75	ug/L		03/30/15 09:50	03/31/15 11:00	1
Manganese	500		15	1.1	ug/L		03/30/15 09:50	03/31/15 11:00	1
Nickel	0.44	J	20	0.23	ug/L		03/30/15 09:50	03/31/15 11:00	1
Lead	3.0	U	3.0	0.11	ug/L		03/30/15 09:50	03/31/15 11:00	1
Antimony	0.23	J	2.0	0.16	ug/L		03/30/15 09:50	03/31/15 11:00	1
Selenium	0.46	J	5.0	0.25	ug/L		03/30/15 09:50	03/31/15 11:00	1
Thallium	1.0	U	1.0	0.074	ug/L		03/30/15 09:50	03/31/15 11:00	1
Vanadium	4.0	U	4.0	0.23	ug/L		03/30/15 09:50	03/31/15 11:00	1
Zinc	20	U	20	7.3	ug/L		03/30/15 09:50	03/31/15 11:00	1
Barium	110		100	1.1	ug/L		03/30/15 09:50	03/31/15 11:00	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		03/31/15 07:35	03/31/15 11:09	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		03/31/15 07:35	03/31/15 11:13	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0019	mg/L			03/27/15 10:51	1
Cr (III)	0.020	U	0.020	0.0050	mg/L			04/02/15 05:00	1



# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 240-48687-4**

**Date Collected: 03/26/15 00:00**

**Matrix: Water**

**Date Received: 03/27/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>9.7</b>	<b>J</b>	10	0.94	ug/L			04/01/15 22:21	1
Benzene	1.0	U	1.0	0.35	ug/L			04/01/15 22:21	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			04/01/15 22:21	1
Bromoform	1.0	U	1.0	0.56	ug/L			04/01/15 22:21	1
Bromomethane	1.0	U	1.0	0.44	ug/L			04/01/15 22:21	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			04/01/15 22:21	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			04/01/15 22:21	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			04/01/15 22:21	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			04/01/15 22:21	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/01/15 22:21	1
Chloroform	1.0	U	1.0	0.25	ug/L			04/01/15 22:21	1
Chloromethane	1.0	U	1.0	0.44	ug/L			04/01/15 22:21	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			04/01/15 22:21	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			04/01/15 22:21	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			04/01/15 22:21	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			04/01/15 22:21	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			04/01/15 22:21	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			04/01/15 22:21	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			04/01/15 22:21	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			04/01/15 22:21	1
2-Hexanone	10	U	10	0.48	ug/L			04/01/15 22:21	1
<b>Methylene Chloride</b>	<b>1.5</b>		1.0	0.33	ug/L			04/01/15 22:21	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			04/01/15 22:21	1
Styrene	1.0	U	1.0	0.45	ug/L			04/01/15 22:21	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			04/01/15 22:21	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			04/01/15 22:21	1
Toluene	1.0	U	1.0	0.23	ug/L			04/01/15 22:21	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			04/01/15 22:21	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			04/01/15 22:21	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			04/01/15 22:21	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			04/01/15 22:21	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			04/01/15 22:21	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			04/01/15 22:21	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			04/01/15 22:21	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			04/01/15 22:21	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			04/01/15 22:21	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			04/01/15 22:21	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			04/01/15 22:21	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			04/01/15 22:21	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			04/01/15 22:21	1
Methyl acetate	10	U	10	2.3	ug/L			04/01/15 22:21	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			04/01/15 22:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			04/01/15 22:21	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			04/01/15 22:21	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			04/01/15 22:21	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			04/01/15 22:21	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			04/01/15 22:21	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			04/01/15 22:21	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			04/01/15 22:21	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 240-48687-4**

**Date Collected: 03/26/15 00:00**

**Matrix: Water**

**Date Received: 03/27/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			04/01/15 22:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		63 - 129					04/01/15 22:21	1
4-Bromofluorobenzene (Surr)	84		66 - 120					04/01/15 22:21	1
Toluene-d8 (Surr)	89		74 - 120					04/01/15 22:21	1
Dibromofluoromethane (Surr)	104		75 - 121					04/01/15 22:21	1



# Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (63-129)	BFB (66-120)	TOL (74-120)	DBFM (75-121)
240-48687-1	GW-032615-JK-01	92	98	96	91
240-48687-2	GW-032615-JK-02	93	99	95	91
240-48687-3	GW-032615-JK-03	93	101	93	91
240-48687-3 MS	GW-032615-JK-03	89	102	97	93
240-48687-3 MSD	GW-032615-JK-03	92	104	98	94
240-48687-4	TRIP BLANK	104	84	89	104
LCS 240-174499/4	Lab Control Sample	88	98	95	93
LCS 240-174662/4	Lab Control Sample	93	101	99	94
MB 240-174499/6	Method Blank	93	88	93	92
MB 240-174662/7	Method Blank	99	86	90	96

### Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)  
 BFB = 4-Bromofluorobenzene (Surr)  
 TOL = Toluene-d8 (Surr)  
 DBFM = Dibromofluoromethane (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (29-110)	2FP (15-110)	TBP (21-128)	NBZ (31-110)	PHL (10-110)	TPH (31-115)
240-48687-1 - RA	GW-032615-JK-01	80	43	74	78	26	68
240-48687-1	GW-032615-JK-01	74	43	93	77	27	65
240-48687-2 - RA	GW-032615-JK-02	70	36	69	70	22	57
240-48687-2	GW-032615-JK-02	73	40	94	76	25	60
240-48687-3	GW-032615-JK-03	76	43	97	79	28	60
240-48687-3 MS	GW-032615-JK-03	79	42	102	81	28	60
240-48687-3 MSD	GW-032615-JK-03	73	41	102	76	26	53
LCS 240-174242/22-A	Lab Control Sample	80	68	105	91	53	84
MB 240-174242/21-A	Method Blank	83	70	96	89	52	91

### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)  
 2FP = 2-Fluorophenol (Surr)  
 TBP = 2,4,6-Tribromophenol (Surr)  
 NBZ = Nitrobenzene-d5 (Surr)  
 PHL = Phenol-d5 (Surr)  
 TPH = Terphenyl-d14 (Surr)

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 240-174499/6**

**Matrix: Water**

**Analysis Batch: 174499**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.944	J	10	0.94	ug/L			03/31/15 13:25	1
Benzene	1.0	U	1.0	0.35	ug/L			03/31/15 13:25	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			03/31/15 13:25	1
Bromoform	1.0	U	1.0	0.56	ug/L			03/31/15 13:25	1
Bromomethane	1.0	U	1.0	0.44	ug/L			03/31/15 13:25	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			03/31/15 13:25	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			03/31/15 13:25	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			03/31/15 13:25	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			03/31/15 13:25	1
Chloroethane	1.0	U	1.0	0.32	ug/L			03/31/15 13:25	1
Chloroform	1.0	U	1.0	0.25	ug/L			03/31/15 13:25	1
Chloromethane	1.0	U	1.0	0.44	ug/L			03/31/15 13:25	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			03/31/15 13:25	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			03/31/15 13:25	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			03/31/15 13:25	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			03/31/15 13:25	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			03/31/15 13:25	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			03/31/15 13:25	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			03/31/15 13:25	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			03/31/15 13:25	1
2-Hexanone	10	U	10	0.48	ug/L			03/31/15 13:25	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			03/31/15 13:25	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			03/31/15 13:25	1
Styrene	1.0	U	1.0	0.45	ug/L			03/31/15 13:25	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			03/31/15 13:25	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			03/31/15 13:25	1
Toluene	1.0	U	1.0	0.23	ug/L			03/31/15 13:25	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			03/31/15 13:25	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			03/31/15 13:25	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			03/31/15 13:25	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			03/31/15 13:25	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			03/31/15 13:25	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			03/31/15 13:25	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			03/31/15 13:25	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			03/31/15 13:25	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			03/31/15 13:25	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			03/31/15 13:25	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			03/31/15 13:25	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			03/31/15 13:25	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			03/31/15 13:25	1
Methyl acetate	10	U	10	2.3	ug/L			03/31/15 13:25	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			03/31/15 13:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			03/31/15 13:25	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			03/31/15 13:25	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			03/31/15 13:25	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			03/31/15 13:25	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			03/31/15 13:25	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			03/31/15 13:25	1

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 240-174499/6**

**Matrix: Water**

**Analysis Batch: 174499**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			03/31/15 13:25	1
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			03/31/15 13:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		63 - 129		03/31/15 13:25	1
4-Bromofluorobenzene (Surr)	88		66 - 120		03/31/15 13:25	1
Toluene-d8 (Surr)	93		74 - 120		03/31/15 13:25	1
Dibromofluoromethane (Surr)	92		75 - 121		03/31/15 13:25	1

**Lab Sample ID: LCS 240-174499/4**

**Matrix: Water**

**Analysis Batch: 174499**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	24.0		ug/L		120	43 - 136
Benzene	10.0	11.0		ug/L		110	80 - 120
Dichlorobromomethane	10.0	10.5		ug/L		105	72 - 121
Bromoform	10.0	9.16		ug/L		92	40 - 131
Bromomethane	10.0	8.48		ug/L		85	11 - 185
2-Butanone (MEK)	20.0	20.9		ug/L		105	60 - 126
Carbon disulfide	10.0	12.4		ug/L		124	62 - 142
Carbon tetrachloride	10.0	11.0		ug/L		110	66 - 128
Chlorobenzene	10.0	10.3		ug/L		103	80 - 120
Chloroethane	10.0	8.95		ug/L		89	25 - 153
Chloroform	10.0	10.5		ug/L		105	79 - 120
Chloromethane	10.0	11.3		ug/L		113	44 - 126
1,1-Dichloroethane	10.0	11.1		ug/L		111	80 - 120
1,2-Dichloroethane	10.0	10.5		ug/L		105	71 - 127
1,1-Dichloroethene	10.0	11.1		ug/L		111	78 - 131
1,2-Dichloropropane	10.0	11.2		ug/L		112	80 - 120
1,2,4-Trimethylbenzene	10.0	10.8		ug/L		108	76 - 120
cis-1,3-Dichloropropene	10.0	11.2		ug/L		112	61 - 120
trans-1,3-Dichloropropene	10.0	11.3		ug/L		113	58 - 120
Ethylbenzene	10.0	10.7		ug/L		107	80 - 120
2-Hexanone	20.0	23.1		ug/L		115	55 - 133
Methylene Chloride	10.0	11.5		ug/L		115	66 - 131
4-Methyl-2-pentanone (MIBK)	20.0	22.3		ug/L		111	63 - 128
Styrene	10.0	10.1		ug/L		101	79 - 120
1,1,1,2-Tetrachloroethane	10.0	10.1		ug/L		101	68 - 120
Tetrachloroethene	10.0	10.0		ug/L		100	79 - 120
Toluene	10.0	10.8		ug/L		108	80 - 120
Trichloroethene	10.0	10.5		ug/L		105	76 - 120
1,3,5-Trimethylbenzene	10.0	11.0		ug/L		110	72 - 120
Vinyl chloride	10.0	10.3		ug/L		103	53 - 127
Xylenes, Total	20.0	21.6		ug/L		108	80 - 120
1,1,1-Trichloroethane	10.0	10.7		ug/L		107	74 - 120
1,1,2-Trichloroethane	10.0	10.0		ug/L		100	80 - 120
Cyclohexane	10.0	11.9		ug/L		119	54 - 121

TestAmerica Canton



# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 240-174499/4**

**Matrix: Water**

**Analysis Batch: 174499**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	10.0	9.42		ug/L		94	42 - 136
Ethylene Dibromide	10.0	9.98		ug/L		100	79 - 120
Dichlorodifluoromethane	10.0	10.4		ug/L		104	19 - 129
cis-1,2-Dichloroethene	10.0	10.8		ug/L		108	80 - 120
trans-1,2-Dichloroethene	10.0	11.4		ug/L		114	80 - 120
Isopropylbenzene	10.0	10.5		ug/L		105	75 - 120
Methyl acetate	50.0	55.4		ug/L		111	58 - 131
Methyl tert-butyl ether	10.0	9.96		ug/L		100	52 - 144
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.7		ug/L		107	74 - 151
1,2,4-Trichlorobenzene	10.0	9.94		ug/L		99	48 - 135
1,2-Dichlorobenzene	10.0	10.2		ug/L		102	80 - 120
1,3-Dichlorobenzene	10.0	10.0		ug/L		100	80 - 120
1,4-Dichlorobenzene	10.0	10.0		ug/L		100	80 - 120
Trichlorofluoromethane	10.0	9.83		ug/L		98	49 - 157
Methylcyclohexane	10.0	11.6		ug/L		116	56 - 127
m-Xylene & p-Xylene	10.0	10.8		ug/L		108	80 - 120
o-Xylene	10.0	10.8		ug/L		108	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	88		63 - 129
4-Bromofluorobenzene (Surr)	98		66 - 120
Toluene-d8 (Surr)	95		74 - 120
Dibromofluoromethane (Surr)	93		75 - 121

**Lab Sample ID: 240-48687-3 MS**

**Matrix: Water**

**Analysis Batch: 174499**

**Client Sample ID: GW-032615-JK-03**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	50	U	100	131		ug/L		131	33 - 145
Benzene	5.0	U	50.0	54.2		ug/L		108	72 - 121
Dichlorobromomethane	5.0	U	50.0	50.1		ug/L		100	67 - 120
Bromoform	5.0	U	50.0	45.2		ug/L		90	32 - 128
Bromomethane	5.0	U	50.0	40.2		ug/L		80	10 - 186
2-Butanone (MEK)	50	U	100	91.6		ug/L		92	54 - 129
Carbon disulfide	5.0	U	50.0	61.3		ug/L		123	57 - 147
Carbon tetrachloride	5.0	U	50.0	52.9		ug/L		106	59 - 129
Chlorobenzene	5.0	U	50.0	51.2		ug/L		102	80 - 120
Chloroethane	5.0	U	50.0	45.3		ug/L		91	21 - 165
Chloroform	5.0	U	50.0	54.1		ug/L		108	76 - 120
Chloromethane	5.0	U	50.0	53.3		ug/L		107	33 - 132
1,1-Dichloroethane	5.0	U	50.0	54.4		ug/L		109	79 - 120
1,2-Dichloroethane	5.0	U	50.0	51.4		ug/L		103	68 - 129
1,1-Dichloroethene	5.0	U	50.0	55.5		ug/L		111	74 - 135
1,2-Dichloropropane	5.0	U	50.0	54.4		ug/L		109	78 - 120
1,2,4-Trimethylbenzene	160		50.0	210	E	ug/L		101	67 - 124
cis-1,3-Dichloropropene	5.0	U	50.0	49.5		ug/L		99	51 - 120

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 240-48687-3 MS**

**Matrix: Water**

**Analysis Batch: 174499**

**Client Sample ID: GW-032615-JK-03**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
trans-1,3-Dichloropropene	5.0	U	50.0	50.6		ug/L		101	46 - 120
Ethylbenzene	31		50.0	88.8		ug/L		115	75 - 120
2-Hexanone	50	U	100	99.2		ug/L		99	47 - 139
Methylene Chloride	5.0	U	50.0	61.9		ug/L		124	63 - 128
4-Methyl-2-pentanone (MIBK)	50	U	100	101		ug/L		101	56 - 131
Styrene	5.0	U	50.0	52.0		ug/L		104	71 - 120
1,1,2,2-Tetrachloroethane	5.0	U	50.0	50.1		ug/L		100	63 - 122
Tetrachloroethene	5.0	U	50.0	49.1		ug/L		98	70 - 120
Toluene	5.0	U	50.0	55.4		ug/L		111	78 - 120
Trichloroethene	5.0	U	50.0	50.7		ug/L		101	66 - 120
1,3,5-Trimethylbenzene	88		50.0	140		ug/L		104	63 - 121
Vinyl chloride	5.0	U	50.0	51.9		ug/L		104	49 - 130
Xylenes, Total	97		100	213		ug/L		116	76 - 120
1,1,1-Trichloroethane	5.0	U	50.0	51.2		ug/L		102	68 - 121
1,1,2-Trichloroethane	5.0	U	50.0	54.6		ug/L		109	75 - 120
Cyclohexane	31		50.0	89.3		ug/L		117	49 - 123
1,2-Dibromo-3-Chloropropane	10	U	50.0	44.7		ug/L		89	32 - 139
Ethylene Dibromide	5.0	U	50.0	49.1		ug/L		98	74 - 120
Dichlorodifluoromethane	5.0	U	50.0	49.3		ug/L		99	17 - 128
cis-1,2-Dichloroethene	5.0	U	50.0	54.2		ug/L		108	70 - 120
trans-1,2-Dichloroethene	5.0	U	50.0	56.9		ug/L		114	80 - 120
Isopropylbenzene	57	F1	50.0	120	F1	ug/L		126	68 - 120
Methyl acetate	50	U	250	266		ug/L		107	47 - 130
Methyl tert-butyl ether	5.0	U	50.0	47.2		ug/L		94	46 - 144
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	50.0	52.5		ug/L		105	70 - 152
1,2,4-Trichlorobenzene	5.0	U	50.0	52.1		ug/L		104	38 - 138
1,2-Dichlorobenzene	5.0	U	50.0	50.2		ug/L		100	75 - 120
1,3-Dichlorobenzene	5.0	U	50.0	48.9		ug/L		98	73 - 120
1,4-Dichlorobenzene	5.0	U	50.0	48.6		ug/L		97	75 - 120
Trichlorofluoromethane	5.0	U	50.0	46.5		ug/L		93	46 - 157
Methylcyclohexane	14		50.0	66.7		ug/L		106	49 - 127
m-Xylene & p-Xylene	94	F1	50.0	155		ug/L		120	75 - 120
o-Xylene	2.9	J	50.0	57.5		ug/L		109	76 - 120

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	89		63 - 129
4-Bromofluorobenzene (Surr)	102		66 - 120
Toluene-d8 (Surr)	97		74 - 120
Dibromofluoromethane (Surr)	93		75 - 121

**Lab Sample ID: 240-48687-3 MSD**

**Matrix: Water**

**Analysis Batch: 174499**

**Client Sample ID: GW-032615-JK-03**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Acetone	50	U	100	137		ug/L		137	33 - 145	4	30
Benzene	5.0	U	50.0	56.6		ug/L		113	72 - 121	4	30

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# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 240-48687-3 MSD**

**Client Sample ID: GW-032615-JK-03**

**Matrix: Water**

**Prep Type: Total/NA**

**Analysis Batch: 174499**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
Dichlorobromomethane	5.0	U	50.0	51.1		ug/L		102	67 - 120	2	30
Bromoform	5.0	U	50.0	44.3		ug/L		89	32 - 128	2	30
Bromomethane	5.0	U	50.0	40.3		ug/L		81	10 - 186	0	30
2-Butanone (MEK)	50	U	100	102		ug/L		102	54 - 129	11	30
Carbon disulfide	5.0	U	50.0	61.6		ug/L		123	57 - 147	0	30
Carbon tetrachloride	5.0	U	50.0	53.2		ug/L		106	59 - 129	1	30
Chlorobenzene	5.0	U	50.0	52.1		ug/L		104	80 - 120	2	30
Chloroethane	5.0	U	50.0	42.4		ug/L		85	21 - 165	6	30
Chloroform	5.0	U	50.0	54.6		ug/L		109	76 - 120	1	30
Chloromethane	5.0	U	50.0	51.1		ug/L		102	33 - 132	4	30
1,1-Dichloroethane	5.0	U	50.0	55.7		ug/L		111	79 - 120	2	30
1,2-Dichloroethane	5.0	U	50.0	53.4		ug/L		107	68 - 129	4	30
1,1-Dichloroethene	5.0	U	50.0	56.3		ug/L		113	74 - 135	2	30
1,2-Dichloropropane	5.0	U	50.0	56.2		ug/L		112	78 - 120	3	30
1,2,4-Trimethylbenzene	160		50.0	210	E	ug/L		100	67 - 124	0	30
cis-1,3-Dichloropropene	5.0	U	50.0	51.9		ug/L		104	51 - 120	5	30
trans-1,3-Dichloropropene	5.0	U	50.0	53.6		ug/L		107	46 - 120	6	30
Ethylbenzene	31		50.0	89.9		ug/L		118	75 - 120	1	30
2-Hexanone	50	U	100	110		ug/L		110	47 - 139	10	30
Methylene Chloride	5.0	U	50.0	61.1		ug/L		122	63 - 128	1	30
4-Methyl-2-pentanone (MIBK)	50	U	100	111		ug/L		111	56 - 131	9	30
Styrene	5.0	U	50.0	53.4		ug/L		107	71 - 120	3	30
1,1,2,2-Tetrachloroethane	5.0	U	50.0	53.2		ug/L		106	63 - 122	6	30
Tetrachloroethene	5.0	U	50.0	51.5		ug/L		103	70 - 120	5	30
Toluene	5.0	U	50.0	55.8		ug/L		112	78 - 120	1	30
Trichloroethene	5.0	U	50.0	54.3		ug/L		109	66 - 120	7	30
1,3,5-Trimethylbenzene	88		50.0	140		ug/L		105	63 - 121	0	30
Vinyl chloride	5.0	U	50.0	51.8		ug/L		104	49 - 130	0	30
Xylenes, Total	97		100	215		ug/L		118	76 - 120	1	30
1,1,1-Trichloroethane	5.0	U	50.0	52.4		ug/L		105	68 - 121	2	30
1,1,2-Trichloroethane	5.0	U	50.0	56.4		ug/L		113	75 - 120	3	30
Cyclohexane	31		50.0	89.8		ug/L		118	49 - 123	1	30
1,2-Dibromo-3-Chloropropane	10	U	50.0	49.2		ug/L		98	32 - 139	10	30
Ethylene Dibromide	5.0	U	50.0	51.4		ug/L		103	74 - 120	4	30
Dichlorodifluoromethane	5.0	U	50.0	48.6		ug/L		97	17 - 128	1	30
cis-1,2-Dichloroethene	5.0	U	50.0	55.4		ug/L		111	70 - 120	2	30
trans-1,2-Dichloroethene	5.0	U	50.0	57.6		ug/L		115	80 - 120	1	30
Isopropylbenzene	57	F1	50.0	119	F1	ug/L		124	68 - 120	1	30
Methyl acetate	50		250	283		ug/L		113	47 - 130	6	30
Methyl tert-butyl ether	5.0	U	50.0	49.6		ug/L		99	46 - 144	5	30
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	50.0	51.3		ug/L		103	70 - 152	2	30
1,2,4-Trichlorobenzene	5.0	U	50.0	53.0		ug/L		106	38 - 138	2	30
1,2-Dichlorobenzene	5.0	U	50.0	50.2		ug/L		100	75 - 120	0	30
1,3-Dichlorobenzene	5.0	U	50.0	50.0		ug/L		100	73 - 120	2	30
1,4-Dichlorobenzene	5.0	U	50.0	49.8		ug/L		100	75 - 120	3	30
Trichlorofluoromethane	5.0	U	50.0	47.1		ug/L		94	46 - 157	1	30
Methylcyclohexane	14		50.0	70.0		ug/L		113	49 - 127	5	30

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 240-48687-3 MSD**

**Matrix: Water**

**Analysis Batch: 174499**

**Client Sample ID: GW-032615-JK-03**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
m-Xylene & p-Xylene	94	F1	50.0	155	F1	ug/L		121	75 - 120	0	30
o-Xylene	2.9	J	50.0	59.7		ug/L		114	76 - 120	4	30
<b>MSD MSD</b>											
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>								
1,2-Dichloroethane-d4 (Surr)	92		63 - 129								
4-Bromofluorobenzene (Surr)	104		66 - 120								
Toluene-d8 (Surr)	98		74 - 120								
Dibromofluoromethane (Surr)	94		75 - 121								

**Lab Sample ID: MB 240-174662/7**

**Matrix: Water**

**Analysis Batch: 174662**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			04/01/15 14:33	1
Benzene	1.0	U	1.0	0.35	ug/L			04/01/15 14:33	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			04/01/15 14:33	1
Bromoform	1.0	U	1.0	0.56	ug/L			04/01/15 14:33	1
Bromomethane	1.0	U	1.0	0.44	ug/L			04/01/15 14:33	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			04/01/15 14:33	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			04/01/15 14:33	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			04/01/15 14:33	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			04/01/15 14:33	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/01/15 14:33	1
Chloroform	1.0	U	1.0	0.25	ug/L			04/01/15 14:33	1
Chloromethane	1.0	U	1.0	0.44	ug/L			04/01/15 14:33	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			04/01/15 14:33	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			04/01/15 14:33	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			04/01/15 14:33	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			04/01/15 14:33	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			04/01/15 14:33	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			04/01/15 14:33	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			04/01/15 14:33	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			04/01/15 14:33	1
2-Hexanone	10	U	10	0.48	ug/L			04/01/15 14:33	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			04/01/15 14:33	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			04/01/15 14:33	1
Styrene	1.0	U	1.0	0.45	ug/L			04/01/15 14:33	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			04/01/15 14:33	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			04/01/15 14:33	1
Toluene	1.0	U	1.0	0.23	ug/L			04/01/15 14:33	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			04/01/15 14:33	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			04/01/15 14:33	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			04/01/15 14:33	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			04/01/15 14:33	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			04/01/15 14:33	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			04/01/15 14:33	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			04/01/15 14:33	1

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 240-174662/7**

**Matrix: Water**

**Analysis Batch: 174662**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			04/01/15 14:33	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			04/01/15 14:33	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			04/01/15 14:33	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			04/01/15 14:33	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			04/01/15 14:33	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			04/01/15 14:33	1
Methyl acetate	10	U	10	2.3	ug/L			04/01/15 14:33	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			04/01/15 14:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			04/01/15 14:33	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			04/01/15 14:33	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			04/01/15 14:33	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			04/01/15 14:33	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			04/01/15 14:33	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			04/01/15 14:33	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			04/01/15 14:33	1
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			04/01/15 14:33	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	99		63 - 129		04/01/15 14:33	1
4-Bromofluorobenzene (Surr)	86		66 - 120		04/01/15 14:33	1
Toluene-d8 (Surr)	90		74 - 120		04/01/15 14:33	1
Dibromofluoromethane (Surr)	96		75 - 121		04/01/15 14:33	1

**Lab Sample ID: LCS 240-174662/4**

**Matrix: Water**

**Analysis Batch: 174662**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Acetone	20.0	26.4		ug/L		132	43 - 136
Benzene	10.0	11.3		ug/L		113	80 - 120
Dichlorobromomethane	10.0	10.6		ug/L		106	72 - 121
Bromoform	10.0	9.07		ug/L		91	40 - 131
Bromomethane	10.0	8.62		ug/L		86	11 - 185
2-Butanone (MEK)	20.0	22.7		ug/L		114	60 - 126
Carbon disulfide	10.0	12.3		ug/L		123	62 - 142
Carbon tetrachloride	10.0	11.1		ug/L		111	66 - 128
Chlorobenzene	10.0	10.9		ug/L		109	80 - 120
Chloroethane	10.0	9.02		ug/L		90	25 - 153
Chloroform	10.0	10.7		ug/L		107	79 - 120
Chloromethane	10.0	11.0		ug/L		110	44 - 126
1,1-Dichloroethane	10.0	11.2		ug/L		112	80 - 120
1,2-Dichloroethane	10.0	10.9		ug/L		109	71 - 127
1,1-Dichloroethene	10.0	11.3		ug/L		113	78 - 131
1,2-Dichloropropane	10.0	11.3		ug/L		113	80 - 120
1,2,4-Trimethylbenzene	10.0	11.2		ug/L		112	76 - 120
cis-1,3-Dichloropropene	10.0	11.0		ug/L		110	61 - 120
trans-1,3-Dichloropropene	10.0	11.2		ug/L		112	58 - 120
Ethylbenzene	10.0	11.5		ug/L		115	80 - 120

TestAmerica Canton



# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SOW 108011

TestAmerica Job ID: 240-48687-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 240-174662/4**

**Matrix: Water**

**Analysis Batch: 174662**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Hexanone	20.0	24.2		ug/L		121	55 - 133
Methylene Chloride	10.0	11.7		ug/L		117	66 - 131
4-Methyl-2-pentanone (MIBK)	20.0	22.4		ug/L		112	63 - 128
Styrene	10.0	10.5		ug/L		105	79 - 120
1,1,2,2-Tetrachloroethane	10.0	11.1		ug/L		111	68 - 120
Tetrachloroethene	10.0	10.7		ug/L		107	79 - 120
Toluene	10.0	11.4		ug/L		114	80 - 120
Trichloroethene	10.0	10.8		ug/L		108	76 - 120
1,3,5-Trimethylbenzene	10.0	11.3		ug/L		113	72 - 120
Vinyl chloride	10.0	10.2		ug/L		102	53 - 127
Xylenes, Total	20.0	22.0		ug/L		110	80 - 120
1,1,1-Trichloroethane	10.0	10.5		ug/L		105	74 - 120
1,1,2-Trichloroethane	10.0	10.8		ug/L		108	80 - 120
Cyclohexane	10.0	12.1		ug/L		121	54 - 121
1,2-Dibromo-3-Chloropropane	10.0	8.67		ug/L		87	42 - 136
Ethylene Dibromide	10.0	10.5		ug/L		105	79 - 120
Dichlorodifluoromethane	10.0	10.1		ug/L		101	19 - 129
cis-1,2-Dichloroethene	10.0	10.9		ug/L		109	80 - 120
trans-1,2-Dichloroethene	10.0	11.6		ug/L		116	80 - 120
Isopropylbenzene	10.0	10.7		ug/L		107	75 - 120
Methyl acetate	50.0	58.5		ug/L		117	58 - 131
Methyl tert-butyl ether	10.0	9.52		ug/L		95	52 - 144
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.8		ug/L		108	74 - 151
1,2,4-Trichlorobenzene	10.0	9.20		ug/L		92	48 - 135
1,2-Dichlorobenzene	10.0	10.4		ug/L		104	80 - 120
1,3-Dichlorobenzene	10.0	10.1		ug/L		101	80 - 120
1,4-Dichlorobenzene	10.0	10.4		ug/L		104	80 - 120
Trichlorofluoromethane	10.0	9.73		ug/L		97	49 - 157
Methylcyclohexane	10.0	11.4		ug/L		114	56 - 127
m-Xylene & p-Xylene	10.0	11.2		ug/L		112	80 - 120
o-Xylene	10.0	10.8		ug/L		108	80 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	93		63 - 129
4-Bromofluorobenzene (Surr)	101		66 - 120
Toluene-d8 (Surr)	99		74 - 120
Dibromofluoromethane (Surr)	94		75 - 121

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

**Lab Sample ID: MB 240-174242/21-A**

**Matrix: Water**

**Analysis Batch: 174429**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 174242**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acenaphthene	5.0	U	5.0	0.044	ug/L		03/30/15 08:43	03/31/15 09:51	1
Acenaphthylene	5.0	U	5.0	0.048	ug/L		03/30/15 08:43	03/31/15 09:51	1

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

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

Lab Sample ID: MB 240-174242/21-A

Matrix: Water

Analysis Batch: 174429

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 174242

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetophenone	5.0	U	5.0	0.34	ug/L		03/30/15 08:43	03/31/15 09:51	1
Anthracene	5.0	U	5.0	0.088	ug/L		03/30/15 08:43	03/31/15 09:51	1
Atrazine	3.0	U	3.0	0.34	ug/L		03/30/15 08:43	03/31/15 09:51	1
Benzaldehyde	5.0	U	5.0	0.39	ug/L		03/30/15 08:43	03/31/15 09:51	1
Benzo[a]anthracene	1.0	U	1.0	0.030	ug/L		03/30/15 08:43	03/31/15 09:51	1
Benzo[b]fluoranthene	1.0	U	1.0	0.039	ug/L		03/30/15 08:43	03/31/15 09:51	1
Benzo[k]fluoranthene	1.0	U	1.0	0.045	ug/L		03/30/15 08:43	03/31/15 09:51	1
Benzo[g,h,i]perylene	1.0	U	1.0	0.046	ug/L		03/30/15 08:43	03/31/15 09:51	1
Benzo[a]pyrene	1.0	U	1.0	0.051	ug/L		03/30/15 08:43	03/31/15 09:51	1
Butyl benzyl phthalate	5.0	U	5.0	0.26	ug/L		03/30/15 08:43	03/31/15 09:51	1
1,1'-Biphenyl	5.0	U	5.0	0.13	ug/L		03/30/15 08:43	03/31/15 09:51	1
Bis(2-chloroethoxy)methane	5.0	U	5.0	0.32	ug/L		03/30/15 08:43	03/31/15 09:51	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.10	ug/L		03/30/15 08:43	03/31/15 09:51	1
Bis(2-ethylhexyl) phthalate	5.0	U	5.0	1.7	ug/L		03/30/15 08:43	03/31/15 09:51	1
4-Bromophenyl phenyl ether	5.0	U	5.0	0.22	ug/L		03/30/15 08:43	03/31/15 09:51	1
Caprolactam	10	U	10	0.20	ug/L		03/30/15 08:43	03/31/15 09:51	1
Carbazole	10	U	10	0.28	ug/L		03/30/15 08:43	03/31/15 09:51	1
4-Chloroaniline	10	U	10	0.21	ug/L		03/30/15 08:43	03/31/15 09:51	1
4-Chloro-3-methylphenol	5.0	U	5.0	0.21	ug/L		03/30/15 08:43	03/31/15 09:51	1
2-Chloronaphthalene	5.0	U	5.0	0.10	ug/L		03/30/15 08:43	03/31/15 09:51	1
2-Chlorophenol	5.0	U	5.0	0.29	ug/L		03/30/15 08:43	03/31/15 09:51	1
4-Chlorophenyl phenyl ether	5.0	U	5.0	0.30	ug/L		03/30/15 08:43	03/31/15 09:51	1
Chrysene	1.0	U	1.0	0.050	ug/L		03/30/15 08:43	03/31/15 09:51	1
2-Methylnaphthalene	5.0	U	5.0	0.090	ug/L		03/30/15 08:43	03/31/15 09:51	1
3 & 4 Methylphenol	5.0	U	5.0	0.80	ug/L		03/30/15 08:43	03/31/15 09:51	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.045	ug/L		03/30/15 08:43	03/31/15 09:51	1
Dibenzofuran	4.0	U	4.0	0.020	ug/L		03/30/15 08:43	03/31/15 09:51	1
3,3'-Dichlorobenzidine	1.0	U	1.0	0.37	ug/L		03/30/15 08:43	03/31/15 09:51	1
2,4-Dichlorophenol	10	U	10	0.19	ug/L		03/30/15 08:43	03/31/15 09:51	1
Diethyl phthalate	5.0	U	5.0	0.60	ug/L		03/30/15 08:43	03/31/15 09:51	1
2,4-Dimethylphenol	5.0	U	5.0	0.25	ug/L		03/30/15 08:43	03/31/15 09:51	1
Dimethyl phthalate	5.0	U	5.0	0.29	ug/L		03/30/15 08:43	03/31/15 09:51	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		03/30/15 08:43	03/31/15 09:51	1
2,4-Dinitrophenol	20	U	20	0.32	ug/L		03/30/15 08:43	03/31/15 09:51	1
2,4-Dinitrotoluene	5.0	U	5.0	0.25	ug/L		03/30/15 08:43	03/31/15 09:51	1
Di-n-butyl phthalate	5.0	U	5.0	1.7	ug/L		03/30/15 08:43	03/31/15 09:51	1
Di-n-octyl phthalate	5.0	U	5.0	0.23	ug/L		03/30/15 08:43	03/31/15 09:51	1
Fluoranthene	1.0	U	1.0	0.045	ug/L		03/30/15 08:43	03/31/15 09:51	1
Fluorene	5.0	U	5.0	0.041	ug/L		03/30/15 08:43	03/31/15 09:51	1
Hexachlorobenzene	0.20	U	0.20	0.085	ug/L		03/30/15 08:43	03/31/15 09:51	1
Hexachlorobutadiene	1.0	U	1.0	0.27	ug/L		03/30/15 08:43	03/31/15 09:51	1
Hexachlorocyclopentadiene	5.0	U	5.0	0.24	ug/L		03/30/15 08:43	03/31/15 09:51	1
Hexachloroethane	5.0	U	5.0	0.19	ug/L		03/30/15 08:43	03/31/15 09:51	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.043	ug/L		03/30/15 08:43	03/31/15 09:51	1
Isophorone	5.0	U	5.0	0.27	ug/L		03/30/15 08:43	03/31/15 09:51	1
2-Methylphenol	5.0	U	5.0	0.17	ug/L		03/30/15 08:43	03/31/15 09:51	1
Naphthalene	5.0	U	5.0	0.063	ug/L		03/30/15 08:43	03/31/15 09:51	1
2-Nitroaniline	20	U	20	0.21	ug/L		03/30/15 08:43	03/31/15 09:51	1

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

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

**Lab Sample ID: MB 240-174242/21-A**

**Matrix: Water**

**Analysis Batch: 174429**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 174242**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Nitroaniline	20	U	20	0.28	ug/L		03/30/15 08:43	03/31/15 09:51	1
4-Nitroaniline	20	U	20	0.22	ug/L		03/30/15 08:43	03/31/15 09:51	1
Nitrobenzene	3.0	U	3.0	0.040	ug/L		03/30/15 08:43	03/31/15 09:51	1
2-Nitrophenol	5.0	U	5.0	0.28	ug/L		03/30/15 08:43	03/31/15 09:51	1
4-Nitrophenol	20	U	20	0.29	ug/L		03/30/15 08:43	03/31/15 09:51	1
N-Nitrosodiphenylamine	5.0	U	5.0	0.31	ug/L		03/30/15 08:43	03/31/15 09:51	1
N-Nitrosodi-n-propylamine	5.0	U	5.0	0.24	ug/L		03/30/15 08:43	03/31/15 09:51	1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	0.40	ug/L		03/30/15 08:43	03/31/15 09:51	1
Pentachlorophenol	5.0	U	5.0	0.27	ug/L		03/30/15 08:43	03/31/15 09:51	1
Phenanthrene	2.0	U	2.0	0.062	ug/L		03/30/15 08:43	03/31/15 09:51	1
Phenol	5.0	U	5.0	0.60	ug/L		03/30/15 08:43	03/31/15 09:51	1
Pyrene	5.0	U	5.0	0.042	ug/L		03/30/15 08:43	03/31/15 09:51	1
2,4,5-Trichlorophenol	5.0	U	5.0	0.30	ug/L		03/30/15 08:43	03/31/15 09:51	1
2,4,6-Trichlorophenol	4.0	U	4.0	0.24	ug/L		03/30/15 08:43	03/31/15 09:51	1
2,6-Dinitrotoluene	5.0	U	5.0	0.80	ug/L		03/30/15 08:43	03/31/15 09:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	83		29 - 110	03/30/15 08:43	03/31/15 09:51	1
2-Fluorophenol (Surr)	70		15 - 110	03/30/15 08:43	03/31/15 09:51	1
2,4,6-Tribromophenol (Surr)	96		21 - 128	03/30/15 08:43	03/31/15 09:51	1
Nitrobenzene-d5 (Surr)	89		31 - 110	03/30/15 08:43	03/31/15 09:51	1
Phenol-d5 (Surr)	52		10 - 110	03/30/15 08:43	03/31/15 09:51	1
Terphenyl-d14 (Surr)	91		31 - 115	03/30/15 08:43	03/31/15 09:51	1

**Lab Sample ID: LCS 240-174242/22-A**

**Matrix: Water**

**Analysis Batch: 174429**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 174242**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	20.0	16.7		ug/L		83	55 - 120
Acenaphthylene	20.0	16.3		ug/L		82	55 - 120
Acetophenone	20.0	17.2		ug/L		86	50 - 120
Anthracene	20.0	18.0		ug/L		90	56 - 120
Atrazine	40.0	39.0		ug/L		98	65 - 161
Benzaldehyde	40.0	41.3		ug/L		103	40 - 122
Benzo[a]anthracene	20.0	17.1		ug/L		85	46 - 120
Benzo[b]fluoranthene	20.0	18.1		ug/L		90	24 - 120
Benzo[k]fluoranthene	20.0	18.2		ug/L		91	30 - 120
Benzo[g,h,i]perylene	20.0	18.3		ug/L		92	24 - 126
Benzo[a]pyrene	20.0	18.3		ug/L		91	24 - 120
Butyl benzyl phthalate	20.0	17.8		ug/L		89	51 - 120
1,1'-Biphenyl	20.0	15.8		ug/L		79	52 - 120
Bis(2-chloroethoxy)methane	20.0	17.1		ug/L		85	48 - 120
Bis(2-chloroethyl)ether	20.0	16.1		ug/L		80	43 - 120
Bis(2-ethylhexyl) phthalate	20.0	17.3		ug/L		86	21 - 125
4-Bromophenyl phenyl ether	20.0	18.8		ug/L		94	47 - 120
Caprolactam	40.0	9.59	J	ug/L		24	10 - 120
Carbazole	20.0	17.6		ug/L		88	57 - 120

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

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

**Lab Sample ID: LCS 240-174242/22-A**

**Matrix: Water**

**Analysis Batch: 174429**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 174242**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec. Limits
	Added	Result	Qualifier				
4-Chloroaniline	20.0	12.5		ug/L		63	15 - 120
4-Chloro-3-methylphenol	20.0	18.5		ug/L		92	45 - 120
2-Chloronaphthalene	20.0	15.6		ug/L		78	47 - 120
2-Chlorophenol	20.0	17.4		ug/L		87	43 - 120
4-Chlorophenyl phenyl ether	20.0	16.9		ug/L		84	47 - 120
Chrysene	20.0	17.6		ug/L		88	49 - 120
2-Methylnaphthalene	20.0	15.6		ug/L		78	52 - 120
3 & 4 Methylphenol	20.0	16.0		ug/L		80	34 - 120
Dibenz(a,h)anthracene	20.0	17.8		ug/L		89	24 - 125
Dibenzofuran	20.0	16.5		ug/L		82	56 - 120
3,3'-Dichlorobenzidine	40.0	37.3		ug/L		93	29 - 120
2,4-Dichlorophenol	20.0	17.4		ug/L		87	46 - 120
Diethyl phthalate	20.0	18.0		ug/L		90	58 - 120
2,4-Dimethylphenol	20.0	17.1		ug/L		86	38 - 120
Dimethyl phthalate	20.0	17.9		ug/L		89	59 - 120
4,6-Dinitro-2-methylphenol	40.0	34.9		ug/L		87	33 - 120
2,4-Dinitrophenol	40.0	37.7		ug/L		94	10 - 120
2,4-Dinitrotoluene	20.0	19.8		ug/L		99	52 - 120
Di-n-butyl phthalate	20.0	18.9		ug/L		95	57 - 122
Di-n-octyl phthalate	20.0	17.3		ug/L		87	21 - 122
Fluoranthene	20.0	19.2		ug/L		96	57 - 120
Fluorene	20.0	16.3		ug/L		81	56 - 120
Hexachlorobenzene	20.0	18.1		ug/L		91	52 - 120
Hexachlorobutadiene	20.0	12.8		ug/L		64	38 - 120
Hexachlorocyclopentadiene	20.0	10.5		ug/L		52	4 - 120
Hexachloroethane	20.0	12.8		ug/L		64	42 - 120
Indeno[1,2,3-cd]pyrene	20.0	19.0		ug/L		95	25 - 120
Isophorone	20.0	18.0		ug/L		90	48 - 123
2-Methylphenol	20.0	16.4		ug/L		82	38 - 120
Naphthalene	20.0	15.1		ug/L		75	52 - 120
2-Nitroaniline	20.0	19.3	J	ug/L		97	48 - 127
3-Nitroaniline	20.0	20.1		ug/L		100	52 - 120
4-Nitroaniline	20.0	18.0	J	ug/L		90	48 - 120
Nitrobenzene	20.0	17.3		ug/L		86	41 - 120
2-Nitrophenol	20.0	19.3		ug/L		97	42 - 120
4-Nitrophenol	40.0	25.0		ug/L		63	16 - 120
N-Nitrosodiphenylamine	40.0	36.9		ug/L		92	51 - 120
N-Nitrosodi-n-propylamine	20.0	18.2		ug/L		91	48 - 123
2,2'-oxybis[1-chloropropane]	20.0	17.8		ug/L		89	42 - 120
Pentachlorophenol	40.0	31.3		ug/L		78	14 - 120
Phenanthrene	20.0	16.7		ug/L		83	57 - 120
Phenol	20.0	10.3		ug/L		51	16 - 120
Pyrene	20.0	17.6		ug/L		88	50 - 120
2,4,5-Trichlorophenol	20.0	17.9		ug/L		90	47 - 120
2,4,6-Trichlorophenol	20.0	17.6		ug/L		88	43 - 120
2,6-Dinitrotoluene	20.0	18.7		ug/L		94	52 - 120

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

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

**Lab Sample ID: LCS 240-174242/22-A**

**Matrix: Water**

**Analysis Batch: 174429**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 174242**

Surrogate	LCS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	80		29 - 110
2-Fluorophenol (Surr)	68		15 - 110
2,4,6-Tribromophenol (Surr)	105		21 - 128
Nitrobenzene-d5 (Surr)	91		31 - 110
Phenol-d5 (Surr)	53		10 - 110
Terphenyl-d14 (Surr)	84		31 - 115

**Lab Sample ID: 240-48687-3 MS**

**Matrix: Water**

**Analysis Batch: 174429**

**Client Sample ID: GW-032615-JK-03**

**Prep Type: Total/NA**

**Prep Batch: 174242**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Acenaphthene	4.8	U	19.0	15.1		ug/L		79	49 - 110
Acenaphthylene	4.8	U	19.0	15.0		ug/L		79	49 - 110
Acetophenone	4.8	U	19.0	16.5		ug/L		86	45 - 110
Anthracene	4.8	U	19.0	16.5		ug/L		86	50 - 110
Atrazine	2.9	U	38.1	38.7		ug/L		101	55 - 110
Benzaldehyde	4.8	U F1	38.1	57.4	F1	ug/L		151	24 - 119
Benzo[a]anthracene	0.95	U	19.0	14.1		ug/L		74	34 - 110
Benzo[b]fluoranthene	0.95	U	19.0	13.1		ug/L		69	21 - 110
Benzo[k]fluoranthene	0.95	U	19.0	13.3		ug/L		70	24 - 110
Benzo[g,h,i]perylene	0.95	U	19.0	13.6		ug/L		71	18 - 110
Benzo[a]pyrene	0.95	U	19.0	13.3		ug/L		70	17 - 110
Butyl benzyl phthalate	4.8	U	19.0	16.0		ug/L		84	48 - 110
1,1'-Biphenyl	0.56	J	19.0	14.9		ug/L		75	46 - 110
Bis(2-chloroethoxy)methane	4.8	U	19.0	16.0		ug/L		84	45 - 110
Bis(2-chloroethyl)ether	0.95	U	19.0	13.7		ug/L		72	30 - 110
Bis(2-ethylhexyl) phthalate	4.8	U	19.0	13.0		ug/L		68	10 - 110
4-Bromophenyl phenyl ether	4.8	U	19.0	17.3		ug/L		91	51 - 110
Caprolactam	9.5	U	38.1	4.70	J	ug/L		12	10 - 126
Carbazole	9.5	U	19.0	17.2		ug/L		90	50 - 110
4-Chloroaniline	9.5	U	19.0	7.24	J	ug/L		38	20 - 110
4-Chloro-3-methylphenol	4.8	U	19.0	17.0		ug/L		89	42 - 110
2-Chloronaphthalene	4.8	U	19.0	14.3		ug/L		75	46 - 110
2-Chlorophenol	4.8	U	19.0	14.5		ug/L		76	35 - 110
4-Chlorophenyl phenyl ether	4.8	U	19.0	15.1		ug/L		79	51 - 110
Chrysene	0.95	U	19.0	14.1		ug/L		74	36 - 110
2-Methylnaphthalene	19		19.0	33.2		ug/L		76	50 - 110
3 & 4 Methylphenol	4.8	U	19.0	11.0		ug/L		58	26 - 110
Dibenz(a,h)anthracene	1.9	U	19.0	12.6		ug/L		66	14 - 110
Dibenzofuran	0.18	J	19.0	15.4		ug/L		80	51 - 110
3,3'-Dichlorobenzidine	0.95	U	38.1	27.3		ug/L		72	10 - 110
2,4-Dichlorophenol	9.5	U	19.0	15.5		ug/L		81	48 - 110
Diethyl phthalate	4.8	U	19.0	16.3		ug/L		86	53 - 110
2,4-Dimethylphenol	4.8	U	19.0	15.0		ug/L		79	27 - 110
Dimethyl phthalate	4.8	U	19.0	16.6		ug/L		87	54 - 110
4,6-Dinitro-2-methylphenol	19	U	38.1	34.1		ug/L		89	10 - 110
2,4-Dinitrophenol	19	U	38.1	37.1		ug/L		97	10 - 110

TestAmerica Canton



# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

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

**Lab Sample ID: 240-48687-3 MS**

**Matrix: Water**

**Analysis Batch: 174429**

**Client Sample ID: GW-032615-JK-03**

**Prep Type: Total/NA**

**Prep Batch: 174242**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
2,4-Dinitrotoluene	4.8	U	19.0	18.6		ug/L		98	56 - 110
Di-n-butyl phthalate	4.8	U	19.0	17.8		ug/L		93	50 - 110
Di-n-octyl phthalate	4.8	U	19.0	12.6		ug/L		66	10 - 110
Fluoranthene	0.95	U	19.0	17.9		ug/L		94	54 - 110
Fluorene	0.23	J	19.0	15.3		ug/L		79	51 - 110
Hexachlorobenzene	0.19	U	19.0	16.5		ug/L		87	49 - 110
Hexachlorobutadiene	0.95	U	19.0	12.2		ug/L		64	36 - 110
Hexachlorocyclopentadiene	4.8	U	19.0	10.8		ug/L		57	4 - 110
Hexachloroethane	4.8	U F1	19.0	4.8	U F1	ug/L		0	40 - 110
Indeno[1,2,3-cd]pyrene	1.9	U	19.0	13.9		ug/L		73	16 - 110
Isophorone	4.8	U	19.0	16.4		ug/L		86	45 - 110
2-Methylphenol	4.8	U	19.0	11.9		ug/L		62	31 - 110
Naphthalene	21		19.0	34.0		ug/L		68	35 - 110
2-Nitroaniline	19	U	19.0	18.7	J	ug/L		98	42 - 110
3-Nitroaniline	19	U	19.0	15.7	J	ug/L		82	31 - 110
4-Nitroaniline	19	U	19.0	15.6	J	ug/L		82	26 - 110
Nitrobenzene	2.9	U	19.0	17.9		ug/L		94	43 - 110
2-Nitrophenol	4.8	U	19.0	16.4		ug/L		86	47 - 110
4-Nitrophenol	19	U	38.1	14.2	J	ug/L		37	10 - 110
N-Nitrosodiphenylamine	4.8	U	38.1	34.4		ug/L		90	41 - 110
N-Nitrosodi-n-propylamine	4.8	U	19.0	15.9		ug/L		84	42 - 110
2,2'-oxybis[1-chloropropane]	4.8	U	19.0	14.7		ug/L		77	26 - 110
Pentachlorophenol	4.8	U	38.1	32.2		ug/L		84	24 - 110
Phenanthrene	1.9	U	19.0	15.3		ug/L		80	52 - 110
Phenol	4.8	U	19.0	4.93		ug/L		26	10 - 125
Pyrene	4.8	U	19.0	16.2		ug/L		85	50 - 110
2,4,5-Trichlorophenol	4.8	U	19.0	16.7		ug/L		88	53 - 110
2,4,6-Trichlorophenol	3.8	U	19.0	16.2		ug/L		85	50 - 110
2,6-Dinitrotoluene	4.8	U	19.0	17.3		ug/L		91	55 - 110

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	79		29 - 110
2-Fluorophenol (Surr)	42		15 - 110
2,4,6-Tribromophenol (Surr)	102		21 - 128
Nitrobenzene-d5 (Surr)	81		31 - 110
Phenol-d5 (Surr)	28		10 - 110
Terphenyl-d14 (Surr)	60		31 - 115

**Lab Sample ID: 240-48687-3 MSD**

**Matrix: Water**

**Analysis Batch: 174429**

**Client Sample ID: GW-032615-JK-03**

**Prep Type: Total/NA**

**Prep Batch: 174242**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec. Limits	RPD	
	Result	Qualifier	Added	Result	Qualifier					RPD	Limit
Acenaphthene	4.8	U	19.0	14.7		ug/L		77	49 - 110	3	30
Acenaphthylene	4.8	U	19.0	14.4		ug/L		76	49 - 110	4	37
Acetophenone	4.8	U	19.0	15.5		ug/L		82	45 - 110	6	42
Anthracene	4.8	U	19.0	15.7		ug/L		82	50 - 110	5	30
Atrazine	2.9	U	38.1	38.4		ug/L		101	55 - 110	1	30

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

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

**Lab Sample ID: 240-48687-3 MSD**

**Matrix: Water**

**Analysis Batch: 174429**

**Client Sample ID: GW-032615-JK-03**

**Prep Type: Total/NA**

**Prep Batch: 174242**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
Benzaldehyde	4.8	U F1	38.1	53.0	F1	ug/L		139	24 - 119	8	74
Benzo[a]anthracene	0.95	U	19.0	14.0		ug/L		73	34 - 110	1	52
Benzo[b]fluoranthene	0.95	U	19.0	12.8		ug/L		67	21 - 110	2	64
Benzo[k]fluoranthene	0.95	U	19.0	13.3		ug/L		70	24 - 110	0	75
Benzo[g,h,i]perylene	0.95	U	19.0	13.2		ug/L		70	18 - 110	3	87
Benzo[a]pyrene	0.95	U	19.0	13.3		ug/L		70	17 - 110	0	68
Butyl benzyl phthalate	4.8	U	19.0	15.7		ug/L		83	48 - 110	1	30
1,1'-Biphenyl	0.56	J	19.0	14.3		ug/L		72	46 - 110	4	36
Bis(2-chloroethoxy)methane	4.8	U	19.0	15.3		ug/L		80	45 - 110	4	39
Bis(2-chloroethyl)ether	0.95	U	19.0	13.0		ug/L		68	30 - 110	5	56
Bis(2-ethylhexyl) phthalate	4.8	U	19.0	13.2		ug/L		69	10 - 110	2	85
4-Bromophenyl phenyl ether	4.8	U	19.0	16.5		ug/L		87	51 - 110	5	30
Caprolactam	9.5	U	38.1	4.74	J	ug/L		12	10 - 126	1	59
Carbazole	9.5	U	19.0	16.4		ug/L		86	50 - 110	4	30
4-Chloroaniline	9.5	U	19.0	7.58	J	ug/L		40	20 - 110	5	50
4-Chloro-3-methylphenol	4.8	U	19.0	16.6		ug/L		87	42 - 110	2	30
2-Chloronaphthalene	4.8	U	19.0	13.6		ug/L		72	46 - 110	5	34
2-Chlorophenol	4.8	U	19.0	13.8		ug/L		73	35 - 110	5	57
4-Chlorophenyl phenyl ether	4.8	U	19.0	15.0		ug/L		79	51 - 110	1	30
Chrysene	0.95	U	19.0	14.1		ug/L		74	36 - 110	0	49
2-Methylnaphthalene	19		19.0	29.7		ug/L		57	50 - 110	11	37
3 & 4 Methylphenol	4.8	U	19.0	10.4		ug/L		54	26 - 110	6	57
Dibenz(a,h)anthracene	1.9	U	19.0	12.4		ug/L		65	14 - 110	2	92
Dibenzofuran	0.18	J	19.0	15.0		ug/L		78	51 - 110	3	30
3,3'-Dichlorobenzidine	0.95	U	38.1	26.7		ug/L		70	10 - 110	2	99
2,4-Dichlorophenol	9.5	U	19.0	15.0		ug/L		79	48 - 110	3	35
Diethyl phthalate	4.8	U	19.0	16.2		ug/L		85	53 - 110	1	30
2,4-Dimethylphenol	4.8	U	19.0	14.2		ug/L		75	27 - 110	6	62
Dimethyl phthalate	4.8	U	19.0	16.4		ug/L		86	54 - 110	1	30
4,6-Dinitro-2-methylphenol	19	U	38.1	34.3		ug/L		90	10 - 110	1	92
2,4-Dinitrophenol	19	U	38.1	37.4		ug/L		98	10 - 110	1	99
2,4-Dinitrotoluene	4.8	U	19.0	18.7		ug/L		98	56 - 110	1	30
Di-n-butyl phthalate	4.8	U	19.0	17.4		ug/L		91	50 - 110	2	30
Di-n-octyl phthalate	4.8	U	19.0	12.7		ug/L		66	10 - 110	1	95
Fluoranthene	0.95	U	19.0	17.4		ug/L		91	54 - 110	3	30
Fluorene	0.23	J	19.0	14.7		ug/L		76	51 - 110	4	30
Hexachlorobenzene	0.19	U	19.0	16.0		ug/L		84	49 - 110	3	30
Hexachlorobutadiene	0.95	U	19.0	11.1		ug/L		58	36 - 110	9	60
Hexachlorocyclopentadiene	4.8	U	19.0	9.96		ug/L		52	4 - 110	8	68
Hexachloroethane	4.8	U F1	19.0	4.8	U F1	ug/L		0	40 - 110	NC	52
Indeno[1,2,3-cd]pyrene	1.9	U	19.0	13.8		ug/L		72	16 - 110	1	89
Isophorone	4.8	U	19.0	15.7		ug/L		82	45 - 110	5	37
2-Methylphenol	4.8	U	19.0	11.7		ug/L		61	31 - 110	1	61
Naphthalene	21		19.0	30.6		ug/L		50	35 - 110	10	58
2-Nitroaniline	19	U	19.0	18.4	J	ug/L		97	42 - 110	1	30
3-Nitroaniline	19	U	19.0	15.6	J	ug/L		82	31 - 110	0	47
4-Nitroaniline	19	U	19.0	15.3	J	ug/L		80	26 - 110	2	50
Nitrobenzene	2.9	U	19.0	16.8		ug/L		88	43 - 110	6	42

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

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

**Lab Sample ID: 240-48687-3 MSD**

**Matrix: Water**

**Analysis Batch: 174429**

**Client Sample ID: GW-032615-JK-03**

**Prep Type: Total/NA**

**Prep Batch: 174242**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
2-Nitrophenol	4.8	U	19.0	15.8		ug/L		83	47 - 110	3	44
4-Nitrophenol	19	U	38.1	13.2	J	ug/L		35	10 - 110	7	74
N-Nitrosodiphenylamine	4.8	U	38.1	33.1		ug/L		87	41 - 110	4	30
N-Nitrosodi-n-propylamine	4.8	U	19.0	15.2		ug/L		80	42 - 110	5	39
2,2'-oxybis[1-chloropropane]	4.8	U	19.0	14.0		ug/L		73	26 - 110	5	63
Pentachlorophenol	4.8	U	38.1	31.3		ug/L		82	24 - 110	3	64
Phenanthrene	1.9	U	19.0	14.7		ug/L		77	52 - 110	4	30
Phenol	4.8	U	19.0	4.88		ug/L		26	10 - 125	1	62
Pyrene	4.8	U	19.0	16.2		ug/L		85	50 - 110	0	30
2,4,5-Trichlorophenol	4.8	U	19.0	16.5		ug/L		87	53 - 110	1	30
2,4,6-Trichlorophenol	3.8	U	19.0	16.1		ug/L		84	50 - 110	1	30
2,6-Dinitrotoluene	4.8	U	19.0	17.2		ug/L		90	55 - 110	1	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	73		29 - 110
2-Fluorophenol (Surr)	41		15 - 110
2,4,6-Tribromophenol (Surr)	102		21 - 128
Nitrobenzene-d5 (Surr)	76		31 - 110
Phenol-d5 (Surr)	26		10 - 110
Terphenyl-d14 (Surr)	53		31 - 115

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 240-174257/1-A**

**Matrix: Water**

**Analysis Batch: 174605**

**Client Sample ID: Method Blank**

**Prep Type: Total Recoverable**

**Prep Batch: 174257**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	0.213	J	5.0	0.18	ug/L		03/30/15 09:49	03/31/15 10:41	1
Beryllium	0.173	J	1.0	0.053	ug/L		03/30/15 09:49	03/31/15 10:41	1
Cadmium	0.0900	J	1.0	0.061	ug/L		03/30/15 09:49	03/31/15 10:41	1
Cobalt	7.0	U	7.0	0.021	ug/L		03/30/15 09:49	03/31/15 10:41	1
Chromium	1.11	J	5.0	0.20	ug/L		03/30/15 09:49	03/31/15 10:41	1
Copper	0.851	J	2.0	0.75	ug/L		03/30/15 09:49	03/31/15 10:41	1
Antimony	2.0	U	2.0	0.16	ug/L		03/30/15 09:49	03/31/15 10:41	1
Manganese	15	U	15	1.1	ug/L		03/30/15 09:49	03/31/15 10:41	1
Nickel	20	U	20	0.23	ug/L		03/30/15 09:49	03/31/15 10:41	1
Lead	3.0	U	3.0	0.11	ug/L		03/30/15 09:49	03/31/15 10:41	1
Selenium	5.0	U	5.0	0.25	ug/L		03/30/15 09:49	03/31/15 10:41	1
Barium	100	U	100	1.1	ug/L		03/30/15 09:49	03/31/15 10:41	1
Thallium	1.0	U	1.0	0.074	ug/L		03/30/15 09:49	03/31/15 10:41	1
Vanadium	4.0	U	4.0	0.23	ug/L		03/30/15 09:49	03/31/15 10:41	1
Zinc	20	U	20	7.3	ug/L		03/30/15 09:49	03/31/15 10:41	1
Silver	0.20	U	0.20	0.020	ug/L		03/30/15 09:49	03/31/15 10:41	1

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

## Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-174257/3-A

Matrix: Water

Analysis Batch: 174605

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 174257

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1000	1010		ug/L		101	80 - 120
Beryllium	1000	1000		ug/L		100	80 - 120
Cadmium	1000	1080		ug/L		108	80 - 120
Cobalt	1000	1050		ug/L		105	80 - 120
Chromium	1000	1030		ug/L		103	80 - 120
Copper	1000	1080		ug/L		108	80 - 120
Antimony	100	108		ug/L		108	80 - 120
Manganese	1000	1010		ug/L		101	80 - 120
Nickel	1000	1090		ug/L		109	80 - 120
Lead	1000	1080		ug/L		108	80 - 120
Selenium	1000	1030		ug/L		103	80 - 120
Barium	1000	1160		ug/L		116	80 - 120
Thallium	250	255		ug/L		102	80 - 120
Vanadium	1000	1020		ug/L		102	80 - 120
Zinc	1000	1050		ug/L		105	80 - 120
Silver	100	104		ug/L		104	80 - 120

Lab Sample ID: 240-48687-3 MS

Matrix: Water

Analysis Batch: 174605

Client Sample ID: GW-032615-JK-03

Prep Type: Total Recoverable

Prep Batch: 174257

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.47	J	100	109		ug/L		109	75 - 125
Arsenic	1.6	J B	1000	1040		ug/L		104	75 - 125
Barium	100		1000	1260		ug/L		115	75 - 125
Beryllium	0.41	J B	1000	1010		ug/L		101	75 - 125
Cadmium	0.35	J B	1000	1100		ug/L		110	75 - 125
Cobalt	0.35	J	1000	1050		ug/L		105	75 - 125
Chromium	1.4	J B	1000	1040		ug/L		104	75 - 125
Copper	0.84	J B	1000	1060		ug/L		106	75 - 125
Manganese	470		1000	1480		ug/L		102	75 - 125
Nickel	0.55	J	1000	1080		ug/L		108	75 - 125
Lead	0.15	J	1000	1070		ug/L		107	75 - 125
Selenium	0.33	J	1000	1040		ug/L		104	75 - 125
Thallium	0.19	J	250	251		ug/L		100	75 - 125
Vanadium	0.39	J	1000	1050		ug/L		105	75 - 125
Zinc	20	U	1000	1020		ug/L		102	75 - 125
Silver	0.20	U	100	102		ug/L		102	75 - 125

Lab Sample ID: 240-48687-3 MSD

Matrix: Water

Analysis Batch: 174605

Client Sample ID: GW-032615-JK-03

Prep Type: Total Recoverable

Prep Batch: 174257

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.47	J	100	109		ug/L		109	75 - 125	0	20
Arsenic	1.6	J B	1000	1040		ug/L		104	75 - 125	0	20
Barium	100		1000	1260		ug/L		116	75 - 125	0	20
Beryllium	0.41	J B	1000	1000		ug/L		100	75 - 125	1	20

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: 240-48687-3 MSD**

**Matrix: Water**

**Analysis Batch: 174605**

**Client Sample ID: GW-032615-JK-03**

**Prep Type: Total Recoverable**

**Prep Batch: 174257**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Cadmium	0.35	J B	1000	1110		ug/L		111	75 - 125	0	20
Cobalt	0.35	J	1000	1040		ug/L		104	75 - 125	1	20
Chromium	1.4	J B	1000	1040		ug/L		104	75 - 125	0	20
Copper	0.84	J B	1000	1060		ug/L		106	75 - 125	0	20
Manganese	470		1000	1480		ug/L		101	75 - 125	0	20
Nickel	0.55	J	1000	1070		ug/L		107	75 - 125	0	20
Lead	0.15	J	1000	1070		ug/L		107	75 - 125	0	20
Selenium	0.33	J	1000	1040		ug/L		104	75 - 125	0	20
Thallium	0.19	J	250	251		ug/L		100	75 - 125	0	20
Vanadium	0.39	J	1000	1040		ug/L		104	75 - 125	1	20
Zinc	20	U	1000	1020		ug/L		102	75 - 125	1	20
Silver	0.20	U	100	103		ug/L		103	75 - 125	0	20

**Lab Sample ID: 240-48687-3 MS**

**Matrix: Water**

**Analysis Batch: 174605**

**Client Sample ID: GW-032615-JK-03**

**Prep Type: Dissolved**

**Prep Batch: 174257**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Silver	0.20	U	100	103		ug/L		103	75 - 125		
Arsenic	1.9	J B	1000	1030		ug/L		103	75 - 125		
Beryllium	0.51	J B	1000	1020		ug/L		102	75 - 125		
Cadmium	0.25	J B	1000	1080		ug/L		108	75 - 125		
Cobalt	0.28	J	1000	1020		ug/L		102	75 - 125		
Chromium	1.3	J B	1000	1020		ug/L		101	75 - 125		
Copper	2.0	U	1000	1030		ug/L		103	75 - 125		
Manganese	500		1000	1480		ug/L		98	75 - 125		
Nickel	0.44	J	1000	1050		ug/L		105	75 - 125		
Lead	3.0	U	1000	1070		ug/L		107	75 - 125		
Antimony	0.23	J	100	108		ug/L		108	75 - 125		
Selenium	0.46	J	1000	1030		ug/L		103	75 - 125		
Thallium	1.0	U	250	251		ug/L		100	75 - 125		
Vanadium	4.0	U	1000	1020		ug/L		102	75 - 125		
Zinc	20	U	1000	999		ug/L		100	75 - 125		
Barium	110		1000	1250		ug/L		114	75 - 125		

**Lab Sample ID: 240-48687-3 MSD**

**Matrix: Water**

**Analysis Batch: 174605**

**Client Sample ID: GW-032615-JK-03**

**Prep Type: Dissolved**

**Prep Batch: 174257**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Silver	0.20	U	100	103		ug/L		103	75 - 125	0	20
Arsenic	1.9	J B	1000	1040		ug/L		104	75 - 125	1	20
Beryllium	0.51	J B	1000	1030		ug/L		103	75 - 125	0	20
Cadmium	0.25	J B	1000	1130		ug/L		113	75 - 125	4	20
Cobalt	0.28	J	1000	1040		ug/L		104	75 - 125	2	20
Chromium	1.3	J B	1000	1030		ug/L		103	75 - 125	2	20
Copper	2.0	U	1000	1050		ug/L		105	75 - 125	2	20
Manganese	500		1000	1480		ug/L		98	75 - 125	0	20
Nickel	0.44	J	1000	1080		ug/L		108	75 - 125	2	20

TestAmerica Canton



# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

## Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-48687-3 MSD

Matrix: Water

Analysis Batch: 174605

Client Sample ID: GW-032615-JK-03

Prep Type: Dissolved

Prep Batch: 174257

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Lead	3.0	U	1000	1070		ug/L		107	75 - 125	0	20
Antimony	0.23	J	100	110		ug/L		110	75 - 125	2	20
Selenium	0.46	J	1000	1040		ug/L		104	75 - 125	1	20
Thallium	1.0	U	250	251		ug/L		100	75 - 125	0	20
Vanadium	4.0	U	1000	1040		ug/L		104	75 - 125	2	20
Zinc	20	U	1000	1020		ug/L		102	75 - 125	2	20
Barium	110		1000	1260		ug/L		115	75 - 125	1	20

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-174266/1-A

Matrix: Water

Analysis Batch: 174588

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 174266

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	0.20	U	0.20	0.090	ug/L		03/31/15 07:35	03/31/15 11:02	1

Lab Sample ID: LCS 240-174266/2-A

Matrix: Water

Analysis Batch: 174588

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 174266

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
							Added
Mercury	5.00	5.36		ug/L		107	80 - 120

Lab Sample ID: 240-48687-3 MS

Matrix: Water

Analysis Batch: 174588

Client Sample ID: GW-032615-JK-03

Prep Type: Total/NA

Prep Batch: 174266

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				Limits
Mercury	0.20	U	1.00	1.15		ug/L		115	80 - 120

Lab Sample ID: 240-48687-3 MSD

Matrix: Water

Analysis Batch: 174588

Client Sample ID: GW-032615-JK-03

Prep Type: Total/NA

Prep Batch: 174266

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Mercury	0.20	U	1.00	1.10		ug/L		110	80 - 120	5	20

Lab Sample ID: 240-48687-3 MS

Matrix: Water

Analysis Batch: 174588

Client Sample ID: GW-032615-JK-03

Prep Type: Dissolved

Prep Batch: 174266

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				Limits
Mercury	0.20	U	1.00	1.08		ug/L		108	80 - 120

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

## Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 240-48687-3 MSD

Matrix: Water

Analysis Batch: 174588

Client Sample ID: GW-032615-JK-03

Prep Type: Dissolved

Prep Batch: 174266

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.20	U	1.00	1.06		ug/L		106	80 - 120	2	20

## Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 240-174072/3

Matrix: Water

Analysis Batch: 174072

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0019	mg/L			03/27/15 10:48	1

Lab Sample ID: LCS 240-174072/4

Matrix: Water

Analysis Batch: 174072

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.250	0.255		mg/L		102	80 - 118

Lab Sample ID: 240-48687-3 MS

Matrix: Water

Analysis Batch: 174072

Client Sample ID: GW-032615-JK-03

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.020	U	0.250	0.113		mg/L		45	41 - 136

Lab Sample ID: 240-48687-3 MSD

Matrix: Water

Analysis Batch: 174072

Client Sample ID: GW-032615-JK-03

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	0.020	U	0.250	0.114		mg/L		46	41 - 136	1	20

# QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

## GC/MS VOA

### Analysis Batch: 174499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-48687-1	GW-032615-JK-01	Total/NA	Water	8260B	
240-48687-2	GW-032615-JK-02	Total/NA	Water	8260B	
240-48687-3	GW-032615-JK-03	Total/NA	Water	8260B	
240-48687-3 MS	GW-032615-JK-03	Total/NA	Water	8260B	
240-48687-3 MSD	GW-032615-JK-03	Total/NA	Water	8260B	
LCS 240-174499/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-174499/6	Method Blank	Total/NA	Water	8260B	

### Analysis Batch: 174662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-48687-4	TRIP BLANK	Total/NA	Water	8260B	
LCS 240-174662/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-174662/7	Method Blank	Total/NA	Water	8260B	

## GC/MS Semi VOA

### Prep Batch: 174242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-48687-1 - RA	GW-032615-JK-01	Total/NA	Water	3510C	
240-48687-1	GW-032615-JK-01	Total/NA	Water	3510C	
240-48687-2 - RA	GW-032615-JK-02	Total/NA	Water	3510C	
240-48687-2	GW-032615-JK-02	Total/NA	Water	3510C	
240-48687-3	GW-032615-JK-03	Total/NA	Water	3510C	
240-48687-3 MS	GW-032615-JK-03	Total/NA	Water	3510C	
240-48687-3 MSD	GW-032615-JK-03	Total/NA	Water	3510C	
LCS 240-174242/22-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-174242/21-A	Method Blank	Total/NA	Water	3510C	

### Analysis Batch: 174429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-48687-3	GW-032615-JK-03	Total/NA	Water	8270C	174242
240-48687-3 MS	GW-032615-JK-03	Total/NA	Water	8270C	174242
240-48687-3 MSD	GW-032615-JK-03	Total/NA	Water	8270C	174242
LCS 240-174242/22-A	Lab Control Sample	Total/NA	Water	8270C	174242
MB 240-174242/21-A	Method Blank	Total/NA	Water	8270C	174242

### Analysis Batch: 174614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-48687-1	GW-032615-JK-01	Total/NA	Water	8270C	174242
240-48687-1 - RA	GW-032615-JK-01	Total/NA	Water	8270C	174242
240-48687-2	GW-032615-JK-02	Total/NA	Water	8270C	174242
240-48687-2 - RA	GW-032615-JK-02	Total/NA	Water	8270C	174242

## Metals

### Prep Batch: 174257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-48687-1	GW-032615-JK-01	Dissolved	Water	3005A	
240-48687-1	GW-032615-JK-01	Total Recoverable	Water	3005A	
240-48687-2	GW-032615-JK-02	Dissolved	Water	3005A	

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# QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

## Metals (Continued)

### Prep Batch: 174257 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-48687-2	GW-032615-JK-02	Total Recoverable	Water	3005A	
240-48687-3	GW-032615-JK-03	Dissolved	Water	3005A	
240-48687-3	GW-032615-JK-03	Total Recoverable	Water	3005A	
240-48687-3 MS	GW-032615-JK-03	Dissolved	Water	3005A	
240-48687-3 MS	GW-032615-JK-03	Total Recoverable	Water	3005A	
240-48687-3 MSD	GW-032615-JK-03	Dissolved	Water	3005A	
240-48687-3 MSD	GW-032615-JK-03	Total Recoverable	Water	3005A	
LCS 240-174257/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 240-174257/1-A	Method Blank	Total Recoverable	Water	3005A	

### Prep Batch: 174266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-48687-1	GW-032615-JK-01	Dissolved	Water	7470A	
240-48687-1	GW-032615-JK-01	Total/NA	Water	7470A	
240-48687-2	GW-032615-JK-02	Dissolved	Water	7470A	
240-48687-2	GW-032615-JK-02	Total/NA	Water	7470A	
240-48687-3	GW-032615-JK-03	Dissolved	Water	7470A	
240-48687-3	GW-032615-JK-03	Total/NA	Water	7470A	
240-48687-3 MS	GW-032615-JK-03	Dissolved	Water	7470A	
240-48687-3 MS	GW-032615-JK-03	Total/NA	Water	7470A	
240-48687-3 MSD	GW-032615-JK-03	Dissolved	Water	7470A	
240-48687-3 MSD	GW-032615-JK-03	Total/NA	Water	7470A	
LCS 240-174266/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 240-174266/1-A	Method Blank	Total/NA	Water	7470A	

### Analysis Batch: 174588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-48687-1	GW-032615-JK-01	Dissolved	Water	7470A	174266
240-48687-1	GW-032615-JK-01	Total/NA	Water	7470A	174266
240-48687-2	GW-032615-JK-02	Dissolved	Water	7470A	174266
240-48687-2	GW-032615-JK-02	Total/NA	Water	7470A	174266
240-48687-3	GW-032615-JK-03	Dissolved	Water	7470A	174266
240-48687-3	GW-032615-JK-03	Total/NA	Water	7470A	174266
240-48687-3 MS	GW-032615-JK-03	Dissolved	Water	7470A	174266
240-48687-3 MS	GW-032615-JK-03	Total/NA	Water	7470A	174266
240-48687-3 MSD	GW-032615-JK-03	Dissolved	Water	7470A	174266
240-48687-3 MSD	GW-032615-JK-03	Total/NA	Water	7470A	174266
LCS 240-174266/2-A	Lab Control Sample	Total/NA	Water	7470A	174266
MB 240-174266/1-A	Method Blank	Total/NA	Water	7470A	174266

### Analysis Batch: 174605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-48687-1	GW-032615-JK-01	Dissolved	Water	6020	174257
240-48687-1	GW-032615-JK-01	Total Recoverable	Water	6020	174257
240-48687-2	GW-032615-JK-02	Dissolved	Water	6020	174257
240-48687-2	GW-032615-JK-02	Total Recoverable	Water	6020	174257
240-48687-3	GW-032615-JK-03	Dissolved	Water	6020	174257
240-48687-3	GW-032615-JK-03	Total Recoverable	Water	6020	174257
240-48687-3 MS	GW-032615-JK-03	Dissolved	Water	6020	174257
240-48687-3 MS	GW-032615-JK-03	Total Recoverable	Water	6020	174257
240-48687-3 MSD	GW-032615-JK-03	Dissolved	Water	6020	174257

TestAmerica Canton

# QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

## Metals (Continued)

### Analysis Batch: 174605 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-48687-3 MSD	GW-032615-JK-03	Total Recoverable	Water	6020	174257
LCS 240-174257/3-A	Lab Control Sample	Total Recoverable	Water	6020	174257
MB 240-174257/1-A	Method Blank	Total Recoverable	Water	6020	174257

## General Chemistry

### Analysis Batch: 174072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-48687-1	GW-032615-JK-01	Total/NA	Water	7196A	
240-48687-2	GW-032615-JK-02	Total/NA	Water	7196A	
240-48687-3	GW-032615-JK-03	Total/NA	Water	7196A	
240-48687-3 MS	GW-032615-JK-03	Total/NA	Water	7196A	
240-48687-3 MSD	GW-032615-JK-03	Total/NA	Water	7196A	
LCS 240-174072/4	Lab Control Sample	Total/NA	Water	7196A	
MB 240-174072/3	Method Blank	Total/NA	Water	7196A	

### Analysis Batch: 174737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-48687-1	GW-032615-JK-01	Total/NA	Water	7196A	
240-48687-2	GW-032615-JK-02	Total/NA	Water	7196A	
240-48687-3	GW-032615-JK-03	Total/NA	Water	7196A	



# Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

**Client Sample ID: GW-032615-JK-01**

**Lab Sample ID: 240-48687-1**

**Date Collected: 03/26/15 11:05**

**Matrix: Water**

**Date Received: 03/27/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		33.33	174499	03/31/15 14:56	LRW	TAL CAN
Total/NA	Prep	3510C			174242	03/30/15 08:43	JDR	TAL CAN
Total/NA	Analysis	8270C		1	174614	04/01/15 11:57	JMG	TAL CAN
Total/NA	Prep	3510C	RA		174242	03/30/15 08:43	JDR	TAL CAN
Total/NA	Analysis	8270C	RA	4	174614	04/01/15 20:09	JMG	TAL CAN
Dissolved	Prep	3005A			174257	03/30/15 09:50	WAL	TAL CAN
Dissolved	Analysis	6020		1	174605	03/31/15 11:22	AS1	TAL CAN
Total Recoverable	Prep	3005A			174257	03/30/15 09:50	WAL	TAL CAN
Total Recoverable	Analysis	6020		1	174605	03/31/15 11:18	AS1	TAL CAN
Dissolved	Prep	7470A			174266	03/31/15 07:35	WAL	TAL CAN
Dissolved	Analysis	7470A		1	174588	03/31/15 11:23	BW	TAL CAN
Total/NA	Prep	7470A			174266	03/31/15 07:35	WAL	TAL CAN
Total/NA	Analysis	7470A		1	174588	03/31/15 11:22	BW	TAL CAN
Total/NA	Analysis	7196A		1	174072	03/27/15 10:58	SEM	TAL CAN
Total/NA	Analysis	7196A		1	174737	04/02/15 05:00	KLC	TAL CAN

**Client Sample ID: GW-032615-JK-02**

**Lab Sample ID: 240-48687-2**

**Date Collected: 03/26/15 11:35**

**Matrix: Water**

**Date Received: 03/27/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		33.33	174499	03/31/15 15:18	LRW	TAL CAN
Total/NA	Prep	3510C			174242	03/30/15 08:43	JDR	TAL CAN
Total/NA	Analysis	8270C		1	174614	04/01/15 12:23	JMG	TAL CAN
Total/NA	Prep	3510C	RA		174242	03/30/15 08:43	JDR	TAL CAN
Total/NA	Analysis	8270C	RA	4	174614	04/01/15 20:35	JMG	TAL CAN
Dissolved	Prep	3005A			174257	03/30/15 09:50	WAL	TAL CAN
Dissolved	Analysis	6020		1	174605	03/31/15 11:29	AS1	TAL CAN
Total Recoverable	Prep	3005A			174257	03/30/15 09:50	WAL	TAL CAN
Total Recoverable	Analysis	6020		1	174605	03/31/15 11:26	AS1	TAL CAN
Dissolved	Prep	7470A			174266	03/31/15 07:35	WAL	TAL CAN
Dissolved	Analysis	7470A		1	174588	03/31/15 11:28	BW	TAL CAN
Total/NA	Prep	7470A			174266	03/31/15 07:35	WAL	TAL CAN
Total/NA	Analysis	7470A		1	174588	03/31/15 11:26	BW	TAL CAN
Total/NA	Analysis	7196A		1	174072	03/27/15 10:56	SEM	TAL CAN
Total/NA	Analysis	7196A		1	174737	04/02/15 05:00	KLC	TAL CAN

# Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

**Client Sample ID: GW-032615-JK-03**

**Lab Sample ID: 240-48687-3**

**Date Collected: 03/26/15 12:55**

**Matrix: Water**

**Date Received: 03/27/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	174499	03/31/15 14:34	LRW	TAL CAN
Total/NA	Prep	3510C			174242	03/30/15 08:43	JDR	TAL CAN
Total/NA	Analysis	8270C		1	174429	03/31/15 11:34	JMG	TAL CAN
Dissolved	Prep	3005A			174257	03/30/15 09:50	WAL	TAL CAN
Dissolved	Analysis	6020		1	174605	03/31/15 11:00	AS1	TAL CAN
Total Recoverable	Prep	3005A			174257	03/30/15 09:49	WAL	TAL CAN
Total Recoverable	Analysis	6020		1	174605	03/31/15 10:34	AS1	TAL CAN
Dissolved	Prep	7470A			174266	03/31/15 07:35	WAL	TAL CAN
Dissolved	Analysis	7470A		1	174588	03/31/15 11:13	BW	TAL CAN
Total/NA	Prep	7470A			174266	03/31/15 07:35	WAL	TAL CAN
Total/NA	Analysis	7470A		1	174588	03/31/15 11:09	BW	TAL CAN
Total/NA	Analysis	7196A		1	174072	03/27/15 10:51	SEM	TAL CAN
Total/NA	Analysis	7196A		1	174737	04/02/15 05:00	KLC	TAL CAN

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 240-48687-4**

**Date Collected: 03/26/15 00:00**

**Matrix: Water**

**Date Received: 03/27/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	174662	04/01/15 22:21	LRW	TAL CAN

**Laboratory References:**

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

# Certification Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-48687-1

## Laboratory: TestAmerica Canton

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999518190	08-31-15

The following analytes are included in this report, but are not certified under this certification:

Analysis Method	Prep Method	Matrix	Analyte
6020	3005A	Water	Lead

The following analytes are included in this report, but certification is not offered by the governing authority:

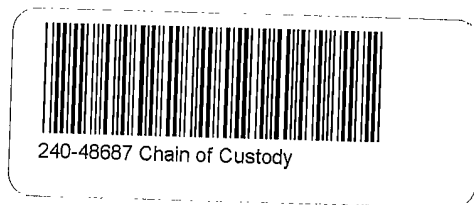
Analysis Method	Prep Method	Matrix	Analyte
7196A		Water	Cr (III)
7196A		Water	Cr (VI)
8260B		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
8260B		Water	Cyclohexane
8260B		Water	Methyl acetate
8260B		Water	Methylcyclohexane
8270C	3510C	Water	4-Nitroaniline
8270C	3510C	Water	Atrazine
8270C	3510C	Water	Benzaldehyde
8270C	3510C	Water	Caprolactam

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

## CHAIN OF CUSTODY AND RECEIVING DOCUMENTS



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3.61 C#1 3.01 C3.5

**CONESTOGA-ROVERS & ASSOCIATES**  
8615 W. Bryn Mawr Avenue  
Chicago, Illinois 60631  
(773)380-9933 phone  
(773)380-6421 fax

SHIPPED TO  
(Laboratory Name):

TEST AMERICA - NORTH CANTON

REFERENCE NUMBER:  
58505-01-20403

PROJECT NAME:  
GM JAMESVILLE

2 COOLERS

CHAIN-OF-CUSTODY RECORD

SAMPLER'S SIGNATURE: *Jeff Kolodziejcki*  
PRINTED NAME: JEFF KOLODZIEJSKI

SEQ. No.	DATE	TIME	SAMPLE IDENTIFICATION No.	SAMPLE MATRIX	No. OF CONTAINERS	REMARKS
	3/26/15	1105	GW-032615 - JK-01	WATER	8	
		1135	GW-032615 - JK-02		8	
		1255	GW-032615 - JK-03		19	
			TRIP BLANK		1	MS MSD
<p>PARAMETERS: <del>ML VOCs</del>, <del>MTL VOCs</del>, <del>MTL TSP</del>, <del>MTL TSP METALS</del>, <del>THE TOTAL CHROMIUM</del>, <del>THE DIS (CHROMIUM)</del>, <del>HEXAVALENT CHROMIUM</del></p>						

24 HR HOLD TIME ON CHROMIUM SAMPLES

TOTAL NUMBER OF CONTAINERS

36

RELINQUISHED BY: <i>Jeff Kolodziejcki</i>	DATE: 3/26/15	RECEIVED BY: <i>Heather Ann JM</i>	DATE: 3/27/15
TIME: 1500	TIME: 1500	TIME: 9:30	TIME: 9:30
RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
TIME:	TIME:	TIME:	TIME:
RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
TIME:	TIME:	TIME:	TIME:

METHOD OF SHIPMENT: *Fed Ex*

AIR BILL No. 8005 2822 8305

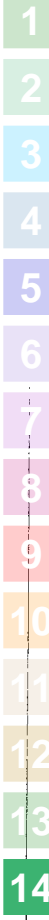
White - Fully Executed Copy  
Yellow - Receiving Laboratory Copy  
Pink - Shipper Copy  
Goldenrod - Sampler Copy

SAMPLE TEAM:  
J. KOLODZIEJSKI

RECEIVED FOR LABORATORY BY:

6482

DATE: TIME:





TestAmerica Canton Sample Receipt Form/Narrative Login # : \_\_\_\_\_  
 Canton Facility \_\_\_\_\_

Client CPA Site Name GM JAMESVILLE Cooler unpacked by: [Signature]  
 Cooler Received on 3/27/15 Opened on 3/27/15  
 FedEx: 1<sup>st</sup> Grd  Exp  UPS  FAS  Stetson Client Drop Off  TestAmerica Courier  Other \_\_\_\_\_

Receipt After-hours: Drop-off Date/Time \_\_\_\_\_ Storage Location \_\_\_\_\_

TestAmerica Cooler # \_\_\_\_\_ Foam Box  Client Cooler  Box  Other MCP  
 Packing material used: Bubble Wrap Foam  Plastic Bag  None  Other \_\_\_\_\_  
 COOLANT: Wet Ice Blue Ice  Dry Ice  Water  None

1. Cooler temperature upon receipt  
 IR GUN# A (CF +4.0 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C  
 IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C  
 IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C  
 IR GUN# 8 (CF -1.2 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 each Yes No  
 -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA  
 -Were custody seals on the bottle(s)? Yes No

3. Shippers' packing slip attached to the cooler(s)? Yes No  
 4. Did custody papers accompany the sample(s)? Yes No  
 5. Were the custody papers relinquished & signed in the appropriate place? Yes No  
 6. Was/were the sampler(s) clearly identified on the COC? Yes No  
 7. Did all bottles arrive in good condition (Unbroken)? Yes No  
 8. Could all bottle labels be reconciled with the COC? Yes No  
 9. Were correct bottle(s) used for the test(s) indicated? Yes No  
 10. Sufficient quantity received to perform indicated analyses? Yes No  
 11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC425511  
 12. Were VOAs on the COC? Yes No  
 13. Were air bubbles >6 mm in any VOA vials? Yes No NA  
 14. Was a trip blank present in the cooler(s)? Trip Blank Lot # B429101WB Yes No

Contacted PM \_\_\_\_\_ Date \_\_\_\_\_ by \_\_\_\_\_ via Verbal Voice Mail Other \_\_\_\_\_  
 Concerning \_\_\_\_\_

See Multiple Cooler Form

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: [Signature]

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15. SAMPLE CONDITION

Sample(s) \_\_\_\_\_ were received after the recommended holding time had expired.  
 Sample(s) \_\_\_\_\_ were received in a broken container.  
 Sample(s) \_\_\_\_\_ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) \_\_\_\_\_ were further preserved in the laboratory.  
 Time preserved: \_\_\_\_\_ Preservative(s) added/Lot number(s): \_\_\_\_\_



Temperature readings: \_\_\_\_\_

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u> pH	<u>Preservative</u> Added (mls)	<u>Lot #</u>
GW-032615-JK-01	240-48687-E-1	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-032615-JK-01	240-48687-F-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-032615-JK-02	240-48687-E-2	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-032615-JK-02	240-48687-F-2	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-032615-JK-03	240-48687-L-3	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-032615-JK-03	240-48687-M-3	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-032615-JK-03	240-48687-N-3	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-032615-JK-03	240-48687-O-3	Plastic 500ml - with Nitric Acid	<2	_____	_____

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton  
4101 Shuffel Street NW  
North Canton, OH 44720  
Tel: (330)497-9396

TestAmerica Job ID: 240-51496-1

Client Project/Site: 58505, Janesville WI, SSOW 108011  
Revision: 1

For:

Conestoga-Rovers & Associates, Inc.  
45 Farmington Valley Drive  
Plainville, Connecticut 06062

Attn: Ms. Kathy Shaw



Authorized for release by:  
6/23/2015 9:25:53 AM

Denise Heckler, Project Manager II  
(330)966-9477

[denise.heckler@testamericainc.com](mailto:denise.heckler@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
E	Result exceeded calibration range.
B	Compound was found in the blank and sample.

### GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD Recovery is outside acceptance limits.
E	Result exceeded calibration range.

### Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.

### General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

**Job ID: 240-51496-1**

**Laboratory: TestAmerica Canton**

**Narrative**

## CASE NARRATIVE

**Client: Conestoga-Rovers & Associates, Inc.**

**Project: 58505, Janesville WI, SSOW 108011**

**Report Number: 240-51496-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

A revised report was provided on June 23, 2015. The earth metals were removed from the dissolved analysis.

### RECEIPT

The samples were received on 06/03/2015; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 4.2° C and 4.6° C.

### VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples GW-060215-JK-01 (240-51496-1), GW-060215-JK-02 (240-51496-2), GW-060215-JK-03 (240-51496-3) and TRIP BLANK (240-51496-4) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 06/08/2015.

Methylene Chloride was detected in method blank MB 240-184147/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

1,2,4-Trimethylbenzene failed the recovery criteria high for the MS of sample GW-060215-JK-03MS (240-51496-3) in batch 240-184147.

1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene failed the recovery criteria high for the MSD of sample GW-060215-JK-03MSD (240-51496-3) in batch 240-184147.

# Case Narrative

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

## Job ID: 240-51496-1 (Continued)

### Laboratory: TestAmerica Canton (Continued)

Samples GW-060215-JK-01 (240-51496-1)[25X], GW-060215-JK-02 (240-51496-2)[25X] and GW-060215-JK-03 (240-51496-3)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

### SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples GW-060215-JK-01 (240-51496-1), GW-060215-JK-02 (240-51496-2) and GW-060215-JK-03 (240-51496-3) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 06/04/2015 and analyzed on 06/05/2015.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Caprolactam was detected in method blank MB 240-183691/23-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

2-Methylnaphthalene, 4-Chloroaniline, Caprolactam and Naphthalene failed the recovery criteria low for the MS of sample GW-060215-JK-03MS (240-51496-3) in batch 240-183880. Hexachloroethane failed the recovery criteria high.

2-Methylnaphthalene, 4-Chloroaniline and Naphthalene failed the recovery criteria low for the MSD of sample GW-060215-JK-03MSD (240-51496-3) in batch 240-183880. Atrazine and Hexachloroethane failed the recovery criteria high.

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

### DISSOLVED METALS (ICPMS)

Samples GW-060215-JK-01 (240-51496-1), GW-060215-JK-02 (240-51496-2) and GW-060215-JK-03 (240-51496-3) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 06/04/2015 and analyzed on 06/05/2015.

Some requested practical quantitation limits (PQLs) fall below the laboratory's verified standard quantitation limit. The continuing calibration blanks and method blanks may not support the lower PQL.

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

### TOTAL RECOVERABLE METALS (ICPMS)

Samples GW-060215-JK-01 (240-51496-1), GW-060215-JK-02 (240-51496-2) and GW-060215-JK-03 (240-51496-3) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 06/04/2015 and analyzed on 06/05/2015.

Zinc was detected in method blank MB 240-183753/1-A at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Several analytes were detected in method blank MB 240-183753/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Some requested practical quantitation limits (PQLs) fall below the laboratory's verified standard quantitation limit. The continuing calibration blanks and method blanks may not support the lower PQL.

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

### HEXAVALENT CHROMIUM

Samples GW-060215-JK-01 (240-51496-1), GW-060215-JK-02 (240-51496-2) and GW-060215-JK-03 (240-51496-3) were analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples were analyzed on 06/03/2015.

# Case Narrative

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

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## Job ID: 240-51496-1 (Continued)

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### Laboratory: TestAmerica Canton (Continued)

Sample GW-060215-JK-03 (240-51496-3)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

#### **DISSOLVED MERCURY (CVAA)**

Samples GW-060215-JK-01 (240-51496-1), GW-060215-JK-02 (240-51496-2) and GW-060215-JK-03 (240-51496-3) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 06/04/2015 and 06/12/2015 and analyzed on 06/12/2015 and 06/13/2015.

Mercury failed the recovery criteria high for LCS 240-183759/2-A. Mercury was biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

#### **TOTAL MERCURY**

Samples GW-060215-JK-01 (240-51496-1), GW-060215-JK-02 (240-51496-2) and GW-060215-JK-03 (240-51496-3) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 06/04/2015 and analyzed on 06/12/2015.

Mercury failed the recovery criteria high for LCS 240-183759/2-A. Mercury was biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Mercury failed the recovery criteria high for the MS of sample GW-060215-JK-03MS (240-51496-3) in batch 240-184970.

Mercury failed the recovery criteria high for the MSD of sample GW-060215-JK-03MSD (240-51496-3) in batch 240-184970.

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

#### **TRIVALENT CHROMIUM**

Samples GW-060215-JK-01 (240-51496-1), GW-060215-JK-02 (240-51496-2) and GW-060215-JK-03 (240-51496-3) were analyzed for trivalent chromium in accordance with EPA SW-846 Method 7196A\_CR3. The samples were analyzed on 06/11/2015.

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

# Method Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
6020	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
7196A	Chromium, Hexavalent	SW846	TAL CAN
7196A	Chromium, Trivalent (Colorimetric)	SW846	TAL CAN

**Protocol References:**

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

**Laboratory References:**

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396





# Sample Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-51496-1	GW-060215-JK-01	Water	06/02/15 10:50	06/03/15 09:30
240-51496-2	GW-060215-JK-02	Water	06/02/15 11:10	06/03/15 09:30
240-51496-3	GW-060215-JK-03	Water	06/02/15 12:25	06/03/15 09:30
240-51496-4	TRIP BLANK	Water	06/02/15 00:00	06/03/15 09:30

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# Detection Summary

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

**Client Sample ID: GW-060215-JK-01**

**Lab Sample ID: 240-51496-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	470		25	10	ug/L	25		8260B	Total/NA
Ethylbenzene	300		25	6.3	ug/L	25		8260B	Total/NA
1,3,5-Trimethylbenzene	110		25	12	ug/L	25		8260B	Total/NA
Xylenes, Total	820		50	13	ug/L	25		8260B	Total/NA
Cyclohexane	53		25	11	ug/L	25		8260B	Total/NA
Isopropylbenzene	25		25	8.8	ug/L	25		8260B	Total/NA
Methylcyclohexane	16	J	25	11	ug/L	25		8260B	Total/NA
1,1'-Biphenyl	0.30	J	5.2	0.13	ug/L	1		8270C	Total/NA
2-Methylnaphthalene	0.22	J	5.2	0.093	ug/L	1		8270C	Total/NA
Fluorene	0.16	J	5.2	0.042	ug/L	1		8270C	Total/NA
Phenanthrene	0.10	J	2.1	0.064	ug/L	1		8270C	Total/NA
Arsenic	1.9	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	120		100	1.1	ug/L	1		6020	Total Recoverable
Beryllium	0.099	J	1.0	0.053	ug/L	1		6020	Total Recoverable
Cobalt	0.16	J B	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	1.7	J B	5.0	0.20	ug/L	1		6020	Total Recoverable
Manganese	310		15	1.1	ug/L	1		6020	Total Recoverable
Nickel	1.3	J B	20	0.23	ug/L	1		6020	Total Recoverable
Selenium	0.63	J	5.0	0.25	ug/L	1		6020	Total Recoverable
Vanadium	1.1	J B	4.0	0.23	ug/L	1		6020	Total Recoverable
Arsenic	2.1	J B	5.0	0.18	ug/L	1		6020	Dissolved
Beryllium	0.090	J	1.0	0.053	ug/L	1		6020	Dissolved
Cobalt	0.15	J B	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	1.5	J B	5.0	0.20	ug/L	1		6020	Dissolved
Manganese	330		15	1.1	ug/L	1		6020	Dissolved
Nickel	1.0	J B	20	0.23	ug/L	1		6020	Dissolved
Selenium	0.36	J	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	0.98	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	110		100	1.1	ug/L	1		6020	Dissolved

**Client Sample ID: GW-060215-JK-02**

**Lab Sample ID: 240-51496-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	460		25	10	ug/L	25		8260B	Total/NA
Ethylbenzene	290		25	6.3	ug/L	25		8260B	Total/NA
1,3,5-Trimethylbenzene	110		25	12	ug/L	25		8260B	Total/NA
Xylenes, Total	770		50	13	ug/L	25		8260B	Total/NA
Cyclohexane	51		25	11	ug/L	25		8260B	Total/NA
Isopropylbenzene	24	J	25	8.8	ug/L	25		8260B	Total/NA
Methylcyclohexane	15	J	25	11	ug/L	25		8260B	Total/NA
Acenaphthene	0.13	J	5.0	0.044	ug/L	1		8270C	Total/NA
1,1'-Biphenyl	0.31	J	5.0	0.13	ug/L	1		8270C	Total/NA
Fluorene	0.16	J	5.0	0.040	ug/L	1		8270C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

## Client Sample ID: GW-060215-JK-02 (Continued)

## Lab Sample ID: 240-51496-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.0	J B	5.0	0.18	ug/L	1		6020	Total
Barium	120		100	1.1	ug/L	1		6020	Total Recoverable
Beryllium	0.062	J	1.0	0.053	ug/L	1		6020	Total Recoverable
Cobalt	0.16	J B	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	1.8	J B	5.0	0.20	ug/L	1		6020	Total Recoverable
Manganese	330		15	1.1	ug/L	1		6020	Total Recoverable
Nickel	1.4	J B	20	0.23	ug/L	1		6020	Total Recoverable
Selenium	0.51	J	5.0	0.25	ug/L	1		6020	Total Recoverable
Vanadium	1.1	J B	4.0	0.23	ug/L	1		6020	Total Recoverable
Arsenic	2.1	J B	5.0	0.18	ug/L	1		6020	Dissolved
Beryllium	0.078	J	1.0	0.053	ug/L	1		6020	Dissolved
Cobalt	0.15	J B	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	1.5	J B	5.0	0.20	ug/L	1		6020	Dissolved
Manganese	330		15	1.1	ug/L	1		6020	Dissolved
Nickel	1.1	J B	20	0.23	ug/L	1		6020	Dissolved
Selenium	0.43	J	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	0.99	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	110		100	1.1	ug/L	1		6020	Dissolved

## Client Sample ID: GW-060215-JK-03

## Lab Sample ID: 240-51496-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	330	F1	10	4.1	ug/L	10		8260B	Total/NA
Ethylbenzene	59		10	2.5	ug/L	10		8260B	Total/NA
1,3,5-Trimethylbenzene	150	F1	10	4.8	ug/L	10		8260B	Total/NA
Xylenes, Total	110		20	5.2	ug/L	10		8260B	Total/NA
Cyclohexane	31		10	4.5	ug/L	10		8260B	Total/NA
Isopropylbenzene	91		10	3.5	ug/L	10		8260B	Total/NA
Methylcyclohexane	12		10	4.3	ug/L	10		8260B	Total/NA
Acenaphthene	0.34	J	5.1	0.045	ug/L	1		8270C	Total/NA
1,1'-Biphenyl	0.84	J	5.1	0.13	ug/L	1		8270C	Total/NA
2-Methylnaphthalene	26	F1	5.1	0.091	ug/L	1		8270C	Total/NA
Dibenzofuran	0.30	J	4.0	0.020	ug/L	1		8270C	Total/NA
2,4-Dimethylphenol	0.28	J	5.1	0.25	ug/L	1		8270C	Total/NA
Fluorene	0.39	J	5.1	0.041	ug/L	1		8270C	Total/NA
Naphthalene	48	F1	5.1	0.063	ug/L	1		8270C	Total/NA
Phenanthrene	0.13	J	2.0	0.063	ug/L	1		8270C	Total/NA
Arsenic	2.3	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	98	J	100	1.1	ug/L	1		6020	Total Recoverable
Cobalt	0.31	J B	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	1.4	J B	5.0	0.20	ug/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

## Detection Summary

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

### Client Sample ID: GW-060215-JK-03 (Continued)

### Lab Sample ID: 240-51496-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	500		15	1.1	ug/L	1		6020	Total
Nickel	0.87	J B	20	0.23	ug/L	1		6020	Recoverable Total
Lead	0.13	J B	3.0	0.11	ug/L	1		6020	Recoverable Total
Selenium	0.27	J	5.0	0.25	ug/L	1		6020	Recoverable Total
Vanadium	1.1	J B	4.0	0.23	ug/L	1		6020	Recoverable Total
Arsenic	3.7	J B	5.0	0.18	ug/L	1		6020	Dissolved
Beryllium	0.78	J	1.0	0.053	ug/L	1		6020	Dissolved
Cadmium	0.29	J	1.0	0.061	ug/L	1		6020	Dissolved
Cobalt	0.37	J B	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	1.5	J B	5.0	0.20	ug/L	1		6020	Dissolved
Manganese	510		15	1.1	ug/L	1		6020	Dissolved
Nickel	1.0	J B	20	0.23	ug/L	1		6020	Dissolved
Lead	0.15	J B	3.0	0.11	ug/L	1		6020	Dissolved
Antimony	0.24	J	2.0	0.16	ug/L	1		6020	Dissolved
Selenium	1.6	J	5.0	0.25	ug/L	1		6020	Dissolved
Thallium	0.30	J B	1.0	0.074	ug/L	1		6020	Dissolved
Vanadium	1.1	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	100		100	1.1	ug/L	1		6020	Dissolved

### Client Sample ID: TRIP BLANK

### Lab Sample ID: 240-51496-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.79	J B	1.0	0.33	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

**Client Sample ID: GW-060215-JK-01**

**Lab Sample ID: 240-51496-1**

**Date Collected: 06/02/15 10:50**

**Matrix: Water**

**Date Received: 06/03/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	250	U	250	24	ug/L			06/08/15 16:06	25
Benzene	25	U	25	8.8	ug/L			06/08/15 16:06	25
Dichlorobromomethane	25	U	25	7.3	ug/L			06/08/15 16:06	25
Bromoform	25	U	25	14	ug/L			06/08/15 16:06	25
Bromomethane	25	U	25	11	ug/L			06/08/15 16:06	25
2-Butanone (MEK)	250	U	250	13	ug/L			06/08/15 16:06	25
Carbon disulfide	25	U	25	9.5	ug/L			06/08/15 16:06	25
Carbon tetrachloride	25	U	25	11	ug/L			06/08/15 16:06	25
Chlorobenzene	25	U	25	6.3	ug/L			06/08/15 16:06	25
Chloroethane	25	U	25	8.0	ug/L			06/08/15 16:06	25
Chloroform	25	U	25	6.3	ug/L			06/08/15 16:06	25
Chloromethane	25	U	25	11	ug/L			06/08/15 16:06	25
1,1-Dichloroethane	25	U	25	7.5	ug/L			06/08/15 16:06	25
1,2-Dichloroethane	25	U	25	5.8	ug/L			06/08/15 16:06	25
1,1-Dichloroethene	25	U	25	11	ug/L			06/08/15 16:06	25
1,2-Dichloropropane	25	U	25	6.3	ug/L			06/08/15 16:06	25
<b>1,2,4-Trimethylbenzene</b>	<b>470</b>		25	10	ug/L			06/08/15 16:06	25
cis-1,3-Dichloropropene	25	U	25	12	ug/L			06/08/15 16:06	25
trans-1,3-Dichloropropene	25	U	25	14	ug/L			06/08/15 16:06	25
<b>Ethylbenzene</b>	<b>300</b>		25	6.3	ug/L			06/08/15 16:06	25
2-Hexanone	250	U	250	12	ug/L			06/08/15 16:06	25
Methylene Chloride	25	U	25	8.3	ug/L			06/08/15 16:06	25
4-Methyl-2-pentanone (MIBK)	250	U	250	25	ug/L			06/08/15 16:06	25
Styrene	25	U	25	11	ug/L			06/08/15 16:06	25
1,1,2,2-Tetrachloroethane	25	U	25	5.5	ug/L			06/08/15 16:06	25
Tetrachloroethene	25	U	25	7.8	ug/L			06/08/15 16:06	25
Toluene	25	U	25	5.8	ug/L			06/08/15 16:06	25
Trichloroethene	25	U	25	5.5	ug/L			06/08/15 16:06	25
<b>1,3,5-Trimethylbenzene</b>	<b>110</b>		25	12	ug/L			06/08/15 16:06	25
Vinyl chloride	25	U	25	7.3	ug/L			06/08/15 16:06	25
<b>Xylenes, Total</b>	<b>820</b>		50	13	ug/L			06/08/15 16:06	25
1,1,1-Trichloroethane	25	U	25	11	ug/L			06/08/15 16:06	25
1,1,2-Trichloroethane	25	U	25	6.0	ug/L			06/08/15 16:06	25
<b>Cyclohexane</b>	<b>53</b>		25	11	ug/L			06/08/15 16:06	25
1,2-Dibromo-3-Chloropropane	50	U	50	21	ug/L			06/08/15 16:06	25
Ethylene Dibromide	25	U	25	8.0	ug/L			06/08/15 16:06	25
Dichlorodifluoromethane	25	U	25	8.0	ug/L			06/08/15 16:06	25
cis-1,2-Dichloroethene	25	U	25	6.5	ug/L			06/08/15 16:06	25
trans-1,2-Dichloroethene	25	U	25	7.5	ug/L			06/08/15 16:06	25
<b>Isopropylbenzene</b>	<b>25</b>		25	8.8	ug/L			06/08/15 16:06	25
Methyl acetate	250	U	250	57	ug/L			06/08/15 16:06	25
Methyl tert-butyl ether	25	U	25	5.0	ug/L			06/08/15 16:06	25
1,1,2-Trichloro-1,2,2-trifluoroethane	25	U	25	11	ug/L			06/08/15 16:06	25
1,2,4-Trichlorobenzene	25	U	25	8.0	ug/L			06/08/15 16:06	25
1,2-Dichlorobenzene	25	U	25	6.3	ug/L			06/08/15 16:06	25
1,3-Dichlorobenzene	25	U	25	4.8	ug/L			06/08/15 16:06	25
1,4-Dichlorobenzene	25	U	25	6.8	ug/L			06/08/15 16:06	25
Trichlorofluoromethane	25	U	25	12	ug/L			06/08/15 16:06	25
Chlorodibromomethane	25	U	25	11	ug/L			06/08/15 16:06	25

TestAmerica Canton



# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

**Client Sample ID: GW-060215-JK-01**

**Lab Sample ID: 240-51496-1**

**Date Collected: 06/02/15 10:50**

**Matrix: Water**

**Date Received: 06/03/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Methylcyclohexane</b>	<b>16</b>	<b>J</b>	25	11	ug/L			06/08/15 16:06	25
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	99		63 - 129					06/08/15 16:06	25
4-Bromofluorobenzene (Surr)	100		66 - 120					06/08/15 16:06	25
Toluene-d8 (Surr)	98		74 - 120					06/08/15 16:06	25
Dibromofluoromethane (Surr)	95		75 - 121					06/08/15 16:06	25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	5.2	U	5.2	0.046	ug/L		06/04/15 08:53	06/05/15 13:56	1
Acenaphthylene	5.2	U	5.2	0.050	ug/L		06/04/15 08:53	06/05/15 13:56	1
Acetophenone	5.2	U	5.2	0.35	ug/L		06/04/15 08:53	06/05/15 13:56	1
Anthracene	5.2	U	5.2	0.091	ug/L		06/04/15 08:53	06/05/15 13:56	1
Atrazine	3.1	U	3.1	0.35	ug/L		06/04/15 08:53	06/05/15 13:56	1
Benzaldehyde	5.2	U	5.2	0.40	ug/L		06/04/15 08:53	06/05/15 13:56	1
Benzo[a]anthracene	1.0	U	1.0	0.030	ug/L		06/04/15 08:53	06/05/15 13:56	1
Benzo[b]fluoranthene	1.0	U	1.0	0.041	ug/L		06/04/15 08:53	06/05/15 13:56	1
Benzo[k]fluoranthene	1.0	U	1.0	0.046	ug/L		06/04/15 08:53	06/05/15 13:56	1
Benzo[g,h,i]perylene	1.0	U	1.0	0.048	ug/L		06/04/15 08:53	06/05/15 13:56	1
Benzo[a]pyrene	1.0	U	1.0	0.053	ug/L		06/04/15 08:53	06/05/15 13:56	1
Butyl benzyl phthalate	5.2	U	5.2	0.27	ug/L		06/04/15 08:53	06/05/15 13:56	1
<b>1,1'-Biphenyl</b>	<b>0.30</b>	<b>J</b>	5.2	0.13	ug/L		06/04/15 08:53	06/05/15 13:56	1
Bis(2-chloroethoxy)methane	5.2	U	5.2	0.33	ug/L		06/04/15 08:53	06/05/15 13:56	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.10	ug/L		06/04/15 08:53	06/05/15 13:56	1
Bis(2-ethylhexyl) phthalate	5.2	U	5.2	1.8	ug/L		06/04/15 08:53	06/05/15 13:56	1
4-Bromophenyl phenyl ether	5.2	U	5.2	0.23	ug/L		06/04/15 08:53	06/05/15 13:56	1
Caprolactam	10	U	10	0.21	ug/L		06/04/15 08:53	06/05/15 13:56	1
Carbazole	10	U	10	0.29	ug/L		06/04/15 08:53	06/05/15 13:56	1
4-Chloroaniline	10	U	10	0.22	ug/L		06/04/15 08:53	06/05/15 13:56	1
4-Chloro-3-methylphenol	5.2	U	5.2	0.22	ug/L		06/04/15 08:53	06/05/15 13:56	1
2-Chloronaphthalene	5.2	U	5.2	0.10	ug/L		06/04/15 08:53	06/05/15 13:56	1
2-Chlorophenol	5.2	U	5.2	0.30	ug/L		06/04/15 08:53	06/05/15 13:56	1
4-Chlorophenyl phenyl ether	5.2	U	5.2	0.31	ug/L		06/04/15 08:53	06/05/15 13:56	1
Chrysene	1.0	U	1.0	0.052	ug/L		06/04/15 08:53	06/05/15 13:56	1
<b>2-Methylnaphthalene</b>	<b>0.22</b>	<b>J</b>	5.2	0.093	ug/L		06/04/15 08:53	06/05/15 13:56	1
3 & 4 Methylphenol	5.2	U	5.2	0.82	ug/L		06/04/15 08:53	06/05/15 13:56	1
Dibenz(a,h)anthracene	2.1	U	2.1	0.046	ug/L		06/04/15 08:53	06/05/15 13:56	1
Dibenzofuran	4.1	U	4.1	0.021	ug/L		06/04/15 08:53	06/05/15 13:56	1
3,3'-Dichlorobenzidine	1.0	U	1.0	0.38	ug/L		06/04/15 08:53	06/05/15 13:56	1
2,4-Dichlorophenol	10	U	10	0.20	ug/L		06/04/15 08:53	06/05/15 13:56	1
Diethyl phthalate	5.2	U	5.2	0.62	ug/L		06/04/15 08:53	06/05/15 13:56	1
2,4-Dimethylphenol	5.2	U	5.2	0.26	ug/L		06/04/15 08:53	06/05/15 13:56	1
Dimethyl phthalate	5.2	U	5.2	0.30	ug/L		06/04/15 08:53	06/05/15 13:56	1
4,6-Dinitro-2-methylphenol	21	U	21	2.5	ug/L		06/04/15 08:53	06/05/15 13:56	1
2,4-Dinitrophenol	21	U	21	0.33	ug/L		06/04/15 08:53	06/05/15 13:56	1
2,4-Dinitrotoluene	5.2	U	5.2	0.26	ug/L		06/04/15 08:53	06/05/15 13:56	1
Di-n-butyl phthalate	5.2	U	5.2	1.8	ug/L		06/04/15 08:53	06/05/15 13:56	1
Di-n-octyl phthalate	5.2	U	5.2	0.24	ug/L		06/04/15 08:53	06/05/15 13:56	1
Fluoranthene	1.0	U	1.0	0.046	ug/L		06/04/15 08:53	06/05/15 13:56	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

**Client Sample ID: GW-060215-JK-01**

**Lab Sample ID: 240-51496-1**

**Date Collected: 06/02/15 10:50**

**Matrix: Water**

**Date Received: 06/03/15 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Fluorene</b>	<b>0.16</b>	<b>J</b>	5.2	0.042	ug/L		06/04/15 08:53	06/05/15 13:56	1
Hexachlorobenzene	0.21	U	0.21	0.088	ug/L		06/04/15 08:53	06/05/15 13:56	1
Hexachlorobutadiene	1.0	U	1.0	0.28	ug/L		06/04/15 08:53	06/05/15 13:56	1
Hexachlorocyclopentadiene	5.2	U	5.2	0.25	ug/L		06/04/15 08:53	06/05/15 13:56	1
Hexachloroethane	5.2	U	5.2	0.20	ug/L		06/04/15 08:53	06/05/15 13:56	1
Indeno[1,2,3-cd]pyrene	2.1	U	2.1	0.045	ug/L		06/04/15 08:53	06/05/15 13:56	1
Isophorone	5.2	U	5.2	0.28	ug/L		06/04/15 08:53	06/05/15 13:56	1
2-Methylphenol	5.2	U	5.2	0.18	ug/L		06/04/15 08:53	06/05/15 13:56	1
Naphthalene	5.2	U	5.2	0.065	ug/L		06/04/15 08:53	06/05/15 13:56	1
2-Nitroaniline	21	U	21	0.22	ug/L		06/04/15 08:53	06/05/15 13:56	1
3-Nitroaniline	21	U	21	0.29	ug/L		06/04/15 08:53	06/05/15 13:56	1
4-Nitroaniline	21	U	21	0.23	ug/L		06/04/15 08:53	06/05/15 13:56	1
Nitrobenzene	3.1	U	3.1	0.041	ug/L		06/04/15 08:53	06/05/15 13:56	1
2-Nitrophenol	5.2	U	5.2	0.29	ug/L		06/04/15 08:53	06/05/15 13:56	1
4-Nitrophenol	21	U	21	0.30	ug/L		06/04/15 08:53	06/05/15 13:56	1
N-Nitrosodiphenylamine	5.2	U	5.2	0.32	ug/L		06/04/15 08:53	06/05/15 13:56	1
N-Nitrosodi-n-propylamine	5.2	U	5.2	0.25	ug/L		06/04/15 08:53	06/05/15 13:56	1
2,2'-oxybis[1-chloropropane]	5.2	U	5.2	0.41	ug/L		06/04/15 08:53	06/05/15 13:56	1
Pentachlorophenol	5.2	U	5.2	0.28	ug/L		06/04/15 08:53	06/05/15 13:56	1
<b>Phenanthrene</b>	<b>0.10</b>	<b>J</b>	2.1	0.064	ug/L		06/04/15 08:53	06/05/15 13:56	1
Phenol	5.2	U	5.2	0.62	ug/L		06/04/15 08:53	06/05/15 13:56	1
Pyrene	5.2	U	5.2	0.043	ug/L		06/04/15 08:53	06/05/15 13:56	1
2,4,5-Trichlorophenol	5.2	U	5.2	0.31	ug/L		06/04/15 08:53	06/05/15 13:56	1
2,4,6-Trichlorophenol	4.1	U	4.1	0.25	ug/L		06/04/15 08:53	06/05/15 13:56	1
2,6-Dinitrotoluene	5.2	U	5.2	0.82	ug/L		06/04/15 08:53	06/05/15 13:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	78		29 - 110	06/04/15 08:53	06/05/15 13:56	1
2-Fluorophenol (Surr)	34		15 - 110	06/04/15 08:53	06/05/15 13:56	1
2,4,6-Tribromophenol (Surr)	89		21 - 128	06/04/15 08:53	06/05/15 13:56	1
Nitrobenzene-d5 (Surr)	85		31 - 110	06/04/15 08:53	06/05/15 13:56	1
Phenol-d5 (Surr)	22		10 - 110	06/04/15 08:53	06/05/15 13:56	1
Terphenyl-d14 (Surr)	67		31 - 115	06/04/15 08:53	06/05/15 13:56	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		06/04/15 11:35	06/05/15 12:56	1
<b>Arsenic</b>	<b>1.9</b>	<b>J B</b>	5.0	0.18	ug/L		06/04/15 11:35	06/05/15 12:56	1
<b>Barium</b>	<b>120</b>		100	1.1	ug/L		06/04/15 11:35	06/05/15 12:56	1
<b>Beryllium</b>	<b>0.099</b>	<b>J</b>	1.0	0.053	ug/L		06/04/15 11:35	06/05/15 12:56	1
Cadmium	1.0	U	1.0	0.061	ug/L		06/04/15 11:35	06/05/15 12:56	1
<b>Cobalt</b>	<b>0.16</b>	<b>J B</b>	7.0	0.021	ug/L		06/04/15 11:35	06/05/15 12:56	1
<b>Chromium</b>	<b>1.7</b>	<b>J B</b>	5.0	0.20	ug/L		06/04/15 11:35	06/05/15 12:56	1
Copper	2.0	U	2.0	0.75	ug/L		06/04/15 11:35	06/05/15 12:56	1
<b>Manganese</b>	<b>310</b>		15	1.1	ug/L		06/04/15 11:35	06/05/15 12:56	1
<b>Nickel</b>	<b>1.3</b>	<b>J B</b>	20	0.23	ug/L		06/04/15 11:35	06/05/15 12:56	1
Lead	3.0	U	3.0	0.11	ug/L		06/04/15 11:35	06/05/15 12:56	1
<b>Selenium</b>	<b>0.63</b>	<b>J</b>	5.0	0.25	ug/L		06/04/15 11:35	06/05/15 12:56	1
Thallium	1.0	U	1.0	0.074	ug/L		06/04/15 11:35	06/05/15 12:56	1
<b>Vanadium</b>	<b>1.1</b>	<b>J B</b>	4.0	0.23	ug/L		06/04/15 11:35	06/05/15 12:56	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

**Client Sample ID: GW-060215-JK-01**

**Lab Sample ID: 240-51496-1**

**Date Collected: 06/02/15 10:50**

**Matrix: Water**

**Date Received: 06/03/15 09:30**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		06/04/15 11:35	06/05/15 12:56	1
Silver	0.20	U	0.20	0.020	ug/L		06/04/15 11:35	06/05/15 12:56	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		06/04/15 11:35	06/05/15 12:59	1
<b>Arsenic</b>	<b>2.1</b>	<b>J B</b>	5.0	0.18	ug/L		06/04/15 11:35	06/05/15 12:59	1
<b>Beryllium</b>	<b>0.090</b>	<b>J</b>	1.0	0.053	ug/L		06/04/15 11:35	06/05/15 12:59	1
Cadmium	1.0	U	1.0	0.061	ug/L		06/04/15 11:35	06/05/15 12:59	1
<b>Cobalt</b>	<b>0.15</b>	<b>J B</b>	7.0	0.021	ug/L		06/04/15 11:35	06/05/15 12:59	1
<b>Chromium</b>	<b>1.5</b>	<b>J B</b>	5.0	0.20	ug/L		06/04/15 11:35	06/05/15 12:59	1
Copper	2.0	U	2.0	0.75	ug/L		06/04/15 11:35	06/05/15 12:59	1
<b>Manganese</b>	<b>330</b>		15	1.1	ug/L		06/04/15 11:35	06/05/15 12:59	1
<b>Nickel</b>	<b>1.0</b>	<b>J B</b>	20	0.23	ug/L		06/04/15 11:35	06/05/15 12:59	1
Lead	3.0	U	3.0	0.11	ug/L		06/04/15 11:35	06/05/15 12:59	1
Antimony	2.0	U	2.0	0.16	ug/L		06/04/15 11:35	06/05/15 12:59	1
<b>Selenium</b>	<b>0.36</b>	<b>J</b>	5.0	0.25	ug/L		06/04/15 11:35	06/05/15 12:59	1
Thallium	1.0	U	1.0	0.074	ug/L		06/04/15 11:35	06/05/15 12:59	1
<b>Vanadium</b>	<b>0.98</b>	<b>J B</b>	4.0	0.23	ug/L		06/04/15 11:35	06/05/15 12:59	1
Zinc	20	U	20	7.3	ug/L		06/04/15 11:35	06/05/15 12:59	1
<b>Barium</b>	<b>110</b>		100	1.1	ug/L		06/04/15 11:35	06/05/15 12:59	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U *	0.20	0.090	ug/L		06/04/15 14:00	06/12/15 07:51	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U *	0.20	0.090	ug/L		06/04/15 14:00	06/12/15 07:41	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			06/03/15 08:00	1
Cr (III)	0.020	U	0.020	0.0050	mg/L			06/11/15 10:09	1

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

**Client Sample ID: GW-060215-JK-02**

**Lab Sample ID: 240-51496-2**

**Date Collected: 06/02/15 11:10**

**Matrix: Water**

**Date Received: 06/03/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	250	U	250	24	ug/L			06/08/15 16:29	25
Benzene	25	U	25	8.8	ug/L			06/08/15 16:29	25
Dichlorobromomethane	25	U	25	7.3	ug/L			06/08/15 16:29	25
Bromoform	25	U	25	14	ug/L			06/08/15 16:29	25
Bromomethane	25	U	25	11	ug/L			06/08/15 16:29	25
2-Butanone (MEK)	250	U	250	13	ug/L			06/08/15 16:29	25
Carbon disulfide	25	U	25	9.5	ug/L			06/08/15 16:29	25
Carbon tetrachloride	25	U	25	11	ug/L			06/08/15 16:29	25
Chlorobenzene	25	U	25	6.3	ug/L			06/08/15 16:29	25
Chloroethane	25	U	25	8.0	ug/L			06/08/15 16:29	25
Chloroform	25	U	25	6.3	ug/L			06/08/15 16:29	25
Chloromethane	25	U	25	11	ug/L			06/08/15 16:29	25
1,1-Dichloroethane	25	U	25	7.5	ug/L			06/08/15 16:29	25
1,2-Dichloroethane	25	U	25	5.8	ug/L			06/08/15 16:29	25
1,1-Dichloroethene	25	U	25	11	ug/L			06/08/15 16:29	25
1,2-Dichloropropane	25	U	25	6.3	ug/L			06/08/15 16:29	25
<b>1,2,4-Trimethylbenzene</b>	<b>460</b>		25	10	ug/L			06/08/15 16:29	25
cis-1,3-Dichloropropene	25	U	25	12	ug/L			06/08/15 16:29	25
trans-1,3-Dichloropropene	25	U	25	14	ug/L			06/08/15 16:29	25
<b>Ethylbenzene</b>	<b>290</b>		25	6.3	ug/L			06/08/15 16:29	25
2-Hexanone	250	U	250	12	ug/L			06/08/15 16:29	25
Methylene Chloride	25	U	25	8.3	ug/L			06/08/15 16:29	25
4-Methyl-2-pentanone (MIBK)	250	U	250	25	ug/L			06/08/15 16:29	25
Styrene	25	U	25	11	ug/L			06/08/15 16:29	25
1,1,2,2-Tetrachloroethane	25	U	25	5.5	ug/L			06/08/15 16:29	25
Tetrachloroethene	25	U	25	7.8	ug/L			06/08/15 16:29	25
Toluene	25	U	25	5.8	ug/L			06/08/15 16:29	25
Trichloroethene	25	U	25	5.5	ug/L			06/08/15 16:29	25
<b>1,3,5-Trimethylbenzene</b>	<b>110</b>		25	12	ug/L			06/08/15 16:29	25
Vinyl chloride	25	U	25	7.3	ug/L			06/08/15 16:29	25
<b>Xylenes, Total</b>	<b>770</b>		50	13	ug/L			06/08/15 16:29	25
1,1,1-Trichloroethane	25	U	25	11	ug/L			06/08/15 16:29	25
1,1,2-Trichloroethane	25	U	25	6.0	ug/L			06/08/15 16:29	25
<b>Cyclohexane</b>	<b>51</b>		25	11	ug/L			06/08/15 16:29	25
1,2-Dibromo-3-Chloropropane	50	U	50	21	ug/L			06/08/15 16:29	25
Ethylene Dibromide	25	U	25	8.0	ug/L			06/08/15 16:29	25
Dichlorodifluoromethane	25	U	25	8.0	ug/L			06/08/15 16:29	25
cis-1,2-Dichloroethene	25	U	25	6.5	ug/L			06/08/15 16:29	25
trans-1,2-Dichloroethene	25	U	25	7.5	ug/L			06/08/15 16:29	25
<b>Isopropylbenzene</b>	<b>24</b>	<b>J</b>	25	8.8	ug/L			06/08/15 16:29	25
Methyl acetate	250	U	250	57	ug/L			06/08/15 16:29	25
Methyl tert-butyl ether	25	U	25	5.0	ug/L			06/08/15 16:29	25
1,1,2-Trichloro-1,2,2-trifluoroethane	25	U	25	11	ug/L			06/08/15 16:29	25
1,2,4-Trichlorobenzene	25	U	25	8.0	ug/L			06/08/15 16:29	25
1,2-Dichlorobenzene	25	U	25	6.3	ug/L			06/08/15 16:29	25
1,3-Dichlorobenzene	25	U	25	4.8	ug/L			06/08/15 16:29	25
1,4-Dichlorobenzene	25	U	25	6.8	ug/L			06/08/15 16:29	25
Trichlorofluoromethane	25	U	25	12	ug/L			06/08/15 16:29	25
Chlorodibromomethane	25	U	25	11	ug/L			06/08/15 16:29	25

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

**Client Sample ID: GW-060215-JK-02**

**Lab Sample ID: 240-51496-2**

**Date Collected: 06/02/15 11:10**

**Matrix: Water**

**Date Received: 06/03/15 09:30**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Methylcyclohexane</b>	<b>15</b>	<b>J</b>	25	11	ug/L			06/08/15 16:29	25
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	99		63 - 129					06/08/15 16:29	25
4-Bromofluorobenzene (Surr)	97		66 - 120					06/08/15 16:29	25
Toluene-d8 (Surr)	95		74 - 120					06/08/15 16:29	25
Dibromofluoromethane (Surr)	91		75 - 121					06/08/15 16:29	25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acenaphthene</b>	<b>0.13</b>	<b>J</b>	5.0	0.044	ug/L		06/04/15 08:53	06/05/15 14:21	1
Acenaphthylene	5.0	U	5.0	0.048	ug/L		06/04/15 08:53	06/05/15 14:21	1
Acetophenone	5.0	U	5.0	0.34	ug/L		06/04/15 08:53	06/05/15 14:21	1
Anthracene	5.0	U	5.0	0.087	ug/L		06/04/15 08:53	06/05/15 14:21	1
Atrazine	3.0	U	3.0	0.34	ug/L		06/04/15 08:53	06/05/15 14:21	1
Benzaldehyde	5.0	U	5.0	0.39	ug/L		06/04/15 08:53	06/05/15 14:21	1
Benzo[a]anthracene	0.99	U	0.99	0.029	ug/L		06/04/15 08:53	06/05/15 14:21	1
Benzo[b]fluoranthene	0.99	U	0.99	0.039	ug/L		06/04/15 08:53	06/05/15 14:21	1
Benzo[k]fluoranthene	0.99	U	0.99	0.044	ug/L		06/04/15 08:53	06/05/15 14:21	1
Benzo[g,h,i]perylene	0.99	U	0.99	0.046	ug/L		06/04/15 08:53	06/05/15 14:21	1
Benzo[a]pyrene	0.99	U	0.99	0.051	ug/L		06/04/15 08:53	06/05/15 14:21	1
Butyl benzyl phthalate	5.0	U	5.0	0.26	ug/L		06/04/15 08:53	06/05/15 14:21	1
<b>1,1'-Biphenyl</b>	<b>0.31</b>	<b>J</b>	5.0	0.13	ug/L		06/04/15 08:53	06/05/15 14:21	1
Bis(2-chloroethoxy)methane	5.0	U	5.0	0.32	ug/L		06/04/15 08:53	06/05/15 14:21	1
Bis(2-chloroethyl)ether	0.99	U	0.99	0.099	ug/L		06/04/15 08:53	06/05/15 14:21	1
Bis(2-ethylhexyl) phthalate	5.0	U	5.0	1.7	ug/L		06/04/15 08:53	06/05/15 14:21	1
4-Bromophenyl phenyl ether	5.0	U	5.0	0.22	ug/L		06/04/15 08:53	06/05/15 14:21	1
Caprolactam	9.9	U	9.9	0.20	ug/L		06/04/15 08:53	06/05/15 14:21	1
Carbazole	9.9	U	9.9	0.28	ug/L		06/04/15 08:53	06/05/15 14:21	1
4-Chloroaniline	9.9	U	9.9	0.21	ug/L		06/04/15 08:53	06/05/15 14:21	1
4-Chloro-3-methylphenol	5.0	U	5.0	0.21	ug/L		06/04/15 08:53	06/05/15 14:21	1
2-Chloronaphthalene	5.0	U	5.0	0.099	ug/L		06/04/15 08:53	06/05/15 14:21	1
2-Chlorophenol	5.0	U	5.0	0.29	ug/L		06/04/15 08:53	06/05/15 14:21	1
4-Chlorophenyl phenyl ether	5.0	U	5.0	0.30	ug/L		06/04/15 08:53	06/05/15 14:21	1
Chrysene	0.99	U	0.99	0.050	ug/L		06/04/15 08:53	06/05/15 14:21	1
2-Methylnaphthalene	5.0	U	5.0	0.090	ug/L		06/04/15 08:53	06/05/15 14:21	1
3 & 4 Methylphenol	5.0	U	5.0	0.79	ug/L		06/04/15 08:53	06/05/15 14:21	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.044	ug/L		06/04/15 08:53	06/05/15 14:21	1
Dibenzofuran	4.0	U	4.0	0.020	ug/L		06/04/15 08:53	06/05/15 14:21	1
3,3'-Dichlorobenzidine	0.99	U	0.99	0.37	ug/L		06/04/15 08:53	06/05/15 14:21	1
2,4-Dichlorophenol	9.9	U	9.9	0.19	ug/L		06/04/15 08:53	06/05/15 14:21	1
Diethyl phthalate	5.0	U	5.0	0.59	ug/L		06/04/15 08:53	06/05/15 14:21	1
2,4-Dimethylphenol	5.0	U	5.0	0.25	ug/L		06/04/15 08:53	06/05/15 14:21	1
Dimethyl phthalate	5.0	U	5.0	0.29	ug/L		06/04/15 08:53	06/05/15 14:21	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		06/04/15 08:53	06/05/15 14:21	1
2,4-Dinitrophenol	20	U	20	0.32	ug/L		06/04/15 08:53	06/05/15 14:21	1
2,4-Dinitrotoluene	5.0	U	5.0	0.25	ug/L		06/04/15 08:53	06/05/15 14:21	1
Di-n-butyl phthalate	5.0	U	5.0	1.7	ug/L		06/04/15 08:53	06/05/15 14:21	1
Di-n-octyl phthalate	5.0	U	5.0	0.23	ug/L		06/04/15 08:53	06/05/15 14:21	1
Fluoranthene	0.99	U	0.99	0.044	ug/L		06/04/15 08:53	06/05/15 14:21	1

TestAmerica Canton



# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

**Client Sample ID: GW-060215-JK-02**

**Lab Sample ID: 240-51496-2**

**Date Collected: 06/02/15 11:10**

**Matrix: Water**

**Date Received: 06/03/15 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Fluorene</b>	<b>0.16</b>	<b>J</b>	5.0	0.040	ug/L		06/04/15 08:53	06/05/15 14:21	1
Hexachlorobenzene	0.20	U	0.20	0.084	ug/L		06/04/15 08:53	06/05/15 14:21	1
Hexachlorobutadiene	0.99	U	0.99	0.27	ug/L		06/04/15 08:53	06/05/15 14:21	1
Hexachlorocyclopentadiene	5.0	U	5.0	0.24	ug/L		06/04/15 08:53	06/05/15 14:21	1
Hexachloroethane	5.0	U	5.0	0.19	ug/L		06/04/15 08:53	06/05/15 14:21	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.043	ug/L		06/04/15 08:53	06/05/15 14:21	1
Isophorone	5.0	U	5.0	0.27	ug/L		06/04/15 08:53	06/05/15 14:21	1
2-Methylphenol	5.0	U	5.0	0.17	ug/L		06/04/15 08:53	06/05/15 14:21	1
Naphthalene	5.0	U	5.0	0.062	ug/L		06/04/15 08:53	06/05/15 14:21	1
2-Nitroaniline	20	U	20	0.21	ug/L		06/04/15 08:53	06/05/15 14:21	1
3-Nitroaniline	20	U	20	0.28	ug/L		06/04/15 08:53	06/05/15 14:21	1
4-Nitroaniline	20	U	20	0.22	ug/L		06/04/15 08:53	06/05/15 14:21	1
Nitrobenzene	3.0	U	3.0	0.040	ug/L		06/04/15 08:53	06/05/15 14:21	1
2-Nitrophenol	5.0	U	5.0	0.28	ug/L		06/04/15 08:53	06/05/15 14:21	1
4-Nitrophenol	20	U	20	0.29	ug/L		06/04/15 08:53	06/05/15 14:21	1
N-Nitrosodiphenylamine	5.0	U	5.0	0.31	ug/L		06/04/15 08:53	06/05/15 14:21	1
N-Nitrosodi-n-propylamine	5.0	U	5.0	0.24	ug/L		06/04/15 08:53	06/05/15 14:21	1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	0.40	ug/L		06/04/15 08:53	06/05/15 14:21	1
Pentachlorophenol	5.0	U	5.0	0.27	ug/L		06/04/15 08:53	06/05/15 14:21	1
Phenanthrene	2.0	U	2.0	0.061	ug/L		06/04/15 08:53	06/05/15 14:21	1
Phenol	5.0	U	5.0	0.59	ug/L		06/04/15 08:53	06/05/15 14:21	1
Pyrene	5.0	U	5.0	0.042	ug/L		06/04/15 08:53	06/05/15 14:21	1
2,4,5-Trichlorophenol	5.0	U	5.0	0.30	ug/L		06/04/15 08:53	06/05/15 14:21	1
2,4,6-Trichlorophenol	4.0	U	4.0	0.24	ug/L		06/04/15 08:53	06/05/15 14:21	1
2,6-Dinitrotoluene	5.0	U	5.0	0.79	ug/L		06/04/15 08:53	06/05/15 14:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	80		29 - 110	06/04/15 08:53	06/05/15 14:21	1
2-Fluorophenol (Surr)	34		15 - 110	06/04/15 08:53	06/05/15 14:21	1
2,4,6-Tribromophenol (Surr)	89		21 - 128	06/04/15 08:53	06/05/15 14:21	1
Nitrobenzene-d5 (Surr)	85		31 - 110	06/04/15 08:53	06/05/15 14:21	1
Phenol-d5 (Surr)	24		10 - 110	06/04/15 08:53	06/05/15 14:21	1
Terphenyl-d14 (Surr)	68		31 - 115	06/04/15 08:53	06/05/15 14:21	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		06/04/15 11:35	06/05/15 13:03	1
<b>Arsenic</b>	<b>2.0</b>	<b>J B</b>	5.0	0.18	ug/L		06/04/15 11:35	06/05/15 13:03	1
<b>Barium</b>	<b>120</b>		100	1.1	ug/L		06/04/15 11:35	06/05/15 13:03	1
<b>Beryllium</b>	<b>0.062</b>	<b>J</b>	1.0	0.053	ug/L		06/04/15 11:35	06/05/15 13:03	1
Cadmium	1.0	U	1.0	0.061	ug/L		06/04/15 11:35	06/05/15 13:03	1
<b>Cobalt</b>	<b>0.16</b>	<b>J B</b>	7.0	0.021	ug/L		06/04/15 11:35	06/05/15 13:03	1
<b>Chromium</b>	<b>1.8</b>	<b>J B</b>	5.0	0.20	ug/L		06/04/15 11:35	06/05/15 13:03	1
Copper	2.0	U	2.0	0.75	ug/L		06/04/15 11:35	06/05/15 13:03	1
<b>Manganese</b>	<b>330</b>		15	1.1	ug/L		06/04/15 11:35	06/05/15 13:03	1
<b>Nickel</b>	<b>1.4</b>	<b>J B</b>	20	0.23	ug/L		06/04/15 11:35	06/05/15 13:03	1
Lead	3.0	U	3.0	0.11	ug/L		06/04/15 11:35	06/05/15 13:03	1
<b>Selenium</b>	<b>0.51</b>	<b>J</b>	5.0	0.25	ug/L		06/04/15 11:35	06/05/15 13:03	1
Thallium	1.0	U	1.0	0.074	ug/L		06/04/15 11:35	06/05/15 13:03	1
<b>Vanadium</b>	<b>1.1</b>	<b>J B</b>	4.0	0.23	ug/L		06/04/15 11:35	06/05/15 13:03	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

**Client Sample ID: GW-060215-JK-02**

**Lab Sample ID: 240-51496-2**

**Date Collected: 06/02/15 11:10**

**Matrix: Water**

**Date Received: 06/03/15 09:30**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		06/04/15 11:35	06/05/15 13:03	1
Silver	0.20	U	0.20	0.020	ug/L		06/04/15 11:35	06/05/15 13:03	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		06/04/15 11:35	06/05/15 13:07	1
<b>Arsenic</b>	<b>2.1</b>	<b>J B</b>	5.0	0.18	ug/L		06/04/15 11:35	06/05/15 13:07	1
<b>Beryllium</b>	<b>0.078</b>	<b>J</b>	1.0	0.053	ug/L		06/04/15 11:35	06/05/15 13:07	1
Cadmium	1.0	U	1.0	0.061	ug/L		06/04/15 11:35	06/05/15 13:07	1
<b>Cobalt</b>	<b>0.15</b>	<b>J B</b>	7.0	0.021	ug/L		06/04/15 11:35	06/05/15 13:07	1
<b>Chromium</b>	<b>1.5</b>	<b>J B</b>	5.0	0.20	ug/L		06/04/15 11:35	06/05/15 13:07	1
Copper	2.0	U	2.0	0.75	ug/L		06/04/15 11:35	06/05/15 13:07	1
<b>Manganese</b>	<b>330</b>		15	1.1	ug/L		06/04/15 11:35	06/05/15 13:07	1
<b>Nickel</b>	<b>1.1</b>	<b>J B</b>	20	0.23	ug/L		06/04/15 11:35	06/05/15 13:07	1
Lead	3.0	U	3.0	0.11	ug/L		06/04/15 11:35	06/05/15 13:07	1
Antimony	2.0	U	2.0	0.16	ug/L		06/04/15 11:35	06/05/15 13:07	1
<b>Selenium</b>	<b>0.43</b>	<b>J</b>	5.0	0.25	ug/L		06/04/15 11:35	06/05/15 13:07	1
Thallium	1.0	U	1.0	0.074	ug/L		06/04/15 11:35	06/05/15 13:07	1
<b>Vanadium</b>	<b>0.99</b>	<b>J B</b>	4.0	0.23	ug/L		06/04/15 11:35	06/05/15 13:07	1
Zinc	20	U	20	7.3	ug/L		06/04/15 11:35	06/05/15 13:07	1
<b>Barium</b>	<b>110</b>		100	1.1	ug/L		06/04/15 11:35	06/05/15 13:07	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U*	0.20	0.090	ug/L		06/04/15 14:00	06/12/15 07:47	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U*	0.20	0.090	ug/L		06/04/15 14:00	06/12/15 07:48	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			06/03/15 08:00	1
Cr (III)	0.020	U	0.020	0.0050	mg/L			06/11/15 10:09	1

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

**Client Sample ID: GW-060215-JK-03**

**Lab Sample ID: 240-51496-3**

**Date Collected: 06/02/15 12:25**

**Matrix: Water**

**Date Received: 06/03/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	100	U	100	9.4	ug/L			06/08/15 15:21	10
Benzene	10	U	10	3.5	ug/L			06/08/15 15:21	10
Dichlorobromomethane	10	U	10	2.9	ug/L			06/08/15 15:21	10
Bromoform	10	U	10	5.6	ug/L			06/08/15 15:21	10
Bromomethane	10	U	10	4.4	ug/L			06/08/15 15:21	10
2-Butanone (MEK)	100	U	100	5.3	ug/L			06/08/15 15:21	10
Carbon disulfide	10	U	10	3.8	ug/L			06/08/15 15:21	10
Carbon tetrachloride	10	U	10	4.3	ug/L			06/08/15 15:21	10
Chlorobenzene	10	U	10	2.5	ug/L			06/08/15 15:21	10
Chloroethane	10	U	10	3.2	ug/L			06/08/15 15:21	10
Chloroform	10	U	10	2.5	ug/L			06/08/15 15:21	10
Chloromethane	10	U	10	4.4	ug/L			06/08/15 15:21	10
1,1-Dichloroethane	10	U	10	3.0	ug/L			06/08/15 15:21	10
1,2-Dichloroethane	10	U	10	2.3	ug/L			06/08/15 15:21	10
1,1-Dichloroethene	10	U	10	4.5	ug/L			06/08/15 15:21	10
1,2-Dichloropropane	10	U	10	2.5	ug/L			06/08/15 15:21	10
<b>1,2,4-Trimethylbenzene</b>	<b>330</b>	<b>F1</b>	10	4.1	ug/L			06/08/15 15:21	10
cis-1,3-Dichloropropene	10	U	10	4.6	ug/L			06/08/15 15:21	10
trans-1,3-Dichloropropene	10	U	10	5.6	ug/L			06/08/15 15:21	10
<b>Ethylbenzene</b>	<b>59</b>		10	2.5	ug/L			06/08/15 15:21	10
2-Hexanone	100	U	100	4.8	ug/L			06/08/15 15:21	10
Methylene Chloride	10	U	10	3.3	ug/L			06/08/15 15:21	10
4-Methyl-2-pentanone (MIBK)	100	U	100	9.9	ug/L			06/08/15 15:21	10
Styrene	10	U	10	4.5	ug/L			06/08/15 15:21	10
1,1,2,2-Tetrachloroethane	10	U	10	2.2	ug/L			06/08/15 15:21	10
Tetrachloroethene	10	U	10	3.1	ug/L			06/08/15 15:21	10
Toluene	10	U	10	2.3	ug/L			06/08/15 15:21	10
Trichloroethene	10	U	10	2.2	ug/L			06/08/15 15:21	10
<b>1,3,5-Trimethylbenzene</b>	<b>150</b>	<b>F1</b>	10	4.8	ug/L			06/08/15 15:21	10
Vinyl chloride	10	U	10	2.9	ug/L			06/08/15 15:21	10
<b>Xylenes, Total</b>	<b>110</b>		20	5.2	ug/L			06/08/15 15:21	10
1,1,1-Trichloroethane	10	U	10	4.4	ug/L			06/08/15 15:21	10
1,1,2-Trichloroethane	10	U	10	2.4	ug/L			06/08/15 15:21	10
<b>Cyclohexane</b>	<b>31</b>		10	4.5	ug/L			06/08/15 15:21	10
1,2-Dibromo-3-Chloropropane	20	U	20	8.2	ug/L			06/08/15 15:21	10
Ethylene Dibromide	10	U	10	3.2	ug/L			06/08/15 15:21	10
Dichlorodifluoromethane	10	U	10	3.2	ug/L			06/08/15 15:21	10
cis-1,2-Dichloroethene	10	U	10	2.6	ug/L			06/08/15 15:21	10
trans-1,2-Dichloroethene	10	U	10	3.0	ug/L			06/08/15 15:21	10
<b>Isopropylbenzene</b>	<b>91</b>		10	3.5	ug/L			06/08/15 15:21	10
Methyl acetate	100	U	100	23	ug/L			06/08/15 15:21	10
Methyl tert-butyl ether	10	U	10	2.0	ug/L			06/08/15 15:21	10
1,1,2-Trichloro-1,2,2-trifluoroethane	10	U	10	4.5	ug/L			06/08/15 15:21	10
1,2,4-Trichlorobenzene	10	U	10	3.2	ug/L			06/08/15 15:21	10
1,2-Dichlorobenzene	10	U	10	2.5	ug/L			06/08/15 15:21	10
1,3-Dichlorobenzene	10	U	10	1.9	ug/L			06/08/15 15:21	10
1,4-Dichlorobenzene	10	U	10	2.7	ug/L			06/08/15 15:21	10
Trichlorofluoromethane	10	U	10	4.9	ug/L			06/08/15 15:21	10
Chlorodibromomethane	10	U	10	4.3	ug/L			06/08/15 15:21	10

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

**Client Sample ID: GW-060215-JK-03**

**Lab Sample ID: 240-51496-3**

**Date Collected: 06/02/15 12:25**

**Matrix: Water**

**Date Received: 06/03/15 09:30**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Methylcyclohexane</b>	<b>12</b>		10	4.3	ug/L			06/08/15 15:21	10
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	103		63 - 129					06/08/15 15:21	10
4-Bromofluorobenzene (Surr)	103		66 - 120					06/08/15 15:21	10
Toluene-d8 (Surr)	97		74 - 120					06/08/15 15:21	10
Dibromofluoromethane (Surr)	96		75 - 121					06/08/15 15:21	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acenaphthene</b>	<b>0.34</b>	<b>J</b>	5.1	0.045	ug/L		06/04/15 08:53	06/05/15 14:47	1
Acenaphthylene	5.1	U	5.1	0.049	ug/L		06/04/15 08:53	06/05/15 14:47	1
Acetophenone	5.1	U	5.1	0.34	ug/L		06/04/15 08:53	06/05/15 14:47	1
Anthracene	5.1	U	5.1	0.089	ug/L		06/04/15 08:53	06/05/15 14:47	1
Atrazine	3.0	U F1	3.0	0.34	ug/L		06/04/15 08:53	06/05/15 14:47	1
Benzaldehyde	5.1	U	5.1	0.39	ug/L		06/04/15 08:53	06/05/15 14:47	1
Benzo[a]anthracene	1.0	U	1.0	0.030	ug/L		06/04/15 08:53	06/05/15 14:47	1
Benzo[b]fluoranthene	1.0	U	1.0	0.040	ug/L		06/04/15 08:53	06/05/15 14:47	1
Benzo[k]fluoranthene	1.0	U	1.0	0.045	ug/L		06/04/15 08:53	06/05/15 14:47	1
Benzo[g,h,i]perylene	1.0	U	1.0	0.047	ug/L		06/04/15 08:53	06/05/15 14:47	1
Benzo[a]pyrene	1.0	U	1.0	0.052	ug/L		06/04/15 08:53	06/05/15 14:47	1
Butyl benzyl phthalate	5.1	U	5.1	0.26	ug/L		06/04/15 08:53	06/05/15 14:47	1
<b>1,1'-Biphenyl</b>	<b>0.84</b>	<b>J</b>	5.1	0.13	ug/L		06/04/15 08:53	06/05/15 14:47	1
Bis(2-chloroethoxy)methane	5.1	U	5.1	0.32	ug/L		06/04/15 08:53	06/05/15 14:47	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.10	ug/L		06/04/15 08:53	06/05/15 14:47	1
Bis(2-ethylhexyl) phthalate	5.1	U	5.1	1.7	ug/L		06/04/15 08:53	06/05/15 14:47	1
4-Bromophenyl phenyl ether	5.1	U	5.1	0.22	ug/L		06/04/15 08:53	06/05/15 14:47	1
Caprolactam	10	U F1	10	0.20	ug/L		06/04/15 08:53	06/05/15 14:47	1
Carbazole	10	U	10	0.28	ug/L		06/04/15 08:53	06/05/15 14:47	1
4-Chloroaniline	10	U F1	10	0.21	ug/L		06/04/15 08:53	06/05/15 14:47	1
4-Chloro-3-methylphenol	5.1	U	5.1	0.21	ug/L		06/04/15 08:53	06/05/15 14:47	1
2-Chloronaphthalene	5.1	U	5.1	0.10	ug/L		06/04/15 08:53	06/05/15 14:47	1
2-Chlorophenol	5.1	U	5.1	0.29	ug/L		06/04/15 08:53	06/05/15 14:47	1
4-Chlorophenyl phenyl ether	5.1	U	5.1	0.30	ug/L		06/04/15 08:53	06/05/15 14:47	1
Chrysene	1.0	U	1.0	0.051	ug/L		06/04/15 08:53	06/05/15 14:47	1
<b>2-Methylnaphthalene</b>	<b>26</b>	<b>F1</b>	5.1	0.091	ug/L		06/04/15 08:53	06/05/15 14:47	1
3 & 4 Methylphenol	5.1	U	5.1	0.81	ug/L		06/04/15 08:53	06/05/15 14:47	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.045	ug/L		06/04/15 08:53	06/05/15 14:47	1
<b>Dibenzofuran</b>	<b>0.30</b>	<b>J</b>	4.0	0.020	ug/L		06/04/15 08:53	06/05/15 14:47	1
3,3'-Dichlorobenzidine	1.0	U	1.0	0.37	ug/L		06/04/15 08:53	06/05/15 14:47	1
2,4-Dichlorophenol	10	U	10	0.19	ug/L		06/04/15 08:53	06/05/15 14:47	1
Diethyl phthalate	5.1	U	5.1	0.61	ug/L		06/04/15 08:53	06/05/15 14:47	1
<b>2,4-Dimethylphenol</b>	<b>0.28</b>	<b>J</b>	5.1	0.25	ug/L		06/04/15 08:53	06/05/15 14:47	1
Dimethyl phthalate	5.1	U	5.1	0.29	ug/L		06/04/15 08:53	06/05/15 14:47	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		06/04/15 08:53	06/05/15 14:47	1
2,4-Dinitrophenol	20	U	20	0.32	ug/L		06/04/15 08:53	06/05/15 14:47	1
2,4-Dinitrotoluene	5.1	U	5.1	0.25	ug/L		06/04/15 08:53	06/05/15 14:47	1
Di-n-butyl phthalate	5.1	U	5.1	1.7	ug/L		06/04/15 08:53	06/05/15 14:47	1
Di-n-octyl phthalate	5.1	U	5.1	0.23	ug/L		06/04/15 08:53	06/05/15 14:47	1
Fluoranthene	1.0	U	1.0	0.045	ug/L		06/04/15 08:53	06/05/15 14:47	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

**Client Sample ID: GW-060215-JK-03**

**Lab Sample ID: 240-51496-3**

Date Collected: 06/02/15 12:25

Matrix: Water

Date Received: 06/03/15 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Fluorene</b>	<b>0.39</b>	<b>J</b>	5.1	0.041	ug/L		06/04/15 08:53	06/05/15 14:47	1
Hexachlorobenzene	0.20	U	0.20	0.086	ug/L		06/04/15 08:53	06/05/15 14:47	1
Hexachlorobutadiene	1.0	U	1.0	0.27	ug/L		06/04/15 08:53	06/05/15 14:47	1
Hexachlorocyclopentadiene	5.1	U	5.1	0.24	ug/L		06/04/15 08:53	06/05/15 14:47	1
Hexachloroethane	5.1	U F1	5.1	0.19	ug/L		06/04/15 08:53	06/05/15 14:47	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.044	ug/L		06/04/15 08:53	06/05/15 14:47	1
Isophorone	5.1	U	5.1	0.27	ug/L		06/04/15 08:53	06/05/15 14:47	1
2-Methylphenol	5.1	U	5.1	0.17	ug/L		06/04/15 08:53	06/05/15 14:47	1
<b>Naphthalene</b>	<b>48</b>	<b>F1</b>	5.1	0.063	ug/L		06/04/15 08:53	06/05/15 14:47	1
2-Nitroaniline	20	U	20	0.21	ug/L		06/04/15 08:53	06/05/15 14:47	1
3-Nitroaniline	20	U	20	0.28	ug/L		06/04/15 08:53	06/05/15 14:47	1
4-Nitroaniline	20	U	20	0.22	ug/L		06/04/15 08:53	06/05/15 14:47	1
Nitrobenzene	3.0	U	3.0	0.040	ug/L		06/04/15 08:53	06/05/15 14:47	1
2-Nitrophenol	5.1	U	5.1	0.28	ug/L		06/04/15 08:53	06/05/15 14:47	1
4-Nitrophenol	20	U	20	0.29	ug/L		06/04/15 08:53	06/05/15 14:47	1
N-Nitrosodiphenylamine	5.1	U	5.1	0.31	ug/L		06/04/15 08:53	06/05/15 14:47	1
N-Nitrosodi-n-propylamine	5.1	U	5.1	0.24	ug/L		06/04/15 08:53	06/05/15 14:47	1
2,2'-oxybis[1-chloropropane]	5.1	U	5.1	0.40	ug/L		06/04/15 08:53	06/05/15 14:47	1
Pentachlorophenol	5.1	U	5.1	0.27	ug/L		06/04/15 08:53	06/05/15 14:47	1
<b>Phenanthrene</b>	<b>0.13</b>	<b>J</b>	2.0	0.063	ug/L		06/04/15 08:53	06/05/15 14:47	1
Phenol	5.1	U	5.1	0.61	ug/L		06/04/15 08:53	06/05/15 14:47	1
Pyrene	5.1	U	5.1	0.042	ug/L		06/04/15 08:53	06/05/15 14:47	1
2,4,5-Trichlorophenol	5.1	U	5.1	0.30	ug/L		06/04/15 08:53	06/05/15 14:47	1
2,4,6-Trichlorophenol	4.0	U	4.0	0.24	ug/L		06/04/15 08:53	06/05/15 14:47	1
2,6-Dinitrotoluene	5.1	U	5.1	0.81	ug/L		06/04/15 08:53	06/05/15 14:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	80		29 - 110	06/04/15 08:53	06/05/15 14:47	1
2-Fluorophenol (Surr)	37		15 - 110	06/04/15 08:53	06/05/15 14:47	1
2,4,6-Tribromophenol (Surr)	95		21 - 128	06/04/15 08:53	06/05/15 14:47	1
Nitrobenzene-d5 (Surr)	79		31 - 110	06/04/15 08:53	06/05/15 14:47	1
Phenol-d5 (Surr)	22		10 - 110	06/04/15 08:53	06/05/15 14:47	1
Terphenyl-d14 (Surr)	63		31 - 115	06/04/15 08:53	06/05/15 14:47	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		06/04/15 11:34	06/05/15 11:55	1
<b>Arsenic</b>	<b>2.3</b>	<b>J B</b>	5.0	0.18	ug/L		06/04/15 11:34	06/05/15 11:55	1
<b>Barium</b>	<b>98</b>	<b>J</b>	100	1.1	ug/L		06/04/15 11:34	06/05/15 11:55	1
Beryllium	1.0	U	1.0	0.053	ug/L		06/04/15 11:34	06/05/15 11:55	1
Cadmium	1.0	U	1.0	0.061	ug/L		06/04/15 11:34	06/05/15 11:55	1
<b>Cobalt</b>	<b>0.31</b>	<b>J B</b>	7.0	0.021	ug/L		06/04/15 11:34	06/05/15 11:55	1
<b>Chromium</b>	<b>1.4</b>	<b>J B</b>	5.0	0.20	ug/L		06/04/15 11:34	06/05/15 11:55	1
Copper	2.0	U	2.0	0.75	ug/L		06/04/15 11:34	06/05/15 11:55	1
<b>Manganese</b>	<b>500</b>		15	1.1	ug/L		06/04/15 11:34	06/05/15 11:55	1
<b>Nickel</b>	<b>0.87</b>	<b>J B</b>	20	0.23	ug/L		06/04/15 11:34	06/05/15 11:55	1
<b>Lead</b>	<b>0.13</b>	<b>J B</b>	3.0	0.11	ug/L		06/04/15 11:34	06/05/15 11:55	1
<b>Selenium</b>	<b>0.27</b>	<b>J</b>	5.0	0.25	ug/L		06/04/15 11:34	06/05/15 11:55	1
Thallium	1.0	U	1.0	0.074	ug/L		06/04/15 11:34	06/05/15 11:55	1
<b>Vanadium</b>	<b>1.1</b>	<b>J B</b>	4.0	0.23	ug/L		06/04/15 11:34	06/05/15 11:55	1

TestAmerica Canton



# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

**Client Sample ID: GW-060215-JK-03**

**Lab Sample ID: 240-51496-3**

Date Collected: 06/02/15 12:25

Matrix: Water

Date Received: 06/03/15 09:30

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		06/04/15 11:34	06/05/15 11:55	1
Silver	0.20	U	0.20	0.020	ug/L		06/04/15 11:34	06/05/15 11:55	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		06/04/15 11:34	06/05/15 12:13	1
Arsenic	3.7	J B	5.0	0.18	ug/L		06/04/15 11:34	06/05/15 12:13	1
Beryllium	0.78	J	1.0	0.053	ug/L		06/04/15 11:34	06/05/15 12:13	1
Cadmium	0.29	J	1.0	0.061	ug/L		06/04/15 11:34	06/05/15 12:13	1
Cobalt	0.37	J B	7.0	0.021	ug/L		06/04/15 11:34	06/05/15 12:13	1
Chromium	1.5	J B	5.0	0.20	ug/L		06/04/15 11:34	06/05/15 12:13	1
Copper	2.0	U	2.0	0.75	ug/L		06/04/15 11:34	06/05/15 12:13	1
Manganese	510		15	1.1	ug/L		06/04/15 11:34	06/05/15 12:13	1
Nickel	1.0	J B	20	0.23	ug/L		06/04/15 11:34	06/05/15 12:13	1
Lead	0.15	J B	3.0	0.11	ug/L		06/04/15 11:34	06/05/15 12:13	1
Antimony	0.24	J	2.0	0.16	ug/L		06/04/15 11:34	06/05/15 12:13	1
Selenium	1.6	J	5.0	0.25	ug/L		06/04/15 11:34	06/05/15 12:13	1
Thallium	0.30	J B	1.0	0.074	ug/L		06/04/15 11:34	06/05/15 12:13	1
Vanadium	1.1	J B	4.0	0.23	ug/L		06/04/15 11:34	06/05/15 12:13	1
Zinc	20	U	20	7.3	ug/L		06/04/15 11:34	06/05/15 12:13	1
Barium	100		100	1.1	ug/L		06/04/15 11:34	06/05/15 12:13	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U F1 *	0.20	0.090	ug/L		06/04/15 14:00	06/12/15 07:13	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		06/12/15 15:00	06/13/15 10:37	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.040	U	0.040	0.0042	mg/L			06/03/15 10:22	2
Cr (III)	0.020	U	0.020	0.0050	mg/L			06/11/15 10:09	1

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 240-51496-4**

**Date Collected: 06/02/15 00:00**

**Matrix: Water**

**Date Received: 06/03/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			06/08/15 16:52	1
Benzene	1.0	U	1.0	0.35	ug/L			06/08/15 16:52	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			06/08/15 16:52	1
Bromoform	1.0	U	1.0	0.56	ug/L			06/08/15 16:52	1
Bromomethane	1.0	U	1.0	0.44	ug/L			06/08/15 16:52	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			06/08/15 16:52	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			06/08/15 16:52	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			06/08/15 16:52	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			06/08/15 16:52	1
Chloroethane	1.0	U	1.0	0.32	ug/L			06/08/15 16:52	1
Chloroform	1.0	U	1.0	0.25	ug/L			06/08/15 16:52	1
Chloromethane	1.0	U	1.0	0.44	ug/L			06/08/15 16:52	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			06/08/15 16:52	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			06/08/15 16:52	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			06/08/15 16:52	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			06/08/15 16:52	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			06/08/15 16:52	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			06/08/15 16:52	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			06/08/15 16:52	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			06/08/15 16:52	1
2-Hexanone	10	U	10	0.48	ug/L			06/08/15 16:52	1
<b>Methylene Chloride</b>	<b>0.79</b>	<b>J B</b>	1.0	0.33	ug/L			06/08/15 16:52	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			06/08/15 16:52	1
Styrene	1.0	U	1.0	0.45	ug/L			06/08/15 16:52	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			06/08/15 16:52	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			06/08/15 16:52	1
Toluene	1.0	U	1.0	0.23	ug/L			06/08/15 16:52	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			06/08/15 16:52	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			06/08/15 16:52	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			06/08/15 16:52	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			06/08/15 16:52	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			06/08/15 16:52	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			06/08/15 16:52	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			06/08/15 16:52	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			06/08/15 16:52	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			06/08/15 16:52	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			06/08/15 16:52	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			06/08/15 16:52	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			06/08/15 16:52	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			06/08/15 16:52	1
Methyl acetate	10	U	10	2.3	ug/L			06/08/15 16:52	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			06/08/15 16:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			06/08/15 16:52	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			06/08/15 16:52	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			06/08/15 16:52	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			06/08/15 16:52	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			06/08/15 16:52	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			06/08/15 16:52	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			06/08/15 16:52	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 240-51496-4**

**Date Collected: 06/02/15 00:00**

**Matrix: Water**

**Date Received: 06/03/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			06/08/15 16:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		63 - 129		06/08/15 16:52	1
4-Bromofluorobenzene (Surr)	88		66 - 120		06/08/15 16:52	1
Toluene-d8 (Surr)	92		74 - 120		06/08/15 16:52	1
Dibromofluoromethane (Surr)	99		75 - 121		06/08/15 16:52	1

# Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (63-129)	BFB (66-120)	TOL (74-120)	DBFM (75-121)
240-51496-1	GW-060215-JK-01	99	100	98	95
240-51496-2	GW-060215-JK-02	99	97	95	91
240-51496-3	GW-060215-JK-03	103	103	97	96
240-51496-3 MS	GW-060215-JK-03	100	104	102	95
240-51496-3 MSD	GW-060215-JK-03	99	100	99	95
240-51496-4	TRIP BLANK	103	88	92	99
LCS 240-184147/4	Lab Control Sample	95	100	100	92
MB 240-184147/6	Method Blank	103	86	93	98

### Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)  
 BFB = 4-Bromofluorobenzene (Surr)  
 TOL = Toluene-d8 (Surr)  
 DBFM = Dibromofluoromethane (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (29-110)	2FP (15-110)	TBP (21-128)	NBZ (31-110)	PHL (10-110)	TPH (31-115)
240-51496-1	GW-060215-JK-01	78	34	89	85	22	67
240-51496-2	GW-060215-JK-02	80	34	89	85	24	68
240-51496-3	GW-060215-JK-03	80	37	95	79	22	63
240-51496-3 MS	GW-060215-JK-03	67	30	87	67	18	43
240-51496-3 MSD	GW-060215-JK-03	73	34	90	73	20	51
LCS 240-183691/24-A	Lab Control Sample	81	68	99	81	60	99
MB 240-183691/23-A	Method Blank	79	64	85	80	55	95

### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)  
 2FP = 2-Fluorophenol (Surr)  
 TBP = 2,4,6-Tribromophenol (Surr)  
 NBZ = Nitrobenzene-d5 (Surr)  
 PHL = Phenol-d5 (Surr)  
 TPH = Terphenyl-d14 (Surr)

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 240-184147/6**

**Matrix: Water**

**Analysis Batch: 184147**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			06/08/15 12:42	1
Benzene	1.0	U	1.0	0.35	ug/L			06/08/15 12:42	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			06/08/15 12:42	1
Bromoform	1.0	U	1.0	0.56	ug/L			06/08/15 12:42	1
Bromomethane	1.0	U	1.0	0.44	ug/L			06/08/15 12:42	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			06/08/15 12:42	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			06/08/15 12:42	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			06/08/15 12:42	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			06/08/15 12:42	1
Chloroethane	1.0	U	1.0	0.32	ug/L			06/08/15 12:42	1
Chloroform	1.0	U	1.0	0.25	ug/L			06/08/15 12:42	1
Chloromethane	1.0	U	1.0	0.44	ug/L			06/08/15 12:42	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			06/08/15 12:42	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			06/08/15 12:42	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			06/08/15 12:42	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			06/08/15 12:42	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			06/08/15 12:42	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			06/08/15 12:42	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			06/08/15 12:42	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			06/08/15 12:42	1
2-Hexanone	10	U	10	0.48	ug/L			06/08/15 12:42	1
Methylene Chloride	0.695	J	1.0	0.33	ug/L			06/08/15 12:42	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			06/08/15 12:42	1
Styrene	1.0	U	1.0	0.45	ug/L			06/08/15 12:42	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			06/08/15 12:42	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			06/08/15 12:42	1
Toluene	1.0	U	1.0	0.23	ug/L			06/08/15 12:42	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			06/08/15 12:42	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			06/08/15 12:42	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			06/08/15 12:42	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			06/08/15 12:42	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			06/08/15 12:42	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			06/08/15 12:42	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			06/08/15 12:42	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			06/08/15 12:42	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			06/08/15 12:42	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			06/08/15 12:42	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			06/08/15 12:42	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			06/08/15 12:42	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			06/08/15 12:42	1
Methyl acetate	10	U	10	2.3	ug/L			06/08/15 12:42	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			06/08/15 12:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			06/08/15 12:42	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			06/08/15 12:42	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			06/08/15 12:42	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			06/08/15 12:42	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			06/08/15 12:42	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			06/08/15 12:42	1

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# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 240-184147/6**  
**Matrix: Water**  
**Analysis Batch: 184147**

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			06/08/15 12:42	1
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			06/08/15 12:42	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	103		63 - 129		06/08/15 12:42	1
4-Bromofluorobenzene (Surr)	86		66 - 120		06/08/15 12:42	1
Toluene-d8 (Surr)	93		74 - 120		06/08/15 12:42	1
Dibromofluoromethane (Surr)	98		75 - 121		06/08/15 12:42	1

**Lab Sample ID: LCS 240-184147/4**  
**Matrix: Water**  
**Analysis Batch: 184147**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Acetone	20.0	15.4		ug/L		77	43 - 136
Benzene	10.0	9.50		ug/L		95	80 - 120
Dichlorobromomethane	10.0	9.59		ug/L		96	72 - 121
Bromoform	10.0	10.1		ug/L		101	40 - 131
Bromomethane	10.0	10.1		ug/L		101	11 - 185
2-Butanone (MEK)	20.0	17.2		ug/L		86	60 - 126
Carbon disulfide	10.0	9.50		ug/L		95	62 - 142
Carbon tetrachloride	10.0	10.1		ug/L		101	66 - 128
Chlorobenzene	10.0	9.63		ug/L		96	80 - 120
Chloroethane	10.0	9.44		ug/L		94	25 - 153
Chloroform	10.0	9.57		ug/L		96	79 - 120
Chloromethane	10.0	9.16		ug/L		92	44 - 126
1,1-Dichloroethane	10.0	9.44		ug/L		94	80 - 120
1,2-Dichloroethane	10.0	9.42		ug/L		94	71 - 127
1,1-Dichloroethene	10.0	9.17		ug/L		92	78 - 131
1,2-Dichloropropane	10.0	9.44		ug/L		94	80 - 120
1,2,4-Trimethylbenzene	10.0	10.2		ug/L		102	76 - 120
cis-1,3-Dichloropropene	10.0	10.6		ug/L		106	61 - 120
trans-1,3-Dichloropropene	10.0	11.5		ug/L		115	58 - 120
Ethylbenzene	10.0	10.1		ug/L		101	80 - 120
2-Hexanone	20.0	19.3		ug/L		97	55 - 133
Methylene Chloride	10.0	10.8		ug/L		108	66 - 131
4-Methyl-2-pentanone (MIBK)	20.0	19.5		ug/L		97	63 - 128
Styrene	10.0	9.99		ug/L		100	79 - 120
1,1,2,2-Tetrachloroethane	10.0	9.45		ug/L		95	68 - 120
Tetrachloroethene	10.0	9.64		ug/L		96	79 - 120
Toluene	10.0	9.82		ug/L		98	80 - 120
Trichloroethene	10.0	9.67		ug/L		97	76 - 120
1,3,5-Trimethylbenzene	10.0	10.2		ug/L		102	72 - 120
Vinyl chloride	10.0	8.37		ug/L		84	53 - 127
Xylenes, Total	20.0	20.5		ug/L		103	80 - 120
1,1,1-Trichloroethane	10.0	10.0		ug/L		100	74 - 120
1,1,2-Trichloroethane	10.0	9.39		ug/L		94	80 - 120
Cyclohexane	10.0	9.71		ug/L		97	54 - 121

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# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 240-184147/4**

**Matrix: Water**

**Analysis Batch: 184147**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	10.0	10.1		ug/L		101	42 - 136
Ethylene Dibromide	10.0	9.71		ug/L		97	79 - 120
Dichlorodifluoromethane	10.0	7.68		ug/L		77	19 - 129
cis-1,2-Dichloroethene	10.0	9.51		ug/L		95	80 - 120
trans-1,2-Dichloroethene	10.0	9.90		ug/L		99	80 - 120
Isopropylbenzene	10.0	10.2		ug/L		102	75 - 120
Methyl acetate	50.0	45.8		ug/L		92	58 - 131
Methyl tert-butyl ether	10.0	9.81		ug/L		98	52 - 144
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.11		ug/L		91	74 - 151
1,2,4-Trichlorobenzene	10.0	9.06		ug/L		91	48 - 135
1,2-Dichlorobenzene	10.0	9.82		ug/L		98	80 - 120
1,3-Dichlorobenzene	10.0	9.72		ug/L		97	80 - 120
1,4-Dichlorobenzene	10.0	9.25		ug/L		93	80 - 120
Trichlorofluoromethane	10.0	9.75		ug/L		97	49 - 157
Methylcyclohexane	10.0	9.59		ug/L		96	56 - 127
m-Xylene & p-Xylene	10.0	10.2		ug/L		102	80 - 120
o-Xylene	10.0	10.3		ug/L		103	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		63 - 129
4-Bromofluorobenzene (Surr)	100		66 - 120
Toluene-d8 (Surr)	100		74 - 120
Dibromofluoromethane (Surr)	92		75 - 121

**Lab Sample ID: 240-51496-3 MS**

**Matrix: Water**

**Analysis Batch: 184147**

**Client Sample ID: GW-060215-JK-03**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	100	U	200	179		ug/L		90	33 - 145
Benzene	10	U	100	89.2		ug/L		89	72 - 121
Dichlorobromomethane	10	U	100	93.6		ug/L		94	67 - 120
Bromoform	10	U	100	98.1		ug/L		98	32 - 128
Bromomethane	10	U	100	104		ug/L		104	10 - 186
2-Butanone (MEK)	100	U	200	171		ug/L		86	54 - 129
Carbon disulfide	10	U	100	89.8		ug/L		90	57 - 147
Carbon tetrachloride	10	U	100	95.9		ug/L		96	59 - 129
Chlorobenzene	10	U	100	91.2		ug/L		91	80 - 120
Chloroethane	10	U	100	98.4		ug/L		98	21 - 165
Chloroform	10	U	100	92.7		ug/L		93	76 - 120
Chloromethane	10	U	100	93.1		ug/L		93	33 - 132
1,1-Dichloroethane	10	U	100	89.3		ug/L		89	79 - 120
1,2-Dichloroethane	10	U	100	94.7		ug/L		95	68 - 129
1,1-Dichloroethene	10	U	100	87.7		ug/L		88	74 - 135
1,2-Dichloropropane	10	U	100	91.7		ug/L		92	78 - 120
1,2,4-Trimethylbenzene	330	F1	100	470	E F1	ug/L		143	67 - 124
cis-1,3-Dichloropropene	10	U	100	93.0		ug/L		93	51 - 120

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# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 240-51496-3 MS**  
**Matrix: Water**  
**Analysis Batch: 184147**

**Client Sample ID: GW-060215-JK-03**  
**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
trans-1,3-Dichloropropene	10	U	100	105		ug/L		105		46 - 120
Ethylbenzene	59		100	164		ug/L		105		75 - 120
2-Hexanone	100	U	200	184		ug/L		92		47 - 139
Methylene Chloride	10	U	100	98.2		ug/L		98		63 - 128
4-Methyl-2-pentanone (MIBK)	100	U	200	192		ug/L		96		56 - 131
Styrene	10	U	100	94.7		ug/L		95		71 - 120
1,1,2,2-Tetrachloroethane	10	U	100	89.1		ug/L		89		63 - 122
Tetrachloroethene	10	U	100	90.8		ug/L		91		70 - 120
Toluene	10	U	100	95.6		ug/L		96		78 - 120
Trichloroethene	10	U	100	93.4		ug/L		93		66 - 120
1,3,5-Trimethylbenzene	150	F1	100	273		ug/L		118		63 - 121
Vinyl chloride	10	U	100	80.5		ug/L		80		49 - 130
Xylenes, Total	110		200	313		ug/L		101		76 - 120
1,1,1-Trichloroethane	10	U	100	93.3		ug/L		93		68 - 121
1,1,2-Trichloroethane	10	U	100	96.9		ug/L		97		75 - 120
Cyclohexane	31		100	127		ug/L		96		49 - 123
1,2-Dibromo-3-Chloropropane	20	U	100	96.4		ug/L		96		32 - 139
Ethylene Dibromide	10	U	100	94.5		ug/L		94		74 - 120
Dichlorodifluoromethane	10	U	100	75.9		ug/L		76		17 - 128
cis-1,2-Dichloroethene	10	U	100	91.7		ug/L		92		70 - 120
trans-1,2-Dichloroethene	10	U	100	91.0		ug/L		91		80 - 120
Isopropylbenzene	91		100	208		ug/L		117		68 - 120
Methyl acetate	100	U	500	444		ug/L		89		47 - 130
Methyl tert-butyl ether	10	U	100	88.5		ug/L		89		46 - 144
1,1,2-Trichloro-1,2,2-trifluoroethane	10	U	100	87.8		ug/L		88		70 - 152
1,2,4-Trichlorobenzene	10	U	100	98.8		ug/L		99		38 - 138
1,2-Dichlorobenzene	10	U	100	87.2		ug/L		87		75 - 120
1,3-Dichlorobenzene	10	U	100	88.3		ug/L		88		73 - 120
1,4-Dichlorobenzene	10	U	100	86.6		ug/L		87		75 - 120
Trichlorofluoromethane	10	U	100	105		ug/L		105		46 - 157
Methylcyclohexane	12		100	102		ug/L		90		49 - 127
m-Xylene & p-Xylene	110		100	219		ug/L		111		75 - 120
o-Xylene	10	U	100	93.8		ug/L		94		76 - 120
				<b>MS</b>	<b>MS</b>					
<b>Surrogate</b>				<b>%Recovery</b>	<b>Qualifier</b>					<b>Limits</b>
1,2-Dichloroethane-d4 (Surr)				100						63 - 129
4-Bromofluorobenzene (Surr)				104						66 - 120
Toluene-d8 (Surr)				102						74 - 120
Dibromofluoromethane (Surr)				95						75 - 121

**Lab Sample ID: 240-51496-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 184147**

**Client Sample ID: GW-060215-JK-03**  
**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier							
Acetone	100	U	200	193		ug/L		96		33 - 145	7	30
Benzene	10	U	100	95.0		ug/L		95		72 - 121	6	30

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-51496-3 MSD

Client Sample ID: GW-060215-JK-03

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 184147

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorobromomethane	10	U	100	97.4		ug/L		97	67 - 120	4	30
Bromoform	10	U	100	94.5		ug/L		94	32 - 128	4	30
Bromomethane	10	U	100	108		ug/L		108	10 - 186	3	30
2-Butanone (MEK)	100	U	200	177		ug/L		88	54 - 129	3	30
Carbon disulfide	10	U	100	93.1		ug/L		93	57 - 147	4	30
Carbon tetrachloride	10	U	100	99.2		ug/L		99	59 - 129	3	30
Chlorobenzene	10	U	100	90.9		ug/L		91	80 - 120	0	30
Chloroethane	10	U	100	100		ug/L		100	21 - 165	2	30
Chloroform	10	U	100	97.1		ug/L		97	76 - 120	5	30
Chloromethane	10	U	100	96.2		ug/L		96	33 - 132	3	30
1,1-Dichloroethane	10	U	100	96.4		ug/L		96	79 - 120	8	30
1,2-Dichloroethane	10	U	100	97.8		ug/L		98	68 - 129	3	30
1,1-Dichloroethene	10	U	100	93.5		ug/L		94	74 - 135	6	30
1,2-Dichloropropane	10	U	100	96.7		ug/L		97	78 - 120	5	30
1,2,4-Trimethylbenzene	330	F1	100	478	E F1	ug/L		152	67 - 124	2	30
cis-1,3-Dichloropropene	10	U	100	99.4		ug/L		99	51 - 120	7	30
trans-1,3-Dichloropropene	10	U	100	108		ug/L		108	46 - 120	3	30
Ethylbenzene	59		100	166		ug/L		107	75 - 120	1	30
2-Hexanone	100	U	200	195		ug/L		97	47 - 139	6	30
Methylene Chloride	10	U	100	98.8		ug/L		99	63 - 128	1	30
4-Methyl-2-pentanone (MIBK)	100	U	200	203		ug/L		101	56 - 131	5	30
Styrene	10	U	100	96.8		ug/L		97	71 - 120	2	30
1,1,2,2-Tetrachloroethane	10	U	100	94.3		ug/L		94	63 - 122	6	30
Tetrachloroethene	10	U	100	93.4		ug/L		93	70 - 120	3	30
Toluene	10	U	100	95.0		ug/L		95	78 - 120	1	30
Trichloroethene	10	U	100	96.5		ug/L		97	66 - 120	3	30
1,3,5-Trimethylbenzene	150	F1	100	279	F1	ug/L		124	63 - 121	2	30
Vinyl chloride	10	U	100	85.6		ug/L		86	49 - 130	6	30
Xylenes, Total	110		200	313		ug/L		102	76 - 120	0	30
1,1,1-Trichloroethane	10	U	100	96.1		ug/L		96	68 - 121	3	30
1,1,2-Trichloroethane	10	U	100	96.3		ug/L		96	75 - 120	1	30
Cyclohexane	31		100	134		ug/L		103	49 - 123	5	30
1,2-Dibromo-3-Chloropropane	20	U	100	101		ug/L		101	32 - 139	5	30
Ethylene Dibromide	10	U	100	93.6		ug/L		94	74 - 120	1	30
Dichlorodifluoromethane	10	U	100	79.6		ug/L		80	17 - 128	5	30
cis-1,2-Dichloroethene	10	U	100	94.8		ug/L		95	70 - 120	3	30
trans-1,2-Dichloroethene	10	U	100	96.6		ug/L		97	80 - 120	6	30
Isopropylbenzene	91		100	209		ug/L		118	68 - 120	0	30
Methyl acetate	100	U	500	460		ug/L		92	47 - 130	3	30
Methyl tert-butyl ether	10	U	100	97.4		ug/L		97	46 - 144	10	30
1,1,2-Trichloro-1,2,2-trifluoroethane	10	U	100	90.8		ug/L		91	70 - 152	3	30
1,2,4-Trichlorobenzene	10	U	100	97.9		ug/L		98	38 - 138	1	30
1,2-Dichlorobenzene	10	U	100	91.1		ug/L		91	75 - 120	4	30
1,3-Dichlorobenzene	10	U	100	89.5		ug/L		90	73 - 120	1	30
1,4-Dichlorobenzene	10	U	100	88.8		ug/L		89	75 - 120	3	30
Trichlorofluoromethane	10	U	100	106		ug/L		106	46 - 157	1	30
Methylcyclohexane	12		100	109		ug/L		97	49 - 127	6	30

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 240-51496-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 184147**

**Client Sample ID: GW-060215-JK-03**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
m-Xylene & p-Xylene	110		100	217		ug/L		109	75 - 120	1	30
o-Xylene	10	U	100	96.1		ug/L		96	76 - 120	2	30
<b>Surrogate</b>	<b>MSD %Recovery</b>	<b>MSD Qualifier</b>	<b>Limits</b>								
1,2-Dichloroethane-d4 (Surr)	99		63 - 129								
4-Bromofluorobenzene (Surr)	100		66 - 120								
Toluene-d8 (Surr)	99		74 - 120								
Dibromofluoromethane (Surr)	95		75 - 121								

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

**Lab Sample ID: MB 240-183691/23-A**  
**Matrix: Water**  
**Analysis Batch: 183880**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 183691**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	5.0	U	5.0	0.044	ug/L		06/04/15 08:53	06/05/15 08:50	1
Acenaphthylene	5.0	U	5.0	0.048	ug/L		06/04/15 08:53	06/05/15 08:50	1
Acetophenone	5.0	U	5.0	0.34	ug/L		06/04/15 08:53	06/05/15 08:50	1
Anthracene	5.0	U	5.0	0.088	ug/L		06/04/15 08:53	06/05/15 08:50	1
Atrazine	3.0	U	3.0	0.34	ug/L		06/04/15 08:53	06/05/15 08:50	1
Benzaldehyde	5.0	U	5.0	0.39	ug/L		06/04/15 08:53	06/05/15 08:50	1
Benzo[a]anthracene	1.0	U	1.0	0.030	ug/L		06/04/15 08:53	06/05/15 08:50	1
Benzo[b]fluoranthene	1.0	U	1.0	0.039	ug/L		06/04/15 08:53	06/05/15 08:50	1
Benzo[k]fluoranthene	1.0	U	1.0	0.045	ug/L		06/04/15 08:53	06/05/15 08:50	1
Benzo[g,h,i]perylene	1.0	U	1.0	0.046	ug/L		06/04/15 08:53	06/05/15 08:50	1
Benzo[a]pyrene	1.0	U	1.0	0.051	ug/L		06/04/15 08:53	06/05/15 08:50	1
Butyl benzyl phthalate	5.0	U	5.0	0.26	ug/L		06/04/15 08:53	06/05/15 08:50	1
1,1'-Biphenyl	5.0	U	5.0	0.13	ug/L		06/04/15 08:53	06/05/15 08:50	1
Bis(2-chloroethoxy)methane	5.0	U	5.0	0.32	ug/L		06/04/15 08:53	06/05/15 08:50	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.10	ug/L		06/04/15 08:53	06/05/15 08:50	1
Bis(2-ethylhexyl) phthalate	5.0	U	5.0	1.7	ug/L		06/04/15 08:53	06/05/15 08:50	1
4-Bromophenyl phenyl ether	5.0	U	5.0	0.22	ug/L		06/04/15 08:53	06/05/15 08:50	1
Caprolactam	0.251	J	10	0.20	ug/L		06/04/15 08:53	06/05/15 08:50	1
Carbazole	10	U	10	0.28	ug/L		06/04/15 08:53	06/05/15 08:50	1
4-Chloroaniline	10	U	10	0.21	ug/L		06/04/15 08:53	06/05/15 08:50	1
4-Chloro-3-methylphenol	5.0	U	5.0	0.21	ug/L		06/04/15 08:53	06/05/15 08:50	1
2-Chloronaphthalene	5.0	U	5.0	0.10	ug/L		06/04/15 08:53	06/05/15 08:50	1
2-Chlorophenol	5.0	U	5.0	0.29	ug/L		06/04/15 08:53	06/05/15 08:50	1
4-Chlorophenyl phenyl ether	5.0	U	5.0	0.30	ug/L		06/04/15 08:53	06/05/15 08:50	1
Chrysene	1.0	U	1.0	0.050	ug/L		06/04/15 08:53	06/05/15 08:50	1
2-Methylnaphthalene	5.0	U	5.0	0.090	ug/L		06/04/15 08:53	06/05/15 08:50	1
3 & 4 Methylphenol	5.0	U	5.0	0.80	ug/L		06/04/15 08:53	06/05/15 08:50	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.045	ug/L		06/04/15 08:53	06/05/15 08:50	1
Dibenzofuran	4.0	U	4.0	0.020	ug/L		06/04/15 08:53	06/05/15 08:50	1
3,3'-Dichlorobenzidine	1.0	U	1.0	0.37	ug/L		06/04/15 08:53	06/05/15 08:50	1
2,4-Dichlorophenol	10	U	10	0.19	ug/L		06/04/15 08:53	06/05/15 08:50	1
Diethyl phthalate	5.0	U	5.0	0.60	ug/L		06/04/15 08:53	06/05/15 08:50	1

TestAmerica Canton



# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

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

**Lab Sample ID: MB 240-183691/23-A**

**Matrix: Water**

**Analysis Batch: 183880**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 183691**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2,4-Dimethylphenol	5.0	U	5.0	0.25	ug/L		06/04/15 08:53	06/05/15 08:50	1
Dimethyl phthalate	5.0	U	5.0	0.29	ug/L		06/04/15 08:53	06/05/15 08:50	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		06/04/15 08:53	06/05/15 08:50	1
2,4-Dinitrophenol	20	U	20	0.32	ug/L		06/04/15 08:53	06/05/15 08:50	1
2,4-Dinitrotoluene	5.0	U	5.0	0.25	ug/L		06/04/15 08:53	06/05/15 08:50	1
Di-n-butyl phthalate	5.0	U	5.0	1.7	ug/L		06/04/15 08:53	06/05/15 08:50	1
Di-n-octyl phthalate	5.0	U	5.0	0.23	ug/L		06/04/15 08:53	06/05/15 08:50	1
Fluoranthene	1.0	U	1.0	0.045	ug/L		06/04/15 08:53	06/05/15 08:50	1
Fluorene	5.0	U	5.0	0.041	ug/L		06/04/15 08:53	06/05/15 08:50	1
Hexachlorobenzene	0.20	U	0.20	0.085	ug/L		06/04/15 08:53	06/05/15 08:50	1
Hexachlorobutadiene	1.0	U	1.0	0.27	ug/L		06/04/15 08:53	06/05/15 08:50	1
Hexachlorocyclopentadiene	5.0	U	5.0	0.24	ug/L		06/04/15 08:53	06/05/15 08:50	1
Hexachloroethane	5.0	U	5.0	0.19	ug/L		06/04/15 08:53	06/05/15 08:50	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.043	ug/L		06/04/15 08:53	06/05/15 08:50	1
Isophorone	5.0	U	5.0	0.27	ug/L		06/04/15 08:53	06/05/15 08:50	1
2-Methylphenol	5.0	U	5.0	0.17	ug/L		06/04/15 08:53	06/05/15 08:50	1
Naphthalene	5.0	U	5.0	0.063	ug/L		06/04/15 08:53	06/05/15 08:50	1
2-Nitroaniline	20	U	20	0.21	ug/L		06/04/15 08:53	06/05/15 08:50	1
3-Nitroaniline	20	U	20	0.28	ug/L		06/04/15 08:53	06/05/15 08:50	1
4-Nitroaniline	20	U	20	0.22	ug/L		06/04/15 08:53	06/05/15 08:50	1
Nitrobenzene	3.0	U	3.0	0.040	ug/L		06/04/15 08:53	06/05/15 08:50	1
2-Nitrophenol	5.0	U	5.0	0.28	ug/L		06/04/15 08:53	06/05/15 08:50	1
4-Nitrophenol	20	U	20	0.29	ug/L		06/04/15 08:53	06/05/15 08:50	1
N-Nitrosodiphenylamine	5.0	U	5.0	0.31	ug/L		06/04/15 08:53	06/05/15 08:50	1
N-Nitrosodi-n-propylamine	5.0	U	5.0	0.24	ug/L		06/04/15 08:53	06/05/15 08:50	1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	0.40	ug/L		06/04/15 08:53	06/05/15 08:50	1
Pentachlorophenol	5.0	U	5.0	0.27	ug/L		06/04/15 08:53	06/05/15 08:50	1
Phenanthrene	2.0	U	2.0	0.062	ug/L		06/04/15 08:53	06/05/15 08:50	1
Phenol	5.0	U	5.0	0.60	ug/L		06/04/15 08:53	06/05/15 08:50	1
Pyrene	5.0	U	5.0	0.042	ug/L		06/04/15 08:53	06/05/15 08:50	1
2,4,5-Trichlorophenol	5.0	U	5.0	0.30	ug/L		06/04/15 08:53	06/05/15 08:50	1
2,4,6-Trichlorophenol	4.0	U	4.0	0.24	ug/L		06/04/15 08:53	06/05/15 08:50	1
2,6-Dinitrotoluene	5.0	U	5.0	0.80	ug/L		06/04/15 08:53	06/05/15 08:50	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorobiphenyl (Surr)	79		29 - 110	06/04/15 08:53	06/05/15 08:50	1
2-Fluorophenol (Surr)	64		15 - 110	06/04/15 08:53	06/05/15 08:50	1
2,4,6-Tribromophenol (Surr)	85		21 - 128	06/04/15 08:53	06/05/15 08:50	1
Nitrobenzene-d5 (Surr)	80		31 - 110	06/04/15 08:53	06/05/15 08:50	1
Phenol-d5 (Surr)	55		10 - 110	06/04/15 08:53	06/05/15 08:50	1
Terphenyl-d14 (Surr)	95		31 - 115	06/04/15 08:53	06/05/15 08:50	1

**Lab Sample ID: LCS 240-183691/24-A**

**Matrix: Water**

**Analysis Batch: 183880**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 183691**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Acenaphthene	20.0	17.3		ug/L		86	55 - 120

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

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

**Lab Sample ID: LCS 240-183691/24-A**  
**Matrix: Water**  
**Analysis Batch: 183880**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 183691**  
**%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthylene	20.0	16.9		ug/L		85	55 - 120
Acetophenone	20.0	15.8		ug/L		79	50 - 120
Anthracene	20.0	18.7		ug/L		94	56 - 120
Atrazine	40.0	49.3		ug/L		123	65 - 161
Benzaldehyde	40.0	32.6		ug/L		82	40 - 122
Benzo[a]anthracene	20.0	19.0		ug/L		95	46 - 120
Benzo[b]fluoranthene	20.0	18.7		ug/L		93	24 - 120
Benzo[k]fluoranthene	20.0	17.4		ug/L		87	30 - 120
Benzo[g,h,i]perylene	20.0	19.1		ug/L		96	24 - 126
Benzo[a]pyrene	20.0	18.4		ug/L		92	24 - 120
Butyl benzyl phthalate	20.0	20.2		ug/L		101	51 - 120
1,1'-Biphenyl	20.0	16.2		ug/L		81	52 - 120
Bis(2-chloroethoxy)methane	20.0	16.4		ug/L		82	48 - 120
Bis(2-chloroethyl)ether	20.0	13.2		ug/L		66	43 - 120
Bis(2-ethylhexyl) phthalate	20.0	19.8		ug/L		99	21 - 125
4-Bromophenyl phenyl ether	20.0	20.4		ug/L		102	47 - 120
Caprolactam	40.0	14.7		ug/L		37	10 - 120
Carbazole	20.0	21.3		ug/L		106	57 - 120
4-Chloroaniline	20.0	11.6		ug/L		58	15 - 120
4-Chloro-3-methylphenol	20.0	17.4		ug/L		87	45 - 120
2-Chloronaphthalene	20.0	15.7		ug/L		78	47 - 120
2-Chlorophenol	20.0	15.2		ug/L		76	43 - 120
4-Chlorophenyl phenyl ether	20.0	17.9		ug/L		89	47 - 120
Chrysene	20.0	19.0		ug/L		95	49 - 120
2-Methylnaphthalene	20.0	16.0		ug/L		80	52 - 120
3 & 4 Methylphenol	20.0	15.0		ug/L		75	34 - 120
Dibenz(a,h)anthracene	20.0	19.8		ug/L		99	24 - 125
Dibenzofuran	20.0	17.5		ug/L		87	56 - 120
3,3'-Dichlorobenzidine	40.0	39.2		ug/L		98	29 - 120
2,4-Dichlorophenol	20.0	16.1		ug/L		80	46 - 120
Diethyl phthalate	20.0	18.2		ug/L		91	58 - 120
2,4-Dimethylphenol	20.0	16.8		ug/L		84	38 - 120
Dimethyl phthalate	20.0	18.7		ug/L		93	59 - 120
4,6-Dinitro-2-methylphenol	40.0	33.7		ug/L		84	33 - 120
2,4-Dinitrophenol	40.0	28.9		ug/L		72	10 - 120
2,4-Dinitrotoluene	20.0	19.7		ug/L		99	52 - 120
Di-n-butyl phthalate	20.0	22.8		ug/L		114	57 - 122
Di-n-octyl phthalate	20.0	18.3		ug/L		92	21 - 122
Fluoranthene	20.0	22.0		ug/L		110	57 - 120
Fluorene	20.0	18.1		ug/L		90	56 - 120
Hexachlorobenzene	20.0	19.6		ug/L		98	52 - 120
Hexachlorobutadiene	20.0	14.0		ug/L		70	38 - 120
Hexachlorocyclopentadiene	20.0	11.5		ug/L		57	4 - 120
Hexachloroethane	20.0	13.5		ug/L		68	42 - 120
Indeno[1,2,3-cd]pyrene	20.0	19.6		ug/L		98	25 - 120
Isophorone	20.0	17.7		ug/L		89	48 - 123
2-Methylphenol	20.0	15.0		ug/L		75	38 - 120
Naphthalene	20.0	14.6		ug/L		73	52 - 120

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

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

**Lab Sample ID: LCS 240-183691/24-A**  
**Matrix: Water**  
**Analysis Batch: 183880**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 183691**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
2-Nitroaniline	20.0	19.0	J	ug/L		95	48 - 127
3-Nitroaniline	20.0	19.0	J	ug/L		95	52 - 120
4-Nitroaniline	20.0	19.3	J	ug/L		96	48 - 120
Nitrobenzene	20.0	15.4		ug/L		77	41 - 120
2-Nitrophenol	20.0	17.3		ug/L		86	42 - 120
4-Nitrophenol	40.0	28.3		ug/L		71	16 - 120
N-Nitrosodiphenylamine	40.0	39.5		ug/L		99	51 - 120
N-Nitrosodi-n-propylamine	20.0	16.7		ug/L		83	48 - 123
2,2'-oxybis[1-chloropropane]	20.0	14.4		ug/L		72	42 - 120
Pentachlorophenol	40.0	35.9		ug/L		90	14 - 120
Phenanthrene	20.0	18.3		ug/L		91	57 - 120
Phenol	20.0	12.1		ug/L		60	16 - 120
Pyrene	20.0	20.8		ug/L		104	50 - 120
2,4,5-Trichlorophenol	20.0	17.1		ug/L		85	47 - 120
2,4,6-Trichlorophenol	20.0	17.5		ug/L		87	43 - 120
2,6-Dinitrotoluene	20.0	19.5		ug/L		98	52 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	81		29 - 110
2-Fluorophenol (Surr)	68		15 - 110
2,4,6-Tribromophenol (Surr)	99		21 - 128
Nitrobenzene-d5 (Surr)	81		31 - 110
Phenol-d5 (Surr)	60		10 - 110
Terphenyl-d14 (Surr)	99		31 - 115

**Lab Sample ID: 240-51496-3 MS**  
**Matrix: Water**  
**Analysis Batch: 183880**

**Client Sample ID: GW-060215-JK-03**  
**Prep Type: Total/NA**  
**Prep Batch: 183691**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	0.34	J	21.3	15.9		ug/L		73	49 - 110
Acenaphthylene	5.1	U	21.3	15.3		ug/L		72	49 - 110
Acetophenone	5.1	U	21.3	15.9		ug/L		75	45 - 110
Anthracene	5.1	U	21.3	16.7		ug/L		79	50 - 110
Atrazine	3.0	U F1	42.6	45.4		ug/L		107	55 - 110
Benzaldehyde	5.1	U	42.6	27.3		ug/L		64	24 - 119
Benzo[a]anthracene	1.0	U	21.3	11.9		ug/L		56	34 - 110
Benzo[b]fluoranthene	1.0	U	21.3	9.62		ug/L		45	21 - 110
Benzo[k]fluoranthene	1.0	U	21.3	9.79		ug/L		46	24 - 110
Benzo[g,h,i]perylene	1.0	U	21.3	10.2		ug/L		48	18 - 110
Benzo[a]pyrene	1.0	U	21.3	9.96		ug/L		47	17 - 110
Butyl benzyl phthalate	5.1	U	21.3	15.7		ug/L		74	48 - 110
1,1'-Biphenyl	0.84	J	21.3	15.0		ug/L		67	46 - 110
Bis(2-chloroethoxy)methane	5.1	U	21.3	15.1		ug/L		71	45 - 110
Bis(2-chloroethyl)ether	1.0	U	21.3	10.9		ug/L		51	30 - 110
Bis(2-ethylhexyl) phthalate	5.1	U	21.3	10.5		ug/L		49	10 - 110
4-Bromophenyl phenyl ether	5.1	U	21.3	17.1		ug/L		80	51 - 110
Caprolactam	10	U F1	42.6	3.75	J F1	ug/L		9	10 - 126

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

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

**Lab Sample ID: 240-51496-3 MS**

**Matrix: Water**

**Analysis Batch: 183880**

**Client Sample ID: GW-060215-JK-03**

**Prep Type: Total/NA**

**Prep Batch: 183691**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
Carbazole	10	U	21.3	19.5		ug/L		92	50 - 110
4-Chloroaniline	10	U F1	21.3	2.71	J F1	ug/L		13	20 - 110
4-Chloro-3-methylphenol	5.1	U	21.3	16.4		ug/L		77	42 - 110
2-Chloronaphthalene	5.1	U	21.3	14.3		ug/L		67	46 - 110
2-Chlorophenol	5.1	U	21.3	11.7		ug/L		55	35 - 110
4-Chlorophenyl phenyl ether	5.1	U	21.3	15.7		ug/L		74	51 - 110
Chrysene	1.0	U	21.3	11.3		ug/L		53	36 - 110
2-Methylnaphthalene	26	F1	21.3	33.7	F1	ug/L		36	50 - 110
3 & 4 Methylphenol	5.1	U	21.3	9.44		ug/L		44	26 - 110
Dibenz(a,h)anthracene	2.0	U	21.3	9.82		ug/L		46	14 - 110
Dibenzofuran	0.30	J	21.3	15.8		ug/L		73	51 - 110
3,3'-Dichlorobenzidine	1.0	U	42.6	13.9		ug/L		33	10 - 110
2,4-Dichlorophenol	10	U	21.3	14.6		ug/L		69	48 - 110
Diethyl phthalate	5.1	U	21.3	16.6		ug/L		78	53 - 110
2,4-Dimethylphenol	0.28	J	21.3	15.5		ug/L		72	27 - 110
Dimethyl phthalate	5.1	U	21.3	16.6		ug/L		78	54 - 110
4,6-Dinitro-2-methylphenol	20	U	42.6	29.4		ug/L		69	10 - 110
2,4-Dinitrophenol	20	U	42.6	26.3		ug/L		62	10 - 110
2,4-Dinitrotoluene	5.1	U	21.3	17.2		ug/L		81	56 - 110
Di-n-butyl phthalate	5.1	U	21.3	20.0		ug/L		94	50 - 110
Di-n-octyl phthalate	5.1	U	21.3	9.38		ug/L		44	10 - 110
Fluoranthene	1.0	U	21.3	18.2		ug/L		86	54 - 110
Fluorene	0.39	J	21.3	16.6		ug/L		76	51 - 110
Hexachlorobenzene	0.20	U	21.3	14.9		ug/L		70	49 - 110
Hexachlorobutadiene	1.0	U	21.3	11.3		ug/L		53	36 - 110
Hexachlorocyclopentadiene	5.1	U	21.3	9.21		ug/L		43	4 - 110
Hexachloroethane	5.1	U F1	21.3	54.8	E F1	ug/L		258	40 - 110
Indeno[1,2,3-cd]pyrene	2.0	U	21.3	10.2		ug/L		48	16 - 110
Isophorone	5.1	U	21.3	16.1		ug/L		76	45 - 110
2-Methylphenol	5.1	U	21.3	10.1		ug/L		47	31 - 110
Naphthalene	48	F1	21.3	47.2	F1	ug/L		-3	35 - 110
2-Nitroaniline	20	U	21.3	18.4	J	ug/L		87	42 - 110
3-Nitroaniline	20	U	21.3	10.2	J	ug/L		48	31 - 110
4-Nitroaniline	20	U	21.3	14.2	J	ug/L		67	26 - 110
Nitrobenzene	3.0	U	21.3	15.1		ug/L		71	43 - 110
2-Nitrophenol	5.1	U	21.3	14.5		ug/L		68	47 - 110
4-Nitrophenol	20	U	42.6	12.2	J	ug/L		29	10 - 110
N-Nitrosodiphenylamine	5.1	U	42.6	34.4		ug/L		81	41 - 110
N-Nitrosodi-n-propylamine	5.1	U	21.3	15.2		ug/L		71	42 - 110
2,2'-oxybis[1-chloropropane]	5.1	U	21.3	10.6		ug/L		50	26 - 110
Pentachlorophenol	5.1	U	42.6	39.5		ug/L		93	24 - 110
Phenanthrene	0.13	J	21.3	16.6		ug/L		77	52 - 110
Phenol	5.1	U	21.3	3.18	J	ug/L		15	10 - 125
Pyrene	5.1	U	21.3	16.3		ug/L		77	50 - 110
2,4,5-Trichlorophenol	5.1	U	21.3	15.7		ug/L		74	53 - 110
2,4,6-Trichlorophenol	4.0	U	21.3	16.3		ug/L		76	50 - 110
2,6-Dinitrotoluene	5.1	U	21.3	17.4		ug/L		82	55 - 110

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

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

**Lab Sample ID: 240-51496-3 MS**  
**Matrix: Water**  
**Analysis Batch: 183880**

**Client Sample ID: GW-060215-JK-03**  
**Prep Type: Total/NA**  
**Prep Batch: 183691**

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl (Surr)	67		29 - 110
2-Fluorophenol (Surr)	30		15 - 110
2,4,6-Tribromophenol (Surr)	87		21 - 128
Nitrobenzene-d5 (Surr)	67		31 - 110
Phenol-d5 (Surr)	18		10 - 110
Terphenyl-d14 (Surr)	43		31 - 115

**Lab Sample ID: 240-51496-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 183880**

**Client Sample ID: GW-060215-JK-03**  
**Prep Type: Total/NA**  
**Prep Batch: 183691**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	0.34	J	19.4	15.6		ug/L		79	49 - 110	2	30
Acenaphthylene	5.1	U	19.4	15.2		ug/L		78	49 - 110	1	37
Acetophenone	5.1	U	19.4	16.2		ug/L		84	45 - 110	2	42
Anthracene	5.1	U	19.4	16.9		ug/L		87	50 - 110	1	30
Atrazine	3.0	U F1	38.8	45.3	F1	ug/L		117	55 - 110	0	30
Benzaldehyde	5.1	U	38.8	32.9		ug/L		85	24 - 119	19	74
Benzo[a]anthracene	1.0	U	19.4	12.9		ug/L		67	34 - 110	8	52
Benzo[b]fluoranthene	1.0	U	19.4	11.4		ug/L		59	21 - 110	17	64
Benzo[k]fluoranthene	1.0	U	19.4	10.8		ug/L		55	24 - 110	9	75
Benzo[g,h,i]perylene	1.0	U	19.4	11.6		ug/L		59	18 - 110	13	87
Benzo[a]pyrene	1.0	U	19.4	11.1		ug/L		57	17 - 110	11	68
Butyl benzyl phthalate	5.1	U	19.4	16.2		ug/L		83	48 - 110	3	30
1,1'-Biphenyl	0.84	J	19.4	14.9		ug/L		72	46 - 110	1	36
Bis(2-chloroethoxy)methane	5.1	U	19.4	15.0		ug/L		77	45 - 110	1	39
Bis(2-chloroethyl)ether	1.0	U	19.4	11.1		ug/L		57	30 - 110	2	56
Bis(2-ethylhexyl) phthalate	5.1	U	19.4	12.0		ug/L		62	10 - 110	14	85
4-Bromophenyl phenyl ether	5.1	U	19.4	17.7		ug/L		91	51 - 110	4	30
Caprolactam	10	U F1	38.8	4.36	J	ug/L		11	10 - 126	15	59
Carbazole	10	U	19.4	18.9		ug/L		98	50 - 110	3	30
4-Chloroaniline	10	U F1	19.4	3.46	J F1	ug/L		18	20 - 110	24	50
4-Chloro-3-methylphenol	5.1	U	19.4	17.0		ug/L		87	42 - 110	4	30
2-Chloronaphthalene	5.1	U	19.4	14.1		ug/L		73	46 - 110	1	34
2-Chlorophenol	5.1	U	19.4	12.0		ug/L		62	35 - 110	2	57
4-Chlorophenyl phenyl ether	5.1	U	19.4	15.6		ug/L		80	51 - 110	1	30
Chrysene	1.0	U	19.4	12.9		ug/L		66	36 - 110	13	49
2-Methylnaphthalene	26	F1	19.4	35.3	F1	ug/L		48	50 - 110	5	37
3 & 4 Methylphenol	5.1	U	19.4	9.79		ug/L		50	26 - 110	4	57
Dibenz(a,h)anthracene	2.0	U	19.4	11.6		ug/L		60	14 - 110	16	92
Dibenzofuran	0.30	J	19.4	15.8		ug/L		80	51 - 110	0	30
3,3'-Dichlorobenzidine	1.0	U	38.8	13.9		ug/L		36	10 - 110	0	99
2,4-Dichlorophenol	10	U	19.4	14.4		ug/L		74	48 - 110	1	35
Diethyl phthalate	5.1	U	19.4	16.4		ug/L		85	53 - 110	1	30
2,4-Dimethylphenol	0.28	J	19.4	15.6		ug/L		79	27 - 110	0	62
Dimethyl phthalate	5.1	U	19.4	16.5		ug/L		85	54 - 110	1	30
4,6-Dinitro-2-methylphenol	20	U	38.8	28.7		ug/L		74	10 - 110	3	92
2,4-Dinitrophenol	20	U	38.8	25.5		ug/L		66	10 - 110	3	99

TestAmerica Canton



# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

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

**Lab Sample ID: 240-51496-3 MSD**

**Matrix: Water**

**Analysis Batch: 183880**

**Client Sample ID: GW-060215-JK-03**

**Prep Type: Total/NA**

**Prep Batch: 183691**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
2,4-Dinitrotoluene	5.1	U	19.4	17.0		ug/L		87	56 - 110	1	30
Di-n-butyl phthalate	5.1	U	19.4	20.2		ug/L		104	50 - 110	1	30
Di-n-octyl phthalate	5.1	U	19.4	10.6		ug/L		55	10 - 110	12	95
Fluoranthene	1.0	U	19.4	18.7		ug/L		96	54 - 110	3	30
Fluorene	0.39	J	19.4	16.4		ug/L		82	51 - 110	1	30
Hexachlorobenzene	0.20	U	19.4	15.7		ug/L		81	49 - 110	6	30
Hexachlorobutadiene	1.0	U	19.4	11.3		ug/L		58	36 - 110	0	60
Hexachlorocyclopentadiene	5.1	U	19.4	9.09		ug/L		47	4 - 110	1	68
Hexachloroethane	5.1	U F1	19.4	59.0	E F1	ug/L		304	40 - 110	7	52
Indeno[1,2,3-cd]pyrene	2.0	U	19.4	11.6		ug/L		60	16 - 110	13	89
Isophorone	5.1	U	19.4	16.0		ug/L		83	45 - 110	0	37
2-Methylphenol	5.1	U	19.4	10.6		ug/L		54	31 - 110	5	61
Naphthalene	48	F1	19.4	49.1	E F1	ug/L		7	35 - 110	4	58
2-Nitroaniline	20	U	19.4	19.0		ug/L		98	42 - 110	3	30
3-Nitroaniline	20	U	19.4	10.0	J	ug/L		52	31 - 110	2	47
4-Nitroaniline	20	U	19.4	13.8	J	ug/L		71	26 - 110	3	50
Nitrobenzene	3.0	U	19.4	15.5		ug/L		80	43 - 110	3	42
2-Nitrophenol	5.1	U	19.4	14.9		ug/L		77	47 - 110	3	44
4-Nitrophenol	20	U	38.8	11.5	J	ug/L		30	10 - 110	6	74
N-Nitrosodiphenylamine	5.1	U	38.8	34.2		ug/L		88	41 - 110	1	30
N-Nitrosodi-n-propylamine	5.1	U	19.4	15.3		ug/L		79	42 - 110	1	39
2,2'-oxybis[1-chloropropane]	5.1	U	19.4	10.4		ug/L		54	26 - 110	2	63
Pentachlorophenol	5.1	U	38.8	39.1		ug/L		101	24 - 110	1	64
Phenanthrene	0.13	J	19.4	16.5		ug/L		85	52 - 110	0	30
Phenol	5.1	U	19.4	3.29	J	ug/L		17	10 - 125	3	62
Pyrene	5.1	U	19.4	17.3		ug/L		89	50 - 110	6	30
2,4,5-Trichlorophenol	5.1	U	19.4	16.9		ug/L		87	53 - 110	7	30
2,4,6-Trichlorophenol	4.0	U	19.4	16.2		ug/L		84	50 - 110	0	30
2,6-Dinitrotoluene	5.1	U	19.4	17.4		ug/L		90	55 - 110	0	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	73		29 - 110
2-Fluorophenol (Surr)	34		15 - 110
2,4,6-Tribromophenol (Surr)	90		21 - 128
Nitrobenzene-d5 (Surr)	73		31 - 110
Phenol-d5 (Surr)	20		10 - 110
Terphenyl-d14 (Surr)	51		31 - 115

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 240-183753/1-A**

**Matrix: Water**

**Analysis Batch: 184120**

**Client Sample ID: Method Blank**

**Prep Type: Total Recoverable**

**Prep Batch: 183753**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	0.224	J	5.0	0.18	ug/L		06/04/15 11:34	06/05/15 11:23	1
Beryllium	1.0	U	1.0	0.053	ug/L		06/04/15 11:34	06/05/15 11:23	1
Cadmium	1.0	U	1.0	0.061	ug/L		06/04/15 11:34	06/05/15 11:23	1

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# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: MB 240-183753/1-A**  
**Matrix: Water**  
**Analysis Batch: 184120**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 183753**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cobalt	0.0990	J	7.0	0.021	ug/L		06/04/15 11:34	06/05/15 11:23	1
Chromium	1.37	J	5.0	0.20	ug/L		06/04/15 11:34	06/05/15 11:23	1
Copper	0.851	J	2.0	0.75	ug/L		06/04/15 11:34	06/05/15 11:23	1
Antimony	2.0	U	2.0	0.16	ug/L		06/04/15 11:34	06/05/15 11:23	1
Manganese	15	U	15	1.1	ug/L		06/04/15 11:34	06/05/15 11:23	1
Nickel	0.534	J	20	0.23	ug/L		06/04/15 11:34	06/05/15 11:23	1
Lead	0.317	J	3.0	0.11	ug/L		06/04/15 11:34	06/05/15 11:23	1
Selenium	5.0	U	5.0	0.25	ug/L		06/04/15 11:34	06/05/15 11:23	1
Barium	100	U	100	1.1	ug/L		06/04/15 11:34	06/05/15 11:23	1
Thallium	0.276	J	1.0	0.074	ug/L		06/04/15 11:34	06/05/15 11:23	1
Vanadium	0.897	J	4.0	0.23	ug/L		06/04/15 11:34	06/05/15 11:23	1
Zinc	55.2		20	7.3	ug/L		06/04/15 11:34	06/05/15 11:23	1
Silver	0.20	U	0.20	0.020	ug/L		06/04/15 11:34	06/05/15 11:23	1

**Lab Sample ID: LCS 240-183753/3-A**  
**Matrix: Water**  
**Analysis Batch: 184120**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 183753**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Arsenic	1000	1020		ug/L		102	80 - 120
Beryllium	1000	918		ug/L		92	80 - 120
Cadmium	1000	1060		ug/L		106	80 - 120
Cobalt	1000	984		ug/L		98	80 - 120
Chromium	1000	996		ug/L		100	80 - 120
Copper	1000	1050		ug/L		105	80 - 120
Antimony	100	99.0		ug/L		99	80 - 120
Manganese	1000	979		ug/L		98	80 - 120
Nickel	1000	1040		ug/L		104	80 - 120
Lead	1000	987		ug/L		99	80 - 120
Selenium	1000	991		ug/L		99	80 - 120
Barium	1000	1020		ug/L		102	80 - 120
Thallium	250	242		ug/L		97	80 - 120
Vanadium	1000	995		ug/L		99	80 - 120
Zinc	1000	1090		ug/L		109	80 - 120
Silver	100	102		ug/L		102	80 - 120

**Lab Sample ID: 240-51496-3 MS**  
**Matrix: Water**  
**Analysis Batch: 184120**

**Client Sample ID: GW-060215-JK-03**  
**Prep Type: Total Recoverable**  
**Prep Batch: 183753**

Analyte	Sample Sample		Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
	Result	Qualifier		Result	Qualifier				
Antimony	2.0	U	100	110		ug/L		110	75 - 125
Arsenic	2.3	J B	1000	1140		ug/L		113	75 - 125
Barium	98	J	1000	1230		ug/L		114	75 - 125
Beryllium	1.0	U	1000	955		ug/L		96	75 - 125
Cadmium	1.0	U	1000	1130		ug/L		113	75 - 125
Cobalt	0.31	J B	1000	1020		ug/L		102	75 - 125
Chromium	1.4	J B	1000	1040		ug/L		104	75 - 125
Copper	2.0	U	1000	1050		ug/L		105	75 - 125

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: 240-51496-3 MS**

**Matrix: Water**

**Analysis Batch: 184120**

**Client Sample ID: GW-060215-JK-03**

**Prep Type: Total Recoverable**

**Prep Batch: 183753**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD
Manganese	500		1000	1520		ug/L		102	75 - 125	
Nickel	0.87	J B	1000	1080		ug/L		107	75 - 125	
Lead	0.13	J B	1000	1040		ug/L		104	75 - 125	
Selenium	0.27	J	1000	1060		ug/L		106	75 - 125	
Thallium	1.0	U	250	257		ug/L		103	75 - 125	
Vanadium	1.1	J B	1000	1040		ug/L		104	75 - 125	
Zinc	20	U	1000	1080		ug/L		108	75 - 125	
Silver	0.20	U	100	108		ug/L		108	75 - 125	

**Lab Sample ID: 240-51496-3 MSD**

**Matrix: Water**

**Analysis Batch: 184120**

**Client Sample ID: GW-060215-JK-03**

**Prep Type: Total Recoverable**

**Prep Batch: 183753**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD		
Antimony	2.0	U	100	101		ug/L		101	75 - 125	9	20	
Arsenic	2.3	J B	1000	1050		ug/L		105	75 - 125	8	20	
Barium	98	J	1000	1120		ug/L		102	75 - 125	10	20	
Beryllium	1.0	U	1000	922		ug/L		92	75 - 125	4	20	
Cadmium	1.0	U	1000	1040		ug/L		104	75 - 125	8	20	
Cobalt	0.31	J B	1000	951		ug/L		95	75 - 125	7	20	
Chromium	1.4	J B	1000	974		ug/L		97	75 - 125	7	20	
Copper	2.0	U	1000	990		ug/L		99	75 - 125	6	20	
Manganese	500		1000	1430		ug/L		92	75 - 125	6	20	
Nickel	0.87	J B	1000	997		ug/L		100	75 - 125	8	20	
Lead	0.13	J B	1000	958		ug/L		96	75 - 125	8	20	
Selenium	0.27	J	1000	983		ug/L		98	75 - 125	8	20	
Thallium	1.0	U	250	237		ug/L		95	75 - 125	8	20	
Vanadium	1.1	J B	1000	970		ug/L		97	75 - 125	7	20	
Zinc	20	U	1000	1010		ug/L		101	75 - 125	7	20	
Silver	0.20	U	100	101		ug/L		101	75 - 125	7	20	

**Lab Sample ID: 240-51496-3 MS**

**Matrix: Water**

**Analysis Batch: 184120**

**Client Sample ID: GW-060215-JK-03**

**Prep Type: Dissolved**

**Prep Batch: 183753**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD
Silver	0.20	U	100	100		ug/L		100	75 - 125	
Arsenic	3.7	J B	1000	1080		ug/L		107	75 - 125	
Beryllium	0.78	J	1000	944		ug/L		94	75 - 125	
Cadmium	0.29	J	1000	1070		ug/L		107	75 - 125	
Cobalt	0.37	J B	1000	936		ug/L		94	75 - 125	
Chromium	1.5	J B	1000	977		ug/L		98	75 - 125	
Copper	2.0	U	1000	977		ug/L		98	75 - 125	
Manganese	510		1000	1420		ug/L		91	75 - 125	
Nickel	1.0	J B	1000	983		ug/L		98	75 - 125	
Lead	0.15	J B	1000	957		ug/L		96	75 - 125	
Antimony	0.24	J	100	103		ug/L		103	75 - 125	
Selenium	1.6	J	1000	1020		ug/L		102	75 - 125	
Thallium	0.30	J B	250	237		ug/L		95	75 - 125	

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: 240-51496-3 MS**  
**Matrix: Water**  
**Analysis Batch: 184120**

**Client Sample ID: GW-060215-JK-03**  
**Prep Type: Dissolved**  
**Prep Batch: 183753**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Vanadium	1.1	J B	1000	969		ug/L		97		75 - 125
Zinc	20	U	1000	996		ug/L		100		75 - 125
Barium	100		1000	1160		ug/L		106		75 - 125

**Lab Sample ID: 240-51496-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 184120**

**Client Sample ID: GW-060215-JK-03**  
**Prep Type: Dissolved**  
**Prep Batch: 183753**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier							
Silver	0.20	U	100	101		ug/L		101		75 - 125	1	20
Arsenic	3.7	J B	1000	1070		ug/L		106		75 - 125	1	20
Beryllium	0.78	J	1000	937		ug/L		94		75 - 125	1	20
Cadmium	0.29	J	1000	1060		ug/L		106		75 - 125	0	20
Cobalt	0.37	J B	1000	960		ug/L		96		75 - 125	2	20
Chromium	1.5	J B	1000	982		ug/L		98		75 - 125	1	20
Copper	2.0	U	1000	992		ug/L		99		75 - 125	2	20
Manganese	510		1000	1450		ug/L		94		75 - 125	2	20
Nickel	1.0	J B	1000	1000		ug/L		100		75 - 125	2	20
Lead	0.15	J B	1000	981		ug/L		98		75 - 125	2	20
Antimony	0.24	J	100	102		ug/L		102		75 - 125	1	20
Selenium	1.6	J	1000	1000		ug/L		100		75 - 125	2	20
Thallium	0.30	J B	250	241		ug/L		96		75 - 125	2	20
Vanadium	1.1	J B	1000	987		ug/L		99		75 - 125	2	20
Zinc	20	U	1000	1020		ug/L		102		75 - 125	3	20
Barium	100		1000	1150		ug/L		105		75 - 125	1	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 240-183759/1-A**  
**Matrix: Water**  
**Analysis Batch: 184970**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 183759**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	0.20	U	0.20	0.090	ug/L		06/04/15 14:00	06/12/15 07:07	1

**Lab Sample ID: LCS 240-183759/2-A**  
**Matrix: Water**  
**Analysis Batch: 184970**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 183759**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
Mercury	5.00	6.43	*	ug/L		129		80 - 120

**Lab Sample ID: 240-51496-3 MS**  
**Matrix: Water**  
**Analysis Batch: 184970**

**Client Sample ID: GW-060215-JK-03**  
**Prep Type: Total/NA**  
**Prep Batch: 183759**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Mercury	0.20	U F1 *	1.00	1.32	F1	ug/L		132		80 - 120

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

## Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 240-51496-3 MSD  
 Matrix: Water  
 Analysis Batch: 184970

Client Sample ID: GW-060215-JK-03  
 Prep Type: Total/NA  
 Prep Batch: 183759

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.20	U F1 *	1.00	1.21	F1	ug/L		121	80 - 120	9	20

Lab Sample ID: MB 240-184985/1-A  
 Matrix: Water  
 Analysis Batch: 185040

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 184985

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		06/12/15 15:00	06/13/15 10:24	1

Lab Sample ID: LCS 240-184985/2-A  
 Matrix: Water  
 Analysis Batch: 185040

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 184985

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	5.00	5.16		ug/L		103	80 - 120

Lab Sample ID: 240-51496-3 MS  
 Matrix: Water  
 Analysis Batch: 185040

Client Sample ID: GW-060215-JK-03  
 Prep Type: Dissolved  
 Prep Batch: 184985

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.20	U	1.00	0.930		ug/L		93	80 - 120

Lab Sample ID: 240-51496-3 MSD  
 Matrix: Water  
 Analysis Batch: 185040

Client Sample ID: GW-060215-JK-03  
 Prep Type: Dissolved  
 Prep Batch: 184985

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.20	U	1.00	0.957		ug/L		96	80 - 120	3	20

## Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 240-183477/3  
 Matrix: Water  
 Analysis Batch: 183477

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			06/03/15 08:03	1

Lab Sample ID: LCS 240-183477/4  
 Matrix: Water  
 Analysis Batch: 183477

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Cr (VI)	0.250	0.244		mg/L		98	80 - 118

TestAmerica Canton



# QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

## GC/MS VOA

### Analysis Batch: 184147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-51496-1	GW-060215-JK-01	Total/NA	Water	8260B	
240-51496-2	GW-060215-JK-02	Total/NA	Water	8260B	
240-51496-3	GW-060215-JK-03	Total/NA	Water	8260B	
240-51496-3 MS	GW-060215-JK-03	Total/NA	Water	8260B	
240-51496-3 MSD	GW-060215-JK-03	Total/NA	Water	8260B	
240-51496-4	TRIP BLANK	Total/NA	Water	8260B	
LCS 240-184147/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-184147/6	Method Blank	Total/NA	Water	8260B	

## GC/MS Semi VOA

### Prep Batch: 183691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-51496-1	GW-060215-JK-01	Total/NA	Water	3510C	
240-51496-2	GW-060215-JK-02	Total/NA	Water	3510C	
240-51496-3	GW-060215-JK-03	Total/NA	Water	3510C	
240-51496-3 MS	GW-060215-JK-03	Total/NA	Water	3510C	
240-51496-3 MSD	GW-060215-JK-03	Total/NA	Water	3510C	
LCS 240-183691/24-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-183691/23-A	Method Blank	Total/NA	Water	3510C	

### Analysis Batch: 183880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-51496-1	GW-060215-JK-01	Total/NA	Water	8270C	183691
240-51496-2	GW-060215-JK-02	Total/NA	Water	8270C	183691
240-51496-3	GW-060215-JK-03	Total/NA	Water	8270C	183691
240-51496-3 MS	GW-060215-JK-03	Total/NA	Water	8270C	183691
240-51496-3 MSD	GW-060215-JK-03	Total/NA	Water	8270C	183691
LCS 240-183691/24-A	Lab Control Sample	Total/NA	Water	8270C	183691
MB 240-183691/23-A	Method Blank	Total/NA	Water	8270C	183691

## Metals

### Prep Batch: 183753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-51496-1	GW-060215-JK-01	Dissolved	Water	3005A	
240-51496-1	GW-060215-JK-01	Total Recoverable	Water	3005A	
240-51496-2	GW-060215-JK-02	Dissolved	Water	3005A	
240-51496-2	GW-060215-JK-02	Total Recoverable	Water	3005A	
240-51496-3	GW-060215-JK-03	Dissolved	Water	3005A	
240-51496-3	GW-060215-JK-03	Total Recoverable	Water	3005A	
240-51496-3 MS	GW-060215-JK-03	Dissolved	Water	3005A	
240-51496-3 MS	GW-060215-JK-03	Total Recoverable	Water	3005A	
240-51496-3 MSD	GW-060215-JK-03	Dissolved	Water	3005A	
240-51496-3 MSD	GW-060215-JK-03	Total Recoverable	Water	3005A	
LCS 240-183753/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 240-183753/1-A	Method Blank	Total Recoverable	Water	3005A	

TestAmerica Canton

# QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

## Metals (Continued)

### Prep Batch: 183759

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-51496-1	GW-060215-JK-01	Dissolved	Water	7470A	
240-51496-1	GW-060215-JK-01	Total/NA	Water	7470A	
240-51496-2	GW-060215-JK-02	Dissolved	Water	7470A	
240-51496-2	GW-060215-JK-02	Total/NA	Water	7470A	
240-51496-3	GW-060215-JK-03	Total/NA	Water	7470A	
240-51496-3 MS	GW-060215-JK-03	Total/NA	Water	7470A	
240-51496-3 MSD	GW-060215-JK-03	Total/NA	Water	7470A	
LCS 240-183759/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 240-183759/1-A	Method Blank	Total/NA	Water	7470A	

### Analysis Batch: 184120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-51496-1	GW-060215-JK-01	Dissolved	Water	6020	183753
240-51496-1	GW-060215-JK-01	Total Recoverable	Water	6020	183753
240-51496-2	GW-060215-JK-02	Dissolved	Water	6020	183753
240-51496-2	GW-060215-JK-02	Total Recoverable	Water	6020	183753
240-51496-3	GW-060215-JK-03	Dissolved	Water	6020	183753
240-51496-3	GW-060215-JK-03	Total Recoverable	Water	6020	183753
240-51496-3 MS	GW-060215-JK-03	Dissolved	Water	6020	183753
240-51496-3 MS	GW-060215-JK-03	Total Recoverable	Water	6020	183753
240-51496-3 MSD	GW-060215-JK-03	Dissolved	Water	6020	183753
240-51496-3 MSD	GW-060215-JK-03	Total Recoverable	Water	6020	183753
LCS 240-183753/3-A	Lab Control Sample	Total Recoverable	Water	6020	183753
MB 240-183753/1-A	Method Blank	Total Recoverable	Water	6020	183753

### Analysis Batch: 184970

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-51496-1	GW-060215-JK-01	Dissolved	Water	7470A	183759
240-51496-1	GW-060215-JK-01	Total/NA	Water	7470A	183759
240-51496-2	GW-060215-JK-02	Dissolved	Water	7470A	183759
240-51496-2	GW-060215-JK-02	Total/NA	Water	7470A	183759
240-51496-3	GW-060215-JK-03	Total/NA	Water	7470A	183759
240-51496-3 MS	GW-060215-JK-03	Total/NA	Water	7470A	183759
240-51496-3 MSD	GW-060215-JK-03	Total/NA	Water	7470A	183759
LCS 240-183759/2-A	Lab Control Sample	Total/NA	Water	7470A	183759
MB 240-183759/1-A	Method Blank	Total/NA	Water	7470A	183759

### Prep Batch: 184985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-51496-3	GW-060215-JK-03	Dissolved	Water	7470A	
240-51496-3 MS	GW-060215-JK-03	Dissolved	Water	7470A	
240-51496-3 MSD	GW-060215-JK-03	Dissolved	Water	7470A	
LCS 240-184985/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 240-184985/1-A	Method Blank	Total/NA	Water	7470A	

### Analysis Batch: 185040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-51496-3	GW-060215-JK-03	Dissolved	Water	7470A	184985
240-51496-3 MS	GW-060215-JK-03	Dissolved	Water	7470A	184985
240-51496-3 MSD	GW-060215-JK-03	Dissolved	Water	7470A	184985
LCS 240-184985/2-A	Lab Control Sample	Total/NA	Water	7470A	184985

TestAmerica Canton

# QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

## Metals (Continued)

### Analysis Batch: 185040 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-184985/1-A	Method Blank	Total/NA	Water	7470A	184985

## General Chemistry

### Analysis Batch: 183477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-51496-1	GW-060215-JK-01	Total/NA	Water	7196A	
240-51496-2	GW-060215-JK-02	Total/NA	Water	7196A	
240-51496-3	GW-060215-JK-03	Total/NA	Water	7196A	
240-51496-3 MS	GW-060215-JK-03	Total/NA	Water	7196A	
240-51496-3 MSD	GW-060215-JK-03	Total/NA	Water	7196A	
LCS 240-183477/4	Lab Control Sample	Total/NA	Water	7196A	
MB 240-183477/3	Method Blank	Total/NA	Water	7196A	

### Analysis Batch: 184734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-51496-1	GW-060215-JK-01	Total/NA	Water	7196A	
240-51496-2	GW-060215-JK-02	Total/NA	Water	7196A	
240-51496-3	GW-060215-JK-03	Total/NA	Water	7196A	

# Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

**Client Sample ID: GW-060215-JK-01**

**Date Collected: 06/02/15 10:50**

**Date Received: 06/03/15 09:30**

**Lab Sample ID: 240-51496-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		25	184147	06/08/15 16:06	LRW	TAL CAN
Total/NA	Prep	3510C			183691	06/04/15 08:53	JDR	TAL CAN
Total/NA	Analysis	8270C		1	183880	06/05/15 13:56	MRU	TAL CAN
Dissolved	Prep	3005A			183753	06/04/15 11:35	WAL	TAL CAN
Dissolved	Analysis	6020		1	184120	06/05/15 12:59	AS1	TAL CAN
Total Recoverable	Prep	3005A			183753	06/04/15 11:35	WAL	TAL CAN
Total Recoverable	Analysis	6020		1	184120	06/05/15 12:56	AS1	TAL CAN
Dissolved	Prep	7470A			183759	06/04/15 14:00	WAL	TAL CAN
Dissolved	Analysis	7470A		1	184970	06/12/15 07:41	BW	TAL CAN
Total/NA	Prep	7470A			183759	06/04/15 14:00	WAL	TAL CAN
Total/NA	Analysis	7470A		1	184970	06/12/15 07:51	BW	TAL CAN
Total/NA	Analysis	7196A		1	183477	06/03/15 08:00	BLW	TAL CAN
Total/NA	Analysis	7196A		1	184734	06/11/15 10:09	KLC	TAL CAN

**Client Sample ID: GW-060215-JK-02**

**Date Collected: 06/02/15 11:10**

**Date Received: 06/03/15 09:30**

**Lab Sample ID: 240-51496-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		25	184147	06/08/15 16:29	LRW	TAL CAN
Total/NA	Prep	3510C			183691	06/04/15 08:53	JDR	TAL CAN
Total/NA	Analysis	8270C		1	183880	06/05/15 14:21	MRU	TAL CAN
Dissolved	Prep	3005A			183753	06/04/15 11:35	WAL	TAL CAN
Dissolved	Analysis	6020		1	184120	06/05/15 13:07	AS1	TAL CAN
Total Recoverable	Prep	3005A			183753	06/04/15 11:35	WAL	TAL CAN
Total Recoverable	Analysis	6020		1	184120	06/05/15 13:03	AS1	TAL CAN
Dissolved	Prep	7470A			183759	06/04/15 14:00	WAL	TAL CAN
Dissolved	Analysis	7470A		1	184970	06/12/15 07:48	BW	TAL CAN
Total/NA	Prep	7470A			183759	06/04/15 14:00	WAL	TAL CAN
Total/NA	Analysis	7470A		1	184970	06/12/15 07:47	BW	TAL CAN
Total/NA	Analysis	7196A		1	183477	06/03/15 08:00	BLW	TAL CAN
Total/NA	Analysis	7196A		1	184734	06/11/15 10:09	KLC	TAL CAN

**Client Sample ID: GW-060215-JK-03**

**Date Collected: 06/02/15 12:25**

**Date Received: 06/03/15 09:30**

**Lab Sample ID: 240-51496-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	184147	06/08/15 15:21	LRW	TAL CAN
Total/NA	Prep	3510C			183691	06/04/15 08:53	JDR	TAL CAN
Total/NA	Analysis	8270C		1	183880	06/05/15 14:47	MRU	TAL CAN
Dissolved	Prep	3005A			183753	06/04/15 11:34	WAL	TAL CAN

TestAmerica Canton

# Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

**Client Sample ID: GW-060215-JK-03**

**Lab Sample ID: 240-51496-3**

**Date Collected: 06/02/15 12:25**

**Matrix: Water**

**Date Received: 06/03/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Analysis	6020		1	184120	06/05/15 12:13	AS1	TAL CAN
Total Recoverable	Prep	3005A			183753	06/04/15 11:34	WAL	TAL CAN
Total Recoverable	Analysis	6020		1	184120	06/05/15 11:55	AS1	TAL CAN
Dissolved	Prep	7470A			184985	06/12/15 15:00	WAL	TAL CAN
Dissolved	Analysis	7470A		1	185040	06/13/15 10:37	WAL	TAL CAN
Total/NA	Prep	7470A			183759	06/04/15 14:00	WAL	TAL CAN
Total/NA	Analysis	7470A		1	184970	06/12/15 07:13	BW	TAL CAN
Total/NA	Analysis	7196A		2	183477	06/03/15 10:22	BLW	TAL CAN
Total/NA	Analysis	7196A		1	184734	06/11/15 10:09	KLC	TAL CAN

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 240-51496-4**

**Date Collected: 06/02/15 00:00**

**Matrix: Water**

**Date Received: 06/03/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	184147	06/08/15 16:52	LRW	TAL CAN

**Laboratory References:**

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396



# Certification Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-51496-1

## Laboratory: TestAmerica Canton

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999518190	08-31-15

The following analytes are included in this report, but are not certified under this certification:

Analysis Method	Prep Method	Matrix	Analyte
6020	3005A	Water	Lead

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
7196A		Water	Cr (III)
7196A		Water	Cr (VI)
8260B		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
8260B		Water	Cyclohexane
8260B		Water	Methyl acetate
8260B		Water	Methylcyclohexane
8270C	3510C	Water	4-Nitroaniline
8270C	3510C	Water	Atrazine
8270C	3510C	Water	Benzaldehyde
8270C	3510C	Water	Caprolactam

**CHAIN OF CUSTODY  
AND  
RECEIVING DOCUMENTS**



240-51496 Chain of Custody

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

3.6 | C4.6 3.2 | C4.2

**CONESTOGA-ROVERS & ASSOCIATES**  
 8615 W. Bryn Mawr Avenue  
 Chicago, Illinois 60631  
 (773)380-9933 phone  
 (773)380-6421 fax



SHIPPED TO  
 (Laboratory Name): **TEST AMERICA - NORTH CANTON COOLERS**

REFERENCE NUMBER:  
**58505-01-20402**

PROJECT NAME: **GM JAMESVILLE**

**CHAIN-OF-CUSTODY RECORD**

SAMPLER'S SIGNATURE: *[Signature]* PRINTED NAME: **J. KALONZHEWSKI**

SEQ. No.	DATE	TIME	SAMPLE IDENTIFICATION No.	SAMPLE MATRIX	No. OF CONTAINERS	PARAMETERS	REMARKS
	6/2/15	1050	GN-060215-JK-01	Water	3	ALL OF METALS LEAD COPPER ZINC MANGANESE IRON CHROMIUM NICKEL SILICA SODIUM POTASSIUM AMMONIUM NITRATE NITRITES PHOSPHORUS SULFATE Cadmium Mercury Molybdenum Vanadium Selenium Cobalt Manganese Chromium Nickel Copper Zinc Lead Iron Manganese Cadmium Mercury Molybdenum Vanadium Selenium Cobalt	
	1110		GN-060215-JK-02		8		
	1225		GN-060215-JK-03		19		
			TRIP BLANK		1		
<b>TOTAL NUMBER OF CONTAINERS</b>						<b>36</b>	

RELINQUISHED BY: *[Signature]* DATE: 6/2/15 TIME: 1500 RECEIVED BY: *[Signature]* DATE: 6/2/15 TIME: 0930

RELINQUISHED BY: *[Signature]* DATE: DATE: TIME: TIME:

RELINQUISHED BY: *[Signature]* DATE: DATE: TIME: TIME:

METHOD OF SHIPMENT: **Fed Ex**

AIR BILL No. **8005 2822 8566**

SAMPLE TEAM:  
**J. KALONZHEWSKI**

RECEIVED FOR LABORATORY BY:  
 DATE: TIME: **005030**

- White - Fully Executed Copy
- Yellow - Receiving Laboratory Copy
- Pink - Shipper Copy
- Goldenrod - Sampler Copy

1001-00(SOURCE)GN-CO004



TestAmerica Canton Sample Receipt Form/Narrative

Login # : 51494

Canton Facility

Client CRA Site Name Cooler unpacked by: Cooler Received on 6/3/15 Opened on 6/3/15 FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # Foam Box Client Cooler Box Other Packing material used: Bubble Wrap Foam Plastic Bag None Other COOLANT: Wet Ice Blue Ice Dry Ice Water None

- 1. Cooler temperature upon receipt IR GUN# A (CF +1.0 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C 2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 2 Yes No -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No 3. Shippers' packing slip attached to the cooler(s)? Yes No 4. Did custody papers accompany the sample(s)? Yes No 5. Were the custody papers relinquished & signed in the appropriate place? Yes No 6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No 7. Did all bottles arrive in good condition (Unbroken)? Yes No 8. Could all bottle labels be reconciled with the COC? Yes No 9. Were correct bottle(s) used for the test(s) indicated? Yes No 10. Sufficient quantity received to perform indicated analyses? Yes No 11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC432654 12. Were VOAs on the COC? Yes No 13. Were air bubbles >6 mm in any VOA vials? Yes No NA 14. Was a trip blank present in the cooler(s)? Trip Blank Lot # B50170NB Yes No

See Multiple Cooler Form

Contacted PM Date by via Verbal Voice Mail Other Concerning

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION Sample(s) were received after the recommended holding time had expired. Sample(s) were received in a broken container. Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION Sample(s) were further preserved in the laboratory. Time preserved: Preservative(s) added/Lot number(s):





Temperature readings:

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container pH</u>	<u>Preservative Added (mls)</u>	<u>Lot #</u>
GW-060215-JK-01	240-51496-E-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-060215-JK-01	240-51496-F-1	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-060215-JK-02	240-51496-E-2	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-060215-JK-02	240-51496-F-2	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-060215-JK-03	240-51496-L-3	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-060215-JK-03	240-51496-M-3	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-060215-JK-03	240-51496-N-3	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-060215-JK-03	240-51496-O-3	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-54680-1

Client Project/Site: 58505, Janesville WI, SSOW 108011

For:

GHD Services Inc.

45 Farmington Valley Drive

Plainville, Connecticut 06062

Attn: Ms. Kathy Shaw



Authorized for release by:

9/2/2015 2:25:15 PM

Denise Heckler, Project Manager II

(330)966-9477

[denise.heckler@testamericainc.com](mailto:denise.heckler@testamericainc.com)



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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

### General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
$\alpha$	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

**Job ID: 240-54680-1**

**Laboratory: TestAmerica Canton**

**Narrative**

## CASE NARRATIVE

**Client: GHD Services Inc.**

**Project: 58505, Janesville WI, SSOW 108011**

**Report Number: 240-54680-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

### **RECEIPT**

The samples were received on 08/25/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.8 C.

### **VOLATILE ORGANIC COMPOUNDS (GCMS)**

Samples GW-082415-JL-01 (240-54680-1), GW-082415-JL-02 (240-54680-2) and TRIP BLANK (240-54680-3) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 08/31/2015.

There was an MS/MSD analyzed in batch 195640 but could not be reported because the associated sample needed reanalyzed in a different batch.

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

### **SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)**

Samples GW-082415-JL-01 (240-54680-1) and GW-082415-JL-02 (240-54680-2) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 08/26/2015 and analyzed on 08/27/2015.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.



# Case Narrative

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

## Job ID: 240-54680-1 (Continued)

### Laboratory: TestAmerica Canton (Continued)

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

#### **DISSOLVED METALS (ICPMS)**

Samples GW-082415-JL-01 (240-54680-1) and GW-082415-JL-02 (240-54680-2) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 08/26/2015 and analyzed on 08/28/2015 and 08/31/2015.

Some requested practical quantitation limits (PQLs) fall below the laboratory's verified standard quantitation limit. The continuing calibration blanks and method blanks may not support the lower PQL.

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

#### **TOTAL RECOVERABLE METALS (ICPMS)**

Samples GW-082415-JL-01 (240-54680-1) and GW-082415-JL-02 (240-54680-2) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 08/26/2015 and analyzed on 08/28/2015 and 08/31/2015.

Several analytes were detected in method blank MB 240-194889/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Some requested practical quantitation limits (PQLs) fall below the laboratory's verified standard quantitation limit. The continuing calibration blanks and method blanks may not support the lower PQL.

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

#### **HEXAVALENT CHROMIUM**

Samples GW-082415-JL-01 (240-54680-1) and GW-082415-JL-02 (240-54680-2) were analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples were analyzed on 08/25/2015.

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

#### **DISSOLVED MERCURY (CVAA)**

Samples GW-082415-JL-01 (240-54680-1) and GW-082415-JL-02 (240-54680-2) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 08/26/2015 and analyzed on 08/27/2015.

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

#### **TOTAL MERCURY**

Samples GW-082415-JL-01 (240-54680-1) and GW-082415-JL-02 (240-54680-2) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 08/26/2015 and analyzed on 08/27/2015.

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

#### **TRIVALENT CHROMIUM**

Samples GW-082415-JL-01 (240-54680-1) and GW-082415-JL-02 (240-54680-2) were analyzed for trivalent chromium in accordance with EPA SW-846 Method 7196A\_CR3. The samples were analyzed on 09/01/2015.

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

# Method Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
6020	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
7196A	Chromium, Hexavalent	SW846	TAL CAN
7196A	Chromium, Trivalent (Colorimetric)	SW846	TAL CAN

**Protocol References:**

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

**Laboratory References:**

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396



# Sample Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-54680-1	GW-082415-JL-01	Water	08/24/15 15:00	08/25/15 09:50
240-54680-2	GW-082415-JL-02	Water	08/24/15 15:05	08/25/15 09:50
240-54680-3	TRIP BLANK	Water	08/24/15 00:00	08/25/15 09:50

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# Detection Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

**Client Sample ID: GW-082415-JL-01**

**Lab Sample ID: 240-54680-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.3	J	10	0.94	ug/L	1		8260B	Total/NA
2-Butanone (MEK)	0.69	J	10	0.53	ug/L	1		8260B	Total/NA
Carbon disulfide	8.3		1.0	0.38	ug/L	1		8260B	Total/NA
Toluene	0.70	J	1.0	0.23	ug/L	1		8260B	Total/NA
Acetophenone	0.35	J	5.0	0.34	ug/L	1		8270C	Total/NA
Caprolactam	1.1	J	10	0.20	ug/L	1		8270C	Total/NA
2,4-Dichlorophenol	0.20	J	10	0.19	ug/L	1		8270C	Total/NA
Phenol	0.65	J	5.0	0.60	ug/L	1		8270C	Total/NA
Arsenic	0.36	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	2.3	J	100	1.1	ug/L	1		6020	Total Recoverable
Cobalt	0.20	J B	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	2.3	J B	5.0	0.20	ug/L	1		6020	Total Recoverable
Nickel	2.5	J	20	0.23	ug/L	1		6020	Total Recoverable
Lead	0.25	J B	3.0	0.11	ug/L	1		6020	Total Recoverable
Selenium	0.36	J	5.0	0.25	ug/L	1		6020	Total Recoverable
Vanadium	0.59	J B	4.0	0.23	ug/L	1		6020	Total Recoverable
Arsenic	0.35	J B	5.0	0.18	ug/L	1		6020	Dissolved
Cobalt	0.14	J B	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	2.4	J B	5.0	0.20	ug/L	1		6020	Dissolved
Nickel	2.2	J	20	0.23	ug/L	1		6020	Dissolved
Selenium	0.33	J	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	0.47	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	2.0	J	100	1.1	ug/L	1		6020	Dissolved

**Client Sample ID: GW-082415-JL-02**

**Lab Sample ID: 240-54680-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Caprolactam	0.45	J	9.5	0.19	ug/L	1		8270C	Total/NA
Arsenic	0.84	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	62	J	100	1.1	ug/L	1		6020	Total Recoverable
Cadmium	0.091	J B	1.0	0.061	ug/L	1		6020	Total Recoverable
Cobalt	0.15	J B	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	5.8	B	5.0	0.20	ug/L	1		6020	Total Recoverable
Copper	0.96	J B	2.0	0.75	ug/L	1		6020	Total Recoverable
Manganese	1.4	J	15	1.1	ug/L	1		6020	Total Recoverable
Nickel	4.4	J	20	0.23	ug/L	1		6020	Total Recoverable
Lead	0.13	J B	3.0	0.11	ug/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

## Client Sample ID: GW-082415-JL-02 (Continued)

## Lab Sample ID: 240-54680-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	0.50	J	5.0	0.25	ug/L	1		6020	Total
Vanadium	1.3	J B	4.0	0.23	ug/L	1		6020	Recoverable Total
Arsenic	0.84	J B	5.0	0.18	ug/L	1		6020	Dissolved
Cadmium	0.079	J B	1.0	0.061	ug/L	1		6020	Dissolved
Cobalt	0.13	J B	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	3.4	J B	5.0	0.20	ug/L	1		6020	Dissolved
Copper	0.99	J B	2.0	0.75	ug/L	1		6020	Dissolved
Nickel	5.5	J	20	0.23	ug/L	1		6020	Dissolved
Selenium	0.51	J	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	1.5	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	62	J	100	1.1	ug/L	1		6020	Dissolved
Cr (III)	0.0058	J	0.020	0.0050	mg/L	1		7196A	Total/NA

## Client Sample ID: TRIP BLANK

## Lab Sample ID: 240-54680-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	11		10	0.94	ug/L	1		8260B	Total/NA
Methylene Chloride	1.2		1.0	0.33	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton



# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

**Client Sample ID: GW-082415-JL-01**

**Lab Sample ID: 240-54680-1**

**Date Collected: 08/24/15 15:00**

**Matrix: Water**

**Date Received: 08/25/15 09:50**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>3.3</b>	<b>J</b>	10	0.94	ug/L			08/31/15 22:50	1
Benzene	1.0	U	1.0	0.35	ug/L			08/31/15 22:50	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			08/31/15 22:50	1
Bromoform	1.0	U	1.0	0.56	ug/L			08/31/15 22:50	1
Bromomethane	1.0	U	1.0	0.44	ug/L			08/31/15 22:50	1
<b>2-Butanone (MEK)</b>	<b>0.69</b>	<b>J</b>	10	0.53	ug/L			08/31/15 22:50	1
<b>Carbon disulfide</b>	<b>8.3</b>		1.0	0.38	ug/L			08/31/15 22:50	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			08/31/15 22:50	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 22:50	1
Chloroethane	1.0	U	1.0	0.32	ug/L			08/31/15 22:50	1
Chloroform	1.0	U	1.0	0.25	ug/L			08/31/15 22:50	1
Chloromethane	1.0	U	1.0	0.44	ug/L			08/31/15 22:50	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/31/15 22:50	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			08/31/15 22:50	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			08/31/15 22:50	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			08/31/15 22:50	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			08/31/15 22:50	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			08/31/15 22:50	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			08/31/15 22:50	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/31/15 22:50	1
2-Hexanone	10	U	10	0.48	ug/L			08/31/15 22:50	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			08/31/15 22:50	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			08/31/15 22:50	1
Styrene	1.0	U	1.0	0.45	ug/L			08/31/15 22:50	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			08/31/15 22:50	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			08/31/15 22:50	1
<b>Toluene</b>	<b>0.70</b>	<b>J</b>	1.0	0.23	ug/L			08/31/15 22:50	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			08/31/15 22:50	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			08/31/15 22:50	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			08/31/15 22:50	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			08/31/15 22:50	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			08/31/15 22:50	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			08/31/15 22:50	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			08/31/15 22:50	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			08/31/15 22:50	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			08/31/15 22:50	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			08/31/15 22:50	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			08/31/15 22:50	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/31/15 22:50	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			08/31/15 22:50	1
Methyl acetate	10	U	10	2.3	ug/L			08/31/15 22:50	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/31/15 22:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			08/31/15 22:50	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			08/31/15 22:50	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 22:50	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			08/31/15 22:50	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			08/31/15 22:50	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			08/31/15 22:50	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			08/31/15 22:50	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

**Client Sample ID: GW-082415-JL-01**

**Lab Sample ID: 240-54680-1**

**Date Collected: 08/24/15 15:00**

**Matrix: Water**

**Date Received: 08/25/15 09:50**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			08/31/15 22:50	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	102		78 - 125					08/31/15 22:50	1
4-Bromofluorobenzene (Surr)	89		61 - 120					08/31/15 22:50	1
Toluene-d8 (Surr)	98		80 - 120					08/31/15 22:50	1
Dibromofluoromethane (Surr)	89		79 - 120					08/31/15 22:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	5.0	U	5.0	0.044	ug/L		08/26/15 08:57	08/27/15 13:57	1
Acenaphthylene	5.0	U	5.0	0.048	ug/L		08/26/15 08:57	08/27/15 13:57	1
<b>Acetophenone</b>	<b>0.35</b>	<b>J</b>	5.0	0.34	ug/L		08/26/15 08:57	08/27/15 13:57	1
Anthracene	5.0	U	5.0	0.088	ug/L		08/26/15 08:57	08/27/15 13:57	1
Atrazine	3.0	U	3.0	0.34	ug/L		08/26/15 08:57	08/27/15 13:57	1
Benzaldehyde	5.0	U	5.0	0.39	ug/L		08/26/15 08:57	08/27/15 13:57	1
Benzo[a]anthracene	1.0	U	1.0	0.030	ug/L		08/26/15 08:57	08/27/15 13:57	1
Benzo[b]fluoranthene	1.0	U	1.0	0.039	ug/L		08/26/15 08:57	08/27/15 13:57	1
Benzo[k]fluoranthene	1.0	U	1.0	0.045	ug/L		08/26/15 08:57	08/27/15 13:57	1
Benzo[g,h,i]perylene	1.0	U	1.0	0.046	ug/L		08/26/15 08:57	08/27/15 13:57	1
Benzo[a]pyrene	1.0	U	1.0	0.051	ug/L		08/26/15 08:57	08/27/15 13:57	1
Butyl benzyl phthalate	5.0	U	5.0	0.26	ug/L		08/26/15 08:57	08/27/15 13:57	1
1,1'-Biphenyl	5.0	U	5.0	0.13	ug/L		08/26/15 08:57	08/27/15 13:57	1
Bis(2-chloroethoxy)methane	5.0	U	5.0	0.32	ug/L		08/26/15 08:57	08/27/15 13:57	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.10	ug/L		08/26/15 08:57	08/27/15 13:57	1
Bis(2-ethylhexyl) phthalate	5.0	U	5.0	1.7	ug/L		08/26/15 08:57	08/27/15 13:57	1
4-Bromophenyl phenyl ether	5.0	U	5.0	0.22	ug/L		08/26/15 08:57	08/27/15 13:57	1
<b>Caprolactam</b>	<b>1.1</b>	<b>J</b>	10	0.20	ug/L		08/26/15 08:57	08/27/15 13:57	1
Carbazole	10	U	10	0.28	ug/L		08/26/15 08:57	08/27/15 13:57	1
4-Chloroaniline	10	U	10	0.21	ug/L		08/26/15 08:57	08/27/15 13:57	1
4-Chloro-3-methylphenol	5.0	U	5.0	0.21	ug/L		08/26/15 08:57	08/27/15 13:57	1
2-Chloronaphthalene	5.0	U	5.0	0.10	ug/L		08/26/15 08:57	08/27/15 13:57	1
2-Chlorophenol	5.0	U	5.0	0.29	ug/L		08/26/15 08:57	08/27/15 13:57	1
4-Chlorophenyl phenyl ether	5.0	U	5.0	0.30	ug/L		08/26/15 08:57	08/27/15 13:57	1
Chrysene	1.0	U	1.0	0.050	ug/L		08/26/15 08:57	08/27/15 13:57	1
2-Methylnaphthalene	5.0	U	5.0	0.090	ug/L		08/26/15 08:57	08/27/15 13:57	1
3 & 4 Methylphenol	5.0	U	5.0	0.80	ug/L		08/26/15 08:57	08/27/15 13:57	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.045	ug/L		08/26/15 08:57	08/27/15 13:57	1
Dibenzofuran	4.0	U	4.0	0.020	ug/L		08/26/15 08:57	08/27/15 13:57	1
3,3'-Dichlorobenzidine	1.0	U	1.0	0.37	ug/L		08/26/15 08:57	08/27/15 13:57	1
<b>2,4-Dichlorophenol</b>	<b>0.20</b>	<b>J</b>	10	0.19	ug/L		08/26/15 08:57	08/27/15 13:57	1
Diethyl phthalate	5.0	U	5.0	0.60	ug/L		08/26/15 08:57	08/27/15 13:57	1
2,4-Dimethylphenol	5.0	U	5.0	0.25	ug/L		08/26/15 08:57	08/27/15 13:57	1
Dimethyl phthalate	5.0	U	5.0	0.29	ug/L		08/26/15 08:57	08/27/15 13:57	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		08/26/15 08:57	08/27/15 13:57	1
2,4-Dinitrophenol	20	U	20	0.32	ug/L		08/26/15 08:57	08/27/15 13:57	1
2,4-Dinitrotoluene	5.0	U	5.0	0.25	ug/L		08/26/15 08:57	08/27/15 13:57	1
Di-n-butyl phthalate	5.0	U	5.0	1.7	ug/L		08/26/15 08:57	08/27/15 13:57	1
Di-n-octyl phthalate	5.0	U	5.0	0.23	ug/L		08/26/15 08:57	08/27/15 13:57	1
Fluoranthene	1.0	U	1.0	0.045	ug/L		08/26/15 08:57	08/27/15 13:57	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

**Client Sample ID: GW-082415-JL-01**

**Lab Sample ID: 240-54680-1**

**Date Collected: 08/24/15 15:00**

**Matrix: Water**

**Date Received: 08/25/15 09:50**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	5.0	U	5.0	0.041	ug/L		08/26/15 08:57	08/27/15 13:57	1
Hexachlorobenzene	0.20	U	0.20	0.085	ug/L		08/26/15 08:57	08/27/15 13:57	1
Hexachlorobutadiene	1.0	U	1.0	0.27	ug/L		08/26/15 08:57	08/27/15 13:57	1
Hexachlorocyclopentadiene	5.0	U	5.0	0.24	ug/L		08/26/15 08:57	08/27/15 13:57	1
Hexachloroethane	5.0	U	5.0	0.19	ug/L		08/26/15 08:57	08/27/15 13:57	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.043	ug/L		08/26/15 08:57	08/27/15 13:57	1
Isophorone	5.0	U	5.0	0.27	ug/L		08/26/15 08:57	08/27/15 13:57	1
2-Methylphenol	5.0	U	5.0	0.17	ug/L		08/26/15 08:57	08/27/15 13:57	1
Naphthalene	5.0	U	5.0	0.063	ug/L		08/26/15 08:57	08/27/15 13:57	1
2-Nitroaniline	20	U	20	0.21	ug/L		08/26/15 08:57	08/27/15 13:57	1
3-Nitroaniline	20	U	20	0.28	ug/L		08/26/15 08:57	08/27/15 13:57	1
4-Nitroaniline	20	U	20	0.22	ug/L		08/26/15 08:57	08/27/15 13:57	1
Nitrobenzene	3.0	U	3.0	0.040	ug/L		08/26/15 08:57	08/27/15 13:57	1
2-Nitrophenol	5.0	U	5.0	0.28	ug/L		08/26/15 08:57	08/27/15 13:57	1
4-Nitrophenol	20	U	20	0.29	ug/L		08/26/15 08:57	08/27/15 13:57	1
N-Nitrosodiphenylamine	5.0	U	5.0	0.31	ug/L		08/26/15 08:57	08/27/15 13:57	1
N-Nitrosodi-n-propylamine	5.0	U	5.0	0.24	ug/L		08/26/15 08:57	08/27/15 13:57	1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	0.40	ug/L		08/26/15 08:57	08/27/15 13:57	1
Pentachlorophenol	5.0	U	5.0	0.27	ug/L		08/26/15 08:57	08/27/15 13:57	1
Phenanthrene	2.0	U	2.0	0.062	ug/L		08/26/15 08:57	08/27/15 13:57	1
<b>Phenol</b>	<b>0.65</b>	<b>J</b>	5.0	0.60	ug/L		08/26/15 08:57	08/27/15 13:57	1
Pyrene	5.0	U	5.0	0.042	ug/L		08/26/15 08:57	08/27/15 13:57	1
2,4,5-Trichlorophenol	5.0	U	5.0	0.30	ug/L		08/26/15 08:57	08/27/15 13:57	1
2,4,6-Trichlorophenol	4.0	U	4.0	0.24	ug/L		08/26/15 08:57	08/27/15 13:57	1
2,6-Dinitrotoluene	5.0	U	5.0	0.80	ug/L		08/26/15 08:57	08/27/15 13:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	64		29 - 110	08/26/15 08:57	08/27/15 13:57	1
2-Fluorophenol (Surr)	32		15 - 110	08/26/15 08:57	08/27/15 13:57	1
2,4,6-Tribromophenol (Surr)	89		21 - 128	08/26/15 08:57	08/27/15 13:57	1
Nitrobenzene-d5 (Surr)	61		31 - 110	08/26/15 08:57	08/27/15 13:57	1
Phenol-d5 (Surr)	18		10 - 110	08/26/15 08:57	08/27/15 13:57	1
Terphenyl-d14 (Surr)	60		31 - 115	08/26/15 08:57	08/27/15 13:57	1

**Method: 6020 - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/26/15 10:13	08/28/15 15:38	1
<b>Arsenic</b>	<b>0.36</b>	<b>J B</b>	5.0	0.18	ug/L		08/26/15 10:13	08/31/15 19:12	1
<b>Barium</b>	<b>2.3</b>	<b>J</b>	100	1.1	ug/L		08/26/15 10:13	08/28/15 15:38	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/26/15 10:13	08/28/15 15:38	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/26/15 10:13	08/28/15 15:38	1
<b>Cobalt</b>	<b>0.20</b>	<b>J B</b>	7.0	0.021	ug/L		08/26/15 10:13	08/28/15 15:38	1
<b>Chromium</b>	<b>2.3</b>	<b>J B</b>	5.0	0.20	ug/L		08/26/15 10:13	08/28/15 15:38	1
Copper	2.0	U	2.0	0.75	ug/L		08/26/15 10:13	08/28/15 15:38	1
Manganese	15	U	15	1.1	ug/L		08/26/15 10:13	08/28/15 15:38	1
<b>Nickel</b>	<b>2.5</b>	<b>J</b>	20	0.23	ug/L		08/26/15 10:13	08/28/15 15:38	1
<b>Lead</b>	<b>0.25</b>	<b>J B</b>	3.0	0.11	ug/L		08/26/15 10:13	08/28/15 15:38	1
<b>Selenium</b>	<b>0.36</b>	<b>J</b>	5.0	0.25	ug/L		08/26/15 10:13	08/31/15 19:12	1
Thallium	1.0	U	1.0	0.074	ug/L		08/26/15 10:13	08/28/15 15:38	1
<b>Vanadium</b>	<b>0.59</b>	<b>J B</b>	4.0	0.23	ug/L		08/26/15 10:13	08/28/15 15:38	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

**Client Sample ID: GW-082415-JL-01**

**Lab Sample ID: 240-54680-1**

**Date Collected: 08/24/15 15:00**

**Matrix: Water**

**Date Received: 08/25/15 09:50**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/26/15 10:13	08/28/15 15:38	1
Silver	0.20	U	0.20	0.020	ug/L		08/26/15 10:13	08/28/15 15:38	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/26/15 10:13	08/28/15 15:42	1
<b>Arsenic</b>	<b>0.35</b>	<b>J B</b>	5.0	0.18	ug/L		08/26/15 10:13	08/31/15 19:16	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/26/15 10:13	08/28/15 15:42	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/26/15 10:13	08/28/15 15:42	1
<b>Cobalt</b>	<b>0.14</b>	<b>J B</b>	7.0	0.021	ug/L		08/26/15 10:13	08/28/15 15:42	1
<b>Chromium</b>	<b>2.4</b>	<b>J B</b>	5.0	0.20	ug/L		08/26/15 10:13	08/28/15 15:42	1
Copper	2.0	U	2.0	0.75	ug/L		08/26/15 10:13	08/28/15 15:42	1
Manganese	15	U	15	1.1	ug/L		08/26/15 10:13	08/28/15 15:42	1
<b>Nickel</b>	<b>2.2</b>	<b>J</b>	20	0.23	ug/L		08/26/15 10:13	08/28/15 15:42	1
Lead	3.0	U	3.0	0.11	ug/L		08/26/15 10:13	08/28/15 15:42	1
Antimony	2.0	U	2.0	0.16	ug/L		08/26/15 10:13	08/28/15 15:42	1
<b>Selenium</b>	<b>0.33</b>	<b>J</b>	5.0	0.25	ug/L		08/26/15 10:13	08/31/15 19:16	1
Thallium	1.0	U	1.0	0.074	ug/L		08/26/15 10:13	08/28/15 15:42	1
<b>Vanadium</b>	<b>0.47</b>	<b>J B</b>	4.0	0.23	ug/L		08/26/15 10:13	08/28/15 15:42	1
Zinc	20	U	20	7.3	ug/L		08/26/15 10:13	08/28/15 15:42	1
<b>Barium</b>	<b>2.0</b>	<b>J</b>	100	1.1	ug/L		08/26/15 10:13	08/28/15 15:42	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/26/15 14:00	08/27/15 15:28	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/26/15 14:00	08/27/15 15:15	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/25/15 12:47	1
Cr (III)	0.020	U	0.020	0.0050	mg/L			09/01/15 07:34	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

**Client Sample ID: GW-082415-JL-02**

**Lab Sample ID: 240-54680-2**

**Date Collected: 08/24/15 15:05**

**Matrix: Water**

**Date Received: 08/25/15 09:50**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			08/31/15 23:12	1
Benzene	1.0	U	1.0	0.35	ug/L			08/31/15 23:12	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			08/31/15 23:12	1
Bromoform	1.0	U	1.0	0.56	ug/L			08/31/15 23:12	1
Bromomethane	1.0	U	1.0	0.44	ug/L			08/31/15 23:12	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			08/31/15 23:12	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			08/31/15 23:12	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			08/31/15 23:12	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 23:12	1
Chloroethane	1.0	U	1.0	0.32	ug/L			08/31/15 23:12	1
Chloroform	1.0	U	1.0	0.25	ug/L			08/31/15 23:12	1
Chloromethane	1.0	U	1.0	0.44	ug/L			08/31/15 23:12	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/31/15 23:12	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			08/31/15 23:12	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			08/31/15 23:12	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			08/31/15 23:12	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			08/31/15 23:12	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			08/31/15 23:12	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			08/31/15 23:12	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/31/15 23:12	1
2-Hexanone	10	U	10	0.48	ug/L			08/31/15 23:12	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			08/31/15 23:12	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			08/31/15 23:12	1
Styrene	1.0	U	1.0	0.45	ug/L			08/31/15 23:12	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			08/31/15 23:12	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			08/31/15 23:12	1
Toluene	1.0	U	1.0	0.23	ug/L			08/31/15 23:12	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			08/31/15 23:12	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			08/31/15 23:12	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			08/31/15 23:12	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			08/31/15 23:12	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			08/31/15 23:12	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			08/31/15 23:12	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			08/31/15 23:12	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			08/31/15 23:12	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			08/31/15 23:12	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			08/31/15 23:12	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			08/31/15 23:12	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/31/15 23:12	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			08/31/15 23:12	1
Methyl acetate	10	U	10	2.3	ug/L			08/31/15 23:12	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/31/15 23:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			08/31/15 23:12	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			08/31/15 23:12	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 23:12	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			08/31/15 23:12	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			08/31/15 23:12	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			08/31/15 23:12	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			08/31/15 23:12	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

**Client Sample ID: GW-082415-JL-02**

**Lab Sample ID: 240-54680-2**

**Date Collected: 08/24/15 15:05**

**Matrix: Water**

**Date Received: 08/25/15 09:50**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			08/31/15 23:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		78 - 125					08/31/15 23:12	1
4-Bromofluorobenzene (Surr)	84		61 - 120					08/31/15 23:12	1
Toluene-d8 (Surr)	90		80 - 120					08/31/15 23:12	1
Dibromofluoromethane (Surr)	86		79 - 120					08/31/15 23:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	4.8	U	4.8	0.042	ug/L		08/26/15 08:57	08/27/15 14:21	1
Acenaphthylene	4.8	U	4.8	0.046	ug/L		08/26/15 08:57	08/27/15 14:21	1
Acetophenone	4.8	U	4.8	0.32	ug/L		08/26/15 08:57	08/27/15 14:21	1
Anthracene	4.8	U	4.8	0.084	ug/L		08/26/15 08:57	08/27/15 14:21	1
Atrazine	2.9	U	2.9	0.32	ug/L		08/26/15 08:57	08/27/15 14:21	1
Benzaldehyde	4.8	U	4.8	0.37	ug/L		08/26/15 08:57	08/27/15 14:21	1
Benzo[a]anthracene	0.95	U	0.95	0.028	ug/L		08/26/15 08:57	08/27/15 14:21	1
Benzo[b]fluoranthene	0.95	U	0.95	0.038	ug/L		08/26/15 08:57	08/27/15 14:21	1
Benzo[k]fluoranthene	0.95	U	0.95	0.043	ug/L		08/26/15 08:57	08/27/15 14:21	1
Benzo[g,h,i]perylene	0.95	U	0.95	0.044	ug/L		08/26/15 08:57	08/27/15 14:21	1
Benzo[a]pyrene	0.95	U	0.95	0.049	ug/L		08/26/15 08:57	08/27/15 14:21	1
Butyl benzyl phthalate	4.8	U	4.8	0.25	ug/L		08/26/15 08:57	08/27/15 14:21	1
1,1'-Biphenyl	4.8	U	4.8	0.12	ug/L		08/26/15 08:57	08/27/15 14:21	1
Bis(2-chloroethoxy)methane	4.8	U	4.8	0.30	ug/L		08/26/15 08:57	08/27/15 14:21	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.095	ug/L		08/26/15 08:57	08/27/15 14:21	1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8	1.6	ug/L		08/26/15 08:57	08/27/15 14:21	1
4-Bromophenyl phenyl ether	4.8	U	4.8	0.21	ug/L		08/26/15 08:57	08/27/15 14:21	1
<b>Caprolactam</b>	<b>0.45</b>	<b>J</b>	9.5	0.19	ug/L		08/26/15 08:57	08/27/15 14:21	1
Carbazole	9.5	U	9.5	0.27	ug/L		08/26/15 08:57	08/27/15 14:21	1
4-Chloroaniline	9.5	U	9.5	0.20	ug/L		08/26/15 08:57	08/27/15 14:21	1
4-Chloro-3-methylphenol	4.8	U	4.8	0.20	ug/L		08/26/15 08:57	08/27/15 14:21	1
2-Chloronaphthalene	4.8	U	4.8	0.095	ug/L		08/26/15 08:57	08/27/15 14:21	1
2-Chlorophenol	4.8	U	4.8	0.28	ug/L		08/26/15 08:57	08/27/15 14:21	1
4-Chlorophenyl phenyl ether	4.8	U	4.8	0.29	ug/L		08/26/15 08:57	08/27/15 14:21	1
Chrysene	0.95	U	0.95	0.048	ug/L		08/26/15 08:57	08/27/15 14:21	1
2-Methylnaphthalene	4.8	U	4.8	0.086	ug/L		08/26/15 08:57	08/27/15 14:21	1
3 & 4 Methylphenol	4.8	U	4.8	0.76	ug/L		08/26/15 08:57	08/27/15 14:21	1
Dibenz(a,h)anthracene	1.9	U	1.9	0.042	ug/L		08/26/15 08:57	08/27/15 14:21	1
Dibenzofuran	3.8	U	3.8	0.019	ug/L		08/26/15 08:57	08/27/15 14:21	1
3,3'-Dichlorobenzidine	0.95	U	0.95	0.35	ug/L		08/26/15 08:57	08/27/15 14:21	1
2,4-Dichlorophenol	9.5	U	9.5	0.18	ug/L		08/26/15 08:57	08/27/15 14:21	1
Diethyl phthalate	4.8	U	4.8	0.57	ug/L		08/26/15 08:57	08/27/15 14:21	1
2,4-Dimethylphenol	4.8	U	4.8	0.24	ug/L		08/26/15 08:57	08/27/15 14:21	1
Dimethyl phthalate	4.8	U	4.8	0.28	ug/L		08/26/15 08:57	08/27/15 14:21	1
4,6-Dinitro-2-methylphenol	19	U	19	2.3	ug/L		08/26/15 08:57	08/27/15 14:21	1
2,4-Dinitrophenol	19	U	19	0.30	ug/L		08/26/15 08:57	08/27/15 14:21	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		08/26/15 08:57	08/27/15 14:21	1
Di-n-butyl phthalate	4.8	U	4.8	1.6	ug/L		08/26/15 08:57	08/27/15 14:21	1
Di-n-octyl phthalate	4.8	U	4.8	0.22	ug/L		08/26/15 08:57	08/27/15 14:21	1
Fluoranthene	0.95	U	0.95	0.042	ug/L		08/26/15 08:57	08/27/15 14:21	1

TestAmerica Canton



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

**Client Sample ID: GW-082415-JL-02**

**Lab Sample ID: 240-54680-2**

**Date Collected: 08/24/15 15:05**

**Matrix: Water**

**Date Received: 08/25/15 09:50**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.8	U	4.8	0.039	ug/L		08/26/15 08:57	08/27/15 14:21	1
Hexachlorobenzene	0.19	U	0.19	0.081	ug/L		08/26/15 08:57	08/27/15 14:21	1
Hexachlorobutadiene	0.95	U	0.95	0.26	ug/L		08/26/15 08:57	08/27/15 14:21	1
Hexachlorocyclopentadiene	4.8	U	4.8	0.23	ug/L		08/26/15 08:57	08/27/15 14:21	1
Hexachloroethane	4.8	U	4.8	0.18	ug/L		08/26/15 08:57	08/27/15 14:21	1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	0.041	ug/L		08/26/15 08:57	08/27/15 14:21	1
Isophorone	4.8	U	4.8	0.26	ug/L		08/26/15 08:57	08/27/15 14:21	1
2-Methylphenol	4.8	U	4.8	0.16	ug/L		08/26/15 08:57	08/27/15 14:21	1
Naphthalene	4.8	U	4.8	0.060	ug/L		08/26/15 08:57	08/27/15 14:21	1
2-Nitroaniline	19	U	19	0.20	ug/L		08/26/15 08:57	08/27/15 14:21	1
3-Nitroaniline	19	U	19	0.27	ug/L		08/26/15 08:57	08/27/15 14:21	1
4-Nitroaniline	19	U	19	0.21	ug/L		08/26/15 08:57	08/27/15 14:21	1
Nitrobenzene	2.9	U	2.9	0.038	ug/L		08/26/15 08:57	08/27/15 14:21	1
2-Nitrophenol	4.8	U	4.8	0.27	ug/L		08/26/15 08:57	08/27/15 14:21	1
4-Nitrophenol	19	U	19	0.28	ug/L		08/26/15 08:57	08/27/15 14:21	1
N-Nitrosodiphenylamine	4.8	U	4.8	0.30	ug/L		08/26/15 08:57	08/27/15 14:21	1
N-Nitrosodi-n-propylamine	4.8	U	4.8	0.23	ug/L		08/26/15 08:57	08/27/15 14:21	1
2,2'-oxybis[1-chloropropane]	4.8	U	4.8	0.38	ug/L		08/26/15 08:57	08/27/15 14:21	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		08/26/15 08:57	08/27/15 14:21	1
Phenanthrene	1.9	U	1.9	0.059	ug/L		08/26/15 08:57	08/27/15 14:21	1
Phenol	4.8	U	4.8	0.57	ug/L		08/26/15 08:57	08/27/15 14:21	1
Pyrene	4.8	U	4.8	0.040	ug/L		08/26/15 08:57	08/27/15 14:21	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		08/26/15 08:57	08/27/15 14:21	1
2,4,6-Trichlorophenol	3.8	U	3.8	0.23	ug/L		08/26/15 08:57	08/27/15 14:21	1
2,6-Dinitrotoluene	4.8	U	4.8	0.76	ug/L		08/26/15 08:57	08/27/15 14:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	54		29 - 110	08/26/15 08:57	08/27/15 14:21	1
2-Fluorophenol (Surr)	31		15 - 110	08/26/15 08:57	08/27/15 14:21	1
2,4,6-Tribromophenol (Surr)	62		21 - 128	08/26/15 08:57	08/27/15 14:21	1
Nitrobenzene-d5 (Surr)	50		31 - 110	08/26/15 08:57	08/27/15 14:21	1
Phenol-d5 (Surr)	17		10 - 110	08/26/15 08:57	08/27/15 14:21	1
Terphenyl-d14 (Surr)	51		31 - 115	08/26/15 08:57	08/27/15 14:21	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/26/15 10:13	08/28/15 15:46	1
<b>Arsenic</b>	<b>0.84</b>	<b>J B</b>	5.0	0.18	ug/L		08/26/15 10:13	08/31/15 19:27	1
<b>Barium</b>	<b>62</b>	<b>J</b>	100	1.1	ug/L		08/26/15 10:13	08/28/15 15:46	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/26/15 10:13	08/28/15 15:46	1
<b>Cadmium</b>	<b>0.091</b>	<b>J B</b>	1.0	0.061	ug/L		08/26/15 10:13	08/28/15 15:46	1
<b>Cobalt</b>	<b>0.15</b>	<b>J B</b>	7.0	0.021	ug/L		08/26/15 10:13	08/28/15 15:46	1
<b>Chromium</b>	<b>5.8</b>	<b>B</b>	5.0	0.20	ug/L		08/26/15 10:13	08/28/15 15:46	1
<b>Copper</b>	<b>0.96</b>	<b>J B</b>	2.0	0.75	ug/L		08/26/15 10:13	08/28/15 15:46	1
<b>Manganese</b>	<b>1.4</b>	<b>J</b>	15	1.1	ug/L		08/26/15 10:13	08/28/15 15:46	1
<b>Nickel</b>	<b>4.4</b>	<b>J</b>	20	0.23	ug/L		08/26/15 10:13	08/28/15 15:46	1
<b>Lead</b>	<b>0.13</b>	<b>J B</b>	3.0	0.11	ug/L		08/26/15 10:13	08/28/15 15:46	1
<b>Selenium</b>	<b>0.50</b>	<b>J</b>	5.0	0.25	ug/L		08/26/15 10:13	08/31/15 19:27	1
Thallium	1.0	U	1.0	0.074	ug/L		08/26/15 10:13	08/28/15 15:46	1
<b>Vanadium</b>	<b>1.3</b>	<b>J B</b>	4.0	0.23	ug/L		08/26/15 10:13	08/28/15 15:46	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

**Client Sample ID: GW-082415-JL-02**

**Lab Sample ID: 240-54680-2**

**Date Collected: 08/24/15 15:05**

**Matrix: Water**

**Date Received: 08/25/15 09:50**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/26/15 10:13	08/28/15 15:46	1
Silver	0.20	U	0.20	0.020	ug/L		08/26/15 10:13	08/28/15 15:46	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/26/15 10:13	08/28/15 15:49	1
<b>Arsenic</b>	<b>0.84</b>	<b>J B</b>	5.0	0.18	ug/L		08/26/15 10:13	08/31/15 19:31	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/26/15 10:13	08/28/15 15:49	1
<b>Cadmium</b>	<b>0.079</b>	<b>J B</b>	1.0	0.061	ug/L		08/26/15 10:13	08/28/15 15:49	1
<b>Cobalt</b>	<b>0.13</b>	<b>J B</b>	7.0	0.021	ug/L		08/26/15 10:13	08/28/15 15:49	1
<b>Chromium</b>	<b>3.4</b>	<b>J B</b>	5.0	0.20	ug/L		08/26/15 10:13	08/28/15 15:49	1
<b>Copper</b>	<b>0.99</b>	<b>J B</b>	2.0	0.75	ug/L		08/26/15 10:13	08/28/15 15:49	1
Manganese	15	U	15	1.1	ug/L		08/26/15 10:13	08/28/15 15:49	1
<b>Nickel</b>	<b>5.5</b>	<b>J</b>	20	0.23	ug/L		08/26/15 10:13	08/28/15 15:49	1
Lead	3.0	U	3.0	0.11	ug/L		08/26/15 10:13	08/28/15 15:49	1
Antimony	2.0	U	2.0	0.16	ug/L		08/26/15 10:13	08/28/15 15:49	1
<b>Selenium</b>	<b>0.51</b>	<b>J</b>	5.0	0.25	ug/L		08/26/15 10:13	08/31/15 19:31	1
Thallium	1.0	U	1.0	0.074	ug/L		08/26/15 10:13	08/28/15 15:49	1
<b>Vanadium</b>	<b>1.5</b>	<b>J B</b>	4.0	0.23	ug/L		08/26/15 10:13	08/28/15 15:49	1
Zinc	20	U	20	7.3	ug/L		08/26/15 10:13	08/28/15 15:49	1
<b>Barium</b>	<b>62</b>	<b>J</b>	100	1.1	ug/L		08/26/15 10:13	08/28/15 15:49	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/26/15 14:00	08/27/15 15:09	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/26/15 14:00	08/27/15 15:00	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/25/15 12:46	1
<b>Cr (III)</b>	<b>0.0058</b>	<b>J</b>	0.020	0.0050	mg/L			09/01/15 07:34	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 240-54680-3**

**Date Collected: 08/24/15 00:00**

**Matrix: Water**

**Date Received: 08/25/15 09:50**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>11</b>		10	0.94	ug/L			08/31/15 23:35	1
Benzene	1.0	U	1.0	0.35	ug/L			08/31/15 23:35	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			08/31/15 23:35	1
Bromoform	1.0	U	1.0	0.56	ug/L			08/31/15 23:35	1
Bromomethane	1.0	U	1.0	0.44	ug/L			08/31/15 23:35	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			08/31/15 23:35	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			08/31/15 23:35	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			08/31/15 23:35	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 23:35	1
Chloroethane	1.0	U	1.0	0.32	ug/L			08/31/15 23:35	1
Chloroform	1.0	U	1.0	0.25	ug/L			08/31/15 23:35	1
Chloromethane	1.0	U	1.0	0.44	ug/L			08/31/15 23:35	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/31/15 23:35	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			08/31/15 23:35	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			08/31/15 23:35	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			08/31/15 23:35	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			08/31/15 23:35	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			08/31/15 23:35	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			08/31/15 23:35	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/31/15 23:35	1
2-Hexanone	10	U	10	0.48	ug/L			08/31/15 23:35	1
<b>Methylene Chloride</b>	<b>1.2</b>		1.0	0.33	ug/L			08/31/15 23:35	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			08/31/15 23:35	1
Styrene	1.0	U	1.0	0.45	ug/L			08/31/15 23:35	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			08/31/15 23:35	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			08/31/15 23:35	1
Toluene	1.0	U	1.0	0.23	ug/L			08/31/15 23:35	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			08/31/15 23:35	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			08/31/15 23:35	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			08/31/15 23:35	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			08/31/15 23:35	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			08/31/15 23:35	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			08/31/15 23:35	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			08/31/15 23:35	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			08/31/15 23:35	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			08/31/15 23:35	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			08/31/15 23:35	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			08/31/15 23:35	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/31/15 23:35	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			08/31/15 23:35	1
Methyl acetate	10	U	10	2.3	ug/L			08/31/15 23:35	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/31/15 23:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			08/31/15 23:35	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			08/31/15 23:35	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 23:35	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			08/31/15 23:35	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			08/31/15 23:35	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			08/31/15 23:35	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			08/31/15 23:35	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 240-54680-3**

**Date Collected: 08/24/15 00:00**

**Matrix: Water**

**Date Received: 08/25/15 09:50**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			08/31/15 23:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		78 - 125					08/31/15 23:35	1
4-Bromofluorobenzene (Surr)	84		61 - 120					08/31/15 23:35	1
Toluene-d8 (Surr)	91		80 - 120					08/31/15 23:35	1
Dibromofluoromethane (Surr)	87		79 - 120					08/31/15 23:35	1



# Surrogate Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	12DCE (78-125)	BFB (61-120)	TOL (80-120)	DBFM (79-120)
240-54680-1	GW-082415-JL-01	102	89	98	89
240-54680-2	GW-082415-JL-02	104	84	90	86
240-54680-3	TRIP BLANK	104	84	91	87
LCS 240-195640/4	Lab Control Sample	92	93	94	83
MB 240-195640/6	Method Blank	103	87	95	87

#### Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

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

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	FBP (29-110)	2FP (15-110)	TBP (21-128)	NBZ (31-110)	PHL (10-110)	TPH (31-115)
240-54680-1	GW-082415-JL-01	64	32	89	61	18	60
240-54680-2	GW-082415-JL-02	54	31	62	50	17	51
LCS 240-194856/13-A	Lab Control Sample	82	79	97	84	67	93
MB 240-194856/12-A	Method Blank	78	72	87	76	57	88

#### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

TBP = 2,4,6-Tribromophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

TPH = Terphenyl-d14 (Surr)

# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 240-195640/6**  
**Matrix: Water**  
**Analysis Batch: 195640**

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	10	U	10	0.94	ug/L			08/31/15 17:30	1
Benzene	1.0	U	1.0	0.35	ug/L			08/31/15 17:30	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			08/31/15 17:30	1
Bromoform	1.0	U	1.0	0.56	ug/L			08/31/15 17:30	1
Bromomethane	1.0	U	1.0	0.44	ug/L			08/31/15 17:30	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			08/31/15 17:30	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			08/31/15 17:30	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			08/31/15 17:30	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 17:30	1
Chloroethane	1.0	U	1.0	0.32	ug/L			08/31/15 17:30	1
Chloroform	1.0	U	1.0	0.25	ug/L			08/31/15 17:30	1
Chloromethane	1.0	U	1.0	0.44	ug/L			08/31/15 17:30	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/31/15 17:30	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			08/31/15 17:30	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			08/31/15 17:30	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			08/31/15 17:30	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			08/31/15 17:30	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			08/31/15 17:30	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			08/31/15 17:30	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/31/15 17:30	1
2-Hexanone	10	U	10	0.48	ug/L			08/31/15 17:30	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			08/31/15 17:30	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			08/31/15 17:30	1
Styrene	1.0	U	1.0	0.45	ug/L			08/31/15 17:30	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			08/31/15 17:30	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			08/31/15 17:30	1
Toluene	1.0	U	1.0	0.23	ug/L			08/31/15 17:30	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			08/31/15 17:30	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			08/31/15 17:30	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			08/31/15 17:30	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			08/31/15 17:30	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			08/31/15 17:30	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			08/31/15 17:30	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			08/31/15 17:30	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			08/31/15 17:30	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			08/31/15 17:30	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			08/31/15 17:30	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			08/31/15 17:30	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/31/15 17:30	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			08/31/15 17:30	1
Methyl acetate	10	U	10	2.3	ug/L			08/31/15 17:30	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/31/15 17:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			08/31/15 17:30	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			08/31/15 17:30	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 17:30	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			08/31/15 17:30	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			08/31/15 17:30	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			08/31/15 17:30	1

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# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 240-195640/6**  
**Matrix: Water**  
**Analysis Batch: 195640**

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			08/31/15 17:30	1
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			08/31/15 17:30	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		78 - 125					08/31/15 17:30	1
4-Bromofluorobenzene (Surr)	87		61 - 120					08/31/15 17:30	1
Toluene-d8 (Surr)	95		80 - 120					08/31/15 17:30	1
Dibromofluoromethane (Surr)	87		79 - 120					08/31/15 17:30	1

**Lab Sample ID: LCS 240-195640/4**  
**Matrix: Water**  
**Analysis Batch: 195640**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Acetone	20.0	22.1		ug/L		110	34 - 148
Benzene	10.0	10.7		ug/L		107	80 - 120
Dichlorobromomethane	10.0	10.8		ug/L		108	80 - 120
Bromoform	10.0	11.5		ug/L		115	56 - 122
Bromomethane	10.0	6.23		ug/L		62	38 - 132
2-Butanone (MEK)	20.0	20.2		ug/L		101	56 - 138
Carbon disulfide	10.0	8.59		ug/L		86	65 - 144
Carbon tetrachloride	10.0	10.8		ug/L		108	77 - 131
Chlorobenzene	10.0	10.2		ug/L		102	80 - 120
Chloroethane	10.0	6.27		ug/L		63	36 - 126
Chloroform	10.0	10.2		ug/L		102	80 - 120
Chloromethane	10.0	9.43		ug/L		94	48 - 133
1,1-Dichloroethane	10.0	10.3		ug/L		103	79 - 125
1,2-Dichloroethane	10.0	10.9		ug/L		109	80 - 120
1,1-Dichloroethene	10.0	9.70		ug/L		97	76 - 124
1,2-Dichloropropane	10.0	9.99		ug/L		100	78 - 124
1,2,4-Trimethylbenzene	10.0	10.4		ug/L		104	76 - 120
cis-1,3-Dichloropropene	10.0	11.7		ug/L		117	74 - 126
trans-1,3-Dichloropropene	10.0	12.6		ug/L		126	75 - 131
Ethylbenzene	10.0	10.4		ug/L		104	80 - 120
2-Hexanone	20.0	21.7		ug/L		108	55 - 141
Methylene Chloride	10.0	9.70		ug/L		97	77 - 129
4-Methyl-2-pentanone (MIBK)	20.0	22.2		ug/L		111	64 - 135
Styrene	10.0	10.1		ug/L		101	76 - 122
1,1,2,2-Tetrachloroethane	10.0	10.8		ug/L		108	71 - 123
Tetrachloroethene	10.0	9.98		ug/L		100	78 - 121
Toluene	10.0	10.8		ug/L		108	80 - 120
Trichloroethene	10.0	10.4		ug/L		104	80 - 121
1,3,5-Trimethylbenzene	10.0	10.6		ug/L		106	77 - 120
Vinyl chloride	10.0	9.18		ug/L		92	52 - 121
Xylenes, Total	20.0	21.2		ug/L		106	80 - 120
1,1,1-Trichloroethane	10.0	9.61		ug/L		96	77 - 123
1,1,2-Trichloroethane	10.0	10.3		ug/L		103	80 - 120
Cyclohexane	10.0	10.1		ug/L		101	60 - 140

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# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 240-195640/4**  
**Matrix: Water**  
**Analysis Batch: 195640**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	10.0	10.5		ug/L		105	50 - 132
Ethylene Dibromide	10.0	10.3		ug/L		103	80 - 120
Dichlorodifluoromethane	10.0	7.48		ug/L		75	23 - 136
cis-1,2-Dichloroethene	10.0	9.75		ug/L		97	79 - 120
trans-1,2-Dichloroethene	10.0	10.2		ug/L		102	80 - 124
Isopropylbenzene	10.0	10.5		ug/L		105	77 - 120
Methyl acetate	50.0	52.0		ug/L		104	67 - 131
Methyl tert-butyl ether	10.0	10.2		ug/L		102	69 - 121
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.04		ug/L		90	67 - 138
1,2,4-Trichlorobenzene	10.0	7.68		ug/L		77	61 - 120
1,2-Dichlorobenzene	10.0	9.76		ug/L		98	79 - 120
1,3-Dichlorobenzene	10.0	9.71		ug/L		97	79 - 120
1,4-Dichlorobenzene	10.0	9.81		ug/L		98	79 - 120
Trichlorofluoromethane	10.0	8.52		ug/L		85	61 - 133
Methylcyclohexane	10.0	10.8		ug/L		108	61 - 134
m-Xylene & p-Xylene	10.0	10.7		ug/L		107	80 - 120
o-Xylene	10.0	10.5		ug/L		105	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		78 - 125
4-Bromofluorobenzene (Surr)	93		61 - 120
Toluene-d8 (Surr)	94		80 - 120
Dibromofluoromethane (Surr)	83		79 - 120

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

**Lab Sample ID: MB 240-194856/12-A**  
**Matrix: Water**  
**Analysis Batch: 194863**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 194856**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	5.0	U	5.0	0.044	ug/L		08/26/15 08:57	08/26/15 14:38	1
Acenaphthylene	5.0	U	5.0	0.048	ug/L		08/26/15 08:57	08/26/15 14:38	1
Acetophenone	5.0	U	5.0	0.34	ug/L		08/26/15 08:57	08/26/15 14:38	1
Anthracene	5.0	U	5.0	0.088	ug/L		08/26/15 08:57	08/26/15 14:38	1
Atrazine	3.0	U	3.0	0.34	ug/L		08/26/15 08:57	08/26/15 14:38	1
Benzaldehyde	5.0	U	5.0	0.39	ug/L		08/26/15 08:57	08/26/15 14:38	1
Benzo[a]anthracene	1.0	U	1.0	0.030	ug/L		08/26/15 08:57	08/26/15 14:38	1
Benzo[b]fluoranthene	1.0	U	1.0	0.039	ug/L		08/26/15 08:57	08/26/15 14:38	1
Benzo[k]fluoranthene	1.0	U	1.0	0.045	ug/L		08/26/15 08:57	08/26/15 14:38	1
Benzo[g,h,i]perylene	1.0	U	1.0	0.046	ug/L		08/26/15 08:57	08/26/15 14:38	1
Benzo[a]pyrene	1.0	U	1.0	0.051	ug/L		08/26/15 08:57	08/26/15 14:38	1
Butyl benzyl phthalate	5.0	U	5.0	0.26	ug/L		08/26/15 08:57	08/26/15 14:38	1
1,1'-Biphenyl	5.0	U	5.0	0.13	ug/L		08/26/15 08:57	08/26/15 14:38	1
Bis(2-chloroethoxy)methane	5.0	U	5.0	0.32	ug/L		08/26/15 08:57	08/26/15 14:38	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.10	ug/L		08/26/15 08:57	08/26/15 14:38	1
Bis(2-ethylhexyl) phthalate	5.0	U	5.0	1.7	ug/L		08/26/15 08:57	08/26/15 14:38	1

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# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

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

**Lab Sample ID: MB 240-194856/12-A**  
**Matrix: Water**  
**Analysis Batch: 194863**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 194856**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
4-Bromophenyl phenyl ether	5.0	U	5.0	0.22	ug/L		08/26/15 08:57	08/26/15 14:38	1
Caprolactam	10	U	10	0.20	ug/L		08/26/15 08:57	08/26/15 14:38	1
Carbazole	10	U	10	0.28	ug/L		08/26/15 08:57	08/26/15 14:38	1
4-Chloroaniline	10	U	10	0.21	ug/L		08/26/15 08:57	08/26/15 14:38	1
4-Chloro-3-methylphenol	5.0	U	5.0	0.21	ug/L		08/26/15 08:57	08/26/15 14:38	1
2-Chloronaphthalene	5.0	U	5.0	0.10	ug/L		08/26/15 08:57	08/26/15 14:38	1
2-Chlorophenol	5.0	U	5.0	0.29	ug/L		08/26/15 08:57	08/26/15 14:38	1
4-Chlorophenyl phenyl ether	5.0	U	5.0	0.30	ug/L		08/26/15 08:57	08/26/15 14:38	1
Chrysene	1.0	U	1.0	0.050	ug/L		08/26/15 08:57	08/26/15 14:38	1
2-Methylnaphthalene	5.0	U	5.0	0.090	ug/L		08/26/15 08:57	08/26/15 14:38	1
3 & 4 Methylphenol	5.0	U	5.0	0.80	ug/L		08/26/15 08:57	08/26/15 14:38	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.045	ug/L		08/26/15 08:57	08/26/15 14:38	1
Dibenzofuran	4.0	U	4.0	0.020	ug/L		08/26/15 08:57	08/26/15 14:38	1
3,3'-Dichlorobenzidine	1.0	U	1.0	0.37	ug/L		08/26/15 08:57	08/26/15 14:38	1
2,4-Dichlorophenol	10	U	10	0.19	ug/L		08/26/15 08:57	08/26/15 14:38	1
Diethyl phthalate	5.0	U	5.0	0.60	ug/L		08/26/15 08:57	08/26/15 14:38	1
2,4-Dimethylphenol	5.0	U	5.0	0.25	ug/L		08/26/15 08:57	08/26/15 14:38	1
Dimethyl phthalate	5.0	U	5.0	0.29	ug/L		08/26/15 08:57	08/26/15 14:38	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		08/26/15 08:57	08/26/15 14:38	1
2,4-Dinitrophenol	20	U	20	0.32	ug/L		08/26/15 08:57	08/26/15 14:38	1
2,4-Dinitrotoluene	5.0	U	5.0	0.25	ug/L		08/26/15 08:57	08/26/15 14:38	1
Di-n-butyl phthalate	5.0	U	5.0	1.7	ug/L		08/26/15 08:57	08/26/15 14:38	1
Di-n-octyl phthalate	5.0	U	5.0	0.23	ug/L		08/26/15 08:57	08/26/15 14:38	1
Fluoranthene	1.0	U	1.0	0.045	ug/L		08/26/15 08:57	08/26/15 14:38	1
Fluorene	5.0	U	5.0	0.041	ug/L		08/26/15 08:57	08/26/15 14:38	1
Hexachlorobenzene	0.20	U	0.20	0.085	ug/L		08/26/15 08:57	08/26/15 14:38	1
Hexachlorobutadiene	1.0	U	1.0	0.27	ug/L		08/26/15 08:57	08/26/15 14:38	1
Hexachlorocyclopentadiene	5.0	U	5.0	0.24	ug/L		08/26/15 08:57	08/26/15 14:38	1
Hexachloroethane	5.0	U	5.0	0.19	ug/L		08/26/15 08:57	08/26/15 14:38	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.043	ug/L		08/26/15 08:57	08/26/15 14:38	1
Isophorone	5.0	U	5.0	0.27	ug/L		08/26/15 08:57	08/26/15 14:38	1
2-Methylphenol	5.0	U	5.0	0.17	ug/L		08/26/15 08:57	08/26/15 14:38	1
Naphthalene	5.0	U	5.0	0.063	ug/L		08/26/15 08:57	08/26/15 14:38	1
2-Nitroaniline	20	U	20	0.21	ug/L		08/26/15 08:57	08/26/15 14:38	1
3-Nitroaniline	20	U	20	0.28	ug/L		08/26/15 08:57	08/26/15 14:38	1
4-Nitroaniline	20	U	20	0.22	ug/L		08/26/15 08:57	08/26/15 14:38	1
Nitrobenzene	3.0	U	3.0	0.040	ug/L		08/26/15 08:57	08/26/15 14:38	1
2-Nitrophenol	5.0	U	5.0	0.28	ug/L		08/26/15 08:57	08/26/15 14:38	1
4-Nitrophenol	20	U	20	0.29	ug/L		08/26/15 08:57	08/26/15 14:38	1
N-Nitrosodiphenylamine	5.0	U	5.0	0.31	ug/L		08/26/15 08:57	08/26/15 14:38	1
N-Nitrosodi-n-propylamine	5.0	U	5.0	0.24	ug/L		08/26/15 08:57	08/26/15 14:38	1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	0.40	ug/L		08/26/15 08:57	08/26/15 14:38	1
Pentachlorophenol	5.0	U	5.0	0.27	ug/L		08/26/15 08:57	08/26/15 14:38	1
Phenanthrene	2.0	U	2.0	0.062	ug/L		08/26/15 08:57	08/26/15 14:38	1
Phenol	5.0	U	5.0	0.60	ug/L		08/26/15 08:57	08/26/15 14:38	1
Pyrene	5.0	U	5.0	0.042	ug/L		08/26/15 08:57	08/26/15 14:38	1
2,4,5-Trichlorophenol	5.0	U	5.0	0.30	ug/L		08/26/15 08:57	08/26/15 14:38	1
2,4,6-Trichlorophenol	4.0	U	4.0	0.24	ug/L		08/26/15 08:57	08/26/15 14:38	1

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

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

**Lab Sample ID: MB 240-194856/12-A**  
**Matrix: Water**  
**Analysis Batch: 194863**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 194856**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dinitrotoluene	5.0	U	5.0	0.80	ug/L		08/26/15 08:57	08/26/15 14:38	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	78		29 - 110				08/26/15 08:57	08/26/15 14:38	1
2-Fluorophenol (Surr)	72		15 - 110				08/26/15 08:57	08/26/15 14:38	1
2,4,6-Tribromophenol (Surr)	87		21 - 128				08/26/15 08:57	08/26/15 14:38	1
Nitrobenzene-d5 (Surr)	76		31 - 110				08/26/15 08:57	08/26/15 14:38	1
Phenol-d5 (Surr)	57		10 - 110				08/26/15 08:57	08/26/15 14:38	1
Terphenyl-d14 (Surr)	88		31 - 115				08/26/15 08:57	08/26/15 14:38	1

**Lab Sample ID: LCS 240-194856/13-A**  
**Matrix: Water**  
**Analysis Batch: 194863**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 194856**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	20.0	17.0		ug/L		85	55 - 120
Acenaphthylene	20.0	17.3		ug/L		87	55 - 120
Acetophenone	20.0	17.8		ug/L		89	50 - 120
Anthracene	20.0	17.3		ug/L		86	56 - 120
Atrazine	40.0	35.0		ug/L		87	65 - 161
Benzaldehyde	40.0	36.1		ug/L		90	40 - 122
Benzo[a]anthracene	20.0	17.4		ug/L		87	46 - 120
Benzo[b]fluoranthene	20.0	18.2		ug/L		91	24 - 120
Benzo[k]fluoranthene	20.0	16.8		ug/L		84	30 - 120
Benzo[g,h,i]perylene	20.0	16.1		ug/L		80	24 - 126
Benzo[a]pyrene	20.0	18.0		ug/L		90	24 - 120
Butyl benzyl phthalate	20.0	18.1		ug/L		90	51 - 120
1,1'-Biphenyl	20.0	16.8		ug/L		84	52 - 120
Bis(2-chloroethoxy)methane	20.0	17.1		ug/L		86	48 - 120
Bis(2-chloroethyl)ether	20.0	17.8		ug/L		89	43 - 120
Bis(2-ethylhexyl) phthalate	20.0	18.3		ug/L		91	21 - 125
4-Bromophenyl phenyl ether	20.0	17.4		ug/L		87	47 - 120
Caprolactam	40.0	15.0		ug/L		38	10 - 120
Carbazole	20.0	17.9		ug/L		89	57 - 120
4-Chloroaniline	20.0	10.3		ug/L		52	15 - 120
4-Chloro-3-methylphenol	20.0	17.8		ug/L		89	45 - 120
2-Chloronaphthalene	20.0	16.6		ug/L		83	47 - 120
2-Chlorophenol	20.0	17.9		ug/L		90	43 - 120
4-Chlorophenyl phenyl ether	20.0	17.5		ug/L		88	47 - 120
Chrysene	20.0	18.1		ug/L		91	49 - 120
2-Methylnaphthalene	20.0	16.7		ug/L		83	52 - 120
3 & 4 Methylphenol	20.0	17.0		ug/L		85	34 - 120
Dibenz(a,h)anthracene	20.0	17.5		ug/L		87	24 - 125
Dibenzofuran	20.0	17.0		ug/L		85	56 - 120
3,3'-Dichlorobenzidine	40.0	32.3		ug/L		81	29 - 120
2,4-Dichlorophenol	20.0	17.3		ug/L		87	46 - 120
Diethyl phthalate	20.0	18.2		ug/L		91	58 - 120
2,4-Dimethylphenol	20.0	16.7		ug/L		84	38 - 120

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

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

**Lab Sample ID: LCS 240-194856/13-A**

**Matrix: Water**

**Analysis Batch: 194863**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 194856**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dimethyl phthalate	20.0	18.0		ug/L		90	59 - 120
4,6-Dinitro-2-methylphenol	40.0	25.0		ug/L		62	33 - 120
2,4-Dinitrophenol	40.0	21.8		ug/L		54	10 - 120
2,4-Dinitrotoluene	20.0	19.7		ug/L		98	52 - 120
Di-n-butyl phthalate	20.0	17.7		ug/L		89	57 - 122
Di-n-octyl phthalate	20.0	18.2		ug/L		91	21 - 122
Fluoranthene	20.0	17.2		ug/L		86	57 - 120
Fluorene	20.0	17.3		ug/L		86	56 - 120
Hexachlorobenzene	20.0	16.7		ug/L		84	52 - 120
Hexachlorobutadiene	20.0	16.1		ug/L		81	38 - 120
Hexachlorocyclopentadiene	20.0	7.20		ug/L		36	4 - 120
Hexachloroethane	20.0	15.4		ug/L		77	42 - 120
Indeno[1,2,3-cd]pyrene	20.0	16.9		ug/L		84	25 - 120
Isophorone	20.0	17.4		ug/L		87	48 - 123
2-Methylphenol	20.0	17.0		ug/L		85	38 - 120
Naphthalene	20.0	16.4		ug/L		82	52 - 120
2-Nitroaniline	20.0	18.1	J	ug/L		90	48 - 127
3-Nitroaniline	20.0	19.4	J	ug/L		97	52 - 120
4-Nitroaniline	20.0	20.2		ug/L		101	48 - 120
Nitrobenzene	20.0	17.1		ug/L		85	41 - 120
2-Nitrophenol	20.0	19.9		ug/L		99	42 - 120
4-Nitrophenol	40.0	29.3		ug/L		73	16 - 120
N-Nitrosodiphenylamine	40.0	33.6		ug/L		84	51 - 120
N-Nitrosodi-n-propylamine	20.0	17.5		ug/L		88	48 - 123
2,2'-oxybis[1-chloropropane]	20.0	17.0		ug/L		85	42 - 120
Pentachlorophenol	40.0	35.4		ug/L		89	14 - 120
Phenanthrene	20.0	17.0		ug/L		85	57 - 120
Phenol	20.0	13.6		ug/L		68	16 - 120
Pyrene	20.0	17.6		ug/L		88	50 - 120
2,4,5-Trichlorophenol	20.0	17.2		ug/L		86	47 - 120
2,4,6-Trichlorophenol	20.0	18.5		ug/L		92	43 - 120
2,6-Dinitrotoluene	20.0	18.8		ug/L		94	52 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	82		29 - 110
2-Fluorophenol (Surr)	79		15 - 110
2,4,6-Tribromophenol (Surr)	97		21 - 128
Nitrobenzene-d5 (Surr)	84		31 - 110
Phenol-d5 (Surr)	67		10 - 110
Terphenyl-d14 (Surr)	93		31 - 115

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 240-194889/1-A**  
**Matrix: Water**  
**Analysis Batch: 195541**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 194889**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	1.0	U	1.0	0.053	ug/L		08/26/15 10:13	08/28/15 14:45	1
Cadmium	0.0790	J	1.0	0.061	ug/L		08/26/15 10:13	08/28/15 14:45	1
Cobalt	0.0400	J	7.0	0.021	ug/L		08/26/15 10:13	08/28/15 14:45	1
Chromium	2.52	J	5.0	0.20	ug/L		08/26/15 10:13	08/28/15 14:45	1
Copper	0.967	J	2.0	0.75	ug/L		08/26/15 10:13	08/28/15 14:45	1
Antimony	2.0	U	2.0	0.16	ug/L		08/26/15 10:13	08/28/15 14:45	1
Manganese	15	U	15	1.1	ug/L		08/26/15 10:13	08/28/15 14:45	1
Nickel	20	U	20	0.23	ug/L		08/26/15 10:13	08/28/15 14:45	1
Lead	0.227	J	3.0	0.11	ug/L		08/26/15 10:13	08/28/15 14:45	1
Barium	100	U	100	1.1	ug/L		08/26/15 10:13	08/28/15 14:45	1
Thallium	1.0	U	1.0	0.074	ug/L		08/26/15 10:13	08/28/15 14:45	1
Vanadium	0.650	J	4.0	0.23	ug/L		08/26/15 10:13	08/28/15 14:45	1
Zinc	20	U	20	7.3	ug/L		08/26/15 10:13	08/28/15 14:45	1
Silver	0.20	U	0.20	0.020	ug/L		08/26/15 10:13	08/28/15 14:45	1

**Lab Sample ID: MB 240-194889/1-A**  
**Matrix: Water**  
**Analysis Batch: 195709**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 194889**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.215	J	5.0	0.18	ug/L		08/26/15 10:13	08/31/15 18:19	1
Selenium	5.0	U	5.0	0.25	ug/L		08/26/15 10:13	08/31/15 18:19	1

**Lab Sample ID: LCS 240-194889/27-A**  
**Matrix: Water**  
**Analysis Batch: 195541**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 194889**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Beryllium	1000	986		ug/L		99	80 - 120
Cadmium	1000	1060		ug/L		106	80 - 120
Cobalt	1000	1010		ug/L		101	80 - 120
Chromium	1000	980		ug/L		98	80 - 120
Copper	1000	1080		ug/L		108	80 - 120
Antimony	100	99.6		ug/L		100	80 - 120
Manganese	1000	1000		ug/L		100	80 - 120
Nickel	1000	1080		ug/L		108	80 - 120
Lead	1000	1060		ug/L		106	80 - 120
Barium	1000	1060		ug/L		106	80 - 120
Thallium	250	255		ug/L		102	80 - 120
Vanadium	1000	925		ug/L		93	80 - 120
Zinc	1000	1130		ug/L		113	80 - 120
Silver	100	101		ug/L		101	80 - 120

**Lab Sample ID: LCS 240-194889/27-A**  
**Matrix: Water**  
**Analysis Batch: 195709**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 194889**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	1000	976		ug/L		98	80 - 120

TestAmerica Canton



# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

## Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-194889/27-A  
Matrix: Water  
Analysis Batch: 195709

Client Sample ID: Lab Control Sample  
Prep Type: Total Recoverable  
Prep Batch: 194889

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	1000	957		ug/L		96	80 - 120

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-194895/1-A  
Matrix: Water  
Analysis Batch: 195263

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 194895

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/26/15 14:00	08/27/15 14:49	1

Lab Sample ID: LCS 240-194895/2-A  
Matrix: Water  
Analysis Batch: 195263

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 194895

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	5.00	5.10		ug/L		102	80 - 120

## Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 240-194736/3  
Matrix: Water  
Analysis Batch: 194736

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/25/15 12:45	1

Lab Sample ID: LCS 240-194736/4  
Matrix: Water  
Analysis Batch: 194736

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.250	0.238		mg/L		95	80 - 118

Lab Sample ID: 240-54680-2 MS  
Matrix: Water  
Analysis Batch: 194736

Client Sample ID: GW-082415-JL-02  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.020	U	0.250	0.218		mg/L		87	41 - 136

Lab Sample ID: 240-54680-2 MSD  
Matrix: Water  
Analysis Batch: 194736

Client Sample ID: GW-082415-JL-02  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	0.020	U	0.250	0.205		mg/L		82	41 - 136	6	20

TestAmerica Canton

# QC Association Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

## GC/MS VOA

### Analysis Batch: 195640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54680-1	GW-082415-JL-01	Total/NA	Water	8260B	
240-54680-2	GW-082415-JL-02	Total/NA	Water	8260B	
240-54680-3	TRIP BLANK	Total/NA	Water	8260B	
LCS 240-195640/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-195640/6	Method Blank	Total/NA	Water	8260B	

## GC/MS Semi VOA

### Prep Batch: 194856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54680-1	GW-082415-JL-01	Total/NA	Water	3510C	
240-54680-2	GW-082415-JL-02	Total/NA	Water	3510C	
LCS 240-194856/13-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-194856/12-A	Method Blank	Total/NA	Water	3510C	

### Analysis Batch: 194863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-194856/13-A	Lab Control Sample	Total/NA	Water	8270C	194856
MB 240-194856/12-A	Method Blank	Total/NA	Water	8270C	194856

### Analysis Batch: 195064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54680-1	GW-082415-JL-01	Total/NA	Water	8270C	194856
240-54680-2	GW-082415-JL-02	Total/NA	Water	8270C	194856

## Metals

### Prep Batch: 194889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54680-1	GW-082415-JL-01	Dissolved	Water	3005A	
240-54680-1	GW-082415-JL-01	Total Recoverable	Water	3005A	
240-54680-2	GW-082415-JL-02	Dissolved	Water	3005A	
240-54680-2	GW-082415-JL-02	Total Recoverable	Water	3005A	
LCS 240-194889/27-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 240-194889/1-A	Method Blank	Total Recoverable	Water	3005A	

### Prep Batch: 194895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54680-1	GW-082415-JL-01	Dissolved	Water	7470A	
240-54680-1	GW-082415-JL-01	Total/NA	Water	7470A	
240-54680-2	GW-082415-JL-02	Dissolved	Water	7470A	
240-54680-2	GW-082415-JL-02	Total/NA	Water	7470A	
LCS 240-194895/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 240-194895/1-A	Method Blank	Total/NA	Water	7470A	

### Analysis Batch: 195263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54680-1	GW-082415-JL-01	Dissolved	Water	7470A	194895
240-54680-1	GW-082415-JL-01	Total/NA	Water	7470A	194895
240-54680-2	GW-082415-JL-02	Dissolved	Water	7470A	194895

TestAmerica Canton

# QC Association Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

## Metals (Continued)

### Analysis Batch: 195263 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54680-2	GW-082415-JL-02	Total/NA	Water	7470A	194895
LCS 240-194895/2-A	Lab Control Sample	Total/NA	Water	7470A	194895
MB 240-194895/1-A	Method Blank	Total/NA	Water	7470A	194895

### Analysis Batch: 195541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54680-1	GW-082415-JL-01	Dissolved	Water	6020	194889
240-54680-1	GW-082415-JL-01	Total Recoverable	Water	6020	194889
240-54680-2	GW-082415-JL-02	Dissolved	Water	6020	194889
240-54680-2	GW-082415-JL-02	Total Recoverable	Water	6020	194889
LCS 240-194889/27-A	Lab Control Sample	Total Recoverable	Water	6020	194889
MB 240-194889/1-A	Method Blank	Total Recoverable	Water	6020	194889

### Analysis Batch: 195709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54680-1	GW-082415-JL-01	Dissolved	Water	6020	194889
240-54680-1	GW-082415-JL-01	Total Recoverable	Water	6020	194889
240-54680-2	GW-082415-JL-02	Dissolved	Water	6020	194889
240-54680-2	GW-082415-JL-02	Total Recoverable	Water	6020	194889
LCS 240-194889/27-A	Lab Control Sample	Total Recoverable	Water	6020	194889
MB 240-194889/1-A	Method Blank	Total Recoverable	Water	6020	194889

## General Chemistry

### Analysis Batch: 194736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54680-1	GW-082415-JL-01	Total/NA	Water	7196A	
240-54680-2	GW-082415-JL-02	Total/NA	Water	7196A	
240-54680-2 MS	GW-082415-JL-02	Total/NA	Water	7196A	
240-54680-2 MSD	GW-082415-JL-02	Total/NA	Water	7196A	
LCS 240-194736/4	Lab Control Sample	Total/NA	Water	7196A	
MB 240-194736/3	Method Blank	Total/NA	Water	7196A	

### Analysis Batch: 195697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54680-1	GW-082415-JL-01	Total/NA	Water	7196A	
240-54680-2	GW-082415-JL-02	Total/NA	Water	7196A	

# Lab Chronicle

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

**Client Sample ID: GW-082415-JL-01**

**Lab Sample ID: 240-54680-1**

**Date Collected: 08/24/15 15:00**

**Matrix: Water**

**Date Received: 08/25/15 09:50**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195640	08/31/15 22:50	LRW	TAL CAN
Total/NA	Prep	3510C			194856	08/26/15 08:57	JDR	TAL CAN
Total/NA	Analysis	8270C		1	195064	08/27/15 13:57	JMG	TAL CAN
Dissolved	Prep	3005A			194889	08/26/15 10:13	WKD	TAL CAN
Dissolved	Analysis	6020		1	195541	08/28/15 15:42	AS1	TAL CAN
Dissolved	Prep	3005A			194889	08/26/15 10:13	WKD	TAL CAN
Dissolved	Analysis	6020		1	195709	08/31/15 19:16	AS1	TAL CAN
Total Recoverable	Prep	3005A			194889	08/26/15 10:13	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195541	08/28/15 15:38	AS1	TAL CAN
Total Recoverable	Prep	3005A			194889	08/26/15 10:13	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195709	08/31/15 19:12	AS1	TAL CAN
Dissolved	Prep	7470A			194895	08/26/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195263	08/27/15 15:15	AMM2	TAL CAN
Total/NA	Prep	7470A			194895	08/26/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195263	08/27/15 15:28	AMM2	TAL CAN
Total/NA	Analysis	7196A		1	194736	08/25/15 12:47	GNR	TAL CAN
Total/NA	Analysis	7196A		1	195697	09/01/15 07:34	KLC	TAL CAN

**Client Sample ID: GW-082415-JL-02**

**Lab Sample ID: 240-54680-2**

**Date Collected: 08/24/15 15:05**

**Matrix: Water**

**Date Received: 08/25/15 09:50**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195640	08/31/15 23:12	LRW	TAL CAN
Total/NA	Prep	3510C			194856	08/26/15 08:57	JDR	TAL CAN
Total/NA	Analysis	8270C		1	195064	08/27/15 14:21	JMG	TAL CAN
Dissolved	Prep	3005A			194889	08/26/15 10:13	WKD	TAL CAN
Dissolved	Analysis	6020		1	195541	08/28/15 15:49	AS1	TAL CAN
Dissolved	Prep	3005A			194889	08/26/15 10:13	WKD	TAL CAN
Dissolved	Analysis	6020		1	195709	08/31/15 19:31	AS1	TAL CAN
Total Recoverable	Prep	3005A			194889	08/26/15 10:13	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195541	08/28/15 15:46	AS1	TAL CAN
Total Recoverable	Prep	3005A			194889	08/26/15 10:13	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195709	08/31/15 19:27	AS1	TAL CAN
Dissolved	Prep	7470A			194895	08/26/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195263	08/27/15 15:00	AMM2	TAL CAN
Total/NA	Prep	7470A			194895	08/26/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195263	08/27/15 15:09	AMM2	TAL CAN
Total/NA	Analysis	7196A		1	194736	08/25/15 12:46	GNR	TAL CAN
Total/NA	Analysis	7196A		1	195697	09/01/15 07:34	KLC	TAL CAN

TestAmerica Canton

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 240-54680-3**

**Date Collected: 08/24/15 00:00**

**Matrix: Water**

**Date Received: 08/25/15 09:50**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195640	08/31/15 23:35	LRW	TAL CAN

**Laboratory References:**

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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# Certification Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54680-1

## Laboratory: TestAmerica Canton

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999518190	08-31-15 *

The following analytes are included in this report, but are not certified under this certification:

Analysis Method	Prep Method	Matrix	Analyte
6020	3005A	Water	Lead

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
7196A		Water	Cr (III)
7196A		Water	Cr (VI)
8260B		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
8260B		Water	Cyclohexane
8260B		Water	Methyl acetate
8260B		Water	Methylcyclohexane
8270C	3510C	Water	4-Nitroaniline
8270C	3510C	Water	Atrazine
8270C	3510C	Water	Benzaldehyde
8270C	3510C	Water	Caprolactam

\* Certification renewal pending - certification considered valid.

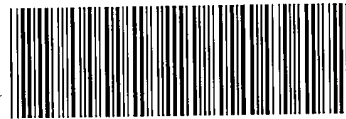


TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

**CHAIN OF CUSTODY  
AND  
RECEIVING DOCUMENTS**



240-54680 Chain of Custody

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1.81028

**CONESTOGA-ROVERS & ASSOCIATES**  
8615 W. Bryn Mawr Avenue  
Chicago, Illinois 60631  
(773)380-9933 phone  
(773)380-6421 fax



SHIPPED TO  
(Laboratory Name): **TEST AMERICA - NORTH ANTON**

PROJECT NAME: **GM JAMESVILLE**

REFERENCE NUMBER:  
**58505-01-20402**

**CHAIN-OF-CUSTODY-RECORD**

SAMPLER'S SIGNATURE: *J. Kolodziejczyk* PRINTED NAME: **J. Kolodziejczyk**

- TL 100%
- TL 200%
- TL 300%
- TL 400%
- TL 500%
- TL 600%
- TL 700%
- TL 800%
- TL 900%
- TL 1000%
- TL 1100%
- TL 1200%
- TL 1300%
- TL 1400%
- TL 1500%
- TL 1600%
- TL 1700%
- TL 1800%
- TL 1900%
- TL 2000%
- TL 2100%
- TL 2200%
- TL 2300%
- TL 2400%
- TL 2500%
- TL 2600%
- TL 2700%
- TL 2800%
- TL 2900%
- TL 3000%
- TL 3100%
- TL 3200%
- TL 3300%
- TL 3400%
- TL 3500%
- TL 3600%
- TL 3700%
- TL 3800%
- TL 3900%
- TL 4000%

SEQ. No.	DATE	TIME	SAMPLE IDENTIFICATION No.	SAMPLE MATRIX	NO. OF CONTAINERS	PARAMETERS	REMARKS
1	8/24/15	1500	GN-082415-JL-01	WATER	8		
2	8/24/15	1505	GN-082415-JL-02	WATER	8		
(24 Hour HOLD TIME ON CHROMIUM SAMPLES)							

TOTAL NUMBER OF CONTAINERS: **16**

RELINQUISHED BY: <i>J. Kolodziejczyk</i>	DATE: 8/24/15	RECEIVED BY: <i>Alex Culev</i>	DATE: 8/25/15
RELINQUISHED BY:	TIME: 1630	RECEIVED BY:	TIME: 9510
RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
	TIME:		TIME:
	DATE:		DATE:
	TIME:		TIME:

METHOD OF SHIPMENT: **Fed Ex** AIR BILL No. **80851559 0538**

White - Fully Executed Copy  
 Yellow - Receiving Laboratory Copy  
 Pink - Shipper Copy  
 Goldenrod - Sampler Copy

SAMPLE TEAM:  
*J. Kolodziejczyk*  
*J. Lutzwick*

RECEIVED FOR LABORATORY BY:  
 DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

**6872**



Client Corn Esteva-Rovers & Associates Site Name \_\_\_\_\_ Cooler unpacked by: Alex Geloni  
 Cooler Received on 8/25/15 Opened on 8/25/15  
 FedEx: 1<sup>st</sup> Grd  Exp  UPS  FAS  Stetson  Client Drop Off  TestAmerica Courier  Other \_\_\_\_\_

Receipt After-hours: Drop-off Date/Time \_\_\_\_\_ Storage Location \_\_\_\_\_

TestAmerica Cooler # \_\_\_\_\_ Foam Box  Client Cooler  Box  Other \_\_\_\_\_  
 Packing material used: Bubble Wrap  Foam  Plastic Bag  None  Other \_\_\_\_\_  
 COOLANT: Wet Ice  Blue Ice  Dry Ice  Water  None

1. Cooler temperature upon receipt
  - IR GUN# A (CF +1.0 °C) Observed Cooler Temp. 1.8 °C Corrected Cooler Temp. 2.8 °C
  - IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C
  - IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C
  - IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity \_\_\_\_\_ Yes  No 
  - Were custody seals on the outside of the cooler(s) signed & dated? Yes  No
  - Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes  No
3. Shippers' packing slip attached to the cooler(s)?  Yes  No
4. Did custody papers accompany the sample(s)?  Yes  No
5. Were the custody papers relinquished & signed in the appropriate place?  Yes  No
6. Was/were the person(s) who collected the samples clearly identified on the COC?  Yes  No
7. Did all bottles arrive in good condition (Unbroken)?  Yes  No
8. Could all bottle labels be reconciled with the COC?  Yes  No
9. Were correct bottle(s) used for the test(s) indicated?  Yes  No
10. Sufficient quantity received to perform indicated analyses?  Yes  No
11. Were sample(s) at the correct pH upon receipt? Yes  No  NA pH Strip Lot# HC432654
12. Were VOAs on the COC?  Yes  No
13. Were air bubbles >6 mm in any VOA vials? Yes  No  NA
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # B505501V5  Yes  No

Contacted PM Heckler Date 8/25/15 by J. Fenel via Verbal  Voice Mail  Other  email  
 Concerning Trip Blank not on COC

**14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES** Samples processed by: \_\_\_\_\_

Trip blank received not included on COC

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**15. SAMPLE CONDITION**

Sample(s) \_\_\_\_\_ were received after the recommended holding time had expired.  
 Sample(s) \_\_\_\_\_ were received in a broken container.  
 Sample(s) \_\_\_\_\_ were received with bubble >6 mm in diameter. (Notify PM)

**16. SAMPLE PRESERVATION**

Sample(s) \_\_\_\_\_ were further preserved in the laboratory.  
 Time preserved: \_\_\_\_\_ Preservative(s) added/Lot number(s): \_\_\_\_\_

Temperature readings: \_\_\_\_\_

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container pH</u>	<u>Preservative Added (mls)</u>	<u>Lot #</u>
GW-082415-JL-01	240-54680-E-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082415-JL-01	240-54680-F-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082415-JL-02	240-54680-E-2	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082415-JL-02	240-54680-F-2	Plastic 500ml - with Nitric Acid	<2	_____	_____

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# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton  
4101 Shuffel Street NW  
North Canton, OH 44720  
Tel: (330)497-9396

TestAmerica Job ID: 240-54731-1

Client Project/Site: 58505, Janesville WI, SSOW 108011

For:

GHD Services Inc.  
45 Farmington Valley Drive  
Plainville, Connecticut 06062

Attn: Ms. Kathy Shaw



Authorized for release by:  
9/9/2015 3:31:11 PM

Denise Heckler, Project Manager II  
(330)966-9477

[denise.heckler@testamericainc.com](mailto:denise.heckler@testamericainc.com)



### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

### GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
L	A negative instrument reading had an absolute value greater than the reporting limit

### General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Job ID: 240-54731-1**

**Laboratory: TestAmerica Canton**

**Narrative**

## CASE NARRATIVE

**Client: GHD Services Inc.**

**Project: 58505, Janesville WI, SSOW 108011**

**Report Number: 240-54731-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

### **RECEIPT**

The samples were received on 08/26/2015; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 3.0° C, 3.2° C, 3.4° C and 3.6° C.

### **VOLATILE ORGANIC COMPOUNDS (GCMS)**

Samples GW-082515-JL-03 (240-54731-1), GW-082515-JL-04 (240-54731-2), GW-082515-JL-07 (240-54731-3), GW-082515-JL-08 (240-54731-4), GW-082515-JL-09 (240-54731-5), GW-082515-JL-10 (240-54731-6), GW-082515-JL-11 (240-54731-7), GW-082515-JL-12 (240-54731-8) and TRIP BLANK (240-54731-9) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 09/01/2015.

Acetone was detected in method blank MB 240-195748/29 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Methylene Chloride was detected in method blank MB 240-195748/29 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

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

### **SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)**

# Case Narrative

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

## Job ID: 240-54731-1 (Continued)

### Laboratory: TestAmerica Canton (Continued)

Samples GW-082515-JL-03 (240-54731-1), GW-082515-JL-04 (240-54731-2), GW-082515-JL-07 (240-54731-3), GW-082515-JL-08 (240-54731-4), GW-082515-JL-09 (240-54731-5), GW-082515-JL-10 (240-54731-6), GW-082515-JL-11 (240-54731-7) and GW-082515-JL-12 (240-54731-8) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 08/27/2015 and analyzed on 09/06/2015 and 09/08/2015.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with analytical batch 240-195072.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

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

### DISSOLVED METALS (ICPMS)

Samples GW-082515-JL-03 (240-54731-1), GW-082515-JL-04 (240-54731-2), GW-082515-JL-07 (240-54731-3), GW-082515-JL-08 (240-54731-4), GW-082515-JL-09 (240-54731-5), GW-082515-JL-10 (240-54731-6), GW-082515-JL-11 (240-54731-7) and GW-082515-JL-12 (240-54731-8) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 08/27/2015 and analyzed on 08/28/2015.

Some requested practical quantitation limits (PQLs) fall below the laboratory's verified standard quantitation limit. The continuing calibration blanks and method blanks may not support the lower PQL.

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

### TOTAL RECOVERABLE METALS (ICPMS)

Samples GW-082515-JL-03 (240-54731-1), GW-082515-JL-04 (240-54731-2), GW-082515-JL-07 (240-54731-3), GW-082515-JL-08 (240-54731-4), GW-082515-JL-09 (240-54731-5), GW-082515-JL-10 (240-54731-6), GW-082515-JL-11 (240-54731-7) and GW-082515-JL-12 (240-54731-8) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 08/27/2015 and analyzed on 08/28/2015.

Arsenic, Chromium, Lead, Selenium and Vanadium were detected in method blank MB 240-195074/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Some requested practical quantitation limits (PQLs) fall below the laboratory's verified standard quantitation limit. The continuing calibration blanks and method blanks may not support the lower PQL.

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

### HEXAVALENT CHROMIUM

Samples GW-082515-JL-03 (240-54731-1), GW-082515-JL-04 (240-54731-2), GW-082515-JL-07 (240-54731-3), GW-082515-JL-08 (240-54731-4), GW-082515-JL-09 (240-54731-5), GW-082515-JL-10 (240-54731-6), GW-082515-JL-11 (240-54731-7) and GW-082515-JL-12 (240-54731-8) were analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples were analyzed on 08/26/2015.

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

### DISSOLVED MERCURY (CVAA)

Samples GW-082515-JL-03 (240-54731-1), GW-082515-JL-04 (240-54731-2), GW-082515-JL-07 (240-54731-3), GW-082515-JL-08 (240-54731-4), GW-082515-JL-09 (240-54731-5), GW-082515-JL-10 (240-54731-6), GW-082515-JL-11 (240-54731-7) and GW-082515-JL-12 (240-54731-8) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 08/27/2015 and analyzed on 08/28/2015.

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

# Case Narrative

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

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## Job ID: 240-54731-1 (Continued)

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### Laboratory: TestAmerica Canton (Continued)

#### **TOTAL MERCURY**

Samples GW-082515-JL-03 (240-54731-1), GW-082515-JL-04 (240-54731-2), GW-082515-JL-07 (240-54731-3), GW-082515-JL-08 (240-54731-4), GW-082515-JL-09 (240-54731-5), GW-082515-JL-10 (240-54731-6), GW-082515-JL-11 (240-54731-7) and GW-082515-JL-12 (240-54731-8) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 08/27/2015 and analyzed on 08/28/2015.

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

#### **TRIVALENT CHROMIUM**

Samples GW-082515-JL-03 (240-54731-1), GW-082515-JL-04 (240-54731-2), GW-082515-JL-07 (240-54731-3), GW-082515-JL-08 (240-54731-4), GW-082515-JL-09 (240-54731-5), GW-082515-JL-10 (240-54731-6), GW-082515-JL-11 (240-54731-7) and GW-082515-JL-12 (240-54731-8) were analyzed for trivalent chromium in accordance with EPA SW-846 Method 7196A\_CR3. The samples were analyzed on 09/01/2015.

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



# Method Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
6020	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
7196A	Chromium, Hexavalent	SW846	TAL CAN
7196A	Chromium, Trivalent (Colorimetric)	SW846	TAL CAN

**Protocol References:**

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

**Laboratory References:**

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396



# Sample Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-54731-1	GW-082515-JL-03	Water	08/25/15 10:40	08/26/15 09:30
240-54731-2	GW-082515-JL-04	Water	08/25/15 10:45	08/26/15 09:30
240-54731-3	GW-082515-JL-07	Water	08/25/15 13:55	08/26/15 09:30
240-54731-4	GW-082515-JL-08	Water	08/25/15 14:05	08/26/15 09:30
240-54731-5	GW-082515-JL-09	Water	08/25/15 15:00	08/26/15 09:30
240-54731-6	GW-082515-JL-10	Water	08/25/15 15:15	08/26/15 09:30
240-54731-7	GW-082515-JL-11	Water	08/25/15 15:15	08/26/15 09:30
240-54731-8	GW-082515-JL-12	Water	08/25/15 16:15	08/26/15 09:30
240-54731-9	TRIP BLANK	Water	08/25/15 00:00	08/26/15 09:30

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# Detection Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-03**

**Lab Sample ID: 240-54731-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.38	J	2.0	0.16	ug/L	1		6020	Total
Arsenic	0.93	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	76	J	100	1.1	ug/L	1		6020	Total Recoverable
Cobalt	0.69	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	8.2	B	5.0	0.20	ug/L	1		6020	Total Recoverable
Copper	0.79	J	2.0	0.75	ug/L	1		6020	Total Recoverable
Manganese	5.1	J	15	1.1	ug/L	1		6020	Total Recoverable
Nickel	26		20	0.23	ug/L	1		6020	Total Recoverable
Selenium	1.2	J B	5.0	0.25	ug/L	1		6020	Total Recoverable
Thallium	0.14	J	1.0	0.074	ug/L	1		6020	Total Recoverable
Vanadium	1.3	J B	4.0	0.23	ug/L	1		6020	Total Recoverable
Arsenic	0.77	J B	5.0	0.18	ug/L	1		6020	Dissolved
Cadmium	0.072	J	1.0	0.061	ug/L	1		6020	Dissolved
Cobalt	0.58	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	3.0	J B	5.0	0.20	ug/L	1		6020	Dissolved
Manganese	3.9	J	15	1.1	ug/L	1		6020	Dissolved
Nickel	21		20	0.23	ug/L	1		6020	Dissolved
Lead	0.12	J B	3.0	0.11	ug/L	1		6020	Dissolved
Antimony	0.45	J	2.0	0.16	ug/L	1		6020	Dissolved
Selenium	1.3	J B	5.0	0.25	ug/L	1		6020	Dissolved
Thallium	0.27	J	1.0	0.074	ug/L	1		6020	Dissolved
Vanadium	1.1	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	66	J	100	1.1	ug/L	1		6020	Dissolved
Cr (III)	0.0082	J	0.020	0.0050	mg/L	1		7196A	Total/NA

**Client Sample ID: GW-082515-JL-04**

**Lab Sample ID: 240-54731-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2,4-Dichlorophenol	1.6	J	9.7	0.18	ug/L	1		8270C	Total/NA
Antimony	0.24	J	2.0	0.16	ug/L	1		6020	Total Recoverable
Arsenic	0.97	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	90	J	100	1.1	ug/L	1		6020	Total Recoverable
Cadmium	0.10	J	1.0	0.061	ug/L	1		6020	Total Recoverable
Cobalt	0.85	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	410	B	5.0	0.20	ug/L	1		6020	Total Recoverable
Copper	12		2.0	0.75	ug/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-04 (Continued)**

**Lab Sample ID: 240-54731-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	7.2	J	15	1.1	ug/L	1		6020	Total Recoverable
Nickel	26		20	0.23	ug/L	1		6020	Total Recoverable
Lead	0.15	J B	3.0	0.11	ug/L	1		6020	Total Recoverable
Selenium	1.4	J B	5.0	0.25	ug/L	1		6020	Total Recoverable
Thallium	0.10	J	1.0	0.074	ug/L	1		6020	Total Recoverable
Arsenic	0.68	J B	5.0	0.18	ug/L	1		6020	Dissolved
Cadmium	0.079	J	1.0	0.061	ug/L	1		6020	Dissolved
Cobalt	0.20	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	3.7	J B	5.0	0.20	ug/L	1		6020	Dissolved
Copper	0.75	J	2.0	0.75	ug/L	1		6020	Dissolved
Manganese	1.5	J	15	1.1	ug/L	1		6020	Dissolved
Nickel	4.0	J	20	0.23	ug/L	1		6020	Dissolved
Antimony	0.19	J	2.0	0.16	ug/L	1		6020	Dissolved
Selenium	1.2	J B	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	1.2	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	85	J	100	1.1	ug/L	1		6020	Dissolved
Cr (III)	0.41		0.020	0.0050	mg/L	1		7196A	Total/NA

**Client Sample ID: GW-082515-JL-07**

**Lab Sample ID: 240-54731-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorobromomethane	0.50	J	1.0	0.29	ug/L	1		8260B	Total/NA
Chloroform	0.68	J	1.0	0.25	ug/L	1		8260B	Total/NA
Arsenic	0.79	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	75	J	100	1.1	ug/L	1		6020	Total Recoverable
Cobalt	0.90	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	150	B	5.0	0.20	ug/L	1		6020	Total Recoverable
Copper	5.6		2.0	0.75	ug/L	1		6020	Total Recoverable
Manganese	6.1	J	15	1.1	ug/L	1		6020	Total Recoverable
Nickel	10	J	20	0.23	ug/L	1		6020	Total Recoverable
Lead	0.15	J B	3.0	0.11	ug/L	1		6020	Total Recoverable
Selenium	1.2	J B	5.0	0.25	ug/L	1		6020	Total Recoverable
Arsenic	0.69	J B	5.0	0.18	ug/L	1		6020	Dissolved
Cobalt	0.10	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	2.7	J B	5.0	0.20	ug/L	1		6020	Dissolved
Nickel	1.1	J	20	0.23	ug/L	1		6020	Dissolved
Lead	0.14	J B	3.0	0.11	ug/L	1		6020	Dissolved
Selenium	1.3	J B	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	0.98	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	76	J	100	1.1	ug/L	1		6020	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

## Client Sample ID: GW-082515-JL-07 (Continued)

## Lab Sample ID: 240-54731-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (III)	0.15		0.020	0.0050	mg/L	1		7196A	Total/NA

## Client Sample ID: GW-082515-JL-08

## Lab Sample ID: 240-54731-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.18	J	2.0	0.16	ug/L	1		6020	Total Recoverable
Arsenic	0.93	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	50	J	100	1.1	ug/L	1		6020	Total Recoverable
Cobalt	0.26	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	52	B	5.0	0.20	ug/L	1		6020	Total Recoverable
Copper	2.7		2.0	0.75	ug/L	1		6020	Total Recoverable
Manganese	3.6	J	15	1.1	ug/L	1		6020	Total Recoverable
Nickel	4.1	J	20	0.23	ug/L	1		6020	Total Recoverable
Lead	0.18	J B	3.0	0.11	ug/L	1		6020	Total Recoverable
Selenium	2.4	J B	5.0	0.25	ug/L	1		6020	Total Recoverable
Vanadium	0.86	J B	4.0	0.23	ug/L	1		6020	Total Recoverable
Arsenic	0.83	J B	5.0	0.18	ug/L	1		6020	Dissolved
Cobalt	0.11	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	3.0	J B	5.0	0.20	ug/L	1		6020	Dissolved
Copper	0.78	J	2.0	0.75	ug/L	1		6020	Dissolved
Nickel	0.44	J	20	0.23	ug/L	1		6020	Dissolved
Antimony	0.17	J	2.0	0.16	ug/L	1		6020	Dissolved
Selenium	2.4	J B	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	1.5	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	50	J	100	1.1	ug/L	1		6020	Dissolved
Cr (III)	0.052		0.020	0.0050	mg/L	1		7196A	Total/NA

## Client Sample ID: GW-082515-JL-09

## Lab Sample ID: 240-54731-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.77	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	80	J	100	1.1	ug/L	1		6020	Total Recoverable
Cobalt	0.18	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	3.5	J B	5.0	0.20	ug/L	1		6020	Total Recoverable
Copper	1.2	J	2.0	0.75	ug/L	1		6020	Total Recoverable
Manganese	3.6	J	15	1.1	ug/L	1		6020	Total Recoverable
Nickel	0.71	J	20	0.23	ug/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

## Client Sample ID: GW-082515-JL-09 (Continued)

## Lab Sample ID: 240-54731-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.20	J B	3.0	0.11	ug/L	1		6020	Total Recoverable
Selenium	1.2	J B	5.0	0.25	ug/L	1		6020	Total Recoverable
Vanadium	1.1	J B	4.0	0.23	ug/L	1		6020	Total Recoverable
Arsenic	0.69	J B	5.0	0.18	ug/L	1		6020	Dissolved
Cobalt	0.092	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	3.1	J B	5.0	0.20	ug/L	1		6020	Dissolved
Nickel	0.35	J	20	0.23	ug/L	1		6020	Dissolved
Selenium	1.1	J B	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	1.2	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	81	J	100	1.1	ug/L	1		6020	Dissolved

## Client Sample ID: GW-082515-JL-10

## Lab Sample ID: 240-54731-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.76	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	85	J	100	1.1	ug/L	1		6020	Total Recoverable
Cobalt	0.16	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	3.4	J B	5.0	0.20	ug/L	1		6020	Total Recoverable
Copper	0.96	J	2.0	0.75	ug/L	1		6020	Total Recoverable
Manganese	3.0	J	15	1.1	ug/L	1		6020	Total Recoverable
Nickel	0.49	J	20	0.23	ug/L	1		6020	Total Recoverable
Lead	0.17	J B	3.0	0.11	ug/L	1		6020	Total Recoverable
Selenium	1.1	J B	5.0	0.25	ug/L	1		6020	Total Recoverable
Vanadium	1.1	J B	4.0	0.23	ug/L	1		6020	Total Recoverable
Arsenic	0.71	J B	5.0	0.18	ug/L	1		6020	Dissolved
Cobalt	0.091	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	3.1	J B	5.0	0.20	ug/L	1		6020	Dissolved
Nickel	0.36	J	20	0.23	ug/L	1		6020	Dissolved
Selenium	1.2	J B	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	1.1	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	82	J	100	1.1	ug/L	1		6020	Dissolved

## Client Sample ID: GW-082515-JL-11

## Lab Sample ID: 240-54731-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.26	J	1.0	0.25	ug/L	1		8260B	Total/NA
Arsenic	0.80	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	79	J	100	1.1	ug/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

## Client Sample ID: GW-082515-JL-11 (Continued)

## Lab Sample ID: 240-54731-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.58	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	4.2	J B	5.0	0.20	ug/L	1		6020	Total Recoverable
Manganese	3.6	J	15	1.1	ug/L	1		6020	Total Recoverable
Nickel	12	J	20	0.23	ug/L	1		6020	Total Recoverable
Selenium	1.1	J B	5.0	0.25	ug/L	1		6020	Total Recoverable
Vanadium	1.1	J B	4.0	0.23	ug/L	1		6020	Total Recoverable
Arsenic	0.77	J B	5.0	0.18	ug/L	1		6020	Dissolved
Cobalt	0.40	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	3.1	J B	5.0	0.20	ug/L	1		6020	Dissolved
Copper	1.1	J	2.0	0.75	ug/L	1		6020	Dissolved
Manganese	2.5	J	15	1.1	ug/L	1		6020	Dissolved
Nickel	8.7	J	20	0.23	ug/L	1		6020	Dissolved
Lead	0.13	J B	3.0	0.11	ug/L	1		6020	Dissolved
Selenium	1.1	J B	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	1.3	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	81	J	100	1.1	ug/L	1		6020	Dissolved

## Client Sample ID: GW-082515-JL-12

## Lab Sample ID: 240-54731-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.8	J B	10	0.94	ug/L	1		8260B	Total/NA
2-Butanone (MEK)	0.98	J	10	0.53	ug/L	1		8260B	Total/NA
1,2,4-Trimethylbenzene	21		1.0	0.41	ug/L	1		8260B	Total/NA
Ethylbenzene	11		1.0	0.25	ug/L	1		8260B	Total/NA
1,3,5-Trimethylbenzene	4.6		1.0	0.48	ug/L	1		8260B	Total/NA
Xylenes, Total	23		2.0	0.52	ug/L	1		8260B	Total/NA
Cyclohexane	7.3		1.0	0.45	ug/L	1		8260B	Total/NA
Isopropylbenzene	3.9		1.0	0.35	ug/L	1		8260B	Total/NA
Methylcyclohexane	1.5		1.0	0.43	ug/L	1		8260B	Total/NA
2-Methylnaphthalene	0.22	J	5.7	0.10	ug/L	1		8270C	Total/NA
Naphthalene	3.8	J	5.7	0.071	ug/L	1		8270C	Total/NA
Arsenic	1.0	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	110		100	1.1	ug/L	1		6020	Total Recoverable
Cobalt	0.14	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	3.3	J B	5.0	0.20	ug/L	1		6020	Total Recoverable
Copper	0.86	J	2.0	0.75	ug/L	1		6020	Total Recoverable
Manganese	110		15	1.1	ug/L	1		6020	Total Recoverable
Nickel	1.1	J	20	0.23	ug/L	1		6020	Total Recoverable
Lead	0.19	J B	3.0	0.11	ug/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

## Client Sample ID: GW-082515-JL-12 (Continued)

## Lab Sample ID: 240-54731-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	1.4	J B	5.0	0.25	ug/L	1		6020	Total
Vanadium	0.74	J B	4.0	0.23	ug/L	1		6020	Recoverable Total
Zinc	20		20	7.3	ug/L	1		6020	Recoverable Total
Arsenic	0.98	J B	5.0	0.18	ug/L	1		6020	Dissolved
Cobalt	0.14	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	2.6	J B	5.0	0.20	ug/L	1		6020	Dissolved
Manganese	120		15	1.1	ug/L	1		6020	Dissolved
Nickel	1.1	J	20	0.23	ug/L	1		6020	Dissolved
Selenium	1.4	J B	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	0.93	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	110		100	1.1	ug/L	1		6020	Dissolved

## Client Sample ID: TRIP BLANK

## Lab Sample ID: 240-54731-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	9.6	J B	10	0.94	ug/L	1		8260B	Total/NA
Methylene Chloride	0.90	J B	1.0	0.33	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton



# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-03**

**Lab Sample ID: 240-54731-1**

**Date Collected: 08/25/15 10:40**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/01/15 13:38	1
Benzene	1.0	U	1.0	0.35	ug/L			09/01/15 13:38	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/01/15 13:38	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/01/15 13:38	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/01/15 13:38	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/01/15 13:38	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/01/15 13:38	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/01/15 13:38	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/01/15 13:38	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/01/15 13:38	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/01/15 13:38	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/01/15 13:38	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/01/15 13:38	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/01/15 13:38	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/01/15 13:38	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/01/15 13:38	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/01/15 13:38	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/01/15 13:38	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/01/15 13:38	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/01/15 13:38	1
2-Hexanone	10	U	10	0.48	ug/L			09/01/15 13:38	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/01/15 13:38	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/01/15 13:38	1
Styrene	1.0	U	1.0	0.45	ug/L			09/01/15 13:38	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/01/15 13:38	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/01/15 13:38	1
Toluene	1.0	U	1.0	0.23	ug/L			09/01/15 13:38	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/01/15 13:38	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/01/15 13:38	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/01/15 13:38	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/01/15 13:38	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/01/15 13:38	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/01/15 13:38	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/01/15 13:38	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/01/15 13:38	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/01/15 13:38	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/01/15 13:38	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/01/15 13:38	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/01/15 13:38	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/01/15 13:38	1
Methyl acetate	10	U	10	2.3	ug/L			09/01/15 13:38	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/01/15 13:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/01/15 13:38	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/01/15 13:38	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/01/15 13:38	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/01/15 13:38	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/01/15 13:38	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/01/15 13:38	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/01/15 13:38	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-03**

**Lab Sample ID: 240-54731-1**

**Date Collected: 08/25/15 10:40**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/01/15 13:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		78 - 125					09/01/15 13:38	1
4-Bromofluorobenzene (Surr)	100		61 - 120					09/01/15 13:38	1
Toluene-d8 (Surr)	95		80 - 120					09/01/15 13:38	1
Dibromofluoromethane (Surr)	85		79 - 120					09/01/15 13:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	4.9	U	4.9	0.043	ug/L		08/27/15 08:45	09/06/15 12:14	1
Acenaphthylene	4.9	U	4.9	0.047	ug/L		08/27/15 08:45	09/06/15 12:14	1
Acetophenone	4.9	U	4.9	0.33	ug/L		08/27/15 08:45	09/06/15 12:14	1
Anthracene	4.9	U	4.9	0.086	ug/L		08/27/15 08:45	09/06/15 12:14	1
Atrazine	2.9	U	2.9	0.33	ug/L		08/27/15 08:45	09/06/15 12:14	1
Benzaldehyde	4.9	U	4.9	0.38	ug/L		08/27/15 08:45	09/06/15 12:14	1
Benzo[a]anthracene	0.98	U	0.98	0.029	ug/L		08/27/15 08:45	09/06/15 12:14	1
Benzo[b]fluoranthene	0.98	U	0.98	0.039	ug/L		08/27/15 08:45	09/06/15 12:14	1
Benzo[k]fluoranthene	0.98	U	0.98	0.044	ug/L		08/27/15 08:45	09/06/15 12:14	1
Benzo[g,h,i]perylene	0.98	U	0.98	0.045	ug/L		08/27/15 08:45	09/06/15 12:14	1
Benzo[a]pyrene	0.98	U	0.98	0.050	ug/L		08/27/15 08:45	09/06/15 12:14	1
Butyl benzyl phthalate	4.9	U	4.9	0.25	ug/L		08/27/15 08:45	09/06/15 12:14	1
1,1'-Biphenyl	4.9	U	4.9	0.13	ug/L		08/27/15 08:45	09/06/15 12:14	1
Bis(2-chloroethoxy)methane	4.9	U	4.9	0.31	ug/L		08/27/15 08:45	09/06/15 12:14	1
Bis(2-chloroethyl)ether	0.98	U	0.98	0.098	ug/L		08/27/15 08:45	09/06/15 12:14	1
Bis(2-ethylhexyl) phthalate	4.9	U	4.9	1.7	ug/L		08/27/15 08:45	09/06/15 12:14	1
4-Bromophenyl phenyl ether	4.9	U	4.9	0.22	ug/L		08/27/15 08:45	09/06/15 12:14	1
Caprolactam	9.8	U	9.8	0.20	ug/L		08/27/15 08:45	09/06/15 12:14	1
Carbazole	9.8	U	9.8	0.27	ug/L		08/27/15 08:45	09/06/15 12:14	1
4-Chloroaniline	9.8	U	9.8	0.21	ug/L		08/27/15 08:45	09/06/15 12:14	1
4-Chloro-3-methylphenol	4.9	U	4.9	0.21	ug/L		08/27/15 08:45	09/06/15 12:14	1
2-Chloronaphthalene	4.9	U	4.9	0.098	ug/L		08/27/15 08:45	09/06/15 12:14	1
2-Chlorophenol	4.9	U	4.9	0.28	ug/L		08/27/15 08:45	09/06/15 12:14	1
4-Chlorophenyl phenyl ether	4.9	U	4.9	0.29	ug/L		08/27/15 08:45	09/06/15 12:14	1
Chrysene	0.98	U	0.98	0.049	ug/L		08/27/15 08:45	09/06/15 12:14	1
2-Methylnaphthalene	4.9	U	4.9	0.089	ug/L		08/27/15 08:45	09/06/15 12:14	1
3 & 4 Methylphenol	4.9	U	4.9	0.78	ug/L		08/27/15 08:45	09/06/15 12:14	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.044	ug/L		08/27/15 08:45	09/06/15 12:14	1
Dibenzofuran	3.9	U	3.9	0.020	ug/L		08/27/15 08:45	09/06/15 12:14	1
3,3'-Dichlorobenzidine	0.98	U	0.98	0.36	ug/L		08/27/15 08:45	09/06/15 12:14	1
2,4-Dichlorophenol	9.8	U	9.8	0.19	ug/L		08/27/15 08:45	09/06/15 12:14	1
Diethyl phthalate	4.9	U	4.9	0.59	ug/L		08/27/15 08:45	09/06/15 12:14	1
2,4-Dimethylphenol	4.9	U	4.9	0.25	ug/L		08/27/15 08:45	09/06/15 12:14	1
Dimethyl phthalate	4.9	U	4.9	0.28	ug/L		08/27/15 08:45	09/06/15 12:14	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		08/27/15 08:45	09/06/15 12:14	1
2,4-Dinitrophenol	20	U	20	0.31	ug/L		08/27/15 08:45	09/06/15 12:14	1
2,4-Dinitrotoluene	4.9	U	4.9	0.25	ug/L		08/27/15 08:45	09/06/15 12:14	1
Di-n-butyl phthalate	4.9	U	4.9	1.7	ug/L		08/27/15 08:45	09/06/15 12:14	1
Di-n-octyl phthalate	4.9	U	4.9	0.23	ug/L		08/27/15 08:45	09/06/15 12:14	1
Fluoranthene	0.98	U	0.98	0.044	ug/L		08/27/15 08:45	09/06/15 12:14	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-03**

**Lab Sample ID: 240-54731-1**

**Date Collected: 08/25/15 10:40**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.9	U	4.9	0.040	ug/L		08/27/15 08:45	09/06/15 12:14	1
Hexachlorobenzene	0.20	U	0.20	0.084	ug/L		08/27/15 08:45	09/06/15 12:14	1
Hexachlorobutadiene	0.98	U	0.98	0.26	ug/L		08/27/15 08:45	09/06/15 12:14	1
Hexachlorocyclopentadiene	4.9	U	4.9	0.24	ug/L		08/27/15 08:45	09/06/15 12:14	1
Hexachloroethane	4.9	U	4.9	0.19	ug/L		08/27/15 08:45	09/06/15 12:14	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.042	ug/L		08/27/15 08:45	09/06/15 12:14	1
Isophorone	4.9	U	4.9	0.26	ug/L		08/27/15 08:45	09/06/15 12:14	1
2-Methylphenol	4.9	U	4.9	0.17	ug/L		08/27/15 08:45	09/06/15 12:14	1
Naphthalene	4.9	U	4.9	0.061	ug/L		08/27/15 08:45	09/06/15 12:14	1
2-Nitroaniline	20	U	20	0.21	ug/L		08/27/15 08:45	09/06/15 12:14	1
3-Nitroaniline	20	U	20	0.27	ug/L		08/27/15 08:45	09/06/15 12:14	1
4-Nitroaniline	20	U	20	0.22	ug/L		08/27/15 08:45	09/06/15 12:14	1
Nitrobenzene	2.9	U	2.9	0.039	ug/L		08/27/15 08:45	09/06/15 12:14	1
2-Nitrophenol	4.9	U	4.9	0.27	ug/L		08/27/15 08:45	09/06/15 12:14	1
4-Nitrophenol	20	U	20	0.28	ug/L		08/27/15 08:45	09/06/15 12:14	1
N-Nitrosodiphenylamine	4.9	U	4.9	0.30	ug/L		08/27/15 08:45	09/06/15 12:14	1
N-Nitrosodi-n-propylamine	4.9	U	4.9	0.24	ug/L		08/27/15 08:45	09/06/15 12:14	1
2,2'-oxybis[1-chloropropane]	4.9	U	4.9	0.39	ug/L		08/27/15 08:45	09/06/15 12:14	1
Pentachlorophenol	4.9	U	4.9	0.26	ug/L		08/27/15 08:45	09/06/15 12:14	1
Phenanthrene	2.0	U	2.0	0.061	ug/L		08/27/15 08:45	09/06/15 12:14	1
Phenol	4.9	U	4.9	0.59	ug/L		08/27/15 08:45	09/06/15 12:14	1
Pyrene	4.9	U	4.9	0.041	ug/L		08/27/15 08:45	09/06/15 12:14	1
2,4,5-Trichlorophenol	4.9	U	4.9	0.29	ug/L		08/27/15 08:45	09/06/15 12:14	1
2,4,6-Trichlorophenol	3.9	U	3.9	0.24	ug/L		08/27/15 08:45	09/06/15 12:14	1
2,6-Dinitrotoluene	4.9	U	4.9	0.78	ug/L		08/27/15 08:45	09/06/15 12:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	56		29 - 110	08/27/15 08:45	09/06/15 12:14	1
2-Fluorophenol (Surr)	21		15 - 110	08/27/15 08:45	09/06/15 12:14	1
2,4,6-Tribromophenol (Surr)	36		21 - 128	08/27/15 08:45	09/06/15 12:14	1
Nitrobenzene-d5 (Surr)	53		31 - 110	08/27/15 08:45	09/06/15 12:14	1
Phenol-d5 (Surr)	11		10 - 110	08/27/15 08:45	09/06/15 12:14	1
Terphenyl-d14 (Surr)	44		31 - 115	08/27/15 08:45	09/06/15 12:14	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.38	J	2.0	0.16	ug/L		08/27/15 08:50	08/28/15 19:13	1
Arsenic	0.93	J B	5.0	0.18	ug/L		08/27/15 08:50	08/28/15 19:13	1
Barium	76	J	100	1.1	ug/L		08/27/15 08:50	08/28/15 19:13	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/27/15 08:50	08/28/15 19:13	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/27/15 08:50	08/28/15 19:13	1
Cobalt	0.69	J	7.0	0.021	ug/L		08/27/15 08:50	08/28/15 19:13	1
Chromium	8.2	B	5.0	0.20	ug/L		08/27/15 08:50	08/28/15 19:13	1
Copper	0.79	J	2.0	0.75	ug/L		08/27/15 08:50	08/28/15 19:13	1
Manganese	5.1	J	15	1.1	ug/L		08/27/15 08:50	08/28/15 19:13	1
Nickel	26		20	0.23	ug/L		08/27/15 08:50	08/28/15 19:13	1
Lead	3.0	U	3.0	0.11	ug/L		08/27/15 08:50	08/28/15 19:13	1
Selenium	1.2	J B	5.0	0.25	ug/L		08/27/15 08:50	08/28/15 19:13	1
Thallium	0.14	J	1.0	0.074	ug/L		08/27/15 08:50	08/28/15 19:13	1
Vanadium	1.3	J B	4.0	0.23	ug/L		08/27/15 08:50	08/28/15 19:13	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-03**

**Lab Sample ID: 240-54731-1**

**Date Collected: 08/25/15 10:40**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/27/15 08:50	08/28/15 19:13	1
Silver	0.20	U	0.20	0.020	ug/L		08/27/15 08:50	08/28/15 19:13	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/27/15 08:50	08/28/15 19:31	1
<b>Arsenic</b>	<b>0.77</b>	<b>J B</b>	5.0	0.18	ug/L		08/27/15 08:50	08/28/15 19:31	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/27/15 08:50	08/28/15 19:31	1
<b>Cadmium</b>	<b>0.072</b>	<b>J</b>	1.0	0.061	ug/L		08/27/15 08:50	08/28/15 19:31	1
<b>Cobalt</b>	<b>0.58</b>	<b>J</b>	7.0	0.021	ug/L		08/27/15 08:50	08/28/15 19:31	1
<b>Chromium</b>	<b>3.0</b>	<b>J B</b>	5.0	0.20	ug/L		08/27/15 08:50	08/28/15 19:31	1
Copper	2.0	U	2.0	0.75	ug/L		08/27/15 08:50	08/28/15 19:31	1
<b>Manganese</b>	<b>3.9</b>	<b>J</b>	15	1.1	ug/L		08/27/15 08:50	08/28/15 19:31	1
<b>Nickel</b>	<b>21</b>		20	0.23	ug/L		08/27/15 08:50	08/28/15 19:31	1
<b>Lead</b>	<b>0.12</b>	<b>J B</b>	3.0	0.11	ug/L		08/27/15 08:50	08/28/15 19:31	1
<b>Antimony</b>	<b>0.45</b>	<b>J</b>	2.0	0.16	ug/L		08/27/15 08:50	08/28/15 19:31	1
<b>Selenium</b>	<b>1.3</b>	<b>J B</b>	5.0	0.25	ug/L		08/27/15 08:50	08/28/15 19:31	1
<b>Thallium</b>	<b>0.27</b>	<b>J</b>	1.0	0.074	ug/L		08/27/15 08:50	08/28/15 19:31	1
<b>Vanadium</b>	<b>1.1</b>	<b>J B</b>	4.0	0.23	ug/L		08/27/15 08:50	08/28/15 19:31	1
Zinc	20	U	20	7.3	ug/L		08/27/15 08:50	08/28/15 19:31	1
<b>Barium</b>	<b>66</b>	<b>J</b>	100	1.1	ug/L		08/27/15 08:50	08/28/15 19:31	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/27/15 09:04	08/28/15 16:30	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/27/15 09:04	08/28/15 16:35	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/26/15 10:38	1
<b>Cr (III)</b>	<b>0.0082</b>	<b>J</b>	0.020	0.0050	mg/L			09/01/15 07:34	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-04**

**Lab Sample ID: 240-54731-2**

**Date Collected: 08/25/15 10:45**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/01/15 14:00	1
Benzene	1.0	U	1.0	0.35	ug/L			09/01/15 14:00	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/01/15 14:00	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/01/15 14:00	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/01/15 14:00	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/01/15 14:00	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/01/15 14:00	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/01/15 14:00	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/01/15 14:00	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/01/15 14:00	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/01/15 14:00	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/01/15 14:00	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/01/15 14:00	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/01/15 14:00	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/01/15 14:00	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/01/15 14:00	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/01/15 14:00	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/01/15 14:00	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/01/15 14:00	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/01/15 14:00	1
2-Hexanone	10	U	10	0.48	ug/L			09/01/15 14:00	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/01/15 14:00	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/01/15 14:00	1
Styrene	1.0	U	1.0	0.45	ug/L			09/01/15 14:00	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/01/15 14:00	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/01/15 14:00	1
Toluene	1.0	U	1.0	0.23	ug/L			09/01/15 14:00	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/01/15 14:00	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/01/15 14:00	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/01/15 14:00	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/01/15 14:00	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/01/15 14:00	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/01/15 14:00	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/01/15 14:00	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/01/15 14:00	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/01/15 14:00	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/01/15 14:00	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/01/15 14:00	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/01/15 14:00	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/01/15 14:00	1
Methyl acetate	10	U	10	2.3	ug/L			09/01/15 14:00	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/01/15 14:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/01/15 14:00	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/01/15 14:00	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/01/15 14:00	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/01/15 14:00	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/01/15 14:00	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/01/15 14:00	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/01/15 14:00	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-04**

**Lab Sample ID: 240-54731-2**

**Date Collected: 08/25/15 10:45**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/01/15 14:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		78 - 125					09/01/15 14:00	1
4-Bromofluorobenzene (Surr)	100		61 - 120					09/01/15 14:00	1
Toluene-d8 (Surr)	95		80 - 120					09/01/15 14:00	1
Dibromofluoromethane (Surr)	90		79 - 120					09/01/15 14:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	4.9	U	4.9	0.043	ug/L		08/27/15 08:45	09/06/15 12:37	1
Acenaphthylene	4.9	U	4.9	0.047	ug/L		08/27/15 08:45	09/06/15 12:37	1
Acetophenone	4.9	U	4.9	0.33	ug/L		08/27/15 08:45	09/06/15 12:37	1
Anthracene	4.9	U	4.9	0.085	ug/L		08/27/15 08:45	09/06/15 12:37	1
Atrazine	2.9	U	2.9	0.33	ug/L		08/27/15 08:45	09/06/15 12:37	1
Benzaldehyde	4.9	U	4.9	0.38	ug/L		08/27/15 08:45	09/06/15 12:37	1
Benzo[a]anthracene	0.97	U	0.97	0.029	ug/L		08/27/15 08:45	09/06/15 12:37	1
Benzo[b]fluoranthene	0.97	U	0.97	0.038	ug/L		08/27/15 08:45	09/06/15 12:37	1
Benzo[k]fluoranthene	0.97	U	0.97	0.043	ug/L		08/27/15 08:45	09/06/15 12:37	1
Benzo[g,h,i]perylene	0.97	U	0.97	0.045	ug/L		08/27/15 08:45	09/06/15 12:37	1
Benzo[a]pyrene	0.97	U	0.97	0.050	ug/L		08/27/15 08:45	09/06/15 12:37	1
Butyl benzyl phthalate	4.9	U	4.9	0.25	ug/L		08/27/15 08:45	09/06/15 12:37	1
1,1'-Biphenyl	4.9	U	4.9	0.13	ug/L		08/27/15 08:45	09/06/15 12:37	1
Bis(2-chloroethoxy)methane	4.9	U	4.9	0.31	ug/L		08/27/15 08:45	09/06/15 12:37	1
Bis(2-chloroethyl)ether	0.97	U	0.97	0.097	ug/L		08/27/15 08:45	09/06/15 12:37	1
Bis(2-ethylhexyl) phthalate	4.9	U	4.9	1.7	ug/L		08/27/15 08:45	09/06/15 12:37	1
4-Bromophenyl phenyl ether	4.9	U	4.9	0.21	ug/L		08/27/15 08:45	09/06/15 12:37	1
Caprolactam	9.7	U	9.7	0.19	ug/L		08/27/15 08:45	09/06/15 12:37	1
Carbazole	9.7	U	9.7	0.27	ug/L		08/27/15 08:45	09/06/15 12:37	1
4-Chloroaniline	9.7	U	9.7	0.20	ug/L		08/27/15 08:45	09/06/15 12:37	1
4-Chloro-3-methylphenol	4.9	U	4.9	0.20	ug/L		08/27/15 08:45	09/06/15 12:37	1
2-Chloronaphthalene	4.9	U	4.9	0.097	ug/L		08/27/15 08:45	09/06/15 12:37	1
2-Chlorophenol	4.9	U	4.9	0.28	ug/L		08/27/15 08:45	09/06/15 12:37	1
4-Chlorophenyl phenyl ether	4.9	U	4.9	0.29	ug/L		08/27/15 08:45	09/06/15 12:37	1
Chrysene	0.97	U	0.97	0.049	ug/L		08/27/15 08:45	09/06/15 12:37	1
2-Methylnaphthalene	4.9	U	4.9	0.088	ug/L		08/27/15 08:45	09/06/15 12:37	1
3 & 4 Methylphenol	4.9	U	4.9	0.78	ug/L		08/27/15 08:45	09/06/15 12:37	1
Dibenz(a,h)anthracene	1.9	U	1.9	0.043	ug/L		08/27/15 08:45	09/06/15 12:37	1
Dibenzofuran	3.9	U	3.9	0.019	ug/L		08/27/15 08:45	09/06/15 12:37	1
3,3'-Dichlorobenzidine	0.97	U	0.97	0.36	ug/L		08/27/15 08:45	09/06/15 12:37	1
<b>2,4-Dichlorophenol</b>	<b>1.6</b>	<b>J</b>	9.7	0.18	ug/L		08/27/15 08:45	09/06/15 12:37	1
Diethyl phthalate	4.9	U	4.9	0.58	ug/L		08/27/15 08:45	09/06/15 12:37	1
2,4-Dimethylphenol	4.9	U	4.9	0.24	ug/L		08/27/15 08:45	09/06/15 12:37	1
Dimethyl phthalate	4.9	U	4.9	0.28	ug/L		08/27/15 08:45	09/06/15 12:37	1
4,6-Dinitro-2-methylphenol	19	U	19	2.3	ug/L		08/27/15 08:45	09/06/15 12:37	1
2,4-Dinitrophenol	19	U	19	0.31	ug/L		08/27/15 08:45	09/06/15 12:37	1
2,4-Dinitrotoluene	4.9	U	4.9	0.24	ug/L		08/27/15 08:45	09/06/15 12:37	1
Di-n-butyl phthalate	4.9	U	4.9	1.7	ug/L		08/27/15 08:45	09/06/15 12:37	1
Di-n-octyl phthalate	4.9	U	4.9	0.22	ug/L		08/27/15 08:45	09/06/15 12:37	1
Fluoranthene	0.97	U	0.97	0.043	ug/L		08/27/15 08:45	09/06/15 12:37	1

TestAmerica Canton



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-04**

**Lab Sample ID: 240-54731-2**

**Date Collected: 08/25/15 10:45**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.9	U	4.9	0.039	ug/L		08/27/15 08:45	09/06/15 12:37	1
Hexachlorobenzene	0.19	U	0.19	0.083	ug/L		08/27/15 08:45	09/06/15 12:37	1
Hexachlorobutadiene	0.97	U	0.97	0.26	ug/L		08/27/15 08:45	09/06/15 12:37	1
Hexachlorocyclopentadiene	4.9	U	4.9	0.23	ug/L		08/27/15 08:45	09/06/15 12:37	1
Hexachloroethane	4.9	U	4.9	0.18	ug/L		08/27/15 08:45	09/06/15 12:37	1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	0.042	ug/L		08/27/15 08:45	09/06/15 12:37	1
Isophorone	4.9	U	4.9	0.26	ug/L		08/27/15 08:45	09/06/15 12:37	1
2-Methylphenol	4.9	U	4.9	0.17	ug/L		08/27/15 08:45	09/06/15 12:37	1
Naphthalene	4.9	U	4.9	0.061	ug/L		08/27/15 08:45	09/06/15 12:37	1
2-Nitroaniline	19	U	19	0.20	ug/L		08/27/15 08:45	09/06/15 12:37	1
3-Nitroaniline	19	U	19	0.27	ug/L		08/27/15 08:45	09/06/15 12:37	1
4-Nitroaniline	19	U	19	0.21	ug/L		08/27/15 08:45	09/06/15 12:37	1
Nitrobenzene	2.9	U	2.9	0.039	ug/L		08/27/15 08:45	09/06/15 12:37	1
2-Nitrophenol	4.9	U	4.9	0.27	ug/L		08/27/15 08:45	09/06/15 12:37	1
4-Nitrophenol	19	U	19	0.28	ug/L		08/27/15 08:45	09/06/15 12:37	1
N-Nitrosodiphenylamine	4.9	U	4.9	0.30	ug/L		08/27/15 08:45	09/06/15 12:37	1
N-Nitrosodi-n-propylamine	4.9	U	4.9	0.23	ug/L		08/27/15 08:45	09/06/15 12:37	1
2,2'-oxybis[1-chloropropane]	4.9	U	4.9	0.39	ug/L		08/27/15 08:45	09/06/15 12:37	1
Pentachlorophenol	4.9	U	4.9	0.26	ug/L		08/27/15 08:45	09/06/15 12:37	1
Phenanthrene	1.9	U	1.9	0.060	ug/L		08/27/15 08:45	09/06/15 12:37	1
Phenol	4.9	U	4.9	0.58	ug/L		08/27/15 08:45	09/06/15 12:37	1
Pyrene	4.9	U	4.9	0.041	ug/L		08/27/15 08:45	09/06/15 12:37	1
2,4,5-Trichlorophenol	4.9	U	4.9	0.29	ug/L		08/27/15 08:45	09/06/15 12:37	1
2,4,6-Trichlorophenol	3.9	U	3.9	0.23	ug/L		08/27/15 08:45	09/06/15 12:37	1
2,6-Dinitrotoluene	4.9	U	4.9	0.78	ug/L		08/27/15 08:45	09/06/15 12:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	62		29 - 110	08/27/15 08:45	09/06/15 12:37	1
2-Fluorophenol (Surr)	28		15 - 110	08/27/15 08:45	09/06/15 12:37	1
2,4,6-Tribromophenol (Surr)	41		21 - 128	08/27/15 08:45	09/06/15 12:37	1
Nitrobenzene-d5 (Surr)	58		31 - 110	08/27/15 08:45	09/06/15 12:37	1
Phenol-d5 (Surr)	15		10 - 110	08/27/15 08:45	09/06/15 12:37	1
Terphenyl-d14 (Surr)	49		31 - 115	08/27/15 08:45	09/06/15 12:37	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.24	J	2.0	0.16	ug/L		08/27/15 08:50	08/28/15 19:35	1
Arsenic	0.97	J B	5.0	0.18	ug/L		08/27/15 08:50	08/28/15 19:35	1
Barium	90	J	100	1.1	ug/L		08/27/15 08:50	08/28/15 19:35	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/27/15 08:50	08/28/15 19:35	1
Cadmium	0.10	J	1.0	0.061	ug/L		08/27/15 08:50	08/28/15 19:35	1
Cobalt	0.85	J	7.0	0.021	ug/L		08/27/15 08:50	08/28/15 19:35	1
Chromium	410	B	5.0	0.20	ug/L		08/27/15 08:50	08/28/15 19:35	1
Copper	12		2.0	0.75	ug/L		08/27/15 08:50	08/28/15 19:35	1
Manganese	7.2	J	15	1.1	ug/L		08/27/15 08:50	08/28/15 19:35	1
Nickel	26		20	0.23	ug/L		08/27/15 08:50	08/28/15 19:35	1
Lead	0.15	J B	3.0	0.11	ug/L		08/27/15 08:50	08/28/15 19:35	1
Selenium	1.4	J B	5.0	0.25	ug/L		08/27/15 08:50	08/28/15 19:35	1
Thallium	0.10	J	1.0	0.074	ug/L		08/27/15 08:50	08/28/15 19:35	1
Vanadium	4.0	U L	4.0	0.23	ug/L		08/27/15 08:50	08/28/15 19:35	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-04**

**Lab Sample ID: 240-54731-2**

**Date Collected: 08/25/15 10:45**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/27/15 08:50	08/28/15 19:35	1
Silver	0.20	U	0.20	0.020	ug/L		08/27/15 08:50	08/28/15 19:35	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/27/15 08:50	08/28/15 19:45	1
<b>Arsenic</b>	<b>0.68</b>	<b>J B</b>	5.0	0.18	ug/L		08/27/15 08:50	08/28/15 19:45	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/27/15 08:50	08/28/15 19:45	1
<b>Cadmium</b>	<b>0.079</b>	<b>J</b>	1.0	0.061	ug/L		08/27/15 08:50	08/28/15 19:45	1
<b>Cobalt</b>	<b>0.20</b>	<b>J</b>	7.0	0.021	ug/L		08/27/15 08:50	08/28/15 19:45	1
<b>Chromium</b>	<b>3.7</b>	<b>J B</b>	5.0	0.20	ug/L		08/27/15 08:50	08/28/15 19:45	1
<b>Copper</b>	<b>0.75</b>	<b>J</b>	2.0	0.75	ug/L		08/27/15 08:50	08/28/15 19:45	1
<b>Manganese</b>	<b>1.5</b>	<b>J</b>	15	1.1	ug/L		08/27/15 08:50	08/28/15 19:45	1
<b>Nickel</b>	<b>4.0</b>	<b>J</b>	20	0.23	ug/L		08/27/15 08:50	08/28/15 19:45	1
Lead	3.0	U	3.0	0.11	ug/L		08/27/15 08:50	08/28/15 19:45	1
<b>Antimony</b>	<b>0.19</b>	<b>J</b>	2.0	0.16	ug/L		08/27/15 08:50	08/28/15 19:45	1
<b>Selenium</b>	<b>1.2</b>	<b>J B</b>	5.0	0.25	ug/L		08/27/15 08:50	08/28/15 19:45	1
Thallium	1.0	U	1.0	0.074	ug/L		08/27/15 08:50	08/28/15 19:45	1
<b>Vanadium</b>	<b>1.2</b>	<b>J B</b>	4.0	0.23	ug/L		08/27/15 08:50	08/28/15 19:45	1
Zinc	20	U	20	7.3	ug/L		08/27/15 08:50	08/28/15 19:45	1
<b>Barium</b>	<b>85</b>	<b>J</b>	100	1.1	ug/L		08/27/15 08:50	08/28/15 19:45	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/27/15 09:04	08/28/15 16:37	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/27/15 09:04	08/28/15 16:34	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/26/15 10:40	1
<b>Cr (III)</b>	<b>0.41</b>		0.020	0.0050	mg/L			09/01/15 07:34	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-07**

**Lab Sample ID: 240-54731-3**

**Date Collected: 08/25/15 13:55**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/01/15 14:22	1
Benzene	1.0	U	1.0	0.35	ug/L			09/01/15 14:22	1
<b>Dichlorobromomethane</b>	<b>0.50</b>	<b>J</b>	1.0	0.29	ug/L			09/01/15 14:22	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/01/15 14:22	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/01/15 14:22	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/01/15 14:22	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/01/15 14:22	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/01/15 14:22	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/01/15 14:22	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/01/15 14:22	1
<b>Chloroform</b>	<b>0.68</b>	<b>J</b>	1.0	0.25	ug/L			09/01/15 14:22	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/01/15 14:22	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/01/15 14:22	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/01/15 14:22	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/01/15 14:22	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/01/15 14:22	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/01/15 14:22	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/01/15 14:22	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/01/15 14:22	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/01/15 14:22	1
2-Hexanone	10	U	10	0.48	ug/L			09/01/15 14:22	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/01/15 14:22	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/01/15 14:22	1
Styrene	1.0	U	1.0	0.45	ug/L			09/01/15 14:22	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/01/15 14:22	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/01/15 14:22	1
Toluene	1.0	U	1.0	0.23	ug/L			09/01/15 14:22	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/01/15 14:22	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/01/15 14:22	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/01/15 14:22	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/01/15 14:22	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/01/15 14:22	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/01/15 14:22	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/01/15 14:22	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/01/15 14:22	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/01/15 14:22	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/01/15 14:22	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/01/15 14:22	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/01/15 14:22	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/01/15 14:22	1
Methyl acetate	10	U	10	2.3	ug/L			09/01/15 14:22	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/01/15 14:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/01/15 14:22	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/01/15 14:22	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/01/15 14:22	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/01/15 14:22	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/01/15 14:22	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/01/15 14:22	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/01/15 14:22	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-07**

**Lab Sample ID: 240-54731-3**

**Date Collected: 08/25/15 13:55**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/01/15 14:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		78 - 125					09/01/15 14:22	1
4-Bromofluorobenzene (Surr)	100		61 - 120					09/01/15 14:22	1
Toluene-d8 (Surr)	95		80 - 120					09/01/15 14:22	1
Dibromofluoromethane (Surr)	89		79 - 120					09/01/15 14:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	4.8	U	4.8	0.042	ug/L		08/27/15 08:45	09/06/15 12:59	1
Acenaphthylene	4.8	U	4.8	0.046	ug/L		08/27/15 08:45	09/06/15 12:59	1
Acetophenone	4.8	U	4.8	0.32	ug/L		08/27/15 08:45	09/06/15 12:59	1
Anthracene	4.8	U	4.8	0.084	ug/L		08/27/15 08:45	09/06/15 12:59	1
Atrazine	2.9	U	2.9	0.32	ug/L		08/27/15 08:45	09/06/15 12:59	1
Benzaldehyde	4.8	U	4.8	0.37	ug/L		08/27/15 08:45	09/06/15 12:59	1
Benzo[a]anthracene	0.95	U	0.95	0.028	ug/L		08/27/15 08:45	09/06/15 12:59	1
Benzo[b]fluoranthene	0.95	U	0.95	0.038	ug/L		08/27/15 08:45	09/06/15 12:59	1
Benzo[k]fluoranthene	0.95	U	0.95	0.043	ug/L		08/27/15 08:45	09/06/15 12:59	1
Benzo[g,h,i]perylene	0.95	U	0.95	0.044	ug/L		08/27/15 08:45	09/06/15 12:59	1
Benzo[a]pyrene	0.95	U	0.95	0.049	ug/L		08/27/15 08:45	09/06/15 12:59	1
Butyl benzyl phthalate	4.8	U	4.8	0.25	ug/L		08/27/15 08:45	09/06/15 12:59	1
1,1'-Biphenyl	4.8	U	4.8	0.12	ug/L		08/27/15 08:45	09/06/15 12:59	1
Bis(2-chloroethoxy)methane	4.8	U	4.8	0.30	ug/L		08/27/15 08:45	09/06/15 12:59	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.095	ug/L		08/27/15 08:45	09/06/15 12:59	1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8	1.6	ug/L		08/27/15 08:45	09/06/15 12:59	1
4-Bromophenyl phenyl ether	4.8	U	4.8	0.21	ug/L		08/27/15 08:45	09/06/15 12:59	1
Caprolactam	9.5	U	9.5	0.19	ug/L		08/27/15 08:45	09/06/15 12:59	1
Carbazole	9.5	U	9.5	0.27	ug/L		08/27/15 08:45	09/06/15 12:59	1
4-Chloroaniline	9.5	U	9.5	0.20	ug/L		08/27/15 08:45	09/06/15 12:59	1
4-Chloro-3-methylphenol	4.8	U	4.8	0.20	ug/L		08/27/15 08:45	09/06/15 12:59	1
2-Chloronaphthalene	4.8	U	4.8	0.095	ug/L		08/27/15 08:45	09/06/15 12:59	1
2-Chlorophenol	4.8	U	4.8	0.28	ug/L		08/27/15 08:45	09/06/15 12:59	1
4-Chlorophenyl phenyl ether	4.8	U	4.8	0.29	ug/L		08/27/15 08:45	09/06/15 12:59	1
Chrysene	0.95	U	0.95	0.048	ug/L		08/27/15 08:45	09/06/15 12:59	1
2-Methylnaphthalene	4.8	U	4.8	0.086	ug/L		08/27/15 08:45	09/06/15 12:59	1
3 & 4 Methylphenol	4.8	U	4.8	0.76	ug/L		08/27/15 08:45	09/06/15 12:59	1
Dibenz(a,h)anthracene	1.9	U	1.9	0.042	ug/L		08/27/15 08:45	09/06/15 12:59	1
Dibenzofuran	3.8	U	3.8	0.019	ug/L		08/27/15 08:45	09/06/15 12:59	1
3,3'-Dichlorobenzidine	0.95	U	0.95	0.35	ug/L		08/27/15 08:45	09/06/15 12:59	1
2,4-Dichlorophenol	9.5	U	9.5	0.18	ug/L		08/27/15 08:45	09/06/15 12:59	1
Diethyl phthalate	4.8	U	4.8	0.57	ug/L		08/27/15 08:45	09/06/15 12:59	1
2,4-Dimethylphenol	4.8	U	4.8	0.24	ug/L		08/27/15 08:45	09/06/15 12:59	1
Dimethyl phthalate	4.8	U	4.8	0.28	ug/L		08/27/15 08:45	09/06/15 12:59	1
4,6-Dinitro-2-methylphenol	19	U	19	2.3	ug/L		08/27/15 08:45	09/06/15 12:59	1
2,4-Dinitrophenol	19	U	19	0.30	ug/L		08/27/15 08:45	09/06/15 12:59	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		08/27/15 08:45	09/06/15 12:59	1
Di-n-butyl phthalate	4.8	U	4.8	1.6	ug/L		08/27/15 08:45	09/06/15 12:59	1
Di-n-octyl phthalate	4.8	U	4.8	0.22	ug/L		08/27/15 08:45	09/06/15 12:59	1
Fluoranthene	0.95	U	0.95	0.042	ug/L		08/27/15 08:45	09/06/15 12:59	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-07**

**Lab Sample ID: 240-54731-3**

**Date Collected: 08/25/15 13:55**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.8	U	4.8	0.039	ug/L		08/27/15 08:45	09/06/15 12:59	1
Hexachlorobenzene	0.19	U	0.19	0.081	ug/L		08/27/15 08:45	09/06/15 12:59	1
Hexachlorobutadiene	0.95	U	0.95	0.26	ug/L		08/27/15 08:45	09/06/15 12:59	1
Hexachlorocyclopentadiene	4.8	U	4.8	0.23	ug/L		08/27/15 08:45	09/06/15 12:59	1
Hexachloroethane	4.8	U	4.8	0.18	ug/L		08/27/15 08:45	09/06/15 12:59	1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	0.041	ug/L		08/27/15 08:45	09/06/15 12:59	1
Isophorone	4.8	U	4.8	0.26	ug/L		08/27/15 08:45	09/06/15 12:59	1
2-Methylphenol	4.8	U	4.8	0.16	ug/L		08/27/15 08:45	09/06/15 12:59	1
Naphthalene	4.8	U	4.8	0.060	ug/L		08/27/15 08:45	09/06/15 12:59	1
2-Nitroaniline	19	U	19	0.20	ug/L		08/27/15 08:45	09/06/15 12:59	1
3-Nitroaniline	19	U	19	0.27	ug/L		08/27/15 08:45	09/06/15 12:59	1
4-Nitroaniline	19	U	19	0.21	ug/L		08/27/15 08:45	09/06/15 12:59	1
Nitrobenzene	2.9	U	2.9	0.038	ug/L		08/27/15 08:45	09/06/15 12:59	1
2-Nitrophenol	4.8	U	4.8	0.27	ug/L		08/27/15 08:45	09/06/15 12:59	1
4-Nitrophenol	19	U	19	0.28	ug/L		08/27/15 08:45	09/06/15 12:59	1
N-Nitrosodiphenylamine	4.8	U	4.8	0.30	ug/L		08/27/15 08:45	09/06/15 12:59	1
N-Nitrosodi-n-propylamine	4.8	U	4.8	0.23	ug/L		08/27/15 08:45	09/06/15 12:59	1
2,2'-oxybis[1-chloropropane]	4.8	U	4.8	0.38	ug/L		08/27/15 08:45	09/06/15 12:59	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		08/27/15 08:45	09/06/15 12:59	1
Phenanthrene	1.9	U	1.9	0.059	ug/L		08/27/15 08:45	09/06/15 12:59	1
Phenol	4.8	U	4.8	0.57	ug/L		08/27/15 08:45	09/06/15 12:59	1
Pyrene	4.8	U	4.8	0.040	ug/L		08/27/15 08:45	09/06/15 12:59	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		08/27/15 08:45	09/06/15 12:59	1
2,4,6-Trichlorophenol	3.8	U	3.8	0.23	ug/L		08/27/15 08:45	09/06/15 12:59	1
2,6-Dinitrotoluene	4.8	U	4.8	0.76	ug/L		08/27/15 08:45	09/06/15 12:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	49		29 - 110	08/27/15 08:45	09/06/15 12:59	1
2-Fluorophenol (Surr)	21		15 - 110	08/27/15 08:45	09/06/15 12:59	1
2,4,6-Tribromophenol (Surr)	31		21 - 128	08/27/15 08:45	09/06/15 12:59	1
Nitrobenzene-d5 (Surr)	46		31 - 110	08/27/15 08:45	09/06/15 12:59	1
Phenol-d5 (Surr)	11		10 - 110	08/27/15 08:45	09/06/15 12:59	1
Terphenyl-d14 (Surr)	49		31 - 115	08/27/15 08:45	09/06/15 12:59	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/27/15 08:50	08/28/15 19:49	1
<b>Arsenic</b>	<b>0.79</b>	<b>J B</b>	5.0	0.18	ug/L		08/27/15 08:50	08/28/15 19:49	1
<b>Barium</b>	<b>75</b>	<b>J</b>	100	1.1	ug/L		08/27/15 08:50	08/28/15 19:49	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/27/15 08:50	08/28/15 19:49	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/27/15 08:50	08/28/15 19:49	1
<b>Cobalt</b>	<b>0.90</b>	<b>J</b>	7.0	0.021	ug/L		08/27/15 08:50	08/28/15 19:49	1
<b>Chromium</b>	<b>150</b>	<b>B</b>	5.0	0.20	ug/L		08/27/15 08:50	08/28/15 19:49	1
<b>Copper</b>	<b>5.6</b>		2.0	0.75	ug/L		08/27/15 08:50	08/28/15 19:49	1
<b>Manganese</b>	<b>6.1</b>	<b>J</b>	15	1.1	ug/L		08/27/15 08:50	08/28/15 19:49	1
<b>Nickel</b>	<b>10</b>	<b>J</b>	20	0.23	ug/L		08/27/15 08:50	08/28/15 19:49	1
<b>Lead</b>	<b>0.15</b>	<b>J B</b>	3.0	0.11	ug/L		08/27/15 08:50	08/28/15 19:49	1
<b>Selenium</b>	<b>1.2</b>	<b>J B</b>	5.0	0.25	ug/L		08/27/15 08:50	08/28/15 19:49	1
Thallium	1.0	U	1.0	0.074	ug/L		08/27/15 08:50	08/28/15 19:49	1
Vanadium	4.0	U	4.0	0.23	ug/L		08/27/15 08:50	08/28/15 19:49	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-07**

**Lab Sample ID: 240-54731-3**

**Date Collected: 08/25/15 13:55**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/27/15 08:50	08/28/15 19:49	1
Silver	0.20	U	0.20	0.020	ug/L		08/27/15 08:50	08/28/15 19:49	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/27/15 08:50	08/28/15 19:53	1
<b>Arsenic</b>	<b>0.69</b>	<b>J B</b>	5.0	0.18	ug/L		08/27/15 08:50	08/28/15 19:53	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/27/15 08:50	08/28/15 19:53	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/27/15 08:50	08/28/15 19:53	1
<b>Cobalt</b>	<b>0.10</b>	<b>J</b>	7.0	0.021	ug/L		08/27/15 08:50	08/28/15 19:53	1
<b>Chromium</b>	<b>2.7</b>	<b>J B</b>	5.0	0.20	ug/L		08/27/15 08:50	08/28/15 19:53	1
Copper	2.0	U	2.0	0.75	ug/L		08/27/15 08:50	08/28/15 19:53	1
Manganese	15	U	15	1.1	ug/L		08/27/15 08:50	08/28/15 19:53	1
<b>Nickel</b>	<b>1.1</b>	<b>J</b>	20	0.23	ug/L		08/27/15 08:50	08/28/15 19:53	1
<b>Lead</b>	<b>0.14</b>	<b>J B</b>	3.0	0.11	ug/L		08/27/15 08:50	08/28/15 19:53	1
Antimony	2.0	U	2.0	0.16	ug/L		08/27/15 08:50	08/28/15 19:53	1
<b>Selenium</b>	<b>1.3</b>	<b>J B</b>	5.0	0.25	ug/L		08/27/15 08:50	08/28/15 19:53	1
Thallium	1.0	U	1.0	0.074	ug/L		08/27/15 08:50	08/28/15 19:53	1
<b>Vanadium</b>	<b>0.98</b>	<b>J B</b>	4.0	0.23	ug/L		08/27/15 08:50	08/28/15 19:53	1
Zinc	20	U	20	7.3	ug/L		08/27/15 08:50	08/28/15 19:53	1
<b>Barium</b>	<b>76</b>	<b>J</b>	100	1.1	ug/L		08/27/15 08:50	08/28/15 19:53	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/27/15 09:04	08/28/15 16:49	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/27/15 09:04	08/28/15 16:40	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/26/15 11:52	1
<b>Cr (III)</b>	<b>0.15</b>		0.020	0.0050	mg/L			09/01/15 07:34	1



# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-08**

**Lab Sample ID: 240-54731-4**

**Date Collected: 08/25/15 14:05**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/01/15 14:45	1
Benzene	1.0	U	1.0	0.35	ug/L			09/01/15 14:45	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/01/15 14:45	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/01/15 14:45	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/01/15 14:45	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/01/15 14:45	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/01/15 14:45	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/01/15 14:45	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/01/15 14:45	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/01/15 14:45	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/01/15 14:45	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/01/15 14:45	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/01/15 14:45	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/01/15 14:45	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/01/15 14:45	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/01/15 14:45	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/01/15 14:45	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/01/15 14:45	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/01/15 14:45	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/01/15 14:45	1
2-Hexanone	10	U	10	0.48	ug/L			09/01/15 14:45	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/01/15 14:45	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/01/15 14:45	1
Styrene	1.0	U	1.0	0.45	ug/L			09/01/15 14:45	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/01/15 14:45	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/01/15 14:45	1
Toluene	1.0	U	1.0	0.23	ug/L			09/01/15 14:45	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/01/15 14:45	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/01/15 14:45	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/01/15 14:45	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/01/15 14:45	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/01/15 14:45	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/01/15 14:45	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/01/15 14:45	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/01/15 14:45	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/01/15 14:45	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/01/15 14:45	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/01/15 14:45	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/01/15 14:45	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/01/15 14:45	1
Methyl acetate	10	U	10	2.3	ug/L			09/01/15 14:45	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/01/15 14:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/01/15 14:45	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/01/15 14:45	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/01/15 14:45	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/01/15 14:45	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/01/15 14:45	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/01/15 14:45	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/01/15 14:45	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-08**

**Lab Sample ID: 240-54731-4**

**Date Collected: 08/25/15 14:05**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/01/15 14:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		78 - 125					09/01/15 14:45	1
4-Bromofluorobenzene (Surr)	101		61 - 120					09/01/15 14:45	1
Toluene-d8 (Surr)	96		80 - 120					09/01/15 14:45	1
Dibromofluoromethane (Surr)	90		79 - 120					09/01/15 14:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	4.9	U	4.9	0.043	ug/L		08/27/15 08:45	09/06/15 13:21	1
Acenaphthylene	4.9	U	4.9	0.047	ug/L		08/27/15 08:45	09/06/15 13:21	1
Acetophenone	4.9	U	4.9	0.33	ug/L		08/27/15 08:45	09/06/15 13:21	1
Anthracene	4.9	U	4.9	0.086	ug/L		08/27/15 08:45	09/06/15 13:21	1
Atrazine	2.9	U	2.9	0.33	ug/L		08/27/15 08:45	09/06/15 13:21	1
Benzaldehyde	4.9	U	4.9	0.38	ug/L		08/27/15 08:45	09/06/15 13:21	1
Benzo[a]anthracene	0.98	U	0.98	0.029	ug/L		08/27/15 08:45	09/06/15 13:21	1
Benzo[b]fluoranthene	0.98	U	0.98	0.039	ug/L		08/27/15 08:45	09/06/15 13:21	1
Benzo[k]fluoranthene	0.98	U	0.98	0.044	ug/L		08/27/15 08:45	09/06/15 13:21	1
Benzo[g,h,i]perylene	0.98	U	0.98	0.045	ug/L		08/27/15 08:45	09/06/15 13:21	1
Benzo[a]pyrene	0.98	U	0.98	0.050	ug/L		08/27/15 08:45	09/06/15 13:21	1
Butyl benzyl phthalate	4.9	U	4.9	0.25	ug/L		08/27/15 08:45	09/06/15 13:21	1
1,1'-Biphenyl	4.9	U	4.9	0.13	ug/L		08/27/15 08:45	09/06/15 13:21	1
Bis(2-chloroethoxy)methane	4.9	U	4.9	0.31	ug/L		08/27/15 08:45	09/06/15 13:21	1
Bis(2-chloroethyl)ether	0.98	U	0.98	0.098	ug/L		08/27/15 08:45	09/06/15 13:21	1
Bis(2-ethylhexyl) phthalate	4.9	U	4.9	1.7	ug/L		08/27/15 08:45	09/06/15 13:21	1
4-Bromophenyl phenyl ether	4.9	U	4.9	0.22	ug/L		08/27/15 08:45	09/06/15 13:21	1
Caprolactam	9.8	U	9.8	0.20	ug/L		08/27/15 08:45	09/06/15 13:21	1
Carbazole	9.8	U	9.8	0.27	ug/L		08/27/15 08:45	09/06/15 13:21	1
4-Chloroaniline	9.8	U	9.8	0.21	ug/L		08/27/15 08:45	09/06/15 13:21	1
4-Chloro-3-methylphenol	4.9	U	4.9	0.21	ug/L		08/27/15 08:45	09/06/15 13:21	1
2-Chloronaphthalene	4.9	U	4.9	0.098	ug/L		08/27/15 08:45	09/06/15 13:21	1
2-Chlorophenol	4.9	U	4.9	0.28	ug/L		08/27/15 08:45	09/06/15 13:21	1
4-Chlorophenyl phenyl ether	4.9	U	4.9	0.29	ug/L		08/27/15 08:45	09/06/15 13:21	1
Chrysene	0.98	U	0.98	0.049	ug/L		08/27/15 08:45	09/06/15 13:21	1
2-Methylnaphthalene	4.9	U	4.9	0.089	ug/L		08/27/15 08:45	09/06/15 13:21	1
3 & 4 Methylphenol	4.9	U	4.9	0.78	ug/L		08/27/15 08:45	09/06/15 13:21	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.044	ug/L		08/27/15 08:45	09/06/15 13:21	1
Dibenzofuran	3.9	U	3.9	0.020	ug/L		08/27/15 08:45	09/06/15 13:21	1
3,3'-Dichlorobenzidine	0.98	U	0.98	0.36	ug/L		08/27/15 08:45	09/06/15 13:21	1
2,4-Dichlorophenol	9.8	U	9.8	0.19	ug/L		08/27/15 08:45	09/06/15 13:21	1
Diethyl phthalate	4.9	U	4.9	0.59	ug/L		08/27/15 08:45	09/06/15 13:21	1
2,4-Dimethylphenol	4.9	U	4.9	0.25	ug/L		08/27/15 08:45	09/06/15 13:21	1
Dimethyl phthalate	4.9	U	4.9	0.28	ug/L		08/27/15 08:45	09/06/15 13:21	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		08/27/15 08:45	09/06/15 13:21	1
2,4-Dinitrophenol	20	U	20	0.31	ug/L		08/27/15 08:45	09/06/15 13:21	1
2,4-Dinitrotoluene	4.9	U	4.9	0.25	ug/L		08/27/15 08:45	09/06/15 13:21	1
Di-n-butyl phthalate	4.9	U	4.9	1.7	ug/L		08/27/15 08:45	09/06/15 13:21	1
Di-n-octyl phthalate	4.9	U	4.9	0.23	ug/L		08/27/15 08:45	09/06/15 13:21	1
Fluoranthene	0.98	U	0.98	0.044	ug/L		08/27/15 08:45	09/06/15 13:21	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-08**

**Lab Sample ID: 240-54731-4**

**Date Collected: 08/25/15 14:05**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.9	U	4.9	0.040	ug/L		08/27/15 08:45	09/06/15 13:21	1
Hexachlorobenzene	0.20	U	0.20	0.084	ug/L		08/27/15 08:45	09/06/15 13:21	1
Hexachlorobutadiene	0.98	U	0.98	0.26	ug/L		08/27/15 08:45	09/06/15 13:21	1
Hexachlorocyclopentadiene	4.9	U	4.9	0.24	ug/L		08/27/15 08:45	09/06/15 13:21	1
Hexachloroethane	4.9	U	4.9	0.19	ug/L		08/27/15 08:45	09/06/15 13:21	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.042	ug/L		08/27/15 08:45	09/06/15 13:21	1
Isophorone	4.9	U	4.9	0.26	ug/L		08/27/15 08:45	09/06/15 13:21	1
2-Methylphenol	4.9	U	4.9	0.17	ug/L		08/27/15 08:45	09/06/15 13:21	1
Naphthalene	4.9	U	4.9	0.061	ug/L		08/27/15 08:45	09/06/15 13:21	1
2-Nitroaniline	20	U	20	0.21	ug/L		08/27/15 08:45	09/06/15 13:21	1
3-Nitroaniline	20	U	20	0.27	ug/L		08/27/15 08:45	09/06/15 13:21	1
4-Nitroaniline	20	U	20	0.22	ug/L		08/27/15 08:45	09/06/15 13:21	1
Nitrobenzene	2.9	U	2.9	0.039	ug/L		08/27/15 08:45	09/06/15 13:21	1
2-Nitrophenol	4.9	U	4.9	0.27	ug/L		08/27/15 08:45	09/06/15 13:21	1
4-Nitrophenol	20	U	20	0.28	ug/L		08/27/15 08:45	09/06/15 13:21	1
N-Nitrosodiphenylamine	4.9	U	4.9	0.30	ug/L		08/27/15 08:45	09/06/15 13:21	1
N-Nitrosodi-n-propylamine	4.9	U	4.9	0.24	ug/L		08/27/15 08:45	09/06/15 13:21	1
2,2'-oxybis[1-chloropropane]	4.9	U	4.9	0.39	ug/L		08/27/15 08:45	09/06/15 13:21	1
Pentachlorophenol	4.9	U	4.9	0.26	ug/L		08/27/15 08:45	09/06/15 13:21	1
Phenanthrene	2.0	U	2.0	0.061	ug/L		08/27/15 08:45	09/06/15 13:21	1
Phenol	4.9	U	4.9	0.59	ug/L		08/27/15 08:45	09/06/15 13:21	1
Pyrene	4.9	U	4.9	0.041	ug/L		08/27/15 08:45	09/06/15 13:21	1
2,4,5-Trichlorophenol	4.9	U	4.9	0.29	ug/L		08/27/15 08:45	09/06/15 13:21	1
2,4,6-Trichlorophenol	3.9	U	3.9	0.24	ug/L		08/27/15 08:45	09/06/15 13:21	1
2,6-Dinitrotoluene	4.9	U	4.9	0.78	ug/L		08/27/15 08:45	09/06/15 13:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	51		29 - 110	08/27/15 08:45	09/06/15 13:21	1
2-Fluorophenol (Surr)	23		15 - 110	08/27/15 08:45	09/06/15 13:21	1
2,4,6-Tribromophenol (Surr)	35		21 - 128	08/27/15 08:45	09/06/15 13:21	1
Nitrobenzene-d5 (Surr)	47		31 - 110	08/27/15 08:45	09/06/15 13:21	1
Phenol-d5 (Surr)	13		10 - 110	08/27/15 08:45	09/06/15 13:21	1
Terphenyl-d14 (Surr)	48		31 - 115	08/27/15 08:45	09/06/15 13:21	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.18	J	2.0	0.16	ug/L		08/27/15 08:50	08/28/15 19:56	1
Arsenic	0.93	J B	5.0	0.18	ug/L		08/27/15 08:50	08/28/15 19:56	1
Barium	50	J	100	1.1	ug/L		08/27/15 08:50	08/28/15 19:56	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/27/15 08:50	08/28/15 19:56	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/27/15 08:50	08/28/15 19:56	1
Cobalt	0.26	J	7.0	0.021	ug/L		08/27/15 08:50	08/28/15 19:56	1
Chromium	52	B	5.0	0.20	ug/L		08/27/15 08:50	08/28/15 19:56	1
Copper	2.7		2.0	0.75	ug/L		08/27/15 08:50	08/28/15 19:56	1
Manganese	3.6	J	15	1.1	ug/L		08/27/15 08:50	08/28/15 19:56	1
Nickel	4.1	J	20	0.23	ug/L		08/27/15 08:50	08/28/15 19:56	1
Lead	0.18	J B	3.0	0.11	ug/L		08/27/15 08:50	08/28/15 19:56	1
Selenium	2.4	J B	5.0	0.25	ug/L		08/27/15 08:50	08/28/15 19:56	1
Thallium	1.0	U	1.0	0.074	ug/L		08/27/15 08:50	08/28/15 19:56	1
Vanadium	0.86	J B	4.0	0.23	ug/L		08/27/15 08:50	08/28/15 19:56	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-08**

**Lab Sample ID: 240-54731-4**

**Date Collected: 08/25/15 14:05**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/27/15 08:50	08/28/15 19:56	1
Silver	0.20	U	0.20	0.020	ug/L		08/27/15 08:50	08/28/15 19:56	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/27/15 08:50	08/28/15 20:00	1
<b>Arsenic</b>	<b>0.83</b>	<b>J B</b>	5.0	0.18	ug/L		08/27/15 08:50	08/28/15 20:00	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/27/15 08:50	08/28/15 20:00	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/27/15 08:50	08/28/15 20:00	1
<b>Cobalt</b>	<b>0.11</b>	<b>J</b>	7.0	0.021	ug/L		08/27/15 08:50	08/28/15 20:00	1
<b>Chromium</b>	<b>3.0</b>	<b>J B</b>	5.0	0.20	ug/L		08/27/15 08:50	08/28/15 20:00	1
<b>Copper</b>	<b>0.78</b>	<b>J</b>	2.0	0.75	ug/L		08/27/15 08:50	08/28/15 20:00	1
Manganese	15	U	15	1.1	ug/L		08/27/15 08:50	08/28/15 20:00	1
<b>Nickel</b>	<b>0.44</b>	<b>J</b>	20	0.23	ug/L		08/27/15 08:50	08/28/15 20:00	1
Lead	3.0	U	3.0	0.11	ug/L		08/27/15 08:50	08/28/15 20:00	1
<b>Antimony</b>	<b>0.17</b>	<b>J</b>	2.0	0.16	ug/L		08/27/15 08:50	08/28/15 20:00	1
<b>Selenium</b>	<b>2.4</b>	<b>J B</b>	5.0	0.25	ug/L		08/27/15 08:50	08/28/15 20:00	1
Thallium	1.0	U	1.0	0.074	ug/L		08/27/15 08:50	08/28/15 20:00	1
<b>Vanadium</b>	<b>1.5</b>	<b>J B</b>	4.0	0.23	ug/L		08/27/15 08:50	08/28/15 20:00	1
Zinc	20	U	20	7.3	ug/L		08/27/15 08:50	08/28/15 20:00	1
<b>Barium</b>	<b>50</b>	<b>J</b>	100	1.1	ug/L		08/27/15 08:50	08/28/15 20:00	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/27/15 09:04	08/28/15 16:45	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/27/15 09:04	08/28/15 16:39	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/26/15 12:45	1
<b>Cr (III)</b>	<b>0.052</b>		0.020	0.0050	mg/L			09/01/15 07:34	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-09**

**Lab Sample ID: 240-54731-5**

**Date Collected: 08/25/15 15:00**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/01/15 15:07	1
Benzene	1.0	U	1.0	0.35	ug/L			09/01/15 15:07	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/01/15 15:07	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/01/15 15:07	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/01/15 15:07	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/01/15 15:07	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/01/15 15:07	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/01/15 15:07	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/01/15 15:07	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/01/15 15:07	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/01/15 15:07	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/01/15 15:07	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/01/15 15:07	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/01/15 15:07	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/01/15 15:07	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/01/15 15:07	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/01/15 15:07	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/01/15 15:07	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/01/15 15:07	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/01/15 15:07	1
2-Hexanone	10	U	10	0.48	ug/L			09/01/15 15:07	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/01/15 15:07	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/01/15 15:07	1
Styrene	1.0	U	1.0	0.45	ug/L			09/01/15 15:07	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/01/15 15:07	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/01/15 15:07	1
Toluene	1.0	U	1.0	0.23	ug/L			09/01/15 15:07	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/01/15 15:07	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/01/15 15:07	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/01/15 15:07	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/01/15 15:07	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/01/15 15:07	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/01/15 15:07	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/01/15 15:07	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/01/15 15:07	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/01/15 15:07	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/01/15 15:07	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/01/15 15:07	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/01/15 15:07	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/01/15 15:07	1
Methyl acetate	10	U	10	2.3	ug/L			09/01/15 15:07	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/01/15 15:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/01/15 15:07	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/01/15 15:07	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/01/15 15:07	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/01/15 15:07	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/01/15 15:07	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/01/15 15:07	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/01/15 15:07	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-09**

**Lab Sample ID: 240-54731-5**

**Date Collected: 08/25/15 15:00**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/01/15 15:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		78 - 125					09/01/15 15:07	1
4-Bromofluorobenzene (Surr)	98		61 - 120					09/01/15 15:07	1
Toluene-d8 (Surr)	95		80 - 120					09/01/15 15:07	1
Dibromofluoromethane (Surr)	90		79 - 120					09/01/15 15:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	4.8	U	4.8	0.042	ug/L		08/27/15 08:45	09/06/15 13:43	1
Acenaphthylene	4.8	U	4.8	0.046	ug/L		08/27/15 08:45	09/06/15 13:43	1
Acetophenone	4.8	U	4.8	0.32	ug/L		08/27/15 08:45	09/06/15 13:43	1
Anthracene	4.8	U	4.8	0.084	ug/L		08/27/15 08:45	09/06/15 13:43	1
Atrazine	2.9	U	2.9	0.32	ug/L		08/27/15 08:45	09/06/15 13:43	1
Benzaldehyde	4.8	U	4.8	0.37	ug/L		08/27/15 08:45	09/06/15 13:43	1
Benzo[a]anthracene	0.95	U	0.95	0.028	ug/L		08/27/15 08:45	09/06/15 13:43	1
Benzo[b]fluoranthene	0.95	U	0.95	0.038	ug/L		08/27/15 08:45	09/06/15 13:43	1
Benzo[k]fluoranthene	0.95	U	0.95	0.043	ug/L		08/27/15 08:45	09/06/15 13:43	1
Benzo[g,h,i]perylene	0.95	U	0.95	0.044	ug/L		08/27/15 08:45	09/06/15 13:43	1
Benzo[a]pyrene	0.95	U	0.95	0.049	ug/L		08/27/15 08:45	09/06/15 13:43	1
Butyl benzyl phthalate	4.8	U	4.8	0.25	ug/L		08/27/15 08:45	09/06/15 13:43	1
1,1'-Biphenyl	4.8	U	4.8	0.12	ug/L		08/27/15 08:45	09/06/15 13:43	1
Bis(2-chloroethoxy)methane	4.8	U	4.8	0.30	ug/L		08/27/15 08:45	09/06/15 13:43	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.095	ug/L		08/27/15 08:45	09/06/15 13:43	1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8	1.6	ug/L		08/27/15 08:45	09/06/15 13:43	1
4-Bromophenyl phenyl ether	4.8	U	4.8	0.21	ug/L		08/27/15 08:45	09/06/15 13:43	1
Caprolactam	9.5	U	9.5	0.19	ug/L		08/27/15 08:45	09/06/15 13:43	1
Carbazole	9.5	U	9.5	0.27	ug/L		08/27/15 08:45	09/06/15 13:43	1
4-Chloroaniline	9.5	U	9.5	0.20	ug/L		08/27/15 08:45	09/06/15 13:43	1
4-Chloro-3-methylphenol	4.8	U	4.8	0.20	ug/L		08/27/15 08:45	09/06/15 13:43	1
2-Chloronaphthalene	4.8	U	4.8	0.095	ug/L		08/27/15 08:45	09/06/15 13:43	1
2-Chlorophenol	4.8	U	4.8	0.28	ug/L		08/27/15 08:45	09/06/15 13:43	1
4-Chlorophenyl phenyl ether	4.8	U	4.8	0.29	ug/L		08/27/15 08:45	09/06/15 13:43	1
Chrysene	0.95	U	0.95	0.048	ug/L		08/27/15 08:45	09/06/15 13:43	1
2-Methylnaphthalene	4.8	U	4.8	0.086	ug/L		08/27/15 08:45	09/06/15 13:43	1
3 & 4 Methylphenol	4.8	U	4.8	0.76	ug/L		08/27/15 08:45	09/06/15 13:43	1
Dibenz(a,h)anthracene	1.9	U	1.9	0.042	ug/L		08/27/15 08:45	09/06/15 13:43	1
Dibenzofuran	3.8	U	3.8	0.019	ug/L		08/27/15 08:45	09/06/15 13:43	1
3,3'-Dichlorobenzidine	0.95	U	0.95	0.35	ug/L		08/27/15 08:45	09/06/15 13:43	1
2,4-Dichlorophenol	9.5	U	9.5	0.18	ug/L		08/27/15 08:45	09/06/15 13:43	1
Diethyl phthalate	4.8	U	4.8	0.57	ug/L		08/27/15 08:45	09/06/15 13:43	1
2,4-Dimethylphenol	4.8	U	4.8	0.24	ug/L		08/27/15 08:45	09/06/15 13:43	1
Dimethyl phthalate	4.8	U	4.8	0.28	ug/L		08/27/15 08:45	09/06/15 13:43	1
4,6-Dinitro-2-methylphenol	19	U	19	2.3	ug/L		08/27/15 08:45	09/06/15 13:43	1
2,4-Dinitrophenol	19	U	19	0.30	ug/L		08/27/15 08:45	09/06/15 13:43	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		08/27/15 08:45	09/06/15 13:43	1
Di-n-butyl phthalate	4.8	U	4.8	1.6	ug/L		08/27/15 08:45	09/06/15 13:43	1
Di-n-octyl phthalate	4.8	U	4.8	0.22	ug/L		08/27/15 08:45	09/06/15 13:43	1
Fluoranthene	0.95	U	0.95	0.042	ug/L		08/27/15 08:45	09/06/15 13:43	1

TestAmerica Canton



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-09**

**Lab Sample ID: 240-54731-5**

**Date Collected: 08/25/15 15:00**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.8	U	4.8	0.039	ug/L		08/27/15 08:45	09/06/15 13:43	1
Hexachlorobenzene	0.19	U	0.19	0.081	ug/L		08/27/15 08:45	09/06/15 13:43	1
Hexachlorobutadiene	0.95	U	0.95	0.26	ug/L		08/27/15 08:45	09/06/15 13:43	1
Hexachlorocyclopentadiene	4.8	U	4.8	0.23	ug/L		08/27/15 08:45	09/06/15 13:43	1
Hexachloroethane	4.8	U	4.8	0.18	ug/L		08/27/15 08:45	09/06/15 13:43	1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	0.041	ug/L		08/27/15 08:45	09/06/15 13:43	1
Isophorone	4.8	U	4.8	0.26	ug/L		08/27/15 08:45	09/06/15 13:43	1
2-Methylphenol	4.8	U	4.8	0.16	ug/L		08/27/15 08:45	09/06/15 13:43	1
Naphthalene	4.8	U	4.8	0.060	ug/L		08/27/15 08:45	09/06/15 13:43	1
2-Nitroaniline	19	U	19	0.20	ug/L		08/27/15 08:45	09/06/15 13:43	1
3-Nitroaniline	19	U	19	0.27	ug/L		08/27/15 08:45	09/06/15 13:43	1
4-Nitroaniline	19	U	19	0.21	ug/L		08/27/15 08:45	09/06/15 13:43	1
Nitrobenzene	2.9	U	2.9	0.038	ug/L		08/27/15 08:45	09/06/15 13:43	1
2-Nitrophenol	4.8	U	4.8	0.27	ug/L		08/27/15 08:45	09/06/15 13:43	1
4-Nitrophenol	19	U	19	0.28	ug/L		08/27/15 08:45	09/06/15 13:43	1
N-Nitrosodiphenylamine	4.8	U	4.8	0.30	ug/L		08/27/15 08:45	09/06/15 13:43	1
N-Nitrosodi-n-propylamine	4.8	U	4.8	0.23	ug/L		08/27/15 08:45	09/06/15 13:43	1
2,2'-oxybis[1-chloropropane]	4.8	U	4.8	0.38	ug/L		08/27/15 08:45	09/06/15 13:43	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		08/27/15 08:45	09/06/15 13:43	1
Phenanthrene	1.9	U	1.9	0.059	ug/L		08/27/15 08:45	09/06/15 13:43	1
Phenol	4.8	U	4.8	0.57	ug/L		08/27/15 08:45	09/06/15 13:43	1
Pyrene	4.8	U	4.8	0.040	ug/L		08/27/15 08:45	09/06/15 13:43	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		08/27/15 08:45	09/06/15 13:43	1
2,4,6-Trichlorophenol	3.8	U	3.8	0.23	ug/L		08/27/15 08:45	09/06/15 13:43	1
2,6-Dinitrotoluene	4.8	U	4.8	0.76	ug/L		08/27/15 08:45	09/06/15 13:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	49		29 - 110	08/27/15 08:45	09/06/15 13:43	1
2-Fluorophenol (Surr)	20		15 - 110	08/27/15 08:45	09/06/15 13:43	1
2,4,6-Tribromophenol (Surr)	29		21 - 128	08/27/15 08:45	09/06/15 13:43	1
Nitrobenzene-d5 (Surr)	45		31 - 110	08/27/15 08:45	09/06/15 13:43	1
Phenol-d5 (Surr)	10		10 - 110	08/27/15 08:45	09/06/15 13:43	1
Terphenyl-d14 (Surr)	48		31 - 115	08/27/15 08:45	09/06/15 13:43	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/27/15 08:50	08/28/15 20:04	1
<b>Arsenic</b>	<b>0.77</b>	<b>J B</b>	5.0	0.18	ug/L		08/27/15 08:50	08/28/15 20:04	1
<b>Barium</b>	<b>80</b>	<b>J</b>	100	1.1	ug/L		08/27/15 08:50	08/28/15 20:04	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/27/15 08:50	08/28/15 20:04	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/27/15 08:50	08/28/15 20:04	1
<b>Cobalt</b>	<b>0.18</b>	<b>J</b>	7.0	0.021	ug/L		08/27/15 08:50	08/28/15 20:04	1
<b>Chromium</b>	<b>3.5</b>	<b>J B</b>	5.0	0.20	ug/L		08/27/15 08:50	08/28/15 20:04	1
<b>Copper</b>	<b>1.2</b>	<b>J</b>	2.0	0.75	ug/L		08/27/15 08:50	08/28/15 20:04	1
<b>Manganese</b>	<b>3.6</b>	<b>J</b>	15	1.1	ug/L		08/27/15 08:50	08/28/15 20:04	1
<b>Nickel</b>	<b>0.71</b>	<b>J</b>	20	0.23	ug/L		08/27/15 08:50	08/28/15 20:04	1
<b>Lead</b>	<b>0.20</b>	<b>J B</b>	3.0	0.11	ug/L		08/27/15 08:50	08/28/15 20:04	1
<b>Selenium</b>	<b>1.2</b>	<b>J B</b>	5.0	0.25	ug/L		08/27/15 08:50	08/28/15 20:04	1
Thallium	1.0	U	1.0	0.074	ug/L		08/27/15 08:50	08/28/15 20:04	1
<b>Vanadium</b>	<b>1.1</b>	<b>J B</b>	4.0	0.23	ug/L		08/27/15 08:50	08/28/15 20:04	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-09**

**Lab Sample ID: 240-54731-5**

**Date Collected: 08/25/15 15:00**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/27/15 08:50	08/28/15 20:04	1
Silver	0.20	U	0.20	0.020	ug/L		08/27/15 08:50	08/28/15 20:04	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/27/15 08:50	08/28/15 20:07	1
<b>Arsenic</b>	<b>0.69</b>	<b>J B</b>	5.0	0.18	ug/L		08/27/15 08:50	08/28/15 20:07	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/27/15 08:50	08/28/15 20:07	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/27/15 08:50	08/28/15 20:07	1
<b>Cobalt</b>	<b>0.092</b>	<b>J</b>	7.0	0.021	ug/L		08/27/15 08:50	08/28/15 20:07	1
<b>Chromium</b>	<b>3.1</b>	<b>J B</b>	5.0	0.20	ug/L		08/27/15 08:50	08/28/15 20:07	1
Copper	2.0	U	2.0	0.75	ug/L		08/27/15 08:50	08/28/15 20:07	1
Manganese	15	U	15	1.1	ug/L		08/27/15 08:50	08/28/15 20:07	1
<b>Nickel</b>	<b>0.35</b>	<b>J</b>	20	0.23	ug/L		08/27/15 08:50	08/28/15 20:07	1
Lead	3.0	U	3.0	0.11	ug/L		08/27/15 08:50	08/28/15 20:07	1
Antimony	2.0	U	2.0	0.16	ug/L		08/27/15 08:50	08/28/15 20:07	1
<b>Selenium</b>	<b>1.1</b>	<b>J B</b>	5.0	0.25	ug/L		08/27/15 08:50	08/28/15 20:07	1
Thallium	1.0	U	1.0	0.074	ug/L		08/27/15 08:50	08/28/15 20:07	1
<b>Vanadium</b>	<b>1.2</b>	<b>J B</b>	4.0	0.23	ug/L		08/27/15 08:50	08/28/15 20:07	1
Zinc	20	U	20	7.3	ug/L		08/27/15 08:50	08/28/15 20:07	1
<b>Barium</b>	<b>81</b>	<b>J</b>	100	1.1	ug/L		08/27/15 08:50	08/28/15 20:07	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/27/15 09:04	08/28/15 16:54	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/27/15 09:04	08/28/15 16:50	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/26/15 12:46	1
Cr (III)	0.020	U	0.020	0.0050	mg/L			09/01/15 07:34	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-10**

**Lab Sample ID: 240-54731-6**

**Date Collected: 08/25/15 15:15**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/01/15 15:30	1
Benzene	1.0	U	1.0	0.35	ug/L			09/01/15 15:30	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/01/15 15:30	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/01/15 15:30	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/01/15 15:30	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/01/15 15:30	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/01/15 15:30	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/01/15 15:30	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/01/15 15:30	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/01/15 15:30	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/01/15 15:30	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/01/15 15:30	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/01/15 15:30	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/01/15 15:30	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/01/15 15:30	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/01/15 15:30	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/01/15 15:30	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/01/15 15:30	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/01/15 15:30	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/01/15 15:30	1
2-Hexanone	10	U	10	0.48	ug/L			09/01/15 15:30	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/01/15 15:30	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/01/15 15:30	1
Styrene	1.0	U	1.0	0.45	ug/L			09/01/15 15:30	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/01/15 15:30	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/01/15 15:30	1
Toluene	1.0	U	1.0	0.23	ug/L			09/01/15 15:30	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/01/15 15:30	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/01/15 15:30	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/01/15 15:30	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/01/15 15:30	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/01/15 15:30	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/01/15 15:30	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/01/15 15:30	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/01/15 15:30	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/01/15 15:30	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/01/15 15:30	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/01/15 15:30	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/01/15 15:30	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/01/15 15:30	1
Methyl acetate	10	U	10	2.3	ug/L			09/01/15 15:30	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/01/15 15:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/01/15 15:30	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/01/15 15:30	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/01/15 15:30	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/01/15 15:30	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/01/15 15:30	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/01/15 15:30	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/01/15 15:30	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-10**

**Lab Sample ID: 240-54731-6**

**Date Collected: 08/25/15 15:15**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/01/15 15:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		78 - 125					09/01/15 15:30	1
4-Bromofluorobenzene (Surr)	103		61 - 120					09/01/15 15:30	1
Toluene-d8 (Surr)	97		80 - 120					09/01/15 15:30	1
Dibromofluoromethane (Surr)	90		79 - 120					09/01/15 15:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	5.1	U	5.1	0.045	ug/L		08/27/15 08:45	09/06/15 14:06	1
Acenaphthylene	5.1	U	5.1	0.049	ug/L		08/27/15 08:45	09/06/15 14:06	1
Acetophenone	5.1	U	5.1	0.35	ug/L		08/27/15 08:45	09/06/15 14:06	1
Anthracene	5.1	U	5.1	0.090	ug/L		08/27/15 08:45	09/06/15 14:06	1
Atrazine	3.1	U	3.1	0.35	ug/L		08/27/15 08:45	09/06/15 14:06	1
Benzaldehyde	5.1	U	5.1	0.40	ug/L		08/27/15 08:45	09/06/15 14:06	1
Benzo[a]anthracene	1.0	U	1.0	0.030	ug/L		08/27/15 08:45	09/06/15 14:06	1
Benzo[b]fluoranthene	1.0	U	1.0	0.040	ug/L		08/27/15 08:45	09/06/15 14:06	1
Benzo[k]fluoranthene	1.0	U	1.0	0.046	ug/L		08/27/15 08:45	09/06/15 14:06	1
Benzo[g,h,i]perylene	1.0	U	1.0	0.047	ug/L		08/27/15 08:45	09/06/15 14:06	1
Benzo[a]pyrene	1.0	U	1.0	0.052	ug/L		08/27/15 08:45	09/06/15 14:06	1
Butyl benzyl phthalate	5.1	U	5.1	0.27	ug/L		08/27/15 08:45	09/06/15 14:06	1
1,1'-Biphenyl	5.1	U	5.1	0.13	ug/L		08/27/15 08:45	09/06/15 14:06	1
Bis(2-chloroethoxy)methane	5.1	U	5.1	0.33	ug/L		08/27/15 08:45	09/06/15 14:06	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.10	ug/L		08/27/15 08:45	09/06/15 14:06	1
Bis(2-ethylhexyl) phthalate	5.1	U	5.1	1.7	ug/L		08/27/15 08:45	09/06/15 14:06	1
4-Bromophenyl phenyl ether	5.1	U	5.1	0.22	ug/L		08/27/15 08:45	09/06/15 14:06	1
Caprolactam	10	U	10	0.20	ug/L		08/27/15 08:45	09/06/15 14:06	1
Carbazole	10	U	10	0.29	ug/L		08/27/15 08:45	09/06/15 14:06	1
4-Chloroaniline	10	U	10	0.21	ug/L		08/27/15 08:45	09/06/15 14:06	1
4-Chloro-3-methylphenol	5.1	U	5.1	0.21	ug/L		08/27/15 08:45	09/06/15 14:06	1
2-Chloronaphthalene	5.1	U	5.1	0.10	ug/L		08/27/15 08:45	09/06/15 14:06	1
2-Chlorophenol	5.1	U	5.1	0.30	ug/L		08/27/15 08:45	09/06/15 14:06	1
4-Chlorophenyl phenyl ether	5.1	U	5.1	0.31	ug/L		08/27/15 08:45	09/06/15 14:06	1
Chrysene	1.0	U	1.0	0.051	ug/L		08/27/15 08:45	09/06/15 14:06	1
2-Methylnaphthalene	5.1	U	5.1	0.092	ug/L		08/27/15 08:45	09/06/15 14:06	1
3 & 4 Methylphenol	5.1	U	5.1	0.82	ug/L		08/27/15 08:45	09/06/15 14:06	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.046	ug/L		08/27/15 08:45	09/06/15 14:06	1
Dibenzofuran	4.1	U	4.1	0.020	ug/L		08/27/15 08:45	09/06/15 14:06	1
3,3'-Dichlorobenzidine	1.0	U	1.0	0.38	ug/L		08/27/15 08:45	09/06/15 14:06	1
2,4-Dichlorophenol	10	U	10	0.19	ug/L		08/27/15 08:45	09/06/15 14:06	1
Diethyl phthalate	5.1	U	5.1	0.61	ug/L		08/27/15 08:45	09/06/15 14:06	1
2,4-Dimethylphenol	5.1	U	5.1	0.26	ug/L		08/27/15 08:45	09/06/15 14:06	1
Dimethyl phthalate	5.1	U	5.1	0.30	ug/L		08/27/15 08:45	09/06/15 14:06	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		08/27/15 08:45	09/06/15 14:06	1
2,4-Dinitrophenol	20	U	20	0.33	ug/L		08/27/15 08:45	09/06/15 14:06	1
2,4-Dinitrotoluene	5.1	U	5.1	0.26	ug/L		08/27/15 08:45	09/06/15 14:06	1
Di-n-butyl phthalate	5.1	U	5.1	1.7	ug/L		08/27/15 08:45	09/06/15 14:06	1
Di-n-octyl phthalate	5.1	U	5.1	0.23	ug/L		08/27/15 08:45	09/06/15 14:06	1
Fluoranthene	1.0	U	1.0	0.046	ug/L		08/27/15 08:45	09/06/15 14:06	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-10**

**Lab Sample ID: 240-54731-6**

**Date Collected: 08/25/15 15:15**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	5.1	U	5.1	0.041	ug/L		08/27/15 08:45	09/06/15 14:06	1
Hexachlorobenzene	0.20	U	0.20	0.087	ug/L		08/27/15 08:45	09/06/15 14:06	1
Hexachlorobutadiene	1.0	U	1.0	0.28	ug/L		08/27/15 08:45	09/06/15 14:06	1
Hexachlorocyclopentadiene	5.1	U	5.1	0.24	ug/L		08/27/15 08:45	09/06/15 14:06	1
Hexachloroethane	5.1	U	5.1	0.19	ug/L		08/27/15 08:45	09/06/15 14:06	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.044	ug/L		08/27/15 08:45	09/06/15 14:06	1
Isophorone	5.1	U	5.1	0.28	ug/L		08/27/15 08:45	09/06/15 14:06	1
2-Methylphenol	5.1	U	5.1	0.17	ug/L		08/27/15 08:45	09/06/15 14:06	1
Naphthalene	5.1	U	5.1	0.064	ug/L		08/27/15 08:45	09/06/15 14:06	1
2-Nitroaniline	20	U	20	0.21	ug/L		08/27/15 08:45	09/06/15 14:06	1
3-Nitroaniline	20	U	20	0.29	ug/L		08/27/15 08:45	09/06/15 14:06	1
4-Nitroaniline	20	U	20	0.22	ug/L		08/27/15 08:45	09/06/15 14:06	1
Nitrobenzene	3.1	U	3.1	0.041	ug/L		08/27/15 08:45	09/06/15 14:06	1
2-Nitrophenol	5.1	U	5.1	0.29	ug/L		08/27/15 08:45	09/06/15 14:06	1
4-Nitrophenol	20	U	20	0.30	ug/L		08/27/15 08:45	09/06/15 14:06	1
N-Nitrosodiphenylamine	5.1	U	5.1	0.32	ug/L		08/27/15 08:45	09/06/15 14:06	1
N-Nitrosodi-n-propylamine	5.1	U	5.1	0.24	ug/L		08/27/15 08:45	09/06/15 14:06	1
2,2'-oxybis[1-chloropropane]	5.1	U	5.1	0.41	ug/L		08/27/15 08:45	09/06/15 14:06	1
Pentachlorophenol	5.1	U	5.1	0.28	ug/L		08/27/15 08:45	09/06/15 14:06	1
Phenanthrene	2.0	U	2.0	0.063	ug/L		08/27/15 08:45	09/06/15 14:06	1
Phenol	5.1	U	5.1	0.61	ug/L		08/27/15 08:45	09/06/15 14:06	1
Pyrene	5.1	U	5.1	0.043	ug/L		08/27/15 08:45	09/06/15 14:06	1
2,4,5-Trichlorophenol	5.1	U	5.1	0.31	ug/L		08/27/15 08:45	09/06/15 14:06	1
2,4,6-Trichlorophenol	4.1	U	4.1	0.24	ug/L		08/27/15 08:45	09/06/15 14:06	1
2,6-Dinitrotoluene	5.1	U	5.1	0.82	ug/L		08/27/15 08:45	09/06/15 14:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	55		29 - 110	08/27/15 08:45	09/06/15 14:06	1
2-Fluorophenol (Surr)	23		15 - 110	08/27/15 08:45	09/06/15 14:06	1
2,4,6-Tribromophenol (Surr)	30		21 - 128	08/27/15 08:45	09/06/15 14:06	1
Nitrobenzene-d5 (Surr)	51		31 - 110	08/27/15 08:45	09/06/15 14:06	1
Phenol-d5 (Surr)	12		10 - 110	08/27/15 08:45	09/06/15 14:06	1
Terphenyl-d14 (Surr)	51		31 - 115	08/27/15 08:45	09/06/15 14:06	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/27/15 08:50	08/28/15 20:11	1
<b>Arsenic</b>	<b>0.76</b>	<b>J B</b>	5.0	0.18	ug/L		08/27/15 08:50	08/28/15 20:11	1
<b>Barium</b>	<b>85</b>	<b>J</b>	100	1.1	ug/L		08/27/15 08:50	08/28/15 20:11	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/27/15 08:50	08/28/15 20:11	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/27/15 08:50	08/28/15 20:11	1
<b>Cobalt</b>	<b>0.16</b>	<b>J</b>	7.0	0.021	ug/L		08/27/15 08:50	08/28/15 20:11	1
<b>Chromium</b>	<b>3.4</b>	<b>J B</b>	5.0	0.20	ug/L		08/27/15 08:50	08/28/15 20:11	1
<b>Copper</b>	<b>0.96</b>	<b>J</b>	2.0	0.75	ug/L		08/27/15 08:50	08/28/15 20:11	1
<b>Manganese</b>	<b>3.0</b>	<b>J</b>	15	1.1	ug/L		08/27/15 08:50	08/28/15 20:11	1
<b>Nickel</b>	<b>0.49</b>	<b>J</b>	20	0.23	ug/L		08/27/15 08:50	08/28/15 20:11	1
<b>Lead</b>	<b>0.17</b>	<b>J B</b>	3.0	0.11	ug/L		08/27/15 08:50	08/28/15 20:11	1
<b>Selenium</b>	<b>1.1</b>	<b>J B</b>	5.0	0.25	ug/L		08/27/15 08:50	08/28/15 20:11	1
Thallium	1.0	U	1.0	0.074	ug/L		08/27/15 08:50	08/28/15 20:11	1
<b>Vanadium</b>	<b>1.1</b>	<b>J B</b>	4.0	0.23	ug/L		08/27/15 08:50	08/28/15 20:11	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-10**

**Lab Sample ID: 240-54731-6**

**Date Collected: 08/25/15 15:15**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/27/15 08:50	08/28/15 20:11	1
Silver	0.20	U	0.20	0.020	ug/L		08/27/15 08:50	08/28/15 20:11	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/27/15 08:50	08/28/15 20:15	1
<b>Arsenic</b>	<b>0.71</b>	<b>J B</b>	5.0	0.18	ug/L		08/27/15 08:50	08/28/15 20:15	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/27/15 08:50	08/28/15 20:15	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/27/15 08:50	08/28/15 20:15	1
<b>Cobalt</b>	<b>0.091</b>	<b>J</b>	7.0	0.021	ug/L		08/27/15 08:50	08/28/15 20:15	1
<b>Chromium</b>	<b>3.1</b>	<b>J B</b>	5.0	0.20	ug/L		08/27/15 08:50	08/28/15 20:15	1
Copper	2.0	U	2.0	0.75	ug/L		08/27/15 08:50	08/28/15 20:15	1
Manganese	15	U	15	1.1	ug/L		08/27/15 08:50	08/28/15 20:15	1
<b>Nickel</b>	<b>0.36</b>	<b>J</b>	20	0.23	ug/L		08/27/15 08:50	08/28/15 20:15	1
Lead	3.0	U	3.0	0.11	ug/L		08/27/15 08:50	08/28/15 20:15	1
Antimony	2.0	U	2.0	0.16	ug/L		08/27/15 08:50	08/28/15 20:15	1
<b>Selenium</b>	<b>1.2</b>	<b>J B</b>	5.0	0.25	ug/L		08/27/15 08:50	08/28/15 20:15	1
Thallium	1.0	U	1.0	0.074	ug/L		08/27/15 08:50	08/28/15 20:15	1
<b>Vanadium</b>	<b>1.1</b>	<b>J B</b>	4.0	0.23	ug/L		08/27/15 08:50	08/28/15 20:15	1
Zinc	20	U	20	7.3	ug/L		08/27/15 08:50	08/28/15 20:15	1
<b>Barium</b>	<b>82</b>	<b>J</b>	100	1.1	ug/L		08/27/15 08:50	08/28/15 20:15	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/27/15 09:04	08/28/15 16:52	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/27/15 09:04	08/28/15 17:01	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/26/15 12:48	1
Cr (III)	0.020	U	0.020	0.0050	mg/L			09/01/15 07:34	1



# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-11**

**Lab Sample ID: 240-54731-7**

**Date Collected: 08/25/15 15:15**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/01/15 15:52	1
Benzene	1.0	U	1.0	0.35	ug/L			09/01/15 15:52	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/01/15 15:52	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/01/15 15:52	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/01/15 15:52	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/01/15 15:52	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/01/15 15:52	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/01/15 15:52	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/01/15 15:52	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/01/15 15:52	1
<b>Chloroform</b>	<b>0.26</b>	<b>J</b>	1.0	0.25	ug/L			09/01/15 15:52	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/01/15 15:52	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/01/15 15:52	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/01/15 15:52	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/01/15 15:52	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/01/15 15:52	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/01/15 15:52	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/01/15 15:52	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/01/15 15:52	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/01/15 15:52	1
2-Hexanone	10	U	10	0.48	ug/L			09/01/15 15:52	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/01/15 15:52	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/01/15 15:52	1
Styrene	1.0	U	1.0	0.45	ug/L			09/01/15 15:52	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/01/15 15:52	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/01/15 15:52	1
Toluene	1.0	U	1.0	0.23	ug/L			09/01/15 15:52	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/01/15 15:52	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/01/15 15:52	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/01/15 15:52	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/01/15 15:52	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/01/15 15:52	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/01/15 15:52	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/01/15 15:52	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/01/15 15:52	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/01/15 15:52	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/01/15 15:52	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/01/15 15:52	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/01/15 15:52	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/01/15 15:52	1
Methyl acetate	10	U	10	2.3	ug/L			09/01/15 15:52	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/01/15 15:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/01/15 15:52	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/01/15 15:52	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/01/15 15:52	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/01/15 15:52	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/01/15 15:52	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/01/15 15:52	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/01/15 15:52	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-11**

**Lab Sample ID: 240-54731-7**

**Date Collected: 08/25/15 15:15**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/01/15 15:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		78 - 125					09/01/15 15:52	1
4-Bromofluorobenzene (Surr)	101		61 - 120					09/01/15 15:52	1
Toluene-d8 (Surr)	94		80 - 120					09/01/15 15:52	1
Dibromofluoromethane (Surr)	89		79 - 120					09/01/15 15:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	4.9	U	4.9	0.043	ug/L		08/27/15 08:45	09/08/15 09:34	1
Acenaphthylene	4.9	U	4.9	0.047	ug/L		08/27/15 08:45	09/08/15 09:34	1
Acetophenone	4.9	U	4.9	0.33	ug/L		08/27/15 08:45	09/08/15 09:34	1
Anthracene	4.9	U	4.9	0.086	ug/L		08/27/15 08:45	09/08/15 09:34	1
Atrazine	2.9	U	2.9	0.33	ug/L		08/27/15 08:45	09/08/15 09:34	1
Benzaldehyde	4.9	U	4.9	0.38	ug/L		08/27/15 08:45	09/08/15 09:34	1
Benzo[a]anthracene	0.98	U	0.98	0.029	ug/L		08/27/15 08:45	09/08/15 09:34	1
Benzo[b]fluoranthene	0.98	U	0.98	0.039	ug/L		08/27/15 08:45	09/08/15 09:34	1
Benzo[k]fluoranthene	0.98	U	0.98	0.044	ug/L		08/27/15 08:45	09/08/15 09:34	1
Benzo[g,h,i]perylene	0.98	U	0.98	0.045	ug/L		08/27/15 08:45	09/08/15 09:34	1
Benzo[a]pyrene	0.98	U	0.98	0.050	ug/L		08/27/15 08:45	09/08/15 09:34	1
Butyl benzyl phthalate	4.9	U	4.9	0.25	ug/L		08/27/15 08:45	09/08/15 09:34	1
1,1'-Biphenyl	4.9	U	4.9	0.13	ug/L		08/27/15 08:45	09/08/15 09:34	1
Bis(2-chloroethoxy)methane	4.9	U	4.9	0.31	ug/L		08/27/15 08:45	09/08/15 09:34	1
Bis(2-chloroethyl)ether	0.98	U	0.98	0.098	ug/L		08/27/15 08:45	09/08/15 09:34	1
Bis(2-ethylhexyl) phthalate	4.9	U	4.9	1.7	ug/L		08/27/15 08:45	09/08/15 09:34	1
4-Bromophenyl phenyl ether	4.9	U	4.9	0.22	ug/L		08/27/15 08:45	09/08/15 09:34	1
Caprolactam	9.8	U	9.8	0.20	ug/L		08/27/15 08:45	09/08/15 09:34	1
Carbazole	9.8	U	9.8	0.27	ug/L		08/27/15 08:45	09/08/15 09:34	1
4-Chloroaniline	9.8	U	9.8	0.21	ug/L		08/27/15 08:45	09/08/15 09:34	1
4-Chloro-3-methylphenol	4.9	U	4.9	0.21	ug/L		08/27/15 08:45	09/08/15 09:34	1
2-Chloronaphthalene	4.9	U	4.9	0.098	ug/L		08/27/15 08:45	09/08/15 09:34	1
2-Chlorophenol	4.9	U	4.9	0.28	ug/L		08/27/15 08:45	09/08/15 09:34	1
4-Chlorophenyl phenyl ether	4.9	U	4.9	0.29	ug/L		08/27/15 08:45	09/08/15 09:34	1
Chrysene	0.98	U	0.98	0.049	ug/L		08/27/15 08:45	09/08/15 09:34	1
2-Methylnaphthalene	4.9	U	4.9	0.089	ug/L		08/27/15 08:45	09/08/15 09:34	1
3 & 4 Methylphenol	4.9	U	4.9	0.78	ug/L		08/27/15 08:45	09/08/15 09:34	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.044	ug/L		08/27/15 08:45	09/08/15 09:34	1
Dibenzofuran	3.9	U	3.9	0.020	ug/L		08/27/15 08:45	09/08/15 09:34	1
3,3'-Dichlorobenzidine	0.98	U	0.98	0.36	ug/L		08/27/15 08:45	09/08/15 09:34	1
2,4-Dichlorophenol	9.8	U	9.8	0.19	ug/L		08/27/15 08:45	09/08/15 09:34	1
Diethyl phthalate	4.9	U	4.9	0.59	ug/L		08/27/15 08:45	09/08/15 09:34	1
2,4-Dimethylphenol	4.9	U	4.9	0.25	ug/L		08/27/15 08:45	09/08/15 09:34	1
Dimethyl phthalate	4.9	U	4.9	0.28	ug/L		08/27/15 08:45	09/08/15 09:34	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		08/27/15 08:45	09/08/15 09:34	1
2,4-Dinitrophenol	20	U	20	0.31	ug/L		08/27/15 08:45	09/08/15 09:34	1
2,4-Dinitrotoluene	4.9	U	4.9	0.25	ug/L		08/27/15 08:45	09/08/15 09:34	1
Di-n-butyl phthalate	4.9	U	4.9	1.7	ug/L		08/27/15 08:45	09/08/15 09:34	1
Di-n-octyl phthalate	4.9	U	4.9	0.23	ug/L		08/27/15 08:45	09/08/15 09:34	1
Fluoranthene	0.98	U	0.98	0.044	ug/L		08/27/15 08:45	09/08/15 09:34	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-11**

**Lab Sample ID: 240-54731-7**

**Date Collected: 08/25/15 15:15**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.9	U	4.9	0.040	ug/L		08/27/15 08:45	09/08/15 09:34	1
Hexachlorobenzene	0.20	U	0.20	0.084	ug/L		08/27/15 08:45	09/08/15 09:34	1
Hexachlorobutadiene	0.98	U	0.98	0.26	ug/L		08/27/15 08:45	09/08/15 09:34	1
Hexachlorocyclopentadiene	4.9	U	4.9	0.24	ug/L		08/27/15 08:45	09/08/15 09:34	1
Hexachloroethane	4.9	U	4.9	0.19	ug/L		08/27/15 08:45	09/08/15 09:34	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.042	ug/L		08/27/15 08:45	09/08/15 09:34	1
Isophorone	4.9	U	4.9	0.26	ug/L		08/27/15 08:45	09/08/15 09:34	1
2-Methylphenol	4.9	U	4.9	0.17	ug/L		08/27/15 08:45	09/08/15 09:34	1
Naphthalene	4.9	U	4.9	0.061	ug/L		08/27/15 08:45	09/08/15 09:34	1
2-Nitroaniline	20	U	20	0.21	ug/L		08/27/15 08:45	09/08/15 09:34	1
3-Nitroaniline	20	U	20	0.27	ug/L		08/27/15 08:45	09/08/15 09:34	1
4-Nitroaniline	20	U	20	0.22	ug/L		08/27/15 08:45	09/08/15 09:34	1
Nitrobenzene	2.9	U	2.9	0.039	ug/L		08/27/15 08:45	09/08/15 09:34	1
2-Nitrophenol	4.9	U	4.9	0.27	ug/L		08/27/15 08:45	09/08/15 09:34	1
4-Nitrophenol	20	U	20	0.28	ug/L		08/27/15 08:45	09/08/15 09:34	1
N-Nitrosodiphenylamine	4.9	U	4.9	0.30	ug/L		08/27/15 08:45	09/08/15 09:34	1
N-Nitrosodi-n-propylamine	4.9	U	4.9	0.24	ug/L		08/27/15 08:45	09/08/15 09:34	1
2,2'-oxybis[1-chloropropane]	4.9	U	4.9	0.39	ug/L		08/27/15 08:45	09/08/15 09:34	1
Pentachlorophenol	4.9	U	4.9	0.26	ug/L		08/27/15 08:45	09/08/15 09:34	1
Phenanthrene	2.0	U	2.0	0.061	ug/L		08/27/15 08:45	09/08/15 09:34	1
Phenol	4.9	U	4.9	0.59	ug/L		08/27/15 08:45	09/08/15 09:34	1
Pyrene	4.9	U	4.9	0.041	ug/L		08/27/15 08:45	09/08/15 09:34	1
2,4,5-Trichlorophenol	4.9	U	4.9	0.29	ug/L		08/27/15 08:45	09/08/15 09:34	1
2,4,6-Trichlorophenol	3.9	U	3.9	0.24	ug/L		08/27/15 08:45	09/08/15 09:34	1
2,6-Dinitrotoluene	4.9	U	4.9	0.78	ug/L		08/27/15 08:45	09/08/15 09:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	63		29 - 110	08/27/15 08:45	09/08/15 09:34	1
2-Fluorophenol (Surr)	25		15 - 110	08/27/15 08:45	09/08/15 09:34	1
2,4,6-Tribromophenol (Surr)	47		21 - 128	08/27/15 08:45	09/08/15 09:34	1
Nitrobenzene-d5 (Surr)	58		31 - 110	08/27/15 08:45	09/08/15 09:34	1
Phenol-d5 (Surr)	12		10 - 110	08/27/15 08:45	09/08/15 09:34	1
Terphenyl-d14 (Surr)	60		31 - 115	08/27/15 08:45	09/08/15 09:34	1

**Method: 6020 - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/27/15 08:50	08/28/15 20:18	1
<b>Arsenic</b>	<b>0.80</b>	<b>J B</b>	5.0	0.18	ug/L		08/27/15 08:50	08/28/15 20:18	1
<b>Barium</b>	<b>79</b>	<b>J</b>	100	1.1	ug/L		08/27/15 08:50	08/28/15 20:18	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/27/15 08:50	08/28/15 20:18	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/27/15 08:50	08/28/15 20:18	1
<b>Cobalt</b>	<b>0.58</b>	<b>J</b>	7.0	0.021	ug/L		08/27/15 08:50	08/28/15 20:18	1
<b>Chromium</b>	<b>4.2</b>	<b>J B</b>	5.0	0.20	ug/L		08/27/15 08:50	08/28/15 20:18	1
Copper	2.0	U	2.0	0.75	ug/L		08/27/15 08:50	08/28/15 20:18	1
<b>Manganese</b>	<b>3.6</b>	<b>J</b>	15	1.1	ug/L		08/27/15 08:50	08/28/15 20:18	1
<b>Nickel</b>	<b>12</b>	<b>J</b>	20	0.23	ug/L		08/27/15 08:50	08/28/15 20:18	1
Lead	3.0	U	3.0	0.11	ug/L		08/27/15 08:50	08/28/15 20:18	1
<b>Selenium</b>	<b>1.1</b>	<b>J B</b>	5.0	0.25	ug/L		08/27/15 08:50	08/28/15 20:18	1
Thallium	1.0	U	1.0	0.074	ug/L		08/27/15 08:50	08/28/15 20:18	1
<b>Vanadium</b>	<b>1.1</b>	<b>J B</b>	4.0	0.23	ug/L		08/27/15 08:50	08/28/15 20:18	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-11**

**Lab Sample ID: 240-54731-7**

**Date Collected: 08/25/15 15:15**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/27/15 08:50	08/28/15 20:18	1
Silver	0.20	U	0.20	0.020	ug/L		08/27/15 08:50	08/28/15 20:18	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/27/15 08:50	08/28/15 20:29	1
<b>Arsenic</b>	<b>0.77</b>	<b>J B</b>	5.0	0.18	ug/L		08/27/15 08:50	08/28/15 20:29	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/27/15 08:50	08/28/15 20:29	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/27/15 08:50	08/28/15 20:29	1
<b>Cobalt</b>	<b>0.40</b>	<b>J</b>	7.0	0.021	ug/L		08/27/15 08:50	08/28/15 20:29	1
<b>Chromium</b>	<b>3.1</b>	<b>J B</b>	5.0	0.20	ug/L		08/27/15 08:50	08/28/15 20:29	1
<b>Copper</b>	<b>1.1</b>	<b>J</b>	2.0	0.75	ug/L		08/27/15 08:50	08/28/15 20:29	1
<b>Manganese</b>	<b>2.5</b>	<b>J</b>	15	1.1	ug/L		08/27/15 08:50	08/28/15 20:29	1
<b>Nickel</b>	<b>8.7</b>	<b>J</b>	20	0.23	ug/L		08/27/15 08:50	08/28/15 20:29	1
<b>Lead</b>	<b>0.13</b>	<b>J B</b>	3.0	0.11	ug/L		08/27/15 08:50	08/28/15 20:29	1
Antimony	2.0	U	2.0	0.16	ug/L		08/27/15 08:50	08/28/15 20:29	1
<b>Selenium</b>	<b>1.1</b>	<b>J B</b>	5.0	0.25	ug/L		08/27/15 08:50	08/28/15 20:29	1
Thallium	1.0	U	1.0	0.074	ug/L		08/27/15 08:50	08/28/15 20:29	1
<b>Vanadium</b>	<b>1.3</b>	<b>J B</b>	4.0	0.23	ug/L		08/27/15 08:50	08/28/15 20:29	1
Zinc	20	U	20	7.3	ug/L		08/27/15 08:50	08/28/15 20:29	1
<b>Barium</b>	<b>81</b>	<b>J</b>	100	1.1	ug/L		08/27/15 08:50	08/28/15 20:29	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/27/15 09:04	08/28/15 16:58	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/27/15 09:04	08/28/15 16:56	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/26/15 12:49	1
Cr (III)	0.020	U	0.020	0.0050	mg/L			09/01/15 07:34	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-12**

**Lab Sample ID: 240-54731-8**

**Date Collected: 08/25/15 16:15**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>1.8</b>	<b>J B</b>	10	0.94	ug/L			09/01/15 16:15	1
Benzene	1.0	U	1.0	0.35	ug/L			09/01/15 16:15	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/01/15 16:15	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/01/15 16:15	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/01/15 16:15	1
<b>2-Butanone (MEK)</b>	<b>0.98</b>	<b>J</b>	10	0.53	ug/L			09/01/15 16:15	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/01/15 16:15	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/01/15 16:15	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/01/15 16:15	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/01/15 16:15	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/01/15 16:15	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/01/15 16:15	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/01/15 16:15	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/01/15 16:15	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/01/15 16:15	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/01/15 16:15	1
<b>1,2,4-Trimethylbenzene</b>	<b>21</b>		1.0	0.41	ug/L			09/01/15 16:15	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/01/15 16:15	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/01/15 16:15	1
<b>Ethylbenzene</b>	<b>11</b>		1.0	0.25	ug/L			09/01/15 16:15	1
2-Hexanone	10	U	10	0.48	ug/L			09/01/15 16:15	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/01/15 16:15	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/01/15 16:15	1
Styrene	1.0	U	1.0	0.45	ug/L			09/01/15 16:15	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/01/15 16:15	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/01/15 16:15	1
Toluene	1.0	U	1.0	0.23	ug/L			09/01/15 16:15	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/01/15 16:15	1
<b>1,3,5-Trimethylbenzene</b>	<b>4.6</b>		1.0	0.48	ug/L			09/01/15 16:15	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/01/15 16:15	1
<b>Xylenes, Total</b>	<b>23</b>		2.0	0.52	ug/L			09/01/15 16:15	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/01/15 16:15	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/01/15 16:15	1
<b>Cyclohexane</b>	<b>7.3</b>		1.0	0.45	ug/L			09/01/15 16:15	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/01/15 16:15	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/01/15 16:15	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/01/15 16:15	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/01/15 16:15	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/01/15 16:15	1
<b>Isopropylbenzene</b>	<b>3.9</b>		1.0	0.35	ug/L			09/01/15 16:15	1
Methyl acetate	10	U	10	2.3	ug/L			09/01/15 16:15	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/01/15 16:15	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/01/15 16:15	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/01/15 16:15	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/01/15 16:15	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/01/15 16:15	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/01/15 16:15	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/01/15 16:15	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/01/15 16:15	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-12**

**Lab Sample ID: 240-54731-8**

**Date Collected: 08/25/15 16:15**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Methylcyclohexane</b>	<b>1.5</b>		1.0	0.43	ug/L			09/01/15 16:15	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	106		78 - 125					09/01/15 16:15	1
4-Bromofluorobenzene (Surr)	106		61 - 120					09/01/15 16:15	1
Toluene-d8 (Surr)	99		80 - 120					09/01/15 16:15	1
Dibromofluoromethane (Surr)	87		79 - 120					09/01/15 16:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	5.7	U	5.7	0.050	ug/L		08/27/15 08:45	09/06/15 14:50	1
Acenaphthylene	5.7	U	5.7	0.055	ug/L		08/27/15 08:45	09/06/15 14:50	1
Acetophenone	5.7	U	5.7	0.39	ug/L		08/27/15 08:45	09/06/15 14:50	1
Anthracene	5.7	U	5.7	0.10	ug/L		08/27/15 08:45	09/06/15 14:50	1
Atrazine	3.4	U	3.4	0.39	ug/L		08/27/15 08:45	09/06/15 14:50	1
Benzaldehyde	5.7	U	5.7	0.44	ug/L		08/27/15 08:45	09/06/15 14:50	1
Benzo[a]anthracene	1.1	U	1.1	0.034	ug/L		08/27/15 08:45	09/06/15 14:50	1
Benzo[b]fluoranthene	1.1	U	1.1	0.045	ug/L		08/27/15 08:45	09/06/15 14:50	1
Benzo[k]fluoranthene	1.1	U	1.1	0.051	ug/L		08/27/15 08:45	09/06/15 14:50	1
Benzo[g,h,i]perylene	1.1	U	1.1	0.053	ug/L		08/27/15 08:45	09/06/15 14:50	1
Benzo[a]pyrene	1.1	U	1.1	0.058	ug/L		08/27/15 08:45	09/06/15 14:50	1
Butyl benzyl phthalate	5.7	U	5.7	0.30	ug/L		08/27/15 08:45	09/06/15 14:50	1
1,1'-Biphenyl	5.7	U	5.7	0.15	ug/L		08/27/15 08:45	09/06/15 14:50	1
Bis(2-chloroethoxy)methane	5.7	U	5.7	0.36	ug/L		08/27/15 08:45	09/06/15 14:50	1
Bis(2-chloroethyl)ether	1.1	U	1.1	0.11	ug/L		08/27/15 08:45	09/06/15 14:50	1
Bis(2-ethylhexyl) phthalate	5.7	U	5.7	1.9	ug/L		08/27/15 08:45	09/06/15 14:50	1
4-Bromophenyl phenyl ether	5.7	U	5.7	0.25	ug/L		08/27/15 08:45	09/06/15 14:50	1
Caprolactam	11	U	11	0.23	ug/L		08/27/15 08:45	09/06/15 14:50	1
Carbazole	11	U	11	0.32	ug/L		08/27/15 08:45	09/06/15 14:50	1
4-Chloroaniline	11	U	11	0.24	ug/L		08/27/15 08:45	09/06/15 14:50	1
4-Chloro-3-methylphenol	5.7	U	5.7	0.24	ug/L		08/27/15 08:45	09/06/15 14:50	1
2-Chloronaphthalene	5.7	U	5.7	0.11	ug/L		08/27/15 08:45	09/06/15 14:50	1
2-Chlorophenol	5.7	U	5.7	0.33	ug/L		08/27/15 08:45	09/06/15 14:50	1
4-Chlorophenyl phenyl ether	5.7	U	5.7	0.34	ug/L		08/27/15 08:45	09/06/15 14:50	1
Chrysene	1.1	U	1.1	0.057	ug/L		08/27/15 08:45	09/06/15 14:50	1
<b>2-Methylnaphthalene</b>	<b>0.22</b>	<b>J</b>	5.7	0.10	ug/L		08/27/15 08:45	09/06/15 14:50	1
3 & 4 Methylphenol	5.7	U	5.7	0.91	ug/L		08/27/15 08:45	09/06/15 14:50	1
Dibenz(a,h)anthracene	2.3	U	2.3	0.051	ug/L		08/27/15 08:45	09/06/15 14:50	1
Dibenzofuran	4.5	U	4.5	0.023	ug/L		08/27/15 08:45	09/06/15 14:50	1
3,3'-Dichlorobenzidine	1.1	U	1.1	0.42	ug/L		08/27/15 08:45	09/06/15 14:50	1
2,4-Dichlorophenol	11	U	11	0.22	ug/L		08/27/15 08:45	09/06/15 14:50	1
Diethyl phthalate	5.7	U	5.7	0.68	ug/L		08/27/15 08:45	09/06/15 14:50	1
2,4-Dimethylphenol	5.7	U	5.7	0.28	ug/L		08/27/15 08:45	09/06/15 14:50	1
Dimethyl phthalate	5.7	U	5.7	0.33	ug/L		08/27/15 08:45	09/06/15 14:50	1
4,6-Dinitro-2-methylphenol	23	U	23	2.7	ug/L		08/27/15 08:45	09/06/15 14:50	1
2,4-Dinitrophenol	23	U	23	0.36	ug/L		08/27/15 08:45	09/06/15 14:50	1
2,4-Dinitrotoluene	5.7	U	5.7	0.28	ug/L		08/27/15 08:45	09/06/15 14:50	1
Di-n-butyl phthalate	5.7	U	5.7	1.9	ug/L		08/27/15 08:45	09/06/15 14:50	1
Di-n-octyl phthalate	5.7	U	5.7	0.26	ug/L		08/27/15 08:45	09/06/15 14:50	1
Fluoranthene	1.1	U	1.1	0.051	ug/L		08/27/15 08:45	09/06/15 14:50	1

TestAmerica Canton



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-12**

**Lab Sample ID: 240-54731-8**

**Date Collected: 08/25/15 16:15**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	5.7	U	5.7	0.046	ug/L		08/27/15 08:45	09/06/15 14:50	1
Hexachlorobenzene	0.23	U	0.23	0.097	ug/L		08/27/15 08:45	09/06/15 14:50	1
Hexachlorobutadiene	1.1	U	1.1	0.31	ug/L		08/27/15 08:45	09/06/15 14:50	1
Hexachlorocyclopentadiene	5.7	U	5.7	0.27	ug/L		08/27/15 08:45	09/06/15 14:50	1
Hexachloroethane	5.7	U	5.7	0.22	ug/L		08/27/15 08:45	09/06/15 14:50	1
Indeno[1,2,3-cd]pyrene	2.3	U	2.3	0.049	ug/L		08/27/15 08:45	09/06/15 14:50	1
Isophorone	5.7	U	5.7	0.31	ug/L		08/27/15 08:45	09/06/15 14:50	1
2-Methylphenol	5.7	U	5.7	0.19	ug/L		08/27/15 08:45	09/06/15 14:50	1
<b>Naphthalene</b>	<b>3.8</b>	<b>J</b>	5.7	0.071	ug/L		08/27/15 08:45	09/06/15 14:50	1
2-Nitroaniline	23	U	23	0.24	ug/L		08/27/15 08:45	09/06/15 14:50	1
3-Nitroaniline	23	U	23	0.32	ug/L		08/27/15 08:45	09/06/15 14:50	1
4-Nitroaniline	23	U	23	0.25	ug/L		08/27/15 08:45	09/06/15 14:50	1
Nitrobenzene	3.4	U	3.4	0.045	ug/L		08/27/15 08:45	09/06/15 14:50	1
2-Nitrophenol	5.7	U	5.7	0.32	ug/L		08/27/15 08:45	09/06/15 14:50	1
4-Nitrophenol	23	U	23	0.33	ug/L		08/27/15 08:45	09/06/15 14:50	1
N-Nitrosodiphenylamine	5.7	U	5.7	0.35	ug/L		08/27/15 08:45	09/06/15 14:50	1
N-Nitrosodi-n-propylamine	5.7	U	5.7	0.27	ug/L		08/27/15 08:45	09/06/15 14:50	1
2,2'-oxybis[1-chloropropane]	5.7	U	5.7	0.45	ug/L		08/27/15 08:45	09/06/15 14:50	1
Pentachlorophenol	5.7	U	5.7	0.31	ug/L		08/27/15 08:45	09/06/15 14:50	1
Phenanthrene	2.3	U	2.3	0.070	ug/L		08/27/15 08:45	09/06/15 14:50	1
Phenol	5.7	U	5.7	0.68	ug/L		08/27/15 08:45	09/06/15 14:50	1
Pyrene	5.7	U	5.7	0.048	ug/L		08/27/15 08:45	09/06/15 14:50	1
2,4,5-Trichlorophenol	5.7	U	5.7	0.34	ug/L		08/27/15 08:45	09/06/15 14:50	1
2,4,6-Trichlorophenol	4.5	U	4.5	0.27	ug/L		08/27/15 08:45	09/06/15 14:50	1
2,6-Dinitrotoluene	5.7	U	5.7	0.91	ug/L		08/27/15 08:45	09/06/15 14:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	53		29 - 110	08/27/15 08:45	09/06/15 14:50	1
2-Fluorophenol (Surr)	27		15 - 110	08/27/15 08:45	09/06/15 14:50	1
2,4,6-Tribromophenol (Surr)	44		21 - 128	08/27/15 08:45	09/06/15 14:50	1
Nitrobenzene-d5 (Surr)	50		31 - 110	08/27/15 08:45	09/06/15 14:50	1
Phenol-d5 (Surr)	14		10 - 110	08/27/15 08:45	09/06/15 14:50	1
Terphenyl-d14 (Surr)	50		31 - 115	08/27/15 08:45	09/06/15 14:50	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/27/15 08:50	08/28/15 20:33	1
<b>Arsenic</b>	<b>1.0</b>	<b>J B</b>	5.0	0.18	ug/L		08/27/15 08:50	08/28/15 20:33	1
<b>Barium</b>	<b>110</b>		100	1.1	ug/L		08/27/15 08:50	08/28/15 20:33	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/27/15 08:50	08/28/15 20:33	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/27/15 08:50	08/28/15 20:33	1
<b>Cobalt</b>	<b>0.14</b>	<b>J</b>	7.0	0.021	ug/L		08/27/15 08:50	08/28/15 20:33	1
<b>Chromium</b>	<b>3.3</b>	<b>J B</b>	5.0	0.20	ug/L		08/27/15 08:50	08/28/15 20:33	1
<b>Copper</b>	<b>0.86</b>	<b>J</b>	2.0	0.75	ug/L		08/27/15 08:50	08/28/15 20:33	1
<b>Manganese</b>	<b>110</b>		15	1.1	ug/L		08/27/15 08:50	08/28/15 20:33	1
<b>Nickel</b>	<b>1.1</b>	<b>J</b>	20	0.23	ug/L		08/27/15 08:50	08/28/15 20:33	1
<b>Lead</b>	<b>0.19</b>	<b>J B</b>	3.0	0.11	ug/L		08/27/15 08:50	08/28/15 20:33	1
<b>Selenium</b>	<b>1.4</b>	<b>J B</b>	5.0	0.25	ug/L		08/27/15 08:50	08/28/15 20:33	1
Thallium	1.0	U	1.0	0.074	ug/L		08/27/15 08:50	08/28/15 20:33	1
<b>Vanadium</b>	<b>0.74</b>	<b>J B</b>	4.0	0.23	ug/L		08/27/15 08:50	08/28/15 20:33	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-12**

**Lab Sample ID: 240-54731-8**

**Date Collected: 08/25/15 16:15**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Zinc</b>	<b>20</b>		20	7.3	ug/L		08/27/15 08:50	08/28/15 20:33	1
Silver	0.20	U	0.20	0.020	ug/L		08/27/15 08:50	08/28/15 20:33	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/27/15 08:50	08/28/15 20:37	1
<b>Arsenic</b>	<b>0.98</b>	<b>J B</b>	5.0	0.18	ug/L		08/27/15 08:50	08/28/15 20:37	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/27/15 08:50	08/28/15 20:37	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/27/15 08:50	08/28/15 20:37	1
<b>Cobalt</b>	<b>0.14</b>	<b>J</b>	7.0	0.021	ug/L		08/27/15 08:50	08/28/15 20:37	1
<b>Chromium</b>	<b>2.6</b>	<b>J B</b>	5.0	0.20	ug/L		08/27/15 08:50	08/28/15 20:37	1
Copper	2.0	U	2.0	0.75	ug/L		08/27/15 08:50	08/28/15 20:37	1
<b>Manganese</b>	<b>120</b>		15	1.1	ug/L		08/27/15 08:50	08/28/15 20:37	1
<b>Nickel</b>	<b>1.1</b>	<b>J</b>	20	0.23	ug/L		08/27/15 08:50	08/28/15 20:37	1
Lead	3.0	U	3.0	0.11	ug/L		08/27/15 08:50	08/28/15 20:37	1
Antimony	2.0	U	2.0	0.16	ug/L		08/27/15 08:50	08/28/15 20:37	1
<b>Selenium</b>	<b>1.4</b>	<b>J B</b>	5.0	0.25	ug/L		08/27/15 08:50	08/28/15 20:37	1
Thallium	1.0	U	1.0	0.074	ug/L		08/27/15 08:50	08/28/15 20:37	1
<b>Vanadium</b>	<b>0.93</b>	<b>J B</b>	4.0	0.23	ug/L		08/27/15 08:50	08/28/15 20:37	1
Zinc	20	U	20	7.3	ug/L		08/27/15 08:50	08/28/15 20:37	1
<b>Barium</b>	<b>110</b>		100	1.1	ug/L		08/27/15 08:50	08/28/15 20:37	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/27/15 09:04	08/28/15 16:59	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/27/15 09:04	08/28/15 17:05	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/26/15 12:50	1
Cr (III)	0.020	U	0.020	0.0050	mg/L			09/01/15 07:34	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 240-54731-9**

**Date Collected: 08/25/15 00:00**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>9.6</b>	<b>J B</b>	10	0.94	ug/L			09/01/15 16:38	1
Benzene	1.0	U	1.0	0.35	ug/L			09/01/15 16:38	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/01/15 16:38	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/01/15 16:38	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/01/15 16:38	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/01/15 16:38	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/01/15 16:38	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/01/15 16:38	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/01/15 16:38	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/01/15 16:38	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/01/15 16:38	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/01/15 16:38	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/01/15 16:38	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/01/15 16:38	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/01/15 16:38	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/01/15 16:38	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/01/15 16:38	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/01/15 16:38	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/01/15 16:38	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/01/15 16:38	1
2-Hexanone	10	U	10	0.48	ug/L			09/01/15 16:38	1
<b>Methylene Chloride</b>	<b>0.90</b>	<b>J B</b>	1.0	0.33	ug/L			09/01/15 16:38	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/01/15 16:38	1
Styrene	1.0	U	1.0	0.45	ug/L			09/01/15 16:38	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/01/15 16:38	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/01/15 16:38	1
Toluene	1.0	U	1.0	0.23	ug/L			09/01/15 16:38	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/01/15 16:38	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/01/15 16:38	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/01/15 16:38	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/01/15 16:38	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/01/15 16:38	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/01/15 16:38	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/01/15 16:38	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/01/15 16:38	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/01/15 16:38	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/01/15 16:38	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/01/15 16:38	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/01/15 16:38	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/01/15 16:38	1
Methyl acetate	10	U	10	2.3	ug/L			09/01/15 16:38	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/01/15 16:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/01/15 16:38	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/01/15 16:38	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/01/15 16:38	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/01/15 16:38	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/01/15 16:38	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/01/15 16:38	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/01/15 16:38	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 240-54731-9**

**Date Collected: 08/25/15 00:00**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/01/15 16:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		78 - 125					09/01/15 16:38	1
4-Bromofluorobenzene (Surr)	97		61 - 120					09/01/15 16:38	1
Toluene-d8 (Surr)	97		80 - 120					09/01/15 16:38	1
Dibromofluoromethane (Surr)	87		79 - 120					09/01/15 16:38	1



# Surrogate Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (78-125)	BFB (61-120)	TOL (80-120)	DBFM (79-120)
240-54731-1	GW-082515-JL-03	100	100	95	85
240-54731-2	GW-082515-JL-04	105	100	95	90
240-54731-3	GW-082515-JL-07	104	100	95	89
240-54731-4	GW-082515-JL-08	105	101	96	90
240-54731-5	GW-082515-JL-09	102	98	95	90
240-54731-6	GW-082515-JL-10	106	103	97	90
240-54731-7	GW-082515-JL-11	104	101	94	89
240-54731-8	GW-082515-JL-12	106	106	99	87
240-54731-9	TRIP BLANK	104	97	97	87
LCS 240-195748/4	Lab Control Sample	99	107	98	96
MB 240-195748/29	Method Blank	104	100	93	87

### Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
TOL = Toluene-d8 (Surr)  
DBFM = Dibromofluoromethane (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (29-110)	2FP (15-110)	TBP (21-128)	NBZ (31-110)	PHL (10-110)	TPH (31-115)
240-54731-1	GW-082515-JL-03	56	21	36	53	11	44
240-54731-2	GW-082515-JL-04	62	28	41	58	15	49
240-54731-3	GW-082515-JL-07	49	21	31	46	11	49
240-54731-4	GW-082515-JL-08	51	23	35	47	13	48
240-54731-5	GW-082515-JL-09	49	20	29	45	10	48
240-54731-6	GW-082515-JL-10	55	23	30	51	12	51
240-54731-7	GW-082515-JL-11	63	25	47	58	12	60
240-54731-8	GW-082515-JL-12	53	27	44	50	14	50
LCS 240-195072/17-A	Lab Control Sample	84	75	75	85	61	88
MB 240-195072/16-A	Method Blank	68	62	47	67	48	73

### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)  
2FP = 2-Fluorophenol (Surr)  
TBP = 2,4,6-Tribromophenol (Surr)  
NBZ = Nitrobenzene-d5 (Surr)  
PHL = Phenol-d5 (Surr)  
TPH = Terphenyl-d14 (Surr)

# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 240-195748/29**

**Matrix: Water**

**Analysis Batch: 195748**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	2.46	J	10	0.94	ug/L			09/01/15 12:31	1
Benzene	1.0	U	1.0	0.35	ug/L			09/01/15 12:31	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/01/15 12:31	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/01/15 12:31	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/01/15 12:31	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/01/15 12:31	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/01/15 12:31	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/01/15 12:31	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/01/15 12:31	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/01/15 12:31	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/01/15 12:31	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/01/15 12:31	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/01/15 12:31	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/01/15 12:31	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/01/15 12:31	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/01/15 12:31	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/01/15 12:31	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/01/15 12:31	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/01/15 12:31	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/01/15 12:31	1
2-Hexanone	10	U	10	0.48	ug/L			09/01/15 12:31	1
Methylene Chloride	0.333	J	1.0	0.33	ug/L			09/01/15 12:31	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/01/15 12:31	1
Styrene	1.0	U	1.0	0.45	ug/L			09/01/15 12:31	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/01/15 12:31	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/01/15 12:31	1
Toluene	1.0	U	1.0	0.23	ug/L			09/01/15 12:31	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/01/15 12:31	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/01/15 12:31	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/01/15 12:31	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/01/15 12:31	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/01/15 12:31	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/01/15 12:31	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/01/15 12:31	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/01/15 12:31	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/01/15 12:31	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/01/15 12:31	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/01/15 12:31	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/01/15 12:31	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/01/15 12:31	1
Methyl acetate	10	U	10	2.3	ug/L			09/01/15 12:31	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/01/15 12:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/01/15 12:31	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/01/15 12:31	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/01/15 12:31	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/01/15 12:31	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/01/15 12:31	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/01/15 12:31	1

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# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 240-195748/29**  
**Matrix: Water**  
**Analysis Batch: 195748**

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/01/15 12:31	1
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/01/15 12:31	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		78 - 125					09/01/15 12:31	1
4-Bromofluorobenzene (Surr)	100		61 - 120					09/01/15 12:31	1
Toluene-d8 (Surr)	93		80 - 120					09/01/15 12:31	1
Dibromofluoromethane (Surr)	87		79 - 120					09/01/15 12:31	1

**Lab Sample ID: LCS 240-195748/4**  
**Matrix: Water**  
**Analysis Batch: 195748**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Acetone	20.0	24.5		ug/L		123	34 - 148
Benzene	10.0	9.75		ug/L		97	80 - 120
Dichlorobromomethane	10.0	9.48		ug/L		95	80 - 120
Bromoform	10.0	7.62		ug/L		76	56 - 122
Bromomethane	10.0	6.74		ug/L		67	38 - 132
2-Butanone (MEK)	20.0	22.5		ug/L		113	56 - 138
Carbon disulfide	10.0	8.79		ug/L		88	65 - 144
Carbon tetrachloride	10.0	8.83		ug/L		88	77 - 131
Chlorobenzene	10.0	9.74		ug/L		97	80 - 120
Chloroethane	10.0	7.85		ug/L		79	36 - 126
Chloroform	10.0	9.80		ug/L		98	80 - 120
Chloromethane	10.0	8.45		ug/L		84	48 - 133
1,1-Dichloroethane	10.0	10.2		ug/L		102	79 - 125
1,2-Dichloroethane	10.0	10.4		ug/L		104	80 - 120
1,1-Dichloroethene	10.0	8.69		ug/L		87	76 - 124
1,2-Dichloropropane	10.0	10.3		ug/L		103	78 - 124
1,2,4-Trimethylbenzene	10.0	9.73		ug/L		97	76 - 120
cis-1,3-Dichloropropene	10.0	8.39		ug/L		84	74 - 126
trans-1,3-Dichloropropene	10.0	8.61		ug/L		86	75 - 131
Ethylbenzene	10.0	9.68		ug/L		97	80 - 120
2-Hexanone	20.0	23.7		ug/L		118	55 - 141
Methylene Chloride	10.0	10.3		ug/L		103	77 - 129
4-Methyl-2-pentanone (MIBK)	20.0	20.3		ug/L		102	64 - 135
Styrene	10.0	9.76		ug/L		98	76 - 122
1,1,2,2-Tetrachloroethane	10.0	11.3		ug/L		113	71 - 123
Tetrachloroethene	10.0	8.72		ug/L		87	78 - 121
Toluene	10.0	9.69		ug/L		97	80 - 120
Trichloroethene	10.0	9.18		ug/L		92	80 - 121
1,3,5-Trimethylbenzene	10.0	9.66		ug/L		97	77 - 120
Vinyl chloride	10.0	8.64		ug/L		86	52 - 121
Xylenes, Total	20.0	19.5		ug/L		97	80 - 120
1,1,1-Trichloroethane	10.0	8.54		ug/L		85	77 - 123
1,1,2-Trichloroethane	10.0	10.4		ug/L		104	80 - 120
Cyclohexane	10.0	9.04		ug/L		90	60 - 140

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 240-195748/4**

**Matrix: Water**

**Analysis Batch: 195748**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	10.0	7.36		ug/L		74	50 - 132
Ethylene Dibromide	10.0	10.7		ug/L		107	80 - 120
Dichlorodifluoromethane	10.0	7.83		ug/L		78	23 - 136
cis-1,2-Dichloroethene	10.0	9.58		ug/L		96	79 - 120
trans-1,2-Dichloroethene	10.0	9.54		ug/L		95	80 - 124
Isopropylbenzene	10.0	9.37		ug/L		94	77 - 120
Methyl acetate	50.0	55.1		ug/L		110	67 - 131
Methyl tert-butyl ether	10.0	8.79		ug/L		88	69 - 121
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	8.44		ug/L		84	67 - 138
1,2,4-Trichlorobenzene	10.0	8.06		ug/L		81	61 - 120
1,2-Dichlorobenzene	10.0	9.23		ug/L		92	79 - 120
1,3-Dichlorobenzene	10.0	9.28		ug/L		93	79 - 120
1,4-Dichlorobenzene	10.0	9.56		ug/L		96	79 - 120
Trichlorofluoromethane	10.0	7.10		ug/L		71	61 - 133
Methylcyclohexane	10.0	9.16		ug/L		92	61 - 134
m-Xylene & p-Xylene	10.0	9.83		ug/L		98	80 - 120
o-Xylene	10.0	9.62		ug/L		96	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		78 - 125
4-Bromofluorobenzene (Surr)	107		61 - 120
Toluene-d8 (Surr)	98		80 - 120
Dibromofluoromethane (Surr)	96		79 - 120

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

**Lab Sample ID: MB 240-195072/16-A**

**Matrix: Water**

**Analysis Batch: 196460**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 195072**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	5.0	U	5.0	0.044	ug/L		08/27/15 08:45	09/06/15 09:17	1
Acenaphthylene	5.0	U	5.0	0.048	ug/L		08/27/15 08:45	09/06/15 09:17	1
Acetophenone	5.0	U	5.0	0.34	ug/L		08/27/15 08:45	09/06/15 09:17	1
Anthracene	5.0	U	5.0	0.088	ug/L		08/27/15 08:45	09/06/15 09:17	1
Atrazine	3.0	U	3.0	0.34	ug/L		08/27/15 08:45	09/06/15 09:17	1
Benzaldehyde	5.0	U	5.0	0.39	ug/L		08/27/15 08:45	09/06/15 09:17	1
Benzo[a]anthracene	1.0	U	1.0	0.030	ug/L		08/27/15 08:45	09/06/15 09:17	1
Benzo[b]fluoranthene	1.0	U	1.0	0.039	ug/L		08/27/15 08:45	09/06/15 09:17	1
Benzo[k]fluoranthene	1.0	U	1.0	0.045	ug/L		08/27/15 08:45	09/06/15 09:17	1
Benzo[g,h,i]perylene	1.0	U	1.0	0.046	ug/L		08/27/15 08:45	09/06/15 09:17	1
Benzo[a]pyrene	1.0	U	1.0	0.051	ug/L		08/27/15 08:45	09/06/15 09:17	1
Butyl benzyl phthalate	5.0	U	5.0	0.26	ug/L		08/27/15 08:45	09/06/15 09:17	1
1,1'-Biphenyl	5.0	U	5.0	0.13	ug/L		08/27/15 08:45	09/06/15 09:17	1
Bis(2-chloroethoxy)methane	5.0	U	5.0	0.32	ug/L		08/27/15 08:45	09/06/15 09:17	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.10	ug/L		08/27/15 08:45	09/06/15 09:17	1
Bis(2-ethylhexyl) phthalate	5.0	U	5.0	1.7	ug/L		08/27/15 08:45	09/06/15 09:17	1

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# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

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

**Lab Sample ID: MB 240-195072/16-A**  
**Matrix: Water**  
**Analysis Batch: 196460**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 195072**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
4-Bromophenyl phenyl ether	5.0	U	5.0	0.22	ug/L		08/27/15 08:45	09/06/15 09:17	1
Caprolactam	10	U	10	0.20	ug/L		08/27/15 08:45	09/06/15 09:17	1
Carbazole	10	U	10	0.28	ug/L		08/27/15 08:45	09/06/15 09:17	1
4-Chloroaniline	10	U	10	0.21	ug/L		08/27/15 08:45	09/06/15 09:17	1
4-Chloro-3-methylphenol	5.0	U	5.0	0.21	ug/L		08/27/15 08:45	09/06/15 09:17	1
2-Chloronaphthalene	5.0	U	5.0	0.10	ug/L		08/27/15 08:45	09/06/15 09:17	1
2-Chlorophenol	5.0	U	5.0	0.29	ug/L		08/27/15 08:45	09/06/15 09:17	1
4-Chlorophenyl phenyl ether	5.0	U	5.0	0.30	ug/L		08/27/15 08:45	09/06/15 09:17	1
Chrysene	1.0	U	1.0	0.050	ug/L		08/27/15 08:45	09/06/15 09:17	1
2-Methylnaphthalene	5.0	U	5.0	0.090	ug/L		08/27/15 08:45	09/06/15 09:17	1
3 & 4 Methylphenol	5.0	U	5.0	0.80	ug/L		08/27/15 08:45	09/06/15 09:17	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.045	ug/L		08/27/15 08:45	09/06/15 09:17	1
Dibenzofuran	4.0	U	4.0	0.020	ug/L		08/27/15 08:45	09/06/15 09:17	1
3,3'-Dichlorobenzidine	1.0	U	1.0	0.37	ug/L		08/27/15 08:45	09/06/15 09:17	1
2,4-Dichlorophenol	10	U	10	0.19	ug/L		08/27/15 08:45	09/06/15 09:17	1
Diethyl phthalate	5.0	U	5.0	0.60	ug/L		08/27/15 08:45	09/06/15 09:17	1
2,4-Dimethylphenol	5.0	U	5.0	0.25	ug/L		08/27/15 08:45	09/06/15 09:17	1
Dimethyl phthalate	5.0	U	5.0	0.29	ug/L		08/27/15 08:45	09/06/15 09:17	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		08/27/15 08:45	09/06/15 09:17	1
2,4-Dinitrophenol	20	U	20	0.32	ug/L		08/27/15 08:45	09/06/15 09:17	1
2,4-Dinitrotoluene	5.0	U	5.0	0.25	ug/L		08/27/15 08:45	09/06/15 09:17	1
Di-n-butyl phthalate	5.0	U	5.0	1.7	ug/L		08/27/15 08:45	09/06/15 09:17	1
Di-n-octyl phthalate	5.0	U	5.0	0.23	ug/L		08/27/15 08:45	09/06/15 09:17	1
Fluoranthene	1.0	U	1.0	0.045	ug/L		08/27/15 08:45	09/06/15 09:17	1
Fluorene	5.0	U	5.0	0.041	ug/L		08/27/15 08:45	09/06/15 09:17	1
Hexachlorobenzene	0.20	U	0.20	0.085	ug/L		08/27/15 08:45	09/06/15 09:17	1
Hexachlorobutadiene	1.0	U	1.0	0.27	ug/L		08/27/15 08:45	09/06/15 09:17	1
Hexachlorocyclopentadiene	5.0	U	5.0	0.24	ug/L		08/27/15 08:45	09/06/15 09:17	1
Hexachloroethane	5.0	U	5.0	0.19	ug/L		08/27/15 08:45	09/06/15 09:17	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.043	ug/L		08/27/15 08:45	09/06/15 09:17	1
Isophorone	5.0	U	5.0	0.27	ug/L		08/27/15 08:45	09/06/15 09:17	1
2-Methylphenol	5.0	U	5.0	0.17	ug/L		08/27/15 08:45	09/06/15 09:17	1
Naphthalene	5.0	U	5.0	0.063	ug/L		08/27/15 08:45	09/06/15 09:17	1
2-Nitroaniline	20	U	20	0.21	ug/L		08/27/15 08:45	09/06/15 09:17	1
3-Nitroaniline	20	U	20	0.28	ug/L		08/27/15 08:45	09/06/15 09:17	1
4-Nitroaniline	20	U	20	0.22	ug/L		08/27/15 08:45	09/06/15 09:17	1
Nitrobenzene	3.0	U	3.0	0.040	ug/L		08/27/15 08:45	09/06/15 09:17	1
2-Nitrophenol	5.0	U	5.0	0.28	ug/L		08/27/15 08:45	09/06/15 09:17	1
4-Nitrophenol	20	U	20	0.29	ug/L		08/27/15 08:45	09/06/15 09:17	1
N-Nitrosodiphenylamine	5.0	U	5.0	0.31	ug/L		08/27/15 08:45	09/06/15 09:17	1
N-Nitrosodi-n-propylamine	5.0	U	5.0	0.24	ug/L		08/27/15 08:45	09/06/15 09:17	1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	0.40	ug/L		08/27/15 08:45	09/06/15 09:17	1
Pentachlorophenol	5.0	U	5.0	0.27	ug/L		08/27/15 08:45	09/06/15 09:17	1
Phenanthrene	2.0	U	2.0	0.062	ug/L		08/27/15 08:45	09/06/15 09:17	1
Phenol	5.0	U	5.0	0.60	ug/L		08/27/15 08:45	09/06/15 09:17	1
Pyrene	5.0	U	5.0	0.042	ug/L		08/27/15 08:45	09/06/15 09:17	1
2,4,5-Trichlorophenol	5.0	U	5.0	0.30	ug/L		08/27/15 08:45	09/06/15 09:17	1
2,4,6-Trichlorophenol	4.0	U	4.0	0.24	ug/L		08/27/15 08:45	09/06/15 09:17	1

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# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

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

**Lab Sample ID: MB 240-195072/16-A**  
**Matrix: Water**  
**Analysis Batch: 196460**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 195072**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dinitrotoluene	5.0	U	5.0	0.80	ug/L		08/27/15 08:45	09/06/15 09:17	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	68		29 - 110				08/27/15 08:45	09/06/15 09:17	1
2-Fluorophenol (Surr)	62		15 - 110				08/27/15 08:45	09/06/15 09:17	1
2,4,6-Tribromophenol (Surr)	47		21 - 128				08/27/15 08:45	09/06/15 09:17	1
Nitrobenzene-d5 (Surr)	67		31 - 110				08/27/15 08:45	09/06/15 09:17	1
Phenol-d5 (Surr)	48		10 - 110				08/27/15 08:45	09/06/15 09:17	1
Terphenyl-d14 (Surr)	73		31 - 115				08/27/15 08:45	09/06/15 09:17	1

**Lab Sample ID: LCS 240-195072/17-A**  
**Matrix: Water**  
**Analysis Batch: 196460**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 195072**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	20.0	16.5		ug/L		83	55 - 120
Acenaphthylene	20.0	17.0		ug/L		85	55 - 120
Acetophenone	20.0	18.0		ug/L		90	50 - 120
Anthracene	20.0	16.8		ug/L		84	56 - 120
Atrazine	40.0	35.4		ug/L		89	65 - 161
Benzaldehyde	40.0	34.9		ug/L		87	40 - 122
Benzo[a]anthracene	20.0	16.6		ug/L		83	46 - 120
Benzo[b]fluoranthene	20.0	19.0		ug/L		95	24 - 120
Benzo[k]fluoranthene	20.0	17.5		ug/L		88	30 - 120
Benzo[g,h,i]perylene	20.0	20.7		ug/L		103	24 - 126
Benzo[a]pyrene	20.0	18.7		ug/L		94	24 - 120
Butyl benzyl phthalate	20.0	16.8		ug/L		84	51 - 120
1,1'-Biphenyl	20.0	16.4		ug/L		82	52 - 120
Bis(2-chloroethoxy)methane	20.0	17.4		ug/L		87	48 - 120
Bis(2-chloroethyl)ether	20.0	17.2		ug/L		86	43 - 120
Bis(2-ethylhexyl) phthalate	20.0	17.2		ug/L		86	21 - 125
4-Bromophenyl phenyl ether	20.0	17.1		ug/L		85	47 - 120
Caprolactam	40.0	12.5		ug/L		31	10 - 120
Carbazole	20.0	18.0		ug/L		90	57 - 120
4-Chloroaniline	20.0	8.79	J	ug/L		44	15 - 120
4-Chloro-3-methylphenol	20.0	18.0		ug/L		90	45 - 120
2-Chloronaphthalene	20.0	16.6		ug/L		83	47 - 120
2-Chlorophenol	20.0	17.9		ug/L		89	43 - 120
4-Chlorophenyl phenyl ether	20.0	17.3		ug/L		86	47 - 120
Chrysene	20.0	17.1		ug/L		86	49 - 120
2-Methylnaphthalene	20.0	18.0		ug/L		90	52 - 120
3 & 4 Methylphenol	20.0	16.6		ug/L		83	34 - 120
Dibenz(a,h)anthracene	20.0	17.8		ug/L		89	24 - 125
Dibenzofuran	20.0	16.9		ug/L		84	56 - 120
3,3'-Dichlorobenzidine	40.0	26.7		ug/L		67	29 - 120
2,4-Dichlorophenol	20.0	17.2		ug/L		86	46 - 120
Diethyl phthalate	20.0	17.8		ug/L		89	58 - 120
2,4-Dimethylphenol	20.0	17.0		ug/L		85	38 - 120

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

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

**Lab Sample ID: LCS 240-195072/17-A**  
**Matrix: Water**  
**Analysis Batch: 196460**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 195072**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dimethyl phthalate	20.0	17.8		ug/L		89	59 - 120
4,6-Dinitro-2-methylphenol	40.0	32.5		ug/L		81	33 - 120
2,4-Dinitrophenol	40.0	22.9		ug/L		57	10 - 120
2,4-Dinitrotoluene	20.0	17.8		ug/L		89	52 - 120
Di-n-butyl phthalate	20.0	18.3		ug/L		91	57 - 122
Di-n-octyl phthalate	20.0	18.3		ug/L		91	21 - 122
Fluoranthene	20.0	18.5		ug/L		93	57 - 120
Fluorene	20.0	17.2		ug/L		86	56 - 120
Hexachlorobenzene	20.0	16.8		ug/L		84	52 - 120
Hexachlorobutadiene	20.0	16.8		ug/L		84	38 - 120
Hexachlorocyclopentadiene	20.0	9.75		ug/L		49	4 - 120
Hexachloroethane	20.0	16.1		ug/L		80	42 - 120
Indeno[1,2,3-cd]pyrene	20.0	17.9		ug/L		89	25 - 120
Isophorone	20.0	17.8		ug/L		89	48 - 123
2-Methylphenol	20.0	17.0		ug/L		85	38 - 120
Naphthalene	20.0	16.6		ug/L		83	52 - 120
2-Nitroaniline	20.0	17.2	J	ug/L		86	48 - 127
3-Nitroaniline	20.0	17.6	J	ug/L		88	52 - 120
4-Nitroaniline	20.0	18.8	J	ug/L		94	48 - 120
Nitrobenzene	20.0	16.8		ug/L		84	41 - 120
2-Nitrophenol	20.0	17.3		ug/L		87	42 - 120
4-Nitrophenol	40.0	24.0		ug/L		60	16 - 120
N-Nitrosodiphenylamine	40.0	33.0		ug/L		83	51 - 120
N-Nitrosodi-n-propylamine	20.0	17.2		ug/L		86	48 - 123
2,2'-oxybis[1-chloropropane]	20.0	16.1		ug/L		80	42 - 120
Pentachlorophenol	40.0	22.5		ug/L		56	14 - 120
Phenanthrene	20.0	16.5		ug/L		83	57 - 120
Phenol	20.0	12.1		ug/L		60	16 - 120
Pyrene	20.0	15.9		ug/L		80	50 - 120
2,4,5-Trichlorophenol	20.0	16.8		ug/L		84	47 - 120
2,4,6-Trichlorophenol	20.0	16.3		ug/L		82	43 - 120
2,6-Dinitrotoluene	20.0	18.7		ug/L		93	52 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	84		29 - 110
2-Fluorophenol (Surr)	75		15 - 110
2,4,6-Tribromophenol (Surr)	75		21 - 128
Nitrobenzene-d5 (Surr)	85		31 - 110
Phenol-d5 (Surr)	61		10 - 110
Terphenyl-d14 (Surr)	88		31 - 115

# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 240-195074/1-A**  
**Matrix: Water**  
**Analysis Batch: 195541**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 195074**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.396	J	5.0	0.18	ug/L		08/27/15 08:50	08/28/15 19:06	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/27/15 08:50	08/28/15 19:06	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/27/15 08:50	08/28/15 19:06	1
Cobalt	7.0	U	7.0	0.021	ug/L		08/27/15 08:50	08/28/15 19:06	1
Chromium	2.37	J	5.0	0.20	ug/L		08/27/15 08:50	08/28/15 19:06	1
Copper	2.0	U	2.0	0.75	ug/L		08/27/15 08:50	08/28/15 19:06	1
Manganese	15	U	15	1.1	ug/L		08/27/15 08:50	08/28/15 19:06	1
Nickel	20	U	20	0.23	ug/L		08/27/15 08:50	08/28/15 19:06	1
Antimony	2.0	U	2.0	0.16	ug/L		08/27/15 08:50	08/28/15 19:06	1
Lead	0.126	J	3.0	0.11	ug/L		08/27/15 08:50	08/28/15 19:06	1
Selenium	0.805	J	5.0	0.25	ug/L		08/27/15 08:50	08/28/15 19:06	1
Thallium	1.0	U	1.0	0.074	ug/L		08/27/15 08:50	08/28/15 19:06	1
Vanadium	0.646	J	4.0	0.23	ug/L		08/27/15 08:50	08/28/15 19:06	1
Zinc	20	U	20	7.3	ug/L		08/27/15 08:50	08/28/15 19:06	1
Barium	100	U	100	1.1	ug/L		08/27/15 08:50	08/28/15 19:06	1
Silver	0.20	U	0.20	0.020	ug/L		08/27/15 08:50	08/28/15 19:06	1

**Lab Sample ID: LCS 240-195074/2-A ^10**  
**Matrix: Water**  
**Analysis Batch: 195541**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 195074**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	2000	1920		ug/L		96	80 - 120
Beryllium	50.0	53.3		ug/L		107	80 - 120
Cadmium	50.0	49.5		ug/L		99	80 - 120
Cobalt	500	510		ug/L		102	80 - 120
Chromium	200	225		ug/L		113	80 - 120
Copper	250	264		ug/L		106	80 - 120
Manganese	500	556		ug/L		111	80 - 120
Nickel	500	536		ug/L		107	80 - 120
Antimony	500	519		ug/L		104	80 - 120
Lead	500	507		ug/L		101	80 - 120
Selenium	2000	1910		ug/L		95	80 - 120
Thallium	2000	2130		ug/L		107	80 - 120
Vanadium	500	511		ug/L		102	80 - 120
Zinc	500	569		ug/L		114	80 - 120
Barium	2000	2000		ug/L		100	80 - 120
Silver	50.0	48.7		ug/L		97	80 - 120

**Lab Sample ID: 240-54731-1 MS**  
**Matrix: Water**  
**Analysis Batch: 195541**

**Client Sample ID: GW-082515-JL-03**  
**Prep Type: Total Recoverable**  
**Prep Batch: 195074**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	0.93	J B	2000	1810		ug/L		91	75 - 125
Beryllium	1.0	U	50.0	53.4		ug/L		107	75 - 125
Cadmium	1.0	U	50.0	48.4		ug/L		97	75 - 125
Cobalt	0.69	J	500	476		ug/L		95	75 - 125

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# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: 240-54731-1 MS**  
**Matrix: Water**  
**Analysis Batch: 195541**

**Client Sample ID: GW-082515-JL-03**  
**Prep Type: Total Recoverable**  
**Prep Batch: 195074**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	
	Result	Qualifier		Result	Qualifier				Limits	RPD
Chromium	8.2	B	200	221		ug/L		106	75 - 125	
Copper	0.79	J	250	245		ug/L		98	75 - 125	
Manganese	5.1	J	500	533		ug/L		106	75 - 125	
Nickel	26		500	534		ug/L		102	75 - 125	
Antimony	0.38	J	500	494		ug/L		99	75 - 125	
Lead	3.0	U	500	482		ug/L		96	75 - 125	
Selenium	1.2	J B	2000	1810		ug/L		91	75 - 125	
Thallium	0.14	J	2000	2060		ug/L		103	75 - 125	
Vanadium	1.3	J B	500	482		ug/L		96	75 - 125	
Zinc	20	U	500	588		ug/L		118	75 - 125	
Barium	76	J	2000	1970		ug/L		94	75 - 125	
Silver	0.20	U	50.0	45.2		ug/L		90	75 - 125	

**Lab Sample ID: 240-54731-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 195541**

**Client Sample ID: GW-082515-JL-03**  
**Prep Type: Total Recoverable**  
**Prep Batch: 195074**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	
	Result	Qualifier		Result	Qualifier				Limits	RPD	Limit	
Arsenic	0.93	J B	2000	1970		ug/L		98	75 - 125	8	20	
Beryllium	1.0	U	50.0	58.1		ug/L		116	75 - 125	8	20	
Cadmium	1.0	U	50.0	50.9		ug/L		102	75 - 125	5	20	
Cobalt	0.69	J	500	512		ug/L		102	75 - 125	7	20	
Chromium	8.2	B	200	232		ug/L		112	75 - 125	5	20	
Copper	0.79	J	250	264		ug/L		105	75 - 125	7	20	
Manganese	5.1	J	500	568		ug/L		113	75 - 125	6	20	
Nickel	26		500	566		ug/L		108	75 - 125	6	20	
Antimony	0.38	J	500	542		ug/L		108	75 - 125	9	20	
Lead	3.0	U	500	523		ug/L		105	75 - 125	8	20	
Selenium	1.2	J B	2000	1960		ug/L		98	75 - 125	7	20	
Thallium	0.14	J	2000	2210		ug/L		111	75 - 125	7	20	
Vanadium	1.3	J B	500	515		ug/L		103	75 - 125	6	20	
Zinc	20	U	500	587		ug/L		117	75 - 125	0	20	
Barium	76	J	2000	2150		ug/L		104	75 - 125	9	20	
Silver	0.20	U	50.0	50.1		ug/L		100	75 - 125	10	20	

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 240-195079/1-A**  
**Matrix: Water**  
**Analysis Batch: 195389**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 195079**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	0.20	U	0.20	0.090	ug/L		08/27/15 09:04	08/28/15 16:27	1

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# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

## Method: 7470A - Mercury (CVAA) (Continued)

**Lab Sample ID: LCS 240-195079/2-A**  
**Matrix: Water**  
**Analysis Batch: 195389**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 195079**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	5.00	5.08		ug/L		102	80 - 120

**Lab Sample ID: 240-54731-1 MS**  
**Matrix: Water**  
**Analysis Batch: 195389**

**Client Sample ID: GW-082515-JL-03**  
**Prep Type: Total/NA**  
**Prep Batch: 195079**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.20	U	1.00	0.977		ug/L		98	80 - 120

**Lab Sample ID: 240-54731-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 195389**

**Client Sample ID: GW-082515-JL-03**  
**Prep Type: Total/NA**  
**Prep Batch: 195079**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.20	U	1.00	0.968		ug/L		97	80 - 120	1	20

## Method: 7196A - Chromium, Hexavalent

**Lab Sample ID: MB 240-194904/3**  
**Matrix: Water**  
**Analysis Batch: 194904**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/26/15 10:36	1

**Lab Sample ID: LCS 240-194904/4**  
**Matrix: Water**  
**Analysis Batch: 194904**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Cr (VI)	0.250	0.243		mg/L		97	80 - 118

**Lab Sample ID: 240-54731-1 MS**  
**Matrix: Water**  
**Analysis Batch: 194904**

**Client Sample ID: GW-082515-JL-03**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Cr (VI)	0.020	U	0.250	0.216		mg/L		87	41 - 136

**Lab Sample ID: 240-54731-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 194904**

**Client Sample ID: GW-082515-JL-03**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Cr (VI)	0.020	U	0.250	0.200		mg/L		80	41 - 136	8	20

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# QC Association Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

## GC/MS VOA

### Analysis Batch: 195748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54731-1	GW-082515-JL-03	Total/NA	Water	8260B	
240-54731-2	GW-082515-JL-04	Total/NA	Water	8260B	
240-54731-3	GW-082515-JL-07	Total/NA	Water	8260B	
240-54731-4	GW-082515-JL-08	Total/NA	Water	8260B	
240-54731-5	GW-082515-JL-09	Total/NA	Water	8260B	
240-54731-6	GW-082515-JL-10	Total/NA	Water	8260B	
240-54731-7	GW-082515-JL-11	Total/NA	Water	8260B	
240-54731-8	GW-082515-JL-12	Total/NA	Water	8260B	
240-54731-9	TRIP BLANK	Total/NA	Water	8260B	
LCS 240-195748/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-195748/29	Method Blank	Total/NA	Water	8260B	

## GC/MS Semi VOA

### Prep Batch: 195072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54731-1	GW-082515-JL-03	Total/NA	Water	3510C	
240-54731-2	GW-082515-JL-04	Total/NA	Water	3510C	
240-54731-3	GW-082515-JL-07	Total/NA	Water	3510C	
240-54731-4	GW-082515-JL-08	Total/NA	Water	3510C	
240-54731-5	GW-082515-JL-09	Total/NA	Water	3510C	
240-54731-6	GW-082515-JL-10	Total/NA	Water	3510C	
240-54731-7	GW-082515-JL-11	Total/NA	Water	3510C	
240-54731-8	GW-082515-JL-12	Total/NA	Water	3510C	
LCS 240-195072/17-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-195072/16-A	Method Blank	Total/NA	Water	3510C	

### Analysis Batch: 196460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54731-1	GW-082515-JL-03	Total/NA	Water	8270C	195072
240-54731-2	GW-082515-JL-04	Total/NA	Water	8270C	195072
240-54731-3	GW-082515-JL-07	Total/NA	Water	8270C	195072
240-54731-4	GW-082515-JL-08	Total/NA	Water	8270C	195072
240-54731-5	GW-082515-JL-09	Total/NA	Water	8270C	195072
240-54731-6	GW-082515-JL-10	Total/NA	Water	8270C	195072
240-54731-8	GW-082515-JL-12	Total/NA	Water	8270C	195072
LCS 240-195072/17-A	Lab Control Sample	Total/NA	Water	8270C	195072
MB 240-195072/16-A	Method Blank	Total/NA	Water	8270C	195072

### Analysis Batch: 196528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54731-7	GW-082515-JL-11	Total/NA	Water	8270C	195072

## Metals

### Prep Batch: 195074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54731-1	GW-082515-JL-03	Dissolved	Water	3005A	
240-54731-1	GW-082515-JL-03	Total Recoverable	Water	3005A	
240-54731-1 MS	GW-082515-JL-03	Total Recoverable	Water	3005A	

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# QC Association Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

## Metals (Continued)

### Prep Batch: 195074 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54731-1 MSD	GW-082515-JL-03	Total Recoverable	Water	3005A	
240-54731-2	GW-082515-JL-04	Dissolved	Water	3005A	
240-54731-2	GW-082515-JL-04	Total Recoverable	Water	3005A	
240-54731-3	GW-082515-JL-07	Dissolved	Water	3005A	
240-54731-3	GW-082515-JL-07	Total Recoverable	Water	3005A	
240-54731-4	GW-082515-JL-08	Dissolved	Water	3005A	
240-54731-4	GW-082515-JL-08	Total Recoverable	Water	3005A	
240-54731-5	GW-082515-JL-09	Dissolved	Water	3005A	
240-54731-5	GW-082515-JL-09	Total Recoverable	Water	3005A	
240-54731-6	GW-082515-JL-10	Dissolved	Water	3005A	
240-54731-6	GW-082515-JL-10	Total Recoverable	Water	3005A	
240-54731-7	GW-082515-JL-11	Dissolved	Water	3005A	
240-54731-7	GW-082515-JL-11	Total Recoverable	Water	3005A	
240-54731-8	GW-082515-JL-12	Dissolved	Water	3005A	
240-54731-8	GW-082515-JL-12	Total Recoverable	Water	3005A	
LCS 240-195074/2-A ^10	Lab Control Sample	Total Recoverable	Water	3005A	
MB 240-195074/1-A	Method Blank	Total Recoverable	Water	3005A	

### Prep Batch: 195079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54731-1	GW-082515-JL-03	Dissolved	Water	7470A	
240-54731-1	GW-082515-JL-03	Total/NA	Water	7470A	
240-54731-1 MS	GW-082515-JL-03	Total/NA	Water	7470A	
240-54731-1 MSD	GW-082515-JL-03	Total/NA	Water	7470A	
240-54731-2	GW-082515-JL-04	Dissolved	Water	7470A	
240-54731-2	GW-082515-JL-04	Total/NA	Water	7470A	
240-54731-3	GW-082515-JL-07	Dissolved	Water	7470A	
240-54731-3	GW-082515-JL-07	Total/NA	Water	7470A	
240-54731-4	GW-082515-JL-08	Dissolved	Water	7470A	
240-54731-4	GW-082515-JL-08	Total/NA	Water	7470A	
240-54731-5	GW-082515-JL-09	Dissolved	Water	7470A	
240-54731-5	GW-082515-JL-09	Total/NA	Water	7470A	
240-54731-6	GW-082515-JL-10	Dissolved	Water	7470A	
240-54731-6	GW-082515-JL-10	Total/NA	Water	7470A	
240-54731-7	GW-082515-JL-11	Dissolved	Water	7470A	
240-54731-7	GW-082515-JL-11	Total/NA	Water	7470A	
240-54731-8	GW-082515-JL-12	Dissolved	Water	7470A	
240-54731-8	GW-082515-JL-12	Total/NA	Water	7470A	
LCS 240-195079/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 240-195079/1-A	Method Blank	Total/NA	Water	7470A	

### Analysis Batch: 195389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54731-1	GW-082515-JL-03	Dissolved	Water	7470A	195079
240-54731-1	GW-082515-JL-03	Total/NA	Water	7470A	195079
240-54731-1 MS	GW-082515-JL-03	Total/NA	Water	7470A	195079
240-54731-1 MSD	GW-082515-JL-03	Total/NA	Water	7470A	195079
240-54731-2	GW-082515-JL-04	Dissolved	Water	7470A	195079
240-54731-2	GW-082515-JL-04	Total/NA	Water	7470A	195079
240-54731-3	GW-082515-JL-07	Dissolved	Water	7470A	195079
240-54731-3	GW-082515-JL-07	Total/NA	Water	7470A	195079

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# QC Association Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

## Metals (Continued)

### Analysis Batch: 195389 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54731-4	GW-082515-JL-08	Dissolved	Water	7470A	195079
240-54731-4	GW-082515-JL-08	Total/NA	Water	7470A	195079
240-54731-5	GW-082515-JL-09	Dissolved	Water	7470A	195079
240-54731-5	GW-082515-JL-09	Total/NA	Water	7470A	195079
240-54731-6	GW-082515-JL-10	Dissolved	Water	7470A	195079
240-54731-6	GW-082515-JL-10	Total/NA	Water	7470A	195079
240-54731-7	GW-082515-JL-11	Dissolved	Water	7470A	195079
240-54731-7	GW-082515-JL-11	Total/NA	Water	7470A	195079
240-54731-8	GW-082515-JL-12	Dissolved	Water	7470A	195079
240-54731-8	GW-082515-JL-12	Total/NA	Water	7470A	195079
LCS 240-195079/2-A	Lab Control Sample	Total/NA	Water	7470A	195079
MB 240-195079/1-A	Method Blank	Total/NA	Water	7470A	195079

### Analysis Batch: 195541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54731-1	GW-082515-JL-03	Dissolved	Water	6020	195074
240-54731-1	GW-082515-JL-03	Total Recoverable	Water	6020	195074
240-54731-1 MS	GW-082515-JL-03	Total Recoverable	Water	6020	195074
240-54731-1 MSD	GW-082515-JL-03	Total Recoverable	Water	6020	195074
240-54731-2	GW-082515-JL-04	Dissolved	Water	6020	195074
240-54731-2	GW-082515-JL-04	Total Recoverable	Water	6020	195074
240-54731-3	GW-082515-JL-07	Dissolved	Water	6020	195074
240-54731-3	GW-082515-JL-07	Total Recoverable	Water	6020	195074
240-54731-4	GW-082515-JL-08	Dissolved	Water	6020	195074
240-54731-4	GW-082515-JL-08	Total Recoverable	Water	6020	195074
240-54731-5	GW-082515-JL-09	Dissolved	Water	6020	195074
240-54731-5	GW-082515-JL-09	Total Recoverable	Water	6020	195074
240-54731-6	GW-082515-JL-10	Dissolved	Water	6020	195074
240-54731-6	GW-082515-JL-10	Total Recoverable	Water	6020	195074
240-54731-7	GW-082515-JL-11	Dissolved	Water	6020	195074
240-54731-7	GW-082515-JL-11	Total Recoverable	Water	6020	195074
240-54731-8	GW-082515-JL-12	Dissolved	Water	6020	195074
240-54731-8	GW-082515-JL-12	Total Recoverable	Water	6020	195074
LCS 240-195074/2-A ^10	Lab Control Sample	Total Recoverable	Water	6020	195074
MB 240-195074/1-A	Method Blank	Total Recoverable	Water	6020	195074

## General Chemistry

### Analysis Batch: 194904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54731-1	GW-082515-JL-03	Total/NA	Water	7196A	
240-54731-1 MS	GW-082515-JL-03	Total/NA	Water	7196A	
240-54731-1 MSD	GW-082515-JL-03	Total/NA	Water	7196A	
240-54731-2	GW-082515-JL-04	Total/NA	Water	7196A	
240-54731-3	GW-082515-JL-07	Total/NA	Water	7196A	
240-54731-4	GW-082515-JL-08	Total/NA	Water	7196A	
240-54731-5	GW-082515-JL-09	Total/NA	Water	7196A	
240-54731-6	GW-082515-JL-10	Total/NA	Water	7196A	
240-54731-7	GW-082515-JL-11	Total/NA	Water	7196A	
240-54731-8	GW-082515-JL-12	Total/NA	Water	7196A	

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# QC Association Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

## General Chemistry (Continued)

### Analysis Batch: 194904 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-194904/4	Lab Control Sample	Total/NA	Water	7196A	
MB 240-194904/3	Method Blank	Total/NA	Water	7196A	

### Analysis Batch: 195697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54731-1	GW-082515-JL-03	Total/NA	Water	7196A	
240-54731-2	GW-082515-JL-04	Total/NA	Water	7196A	
240-54731-3	GW-082515-JL-07	Total/NA	Water	7196A	
240-54731-4	GW-082515-JL-08	Total/NA	Water	7196A	
240-54731-5	GW-082515-JL-09	Total/NA	Water	7196A	
240-54731-6	GW-082515-JL-10	Total/NA	Water	7196A	
240-54731-7	GW-082515-JL-11	Total/NA	Water	7196A	
240-54731-8	GW-082515-JL-12	Total/NA	Water	7196A	



# Lab Chronicle

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-03**  
**Date Collected: 08/25/15 10:40**  
**Date Received: 08/26/15 09:30**

**Lab Sample ID: 240-54731-1**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195748	09/01/15 13:38	LEE	TAL CAN
Total/NA	Prep	3510C			195072	08/27/15 08:45	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196460	09/06/15 12:14	TMH	TAL CAN
Dissolved	Prep	3005A			195074	08/27/15 08:50	WKD	TAL CAN
Dissolved	Analysis	6020		1	195541	08/28/15 19:31	AS1	TAL CAN
Total Recoverable	Prep	3005A			195074	08/27/15 08:50	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195541	08/28/15 19:13	AS1	TAL CAN
Dissolved	Prep	7470A			195079	08/27/15 09:04	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195389	08/28/15 16:35	WAL	TAL CAN
Total/NA	Prep	7470A			195079	08/27/15 09:04	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195389	08/28/15 16:30	WAL	TAL CAN
Total/NA	Analysis	7196A		1	194904	08/26/15 10:38	NJE	TAL CAN
Total/NA	Analysis	7196A		1	195697	09/01/15 07:34	KLC	TAL CAN

**Client Sample ID: GW-082515-JL-04**  
**Date Collected: 08/25/15 10:45**  
**Date Received: 08/26/15 09:30**

**Lab Sample ID: 240-54731-2**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195748	09/01/15 14:00	LEE	TAL CAN
Total/NA	Prep	3510C			195072	08/27/15 08:45	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196460	09/06/15 12:37	TMH	TAL CAN
Dissolved	Prep	3005A			195074	08/27/15 08:50	WKD	TAL CAN
Dissolved	Analysis	6020		1	195541	08/28/15 19:45	AS1	TAL CAN
Total Recoverable	Prep	3005A			195074	08/27/15 08:50	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195541	08/28/15 19:35	AS1	TAL CAN
Dissolved	Prep	7470A			195079	08/27/15 09:04	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195389	08/28/15 16:34	WAL	TAL CAN
Total/NA	Prep	7470A			195079	08/27/15 09:04	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195389	08/28/15 16:37	WAL	TAL CAN
Total/NA	Analysis	7196A		1	194904	08/26/15 10:40	NJE	TAL CAN
Total/NA	Analysis	7196A		1	195697	09/01/15 07:34	KLC	TAL CAN

**Client Sample ID: GW-082515-JL-07**  
**Date Collected: 08/25/15 13:55**  
**Date Received: 08/26/15 09:30**

**Lab Sample ID: 240-54731-3**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195748	09/01/15 14:22	LEE	TAL CAN
Total/NA	Prep	3510C			195072	08/27/15 08:45	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196460	09/06/15 12:59	TMH	TAL CAN
Dissolved	Prep	3005A			195074	08/27/15 08:50	WKD	TAL CAN

TestAmerica Canton

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-07**

**Lab Sample ID: 240-54731-3**

**Date Collected: 08/25/15 13:55**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Analysis	6020		1	195541	08/28/15 19:53	AS1	TAL CAN
Total Recoverable	Prep	3005A			195074	08/27/15 08:50	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195541	08/28/15 19:49	AS1	TAL CAN
Dissolved	Prep	7470A			195079	08/27/15 09:04	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195389	08/28/15 16:40	WAL	TAL CAN
Total/NA	Prep	7470A			195079	08/27/15 09:04	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195389	08/28/15 16:49	WAL	TAL CAN
Total/NA	Analysis	7196A		1	194904	08/26/15 11:52	NJE	TAL CAN
Total/NA	Analysis	7196A		1	195697	09/01/15 07:34	KLC	TAL CAN

**Client Sample ID: GW-082515-JL-08**

**Lab Sample ID: 240-54731-4**

**Date Collected: 08/25/15 14:05**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195748	09/01/15 14:45	LEE	TAL CAN
Total/NA	Prep	3510C			195072	08/27/15 08:45	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196460	09/06/15 13:21	TMH	TAL CAN
Dissolved	Prep	3005A			195074	08/27/15 08:50	WKD	TAL CAN
Dissolved	Analysis	6020		1	195541	08/28/15 20:00	AS1	TAL CAN
Total Recoverable	Prep	3005A			195074	08/27/15 08:50	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195541	08/28/15 19:56	AS1	TAL CAN
Dissolved	Prep	7470A			195079	08/27/15 09:04	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195389	08/28/15 16:39	WAL	TAL CAN
Total/NA	Prep	7470A			195079	08/27/15 09:04	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195389	08/28/15 16:45	WAL	TAL CAN
Total/NA	Analysis	7196A		1	194904	08/26/15 12:45	NJE	TAL CAN
Total/NA	Analysis	7196A		1	195697	09/01/15 07:34	KLC	TAL CAN

**Client Sample ID: GW-082515-JL-09**

**Lab Sample ID: 240-54731-5**

**Date Collected: 08/25/15 15:00**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195748	09/01/15 15:07	LEE	TAL CAN
Total/NA	Prep	3510C			195072	08/27/15 08:45	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196460	09/06/15 13:43	TMH	TAL CAN
Dissolved	Prep	3005A			195074	08/27/15 08:50	WKD	TAL CAN
Dissolved	Analysis	6020		1	195541	08/28/15 20:07	AS1	TAL CAN
Total Recoverable	Prep	3005A			195074	08/27/15 08:50	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195541	08/28/15 20:04	AS1	TAL CAN
Dissolved	Prep	7470A			195079	08/27/15 09:04	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195389	08/28/15 16:50	WAL	TAL CAN

TestAmerica Canton

# Lab Chronicle

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			195079	08/27/15 09:04	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195389	08/28/15 16:54	WAL	TAL CAN
Total/NA	Analysis	7196A		1	194904	08/26/15 12:46	NJE	TAL CAN
Total/NA	Analysis	7196A		1	195697	09/01/15 07:34	KLC	TAL CAN

**Client Sample ID: GW-082515-JL-10**

**Lab Sample ID: 240-54731-6**

**Date Collected: 08/25/15 15:15**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195748	09/01/15 15:30	LEE	TAL CAN
Total/NA	Prep	3510C			195072	08/27/15 08:45	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196460	09/06/15 14:06	TMH	TAL CAN
Dissolved	Prep	3005A			195074	08/27/15 08:50	WKD	TAL CAN
Dissolved	Analysis	6020		1	195541	08/28/15 20:15	AS1	TAL CAN
Total Recoverable	Prep	3005A			195074	08/27/15 08:50	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195541	08/28/15 20:11	AS1	TAL CAN
Dissolved	Prep	7470A			195079	08/27/15 09:04	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195389	08/28/15 17:01	WAL	TAL CAN
Total/NA	Prep	7470A			195079	08/27/15 09:04	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195389	08/28/15 16:52	WAL	TAL CAN
Total/NA	Analysis	7196A		1	194904	08/26/15 12:48	NJE	TAL CAN
Total/NA	Analysis	7196A		1	195697	09/01/15 07:34	KLC	TAL CAN

**Client Sample ID: GW-082515-JL-11**

**Lab Sample ID: 240-54731-7**

**Date Collected: 08/25/15 15:15**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195748	09/01/15 15:52	LEE	TAL CAN
Total/NA	Prep	3510C			195072	08/27/15 08:45	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196528	09/08/15 09:34	TMH	TAL CAN
Dissolved	Prep	3005A			195074	08/27/15 08:50	WKD	TAL CAN
Dissolved	Analysis	6020		1	195541	08/28/15 20:29	AS1	TAL CAN
Total Recoverable	Prep	3005A			195074	08/27/15 08:50	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195541	08/28/15 20:18	AS1	TAL CAN
Dissolved	Prep	7470A			195079	08/27/15 09:04	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195389	08/28/15 16:56	WAL	TAL CAN
Total/NA	Prep	7470A			195079	08/27/15 09:04	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195389	08/28/15 16:58	WAL	TAL CAN
Total/NA	Analysis	7196A		1	194904	08/26/15 12:49	NJE	TAL CAN
Total/NA	Analysis	7196A		1	195697	09/01/15 07:34	KLC	TAL CAN

TestAmerica Canton

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

**Client Sample ID: GW-082515-JL-12**

**Lab Sample ID: 240-54731-8**

**Date Collected: 08/25/15 16:15**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195748	09/01/15 16:15	LEE	TAL CAN
Total/NA	Prep	3510C			195072	08/27/15 08:45	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196460	09/06/15 14:50	TMH	TAL CAN
Dissolved	Prep	3005A			195074	08/27/15 08:50	WKD	TAL CAN
Dissolved	Analysis	6020		1	195541	08/28/15 20:37	AS1	TAL CAN
Total Recoverable	Prep	3005A			195074	08/27/15 08:50	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195541	08/28/15 20:33	AS1	TAL CAN
Dissolved	Prep	7470A			195079	08/27/15 09:04	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195389	08/28/15 17:05	WAL	TAL CAN
Total/NA	Prep	7470A			195079	08/27/15 09:04	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195389	08/28/15 16:59	WAL	TAL CAN
Total/NA	Analysis	7196A		1	194904	08/26/15 12:50	NJE	TAL CAN
Total/NA	Analysis	7196A		1	195697	09/01/15 07:34	KLC	TAL CAN

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 240-54731-9**

**Date Collected: 08/25/15 00:00**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195748	09/01/15 16:38	LEE	TAL CAN

**Laboratory References:**

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

# Certification Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

## Laboratory: TestAmerica Canton

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999518190	08-31-15 *

The following analytes are included in this report, but are not certified under this certification:

Analysis Method	Prep Method	Matrix	Analyte
6020	3005A	Water	Lead
8260B		Water	1,1,1-Trichloroethane
8260B		Water	1,1,2,2-Tetrachloroethane
8260B		Water	1,1,2-Trichloroethane
8260B		Water	1,1-Dichloroethane
8260B		Water	1,1-Dichloroethene
8260B		Water	1,2,4-Trichlorobenzene
8260B		Water	1,2,4-Trimethylbenzene
8260B		Water	1,2-Dibromo-3-Chloropropane
8260B		Water	1,2-Dichlorobenzene
8260B		Water	1,2-Dichloroethane
8260B		Water	1,2-Dichloropropane
8260B		Water	1,3,5-Trimethylbenzene
8260B		Water	1,3-Dichlorobenzene
8260B		Water	1,4-Dichlorobenzene
8260B		Water	2-Butanone (MEK)
8260B		Water	2-Hexanone
8260B		Water	4-Methyl-2-pentanone (MIBK)
8260B		Water	Acetone
8260B		Water	Benzene
8260B		Water	Bromoform
8260B		Water	Bromomethane
8260B		Water	Carbon disulfide
8260B		Water	Carbon tetrachloride
8260B		Water	Chlorobenzene
8260B		Water	Chlorodibromomethane
8260B		Water	Chloroethane
8260B		Water	Chloroform
8260B		Water	Chloromethane
8260B		Water	cis-1,2-Dichloroethene
8260B		Water	cis-1,3-Dichloropropene
8260B		Water	Dichlorobromomethane
8260B		Water	Dichlorodifluoromethane
8260B		Water	Ethylbenzene
8260B		Water	Ethylene Dibromide
8260B		Water	Isopropylbenzene
8260B		Water	Methyl tert-butyl ether
8260B		Water	Methylene Chloride
8260B		Water	Styrene
8260B		Water	Tetrachloroethene
8260B		Water	Toluene
8260B		Water	trans-1,2-Dichloroethene
8260B		Water	trans-1,3-Dichloropropene
8260B		Water	Trichloroethene
8260B		Water	Trichlorofluoromethane
8260B		Water	Vinyl chloride

\* Certification renewal pending - certification considered valid.

# Certification Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

## Laboratory: TestAmerica Canton (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999518190	08-31-15 *

The following analytes are included in this report, but are not certified under this certification:

Analysis Method	Prep Method	Matrix	Analyte
8260B		Water	Xylenes, Total
8270C	3510C	Water	1,1'-Biphenyl
8270C	3510C	Water	2,2'-oxybis[1-chloropropane]
8270C	3510C	Water	2,4,5-Trichlorophenol
8270C	3510C	Water	2,4,6-Trichlorophenol
8270C	3510C	Water	2,4-Dichlorophenol
8270C	3510C	Water	2,4-Dimethylphenol
8270C	3510C	Water	2,4-Dinitrophenol
8270C	3510C	Water	2,4-Dinitrotoluene
8270C	3510C	Water	2,6-Dinitrotoluene
8270C	3510C	Water	2-Chloronaphthalene
8270C	3510C	Water	2-Chlorophenol
8270C	3510C	Water	2-Methylnaphthalene
8270C	3510C	Water	2-Methylphenol
8270C	3510C	Water	2-Nitroaniline
8270C	3510C	Water	2-Nitrophenol
8270C	3510C	Water	3 & 4 Methylphenol
8270C	3510C	Water	3,3'-Dichlorobenzidine
8270C	3510C	Water	3-Nitroaniline
8270C	3510C	Water	4,6-Dinitro-2-methylphenol
8270C	3510C	Water	4-Bromophenyl phenyl ether
8270C	3510C	Water	4-Chloro-3-methylphenol
8270C	3510C	Water	4-Chloroaniline
8270C	3510C	Water	4-Chlorophenyl phenyl ether
8270C	3510C	Water	4-Nitrophenol
8270C	3510C	Water	Acenaphthene
8270C	3510C	Water	Acenaphthylene
8270C	3510C	Water	Acetophenone
8270C	3510C	Water	Anthracene
8270C	3510C	Water	Benzo[a]anthracene
8270C	3510C	Water	Benzo[a]pyrene
8270C	3510C	Water	Benzo[b]fluoranthene
8270C	3510C	Water	Benzo[g,h,i]perylene
8270C	3510C	Water	Benzo[k]fluoranthene
8270C	3510C	Water	Bis(2-chloroethoxy)methane
8270C	3510C	Water	Bis(2-chloroethyl)ether
8270C	3510C	Water	Bis(2-ethylhexyl) phthalate
8270C	3510C	Water	Butyl benzyl phthalate
8270C	3510C	Water	Carbazole
8270C	3510C	Water	Chrysene
8270C	3510C	Water	Dibenz(a,h)anthracene
8270C	3510C	Water	Dibenzofuran
8270C	3510C	Water	Diethyl phthalate
8270C	3510C	Water	Dimethyl phthalate
8270C	3510C	Water	Di-n-butyl phthalate
8270C	3510C	Water	Di-n-octyl phthalate

\* Certification renewal pending - certification considered valid.



# Certification Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54731-1

## Laboratory: TestAmerica Canton (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999518190	08-31-15 *

The following analytes are included in this report, but are not certified under this certification:

Analysis Method	Prep Method	Matrix	Analyte
8270C	3510C	Water	Fluoranthene
8270C	3510C	Water	Fluorene
8270C	3510C	Water	Hexachlorobenzene
8270C	3510C	Water	Hexachlorobutadiene
8270C	3510C	Water	Hexachlorocyclopentadiene
8270C	3510C	Water	Hexachloroethane
8270C	3510C	Water	Indeno[1,2,3-cd]pyrene
8270C	3510C	Water	Isophorone
8270C	3510C	Water	Naphthalene
8270C	3510C	Water	Nitrobenzene
8270C	3510C	Water	N-Nitrosodi-n-propylamine
8270C	3510C	Water	N-Nitrosodiphenylamine
8270C	3510C	Water	Pentachlorophenol
8270C	3510C	Water	Phenanthrene
8270C	3510C	Water	Phenol
8270C	3510C	Water	Pyrene

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
7196A		Water	Cr (III)
7196A		Water	Cr (VI)
8260B		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
8260B		Water	Cyclohexane
8260B		Water	Methyl acetate
8260B		Water	Methylcyclohexane
8270C	3510C	Water	4-Nitroaniline
8270C	3510C	Water	Atrazine
8270C	3510C	Water	Benzaldehyde
8270C	3510C	Water	Caprolactam

\* Certification renewal pending - certification considered valid.

**CHAIN OF CUSTODY  
AND  
RECEIVING DOCUMENTS**



240-54731 Chain of Custody

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

2.0/C3.0 2.2/C3.2 2.4/C3.4 2.6/C3.6 4 boobers

**CONESTOGA-ROVERS & ASSOCIATES**  
 8615 W. Bryn Mawr Avenue  
 Chicago, Illinois 60631  
 (773)380-9933 phone  
 (773)380-6421 fax

SHIPPED TO  
 (Laboratory Name): **TEST AMERICA - NORTH CANTON**

CHAIN-OF-CUSTODY RECORD

SAMPLER'S SIGNATURE: *[Signature]* PRINTED NAME: **JANK DOZIJTSKI**

PROJECT NAME: **GM JAMESVILLE**

REFERENCE NUMBER: **58505-01-20402**

SEQ. No.	DATE	TIME	SAMPLE IDENTIFICATION No.	SAMPLE MATRIX	No. OF CONTAINERS	PARAMETERS	REMARKS
	8/25/15	1040	GW-082515-JL-03	WATER	8	TOTAL METALS TAL 5023 TAL 5024 TAL 5025 TAL 5026 TAL 5027 TAL 5028 TAL 5029 TAL 5030 TAL 5031 TAL 5032 TAL 5033 TAL 5034 TAL 5035 TAL 5036 TAL 5037 TAL 5038 TAL 5039 TAL 5040 TAL 5041 TAL 5042 TAL 5043 TAL 5044 TAL 5045 TAL 5046 TAL 5047 TAL 5048 TAL 5049 TAL 5050 HEAVY METALS TAL 5051 TAL 5052 TAL 5053 TAL 5054 TAL 5055 TAL 5056 TAL 5057 TAL 5058 TAL 5059 TAL 5060 TAL 5061 TAL 5062 TAL 5063 TAL 5064 TAL 5065 TAL 5066 TAL 5067 TAL 5068 TAL 5069 TAL 5070 TAL 5071 TAL 5072 TAL 5073 TAL 5074 TAL 5075 TAL 5076 TAL 5077 TAL 5078 TAL 5079 TAL 5080 TAL 5081 TAL 5082 TAL 5083 TAL 5084 TAL 5085 TAL 5086 TAL 5087 TAL 5088 TAL 5089 TAL 5090 TAL 5091 TAL 5092 TAL 5093 TAL 5094 TAL 5095 TAL 5096 TAL 5097 TAL 5098 TAL 5099 TAL 5100 TAL 5101 TAL 5102 TAL 5103 TAL 5104 TAL 5105 TAL 5106 TAL 5107 TAL 5108 TAL 5109 TAL 5110 TAL 5111 TAL 5112 TAL 5113 TAL 5114 TAL 5115 TAL 5116 TAL 5117 TAL 5118 TAL 5119 TAL 5120 TAL 5121 TAL 5122 TAL 5123 TAL 5124 TAL 5125 TAL 5126 TAL 5127 TAL 5128 TAL 5129 TAL 5130 TAL 5131 TAL 5132 TAL 5133 TAL 5134 TAL 5135 TAL 5136 TAL 5137 TAL 5138 TAL 5139 TAL 5140 TAL 5141 TAL 5142 TAL 5143 TAL 5144 TAL 5145 TAL 5146 TAL 5147 TAL 5148 TAL 5149 TAL 5150 TAL 5151 TAL 5152 TAL 5153 TAL 5154 TAL 5155 TAL 5156 TAL 5157 TAL 5158 TAL 5159 TAL 5160 TAL 5161 TAL 5162 TAL 5163 TAL 5164 TAL 5165 TAL 5166 TAL 5167 TAL 5168 TAL 5169 TAL 5170 TAL 5171 TAL 5172 TAL 5173 TAL 5174 TAL 5175 TAL 5176 TAL 5177 TAL 5178 TAL 5179 TAL 5180 TAL 5181 TAL 5182 TAL 5183 TAL 5184 TAL 5185 TAL 5186 TAL 5187 TAL 5188 TAL 5189 TAL 5190 TAL 5191 TAL 5192 TAL 5193 TAL 5194 TAL 5195 TAL 5196 TAL 5197 TAL 5198 TAL 5199 TAL 5200	
			04		8		
			07		8		
			08		8		
			09		8		
			10		8		
			11		8		
			12		8		
			TRIP BLANK		1		

TOTAL NUMBER OF CONTAINERS: **65**

RELINQUISHED BY: *[Signature]* DATE: **8/25/15** TIME: **1730**

RECEIVED BY: **2** DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

RELINQUISHED BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

RECEIVED BY: **3** DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

RELINQUISHED BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

RECEIVED BY: **4** DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

METHOD OF SHIPMENT: **Fed Ex**

AIR BILL No. **8085 1559 0527**

RECEIVED FOR LABORATORY BY: **Henry Burma**

DATE: **8/26/15** TIME: **0930**

6876

SAMPLE TEAM: **J. KOLODZIEJSKI**

**J. LUZWICK**

1001-00(SOURCE)GN-CO004

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**TestAmerica Canton Sample Receipt Form/Narrative** Login # : 54731  
**Canton Facility**

Client GHD Site Name \_\_\_\_\_ Cooler unpacked by: Derry Burns  
Cooler Received on 8/26/15 Opened on 8/26/15  
FedEx: 1<sup>st</sup> Grd  Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other \_\_\_\_\_

**Receipt After-hours: Drop-off Date/Time** \_\_\_\_\_ **Storage Location** \_\_\_\_\_

TestAmerica Cooler # \_\_\_\_\_ Foam Box Client Cooler Box Other Multiple  
Packing material used: Bubble Wrap Foam Plastic Bag None Other \_\_\_\_\_  
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# <u>A</u> (CF +1.0 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	<input checked="" type="checkbox"/> See Multiple Cooler Form
IR GUN# 4 (CF +0.5 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 5 (CF +0.4 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 8 (CF -1.5 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity \_\_\_\_\_ Yes  No   
-Were custody seals on the outside of the cooler(s) signed & dated? Yes  No   
-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes  No

3. Shippers' packing slip attached to the cooler(s)?  Yes  No  
4. Did custody papers accompany the sample(s)?  Yes  No  
5. Were the custody papers relinquished & signed in the appropriate place?  Yes  No  
6. Was/were the person(s) who collected the samples clearly identified on the COC?  Yes  No  
7. Did all bottles arrive in good condition (Unbroken)?  Yes  No  
8. Could all bottle labels be reconciled with the COC?  Yes  No  
9. Were correct bottle(s) used for the test(s) indicated?  Yes  No  
10. Sufficient quantity received to perform indicated analyses?  Yes  No  
11. Were sample(s) at the correct pH upon receipt?  Yes  No NA pH Strip Lot# HC432654  
12. Were VOAs on the COC?  Yes  No  
13. Were air bubbles >6 mm in any VOA vials? Yes  No  NA  
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # B500501 KB  Yes  No

Contacted PM \_\_\_\_\_ Date \_\_\_\_\_ by \_\_\_\_\_ via Verbal Voice Mail Other \_\_\_\_\_  
Concerning \_\_\_\_\_

**14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES** Samples processed by: \_\_\_\_\_

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**15. SAMPLE CONDITION**

Sample(s) \_\_\_\_\_ were received after the recommended holding time had expired.  
Sample(s) \_\_\_\_\_ were received in a broken container.  
Sample(s) \_\_\_\_\_ were received with bubble >6 mm in diameter. (Notify PM)

**16. SAMPLE PRESERVATION**

Sample(s) \_\_\_\_\_ were further preserved in the laboratory.  
Time preserved: \_\_\_\_\_ Preservative(s) added/Lot number(s): \_\_\_\_\_

TestAmerica Multiple Cooler Receipt Form/Narrative

Login #: SM31

Canton Facility

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
TA No #	A	2.0	3.0	ICE
CANTON	↓	2.2	3.2	↓
TA No #	↓	2.4	3.4	↓
↓	↓	2.6	3.6	↓

Temperature readings: \_\_\_\_\_

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u> pH	<u>Preservative</u> Added (mls)	<u>Lot #</u>
GW-082515-JL-03	240-54731-E-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082515-JL-03	240-54731-F-1	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082515-JL-04	240-54731-E-2	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082515-JL-04	240-54731-F-2	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082515-JL-07	240-54731-E-3	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082515-JL-07	240-54731-F-3	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082515-JL-08	240-54731-E-4	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082515-JL-08	240-54731-F-4	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082515-JL-09	240-54731-E-5	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082515-JL-09	240-54731-F-5	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082515-JL-10	240-54731-E-6	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082515-JL-10	240-54731-F-6	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082515-JL-11	240-54731-E-7	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082515-JL-11	240-54731-F-7	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082515-JL-12	240-54731-E-8	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082515-JL-12	240-54731-F-8	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-54737-1

Client Project/Site: 58505, Janesville WI, SSOW 108011

For:

GHD Services Inc.

45 Farmington Valley Drive

Plainville, Connecticut 06062

Attn: Ms. Kathy Shaw



Authorized for release by:

9/9/2015 3:45:45 PM

Denise Heckler, Project Manager II

(330)966-9477

[denise.heckler@testamericainc.com](mailto:denise.heckler@testamericainc.com)



### LINKS

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[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

### GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
$\alpha$	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

**Job ID: 240-54737-1**

**Laboratory: TestAmerica Canton**

**Narrative**

## CASE NARRATIVE

**Client: GHD Services Inc.**

**Project: 58505, Janesville WI, SSOW 108011**

**Report Number: 240-54737-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

### **RECEIPT**

The samples were received on 08/26/2015; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 3.0° C, 3.2° C, 3.4° C and 3.6° C.

### **VOLATILE ORGANIC COMPOUNDS (GCMS)**

Samples GW-082515-JL-05 (240-54737-1) and GW-082515-JL-06 (240-54737-2) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 08/31/2015.

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

### **SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)**

Samples GW-082515-JL-05 (240-54737-1) and GW-082515-JL-06 (240-54737-2) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 08/27/2015 and analyzed on 09/06/2015.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with analytical batch 240-195072.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

# Case Narrative

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

## Job ID: 240-54737-1 (Continued)

### Laboratory: TestAmerica Canton (Continued)

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

#### **DISSOLVED METALS (ICPMS)**

Samples GW-082515-JL-05 (240-54737-1) and GW-082515-JL-06 (240-54737-2) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 08/27/2015 and analyzed on 08/28/2015.

Some requested practical quantitation limits (PQLs) fall below the laboratory's verified standard quantitation limit. The continuing calibration blanks and method blanks may not support the lower PQL.

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

#### **TOTAL RECOVERABLE METALS (ICPMS)**

Samples GW-082515-JL-05 (240-54737-1) and GW-082515-JL-06 (240-54737-2) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 08/27/2015 and analyzed on 08/28/2015.

Some requested practical quantitation limits (PQLs) fall below the laboratory's verified standard quantitation limit. The continuing calibration blanks and method blanks may not support the lower PQL.

Arsenic, Chromium, Lead, Selenium and Vanadium were detected in method blank MB 240-195074/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

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

#### **HEXAVALENT CHROMIUM**

Samples GW-082515-JL-05 (240-54737-1) and GW-082515-JL-06 (240-54737-2) were analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples were analyzed on 08/26/2015.

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

#### **DISSOLVED MERCURY (CVAA)**

Samples GW-082515-JL-05 (240-54737-1) and GW-082515-JL-06 (240-54737-2) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 08/27/2015 and analyzed on 08/28/2015.

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

#### **TOTAL MERCURY**

Samples GW-082515-JL-05 (240-54737-1) and GW-082515-JL-06 (240-54737-2) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 08/27/2015 and analyzed on 08/28/2015.

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

#### **TRIVALENT CHROMIUM**

Samples GW-082515-JL-05 (240-54737-1) and GW-082515-JL-06 (240-54737-2) were analyzed for trivalent chromium in accordance with EPA SW-846 Method 7196A\_CR3. The samples were analyzed on 09/01/2015.

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

# Method Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
6020	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
7196A	Chromium, Hexavalent	SW846	TAL CAN
7196A	Chromium, Trivalent (Colorimetric)	SW846	TAL CAN

**Protocol References:**

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

**Laboratory References:**

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396





# Sample Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-54737-1	GW-082515-JL-05	Water	08/25/15 11:55	08/26/15 09:30
240-54737-2	GW-082515-JL-06	Water	08/25/15 12:00	08/26/15 09:30

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# Detection Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

**Client Sample ID: GW-082515-JL-05**

**Lab Sample ID: 240-54737-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.77	J B	5.0	0.18	ug/L	1		6020	Total
Barium	97	J	100	1.1	ug/L	1		6020	Total
Cobalt	0.12	J	7.0	0.021	ug/L	1		6020	Total
Chromium	2.7	J B	5.0	0.20	ug/L	1		6020	Total
Copper	0.94	J	2.0	0.75	ug/L	1		6020	Total
Manganese	3.7	J	15	1.1	ug/L	1		6020	Total
Nickel	0.49	J	20	0.23	ug/L	1		6020	Total
Lead	0.14	J B	3.0	0.11	ug/L	1		6020	Total
Selenium	1.6	J B	5.0	0.25	ug/L	1		6020	Total
Vanadium	0.95	J B	4.0	0.23	ug/L	1		6020	Total
Arsenic	0.75	J B	5.0	0.18	ug/L	1		6020	Dissolved
Cobalt	0.12	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	2.5	J B	5.0	0.20	ug/L	1		6020	Dissolved
Manganese	4.0	J	15	1.1	ug/L	1		6020	Dissolved
Nickel	0.46	J	20	0.23	ug/L	1		6020	Dissolved
Selenium	1.5	J B	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	0.94	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	100		100	1.1	ug/L	1		6020	Dissolved

**Client Sample ID: GW-082515-JL-06**

**Lab Sample ID: 240-54737-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.76	J B	5.0	0.18	ug/L	1		6020	Total
Barium	96	J	100	1.1	ug/L	1		6020	Total
Cobalt	0.13	J	7.0	0.021	ug/L	1		6020	Total
Chromium	2.9	J B	5.0	0.20	ug/L	1		6020	Total
Nickel	0.48	J	20	0.23	ug/L	1		6020	Total
Selenium	1.3	J B	5.0	0.25	ug/L	1		6020	Total
Vanadium	1.0	J B	4.0	0.23	ug/L	1		6020	Total
Arsenic	0.74	J B	5.0	0.18	ug/L	1		6020	Dissolved
Cobalt	0.11	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	2.9	J B	5.0	0.20	ug/L	1		6020	Dissolved
Nickel	0.47	J	20	0.23	ug/L	1		6020	Dissolved
Selenium	1.2	J B	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	1.1	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	95	J	100	1.1	ug/L	1		6020	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

**Client Sample ID: GW-082515-JL-05**

**Lab Sample ID: 240-54737-1**

**Date Collected: 08/25/15 11:55**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			08/31/15 17:54	1
Benzene	1.0	U	1.0	0.35	ug/L			08/31/15 17:54	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			08/31/15 17:54	1
Bromoform	1.0	U	1.0	0.56	ug/L			08/31/15 17:54	1
Bromomethane	1.0	U	1.0	0.44	ug/L			08/31/15 17:54	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			08/31/15 17:54	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			08/31/15 17:54	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			08/31/15 17:54	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 17:54	1
Chloroethane	1.0	U	1.0	0.32	ug/L			08/31/15 17:54	1
Chloroform	1.0	U	1.0	0.25	ug/L			08/31/15 17:54	1
Chloromethane	1.0	U	1.0	0.44	ug/L			08/31/15 17:54	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/31/15 17:54	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			08/31/15 17:54	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			08/31/15 17:54	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			08/31/15 17:54	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			08/31/15 17:54	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			08/31/15 17:54	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			08/31/15 17:54	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/31/15 17:54	1
2-Hexanone	10	U	10	0.48	ug/L			08/31/15 17:54	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			08/31/15 17:54	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			08/31/15 17:54	1
Styrene	1.0	U	1.0	0.45	ug/L			08/31/15 17:54	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			08/31/15 17:54	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			08/31/15 17:54	1
Toluene	1.0	U	1.0	0.23	ug/L			08/31/15 17:54	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			08/31/15 17:54	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			08/31/15 17:54	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			08/31/15 17:54	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			08/31/15 17:54	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			08/31/15 17:54	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			08/31/15 17:54	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			08/31/15 17:54	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			08/31/15 17:54	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			08/31/15 17:54	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			08/31/15 17:54	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			08/31/15 17:54	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/31/15 17:54	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			08/31/15 17:54	1
Methyl acetate	10	U	10	2.3	ug/L			08/31/15 17:54	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/31/15 17:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			08/31/15 17:54	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			08/31/15 17:54	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 17:54	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			08/31/15 17:54	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			08/31/15 17:54	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			08/31/15 17:54	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			08/31/15 17:54	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

**Client Sample ID: GW-082515-JL-05**

**Lab Sample ID: 240-54737-1**

**Date Collected: 08/25/15 11:55**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			08/31/15 17:54	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	105		78 - 125					08/31/15 17:54	1
4-Bromofluorobenzene (Surr)	78		61 - 120					08/31/15 17:54	1
Toluene-d8 (Surr)	84		80 - 120					08/31/15 17:54	1
Dibromofluoromethane (Surr)	103		79 - 120					08/31/15 17:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	4.8	U	4.8	0.042	ug/L		08/27/15 08:45	09/06/15 11:30	1
Acenaphthylene	4.8	U	4.8	0.046	ug/L		08/27/15 08:45	09/06/15 11:30	1
Acetophenone	4.8	U	4.8	0.32	ug/L		08/27/15 08:45	09/06/15 11:30	1
Anthracene	4.8	U	4.8	0.084	ug/L		08/27/15 08:45	09/06/15 11:30	1
Atrazine	2.9	U	2.9	0.32	ug/L		08/27/15 08:45	09/06/15 11:30	1
Benzaldehyde	4.8	U	4.8	0.37	ug/L		08/27/15 08:45	09/06/15 11:30	1
Benzo[a]anthracene	0.95	U	0.95	0.028	ug/L		08/27/15 08:45	09/06/15 11:30	1
Benzo[b]fluoranthene	0.95	U	0.95	0.038	ug/L		08/27/15 08:45	09/06/15 11:30	1
Benzo[k]fluoranthene	0.95	U	0.95	0.043	ug/L		08/27/15 08:45	09/06/15 11:30	1
Benzo[g,h,i]perylene	0.95	U	0.95	0.044	ug/L		08/27/15 08:45	09/06/15 11:30	1
Benzo[a]pyrene	0.95	U	0.95	0.049	ug/L		08/27/15 08:45	09/06/15 11:30	1
Butyl benzyl phthalate	4.8	U	4.8	0.25	ug/L		08/27/15 08:45	09/06/15 11:30	1
1,1'-Biphenyl	4.8	U	4.8	0.12	ug/L		08/27/15 08:45	09/06/15 11:30	1
Bis(2-chloroethoxy)methane	4.8	U	4.8	0.30	ug/L		08/27/15 08:45	09/06/15 11:30	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.095	ug/L		08/27/15 08:45	09/06/15 11:30	1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8	1.6	ug/L		08/27/15 08:45	09/06/15 11:30	1
4-Bromophenyl phenyl ether	4.8	U	4.8	0.21	ug/L		08/27/15 08:45	09/06/15 11:30	1
Caprolactam	9.5	U	9.5	0.19	ug/L		08/27/15 08:45	09/06/15 11:30	1
Carbazole	9.5	U	9.5	0.27	ug/L		08/27/15 08:45	09/06/15 11:30	1
4-Chloroaniline	9.5	U	9.5	0.20	ug/L		08/27/15 08:45	09/06/15 11:30	1
4-Chloro-3-methylphenol	4.8	U	4.8	0.20	ug/L		08/27/15 08:45	09/06/15 11:30	1
2-Chloronaphthalene	4.8	U	4.8	0.095	ug/L		08/27/15 08:45	09/06/15 11:30	1
2-Chlorophenol	4.8	U	4.8	0.28	ug/L		08/27/15 08:45	09/06/15 11:30	1
4-Chlorophenyl phenyl ether	4.8	U	4.8	0.29	ug/L		08/27/15 08:45	09/06/15 11:30	1
Chrysene	0.95	U	0.95	0.048	ug/L		08/27/15 08:45	09/06/15 11:30	1
2-Methylnaphthalene	4.8	U	4.8	0.086	ug/L		08/27/15 08:45	09/06/15 11:30	1
3 & 4 Methylphenol	4.8	U	4.8	0.76	ug/L		08/27/15 08:45	09/06/15 11:30	1
Dibenz(a,h)anthracene	1.9	U	1.9	0.042	ug/L		08/27/15 08:45	09/06/15 11:30	1
Dibenzofuran	3.8	U	3.8	0.019	ug/L		08/27/15 08:45	09/06/15 11:30	1
3,3'-Dichlorobenzidine	0.95	U	0.95	0.35	ug/L		08/27/15 08:45	09/06/15 11:30	1
2,4-Dichlorophenol	9.5	U	9.5	0.18	ug/L		08/27/15 08:45	09/06/15 11:30	1
Diethyl phthalate	4.8	U	4.8	0.57	ug/L		08/27/15 08:45	09/06/15 11:30	1
2,4-Dimethylphenol	4.8	U	4.8	0.24	ug/L		08/27/15 08:45	09/06/15 11:30	1
Dimethyl phthalate	4.8	U	4.8	0.28	ug/L		08/27/15 08:45	09/06/15 11:30	1
4,6-Dinitro-2-methylphenol	19	U	19	2.3	ug/L		08/27/15 08:45	09/06/15 11:30	1
2,4-Dinitrophenol	19	U	19	0.30	ug/L		08/27/15 08:45	09/06/15 11:30	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		08/27/15 08:45	09/06/15 11:30	1
Di-n-butyl phthalate	4.8	U	4.8	1.6	ug/L		08/27/15 08:45	09/06/15 11:30	1
Di-n-octyl phthalate	4.8	U	4.8	0.22	ug/L		08/27/15 08:45	09/06/15 11:30	1
Fluoranthene	0.95	U	0.95	0.042	ug/L		08/27/15 08:45	09/06/15 11:30	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

**Client Sample ID: GW-082515-JL-05**

**Lab Sample ID: 240-54737-1**

**Date Collected: 08/25/15 11:55**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.8	U	4.8	0.039	ug/L		08/27/15 08:45	09/06/15 11:30	1
Hexachlorobenzene	0.19	U	0.19	0.081	ug/L		08/27/15 08:45	09/06/15 11:30	1
Hexachlorobutadiene	0.95	U	0.95	0.26	ug/L		08/27/15 08:45	09/06/15 11:30	1
Hexachlorocyclopentadiene	4.8	U	4.8	0.23	ug/L		08/27/15 08:45	09/06/15 11:30	1
Hexachloroethane	4.8	U	4.8	0.18	ug/L		08/27/15 08:45	09/06/15 11:30	1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	0.041	ug/L		08/27/15 08:45	09/06/15 11:30	1
Isophorone	4.8	U	4.8	0.26	ug/L		08/27/15 08:45	09/06/15 11:30	1
2-Methylphenol	4.8	U	4.8	0.16	ug/L		08/27/15 08:45	09/06/15 11:30	1
Naphthalene	4.8	U	4.8	0.060	ug/L		08/27/15 08:45	09/06/15 11:30	1
2-Nitroaniline	19	U	19	0.20	ug/L		08/27/15 08:45	09/06/15 11:30	1
3-Nitroaniline	19	U	19	0.27	ug/L		08/27/15 08:45	09/06/15 11:30	1
4-Nitroaniline	19	U	19	0.21	ug/L		08/27/15 08:45	09/06/15 11:30	1
Nitrobenzene	2.9	U	2.9	0.038	ug/L		08/27/15 08:45	09/06/15 11:30	1
2-Nitrophenol	4.8	U	4.8	0.27	ug/L		08/27/15 08:45	09/06/15 11:30	1
4-Nitrophenol	19	U	19	0.28	ug/L		08/27/15 08:45	09/06/15 11:30	1
N-Nitrosodiphenylamine	4.8	U	4.8	0.30	ug/L		08/27/15 08:45	09/06/15 11:30	1
N-Nitrosodi-n-propylamine	4.8	U	4.8	0.23	ug/L		08/27/15 08:45	09/06/15 11:30	1
2,2'-oxybis[1-chloropropane]	4.8	U	4.8	0.38	ug/L		08/27/15 08:45	09/06/15 11:30	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		08/27/15 08:45	09/06/15 11:30	1
Phenanthrene	1.9	U	1.9	0.059	ug/L		08/27/15 08:45	09/06/15 11:30	1
Phenol	4.8	U	4.8	0.57	ug/L		08/27/15 08:45	09/06/15 11:30	1
Pyrene	4.8	U	4.8	0.040	ug/L		08/27/15 08:45	09/06/15 11:30	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		08/27/15 08:45	09/06/15 11:30	1
2,4,6-Trichlorophenol	3.8	U	3.8	0.23	ug/L		08/27/15 08:45	09/06/15 11:30	1
2,6-Dinitrotoluene	4.8	U	4.8	0.76	ug/L		08/27/15 08:45	09/06/15 11:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	52		29 - 110	08/27/15 08:45	09/06/15 11:30	1
2-Fluorophenol (Surr)	24		15 - 110	08/27/15 08:45	09/06/15 11:30	1
2,4,6-Tribromophenol (Surr)	35		21 - 128	08/27/15 08:45	09/06/15 11:30	1
Nitrobenzene-d5 (Surr)	51		31 - 110	08/27/15 08:45	09/06/15 11:30	1
Phenol-d5 (Surr)	13		10 - 110	08/27/15 08:45	09/06/15 11:30	1
Terphenyl-d14 (Surr)	50		31 - 115	08/27/15 08:45	09/06/15 11:30	1

**Method: 6020 - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/27/15 08:50	08/28/15 20:40	1
<b>Arsenic</b>	<b>0.77</b>	<b>J B</b>	5.0	0.18	ug/L		08/27/15 08:50	08/28/15 20:40	1
<b>Barium</b>	<b>97</b>	<b>J</b>	100	1.1	ug/L		08/27/15 08:50	08/28/15 20:40	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/27/15 08:50	08/28/15 20:40	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/27/15 08:50	08/28/15 20:40	1
<b>Cobalt</b>	<b>0.12</b>	<b>J</b>	7.0	0.021	ug/L		08/27/15 08:50	08/28/15 20:40	1
<b>Chromium</b>	<b>2.7</b>	<b>J B</b>	5.0	0.20	ug/L		08/27/15 08:50	08/28/15 20:40	1
<b>Copper</b>	<b>0.94</b>	<b>J</b>	2.0	0.75	ug/L		08/27/15 08:50	08/28/15 20:40	1
<b>Manganese</b>	<b>3.7</b>	<b>J</b>	15	1.1	ug/L		08/27/15 08:50	08/28/15 20:40	1
<b>Nickel</b>	<b>0.49</b>	<b>J</b>	20	0.23	ug/L		08/27/15 08:50	08/28/15 20:40	1
<b>Lead</b>	<b>0.14</b>	<b>J B</b>	3.0	0.11	ug/L		08/27/15 08:50	08/28/15 20:40	1
<b>Selenium</b>	<b>1.6</b>	<b>J B</b>	5.0	0.25	ug/L		08/27/15 08:50	08/28/15 20:40	1
Thallium	1.0	U	1.0	0.074	ug/L		08/27/15 08:50	08/28/15 20:40	1
<b>Vanadium</b>	<b>0.95</b>	<b>J B</b>	4.0	0.23	ug/L		08/27/15 08:50	08/28/15 20:40	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

**Client Sample ID: GW-082515-JL-05**

**Lab Sample ID: 240-54737-1**

**Date Collected: 08/25/15 11:55**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/27/15 08:50	08/28/15 20:40	1
Silver	0.20	U	0.20	0.020	ug/L		08/27/15 08:50	08/28/15 20:40	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/27/15 08:50	08/28/15 20:44	1
<b>Arsenic</b>	<b>0.75</b>	<b>J B</b>	5.0	0.18	ug/L		08/27/15 08:50	08/28/15 20:44	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/27/15 08:50	08/28/15 20:44	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/27/15 08:50	08/28/15 20:44	1
<b>Cobalt</b>	<b>0.12</b>	<b>J</b>	7.0	0.021	ug/L		08/27/15 08:50	08/28/15 20:44	1
<b>Chromium</b>	<b>2.5</b>	<b>J B</b>	5.0	0.20	ug/L		08/27/15 08:50	08/28/15 20:44	1
Copper	2.0	U	2.0	0.75	ug/L		08/27/15 08:50	08/28/15 20:44	1
<b>Manganese</b>	<b>4.0</b>	<b>J</b>	15	1.1	ug/L		08/27/15 08:50	08/28/15 20:44	1
<b>Nickel</b>	<b>0.46</b>	<b>J</b>	20	0.23	ug/L		08/27/15 08:50	08/28/15 20:44	1
Lead	3.0	U	3.0	0.11	ug/L		08/27/15 08:50	08/28/15 20:44	1
Antimony	2.0	U	2.0	0.16	ug/L		08/27/15 08:50	08/28/15 20:44	1
<b>Selenium</b>	<b>1.5</b>	<b>J B</b>	5.0	0.25	ug/L		08/27/15 08:50	08/28/15 20:44	1
Thallium	1.0	U	1.0	0.074	ug/L		08/27/15 08:50	08/28/15 20:44	1
<b>Vanadium</b>	<b>0.94</b>	<b>J B</b>	4.0	0.23	ug/L		08/27/15 08:50	08/28/15 20:44	1
Zinc	20	U	20	7.3	ug/L		08/27/15 08:50	08/28/15 20:44	1
<b>Barium</b>	<b>100</b>		100	1.1	ug/L		08/27/15 08:50	08/28/15 20:44	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/27/15 09:04	08/28/15 17:07	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/27/15 09:04	08/28/15 16:47	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/26/15 11:50	1
Cr (III)	0.020	U	0.020	0.0050	mg/L			09/01/15 07:34	1



# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

**Client Sample ID: GW-082515-JL-06**

**Lab Sample ID: 240-54737-2**

**Date Collected: 08/25/15 12:00**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			08/31/15 18:17	1
Benzene	1.0	U	1.0	0.35	ug/L			08/31/15 18:17	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			08/31/15 18:17	1
Bromoform	1.0	U	1.0	0.56	ug/L			08/31/15 18:17	1
Bromomethane	1.0	U	1.0	0.44	ug/L			08/31/15 18:17	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			08/31/15 18:17	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			08/31/15 18:17	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			08/31/15 18:17	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 18:17	1
Chloroethane	1.0	U	1.0	0.32	ug/L			08/31/15 18:17	1
Chloroform	1.0	U	1.0	0.25	ug/L			08/31/15 18:17	1
Chloromethane	1.0	U	1.0	0.44	ug/L			08/31/15 18:17	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/31/15 18:17	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			08/31/15 18:17	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			08/31/15 18:17	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			08/31/15 18:17	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			08/31/15 18:17	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			08/31/15 18:17	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			08/31/15 18:17	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/31/15 18:17	1
2-Hexanone	10	U	10	0.48	ug/L			08/31/15 18:17	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			08/31/15 18:17	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			08/31/15 18:17	1
Styrene	1.0	U	1.0	0.45	ug/L			08/31/15 18:17	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			08/31/15 18:17	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			08/31/15 18:17	1
Toluene	1.0	U	1.0	0.23	ug/L			08/31/15 18:17	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			08/31/15 18:17	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			08/31/15 18:17	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			08/31/15 18:17	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			08/31/15 18:17	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			08/31/15 18:17	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			08/31/15 18:17	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			08/31/15 18:17	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			08/31/15 18:17	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			08/31/15 18:17	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			08/31/15 18:17	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			08/31/15 18:17	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/31/15 18:17	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			08/31/15 18:17	1
Methyl acetate	10	U	10	2.3	ug/L			08/31/15 18:17	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/31/15 18:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			08/31/15 18:17	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			08/31/15 18:17	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 18:17	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			08/31/15 18:17	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			08/31/15 18:17	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			08/31/15 18:17	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			08/31/15 18:17	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

**Client Sample ID: GW-082515-JL-06**

**Lab Sample ID: 240-54737-2**

**Date Collected: 08/25/15 12:00**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			08/31/15 18:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		78 - 125					08/31/15 18:17	1
4-Bromofluorobenzene (Surr)	77		61 - 120					08/31/15 18:17	1
Toluene-d8 (Surr)	85		80 - 120					08/31/15 18:17	1
Dibromofluoromethane (Surr)	101		79 - 120					08/31/15 18:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	4.8	U	4.8	0.043	ug/L		08/27/15 08:45	09/06/15 11:52	1
Acenaphthylene	4.8	U	4.8	0.046	ug/L		08/27/15 08:45	09/06/15 11:52	1
Acetophenone	4.8	U	4.8	0.33	ug/L		08/27/15 08:45	09/06/15 11:52	1
Anthracene	4.8	U	4.8	0.085	ug/L		08/27/15 08:45	09/06/15 11:52	1
Atrazine	2.9	U	2.9	0.33	ug/L		08/27/15 08:45	09/06/15 11:52	1
Benzaldehyde	4.8	U	4.8	0.37	ug/L		08/27/15 08:45	09/06/15 11:52	1
Benzo[a]anthracene	0.96	U	0.96	0.028	ug/L		08/27/15 08:45	09/06/15 11:52	1
Benzo[b]fluoranthene	0.96	U	0.96	0.038	ug/L		08/27/15 08:45	09/06/15 11:52	1
Benzo[k]fluoranthene	0.96	U	0.96	0.043	ug/L		08/27/15 08:45	09/06/15 11:52	1
Benzo[g,h,i]perylene	0.96	U	0.96	0.045	ug/L		08/27/15 08:45	09/06/15 11:52	1
Benzo[a]pyrene	0.96	U	0.96	0.049	ug/L		08/27/15 08:45	09/06/15 11:52	1
Butyl benzyl phthalate	4.8	U	4.8	0.25	ug/L		08/27/15 08:45	09/06/15 11:52	1
1,1'-Biphenyl	4.8	U	4.8	0.13	ug/L		08/27/15 08:45	09/06/15 11:52	1
Bis(2-chloroethoxy)methane	4.8	U	4.8	0.31	ug/L		08/27/15 08:45	09/06/15 11:52	1
Bis(2-chloroethyl)ether	0.96	U	0.96	0.096	ug/L		08/27/15 08:45	09/06/15 11:52	1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8	1.6	ug/L		08/27/15 08:45	09/06/15 11:52	1
4-Bromophenyl phenyl ether	4.8	U	4.8	0.21	ug/L		08/27/15 08:45	09/06/15 11:52	1
Caprolactam	9.6	U	9.6	0.19	ug/L		08/27/15 08:45	09/06/15 11:52	1
Carbazole	9.6	U	9.6	0.27	ug/L		08/27/15 08:45	09/06/15 11:52	1
4-Chloroaniline	9.6	U	9.6	0.20	ug/L		08/27/15 08:45	09/06/15 11:52	1
4-Chloro-3-methylphenol	4.8	U	4.8	0.20	ug/L		08/27/15 08:45	09/06/15 11:52	1
2-Chloronaphthalene	4.8	U	4.8	0.096	ug/L		08/27/15 08:45	09/06/15 11:52	1
2-Chlorophenol	4.8	U	4.8	0.28	ug/L		08/27/15 08:45	09/06/15 11:52	1
4-Chlorophenyl phenyl ether	4.8	U	4.8	0.29	ug/L		08/27/15 08:45	09/06/15 11:52	1
Chrysene	0.96	U	0.96	0.048	ug/L		08/27/15 08:45	09/06/15 11:52	1
2-Methylnaphthalene	4.8	U	4.8	0.087	ug/L		08/27/15 08:45	09/06/15 11:52	1
3 & 4 Methylphenol	4.8	U	4.8	0.77	ug/L		08/27/15 08:45	09/06/15 11:52	1
Dibenz(a,h)anthracene	1.9	U	1.9	0.043	ug/L		08/27/15 08:45	09/06/15 11:52	1
Dibenzofuran	3.8	U	3.8	0.019	ug/L		08/27/15 08:45	09/06/15 11:52	1
3,3'-Dichlorobenzidine	0.96	U	0.96	0.36	ug/L		08/27/15 08:45	09/06/15 11:52	1
2,4-Dichlorophenol	9.6	U	9.6	0.18	ug/L		08/27/15 08:45	09/06/15 11:52	1
Diethyl phthalate	4.8	U	4.8	0.58	ug/L		08/27/15 08:45	09/06/15 11:52	1
2,4-Dimethylphenol	4.8	U	4.8	0.24	ug/L		08/27/15 08:45	09/06/15 11:52	1
Dimethyl phthalate	4.8	U	4.8	0.28	ug/L		08/27/15 08:45	09/06/15 11:52	1
4,6-Dinitro-2-methylphenol	19	U	19	2.3	ug/L		08/27/15 08:45	09/06/15 11:52	1
2,4-Dinitrophenol	19	U	19	0.31	ug/L		08/27/15 08:45	09/06/15 11:52	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		08/27/15 08:45	09/06/15 11:52	1
Di-n-butyl phthalate	4.8	U	4.8	1.6	ug/L		08/27/15 08:45	09/06/15 11:52	1
Di-n-octyl phthalate	4.8	U	4.8	0.22	ug/L		08/27/15 08:45	09/06/15 11:52	1
Fluoranthene	0.96	U	0.96	0.043	ug/L		08/27/15 08:45	09/06/15 11:52	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

**Client Sample ID: GW-082515-JL-06**

**Lab Sample ID: 240-54737-2**

**Date Collected: 08/25/15 12:00**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.8	U	4.8	0.039	ug/L		08/27/15 08:45	09/06/15 11:52	1
Hexachlorobenzene	0.19	U	0.19	0.082	ug/L		08/27/15 08:45	09/06/15 11:52	1
Hexachlorobutadiene	0.96	U	0.96	0.26	ug/L		08/27/15 08:45	09/06/15 11:52	1
Hexachlorocyclopentadiene	4.8	U	4.8	0.23	ug/L		08/27/15 08:45	09/06/15 11:52	1
Hexachloroethane	4.8	U	4.8	0.18	ug/L		08/27/15 08:45	09/06/15 11:52	1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	0.042	ug/L		08/27/15 08:45	09/06/15 11:52	1
Isophorone	4.8	U	4.8	0.26	ug/L		08/27/15 08:45	09/06/15 11:52	1
2-Methylphenol	4.8	U	4.8	0.16	ug/L		08/27/15 08:45	09/06/15 11:52	1
Naphthalene	4.8	U	4.8	0.060	ug/L		08/27/15 08:45	09/06/15 11:52	1
2-Nitroaniline	19	U	19	0.20	ug/L		08/27/15 08:45	09/06/15 11:52	1
3-Nitroaniline	19	U	19	0.27	ug/L		08/27/15 08:45	09/06/15 11:52	1
4-Nitroaniline	19	U	19	0.21	ug/L		08/27/15 08:45	09/06/15 11:52	1
Nitrobenzene	2.9	U	2.9	0.038	ug/L		08/27/15 08:45	09/06/15 11:52	1
2-Nitrophenol	4.8	U	4.8	0.27	ug/L		08/27/15 08:45	09/06/15 11:52	1
4-Nitrophenol	19	U	19	0.28	ug/L		08/27/15 08:45	09/06/15 11:52	1
N-Nitrosodiphenylamine	4.8	U	4.8	0.30	ug/L		08/27/15 08:45	09/06/15 11:52	1
N-Nitrosodi-n-propylamine	4.8	U	4.8	0.23	ug/L		08/27/15 08:45	09/06/15 11:52	1
2,2'-oxybis[1-chloropropane]	4.8	U	4.8	0.38	ug/L		08/27/15 08:45	09/06/15 11:52	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		08/27/15 08:45	09/06/15 11:52	1
Phenanthrene	1.9	U	1.9	0.060	ug/L		08/27/15 08:45	09/06/15 11:52	1
Phenol	4.8	U	4.8	0.58	ug/L		08/27/15 08:45	09/06/15 11:52	1
Pyrene	4.8	U	4.8	0.040	ug/L		08/27/15 08:45	09/06/15 11:52	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		08/27/15 08:45	09/06/15 11:52	1
2,4,6-Trichlorophenol	3.8	U	3.8	0.23	ug/L		08/27/15 08:45	09/06/15 11:52	1
2,6-Dinitrotoluene	4.8	U	4.8	0.77	ug/L		08/27/15 08:45	09/06/15 11:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	58		29 - 110	08/27/15 08:45	09/06/15 11:52	1
2-Fluorophenol (Surr)	24		15 - 110	08/27/15 08:45	09/06/15 11:52	1
2,4,6-Tribromophenol (Surr)	34		21 - 128	08/27/15 08:45	09/06/15 11:52	1
Nitrobenzene-d5 (Surr)	55		31 - 110	08/27/15 08:45	09/06/15 11:52	1
Phenol-d5 (Surr)	13		10 - 110	08/27/15 08:45	09/06/15 11:52	1
Terphenyl-d14 (Surr)	55		31 - 115	08/27/15 08:45	09/06/15 11:52	1

**Method: 6020 - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/27/15 08:50	08/28/15 20:48	1
<b>Arsenic</b>	<b>0.76</b>	<b>J B</b>	5.0	0.18	ug/L		08/27/15 08:50	08/28/15 20:48	1
<b>Barium</b>	<b>96</b>	<b>J</b>	100	1.1	ug/L		08/27/15 08:50	08/28/15 20:48	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/27/15 08:50	08/28/15 20:48	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/27/15 08:50	08/28/15 20:48	1
<b>Cobalt</b>	<b>0.13</b>	<b>J</b>	7.0	0.021	ug/L		08/27/15 08:50	08/28/15 20:48	1
<b>Chromium</b>	<b>2.9</b>	<b>J B</b>	5.0	0.20	ug/L		08/27/15 08:50	08/28/15 20:48	1
Copper	2.0	U	2.0	0.75	ug/L		08/27/15 08:50	08/28/15 20:48	1
Manganese	15	U	15	1.1	ug/L		08/27/15 08:50	08/28/15 20:48	1
<b>Nickel</b>	<b>0.48</b>	<b>J</b>	20	0.23	ug/L		08/27/15 08:50	08/28/15 20:48	1
Lead	3.0	U	3.0	0.11	ug/L		08/27/15 08:50	08/28/15 20:48	1
<b>Selenium</b>	<b>1.3</b>	<b>J B</b>	5.0	0.25	ug/L		08/27/15 08:50	08/28/15 20:48	1
Thallium	1.0	U	1.0	0.074	ug/L		08/27/15 08:50	08/28/15 20:48	1
<b>Vanadium</b>	<b>1.0</b>	<b>J B</b>	4.0	0.23	ug/L		08/27/15 08:50	08/28/15 20:48	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

**Client Sample ID: GW-082515-JL-06**

**Lab Sample ID: 240-54737-2**

**Date Collected: 08/25/15 12:00**

**Matrix: Water**

**Date Received: 08/26/15 09:30**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/27/15 08:50	08/28/15 20:48	1
Silver	0.20	U	0.20	0.020	ug/L		08/27/15 08:50	08/28/15 20:48	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/27/15 08:50	08/28/15 20:51	1
<b>Arsenic</b>	<b>0.74</b>	<b>J B</b>	5.0	0.18	ug/L		08/27/15 08:50	08/28/15 20:51	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/27/15 08:50	08/28/15 20:51	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/27/15 08:50	08/28/15 20:51	1
<b>Cobalt</b>	<b>0.11</b>	<b>J</b>	7.0	0.021	ug/L		08/27/15 08:50	08/28/15 20:51	1
<b>Chromium</b>	<b>2.9</b>	<b>J B</b>	5.0	0.20	ug/L		08/27/15 08:50	08/28/15 20:51	1
Copper	2.0	U	2.0	0.75	ug/L		08/27/15 08:50	08/28/15 20:51	1
Manganese	15	U	15	1.1	ug/L		08/27/15 08:50	08/28/15 20:51	1
<b>Nickel</b>	<b>0.47</b>	<b>J</b>	20	0.23	ug/L		08/27/15 08:50	08/28/15 20:51	1
Lead	3.0	U	3.0	0.11	ug/L		08/27/15 08:50	08/28/15 20:51	1
Antimony	2.0	U	2.0	0.16	ug/L		08/27/15 08:50	08/28/15 20:51	1
<b>Selenium</b>	<b>1.2</b>	<b>J B</b>	5.0	0.25	ug/L		08/27/15 08:50	08/28/15 20:51	1
Thallium	1.0	U	1.0	0.074	ug/L		08/27/15 08:50	08/28/15 20:51	1
<b>Vanadium</b>	<b>1.1</b>	<b>J B</b>	4.0	0.23	ug/L		08/27/15 08:50	08/28/15 20:51	1
Zinc	20	U	20	7.3	ug/L		08/27/15 08:50	08/28/15 20:51	1
<b>Barium</b>	<b>95</b>	<b>J</b>	100	1.1	ug/L		08/27/15 08:50	08/28/15 20:51	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/27/15 09:04	08/28/15 17:09	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/27/15 09:04	08/28/15 17:11	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/26/15 11:51	1
Cr (III)	0.020	U	0.020	0.0050	mg/L			09/01/15 07:34	1

# Surrogate Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	12DCE (78-125)	BFB (61-120)	TOL (80-120)	DBFM (79-120)
240-54737-1	GW-082515-JL-05	105	78	84	103
240-54737-2	GW-082515-JL-06	104	77	85	101
LCS 240-195636/4	Lab Control Sample	93	96	95	92
MB 240-195636/6	Method Blank	105	78	84	98

#### Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

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

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	FBP (29-110)	2FP (15-110)	TBP (21-128)	NBZ (31-110)	PHL (10-110)	TPH (31-115)
240-54737-1	GW-082515-JL-05	52	24	35	51	13	50
240-54737-2	GW-082515-JL-06	58	24	34	55	13	55
LCS 240-195072/17-A	Lab Control Sample	84	75	75	85	61	88
MB 240-195072/16-A	Method Blank	68	62	47	67	48	73

#### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

TBP = 2,4,6-Tribromophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

TPH = Terphenyl-d14 (Surr)

# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 240-195636/6**

**Matrix: Water**

**Analysis Batch: 195636**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	10	U	10	0.94	ug/L			08/31/15 17:09	1
Benzene	1.0	U	1.0	0.35	ug/L			08/31/15 17:09	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			08/31/15 17:09	1
Bromoform	1.0	U	1.0	0.56	ug/L			08/31/15 17:09	1
Bromomethane	1.0	U	1.0	0.44	ug/L			08/31/15 17:09	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			08/31/15 17:09	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			08/31/15 17:09	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			08/31/15 17:09	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 17:09	1
Chloroethane	1.0	U	1.0	0.32	ug/L			08/31/15 17:09	1
Chloroform	1.0	U	1.0	0.25	ug/L			08/31/15 17:09	1
Chloromethane	1.0	U	1.0	0.44	ug/L			08/31/15 17:09	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/31/15 17:09	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			08/31/15 17:09	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			08/31/15 17:09	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			08/31/15 17:09	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			08/31/15 17:09	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			08/31/15 17:09	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			08/31/15 17:09	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/31/15 17:09	1
2-Hexanone	10	U	10	0.48	ug/L			08/31/15 17:09	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			08/31/15 17:09	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			08/31/15 17:09	1
Styrene	1.0	U	1.0	0.45	ug/L			08/31/15 17:09	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			08/31/15 17:09	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			08/31/15 17:09	1
Toluene	1.0	U	1.0	0.23	ug/L			08/31/15 17:09	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			08/31/15 17:09	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			08/31/15 17:09	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			08/31/15 17:09	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			08/31/15 17:09	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			08/31/15 17:09	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			08/31/15 17:09	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			08/31/15 17:09	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			08/31/15 17:09	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			08/31/15 17:09	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			08/31/15 17:09	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			08/31/15 17:09	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/31/15 17:09	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			08/31/15 17:09	1
Methyl acetate	10	U	10	2.3	ug/L			08/31/15 17:09	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/31/15 17:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			08/31/15 17:09	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			08/31/15 17:09	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 17:09	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			08/31/15 17:09	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			08/31/15 17:09	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			08/31/15 17:09	1

TestAmerica Canton



# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 240-195636/6**

**Matrix: Water**

**Analysis Batch: 195636**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			08/31/15 17:09	1
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			08/31/15 17:09	1
Surrogate	MB	MB	Limits				Prepared	Analyzed	Dil Fac
%Recovery	Qualifier								
1,2-Dichloroethane-d4 (Surr)	105		78 - 125					08/31/15 17:09	1
4-Bromofluorobenzene (Surr)	78		61 - 120					08/31/15 17:09	1
Toluene-d8 (Surr)	84		80 - 120					08/31/15 17:09	1
Dibromofluoromethane (Surr)	98		79 - 120					08/31/15 17:09	1

**Lab Sample ID: LCS 240-195636/4**

**Matrix: Water**

**Analysis Batch: 195636**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Acetone	20.0	21.8		ug/L		109	34 - 148
Benzene	10.0	9.72		ug/L		97	80 - 120
Dichlorobromomethane	10.0	9.33		ug/L		93	80 - 120
Bromoform	10.0	9.49		ug/L		95	56 - 122
Bromomethane	10.0	9.96		ug/L		100	38 - 132
2-Butanone (MEK)	20.0	20.7		ug/L		104	56 - 138
Carbon disulfide	10.0	9.18		ug/L		92	65 - 144
Carbon tetrachloride	10.0	10.1		ug/L		101	77 - 131
Chlorobenzene	10.0	9.73		ug/L		97	80 - 120
Chloroethane	10.0	8.99		ug/L		90	36 - 126
Chloroform	10.0	9.89		ug/L		99	80 - 120
Chloromethane	10.0	8.25		ug/L		83	48 - 133
1,1-Dichloroethane	10.0	9.55		ug/L		95	79 - 125
1,2-Dichloroethane	10.0	9.78		ug/L		98	80 - 120
1,1-Dichloroethene	10.0	9.11		ug/L		91	76 - 124
1,2-Dichloropropane	10.0	9.51		ug/L		95	78 - 124
1,2,4-Trimethylbenzene	10.0	9.74		ug/L		97	76 - 120
cis-1,3-Dichloropropene	10.0	9.33		ug/L		93	74 - 126
trans-1,3-Dichloropropene	10.0	10.4		ug/L		104	75 - 131
Ethylbenzene	10.0	9.82		ug/L		98	80 - 120
2-Hexanone	20.0	20.7		ug/L		103	55 - 141
Methylene Chloride	10.0	10.9		ug/L		109	77 - 129
4-Methyl-2-pentanone (MIBK)	20.0	19.1		ug/L		96	64 - 135
Styrene	10.0	9.86		ug/L		99	76 - 122
1,1,2,2-Tetrachloroethane	10.0	9.52		ug/L		95	71 - 123
Tetrachloroethene	10.0	9.93		ug/L		99	78 - 121
Toluene	10.0	9.91		ug/L		99	80 - 120
Trichloroethene	10.0	9.91		ug/L		99	80 - 121
1,3,5-Trimethylbenzene	10.0	9.97		ug/L		100	77 - 120
Vinyl chloride	10.0	8.32		ug/L		83	52 - 121
Xylenes, Total	20.0	20.0		ug/L		100	80 - 120
1,1,1-Trichloroethane	10.0	9.85		ug/L		98	77 - 123
1,1,2-Trichloroethane	10.0	9.99		ug/L		100	80 - 120
Cyclohexane	10.0	9.94		ug/L		99	60 - 140

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 240-195636/4**  
**Matrix: Water**  
**Analysis Batch: 195636**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	10.0	9.77		ug/L		98	50 - 132
Ethylene Dibromide	10.0	10.1		ug/L		101	80 - 120
Dichlorodifluoromethane	10.0	9.50		ug/L		95	23 - 136
cis-1,2-Dichloroethene	10.0	9.95		ug/L		99	79 - 120
trans-1,2-Dichloroethene	10.0	10.1		ug/L		101	80 - 124
Isopropylbenzene	10.0	9.81		ug/L		98	77 - 120
Methyl acetate	50.0	54.5		ug/L		109	67 - 131
Methyl tert-butyl ether	10.0	9.85		ug/L		99	69 - 121
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.8		ug/L		108	67 - 138
1,2,4-Trichlorobenzene	10.0	8.21		ug/L		82	61 - 120
1,2-Dichlorobenzene	10.0	9.31		ug/L		93	79 - 120
1,3-Dichlorobenzene	10.0	9.26		ug/L		93	79 - 120
1,4-Dichlorobenzene	10.0	9.31		ug/L		93	79 - 120
Trichlorofluoromethane	10.0	9.69		ug/L		97	61 - 133
Methylcyclohexane	10.0	10.2		ug/L		102	61 - 134
m-Xylene & p-Xylene	10.0	10.0		ug/L		100	80 - 120
o-Xylene	10.0	10.0		ug/L		100	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		78 - 125
4-Bromofluorobenzene (Surr)	96		61 - 120
Toluene-d8 (Surr)	95		80 - 120
Dibromofluoromethane (Surr)	92		79 - 120

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

**Lab Sample ID: MB 240-195072/16-A**  
**Matrix: Water**  
**Analysis Batch: 196460**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 195072**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	5.0	U	5.0	0.044	ug/L		08/27/15 08:45	09/06/15 09:17	1
Acenaphthylene	5.0	U	5.0	0.048	ug/L		08/27/15 08:45	09/06/15 09:17	1
Acetophenone	5.0	U	5.0	0.34	ug/L		08/27/15 08:45	09/06/15 09:17	1
Anthracene	5.0	U	5.0	0.088	ug/L		08/27/15 08:45	09/06/15 09:17	1
Atrazine	3.0	U	3.0	0.34	ug/L		08/27/15 08:45	09/06/15 09:17	1
Benzaldehyde	5.0	U	5.0	0.39	ug/L		08/27/15 08:45	09/06/15 09:17	1
Benzo[a]anthracene	1.0	U	1.0	0.030	ug/L		08/27/15 08:45	09/06/15 09:17	1
Benzo[b]fluoranthene	1.0	U	1.0	0.039	ug/L		08/27/15 08:45	09/06/15 09:17	1
Benzo[k]fluoranthene	1.0	U	1.0	0.045	ug/L		08/27/15 08:45	09/06/15 09:17	1
Benzo[g,h,i]perylene	1.0	U	1.0	0.046	ug/L		08/27/15 08:45	09/06/15 09:17	1
Benzo[a]pyrene	1.0	U	1.0	0.051	ug/L		08/27/15 08:45	09/06/15 09:17	1
Butyl benzyl phthalate	5.0	U	5.0	0.26	ug/L		08/27/15 08:45	09/06/15 09:17	1
1,1'-Biphenyl	5.0	U	5.0	0.13	ug/L		08/27/15 08:45	09/06/15 09:17	1
Bis(2-chloroethoxy)methane	5.0	U	5.0	0.32	ug/L		08/27/15 08:45	09/06/15 09:17	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.10	ug/L		08/27/15 08:45	09/06/15 09:17	1
Bis(2-ethylhexyl) phthalate	5.0	U	5.0	1.7	ug/L		08/27/15 08:45	09/06/15 09:17	1

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

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

**Lab Sample ID: MB 240-195072/16-A**  
**Matrix: Water**  
**Analysis Batch: 196460**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 195072**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
4-Bromophenyl phenyl ether	5.0	U	5.0	0.22	ug/L		08/27/15 08:45	09/06/15 09:17	1
Caprolactam	10	U	10	0.20	ug/L		08/27/15 08:45	09/06/15 09:17	1
Carbazole	10	U	10	0.28	ug/L		08/27/15 08:45	09/06/15 09:17	1
4-Chloroaniline	10	U	10	0.21	ug/L		08/27/15 08:45	09/06/15 09:17	1
4-Chloro-3-methylphenol	5.0	U	5.0	0.21	ug/L		08/27/15 08:45	09/06/15 09:17	1
2-Chloronaphthalene	5.0	U	5.0	0.10	ug/L		08/27/15 08:45	09/06/15 09:17	1
2-Chlorophenol	5.0	U	5.0	0.29	ug/L		08/27/15 08:45	09/06/15 09:17	1
4-Chlorophenyl phenyl ether	5.0	U	5.0	0.30	ug/L		08/27/15 08:45	09/06/15 09:17	1
Chrysene	1.0	U	1.0	0.050	ug/L		08/27/15 08:45	09/06/15 09:17	1
2-Methylnaphthalene	5.0	U	5.0	0.090	ug/L		08/27/15 08:45	09/06/15 09:17	1
3 & 4 Methylphenol	5.0	U	5.0	0.80	ug/L		08/27/15 08:45	09/06/15 09:17	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.045	ug/L		08/27/15 08:45	09/06/15 09:17	1
Dibenzofuran	4.0	U	4.0	0.020	ug/L		08/27/15 08:45	09/06/15 09:17	1
3,3'-Dichlorobenzidine	1.0	U	1.0	0.37	ug/L		08/27/15 08:45	09/06/15 09:17	1
2,4-Dichlorophenol	10	U	10	0.19	ug/L		08/27/15 08:45	09/06/15 09:17	1
Diethyl phthalate	5.0	U	5.0	0.60	ug/L		08/27/15 08:45	09/06/15 09:17	1
2,4-Dimethylphenol	5.0	U	5.0	0.25	ug/L		08/27/15 08:45	09/06/15 09:17	1
Dimethyl phthalate	5.0	U	5.0	0.29	ug/L		08/27/15 08:45	09/06/15 09:17	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		08/27/15 08:45	09/06/15 09:17	1
2,4-Dinitrophenol	20	U	20	0.32	ug/L		08/27/15 08:45	09/06/15 09:17	1
2,4-Dinitrotoluene	5.0	U	5.0	0.25	ug/L		08/27/15 08:45	09/06/15 09:17	1
Di-n-butyl phthalate	5.0	U	5.0	1.7	ug/L		08/27/15 08:45	09/06/15 09:17	1
Di-n-octyl phthalate	5.0	U	5.0	0.23	ug/L		08/27/15 08:45	09/06/15 09:17	1
Fluoranthene	1.0	U	1.0	0.045	ug/L		08/27/15 08:45	09/06/15 09:17	1
Fluorene	5.0	U	5.0	0.041	ug/L		08/27/15 08:45	09/06/15 09:17	1
Hexachlorobenzene	0.20	U	0.20	0.085	ug/L		08/27/15 08:45	09/06/15 09:17	1
Hexachlorobutadiene	1.0	U	1.0	0.27	ug/L		08/27/15 08:45	09/06/15 09:17	1
Hexachlorocyclopentadiene	5.0	U	5.0	0.24	ug/L		08/27/15 08:45	09/06/15 09:17	1
Hexachloroethane	5.0	U	5.0	0.19	ug/L		08/27/15 08:45	09/06/15 09:17	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.043	ug/L		08/27/15 08:45	09/06/15 09:17	1
Isophorone	5.0	U	5.0	0.27	ug/L		08/27/15 08:45	09/06/15 09:17	1
2-Methylphenol	5.0	U	5.0	0.17	ug/L		08/27/15 08:45	09/06/15 09:17	1
Naphthalene	5.0	U	5.0	0.063	ug/L		08/27/15 08:45	09/06/15 09:17	1
2-Nitroaniline	20	U	20	0.21	ug/L		08/27/15 08:45	09/06/15 09:17	1
3-Nitroaniline	20	U	20	0.28	ug/L		08/27/15 08:45	09/06/15 09:17	1
4-Nitroaniline	20	U	20	0.22	ug/L		08/27/15 08:45	09/06/15 09:17	1
Nitrobenzene	3.0	U	3.0	0.040	ug/L		08/27/15 08:45	09/06/15 09:17	1
2-Nitrophenol	5.0	U	5.0	0.28	ug/L		08/27/15 08:45	09/06/15 09:17	1
4-Nitrophenol	20	U	20	0.29	ug/L		08/27/15 08:45	09/06/15 09:17	1
N-Nitrosodiphenylamine	5.0	U	5.0	0.31	ug/L		08/27/15 08:45	09/06/15 09:17	1
N-Nitrosodi-n-propylamine	5.0	U	5.0	0.24	ug/L		08/27/15 08:45	09/06/15 09:17	1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	0.40	ug/L		08/27/15 08:45	09/06/15 09:17	1
Pentachlorophenol	5.0	U	5.0	0.27	ug/L		08/27/15 08:45	09/06/15 09:17	1
Phenanthrene	2.0	U	2.0	0.062	ug/L		08/27/15 08:45	09/06/15 09:17	1
Phenol	5.0	U	5.0	0.60	ug/L		08/27/15 08:45	09/06/15 09:17	1
Pyrene	5.0	U	5.0	0.042	ug/L		08/27/15 08:45	09/06/15 09:17	1
2,4,5-Trichlorophenol	5.0	U	5.0	0.30	ug/L		08/27/15 08:45	09/06/15 09:17	1
2,4,6-Trichlorophenol	4.0	U	4.0	0.24	ug/L		08/27/15 08:45	09/06/15 09:17	1

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

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

**Lab Sample ID: MB 240-195072/16-A**  
**Matrix: Water**  
**Analysis Batch: 196460**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 195072**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dinitrotoluene	5.0	U	5.0	0.80	ug/L		08/27/15 08:45	09/06/15 09:17	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	68		29 - 110				08/27/15 08:45	09/06/15 09:17	1
2-Fluorophenol (Surr)	62		15 - 110				08/27/15 08:45	09/06/15 09:17	1
2,4,6-Tribromophenol (Surr)	47		21 - 128				08/27/15 08:45	09/06/15 09:17	1
Nitrobenzene-d5 (Surr)	67		31 - 110				08/27/15 08:45	09/06/15 09:17	1
Phenol-d5 (Surr)	48		10 - 110				08/27/15 08:45	09/06/15 09:17	1
Terphenyl-d14 (Surr)	73		31 - 115				08/27/15 08:45	09/06/15 09:17	1

**Lab Sample ID: LCS 240-195072/17-A**  
**Matrix: Water**  
**Analysis Batch: 196460**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 195072**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	20.0	16.5		ug/L		83	55 - 120
Acenaphthylene	20.0	17.0		ug/L		85	55 - 120
Acetophenone	20.0	18.0		ug/L		90	50 - 120
Anthracene	20.0	16.8		ug/L		84	56 - 120
Atrazine	40.0	35.4		ug/L		89	65 - 161
Benzaldehyde	40.0	34.9		ug/L		87	40 - 122
Benzo[a]anthracene	20.0	16.6		ug/L		83	46 - 120
Benzo[b]fluoranthene	20.0	19.0		ug/L		95	24 - 120
Benzo[k]fluoranthene	20.0	17.5		ug/L		88	30 - 120
Benzo[g,h,i]perylene	20.0	20.7		ug/L		103	24 - 126
Benzo[a]pyrene	20.0	18.7		ug/L		94	24 - 120
Butyl benzyl phthalate	20.0	16.8		ug/L		84	51 - 120
1,1'-Biphenyl	20.0	16.4		ug/L		82	52 - 120
Bis(2-chloroethoxy)methane	20.0	17.4		ug/L		87	48 - 120
Bis(2-chloroethyl)ether	20.0	17.2		ug/L		86	43 - 120
Bis(2-ethylhexyl) phthalate	20.0	17.2		ug/L		86	21 - 125
4-Bromophenyl phenyl ether	20.0	17.1		ug/L		85	47 - 120
Caprolactam	40.0	12.5		ug/L		31	10 - 120
Carbazole	20.0	18.0		ug/L		90	57 - 120
4-Chloroaniline	20.0	8.79	J	ug/L		44	15 - 120
4-Chloro-3-methylphenol	20.0	18.0		ug/L		90	45 - 120
2-Chloronaphthalene	20.0	16.6		ug/L		83	47 - 120
2-Chlorophenol	20.0	17.9		ug/L		89	43 - 120
4-Chlorophenyl phenyl ether	20.0	17.3		ug/L		86	47 - 120
Chrysene	20.0	17.1		ug/L		86	49 - 120
2-Methylnaphthalene	20.0	18.0		ug/L		90	52 - 120
3 & 4 Methylphenol	20.0	16.6		ug/L		83	34 - 120
Dibenz(a,h)anthracene	20.0	17.8		ug/L		89	24 - 125
Dibenzofuran	20.0	16.9		ug/L		84	56 - 120
3,3'-Dichlorobenzidine	40.0	26.7		ug/L		67	29 - 120
2,4-Dichlorophenol	20.0	17.2		ug/L		86	46 - 120
Diethyl phthalate	20.0	17.8		ug/L		89	58 - 120
2,4-Dimethylphenol	20.0	17.0		ug/L		85	38 - 120

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

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

**Lab Sample ID: LCS 240-195072/17-A**  
**Matrix: Water**  
**Analysis Batch: 196460**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 195072**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dimethyl phthalate	20.0	17.8		ug/L		89	59 - 120
4,6-Dinitro-2-methylphenol	40.0	32.5		ug/L		81	33 - 120
2,4-Dinitrophenol	40.0	22.9		ug/L		57	10 - 120
2,4-Dinitrotoluene	20.0	17.8		ug/L		89	52 - 120
Di-n-butyl phthalate	20.0	18.3		ug/L		91	57 - 122
Di-n-octyl phthalate	20.0	18.3		ug/L		91	21 - 122
Fluoranthene	20.0	18.5		ug/L		93	57 - 120
Fluorene	20.0	17.2		ug/L		86	56 - 120
Hexachlorobenzene	20.0	16.8		ug/L		84	52 - 120
Hexachlorobutadiene	20.0	16.8		ug/L		84	38 - 120
Hexachlorocyclopentadiene	20.0	9.75		ug/L		49	4 - 120
Hexachloroethane	20.0	16.1		ug/L		80	42 - 120
Indeno[1,2,3-cd]pyrene	20.0	17.9		ug/L		89	25 - 120
Isophorone	20.0	17.8		ug/L		89	48 - 123
2-Methylphenol	20.0	17.0		ug/L		85	38 - 120
Naphthalene	20.0	16.6		ug/L		83	52 - 120
2-Nitroaniline	20.0	17.2	J	ug/L		86	48 - 127
3-Nitroaniline	20.0	17.6	J	ug/L		88	52 - 120
4-Nitroaniline	20.0	18.8	J	ug/L		94	48 - 120
Nitrobenzene	20.0	16.8		ug/L		84	41 - 120
2-Nitrophenol	20.0	17.3		ug/L		87	42 - 120
4-Nitrophenol	40.0	24.0		ug/L		60	16 - 120
N-Nitrosodiphenylamine	40.0	33.0		ug/L		83	51 - 120
N-Nitrosodi-n-propylamine	20.0	17.2		ug/L		86	48 - 123
2,2'-oxybis[1-chloropropane]	20.0	16.1		ug/L		80	42 - 120
Pentachlorophenol	40.0	22.5		ug/L		56	14 - 120
Phenanthrene	20.0	16.5		ug/L		83	57 - 120
Phenol	20.0	12.1		ug/L		60	16 - 120
Pyrene	20.0	15.9		ug/L		80	50 - 120
2,4,5-Trichlorophenol	20.0	16.8		ug/L		84	47 - 120
2,4,6-Trichlorophenol	20.0	16.3		ug/L		82	43 - 120
2,6-Dinitrotoluene	20.0	18.7		ug/L		93	52 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	84		29 - 110
2-Fluorophenol (Surr)	75		15 - 110
2,4,6-Tribromophenol (Surr)	75		21 - 128
Nitrobenzene-d5 (Surr)	85		31 - 110
Phenol-d5 (Surr)	61		10 - 110
Terphenyl-d14 (Surr)	88		31 - 115

# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 240-195074/1-A**  
**Matrix: Water**  
**Analysis Batch: 195541**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 195074**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.396	J	5.0	0.18	ug/L		08/27/15 08:50	08/28/15 19:06	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/27/15 08:50	08/28/15 19:06	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/27/15 08:50	08/28/15 19:06	1
Cobalt	7.0	U	7.0	0.021	ug/L		08/27/15 08:50	08/28/15 19:06	1
Chromium	2.37	J	5.0	0.20	ug/L		08/27/15 08:50	08/28/15 19:06	1
Copper	2.0	U	2.0	0.75	ug/L		08/27/15 08:50	08/28/15 19:06	1
Manganese	15	U	15	1.1	ug/L		08/27/15 08:50	08/28/15 19:06	1
Nickel	20	U	20	0.23	ug/L		08/27/15 08:50	08/28/15 19:06	1
Antimony	2.0	U	2.0	0.16	ug/L		08/27/15 08:50	08/28/15 19:06	1
Lead	0.126	J	3.0	0.11	ug/L		08/27/15 08:50	08/28/15 19:06	1
Selenium	0.805	J	5.0	0.25	ug/L		08/27/15 08:50	08/28/15 19:06	1
Thallium	1.0	U	1.0	0.074	ug/L		08/27/15 08:50	08/28/15 19:06	1
Vanadium	0.646	J	4.0	0.23	ug/L		08/27/15 08:50	08/28/15 19:06	1
Zinc	20	U	20	7.3	ug/L		08/27/15 08:50	08/28/15 19:06	1
Barium	100	U	100	1.1	ug/L		08/27/15 08:50	08/28/15 19:06	1
Silver	0.20	U	0.20	0.020	ug/L		08/27/15 08:50	08/28/15 19:06	1

**Lab Sample ID: LCS 240-195074/2-A ^10**  
**Matrix: Water**  
**Analysis Batch: 195541**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 195074**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	2000	1920		ug/L		96	80 - 120
Beryllium	50.0	53.3		ug/L		107	80 - 120
Cadmium	50.0	49.5		ug/L		99	80 - 120
Cobalt	500	510		ug/L		102	80 - 120
Chromium	200	225		ug/L		113	80 - 120
Copper	250	264		ug/L		106	80 - 120
Manganese	500	556		ug/L		111	80 - 120
Nickel	500	536		ug/L		107	80 - 120
Antimony	500	519		ug/L		104	80 - 120
Lead	500	507		ug/L		101	80 - 120
Selenium	2000	1910		ug/L		95	80 - 120
Thallium	2000	2130		ug/L		107	80 - 120
Vanadium	500	511		ug/L		102	80 - 120
Zinc	500	569		ug/L		114	80 - 120
Barium	2000	2000		ug/L		100	80 - 120
Silver	50.0	48.7		ug/L		97	80 - 120

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 240-195079/1-A**  
**Matrix: Water**  
**Analysis Batch: 195389**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 195079**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/27/15 09:04	08/28/15 16:27	1

TestAmerica Canton



# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

## Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 240-195079/2-A  
 Matrix: Water  
 Analysis Batch: 195389

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 195079

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	5.00	5.08		ug/L		102	80 - 120

## Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 240-194904/3  
 Matrix: Water  
 Analysis Batch: 194904

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/26/15 10:36	1

Lab Sample ID: LCS 240-194904/4  
 Matrix: Water  
 Analysis Batch: 194904

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.250	0.243		mg/L		97	80 - 118

# QC Association Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

## GC/MS VOA

### Analysis Batch: 195636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54737-1	GW-082515-JL-05	Total/NA	Water	8260B	
240-54737-2	GW-082515-JL-06	Total/NA	Water	8260B	
LCS 240-195636/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-195636/6	Method Blank	Total/NA	Water	8260B	

## GC/MS Semi VOA

### Prep Batch: 195072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54737-1	GW-082515-JL-05	Total/NA	Water	3510C	
240-54737-2	GW-082515-JL-06	Total/NA	Water	3510C	
LCS 240-195072/17-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-195072/16-A	Method Blank	Total/NA	Water	3510C	

### Analysis Batch: 196460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54737-1	GW-082515-JL-05	Total/NA	Water	8270C	195072
240-54737-2	GW-082515-JL-06	Total/NA	Water	8270C	195072
LCS 240-195072/17-A	Lab Control Sample	Total/NA	Water	8270C	195072
MB 240-195072/16-A	Method Blank	Total/NA	Water	8270C	195072

## Metals

### Prep Batch: 195074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54737-1	GW-082515-JL-05	Dissolved	Water	3005A	
240-54737-1	GW-082515-JL-05	Total Recoverable	Water	3005A	
240-54737-2	GW-082515-JL-06	Dissolved	Water	3005A	
240-54737-2	GW-082515-JL-06	Total Recoverable	Water	3005A	
LCS 240-195074/2-A ^10	Lab Control Sample	Total Recoverable	Water	3005A	
MB 240-195074/1-A	Method Blank	Total Recoverable	Water	3005A	

### Prep Batch: 195079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54737-1	GW-082515-JL-05	Dissolved	Water	7470A	
240-54737-1	GW-082515-JL-05	Total/NA	Water	7470A	
240-54737-2	GW-082515-JL-06	Dissolved	Water	7470A	
240-54737-2	GW-082515-JL-06	Total/NA	Water	7470A	
LCS 240-195079/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 240-195079/1-A	Method Blank	Total/NA	Water	7470A	

### Analysis Batch: 195389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54737-1	GW-082515-JL-05	Dissolved	Water	7470A	195079
240-54737-1	GW-082515-JL-05	Total/NA	Water	7470A	195079
240-54737-2	GW-082515-JL-06	Dissolved	Water	7470A	195079
240-54737-2	GW-082515-JL-06	Total/NA	Water	7470A	195079
LCS 240-195079/2-A	Lab Control Sample	Total/NA	Water	7470A	195079
MB 240-195079/1-A	Method Blank	Total/NA	Water	7470A	195079

TestAmerica Canton

# QC Association Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

## Metals (Continued)

### Analysis Batch: 195541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54737-1	GW-082515-JL-05	Dissolved	Water	6020	195074
240-54737-1	GW-082515-JL-05	Total Recoverable	Water	6020	195074
240-54737-2	GW-082515-JL-06	Dissolved	Water	6020	195074
240-54737-2	GW-082515-JL-06	Total Recoverable	Water	6020	195074
LCS 240-195074/2-A ^10	Lab Control Sample	Total Recoverable	Water	6020	195074
MB 240-195074/1-A	Method Blank	Total Recoverable	Water	6020	195074

## General Chemistry

### Analysis Batch: 194904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54737-1	GW-082515-JL-05	Total/NA	Water	7196A	
240-54737-2	GW-082515-JL-06	Total/NA	Water	7196A	
LCS 240-194904/4	Lab Control Sample	Total/NA	Water	7196A	
MB 240-194904/3	Method Blank	Total/NA	Water	7196A	

### Analysis Batch: 195697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54737-1	GW-082515-JL-05	Total/NA	Water	7196A	
240-54737-2	GW-082515-JL-06	Total/NA	Water	7196A	

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

**Client Sample ID: GW-082515-JL-05**

**Date Collected: 08/25/15 11:55**

**Date Received: 08/26/15 09:30**

**Lab Sample ID: 240-54737-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195636	08/31/15 17:54	LRW	TAL CAN
Total/NA	Prep	3510C			195072	08/27/15 08:45	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196460	09/06/15 11:30	TMH	TAL CAN
Dissolved	Prep	3005A			195074	08/27/15 08:50	WKD	TAL CAN
Dissolved	Analysis	6020		1	195541	08/28/15 20:44	AS1	TAL CAN
Total Recoverable	Prep	3005A			195074	08/27/15 08:50	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195541	08/28/15 20:40	AS1	TAL CAN
Dissolved	Prep	7470A			195079	08/27/15 09:04	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195389	08/28/15 16:47	WAL	TAL CAN
Total/NA	Prep	7470A			195079	08/27/15 09:04	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195389	08/28/15 17:07	WAL	TAL CAN
Total/NA	Analysis	7196A		1	194904	08/26/15 11:50	NJE	TAL CAN
Total/NA	Analysis	7196A		1	195697	09/01/15 07:34	KLC	TAL CAN

**Client Sample ID: GW-082515-JL-06**

**Date Collected: 08/25/15 12:00**

**Date Received: 08/26/15 09:30**

**Lab Sample ID: 240-54737-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195636	08/31/15 18:17	LRW	TAL CAN
Total/NA	Prep	3510C			195072	08/27/15 08:45	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196460	09/06/15 11:52	TMH	TAL CAN
Dissolved	Prep	3005A			195074	08/27/15 08:50	WKD	TAL CAN
Dissolved	Analysis	6020		1	195541	08/28/15 20:51	AS1	TAL CAN
Total Recoverable	Prep	3005A			195074	08/27/15 08:50	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195541	08/28/15 20:48	AS1	TAL CAN
Dissolved	Prep	7470A			195079	08/27/15 09:04	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195389	08/28/15 17:11	WAL	TAL CAN
Total/NA	Prep	7470A			195079	08/27/15 09:04	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195389	08/28/15 17:09	WAL	TAL CAN
Total/NA	Analysis	7196A		1	194904	08/26/15 11:51	NJE	TAL CAN
Total/NA	Analysis	7196A		1	195697	09/01/15 07:34	KLC	TAL CAN

**Laboratory References:**

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

# Certification Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

## Laboratory: TestAmerica Canton

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999518190	08-31-15 *

The following analytes are included in this report, but are not certified under this certification:

Analysis Method	Prep Method	Matrix	Analyte
6020	3005A	Water	Lead
8270C	3510C	Water	1,1'-Biphenyl
8270C	3510C	Water	2,2'-oxybis[1-chloropropane]
8270C	3510C	Water	2,4,5-Trichlorophenol
8270C	3510C	Water	2,4,6-Trichlorophenol
8270C	3510C	Water	2,4-Dichlorophenol
8270C	3510C	Water	2,4-Dimethylphenol
8270C	3510C	Water	2,4-Dinitrophenol
8270C	3510C	Water	2,4-Dinitrotoluene
8270C	3510C	Water	2,6-Dinitrotoluene
8270C	3510C	Water	2-Chloronaphthalene
8270C	3510C	Water	2-Chlorophenol
8270C	3510C	Water	2-Methylnaphthalene
8270C	3510C	Water	2-Methylphenol
8270C	3510C	Water	2-Nitroaniline
8270C	3510C	Water	2-Nitrophenol
8270C	3510C	Water	3 & 4 Methylphenol
8270C	3510C	Water	3,3'-Dichlorobenzidine
8270C	3510C	Water	3-Nitroaniline
8270C	3510C	Water	4,6-Dinitro-2-methylphenol
8270C	3510C	Water	4-Bromophenyl phenyl ether
8270C	3510C	Water	4-Chloro-3-methylphenol
8270C	3510C	Water	4-Chloroaniline
8270C	3510C	Water	4-Chlorophenyl phenyl ether
8270C	3510C	Water	4-Nitrophenol
8270C	3510C	Water	Acenaphthene
8270C	3510C	Water	Acenaphthylene
8270C	3510C	Water	Acetophenone
8270C	3510C	Water	Anthracene
8270C	3510C	Water	Benzo[a]anthracene
8270C	3510C	Water	Benzo[a]pyrene
8270C	3510C	Water	Benzo[b]fluoranthene
8270C	3510C	Water	Benzo[g,h,i]perylene
8270C	3510C	Water	Benzo[k]fluoranthene
8270C	3510C	Water	Bis(2-chloroethoxy)methane
8270C	3510C	Water	Bis(2-chloroethyl)ether
8270C	3510C	Water	Bis(2-ethylhexyl) phthalate
8270C	3510C	Water	Butyl benzyl phthalate
8270C	3510C	Water	Carbazole
8270C	3510C	Water	Chrysene
8270C	3510C	Water	Dibenz(a,h)anthracene
8270C	3510C	Water	Dibenzofuran
8270C	3510C	Water	Diethyl phthalate
8270C	3510C	Water	Dimethyl phthalate
8270C	3510C	Water	Di-n-butyl phthalate
8270C	3510C	Water	Di-n-octyl phthalate

\* Certification renewal pending - certification considered valid.

# Certification Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54737-1

## Laboratory: TestAmerica Canton (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999518190	08-31-15 *

The following analytes are included in this report, but are not certified under this certification:

Analysis Method	Prep Method	Matrix	Analyte
8270C	3510C	Water	Fluoranthene
8270C	3510C	Water	Fluorene
8270C	3510C	Water	Hexachlorobenzene
8270C	3510C	Water	Hexachlorobutadiene
8270C	3510C	Water	Hexachlorocyclopentadiene
8270C	3510C	Water	Hexachloroethane
8270C	3510C	Water	Indeno[1,2,3-cd]pyrene
8270C	3510C	Water	Isophorone
8270C	3510C	Water	Naphthalene
8270C	3510C	Water	Nitrobenzene
8270C	3510C	Water	N-Nitrosodi-n-propylamine
8270C	3510C	Water	N-Nitrosodiphenylamine
8270C	3510C	Water	Pentachlorophenol
8270C	3510C	Water	Phenanthrene
8270C	3510C	Water	Phenol
8270C	3510C	Water	Pyrene

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
7196A		Water	Cr (III)
7196A		Water	Cr (VI)
8260B		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
8260B		Water	Cyclohexane
8260B		Water	Methyl acetate
8260B		Water	Methylcyclohexane
8270C	3510C	Water	4-Nitroaniline
8270C	3510C	Water	Atrazine
8270C	3510C	Water	Benzaldehyde
8270C	3510C	Water	Caprolactam

\* Certification renewal pending - certification considered valid.



**CHAIN OF CUSTODY  
AND  
RECEIVING DOCUMENTS**



240-54737 Chain of Custody

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

4 Coders

**CONESTOGA-ROVERS & ASSOCIATES**  
 8615 W. Bryn Mawr Avenue  
 Chicago, Illinois 60631  
 (773)380-9933 phone  
 (773)380-6421 fax

SHIPPED TO (Laboratory Name): **TEST AMERICA - NORTH CANTON**  
 PROJECT NAME: **GM JAMESVILLE**

REFERENCE NUMBER: **58505-01-20402**  
 CHAIN-OF-CUSTODY RECORD  
 SAMPLER'S SIGNATURE: *[Signature]* PRINTED NAME: **JEFF KOLODZIEJSKI**

SEQ. No.	DATE	TIME	SAMPLE IDENTIFICATION No.	SAMPLE MATRIX	No. OF CONTAINERS	PARAMETERS	REMARKS
	8/25/15	1155	GW-082515-01-05	WATER	8	TEL SVCS TEL DIS. METALS TEL TGM. METALS TEL DR. CHROMIUM TEL DR. CHROMIUM HEAVY METALS (ARSENIC)	
	8/25/15	1200	GW-082515-01-06	WATER	8		
<b>TOTAL NUMBER OF CONTAINERS 16</b>							
RELINQUISHED BY: <i>[Signature]</i> DATE: 8/25/15 TIME: 1730 RECEIVED BY: ② DATE: TIME:							
RELINQUISHED BY: ③ DATE: TIME:							
RELINQUISHED BY: ④ DATE: TIME:							

AIR BILL No. **8085 1559 0527**  
**METHOD OF SHIPMENT: FEDEX**  
 SAMPLE TEAM: **J. KOLODZIEJSKI**  
**J. LUZMICK**  
 RECEIVED FOR LABORATORY BY: *[Signature]*  
 DATE: 8/26/15 TIME: 0930

1001-00(SOURCE)GN-CO004  
 White - Fully Executed Copy  
 Yellow - Receiving Laboratory Copy  
 Pink - Shipper Copy  
 Goldenrod - Sampler Copy



TestAmerica Canton Sample Receipt Form/Narrative		Login # : <u>54737</u>
Canton Facility _____		
Client <u>GHD</u>	Site Name _____	Cooler unpacked by: <u>Denny Burns</u>
Cooler Received on <u>8/26/15</u>	Opened on <u>8/26/15</u>	
FedEx: 1 <sup>st</sup> Grd <input checked="" type="checkbox"/> (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____		
Receipt After-hours: Drop-off Date/Time _____		Storage Location _____
TestAmerica Cooler # _____	Foam Box _____	Client Cooler Box _____ Other <u>Multiple</u>
Packing material used: <u>Bubble Wrap</u> Foam Plastic Bag None Other _____		
COOLANT: <u>Wet Ice</u> Blue Ice Dry Ice Water None		
1. Cooler temperature upon receipt		
<u>IR GUN# A</u> (CF +1.0 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C
<u>IR GUN# 4</u> (CF +0.5 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C
<u>IR GUN# 5</u> (CF +0.4 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C
<u>IR GUN# 8</u> (CF -1.5 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity _____		Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>
-Were custody seals on the outside of the cooler(s) signed & dated?		Yes <input checked="" type="checkbox"/> No <u>NA</u>
-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?		Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>
3. Shippers' packing slip attached to the cooler(s)?		<input checked="" type="checkbox"/> Yes No <input checked="" type="checkbox"/>
4. Did custody papers accompany the sample(s)?		<input checked="" type="checkbox"/> Yes No <input checked="" type="checkbox"/>
5. Were the custody papers relinquished & signed in the appropriate place?		<input checked="" type="checkbox"/> Yes No <input checked="" type="checkbox"/>
6. Was/were the person(s) who collected the samples clearly identified on the COC?		<input checked="" type="checkbox"/> Yes No <input checked="" type="checkbox"/>
7. Did all bottles arrive in good condition (Unbroken)?		<input checked="" type="checkbox"/> Yes No <input checked="" type="checkbox"/>
8. Could all bottle labels be reconciled with the COC?		<input checked="" type="checkbox"/> Yes No <input checked="" type="checkbox"/>
9. Were correct bottle(s) used for the test(s) indicated?		<input checked="" type="checkbox"/> Yes No <input checked="" type="checkbox"/>
10. Sufficient quantity received to perform indicated analyses?		<input checked="" type="checkbox"/> Yes No <input checked="" type="checkbox"/>
11. Were sample(s) at the correct pH upon receipt?		<input checked="" type="checkbox"/> Yes No <input checked="" type="checkbox"/> NA pH Strip Lot# <u>HC432654</u>
12. Were VOAs on the COC?		<input checked="" type="checkbox"/> Yes No <input checked="" type="checkbox"/>
13. Were air bubbles >6 mm in any VOA vials?		Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> NA
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # _____		Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>
Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____		
Concerning _____		

See Multiple Cooler Form

<b>14. CHAIN OF CUSTODY &amp; SAMPLE DISCREPANCIES</b>	Samples processed by: _____
<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	

**15. SAMPLE CONDITION**

Sample(s) \_\_\_\_\_ were received after the recommended holding time had expired.

Sample(s) \_\_\_\_\_ were received in a broken container.

Sample(s) \_\_\_\_\_ were received with bubble >6 mm in diameter. (Notify PM)

**16. SAMPLE PRESERVATION**

Sample(s) \_\_\_\_\_ were further preserved in the laboratory.

Time preserved: \_\_\_\_\_ Preservative(s) added/Lot number(s): \_\_\_\_\_



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton  
4101 Shuffel Street NW  
North Canton, OH 44720  
Tel: (330)497-9396

TestAmerica Job ID: 240-54779-1

Client Project/Site: 58505, Janesville WI, SSOW 108011

For:

GHD Services Inc.  
45 Farmington Valley Drive  
Plainville, Connecticut 06062

Attn: Ms. Kathy Shaw



Authorized for release by:  
9/11/2015 8:51:17 AM

Denise Heckler, Project Manager II  
(330)966-9477

[denise.heckler@testamericainc.com](mailto:denise.heckler@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.

### Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

### General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Job ID: 240-54779-1**

**Laboratory: TestAmerica Canton**

**Narrative**

## CASE NARRATIVE

**Client: GHD Services Inc.**

**Project: 58505, Janesville WI, SSOW 108011**

**Report Number: 240-54779-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

### **RECEIPT**

The samples were received on 08/27/2015; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 2.8° C, 3.2° C, 3.8° C and 4.0° C.

### **VOLATILE ORGANIC COMPOUNDS (GCMS)**

Samples GW-082615-JL-13 (240-54779-1), GW-082615-JL-14 (240-54779-2), GW-082615-JL-15 (240-54779-3), GW-082615-JL-16 (240-54779-4), GW-082615-JL-17 (240-54779-5), GW-082615-JL-18 (240-54779-6), GW-082615-JL-19 (240-54779-7), GW-082615-JL-20 (240-54779-8), GW-082615-JL-21 (240-54779-9) and TRIP BLANK (240-54779-10) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 08/31/2015, 09/01/2015 and 09/03/2015.

Sample GW-082615-JL-14 (240-54779-2)[3.33X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

### **SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)**

Samples GW-082615-JL-13 (240-54779-1), GW-082615-JL-14 (240-54779-2), GW-082615-JL-15 (240-54779-3), GW-082615-JL-16 (240-54779-4), GW-082615-JL-17 (240-54779-5), GW-082615-JL-18 (240-54779-6), GW-082615-JL-19 (240-54779-7), GW-082615-JL-20 (240-54779-8) and GW-082615-JL-21 (240-54779-9) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 08/28/2015 and analyzed on 09/09/2015.

# Case Narrative

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## Job ID: 240-54779-1 (Continued)

### Laboratory: TestAmerica Canton (Continued)

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

4-Chloroaniline and Caprolactam failed the recovery criteria low for the MS of sample GW-082615-JL-16MS (240-54779-4) in batch 240-196773.

4-Chloroaniline and Caprolactam failed the recovery criteria low for the MSD of sample GW-082615-JL-16MSD (240-54779-4) in batch 240-196773.

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

#### **DISSOLVED METALS (ICPMS)**

Samples GW-082615-JL-13 (240-54779-1), GW-082615-JL-14 (240-54779-2), GW-082615-JL-15 (240-54779-3), GW-082615-JL-16 (240-54779-4), GW-082615-JL-17 (240-54779-5), GW-082615-JL-18 (240-54779-6), GW-082615-JL-19 (240-54779-7), GW-082615-JL-20 (240-54779-8) and GW-082615-JL-21 (240-54779-9) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 08/28/2015 and 09/02/2015 and analyzed on 08/31/2015 and 09/03/2015.

Some requested practical quantitation limits (PQLs) fall below the laboratory's verified standard quantitation limit. The continuing calibration blanks and method blanks may not support the lower PQL.

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

#### **TOTAL RECOVERABLE METALS (ICPMS)**

Samples GW-082615-JL-13 (240-54779-1), GW-082615-JL-14 (240-54779-2), GW-082615-JL-15 (240-54779-3), GW-082615-JL-16 (240-54779-4), GW-082615-JL-17 (240-54779-5), GW-082615-JL-18 (240-54779-6), GW-082615-JL-19 (240-54779-7), GW-082615-JL-20 (240-54779-8) and GW-082615-JL-21 (240-54779-9) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 08/28/2015 and 09/02/2015 and analyzed on 08/31/2015 and 09/03/2015.

Arsenic, Chromium, Selenium and Vanadium were detected in method blank MB 240-195268/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Some requested practical quantitation limits (PQLs) fall below the laboratory's verified standard quantitation limit. The continuing calibration blanks and method blanks may not support the lower PQL.

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

#### **HEXAVALENT CHROMIUM**

Samples GW-082615-JL-13 (240-54779-1), GW-082615-JL-14 (240-54779-2), GW-082615-JL-15 (240-54779-3), GW-082615-JL-16 (240-54779-4), GW-082615-JL-17 (240-54779-5), GW-082615-JL-18 (240-54779-6), GW-082615-JL-19 (240-54779-7), GW-082615-JL-20 (240-54779-8) and GW-082615-JL-21 (240-54779-9) were analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples were analyzed on 08/27/2015.

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

#### **DISSOLVED MERCURY (CVAA)**

Samples GW-082615-JL-13 (240-54779-1), GW-082615-JL-14 (240-54779-2), GW-082615-JL-15 (240-54779-3), GW-082615-JL-16 (240-54779-4), GW-082615-JL-17 (240-54779-5), GW-082615-JL-18 (240-54779-6), GW-082615-JL-19 (240-54779-7), GW-082615-JL-20 (240-54779-8) and GW-082615-JL-21 (240-54779-9) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 08/28/2015 and analyzed on 08/31/2015 and 09/01/2015.

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

# Case Narrative

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

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## Job ID: 240-54779-1 (Continued)

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### Laboratory: TestAmerica Canton (Continued)

#### **TOTAL MERCURY**

Samples GW-082615-JL-13 (240-54779-1), GW-082615-JL-14 (240-54779-2), GW-082615-JL-15 (240-54779-3), GW-082615-JL-16 (240-54779-4), GW-082615-JL-17 (240-54779-5), GW-082615-JL-18 (240-54779-6), GW-082615-JL-19 (240-54779-7), GW-082615-JL-20 (240-54779-8) and GW-082615-JL-21 (240-54779-9) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 08/28/2015 and analyzed on 08/31/2015.

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

#### **TRIVALENT CHROMIUM**

Samples GW-082615-JL-13 (240-54779-1), GW-082615-JL-14 (240-54779-2), GW-082615-JL-15 (240-54779-3), GW-082615-JL-16 (240-54779-4), GW-082615-JL-17 (240-54779-5), GW-082615-JL-18 (240-54779-6), GW-082615-JL-19 (240-54779-7), GW-082615-JL-20 (240-54779-8) and GW-082615-JL-21 (240-54779-9) were analyzed for trivalent chromium in accordance with EPA SW-846 Method 7196A\_CR3. The samples were analyzed on 09/02/2015.

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



# Method Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
6020	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
7196A	Chromium, Hexavalent	SW846	TAL CAN
7196A	Chromium, Trivalent (Colorimetric)	SW846	TAL CAN

**Protocol References:**

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

**Laboratory References:**

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396



# Sample Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-54779-1	GW-082615-JL-13	Water	08/26/15 10:35	08/27/15 09:10
240-54779-2	GW-082615-JL-14	Water	08/26/15 10:40	08/27/15 09:10
240-54779-3	GW-082615-JL-15	Water	08/26/15 11:25	08/27/15 09:10
240-54779-4	GW-082615-JL-16	Water	08/26/15 12:00	08/27/15 09:10
240-54779-5	GW-082615-JL-17	Water	08/26/15 14:10	08/27/15 09:10
240-54779-6	GW-082615-JL-18	Water	08/26/15 14:25	08/27/15 09:10
240-54779-7	GW-082615-JL-19	Water	08/26/15 15:15	08/27/15 09:10
240-54779-8	GW-082615-JL-20	Water	08/26/15 15:30	08/27/15 09:10
240-54779-9	GW-082615-JL-21	Water	08/26/15 15:50	08/27/15 09:10
240-54779-10	TRIP BLANK	Water	08/26/15 00:00	08/27/15 09:10





# Detection Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-13**

**Lab Sample ID: 240-54779-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	1.2	J	2.0	0.16	ug/L	1		6020	Total
Arsenic	0.96	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	90	J	100	1.1	ug/L	1		6020	Total Recoverable
Beryllium	0.40	J	1.0	0.053	ug/L	1		6020	Total Recoverable
Cadmium	0.35	J	1.0	0.061	ug/L	1		6020	Total Recoverable
Cobalt	0.30	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	3.6	J B	5.0	0.20	ug/L	1		6020	Total Recoverable
Manganese	5.2	J	15	1.1	ug/L	1		6020	Total Recoverable
Nickel	0.59	J	20	0.23	ug/L	1		6020	Total Recoverable
Lead	0.28	J	3.0	0.11	ug/L	1		6020	Total Recoverable
Selenium	1.1	J B	5.0	0.25	ug/L	1		6020	Total Recoverable
Thallium	0.18	J	1.0	0.074	ug/L	1		6020	Total Recoverable
Vanadium	1.6	J B	4.0	0.23	ug/L	1		6020	Total Recoverable
Zinc	7.5	J	20	7.3	ug/L	1		6020	Total Recoverable
Arsenic	0.72	J B	5.0	0.18	ug/L	1		6020	Dissolved
Beryllium	0.22	J	1.0	0.053	ug/L	1		6020	Dissolved
Cadmium	0.11	J	1.0	0.061	ug/L	1		6020	Dissolved
Cobalt	0.16	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	3.3	J B	5.0	0.20	ug/L	1		6020	Dissolved
Nickel	0.45	J	20	0.23	ug/L	1		6020	Dissolved
Antimony	0.92	J	2.0	0.16	ug/L	1		6020	Dissolved
Selenium	0.77	J B	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	1.5	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	90	J	100	1.1	ug/L	1		6020	Dissolved

**Client Sample ID: GW-082615-JL-14**

**Lab Sample ID: 240-54779-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	2.9	J	3.3	1.4	ug/L	3.33		8260B	Total/NA
Ethylbenzene	6.0		3.3	0.83	ug/L	3.33		8260B	Total/NA
1,3,5-Trimethylbenzene	1.6	J	3.3	1.6	ug/L	3.33		8260B	Total/NA
Cyclohexane	17		3.3	1.5	ug/L	3.33		8260B	Total/NA
Isopropylbenzene	63		3.3	1.2	ug/L	3.33		8260B	Total/NA
Methylcyclohexane	8.5		3.3	1.4	ug/L	3.33		8260B	Total/NA
Acenaphthene	0.22	J	4.8	0.042	ug/L	1		8270C	Total/NA
1,1'-Biphenyl	0.57	J	4.8	0.12	ug/L	1		8270C	Total/NA
2-Methylnaphthalene	20		4.8	0.086	ug/L	1		8270C	Total/NA
Dibenzofuran	0.22	J	3.8	0.019	ug/L	1		8270C	Total/NA
Fluorene	0.28	J	4.8	0.039	ug/L	1		8270C	Total/NA
Naphthalene	27		4.8	0.060	ug/L	1		8270C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## Client Sample ID: GW-082615-JL-14 (Continued)

## Lab Sample ID: 240-54779-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.11	J	1.9	0.059	ug/L	1		8270C	Total/NA
Arsenic	2.1	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	110		100	1.1	ug/L	1		6020	Total Recoverable
Beryllium	0.13	J	1.0	0.053	ug/L	1		6020	Total Recoverable
Cobalt	0.21	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	2.7	J B	5.0	0.20	ug/L	1		6020	Total Recoverable
Manganese	460		15	1.1	ug/L	1		6020	Total Recoverable
Nickel	0.49	J	20	0.23	ug/L	1		6020	Total Recoverable
Lead	0.16	J	3.0	0.11	ug/L	1		6020	Total Recoverable
Selenium	0.28	J B	5.0	0.25	ug/L	1		6020	Total Recoverable
Vanadium	0.87	J B	4.0	0.23	ug/L	1		6020	Total Recoverable
Arsenic	2.3	J B	5.0	0.18	ug/L	1		6020	Dissolved
Beryllium	0.11	J	1.0	0.053	ug/L	1		6020	Dissolved
Cobalt	0.19	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	2.7	J B	5.0	0.20	ug/L	1		6020	Dissolved
Manganese	480		15	1.1	ug/L	1		6020	Dissolved
Nickel	0.44	J	20	0.23	ug/L	1		6020	Dissolved
Selenium	0.38	J B	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	0.93	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	110		100	1.1	ug/L	1		6020	Dissolved
Cr (VI)	0.0062	J	0.020	0.0021	mg/L	1		7196A	Total/NA

## Client Sample ID: GW-082615-JL-15

## Lab Sample ID: 240-54779-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.46	J	1.0	0.41	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.45	J	1.0	0.31	ug/L	1		8260B	Total/NA
Arsenic	0.75	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	62	J	100	1.1	ug/L	1		6020	Total Recoverable
Beryllium	0.090	J	1.0	0.053	ug/L	1		6020	Total Recoverable
Cobalt	0.24	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	3.3	J B	5.0	0.20	ug/L	1		6020	Total Recoverable
Copper	1.3	J	2.0	0.75	ug/L	1		6020	Total Recoverable
Manganese	17		15	1.1	ug/L	1		6020	Total Recoverable
Nickel	0.90	J	20	0.23	ug/L	1		6020	Total Recoverable
Selenium	1.8	J B	5.0	0.25	ug/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## Client Sample ID: GW-082615-JL-15 (Continued)

## Lab Sample ID: 240-54779-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	1.2	J B	4.0	0.23	ug/L	1		6020	Total
Silver	0.029	J	0.20	0.020	ug/L	1		6020	Total Recoverable
Arsenic	0.67	J B	5.0	0.18	ug/L	1		6020	Dissolved
Beryllium	0.074	J	1.0	0.053	ug/L	1		6020	Dissolved
Cobalt	0.14	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	3.0	J B	5.0	0.20	ug/L	1		6020	Dissolved
Manganese	7.2	J	15	1.1	ug/L	1		6020	Dissolved
Nickel	0.62	J	20	0.23	ug/L	1		6020	Dissolved
Selenium	1.7	J B	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	1.2	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	59	J	100	1.1	ug/L	1		6020	Dissolved

## Client Sample ID: GW-082615-JL-16

## Lab Sample ID: 240-54779-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.54	J	2.0	0.16	ug/L	1		6020	Total
Arsenic	1.0	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	82	J	100	1.1	ug/L	1		6020	Total Recoverable
Beryllium	0.35	J	1.0	0.053	ug/L	1		6020	Total Recoverable
Cadmium	0.39	J	1.0	0.061	ug/L	1		6020	Total Recoverable
Cobalt	0.65	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	51	B	5.0	0.20	ug/L	1		6020	Total Recoverable
Copper	2.5		2.0	0.75	ug/L	1		6020	Total Recoverable
Manganese	3.5	J	15	1.1	ug/L	1		6020	Total Recoverable
Nickel	31		20	0.23	ug/L	1		6020	Total Recoverable
Lead	0.19	J	3.0	0.11	ug/L	1		6020	Total Recoverable
Selenium	1.1	J B	5.0	0.25	ug/L	1		6020	Total Recoverable
Thallium	0.12	J	1.0	0.074	ug/L	1		6020	Total Recoverable
Vanadium	0.90	J B	4.0	0.23	ug/L	1		6020	Total Recoverable
Arsenic	0.70	J B	5.0	0.18	ug/L	1		6020	Dissolved
Beryllium	0.17	J	1.0	0.053	ug/L	1		6020	Dissolved
Cadmium	0.25	J	1.0	0.061	ug/L	1		6020	Dissolved
Cobalt	0.25	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	3.0	J B	5.0	0.20	ug/L	1		6020	Dissolved
Nickel	10	J	20	0.23	ug/L	1		6020	Dissolved
Lead	0.13	J	3.0	0.11	ug/L	1		6020	Dissolved
Antimony	0.44	J	2.0	0.16	ug/L	1		6020	Dissolved
Selenium	0.86	J B	5.0	0.25	ug/L	1		6020	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## Client Sample ID: GW-082615-JL-16 (Continued)

## Lab Sample ID: 240-54779-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	1.4	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	80	J	100	1.1	ug/L	1		6020	Dissolved
Cr (III)	0.051		0.020	0.0050	mg/L	1		7196A	Total/NA

## Client Sample ID: GW-082615-JL-17

## Lab Sample ID: 240-54779-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Caprolactam	0.29	J	10	0.21	ug/L	1		8270C	Total/NA
Arsenic	1.1	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	70	J	100	1.1	ug/L	1		6020	Total Recoverable
Beryllium	0.074	J	1.0	0.053	ug/L	1		6020	Total Recoverable
Cobalt	1.3	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	160	B	5.0	0.20	ug/L	1		6020	Total Recoverable
Copper	5.7		2.0	0.75	ug/L	1		6020	Total Recoverable
Manganese	17		15	1.1	ug/L	1		6020	Total Recoverable
Nickel	15	J	20	0.23	ug/L	1		6020	Total Recoverable
Selenium	0.95	J B	5.0	0.25	ug/L	1		6020	Total Recoverable
Arsenic	0.70	J B	5.0	0.18	ug/L	1		6020	Dissolved
Beryllium	0.070	J	1.0	0.053	ug/L	1		6020	Dissolved
Cobalt	0.26	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	2.9	J B	5.0	0.20	ug/L	1		6020	Dissolved
Copper	0.84	J	2.0	0.75	ug/L	1		6020	Dissolved
Manganese	3.1	J	15	1.1	ug/L	1		6020	Dissolved
Nickel	8.5	J	20	0.23	ug/L	1		6020	Dissolved
Selenium	0.94	J B	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	1.3	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	64	J	100	1.1	ug/L	1		6020	Dissolved
Mercury	0.15	J	0.20	0.090	ug/L	1		7470A	Dissolved
Cr (III)	0.16		0.020	0.0050	mg/L	1		7196A	Total/NA

## Client Sample ID: GW-082615-JL-18

## Lab Sample ID: 240-54779-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.55	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	30	J	100	1.1	ug/L	1		6020	Total Recoverable
Cobalt	0.087	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	3.1	J B	5.0	0.20	ug/L	1		6020	Total Recoverable
Nickel	0.29	J	20	0.23	ug/L	1		6020	Total Recoverable
Selenium	0.59	J B	5.0	0.25	ug/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## Client Sample ID: GW-082615-JL-18 (Continued)

## Lab Sample ID: 240-54779-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	1.4	J B	4.0	0.23	ug/L	1		6020	Total Recoverable
Arsenic	0.57	J B	5.0	0.18	ug/L	1		6020	Dissolved
Beryllium	0.053	J	1.0	0.053	ug/L	1		6020	Dissolved
Cobalt	0.086	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	3.1	J B	5.0	0.20	ug/L	1		6020	Dissolved
Nickel	0.26	J	20	0.23	ug/L	1		6020	Dissolved
Selenium	0.63	J B	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	1.2	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	29	J	100	1.1	ug/L	1		6020	Dissolved

## Client Sample ID: GW-082615-JL-19

## Lab Sample ID: 240-54779-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	11	B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	93	J	100	1.1	ug/L	1		6020	Total Recoverable
Beryllium	0.065	J	1.0	0.053	ug/L	1		6020	Total Recoverable
Cadmium	0.082	J	1.0	0.061	ug/L	1		6020	Total Recoverable
Cobalt	1.4	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	2.2	J B	5.0	0.20	ug/L	1		6020	Total Recoverable
Manganese	550		15	1.1	ug/L	1		6020	Total Recoverable
Nickel	2.6	J	20	0.23	ug/L	1		6020	Total Recoverable
Selenium	0.30	J B	5.0	0.25	ug/L	1		6020	Total Recoverable
Vanadium	0.76	J B	4.0	0.23	ug/L	1		6020	Total Recoverable
Zinc	13	J	20	7.3	ug/L	1		6020	Total Recoverable
Arsenic	9.1	B	5.0	0.18	ug/L	1		6020	Dissolved
Cobalt	1.3	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	2.1	J B	5.0	0.20	ug/L	1		6020	Dissolved
Manganese	520		15	1.1	ug/L	1		6020	Dissolved
Nickel	2.4	J	20	0.23	ug/L	1		6020	Dissolved
Selenium	0.37	J B	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	0.77	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	92	J	100	1.1	ug/L	1		6020	Dissolved

## Client Sample ID: GW-082615-JL-20

## Lab Sample ID: 240-54779-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	9.5	B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	91	J	100	1.1	ug/L	1		6020	Total Recoverable
Cobalt	1.3	J	7.0	0.021	ug/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## Client Sample ID: GW-082615-JL-20 (Continued)

## Lab Sample ID: 240-54779-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	2.2	J B	5.0	0.20	ug/L	1		6020	Total Recoverable
Manganese	500		15	1.1	ug/L	1		6020	Total Recoverable
Nickel	2.4	J	20	0.23	ug/L	1		6020	Total Recoverable
Selenium	0.33	J B	5.0	0.25	ug/L	1		6020	Total Recoverable
Vanadium	0.77	J B	4.0	0.23	ug/L	1		6020	Total Recoverable
Arsenic	8.9	B	5.0	0.18	ug/L	1		6020	Dissolved
Cobalt	1.3	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	2.2	J B	5.0	0.20	ug/L	1		6020	Dissolved
Manganese	500		15	1.1	ug/L	1		6020	Dissolved
Nickel	2.4	J	20	0.23	ug/L	1		6020	Dissolved
Selenium	0.35	J B	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	0.86	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	86	J	100	1.1	ug/L	1		6020	Dissolved
Cr (VI)	0.0024	J	0.020	0.0021	mg/L	1		7196A	Total/NA

## Client Sample ID: GW-082615-JL-21

## Lab Sample ID: 240-54779-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.93	J	2.0	0.16	ug/L	1		6020	Total Recoverable
Arsenic	1.2	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	48	J	100	1.1	ug/L	1		6020	Total Recoverable
Cadmium	0.071	J	1.0	0.061	ug/L	1		6020	Total Recoverable
Cobalt	0.078	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	8.0	B	5.0	0.20	ug/L	1		6020	Total Recoverable
Copper	0.75	J	2.0	0.75	ug/L	1		6020	Total Recoverable
Manganese	24		15	1.1	ug/L	1		6020	Total Recoverable
Nickel	0.80	J	20	0.23	ug/L	1		6020	Total Recoverable
Selenium	0.69	J B	5.0	0.25	ug/L	1		6020	Total Recoverable
Vanadium	7.5	B	4.0	0.23	ug/L	1		6020	Total Recoverable
Arsenic	1.1	J B	5.0	0.18	ug/L	1		6020	Dissolved
Cobalt	0.062	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	2.4	J B	5.0	0.20	ug/L	1		6020	Dissolved
Manganese	15		15	1.1	ug/L	1		6020	Dissolved
Nickel	0.55	J	20	0.23	ug/L	1		6020	Dissolved
Antimony	0.92	J	2.0	0.16	ug/L	1		6020	Dissolved
Selenium	0.53	J B	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	7.4	B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	42	J	100	1.1	ug/L	1		6020	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Canton



# Detection Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## Client Sample ID: GW-082615-JL-21 (Continued)

## Lab Sample ID: 240-54779-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (III)	0.0080	J	0.020	0.0050	mg/L	1		7196A	Total/NA

## Client Sample ID: TRIP BLANK

## Lab Sample ID: 240-54779-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	6.4	J	10	0.94	ug/L	1		8260B	Total/NA
Methylene Chloride	1.1		1.0	0.33	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-13**

**Lab Sample ID: 240-54779-1**

**Date Collected: 08/26/15 10:35**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			08/31/15 21:41	1
Benzene	1.0	U	1.0	0.35	ug/L			08/31/15 21:41	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			08/31/15 21:41	1
Bromoform	1.0	U	1.0	0.56	ug/L			08/31/15 21:41	1
Bromomethane	1.0	U	1.0	0.44	ug/L			08/31/15 21:41	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			08/31/15 21:41	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			08/31/15 21:41	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			08/31/15 21:41	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 21:41	1
Chloroethane	1.0	U	1.0	0.32	ug/L			08/31/15 21:41	1
Chloroform	1.0	U	1.0	0.25	ug/L			08/31/15 21:41	1
Chloromethane	1.0	U	1.0	0.44	ug/L			08/31/15 21:41	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/31/15 21:41	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			08/31/15 21:41	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			08/31/15 21:41	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			08/31/15 21:41	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			08/31/15 21:41	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			08/31/15 21:41	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			08/31/15 21:41	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/31/15 21:41	1
2-Hexanone	10	U	10	0.48	ug/L			08/31/15 21:41	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			08/31/15 21:41	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			08/31/15 21:41	1
Styrene	1.0	U	1.0	0.45	ug/L			08/31/15 21:41	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			08/31/15 21:41	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			08/31/15 21:41	1
Toluene	1.0	U	1.0	0.23	ug/L			08/31/15 21:41	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			08/31/15 21:41	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			08/31/15 21:41	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			08/31/15 21:41	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			08/31/15 21:41	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			08/31/15 21:41	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			08/31/15 21:41	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			08/31/15 21:41	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			08/31/15 21:41	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			08/31/15 21:41	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			08/31/15 21:41	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			08/31/15 21:41	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/31/15 21:41	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			08/31/15 21:41	1
Methyl acetate	10	U	10	2.3	ug/L			08/31/15 21:41	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/31/15 21:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			08/31/15 21:41	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			08/31/15 21:41	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 21:41	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			08/31/15 21:41	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			08/31/15 21:41	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			08/31/15 21:41	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			08/31/15 21:41	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-13**

**Lab Sample ID: 240-54779-1**

**Date Collected: 08/26/15 10:35**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			08/31/15 21:41	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	107		78 - 125					08/31/15 21:41	1
4-Bromofluorobenzene (Surr)	74		61 - 120					08/31/15 21:41	1
Toluene-d8 (Surr)	83		80 - 120					08/31/15 21:41	1
Dibromofluoromethane (Surr)	105		79 - 120					08/31/15 21:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	4.9	U	4.9	0.043	ug/L		08/28/15 08:42	09/09/15 12:38	1
Acenaphthylene	4.9	U	4.9	0.047	ug/L		08/28/15 08:42	09/09/15 12:38	1
Acetophenone	4.9	U	4.9	0.33	ug/L		08/28/15 08:42	09/09/15 12:38	1
Anthracene	4.9	U	4.9	0.085	ug/L		08/28/15 08:42	09/09/15 12:38	1
Atrazine	2.9	U	2.9	0.33	ug/L		08/28/15 08:42	09/09/15 12:38	1
Benzaldehyde	4.9	U	4.9	0.38	ug/L		08/28/15 08:42	09/09/15 12:38	1
Benzo[a]anthracene	0.97	U	0.97	0.029	ug/L		08/28/15 08:42	09/09/15 12:38	1
Benzo[b]fluoranthene	0.97	U	0.97	0.038	ug/L		08/28/15 08:42	09/09/15 12:38	1
Benzo[k]fluoranthene	0.97	U	0.97	0.043	ug/L		08/28/15 08:42	09/09/15 12:38	1
Benzo[g,h,i]perylene	0.97	U	0.97	0.045	ug/L		08/28/15 08:42	09/09/15 12:38	1
Benzo[a]pyrene	0.97	U	0.97	0.050	ug/L		08/28/15 08:42	09/09/15 12:38	1
Butyl benzyl phthalate	4.9	U	4.9	0.25	ug/L		08/28/15 08:42	09/09/15 12:38	1
1,1'-Biphenyl	4.9	U	4.9	0.13	ug/L		08/28/15 08:42	09/09/15 12:38	1
Bis(2-chloroethoxy)methane	4.9	U	4.9	0.31	ug/L		08/28/15 08:42	09/09/15 12:38	1
Bis(2-chloroethyl)ether	0.97	U	0.97	0.097	ug/L		08/28/15 08:42	09/09/15 12:38	1
Bis(2-ethylhexyl) phthalate	4.9	U	4.9	1.7	ug/L		08/28/15 08:42	09/09/15 12:38	1
4-Bromophenyl phenyl ether	4.9	U	4.9	0.21	ug/L		08/28/15 08:42	09/09/15 12:38	1
Caprolactam	9.7	U	9.7	0.19	ug/L		08/28/15 08:42	09/09/15 12:38	1
Carbazole	9.7	U	9.7	0.27	ug/L		08/28/15 08:42	09/09/15 12:38	1
4-Chloroaniline	9.7	U	9.7	0.20	ug/L		08/28/15 08:42	09/09/15 12:38	1
4-Chloro-3-methylphenol	4.9	U	4.9	0.20	ug/L		08/28/15 08:42	09/09/15 12:38	1
2-Chloronaphthalene	4.9	U	4.9	0.097	ug/L		08/28/15 08:42	09/09/15 12:38	1
2-Chlorophenol	4.9	U	4.9	0.28	ug/L		08/28/15 08:42	09/09/15 12:38	1
4-Chlorophenyl phenyl ether	4.9	U	4.9	0.29	ug/L		08/28/15 08:42	09/09/15 12:38	1
Chrysene	0.97	U	0.97	0.049	ug/L		08/28/15 08:42	09/09/15 12:38	1
2-Methylnaphthalene	4.9	U	4.9	0.088	ug/L		08/28/15 08:42	09/09/15 12:38	1
3 & 4 Methylphenol	4.9	U	4.9	0.78	ug/L		08/28/15 08:42	09/09/15 12:38	1
Dibenz(a,h)anthracene	1.9	U	1.9	0.043	ug/L		08/28/15 08:42	09/09/15 12:38	1
Dibenzofuran	3.9	U	3.9	0.019	ug/L		08/28/15 08:42	09/09/15 12:38	1
3,3'-Dichlorobenzidine	0.97	U	0.97	0.36	ug/L		08/28/15 08:42	09/09/15 12:38	1
2,4-Dichlorophenol	9.7	U	9.7	0.18	ug/L		08/28/15 08:42	09/09/15 12:38	1
Diethyl phthalate	4.9	U	4.9	0.58	ug/L		08/28/15 08:42	09/09/15 12:38	1
2,4-Dimethylphenol	4.9	U	4.9	0.24	ug/L		08/28/15 08:42	09/09/15 12:38	1
Dimethyl phthalate	4.9	U	4.9	0.28	ug/L		08/28/15 08:42	09/09/15 12:38	1
4,6-Dinitro-2-methylphenol	19	U	19	2.3	ug/L		08/28/15 08:42	09/09/15 12:38	1
2,4-Dinitrophenol	19	U	19	0.31	ug/L		08/28/15 08:42	09/09/15 12:38	1
2,4-Dinitrotoluene	4.9	U	4.9	0.24	ug/L		08/28/15 08:42	09/09/15 12:38	1
Di-n-butyl phthalate	4.9	U	4.9	1.7	ug/L		08/28/15 08:42	09/09/15 12:38	1
Di-n-octyl phthalate	4.9	U	4.9	0.22	ug/L		08/28/15 08:42	09/09/15 12:38	1
Fluoranthene	0.97	U	0.97	0.043	ug/L		08/28/15 08:42	09/09/15 12:38	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-13**

**Lab Sample ID: 240-54779-1**

**Date Collected: 08/26/15 10:35**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.9	U	4.9	0.039	ug/L		08/28/15 08:42	09/09/15 12:38	1
Hexachlorobenzene	0.19	U	0.19	0.083	ug/L		08/28/15 08:42	09/09/15 12:38	1
Hexachlorobutadiene	0.97	U	0.97	0.26	ug/L		08/28/15 08:42	09/09/15 12:38	1
Hexachlorocyclopentadiene	4.9	U	4.9	0.23	ug/L		08/28/15 08:42	09/09/15 12:38	1
Hexachloroethane	4.9	U	4.9	0.18	ug/L		08/28/15 08:42	09/09/15 12:38	1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	0.042	ug/L		08/28/15 08:42	09/09/15 12:38	1
Isophorone	4.9	U	4.9	0.26	ug/L		08/28/15 08:42	09/09/15 12:38	1
2-Methylphenol	4.9	U	4.9	0.17	ug/L		08/28/15 08:42	09/09/15 12:38	1
Naphthalene	4.9	U	4.9	0.061	ug/L		08/28/15 08:42	09/09/15 12:38	1
2-Nitroaniline	19	U	19	0.20	ug/L		08/28/15 08:42	09/09/15 12:38	1
3-Nitroaniline	19	U	19	0.27	ug/L		08/28/15 08:42	09/09/15 12:38	1
4-Nitroaniline	19	U	19	0.21	ug/L		08/28/15 08:42	09/09/15 12:38	1
Nitrobenzene	2.9	U	2.9	0.039	ug/L		08/28/15 08:42	09/09/15 12:38	1
2-Nitrophenol	4.9	U	4.9	0.27	ug/L		08/28/15 08:42	09/09/15 12:38	1
4-Nitrophenol	19	U	19	0.28	ug/L		08/28/15 08:42	09/09/15 12:38	1
N-Nitrosodiphenylamine	4.9	U	4.9	0.30	ug/L		08/28/15 08:42	09/09/15 12:38	1
N-Nitrosodi-n-propylamine	4.9	U	4.9	0.23	ug/L		08/28/15 08:42	09/09/15 12:38	1
2,2'-oxybis[1-chloropropane]	4.9	U	4.9	0.39	ug/L		08/28/15 08:42	09/09/15 12:38	1
Pentachlorophenol	4.9	U	4.9	0.26	ug/L		08/28/15 08:42	09/09/15 12:38	1
Phenanthrene	1.9	U	1.9	0.060	ug/L		08/28/15 08:42	09/09/15 12:38	1
Phenol	4.9	U	4.9	0.58	ug/L		08/28/15 08:42	09/09/15 12:38	1
Pyrene	4.9	U	4.9	0.041	ug/L		08/28/15 08:42	09/09/15 12:38	1
2,4,5-Trichlorophenol	4.9	U	4.9	0.29	ug/L		08/28/15 08:42	09/09/15 12:38	1
2,4,6-Trichlorophenol	3.9	U	3.9	0.23	ug/L		08/28/15 08:42	09/09/15 12:38	1
2,6-Dinitrotoluene	4.9	U	4.9	0.78	ug/L		08/28/15 08:42	09/09/15 12:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	77		29 - 110	08/28/15 08:42	09/09/15 12:38	1
2-Fluorophenol (Surr)	38		15 - 110	08/28/15 08:42	09/09/15 12:38	1
2,4,6-Tribromophenol (Surr)	57		21 - 128	08/28/15 08:42	09/09/15 12:38	1
Nitrobenzene-d5 (Surr)	78		31 - 110	08/28/15 08:42	09/09/15 12:38	1
Phenol-d5 (Surr)	23		10 - 110	08/28/15 08:42	09/09/15 12:38	1
Terphenyl-d14 (Surr)	61		31 - 115	08/28/15 08:42	09/09/15 12:38	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.2	J	2.0	0.16	ug/L		08/28/15 08:17	08/31/15 20:19	1
Arsenic	0.96	J B	5.0	0.18	ug/L		08/28/15 08:17	08/31/15 20:19	1
Barium	90	J	100	1.1	ug/L		09/02/15 08:08	09/03/15 15:10	1
Beryllium	0.40	J	1.0	0.053	ug/L		09/02/15 08:08	09/03/15 15:10	1
Cadmium	0.35	J	1.0	0.061	ug/L		09/02/15 08:08	09/03/15 15:10	1
Cobalt	0.30	J	7.0	0.021	ug/L		08/28/15 08:17	08/31/15 20:19	1
Chromium	3.6	J B	5.0	0.20	ug/L		08/28/15 08:17	08/31/15 20:19	1
Copper	2.0	U	2.0	0.75	ug/L		08/28/15 08:17	08/31/15 20:19	1
Manganese	5.2	J	15	1.1	ug/L		08/28/15 08:17	08/31/15 20:19	1
Nickel	0.59	J	20	0.23	ug/L		08/28/15 08:17	08/31/15 20:19	1
Lead	0.28	J	3.0	0.11	ug/L		09/02/15 08:08	09/03/15 15:10	1
Selenium	1.1	J B	5.0	0.25	ug/L		08/28/15 08:17	08/31/15 20:19	1
Thallium	0.18	J	1.0	0.074	ug/L		08/28/15 08:17	08/31/15 20:19	1
Vanadium	1.6	J B	4.0	0.23	ug/L		08/28/15 08:17	08/31/15 20:19	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-13**

**Lab Sample ID: 240-54779-1**

**Date Collected: 08/26/15 10:35**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	7.5	J	20	7.3	ug/L		08/28/15 08:17	08/31/15 20:19	1
Silver	0.20	U	0.20	0.020	ug/L		08/28/15 08:17	08/31/15 20:19	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/28/15 08:17	08/31/15 20:23	1
Arsenic	0.72	J B	5.0	0.18	ug/L		08/28/15 08:17	08/31/15 20:23	1
Beryllium	0.22	J	1.0	0.053	ug/L		09/02/15 08:08	09/03/15 15:13	1
Cadmium	0.11	J	1.0	0.061	ug/L		09/02/15 08:08	09/03/15 15:13	1
Cobalt	0.16	J	7.0	0.021	ug/L		08/28/15 08:17	08/31/15 20:23	1
Chromium	3.3	J B	5.0	0.20	ug/L		08/28/15 08:17	08/31/15 20:23	1
Copper	2.0	U	2.0	0.75	ug/L		08/28/15 08:17	08/31/15 20:23	1
Manganese	15	U	15	1.1	ug/L		08/28/15 08:17	08/31/15 20:23	1
Nickel	0.45	J	20	0.23	ug/L		08/28/15 08:17	08/31/15 20:23	1
Lead	3.0	U	3.0	0.11	ug/L		09/02/15 08:08	09/03/15 15:13	1
Antimony	0.92	J	2.0	0.16	ug/L		08/28/15 08:17	08/31/15 20:23	1
Selenium	0.77	J B	5.0	0.25	ug/L		08/28/15 08:17	08/31/15 20:23	1
Thallium	1.0	U	1.0	0.074	ug/L		08/28/15 08:17	08/31/15 20:23	1
Vanadium	1.5	J B	4.0	0.23	ug/L		08/28/15 08:17	08/31/15 20:23	1
Zinc	20	U	20	7.3	ug/L		08/28/15 08:17	08/31/15 20:23	1
Barium	90	J	100	1.1	ug/L		09/02/15 08:08	09/03/15 15:13	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/28/15 14:00	08/31/15 15:21	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/28/15 14:00	08/31/15 15:22	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/27/15 11:11	1
Cr (III)	0.020	U	0.020	0.0050	mg/L			09/02/15 07:58	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-14**

**Lab Sample ID: 240-54779-2**

**Date Collected: 08/26/15 10:40**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	33	U	33	3.1	ug/L			08/31/15 22:03	3.33
Benzene	3.3	U	3.3	1.2	ug/L			08/31/15 22:03	3.33
Dichlorobromomethane	3.3	U	3.3	0.97	ug/L			08/31/15 22:03	3.33
Bromoform	3.3	U	3.3	1.9	ug/L			08/31/15 22:03	3.33
Bromomethane	3.3	U	3.3	1.5	ug/L			08/31/15 22:03	3.33
2-Butanone (MEK)	33	U	33	1.8	ug/L			08/31/15 22:03	3.33
Carbon disulfide	3.3	U	3.3	1.3	ug/L			08/31/15 22:03	3.33
Carbon tetrachloride	3.3	U	3.3	1.4	ug/L			08/31/15 22:03	3.33
Chlorobenzene	3.3	U	3.3	0.83	ug/L			08/31/15 22:03	3.33
Chloroethane	3.3	U	3.3	1.1	ug/L			08/31/15 22:03	3.33
Chloroform	3.3	U	3.3	0.83	ug/L			08/31/15 22:03	3.33
Chloromethane	3.3	U	3.3	1.5	ug/L			08/31/15 22:03	3.33
1,1-Dichloroethane	3.3	U	3.3	1.0	ug/L			08/31/15 22:03	3.33
1,2-Dichloroethane	3.3	U	3.3	0.77	ug/L			08/31/15 22:03	3.33
1,1-Dichloroethene	3.3	U	3.3	1.5	ug/L			08/31/15 22:03	3.33
1,2-Dichloropropane	3.3	U	3.3	0.83	ug/L			08/31/15 22:03	3.33
<b>1,2,4-Trimethylbenzene</b>	<b>2.9</b>	<b>J</b>	3.3	1.4	ug/L			08/31/15 22:03	3.33
cis-1,3-Dichloropropene	3.3	U	3.3	1.5	ug/L			08/31/15 22:03	3.33
trans-1,3-Dichloropropene	3.3	U	3.3	1.9	ug/L			08/31/15 22:03	3.33
<b>Ethylbenzene</b>	<b>6.0</b>		3.3	0.83	ug/L			08/31/15 22:03	3.33
2-Hexanone	33	U	33	1.6	ug/L			08/31/15 22:03	3.33
Methylene Chloride	3.3	U	3.3	1.1	ug/L			08/31/15 22:03	3.33
4-Methyl-2-pentanone (MIBK)	33	U	33	3.3	ug/L			08/31/15 22:03	3.33
Styrene	3.3	U	3.3	1.5	ug/L			08/31/15 22:03	3.33
1,1,2,2-Tetrachloroethane	3.3	U	3.3	0.73	ug/L			08/31/15 22:03	3.33
Tetrachloroethene	3.3	U	3.3	1.0	ug/L			08/31/15 22:03	3.33
Toluene	3.3	U	3.3	0.77	ug/L			08/31/15 22:03	3.33
Trichloroethene	3.3	U	3.3	0.73	ug/L			08/31/15 22:03	3.33
<b>1,3,5-Trimethylbenzene</b>	<b>1.6</b>	<b>J</b>	3.3	1.6	ug/L			08/31/15 22:03	3.33
Vinyl chloride	3.3	U	3.3	0.97	ug/L			08/31/15 22:03	3.33
Xylenes, Total	6.7	U	6.7	1.7	ug/L			08/31/15 22:03	3.33
1,1,1-Trichloroethane	3.3	U	3.3	1.5	ug/L			08/31/15 22:03	3.33
1,1,2-Trichloroethane	3.3	U	3.3	0.80	ug/L			08/31/15 22:03	3.33
<b>Cyclohexane</b>	<b>17</b>		3.3	1.5	ug/L			08/31/15 22:03	3.33
1,2-Dibromo-3-Chloropropane	6.7	U	6.7	2.7	ug/L			08/31/15 22:03	3.33
Ethylene Dibromide	3.3	U	3.3	1.1	ug/L			08/31/15 22:03	3.33
Dichlorodifluoromethane	3.3	U	3.3	1.1	ug/L			08/31/15 22:03	3.33
cis-1,2-Dichloroethene	3.3	U	3.3	0.87	ug/L			08/31/15 22:03	3.33
trans-1,2-Dichloroethene	3.3	U	3.3	1.0	ug/L			08/31/15 22:03	3.33
<b>Isopropylbenzene</b>	<b>63</b>		3.3	1.2	ug/L			08/31/15 22:03	3.33
Methyl acetate	33	U	33	7.6	ug/L			08/31/15 22:03	3.33
Methyl tert-butyl ether	3.3	U	3.3	0.67	ug/L			08/31/15 22:03	3.33
1,1,2-Trichloro-1,2,2-trifluoroethane	3.3	U	3.3	1.5	ug/L			08/31/15 22:03	3.33
1,2,4-Trichlorobenzene	3.3	U	3.3	1.1	ug/L			08/31/15 22:03	3.33
1,2-Dichlorobenzene	3.3	U	3.3	0.83	ug/L			08/31/15 22:03	3.33
1,3-Dichlorobenzene	3.3	U	3.3	0.63	ug/L			08/31/15 22:03	3.33
1,4-Dichlorobenzene	3.3	U	3.3	0.90	ug/L			08/31/15 22:03	3.33
Trichlorofluoromethane	3.3	U	3.3	1.6	ug/L			08/31/15 22:03	3.33
Chlorodibromomethane	3.3	U	3.3	1.4	ug/L			08/31/15 22:03	3.33

TestAmerica Canton



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-14**

**Lab Sample ID: 240-54779-2**

**Date Collected: 08/26/15 10:40**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Methylcyclohexane</b>	<b>8.5</b>		3.3	1.4	ug/L			08/31/15 22:03	3.33
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	99		78 - 125					08/31/15 22:03	3.33
4-Bromofluorobenzene (Surr)	102		61 - 120					08/31/15 22:03	3.33
Toluene-d8 (Surr)	91		80 - 120					08/31/15 22:03	3.33
Dibromofluoromethane (Surr)	93		79 - 120					08/31/15 22:03	3.33

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acenaphthene</b>	<b>0.22</b>	<b>J</b>	4.8	0.042	ug/L		08/28/15 08:42	09/09/15 13:03	1
Acenaphthylene	4.8	U	4.8	0.046	ug/L		08/28/15 08:42	09/09/15 13:03	1
Acetophenone	4.8	U	4.8	0.32	ug/L		08/28/15 08:42	09/09/15 13:03	1
Anthracene	4.8	U	4.8	0.084	ug/L		08/28/15 08:42	09/09/15 13:03	1
Atrazine	2.9	U	2.9	0.32	ug/L		08/28/15 08:42	09/09/15 13:03	1
Benzaldehyde	4.8	U	4.8	0.37	ug/L		08/28/15 08:42	09/09/15 13:03	1
Benzo[a]anthracene	0.95	U	0.95	0.028	ug/L		08/28/15 08:42	09/09/15 13:03	1
Benzo[b]fluoranthene	0.95	U	0.95	0.038	ug/L		08/28/15 08:42	09/09/15 13:03	1
Benzo[k]fluoranthene	0.95	U	0.95	0.043	ug/L		08/28/15 08:42	09/09/15 13:03	1
Benzo[g,h,i]perylene	0.95	U	0.95	0.044	ug/L		08/28/15 08:42	09/09/15 13:03	1
Benzo[a]pyrene	0.95	U	0.95	0.049	ug/L		08/28/15 08:42	09/09/15 13:03	1
Butyl benzyl phthalate	4.8	U	4.8	0.25	ug/L		08/28/15 08:42	09/09/15 13:03	1
<b>1,1'-Biphenyl</b>	<b>0.57</b>	<b>J</b>	4.8	0.12	ug/L		08/28/15 08:42	09/09/15 13:03	1
Bis(2-chloroethoxy)methane	4.8	U	4.8	0.30	ug/L		08/28/15 08:42	09/09/15 13:03	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.095	ug/L		08/28/15 08:42	09/09/15 13:03	1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8	1.6	ug/L		08/28/15 08:42	09/09/15 13:03	1
4-Bromophenyl phenyl ether	4.8	U	4.8	0.21	ug/L		08/28/15 08:42	09/09/15 13:03	1
Caprolactam	9.5	U	9.5	0.19	ug/L		08/28/15 08:42	09/09/15 13:03	1
Carbazole	9.5	U	9.5	0.27	ug/L		08/28/15 08:42	09/09/15 13:03	1
4-Chloroaniline	9.5	U	9.5	0.20	ug/L		08/28/15 08:42	09/09/15 13:03	1
4-Chloro-3-methylphenol	4.8	U	4.8	0.20	ug/L		08/28/15 08:42	09/09/15 13:03	1
2-Chloronaphthalene	4.8	U	4.8	0.095	ug/L		08/28/15 08:42	09/09/15 13:03	1
2-Chlorophenol	4.8	U	4.8	0.28	ug/L		08/28/15 08:42	09/09/15 13:03	1
4-Chlorophenyl phenyl ether	4.8	U	4.8	0.29	ug/L		08/28/15 08:42	09/09/15 13:03	1
Chrysene	0.95	U	0.95	0.048	ug/L		08/28/15 08:42	09/09/15 13:03	1
<b>2-Methylnaphthalene</b>	<b>20</b>		4.8	0.086	ug/L		08/28/15 08:42	09/09/15 13:03	1
3 & 4 Methylphenol	4.8	U	4.8	0.76	ug/L		08/28/15 08:42	09/09/15 13:03	1
Dibenz(a,h)anthracene	1.9	U	1.9	0.042	ug/L		08/28/15 08:42	09/09/15 13:03	1
<b>Dibenzofuran</b>	<b>0.22</b>	<b>J</b>	3.8	0.019	ug/L		08/28/15 08:42	09/09/15 13:03	1
3,3'-Dichlorobenzidine	0.95	U	0.95	0.35	ug/L		08/28/15 08:42	09/09/15 13:03	1
2,4-Dichlorophenol	9.5	U	9.5	0.18	ug/L		08/28/15 08:42	09/09/15 13:03	1
Diethyl phthalate	4.8	U	4.8	0.57	ug/L		08/28/15 08:42	09/09/15 13:03	1
2,4-Dimethylphenol	4.8	U	4.8	0.24	ug/L		08/28/15 08:42	09/09/15 13:03	1
Dimethyl phthalate	4.8	U	4.8	0.28	ug/L		08/28/15 08:42	09/09/15 13:03	1
4,6-Dinitro-2-methylphenol	19	U	19	2.3	ug/L		08/28/15 08:42	09/09/15 13:03	1
2,4-Dinitrophenol	19	U	19	0.30	ug/L		08/28/15 08:42	09/09/15 13:03	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		08/28/15 08:42	09/09/15 13:03	1
Di-n-butyl phthalate	4.8	U	4.8	1.6	ug/L		08/28/15 08:42	09/09/15 13:03	1
Di-n-octyl phthalate	4.8	U	4.8	0.22	ug/L		08/28/15 08:42	09/09/15 13:03	1
Fluoranthene	0.95	U	0.95	0.042	ug/L		08/28/15 08:42	09/09/15 13:03	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-14**

**Lab Sample ID: 240-54779-2**

**Date Collected: 08/26/15 10:40**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Fluorene</b>	<b>0.28</b>	<b>J</b>	4.8	0.039	ug/L		08/28/15 08:42	09/09/15 13:03	1
Hexachlorobenzene	0.19	U	0.19	0.081	ug/L		08/28/15 08:42	09/09/15 13:03	1
Hexachlorobutadiene	0.95	U	0.95	0.26	ug/L		08/28/15 08:42	09/09/15 13:03	1
Hexachlorocyclopentadiene	4.8	U	4.8	0.23	ug/L		08/28/15 08:42	09/09/15 13:03	1
Hexachloroethane	4.8	U	4.8	0.18	ug/L		08/28/15 08:42	09/09/15 13:03	1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	0.041	ug/L		08/28/15 08:42	09/09/15 13:03	1
Isophorone	4.8	U	4.8	0.26	ug/L		08/28/15 08:42	09/09/15 13:03	1
2-Methylphenol	4.8	U	4.8	0.16	ug/L		08/28/15 08:42	09/09/15 13:03	1
<b>Naphthalene</b>	<b>27</b>		4.8	0.060	ug/L		08/28/15 08:42	09/09/15 13:03	1
2-Nitroaniline	19	U	19	0.20	ug/L		08/28/15 08:42	09/09/15 13:03	1
3-Nitroaniline	19	U	19	0.27	ug/L		08/28/15 08:42	09/09/15 13:03	1
4-Nitroaniline	19	U	19	0.21	ug/L		08/28/15 08:42	09/09/15 13:03	1
Nitrobenzene	2.9	U	2.9	0.038	ug/L		08/28/15 08:42	09/09/15 13:03	1
2-Nitrophenol	4.8	U	4.8	0.27	ug/L		08/28/15 08:42	09/09/15 13:03	1
4-Nitrophenol	19	U	19	0.28	ug/L		08/28/15 08:42	09/09/15 13:03	1
N-Nitrosodiphenylamine	4.8	U	4.8	0.30	ug/L		08/28/15 08:42	09/09/15 13:03	1
N-Nitrosodi-n-propylamine	4.8	U	4.8	0.23	ug/L		08/28/15 08:42	09/09/15 13:03	1
2,2'-oxybis[1-chloropropane]	4.8	U	4.8	0.38	ug/L		08/28/15 08:42	09/09/15 13:03	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		08/28/15 08:42	09/09/15 13:03	1
<b>Phenanthrene</b>	<b>0.11</b>	<b>J</b>	1.9	0.059	ug/L		08/28/15 08:42	09/09/15 13:03	1
Phenol	4.8	U	4.8	0.57	ug/L		08/28/15 08:42	09/09/15 13:03	1
Pyrene	4.8	U	4.8	0.040	ug/L		08/28/15 08:42	09/09/15 13:03	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		08/28/15 08:42	09/09/15 13:03	1
2,4,6-Trichlorophenol	3.8	U	3.8	0.23	ug/L		08/28/15 08:42	09/09/15 13:03	1
2,6-Dinitrotoluene	4.8	U	4.8	0.76	ug/L		08/28/15 08:42	09/09/15 13:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	82		29 - 110	08/28/15 08:42	09/09/15 13:03	1
2-Fluorophenol (Surr)	36		15 - 110	08/28/15 08:42	09/09/15 13:03	1
2,4,6-Tribromophenol (Surr)	74		21 - 128	08/28/15 08:42	09/09/15 13:03	1
Nitrobenzene-d5 (Surr)	76		31 - 110	08/28/15 08:42	09/09/15 13:03	1
Phenol-d5 (Surr)	19		10 - 110	08/28/15 08:42	09/09/15 13:03	1
Terphenyl-d14 (Surr)	57		31 - 115	08/28/15 08:42	09/09/15 13:03	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/28/15 08:17	08/31/15 20:26	1
<b>Arsenic</b>	<b>2.1</b>	<b>J B</b>	5.0	0.18	ug/L		08/28/15 08:17	08/31/15 20:26	1
<b>Barium</b>	<b>110</b>		100	1.1	ug/L		09/02/15 08:08	09/03/15 15:24	1
<b>Beryllium</b>	<b>0.13</b>	<b>J</b>	1.0	0.053	ug/L		09/02/15 08:08	09/03/15 15:24	1
Cadmium	1.0	U	1.0	0.061	ug/L		09/02/15 08:08	09/03/15 15:24	1
<b>Cobalt</b>	<b>0.21</b>	<b>J</b>	7.0	0.021	ug/L		08/28/15 08:17	08/31/15 20:26	1
<b>Chromium</b>	<b>2.7</b>	<b>J B</b>	5.0	0.20	ug/L		08/28/15 08:17	08/31/15 20:26	1
Copper	2.0	U	2.0	0.75	ug/L		08/28/15 08:17	08/31/15 20:26	1
<b>Manganese</b>	<b>460</b>		15	1.1	ug/L		08/28/15 08:17	08/31/15 20:26	1
<b>Nickel</b>	<b>0.49</b>	<b>J</b>	20	0.23	ug/L		08/28/15 08:17	08/31/15 20:26	1
<b>Lead</b>	<b>0.16</b>	<b>J</b>	3.0	0.11	ug/L		09/02/15 08:08	09/03/15 15:24	1
<b>Selenium</b>	<b>0.28</b>	<b>J B</b>	5.0	0.25	ug/L		08/28/15 08:17	08/31/15 20:26	1
Thallium	1.0	U	1.0	0.074	ug/L		08/28/15 08:17	08/31/15 20:26	1
<b>Vanadium</b>	<b>0.87</b>	<b>J B</b>	4.0	0.23	ug/L		08/28/15 08:17	08/31/15 20:26	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-14**

**Lab Sample ID: 240-54779-2**

**Date Collected: 08/26/15 10:40**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/28/15 08:17	08/31/15 20:26	1
Silver	0.20	U	0.20	0.020	ug/L		08/28/15 08:17	08/31/15 20:26	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/28/15 08:17	08/31/15 20:30	1
<b>Arsenic</b>	<b>2.3</b>	<b>J B</b>	5.0	0.18	ug/L		08/28/15 08:17	08/31/15 20:30	1
<b>Beryllium</b>	<b>0.11</b>	<b>J</b>	1.0	0.053	ug/L		09/02/15 08:08	09/03/15 15:28	1
Cadmium	1.0	U	1.0	0.061	ug/L		09/02/15 08:08	09/03/15 15:28	1
<b>Cobalt</b>	<b>0.19</b>	<b>J</b>	7.0	0.021	ug/L		08/28/15 08:17	08/31/15 20:30	1
<b>Chromium</b>	<b>2.7</b>	<b>J B</b>	5.0	0.20	ug/L		08/28/15 08:17	08/31/15 20:30	1
Copper	2.0	U	2.0	0.75	ug/L		08/28/15 08:17	08/31/15 20:30	1
<b>Manganese</b>	<b>480</b>		15	1.1	ug/L		08/28/15 08:17	08/31/15 20:30	1
<b>Nickel</b>	<b>0.44</b>	<b>J</b>	20	0.23	ug/L		08/28/15 08:17	08/31/15 20:30	1
Lead	3.0	U	3.0	0.11	ug/L		09/02/15 08:08	09/03/15 15:28	1
Antimony	2.0	U	2.0	0.16	ug/L		08/28/15 08:17	08/31/15 20:30	1
<b>Selenium</b>	<b>0.38</b>	<b>J B</b>	5.0	0.25	ug/L		08/28/15 08:17	08/31/15 20:30	1
Thallium	1.0	U	1.0	0.074	ug/L		08/28/15 08:17	08/31/15 20:30	1
<b>Vanadium</b>	<b>0.93</b>	<b>J B</b>	4.0	0.23	ug/L		08/28/15 08:17	08/31/15 20:30	1
Zinc	20	U	20	7.3	ug/L		08/28/15 08:17	08/31/15 20:30	1
<b>Barium</b>	<b>110</b>		100	1.1	ug/L		09/02/15 08:08	09/03/15 15:28	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/28/15 14:00	08/31/15 15:50	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/28/15 14:00	09/01/15 11:47	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Cr (VI)</b>	<b>0.0062</b>	<b>J</b>	0.020	0.0021	mg/L			08/27/15 11:12	1
Cr (III)	0.020	U	0.020	0.0050	mg/L			09/02/15 07:58	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-15**

**Lab Sample ID: 240-54779-3**

**Date Collected: 08/26/15 11:25**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			08/31/15 22:26	1
Benzene	1.0	U	1.0	0.35	ug/L			08/31/15 22:26	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			08/31/15 22:26	1
Bromoform	1.0	U	1.0	0.56	ug/L			08/31/15 22:26	1
Bromomethane	1.0	U	1.0	0.44	ug/L			08/31/15 22:26	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			08/31/15 22:26	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			08/31/15 22:26	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			08/31/15 22:26	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 22:26	1
Chloroethane	1.0	U	1.0	0.32	ug/L			08/31/15 22:26	1
Chloroform	1.0	U	1.0	0.25	ug/L			08/31/15 22:26	1
Chloromethane	1.0	U	1.0	0.44	ug/L			08/31/15 22:26	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/31/15 22:26	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			08/31/15 22:26	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			08/31/15 22:26	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			08/31/15 22:26	1
<b>1,2,4-Trimethylbenzene</b>	<b>0.46</b>	<b>J</b>	1.0	0.41	ug/L			08/31/15 22:26	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			08/31/15 22:26	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			08/31/15 22:26	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/31/15 22:26	1
2-Hexanone	10	U	10	0.48	ug/L			08/31/15 22:26	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			08/31/15 22:26	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			08/31/15 22:26	1
Styrene	1.0	U	1.0	0.45	ug/L			08/31/15 22:26	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			08/31/15 22:26	1
<b>Tetrachloroethene</b>	<b>0.45</b>	<b>J</b>	1.0	0.31	ug/L			08/31/15 22:26	1
Toluene	1.0	U	1.0	0.23	ug/L			08/31/15 22:26	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			08/31/15 22:26	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			08/31/15 22:26	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			08/31/15 22:26	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			08/31/15 22:26	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			08/31/15 22:26	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			08/31/15 22:26	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			08/31/15 22:26	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			08/31/15 22:26	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			08/31/15 22:26	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			08/31/15 22:26	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			08/31/15 22:26	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/31/15 22:26	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			08/31/15 22:26	1
Methyl acetate	10	U	10	2.3	ug/L			08/31/15 22:26	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/31/15 22:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			08/31/15 22:26	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			08/31/15 22:26	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 22:26	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			08/31/15 22:26	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			08/31/15 22:26	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			08/31/15 22:26	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			08/31/15 22:26	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-15**

**Lab Sample ID: 240-54779-3**

**Date Collected: 08/26/15 11:25**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			08/31/15 22:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		78 - 125					08/31/15 22:26	1
4-Bromofluorobenzene (Surr)	76		61 - 120					08/31/15 22:26	1
Toluene-d8 (Surr)	85		80 - 120					08/31/15 22:26	1
Dibromofluoromethane (Surr)	99		79 - 120					08/31/15 22:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	5.3	U	5.3	0.047	ug/L		08/28/15 08:42	09/09/15 13:27	1
Acenaphthylene	5.3	U	5.3	0.051	ug/L		08/28/15 08:42	09/09/15 13:27	1
Acetophenone	5.3	U	5.3	0.36	ug/L		08/28/15 08:42	09/09/15 13:27	1
Anthracene	5.3	U	5.3	0.093	ug/L		08/28/15 08:42	09/09/15 13:27	1
Atrazine	3.2	U	3.2	0.36	ug/L		08/28/15 08:42	09/09/15 13:27	1
Benzaldehyde	5.3	U	5.3	0.41	ug/L		08/28/15 08:42	09/09/15 13:27	1
Benzo[a]anthracene	1.1	U	1.1	0.031	ug/L		08/28/15 08:42	09/09/15 13:27	1
Benzo[b]fluoranthene	1.1	U	1.1	0.041	ug/L		08/28/15 08:42	09/09/15 13:27	1
Benzo[k]fluoranthene	1.1	U	1.1	0.047	ug/L		08/28/15 08:42	09/09/15 13:27	1
Benzo[g,h,i]perylene	1.1	U	1.1	0.049	ug/L		08/28/15 08:42	09/09/15 13:27	1
Benzo[a]pyrene	1.1	U	1.1	0.054	ug/L		08/28/15 08:42	09/09/15 13:27	1
Butyl benzyl phthalate	5.3	U	5.3	0.27	ug/L		08/28/15 08:42	09/09/15 13:27	1
1,1'-Biphenyl	5.3	U	5.3	0.14	ug/L		08/28/15 08:42	09/09/15 13:27	1
Bis(2-chloroethoxy)methane	5.3	U	5.3	0.34	ug/L		08/28/15 08:42	09/09/15 13:27	1
Bis(2-chloroethyl)ether	1.1	U	1.1	0.11	ug/L		08/28/15 08:42	09/09/15 13:27	1
Bis(2-ethylhexyl) phthalate	5.3	U	5.3	1.8	ug/L		08/28/15 08:42	09/09/15 13:27	1
4-Bromophenyl phenyl ether	5.3	U	5.3	0.23	ug/L		08/28/15 08:42	09/09/15 13:27	1
Caprolactam	11	U	11	0.21	ug/L		08/28/15 08:42	09/09/15 13:27	1
Carbazole	11	U	11	0.29	ug/L		08/28/15 08:42	09/09/15 13:27	1
4-Chloroaniline	11	U	11	0.22	ug/L		08/28/15 08:42	09/09/15 13:27	1
4-Chloro-3-methylphenol	5.3	U	5.3	0.22	ug/L		08/28/15 08:42	09/09/15 13:27	1
2-Chloronaphthalene	5.3	U	5.3	0.11	ug/L		08/28/15 08:42	09/09/15 13:27	1
2-Chlorophenol	5.3	U	5.3	0.31	ug/L		08/28/15 08:42	09/09/15 13:27	1
4-Chlorophenyl phenyl ether	5.3	U	5.3	0.32	ug/L		08/28/15 08:42	09/09/15 13:27	1
Chrysene	1.1	U	1.1	0.053	ug/L		08/28/15 08:42	09/09/15 13:27	1
2-Methylnaphthalene	5.3	U	5.3	0.095	ug/L		08/28/15 08:42	09/09/15 13:27	1
3 & 4 Methylphenol	5.3	U	5.3	0.84	ug/L		08/28/15 08:42	09/09/15 13:27	1
Dibenz(a,h)anthracene	2.1	U	2.1	0.047	ug/L		08/28/15 08:42	09/09/15 13:27	1
Dibenzofuran	4.2	U	4.2	0.021	ug/L		08/28/15 08:42	09/09/15 13:27	1
3,3'-Dichlorobenzidine	1.1	U	1.1	0.39	ug/L		08/28/15 08:42	09/09/15 13:27	1
2,4-Dichlorophenol	11	U	11	0.20	ug/L		08/28/15 08:42	09/09/15 13:27	1
Diethyl phthalate	5.3	U	5.3	0.63	ug/L		08/28/15 08:42	09/09/15 13:27	1
2,4-Dimethylphenol	5.3	U	5.3	0.26	ug/L		08/28/15 08:42	09/09/15 13:27	1
Dimethyl phthalate	5.3	U	5.3	0.31	ug/L		08/28/15 08:42	09/09/15 13:27	1
4,6-Dinitro-2-methylphenol	21	U	21	2.5	ug/L		08/28/15 08:42	09/09/15 13:27	1
2,4-Dinitrophenol	21	U	21	0.34	ug/L		08/28/15 08:42	09/09/15 13:27	1
2,4-Dinitrotoluene	5.3	U	5.3	0.26	ug/L		08/28/15 08:42	09/09/15 13:27	1
Di-n-butyl phthalate	5.3	U	5.3	1.8	ug/L		08/28/15 08:42	09/09/15 13:27	1
Di-n-octyl phthalate	5.3	U	5.3	0.24	ug/L		08/28/15 08:42	09/09/15 13:27	1
Fluoranthene	1.1	U	1.1	0.047	ug/L		08/28/15 08:42	09/09/15 13:27	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-15**

**Lab Sample ID: 240-54779-3**

**Date Collected: 08/26/15 11:25**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	5.3	U	5.3	0.043	ug/L		08/28/15 08:42	09/09/15 13:27	1
Hexachlorobenzene	0.21	U	0.21	0.090	ug/L		08/28/15 08:42	09/09/15 13:27	1
Hexachlorobutadiene	1.1	U	1.1	0.28	ug/L		08/28/15 08:42	09/09/15 13:27	1
Hexachlorocyclopentadiene	5.3	U	5.3	0.25	ug/L		08/28/15 08:42	09/09/15 13:27	1
Hexachloroethane	5.3	U	5.3	0.20	ug/L		08/28/15 08:42	09/09/15 13:27	1
Indeno[1,2,3-cd]pyrene	2.1	U	2.1	0.046	ug/L		08/28/15 08:42	09/09/15 13:27	1
Isophorone	5.3	U	5.3	0.28	ug/L		08/28/15 08:42	09/09/15 13:27	1
2-Methylphenol	5.3	U	5.3	0.18	ug/L		08/28/15 08:42	09/09/15 13:27	1
Naphthalene	5.3	U	5.3	0.066	ug/L		08/28/15 08:42	09/09/15 13:27	1
2-Nitroaniline	21	U	21	0.22	ug/L		08/28/15 08:42	09/09/15 13:27	1
3-Nitroaniline	21	U	21	0.29	ug/L		08/28/15 08:42	09/09/15 13:27	1
4-Nitroaniline	21	U	21	0.23	ug/L		08/28/15 08:42	09/09/15 13:27	1
Nitrobenzene	3.2	U	3.2	0.042	ug/L		08/28/15 08:42	09/09/15 13:27	1
2-Nitrophenol	5.3	U	5.3	0.29	ug/L		08/28/15 08:42	09/09/15 13:27	1
4-Nitrophenol	21	U	21	0.31	ug/L		08/28/15 08:42	09/09/15 13:27	1
N-Nitrosodiphenylamine	5.3	U	5.3	0.33	ug/L		08/28/15 08:42	09/09/15 13:27	1
N-Nitrosodi-n-propylamine	5.3	U	5.3	0.25	ug/L		08/28/15 08:42	09/09/15 13:27	1
2,2'-oxybis[1-chloropropane]	5.3	U	5.3	0.42	ug/L		08/28/15 08:42	09/09/15 13:27	1
Pentachlorophenol	5.3	U	5.3	0.28	ug/L		08/28/15 08:42	09/09/15 13:27	1
Phenanthrene	2.1	U	2.1	0.065	ug/L		08/28/15 08:42	09/09/15 13:27	1
Phenol	5.3	U	5.3	0.63	ug/L		08/28/15 08:42	09/09/15 13:27	1
Pyrene	5.3	U	5.3	0.044	ug/L		08/28/15 08:42	09/09/15 13:27	1
2,4,5-Trichlorophenol	5.3	U	5.3	0.32	ug/L		08/28/15 08:42	09/09/15 13:27	1
2,4,6-Trichlorophenol	4.2	U	4.2	0.25	ug/L		08/28/15 08:42	09/09/15 13:27	1
2,6-Dinitrotoluene	5.3	U	5.3	0.84	ug/L		08/28/15 08:42	09/09/15 13:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	69		29 - 110	08/28/15 08:42	09/09/15 13:27	1
2-Fluorophenol (Surr)	31		15 - 110	08/28/15 08:42	09/09/15 13:27	1
2,4,6-Tribromophenol (Surr)	59		21 - 128	08/28/15 08:42	09/09/15 13:27	1
Nitrobenzene-d5 (Surr)	67		31 - 110	08/28/15 08:42	09/09/15 13:27	1
Phenol-d5 (Surr)	18		10 - 110	08/28/15 08:42	09/09/15 13:27	1
Terphenyl-d14 (Surr)	69		31 - 115	08/28/15 08:42	09/09/15 13:27	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/28/15 08:17	08/31/15 20:34	1
<b>Arsenic</b>	<b>0.75</b>	<b>J B</b>	5.0	0.18	ug/L		08/28/15 08:17	08/31/15 20:34	1
<b>Barium</b>	<b>62</b>	<b>J</b>	100	1.1	ug/L		09/02/15 08:08	09/03/15 15:32	1
<b>Beryllium</b>	<b>0.090</b>	<b>J</b>	1.0	0.053	ug/L		09/02/15 08:08	09/03/15 15:32	1
Cadmium	1.0	U	1.0	0.061	ug/L		09/02/15 08:08	09/03/15 15:32	1
<b>Cobalt</b>	<b>0.24</b>	<b>J</b>	7.0	0.021	ug/L		08/28/15 08:17	08/31/15 20:34	1
<b>Chromium</b>	<b>3.3</b>	<b>J B</b>	5.0	0.20	ug/L		08/28/15 08:17	08/31/15 20:34	1
<b>Copper</b>	<b>1.3</b>	<b>J</b>	2.0	0.75	ug/L		08/28/15 08:17	08/31/15 20:34	1
<b>Manganese</b>	<b>17</b>		15	1.1	ug/L		08/28/15 08:17	08/31/15 20:34	1
<b>Nickel</b>	<b>0.90</b>	<b>J</b>	20	0.23	ug/L		08/28/15 08:17	08/31/15 20:34	1
Lead	3.0	U	3.0	0.11	ug/L		09/02/15 08:08	09/03/15 15:32	1
<b>Selenium</b>	<b>1.8</b>	<b>J B</b>	5.0	0.25	ug/L		08/28/15 08:17	08/31/15 20:34	1
Thallium	1.0	U	1.0	0.074	ug/L		08/28/15 08:17	08/31/15 20:34	1
<b>Vanadium</b>	<b>1.2</b>	<b>J B</b>	4.0	0.23	ug/L		08/28/15 08:17	08/31/15 20:34	1

TestAmerica Canton



# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-15**

**Lab Sample ID: 240-54779-3**

Date Collected: 08/26/15 11:25

Matrix: Water

Date Received: 08/27/15 09:10

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/28/15 08:17	08/31/15 20:34	1
<b>Silver</b>	<b>0.029</b>	<b>J</b>	0.20	0.020	ug/L		08/28/15 08:17	08/31/15 20:34	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/28/15 08:17	08/31/15 20:37	1
<b>Arsenic</b>	<b>0.67</b>	<b>J B</b>	5.0	0.18	ug/L		08/28/15 08:17	08/31/15 20:37	1
<b>Beryllium</b>	<b>0.074</b>	<b>J</b>	1.0	0.053	ug/L		09/02/15 08:08	09/03/15 15:35	1
Cadmium	1.0	U	1.0	0.061	ug/L		09/02/15 08:08	09/03/15 15:35	1
<b>Cobalt</b>	<b>0.14</b>	<b>J</b>	7.0	0.021	ug/L		08/28/15 08:17	08/31/15 20:37	1
<b>Chromium</b>	<b>3.0</b>	<b>J B</b>	5.0	0.20	ug/L		08/28/15 08:17	08/31/15 20:37	1
Copper	2.0	U	2.0	0.75	ug/L		08/28/15 08:17	08/31/15 20:37	1
<b>Manganese</b>	<b>7.2</b>	<b>J</b>	15	1.1	ug/L		08/28/15 08:17	08/31/15 20:37	1
<b>Nickel</b>	<b>0.62</b>	<b>J</b>	20	0.23	ug/L		08/28/15 08:17	08/31/15 20:37	1
Lead	3.0	U	3.0	0.11	ug/L		09/02/15 08:08	09/03/15 15:35	1
Antimony	2.0	U	2.0	0.16	ug/L		08/28/15 08:17	08/31/15 20:37	1
<b>Selenium</b>	<b>1.7</b>	<b>J B</b>	5.0	0.25	ug/L		08/28/15 08:17	08/31/15 20:37	1
Thallium	1.0	U	1.0	0.074	ug/L		08/28/15 08:17	08/31/15 20:37	1
<b>Vanadium</b>	<b>1.2</b>	<b>J B</b>	4.0	0.23	ug/L		08/28/15 08:17	08/31/15 20:37	1
Zinc	20	U	20	7.3	ug/L		08/28/15 08:17	08/31/15 20:37	1
<b>Barium</b>	<b>59</b>	<b>J</b>	100	1.1	ug/L		09/02/15 08:08	09/03/15 15:35	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/28/15 14:00	08/31/15 15:44	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/28/15 14:00	08/31/15 15:47	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/27/15 11:13	1
Cr (III)	0.020	U	0.020	0.0050	mg/L			09/02/15 07:58	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-16**

**Lab Sample ID: 240-54779-4**

**Date Collected: 08/26/15 12:00**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/01/15 00:39	1
Benzene	1.0	U	1.0	0.35	ug/L			09/01/15 00:39	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/01/15 00:39	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/01/15 00:39	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/01/15 00:39	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/01/15 00:39	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/01/15 00:39	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/01/15 00:39	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/01/15 00:39	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/01/15 00:39	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/01/15 00:39	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/01/15 00:39	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/01/15 00:39	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/01/15 00:39	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/01/15 00:39	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/01/15 00:39	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/01/15 00:39	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/01/15 00:39	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/01/15 00:39	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/01/15 00:39	1
2-Hexanone	10	U	10	0.48	ug/L			09/01/15 00:39	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/01/15 00:39	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/01/15 00:39	1
Styrene	1.0	U	1.0	0.45	ug/L			09/01/15 00:39	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/01/15 00:39	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/01/15 00:39	1
Toluene	1.0	U	1.0	0.23	ug/L			09/01/15 00:39	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/01/15 00:39	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/01/15 00:39	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/01/15 00:39	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/01/15 00:39	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/01/15 00:39	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/01/15 00:39	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/01/15 00:39	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/01/15 00:39	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/01/15 00:39	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/01/15 00:39	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/01/15 00:39	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/01/15 00:39	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/01/15 00:39	1
Methyl acetate	10	U	10	2.3	ug/L			09/01/15 00:39	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/01/15 00:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/01/15 00:39	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/01/15 00:39	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/01/15 00:39	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/01/15 00:39	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/01/15 00:39	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/01/15 00:39	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/01/15 00:39	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-16**

**Lab Sample ID: 240-54779-4**

**Date Collected: 08/26/15 12:00**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/01/15 00:39	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	108		78 - 125					09/01/15 00:39	1
4-Bromofluorobenzene (Surr)	71		61 - 120					09/01/15 00:39	1
Toluene-d8 (Surr)	81		80 - 120					09/01/15 00:39	1
Dibromofluoromethane (Surr)	106		79 - 120					09/01/15 00:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	5.0	U	5.0	0.044	ug/L		08/28/15 08:42	09/09/15 13:52	1
Acenaphthylene	5.0	U	5.0	0.048	ug/L		08/28/15 08:42	09/09/15 13:52	1
Acetophenone	5.0	U	5.0	0.34	ug/L		08/28/15 08:42	09/09/15 13:52	1
Anthracene	5.0	U	5.0	0.087	ug/L		08/28/15 08:42	09/09/15 13:52	1
Atrazine	3.0	U	3.0	0.34	ug/L		08/28/15 08:42	09/09/15 13:52	1
Benzaldehyde	5.0	U	5.0	0.39	ug/L		08/28/15 08:42	09/09/15 13:52	1
Benzo[a]anthracene	0.99	U	0.99	0.029	ug/L		08/28/15 08:42	09/09/15 13:52	1
Benzo[b]fluoranthene	0.99	U	0.99	0.039	ug/L		08/28/15 08:42	09/09/15 13:52	1
Benzo[k]fluoranthene	0.99	U	0.99	0.044	ug/L		08/28/15 08:42	09/09/15 13:52	1
Benzo[g,h,i]perylene	0.99	U	0.99	0.046	ug/L		08/28/15 08:42	09/09/15 13:52	1
Benzo[a]pyrene	0.99	U	0.99	0.051	ug/L		08/28/15 08:42	09/09/15 13:52	1
Butyl benzyl phthalate	5.0	U	5.0	0.26	ug/L		08/28/15 08:42	09/09/15 13:52	1
1,1'-Biphenyl	5.0	U	5.0	0.13	ug/L		08/28/15 08:42	09/09/15 13:52	1
Bis(2-chloroethoxy)methane	5.0	U	5.0	0.32	ug/L		08/28/15 08:42	09/09/15 13:52	1
Bis(2-chloroethyl)ether	0.99	U	0.99	0.099	ug/L		08/28/15 08:42	09/09/15 13:52	1
Bis(2-ethylhexyl) phthalate	5.0	U	5.0	1.7	ug/L		08/28/15 08:42	09/09/15 13:52	1
4-Bromophenyl phenyl ether	5.0	U	5.0	0.22	ug/L		08/28/15 08:42	09/09/15 13:52	1
Caprolactam	9.9	U F1	9.9	0.20	ug/L		08/28/15 08:42	09/09/15 13:52	1
Carbazole	9.9	U	9.9	0.28	ug/L		08/28/15 08:42	09/09/15 13:52	1
4-Chloroaniline	9.9	U F1	9.9	0.21	ug/L		08/28/15 08:42	09/09/15 13:52	1
4-Chloro-3-methylphenol	5.0	U	5.0	0.21	ug/L		08/28/15 08:42	09/09/15 13:52	1
2-Chloronaphthalene	5.0	U	5.0	0.099	ug/L		08/28/15 08:42	09/09/15 13:52	1
2-Chlorophenol	5.0	U	5.0	0.29	ug/L		08/28/15 08:42	09/09/15 13:52	1
4-Chlorophenyl phenyl ether	5.0	U	5.0	0.30	ug/L		08/28/15 08:42	09/09/15 13:52	1
Chrysene	0.99	U	0.99	0.050	ug/L		08/28/15 08:42	09/09/15 13:52	1
2-Methylnaphthalene	5.0	U	5.0	0.090	ug/L		08/28/15 08:42	09/09/15 13:52	1
3 & 4 Methylphenol	5.0	U	5.0	0.79	ug/L		08/28/15 08:42	09/09/15 13:52	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.044	ug/L		08/28/15 08:42	09/09/15 13:52	1
Dibenzofuran	4.0	U	4.0	0.020	ug/L		08/28/15 08:42	09/09/15 13:52	1
3,3'-Dichlorobenzidine	0.99	U	0.99	0.37	ug/L		08/28/15 08:42	09/09/15 13:52	1
2,4-Dichlorophenol	9.9	U	9.9	0.19	ug/L		08/28/15 08:42	09/09/15 13:52	1
Diethyl phthalate	5.0	U	5.0	0.59	ug/L		08/28/15 08:42	09/09/15 13:52	1
2,4-Dimethylphenol	5.0	U	5.0	0.25	ug/L		08/28/15 08:42	09/09/15 13:52	1
Dimethyl phthalate	5.0	U	5.0	0.29	ug/L		08/28/15 08:42	09/09/15 13:52	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		08/28/15 08:42	09/09/15 13:52	1
2,4-Dinitrophenol	20	U	20	0.32	ug/L		08/28/15 08:42	09/09/15 13:52	1
2,4-Dinitrotoluene	5.0	U	5.0	0.25	ug/L		08/28/15 08:42	09/09/15 13:52	1
Di-n-butyl phthalate	5.0	U	5.0	1.7	ug/L		08/28/15 08:42	09/09/15 13:52	1
Di-n-octyl phthalate	5.0	U	5.0	0.23	ug/L		08/28/15 08:42	09/09/15 13:52	1
Fluoranthene	0.99	U	0.99	0.044	ug/L		08/28/15 08:42	09/09/15 13:52	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-16**

**Lab Sample ID: 240-54779-4**

**Date Collected: 08/26/15 12:00**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	5.0	U	5.0	0.040	ug/L		08/28/15 08:42	09/09/15 13:52	1
Hexachlorobenzene	0.20	U	0.20	0.084	ug/L		08/28/15 08:42	09/09/15 13:52	1
Hexachlorobutadiene	0.99	U	0.99	0.27	ug/L		08/28/15 08:42	09/09/15 13:52	1
Hexachlorocyclopentadiene	5.0	U	5.0	0.24	ug/L		08/28/15 08:42	09/09/15 13:52	1
Hexachloroethane	5.0	U	5.0	0.19	ug/L		08/28/15 08:42	09/09/15 13:52	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.043	ug/L		08/28/15 08:42	09/09/15 13:52	1
Isophorone	5.0	U	5.0	0.27	ug/L		08/28/15 08:42	09/09/15 13:52	1
2-Methylphenol	5.0	U	5.0	0.17	ug/L		08/28/15 08:42	09/09/15 13:52	1
Naphthalene	5.0	U	5.0	0.062	ug/L		08/28/15 08:42	09/09/15 13:52	1
2-Nitroaniline	20	U	20	0.21	ug/L		08/28/15 08:42	09/09/15 13:52	1
3-Nitroaniline	20	U	20	0.28	ug/L		08/28/15 08:42	09/09/15 13:52	1
4-Nitroaniline	20	U	20	0.22	ug/L		08/28/15 08:42	09/09/15 13:52	1
Nitrobenzene	3.0	U	3.0	0.040	ug/L		08/28/15 08:42	09/09/15 13:52	1
2-Nitrophenol	5.0	U	5.0	0.28	ug/L		08/28/15 08:42	09/09/15 13:52	1
4-Nitrophenol	20	U	20	0.29	ug/L		08/28/15 08:42	09/09/15 13:52	1
N-Nitrosodiphenylamine	5.0	U	5.0	0.31	ug/L		08/28/15 08:42	09/09/15 13:52	1
N-Nitrosodi-n-propylamine	5.0	U	5.0	0.24	ug/L		08/28/15 08:42	09/09/15 13:52	1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	0.40	ug/L		08/28/15 08:42	09/09/15 13:52	1
Pentachlorophenol	5.0	U	5.0	0.27	ug/L		08/28/15 08:42	09/09/15 13:52	1
Phenanthrene	2.0	U	2.0	0.061	ug/L		08/28/15 08:42	09/09/15 13:52	1
Phenol	5.0	U	5.0	0.59	ug/L		08/28/15 08:42	09/09/15 13:52	1
Pyrene	5.0	U	5.0	0.042	ug/L		08/28/15 08:42	09/09/15 13:52	1
2,4,5-Trichlorophenol	5.0	U	5.0	0.30	ug/L		08/28/15 08:42	09/09/15 13:52	1
2,4,6-Trichlorophenol	4.0	U	4.0	0.24	ug/L		08/28/15 08:42	09/09/15 13:52	1
2,6-Dinitrotoluene	5.0	U	5.0	0.79	ug/L		08/28/15 08:42	09/09/15 13:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	76		29 - 110	08/28/15 08:42	09/09/15 13:52	1
2-Fluorophenol (Surr)	29		15 - 110	08/28/15 08:42	09/09/15 13:52	1
2,4,6-Tribromophenol (Surr)	63		21 - 128	08/28/15 08:42	09/09/15 13:52	1
Nitrobenzene-d5 (Surr)	75		31 - 110	08/28/15 08:42	09/09/15 13:52	1
Phenol-d5 (Surr)	16		10 - 110	08/28/15 08:42	09/09/15 13:52	1
Terphenyl-d14 (Surr)	54		31 - 115	08/28/15 08:42	09/09/15 13:52	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.54	J	2.0	0.16	ug/L		08/28/15 08:17	08/31/15 19:45	1
Arsenic	1.0	J B	5.0	0.18	ug/L		08/28/15 08:17	08/31/15 19:45	1
Barium	82	J	100	1.1	ug/L		09/02/15 08:08	09/03/15 15:00	1
Beryllium	0.35	J	1.0	0.053	ug/L		09/02/15 08:08	09/03/15 15:00	1
Cadmium	0.39	J	1.0	0.061	ug/L		09/02/15 08:08	09/03/15 15:00	1
Cobalt	0.65	J	7.0	0.021	ug/L		08/28/15 08:17	08/31/15 19:45	1
Chromium	51	B	5.0	0.20	ug/L		08/28/15 08:17	08/31/15 19:45	1
Copper	2.5		2.0	0.75	ug/L		08/28/15 08:17	08/31/15 19:45	1
Manganese	3.5	J	15	1.1	ug/L		08/28/15 08:17	08/31/15 19:45	1
Nickel	31		20	0.23	ug/L		08/28/15 08:17	08/31/15 19:45	1
Lead	0.19	J	3.0	0.11	ug/L		09/02/15 08:08	09/03/15 15:00	1
Selenium	1.1	J B	5.0	0.25	ug/L		08/28/15 08:17	08/31/15 19:45	1
Thallium	0.12	J	1.0	0.074	ug/L		08/28/15 08:17	08/31/15 19:45	1
Vanadium	0.90	J B	4.0	0.23	ug/L		08/28/15 08:17	08/31/15 19:45	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-16**

**Lab Sample ID: 240-54779-4**

**Date Collected: 08/26/15 12:00**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/28/15 08:17	08/31/15 19:45	1
Silver	0.20	U	0.20	0.020	ug/L		08/28/15 08:17	08/31/15 19:45	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/28/15 08:17	08/31/15 20:09	1
<b>Arsenic</b>	<b>0.70</b>	<b>J B</b>	5.0	0.18	ug/L		08/28/15 08:17	08/31/15 20:09	1
<b>Beryllium</b>	<b>0.17</b>	<b>J</b>	1.0	0.053	ug/L		09/02/15 08:08	09/03/15 14:31	1
<b>Cadmium</b>	<b>0.25</b>	<b>J</b>	1.0	0.061	ug/L		09/02/15 08:08	09/03/15 14:31	1
<b>Cobalt</b>	<b>0.25</b>	<b>J</b>	7.0	0.021	ug/L		08/28/15 08:17	08/31/15 20:09	1
<b>Chromium</b>	<b>3.0</b>	<b>J B</b>	5.0	0.20	ug/L		08/28/15 08:17	08/31/15 20:09	1
Copper	2.0	U	2.0	0.75	ug/L		08/28/15 08:17	08/31/15 20:09	1
Manganese	15	U	15	1.1	ug/L		08/28/15 08:17	08/31/15 20:09	1
<b>Nickel</b>	<b>10</b>	<b>J</b>	20	0.23	ug/L		08/28/15 08:17	08/31/15 20:09	1
<b>Lead</b>	<b>0.13</b>	<b>J</b>	3.0	0.11	ug/L		09/02/15 08:08	09/03/15 14:31	1
<b>Antimony</b>	<b>0.44</b>	<b>J</b>	2.0	0.16	ug/L		08/28/15 08:17	08/31/15 20:09	1
<b>Selenium</b>	<b>0.86</b>	<b>J B</b>	5.0	0.25	ug/L		08/28/15 08:17	08/31/15 20:09	1
Thallium	1.0	U	1.0	0.074	ug/L		08/28/15 08:17	08/31/15 20:09	1
<b>Vanadium</b>	<b>1.4</b>	<b>J B</b>	4.0	0.23	ug/L		08/28/15 08:17	08/31/15 20:09	1
Zinc	20	U	20	7.3	ug/L		08/28/15 08:17	08/31/15 20:09	1
<b>Barium</b>	<b>80</b>	<b>J</b>	100	1.1	ug/L		09/02/15 08:08	09/03/15 14:31	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/28/15 14:00	08/31/15 15:07	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/28/15 14:00	08/31/15 15:15	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/27/15 11:09	1
<b>Cr (III)</b>	<b>0.051</b>		0.020	0.0050	mg/L			09/02/15 07:58	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-17**

**Lab Sample ID: 240-54779-5**

**Date Collected: 08/26/15 14:10**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			08/31/15 22:48	1
Benzene	1.0	U	1.0	0.35	ug/L			08/31/15 22:48	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			08/31/15 22:48	1
Bromoform	1.0	U	1.0	0.56	ug/L			08/31/15 22:48	1
Bromomethane	1.0	U	1.0	0.44	ug/L			08/31/15 22:48	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			08/31/15 22:48	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			08/31/15 22:48	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			08/31/15 22:48	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 22:48	1
Chloroethane	1.0	U	1.0	0.32	ug/L			08/31/15 22:48	1
Chloroform	1.0	U	1.0	0.25	ug/L			08/31/15 22:48	1
Chloromethane	1.0	U	1.0	0.44	ug/L			08/31/15 22:48	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/31/15 22:48	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			08/31/15 22:48	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			08/31/15 22:48	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			08/31/15 22:48	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			08/31/15 22:48	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			08/31/15 22:48	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			08/31/15 22:48	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/31/15 22:48	1
2-Hexanone	10	U	10	0.48	ug/L			08/31/15 22:48	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			08/31/15 22:48	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			08/31/15 22:48	1
Styrene	1.0	U	1.0	0.45	ug/L			08/31/15 22:48	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			08/31/15 22:48	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			08/31/15 22:48	1
Toluene	1.0	U	1.0	0.23	ug/L			08/31/15 22:48	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			08/31/15 22:48	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			08/31/15 22:48	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			08/31/15 22:48	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			08/31/15 22:48	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			08/31/15 22:48	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			08/31/15 22:48	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			08/31/15 22:48	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			08/31/15 22:48	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			08/31/15 22:48	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			08/31/15 22:48	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			08/31/15 22:48	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/31/15 22:48	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			08/31/15 22:48	1
Methyl acetate	10	U	10	2.3	ug/L			08/31/15 22:48	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/31/15 22:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			08/31/15 22:48	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			08/31/15 22:48	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 22:48	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			08/31/15 22:48	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			08/31/15 22:48	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			08/31/15 22:48	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			08/31/15 22:48	1

TestAmerica Canton



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-17**

**Lab Sample ID: 240-54779-5**

**Date Collected: 08/26/15 14:10**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			08/31/15 22:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		78 - 125					08/31/15 22:48	1
4-Bromofluorobenzene (Surr)	76		61 - 120					08/31/15 22:48	1
Toluene-d8 (Surr)	84		80 - 120					08/31/15 22:48	1
Dibromofluoromethane (Surr)	100		79 - 120					08/31/15 22:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	5.2	U	5.2	0.046	ug/L		08/28/15 08:42	09/09/15 15:06	1
Acenaphthylene	5.2	U	5.2	0.050	ug/L		08/28/15 08:42	09/09/15 15:06	1
Acetophenone	5.2	U	5.2	0.35	ug/L		08/28/15 08:42	09/09/15 15:06	1
Anthracene	5.2	U	5.2	0.091	ug/L		08/28/15 08:42	09/09/15 15:06	1
Atrazine	3.1	U	3.1	0.35	ug/L		08/28/15 08:42	09/09/15 15:06	1
Benzaldehyde	5.2	U	5.2	0.40	ug/L		08/28/15 08:42	09/09/15 15:06	1
Benzo[a]anthracene	1.0	U	1.0	0.030	ug/L		08/28/15 08:42	09/09/15 15:06	1
Benzo[b]fluoranthene	1.0	U	1.0	0.041	ug/L		08/28/15 08:42	09/09/15 15:06	1
Benzo[k]fluoranthene	1.0	U	1.0	0.046	ug/L		08/28/15 08:42	09/09/15 15:06	1
Benzo[g,h,i]perylene	1.0	U	1.0	0.048	ug/L		08/28/15 08:42	09/09/15 15:06	1
Benzo[a]pyrene	1.0	U	1.0	0.053	ug/L		08/28/15 08:42	09/09/15 15:06	1
Butyl benzyl phthalate	5.2	U	5.2	0.27	ug/L		08/28/15 08:42	09/09/15 15:06	1
1,1'-Biphenyl	5.2	U	5.2	0.13	ug/L		08/28/15 08:42	09/09/15 15:06	1
Bis(2-chloroethoxy)methane	5.2	U	5.2	0.33	ug/L		08/28/15 08:42	09/09/15 15:06	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.10	ug/L		08/28/15 08:42	09/09/15 15:06	1
Bis(2-ethylhexyl) phthalate	5.2	U	5.2	1.8	ug/L		08/28/15 08:42	09/09/15 15:06	1
4-Bromophenyl phenyl ether	5.2	U	5.2	0.23	ug/L		08/28/15 08:42	09/09/15 15:06	1
<b>Caprolactam</b>	<b>0.29</b>	<b>J</b>	10	0.21	ug/L		08/28/15 08:42	09/09/15 15:06	1
Carbazole	10	U	10	0.29	ug/L		08/28/15 08:42	09/09/15 15:06	1
4-Chloroaniline	10	U	10	0.22	ug/L		08/28/15 08:42	09/09/15 15:06	1
4-Chloro-3-methylphenol	5.2	U	5.2	0.22	ug/L		08/28/15 08:42	09/09/15 15:06	1
2-Chloronaphthalene	5.2	U	5.2	0.10	ug/L		08/28/15 08:42	09/09/15 15:06	1
2-Chlorophenol	5.2	U	5.2	0.30	ug/L		08/28/15 08:42	09/09/15 15:06	1
4-Chlorophenyl phenyl ether	5.2	U	5.2	0.31	ug/L		08/28/15 08:42	09/09/15 15:06	1
Chrysene	1.0	U	1.0	0.052	ug/L		08/28/15 08:42	09/09/15 15:06	1
2-Methylnaphthalene	5.2	U	5.2	0.093	ug/L		08/28/15 08:42	09/09/15 15:06	1
3 & 4 Methylphenol	5.2	U	5.2	0.82	ug/L		08/28/15 08:42	09/09/15 15:06	1
Dibenz(a,h)anthracene	2.1	U	2.1	0.046	ug/L		08/28/15 08:42	09/09/15 15:06	1
Dibenzofuran	4.1	U	4.1	0.021	ug/L		08/28/15 08:42	09/09/15 15:06	1
3,3'-Dichlorobenzidine	1.0	U	1.0	0.38	ug/L		08/28/15 08:42	09/09/15 15:06	1
2,4-Dichlorophenol	10	U	10	0.20	ug/L		08/28/15 08:42	09/09/15 15:06	1
Diethyl phthalate	5.2	U	5.2	0.62	ug/L		08/28/15 08:42	09/09/15 15:06	1
2,4-Dimethylphenol	5.2	U	5.2	0.26	ug/L		08/28/15 08:42	09/09/15 15:06	1
Dimethyl phthalate	5.2	U	5.2	0.30	ug/L		08/28/15 08:42	09/09/15 15:06	1
4,6-Dinitro-2-methylphenol	21	U	21	2.5	ug/L		08/28/15 08:42	09/09/15 15:06	1
2,4-Dinitrophenol	21	U	21	0.33	ug/L		08/28/15 08:42	09/09/15 15:06	1
2,4-Dinitrotoluene	5.2	U	5.2	0.26	ug/L		08/28/15 08:42	09/09/15 15:06	1
Di-n-butyl phthalate	5.2	U	5.2	1.8	ug/L		08/28/15 08:42	09/09/15 15:06	1
Di-n-octyl phthalate	5.2	U	5.2	0.24	ug/L		08/28/15 08:42	09/09/15 15:06	1
Fluoranthene	1.0	U	1.0	0.046	ug/L		08/28/15 08:42	09/09/15 15:06	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-17**

**Lab Sample ID: 240-54779-5**

**Date Collected: 08/26/15 14:10**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	5.2	U	5.2	0.042	ug/L		08/28/15 08:42	09/09/15 15:06	1
Hexachlorobenzene	0.21	U	0.21	0.088	ug/L		08/28/15 08:42	09/09/15 15:06	1
Hexachlorobutadiene	1.0	U	1.0	0.28	ug/L		08/28/15 08:42	09/09/15 15:06	1
Hexachlorocyclopentadiene	5.2	U	5.2	0.25	ug/L		08/28/15 08:42	09/09/15 15:06	1
Hexachloroethane	5.2	U	5.2	0.20	ug/L		08/28/15 08:42	09/09/15 15:06	1
Indeno[1,2,3-cd]pyrene	2.1	U	2.1	0.045	ug/L		08/28/15 08:42	09/09/15 15:06	1
Isophorone	5.2	U	5.2	0.28	ug/L		08/28/15 08:42	09/09/15 15:06	1
2-Methylphenol	5.2	U	5.2	0.18	ug/L		08/28/15 08:42	09/09/15 15:06	1
Naphthalene	5.2	U	5.2	0.065	ug/L		08/28/15 08:42	09/09/15 15:06	1
2-Nitroaniline	21	U	21	0.22	ug/L		08/28/15 08:42	09/09/15 15:06	1
3-Nitroaniline	21	U	21	0.29	ug/L		08/28/15 08:42	09/09/15 15:06	1
4-Nitroaniline	21	U	21	0.23	ug/L		08/28/15 08:42	09/09/15 15:06	1
Nitrobenzene	3.1	U	3.1	0.041	ug/L		08/28/15 08:42	09/09/15 15:06	1
2-Nitrophenol	5.2	U	5.2	0.29	ug/L		08/28/15 08:42	09/09/15 15:06	1
4-Nitrophenol	21	U	21	0.30	ug/L		08/28/15 08:42	09/09/15 15:06	1
N-Nitrosodiphenylamine	5.2	U	5.2	0.32	ug/L		08/28/15 08:42	09/09/15 15:06	1
N-Nitrosodi-n-propylamine	5.2	U	5.2	0.25	ug/L		08/28/15 08:42	09/09/15 15:06	1
2,2'-oxybis[1-chloropropane]	5.2	U	5.2	0.41	ug/L		08/28/15 08:42	09/09/15 15:06	1
Pentachlorophenol	5.2	U	5.2	0.28	ug/L		08/28/15 08:42	09/09/15 15:06	1
Phenanthrene	2.1	U	2.1	0.064	ug/L		08/28/15 08:42	09/09/15 15:06	1
Phenol	5.2	U	5.2	0.62	ug/L		08/28/15 08:42	09/09/15 15:06	1
Pyrene	5.2	U	5.2	0.043	ug/L		08/28/15 08:42	09/09/15 15:06	1
2,4,5-Trichlorophenol	5.2	U	5.2	0.31	ug/L		08/28/15 08:42	09/09/15 15:06	1
2,4,6-Trichlorophenol	4.1	U	4.1	0.25	ug/L		08/28/15 08:42	09/09/15 15:06	1
2,6-Dinitrotoluene	5.2	U	5.2	0.82	ug/L		08/28/15 08:42	09/09/15 15:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	65		29 - 110	08/28/15 08:42	09/09/15 15:06	1
2-Fluorophenol (Surr)	32		15 - 110	08/28/15 08:42	09/09/15 15:06	1
2,4,6-Tribromophenol (Surr)	65		21 - 128	08/28/15 08:42	09/09/15 15:06	1
Nitrobenzene-d5 (Surr)	66		31 - 110	08/28/15 08:42	09/09/15 15:06	1
Phenol-d5 (Surr)	18		10 - 110	08/28/15 08:42	09/09/15 15:06	1
Terphenyl-d14 (Surr)	60		31 - 115	08/28/15 08:42	09/09/15 15:06	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/28/15 08:17	08/31/15 20:41	1
<b>Arsenic</b>	<b>1.1</b>	<b>J B</b>	5.0	0.18	ug/L		08/28/15 08:17	08/31/15 20:41	1
<b>Barium</b>	<b>70</b>	<b>J</b>	100	1.1	ug/L		09/02/15 08:08	09/03/15 15:39	1
<b>Beryllium</b>	<b>0.074</b>	<b>J</b>	1.0	0.053	ug/L		09/02/15 08:08	09/03/15 15:39	1
Cadmium	1.0	U	1.0	0.061	ug/L		09/02/15 08:08	09/03/15 15:39	1
<b>Cobalt</b>	<b>1.3</b>	<b>J</b>	7.0	0.021	ug/L		08/28/15 08:17	08/31/15 20:41	1
<b>Chromium</b>	<b>160</b>	<b>B</b>	5.0	0.20	ug/L		08/28/15 08:17	08/31/15 20:41	1
<b>Copper</b>	<b>5.7</b>		2.0	0.75	ug/L		08/28/15 08:17	08/31/15 20:41	1
<b>Manganese</b>	<b>17</b>		15	1.1	ug/L		08/28/15 08:17	08/31/15 20:41	1
<b>Nickel</b>	<b>15</b>	<b>J</b>	20	0.23	ug/L		08/28/15 08:17	08/31/15 20:41	1
Lead	3.0	U	3.0	0.11	ug/L		09/02/15 08:08	09/03/15 15:39	1
<b>Selenium</b>	<b>0.95</b>	<b>J B</b>	5.0	0.25	ug/L		08/28/15 08:17	08/31/15 20:41	1
Thallium	1.0	U	1.0	0.074	ug/L		08/28/15 08:17	08/31/15 20:41	1
Vanadium	4.0	U	4.0	0.23	ug/L		08/28/15 08:17	08/31/15 20:41	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-17**

**Lab Sample ID: 240-54779-5**

**Date Collected: 08/26/15 14:10**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/28/15 08:17	08/31/15 20:41	1
Silver	0.20	U	0.20	0.020	ug/L		08/28/15 08:17	08/31/15 20:41	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/28/15 08:17	08/31/15 20:52	1
<b>Arsenic</b>	<b>0.70</b>	<b>J B</b>	5.0	0.18	ug/L		08/28/15 08:17	08/31/15 20:52	1
<b>Beryllium</b>	<b>0.070</b>	<b>J</b>	1.0	0.053	ug/L		09/02/15 08:08	09/03/15 15:42	1
Cadmium	1.0	U	1.0	0.061	ug/L		09/02/15 08:08	09/03/15 15:42	1
<b>Cobalt</b>	<b>0.26</b>	<b>J</b>	7.0	0.021	ug/L		08/28/15 08:17	08/31/15 20:52	1
<b>Chromium</b>	<b>2.9</b>	<b>J B</b>	5.0	0.20	ug/L		08/28/15 08:17	08/31/15 20:52	1
<b>Copper</b>	<b>0.84</b>	<b>J</b>	2.0	0.75	ug/L		08/28/15 08:17	08/31/15 20:52	1
<b>Manganese</b>	<b>3.1</b>	<b>J</b>	15	1.1	ug/L		08/28/15 08:17	08/31/15 20:52	1
<b>Nickel</b>	<b>8.5</b>	<b>J</b>	20	0.23	ug/L		08/28/15 08:17	08/31/15 20:52	1
Lead	3.0	U	3.0	0.11	ug/L		09/02/15 08:08	09/03/15 15:42	1
Antimony	2.0	U	2.0	0.16	ug/L		08/28/15 08:17	08/31/15 20:52	1
<b>Selenium</b>	<b>0.94</b>	<b>J B</b>	5.0	0.25	ug/L		08/28/15 08:17	08/31/15 20:52	1
Thallium	1.0	U	1.0	0.074	ug/L		08/28/15 08:17	08/31/15 20:52	1
<b>Vanadium</b>	<b>1.3</b>	<b>J B</b>	4.0	0.23	ug/L		08/28/15 08:17	08/31/15 20:52	1
Zinc	20	U	20	7.3	ug/L		08/28/15 08:17	08/31/15 20:52	1
<b>Barium</b>	<b>64</b>	<b>J</b>	100	1.1	ug/L		09/02/15 08:08	09/03/15 15:42	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/28/15 14:00	08/31/15 15:45	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.15</b>	<b>J</b>	0.20	0.090	ug/L		08/28/15 14:00	08/31/15 15:40	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/27/15 11:25	1
<b>Cr (III)</b>	<b>0.16</b>		0.020	0.0050	mg/L			09/02/15 07:58	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-18**

**Lab Sample ID: 240-54779-6**

**Date Collected: 08/26/15 14:25**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			08/31/15 23:10	1
Benzene	1.0	U	1.0	0.35	ug/L			08/31/15 23:10	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			08/31/15 23:10	1
Bromoform	1.0	U	1.0	0.56	ug/L			08/31/15 23:10	1
Bromomethane	1.0	U	1.0	0.44	ug/L			08/31/15 23:10	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			08/31/15 23:10	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			08/31/15 23:10	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			08/31/15 23:10	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 23:10	1
Chloroethane	1.0	U	1.0	0.32	ug/L			08/31/15 23:10	1
Chloroform	1.0	U	1.0	0.25	ug/L			08/31/15 23:10	1
Chloromethane	1.0	U	1.0	0.44	ug/L			08/31/15 23:10	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/31/15 23:10	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			08/31/15 23:10	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			08/31/15 23:10	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			08/31/15 23:10	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			08/31/15 23:10	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			08/31/15 23:10	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			08/31/15 23:10	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/31/15 23:10	1
2-Hexanone	10	U	10	0.48	ug/L			08/31/15 23:10	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			08/31/15 23:10	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			08/31/15 23:10	1
Styrene	1.0	U	1.0	0.45	ug/L			08/31/15 23:10	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			08/31/15 23:10	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			08/31/15 23:10	1
Toluene	1.0	U	1.0	0.23	ug/L			08/31/15 23:10	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			08/31/15 23:10	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			08/31/15 23:10	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			08/31/15 23:10	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			08/31/15 23:10	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			08/31/15 23:10	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			08/31/15 23:10	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			08/31/15 23:10	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			08/31/15 23:10	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			08/31/15 23:10	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			08/31/15 23:10	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			08/31/15 23:10	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/31/15 23:10	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			08/31/15 23:10	1
Methyl acetate	10	U	10	2.3	ug/L			08/31/15 23:10	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/31/15 23:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			08/31/15 23:10	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			08/31/15 23:10	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 23:10	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			08/31/15 23:10	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			08/31/15 23:10	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			08/31/15 23:10	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			08/31/15 23:10	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-18**

**Lab Sample ID: 240-54779-6**

**Date Collected: 08/26/15 14:25**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			08/31/15 23:10	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	107		78 - 125					08/31/15 23:10	1
4-Bromofluorobenzene (Surr)	75		61 - 120					08/31/15 23:10	1
Toluene-d8 (Surr)	84		80 - 120					08/31/15 23:10	1
Dibromofluoromethane (Surr)	103		79 - 120					08/31/15 23:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	4.8	U	4.8	0.042	ug/L		08/28/15 08:42	09/09/15 15:31	1
Acenaphthylene	4.8	U	4.8	0.046	ug/L		08/28/15 08:42	09/09/15 15:31	1
Acetophenone	4.8	U	4.8	0.32	ug/L		08/28/15 08:42	09/09/15 15:31	1
Anthracene	4.8	U	4.8	0.084	ug/L		08/28/15 08:42	09/09/15 15:31	1
Atrazine	2.9	U	2.9	0.32	ug/L		08/28/15 08:42	09/09/15 15:31	1
Benzaldehyde	4.8	U	4.8	0.37	ug/L		08/28/15 08:42	09/09/15 15:31	1
Benzo[a]anthracene	0.95	U	0.95	0.028	ug/L		08/28/15 08:42	09/09/15 15:31	1
Benzo[b]fluoranthene	0.95	U	0.95	0.038	ug/L		08/28/15 08:42	09/09/15 15:31	1
Benzo[k]fluoranthene	0.95	U	0.95	0.043	ug/L		08/28/15 08:42	09/09/15 15:31	1
Benzo[g,h,i]perylene	0.95	U	0.95	0.044	ug/L		08/28/15 08:42	09/09/15 15:31	1
Benzo[a]pyrene	0.95	U	0.95	0.049	ug/L		08/28/15 08:42	09/09/15 15:31	1
Butyl benzyl phthalate	4.8	U	4.8	0.25	ug/L		08/28/15 08:42	09/09/15 15:31	1
1,1'-Biphenyl	4.8	U	4.8	0.12	ug/L		08/28/15 08:42	09/09/15 15:31	1
Bis(2-chloroethoxy)methane	4.8	U	4.8	0.30	ug/L		08/28/15 08:42	09/09/15 15:31	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.095	ug/L		08/28/15 08:42	09/09/15 15:31	1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8	1.6	ug/L		08/28/15 08:42	09/09/15 15:31	1
4-Bromophenyl phenyl ether	4.8	U	4.8	0.21	ug/L		08/28/15 08:42	09/09/15 15:31	1
Caprolactam	9.5	U	9.5	0.19	ug/L		08/28/15 08:42	09/09/15 15:31	1
Carbazole	9.5	U	9.5	0.27	ug/L		08/28/15 08:42	09/09/15 15:31	1
4-Chloroaniline	9.5	U	9.5	0.20	ug/L		08/28/15 08:42	09/09/15 15:31	1
4-Chloro-3-methylphenol	4.8	U	4.8	0.20	ug/L		08/28/15 08:42	09/09/15 15:31	1
2-Chloronaphthalene	4.8	U	4.8	0.095	ug/L		08/28/15 08:42	09/09/15 15:31	1
2-Chlorophenol	4.8	U	4.8	0.28	ug/L		08/28/15 08:42	09/09/15 15:31	1
4-Chlorophenyl phenyl ether	4.8	U	4.8	0.29	ug/L		08/28/15 08:42	09/09/15 15:31	1
Chrysene	0.95	U	0.95	0.048	ug/L		08/28/15 08:42	09/09/15 15:31	1
2-Methylnaphthalene	4.8	U	4.8	0.086	ug/L		08/28/15 08:42	09/09/15 15:31	1
3 & 4 Methylphenol	4.8	U	4.8	0.76	ug/L		08/28/15 08:42	09/09/15 15:31	1
Dibenz(a,h)anthracene	1.9	U	1.9	0.042	ug/L		08/28/15 08:42	09/09/15 15:31	1
Dibenzofuran	3.8	U	3.8	0.019	ug/L		08/28/15 08:42	09/09/15 15:31	1
3,3'-Dichlorobenzidine	0.95	U	0.95	0.35	ug/L		08/28/15 08:42	09/09/15 15:31	1
2,4-Dichlorophenol	9.5	U	9.5	0.18	ug/L		08/28/15 08:42	09/09/15 15:31	1
Diethyl phthalate	4.8	U	4.8	0.57	ug/L		08/28/15 08:42	09/09/15 15:31	1
2,4-Dimethylphenol	4.8	U	4.8	0.24	ug/L		08/28/15 08:42	09/09/15 15:31	1
Dimethyl phthalate	4.8	U	4.8	0.28	ug/L		08/28/15 08:42	09/09/15 15:31	1
4,6-Dinitro-2-methylphenol	19	U	19	2.3	ug/L		08/28/15 08:42	09/09/15 15:31	1
2,4-Dinitrophenol	19	U	19	0.30	ug/L		08/28/15 08:42	09/09/15 15:31	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		08/28/15 08:42	09/09/15 15:31	1
Di-n-butyl phthalate	4.8	U	4.8	1.6	ug/L		08/28/15 08:42	09/09/15 15:31	1
Di-n-octyl phthalate	4.8	U	4.8	0.22	ug/L		08/28/15 08:42	09/09/15 15:31	1
Fluoranthene	0.95	U	0.95	0.042	ug/L		08/28/15 08:42	09/09/15 15:31	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-18**

**Lab Sample ID: 240-54779-6**

**Date Collected: 08/26/15 14:25**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.8	U	4.8	0.039	ug/L		08/28/15 08:42	09/09/15 15:31	1
Hexachlorobenzene	0.19	U	0.19	0.081	ug/L		08/28/15 08:42	09/09/15 15:31	1
Hexachlorobutadiene	0.95	U	0.95	0.26	ug/L		08/28/15 08:42	09/09/15 15:31	1
Hexachlorocyclopentadiene	4.8	U	4.8	0.23	ug/L		08/28/15 08:42	09/09/15 15:31	1
Hexachloroethane	4.8	U	4.8	0.18	ug/L		08/28/15 08:42	09/09/15 15:31	1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	0.041	ug/L		08/28/15 08:42	09/09/15 15:31	1
Isophorone	4.8	U	4.8	0.26	ug/L		08/28/15 08:42	09/09/15 15:31	1
2-Methylphenol	4.8	U	4.8	0.16	ug/L		08/28/15 08:42	09/09/15 15:31	1
Naphthalene	4.8	U	4.8	0.060	ug/L		08/28/15 08:42	09/09/15 15:31	1
2-Nitroaniline	19	U	19	0.20	ug/L		08/28/15 08:42	09/09/15 15:31	1
3-Nitroaniline	19	U	19	0.27	ug/L		08/28/15 08:42	09/09/15 15:31	1
4-Nitroaniline	19	U	19	0.21	ug/L		08/28/15 08:42	09/09/15 15:31	1
Nitrobenzene	2.9	U	2.9	0.038	ug/L		08/28/15 08:42	09/09/15 15:31	1
2-Nitrophenol	4.8	U	4.8	0.27	ug/L		08/28/15 08:42	09/09/15 15:31	1
4-Nitrophenol	19	U	19	0.28	ug/L		08/28/15 08:42	09/09/15 15:31	1
N-Nitrosodiphenylamine	4.8	U	4.8	0.30	ug/L		08/28/15 08:42	09/09/15 15:31	1
N-Nitrosodi-n-propylamine	4.8	U	4.8	0.23	ug/L		08/28/15 08:42	09/09/15 15:31	1
2,2'-oxybis[1-chloropropane]	4.8	U	4.8	0.38	ug/L		08/28/15 08:42	09/09/15 15:31	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		08/28/15 08:42	09/09/15 15:31	1
Phenanthrene	1.9	U	1.9	0.059	ug/L		08/28/15 08:42	09/09/15 15:31	1
Phenol	4.8	U	4.8	0.57	ug/L		08/28/15 08:42	09/09/15 15:31	1
Pyrene	4.8	U	4.8	0.040	ug/L		08/28/15 08:42	09/09/15 15:31	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		08/28/15 08:42	09/09/15 15:31	1
2,4,6-Trichlorophenol	3.8	U	3.8	0.23	ug/L		08/28/15 08:42	09/09/15 15:31	1
2,6-Dinitrotoluene	4.8	U	4.8	0.76	ug/L		08/28/15 08:42	09/09/15 15:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	64		29 - 110	08/28/15 08:42	09/09/15 15:31	1
2-Fluorophenol (Surr)	25		15 - 110	08/28/15 08:42	09/09/15 15:31	1
2,4,6-Tribromophenol (Surr)	64		21 - 128	08/28/15 08:42	09/09/15 15:31	1
Nitrobenzene-d5 (Surr)	62		31 - 110	08/28/15 08:42	09/09/15 15:31	1
Phenol-d5 (Surr)	14		10 - 110	08/28/15 08:42	09/09/15 15:31	1
Terphenyl-d14 (Surr)	72		31 - 115	08/28/15 08:42	09/09/15 15:31	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/28/15 08:17	08/31/15 20:56	1
<b>Arsenic</b>	<b>0.55</b>	<b>J B</b>	5.0	0.18	ug/L		08/28/15 08:17	08/31/15 20:56	1
<b>Barium</b>	<b>30</b>	<b>J</b>	100	1.1	ug/L		09/02/15 08:08	09/03/15 15:46	1
Beryllium	1.0	U	1.0	0.053	ug/L		09/02/15 08:08	09/03/15 15:46	1
Cadmium	1.0	U	1.0	0.061	ug/L		09/02/15 08:08	09/03/15 15:46	1
<b>Cobalt</b>	<b>0.087</b>	<b>J</b>	7.0	0.021	ug/L		08/28/15 08:17	08/31/15 20:56	1
<b>Chromium</b>	<b>3.1</b>	<b>J B</b>	5.0	0.20	ug/L		08/28/15 08:17	08/31/15 20:56	1
Copper	2.0	U	2.0	0.75	ug/L		08/28/15 08:17	08/31/15 20:56	1
Manganese	15	U	15	1.1	ug/L		08/28/15 08:17	08/31/15 20:56	1
<b>Nickel</b>	<b>0.29</b>	<b>J</b>	20	0.23	ug/L		08/28/15 08:17	08/31/15 20:56	1
Lead	3.0	U	3.0	0.11	ug/L		09/02/15 08:08	09/03/15 15:46	1
<b>Selenium</b>	<b>0.59</b>	<b>J B</b>	5.0	0.25	ug/L		08/28/15 08:17	08/31/15 20:56	1
Thallium	1.0	U	1.0	0.074	ug/L		08/28/15 08:17	08/31/15 20:56	1
<b>Vanadium</b>	<b>1.4</b>	<b>J B</b>	4.0	0.23	ug/L		08/28/15 08:17	08/31/15 20:56	1

TestAmerica Canton



# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-18**

**Lab Sample ID: 240-54779-6**

**Date Collected: 08/26/15 14:25**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/28/15 08:17	08/31/15 20:56	1
Silver	0.20	U	0.20	0.020	ug/L		08/28/15 08:17	08/31/15 20:56	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/28/15 08:17	08/31/15 20:59	1
<b>Arsenic</b>	<b>0.57</b>	<b>J B</b>	5.0	0.18	ug/L		08/28/15 08:17	08/31/15 20:59	1
<b>Beryllium</b>	<b>0.053</b>	<b>J</b>	1.0	0.053	ug/L		09/02/15 08:08	09/03/15 15:50	1
Cadmium	1.0	U	1.0	0.061	ug/L		09/02/15 08:08	09/03/15 15:50	1
<b>Cobalt</b>	<b>0.086</b>	<b>J</b>	7.0	0.021	ug/L		08/28/15 08:17	08/31/15 20:59	1
<b>Chromium</b>	<b>3.1</b>	<b>J B</b>	5.0	0.20	ug/L		08/28/15 08:17	08/31/15 20:59	1
Copper	2.0	U	2.0	0.75	ug/L		08/28/15 08:17	08/31/15 20:59	1
Manganese	15	U	15	1.1	ug/L		08/28/15 08:17	08/31/15 20:59	1
<b>Nickel</b>	<b>0.26</b>	<b>J</b>	20	0.23	ug/L		08/28/15 08:17	08/31/15 20:59	1
Lead	3.0	U	3.0	0.11	ug/L		09/02/15 08:08	09/03/15 15:50	1
Antimony	2.0	U	2.0	0.16	ug/L		08/28/15 08:17	08/31/15 20:59	1
<b>Selenium</b>	<b>0.63</b>	<b>J B</b>	5.0	0.25	ug/L		08/28/15 08:17	08/31/15 20:59	1
Thallium	1.0	U	1.0	0.074	ug/L		08/28/15 08:17	08/31/15 20:59	1
<b>Vanadium</b>	<b>1.2</b>	<b>J B</b>	4.0	0.23	ug/L		08/28/15 08:17	08/31/15 20:59	1
Zinc	20	U	20	7.3	ug/L		08/28/15 08:17	08/31/15 20:59	1
<b>Barium</b>	<b>29</b>	<b>J</b>	100	1.1	ug/L		09/02/15 08:08	09/03/15 15:50	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/28/15 14:00	08/31/15 15:39	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/28/15 14:00	08/31/15 15:42	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/27/15 11:15	1
Cr (III)	0.020	U	0.020	0.0050	mg/L			09/02/15 07:58	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-19**

**Lab Sample ID: 240-54779-7**

**Date Collected: 08/26/15 15:15**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			08/31/15 23:32	1
Benzene	1.0	U	1.0	0.35	ug/L			08/31/15 23:32	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			08/31/15 23:32	1
Bromoform	1.0	U	1.0	0.56	ug/L			08/31/15 23:32	1
Bromomethane	1.0	U	1.0	0.44	ug/L			08/31/15 23:32	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			08/31/15 23:32	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			08/31/15 23:32	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			08/31/15 23:32	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 23:32	1
Chloroethane	1.0	U	1.0	0.32	ug/L			08/31/15 23:32	1
Chloroform	1.0	U	1.0	0.25	ug/L			08/31/15 23:32	1
Chloromethane	1.0	U	1.0	0.44	ug/L			08/31/15 23:32	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/31/15 23:32	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			08/31/15 23:32	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			08/31/15 23:32	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			08/31/15 23:32	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			08/31/15 23:32	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			08/31/15 23:32	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			08/31/15 23:32	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/31/15 23:32	1
2-Hexanone	10	U	10	0.48	ug/L			08/31/15 23:32	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			08/31/15 23:32	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			08/31/15 23:32	1
Styrene	1.0	U	1.0	0.45	ug/L			08/31/15 23:32	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			08/31/15 23:32	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			08/31/15 23:32	1
Toluene	1.0	U	1.0	0.23	ug/L			08/31/15 23:32	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			08/31/15 23:32	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			08/31/15 23:32	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			08/31/15 23:32	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			08/31/15 23:32	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			08/31/15 23:32	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			08/31/15 23:32	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			08/31/15 23:32	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			08/31/15 23:32	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			08/31/15 23:32	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			08/31/15 23:32	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			08/31/15 23:32	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/31/15 23:32	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			08/31/15 23:32	1
Methyl acetate	10	U	10	2.3	ug/L			08/31/15 23:32	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/31/15 23:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			08/31/15 23:32	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			08/31/15 23:32	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 23:32	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			08/31/15 23:32	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			08/31/15 23:32	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			08/31/15 23:32	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			08/31/15 23:32	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-19**

**Lab Sample ID: 240-54779-7**

**Date Collected: 08/26/15 15:15**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			08/31/15 23:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		78 - 125					08/31/15 23:32	1
4-Bromofluorobenzene (Surr)	74		61 - 120					08/31/15 23:32	1
Toluene-d8 (Surr)	83		80 - 120					08/31/15 23:32	1
Dibromofluoromethane (Surr)	106		79 - 120					08/31/15 23:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	5.2	U	5.2	0.046	ug/L		08/28/15 08:42	09/09/15 15:56	1
Acenaphthylene	5.2	U	5.2	0.050	ug/L		08/28/15 08:42	09/09/15 15:56	1
Acetophenone	5.2	U	5.2	0.35	ug/L		08/28/15 08:42	09/09/15 15:56	1
Anthracene	5.2	U	5.2	0.091	ug/L		08/28/15 08:42	09/09/15 15:56	1
Atrazine	3.1	U	3.1	0.35	ug/L		08/28/15 08:42	09/09/15 15:56	1
Benzaldehyde	5.2	U	5.2	0.40	ug/L		08/28/15 08:42	09/09/15 15:56	1
Benzo[a]anthracene	1.0	U	1.0	0.030	ug/L		08/28/15 08:42	09/09/15 15:56	1
Benzo[b]fluoranthene	1.0	U	1.0	0.041	ug/L		08/28/15 08:42	09/09/15 15:56	1
Benzo[k]fluoranthene	1.0	U	1.0	0.046	ug/L		08/28/15 08:42	09/09/15 15:56	1
Benzo[g,h,i]perylene	1.0	U	1.0	0.048	ug/L		08/28/15 08:42	09/09/15 15:56	1
Benzo[a]pyrene	1.0	U	1.0	0.053	ug/L		08/28/15 08:42	09/09/15 15:56	1
Butyl benzyl phthalate	5.2	U	5.2	0.27	ug/L		08/28/15 08:42	09/09/15 15:56	1
1,1'-Biphenyl	5.2	U	5.2	0.13	ug/L		08/28/15 08:42	09/09/15 15:56	1
Bis(2-chloroethoxy)methane	5.2	U	5.2	0.33	ug/L		08/28/15 08:42	09/09/15 15:56	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.10	ug/L		08/28/15 08:42	09/09/15 15:56	1
Bis(2-ethylhexyl) phthalate	5.2	U	5.2	1.8	ug/L		08/28/15 08:42	09/09/15 15:56	1
4-Bromophenyl phenyl ether	5.2	U	5.2	0.23	ug/L		08/28/15 08:42	09/09/15 15:56	1
Caprolactam	10	U	10	0.21	ug/L		08/28/15 08:42	09/09/15 15:56	1
Carbazole	10	U	10	0.29	ug/L		08/28/15 08:42	09/09/15 15:56	1
4-Chloroaniline	10	U	10	0.22	ug/L		08/28/15 08:42	09/09/15 15:56	1
4-Chloro-3-methylphenol	5.2	U	5.2	0.22	ug/L		08/28/15 08:42	09/09/15 15:56	1
2-Chloronaphthalene	5.2	U	5.2	0.10	ug/L		08/28/15 08:42	09/09/15 15:56	1
2-Chlorophenol	5.2	U	5.2	0.30	ug/L		08/28/15 08:42	09/09/15 15:56	1
4-Chlorophenyl phenyl ether	5.2	U	5.2	0.31	ug/L		08/28/15 08:42	09/09/15 15:56	1
Chrysene	1.0	U	1.0	0.052	ug/L		08/28/15 08:42	09/09/15 15:56	1
2-Methylnaphthalene	5.2	U	5.2	0.093	ug/L		08/28/15 08:42	09/09/15 15:56	1
3 & 4 Methylphenol	5.2	U	5.2	0.82	ug/L		08/28/15 08:42	09/09/15 15:56	1
Dibenz(a,h)anthracene	2.1	U	2.1	0.046	ug/L		08/28/15 08:42	09/09/15 15:56	1
Dibenzofuran	4.1	U	4.1	0.021	ug/L		08/28/15 08:42	09/09/15 15:56	1
3,3'-Dichlorobenzidine	1.0	U	1.0	0.38	ug/L		08/28/15 08:42	09/09/15 15:56	1
2,4-Dichlorophenol	10	U	10	0.20	ug/L		08/28/15 08:42	09/09/15 15:56	1
Diethyl phthalate	5.2	U	5.2	0.62	ug/L		08/28/15 08:42	09/09/15 15:56	1
2,4-Dimethylphenol	5.2	U	5.2	0.26	ug/L		08/28/15 08:42	09/09/15 15:56	1
Dimethyl phthalate	5.2	U	5.2	0.30	ug/L		08/28/15 08:42	09/09/15 15:56	1
4,6-Dinitro-2-methylphenol	21	U	21	2.5	ug/L		08/28/15 08:42	09/09/15 15:56	1
2,4-Dinitrophenol	21	U	21	0.33	ug/L		08/28/15 08:42	09/09/15 15:56	1
2,4-Dinitrotoluene	5.2	U	5.2	0.26	ug/L		08/28/15 08:42	09/09/15 15:56	1
Di-n-butyl phthalate	5.2	U	5.2	1.8	ug/L		08/28/15 08:42	09/09/15 15:56	1
Di-n-octyl phthalate	5.2	U	5.2	0.24	ug/L		08/28/15 08:42	09/09/15 15:56	1
Fluoranthene	1.0	U	1.0	0.046	ug/L		08/28/15 08:42	09/09/15 15:56	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-19**

**Lab Sample ID: 240-54779-7**

**Date Collected: 08/26/15 15:15**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	5.2	U	5.2	0.042	ug/L		08/28/15 08:42	09/09/15 15:56	1
Hexachlorobenzene	0.21	U	0.21	0.088	ug/L		08/28/15 08:42	09/09/15 15:56	1
Hexachlorobutadiene	1.0	U	1.0	0.28	ug/L		08/28/15 08:42	09/09/15 15:56	1
Hexachlorocyclopentadiene	5.2	U	5.2	0.25	ug/L		08/28/15 08:42	09/09/15 15:56	1
Hexachloroethane	5.2	U	5.2	0.20	ug/L		08/28/15 08:42	09/09/15 15:56	1
Indeno[1,2,3-cd]pyrene	2.1	U	2.1	0.045	ug/L		08/28/15 08:42	09/09/15 15:56	1
Isophorone	5.2	U	5.2	0.28	ug/L		08/28/15 08:42	09/09/15 15:56	1
2-Methylphenol	5.2	U	5.2	0.18	ug/L		08/28/15 08:42	09/09/15 15:56	1
Naphthalene	5.2	U	5.2	0.065	ug/L		08/28/15 08:42	09/09/15 15:56	1
2-Nitroaniline	21	U	21	0.22	ug/L		08/28/15 08:42	09/09/15 15:56	1
3-Nitroaniline	21	U	21	0.29	ug/L		08/28/15 08:42	09/09/15 15:56	1
4-Nitroaniline	21	U	21	0.23	ug/L		08/28/15 08:42	09/09/15 15:56	1
Nitrobenzene	3.1	U	3.1	0.041	ug/L		08/28/15 08:42	09/09/15 15:56	1
2-Nitrophenol	5.2	U	5.2	0.29	ug/L		08/28/15 08:42	09/09/15 15:56	1
4-Nitrophenol	21	U	21	0.30	ug/L		08/28/15 08:42	09/09/15 15:56	1
N-Nitrosodiphenylamine	5.2	U	5.2	0.32	ug/L		08/28/15 08:42	09/09/15 15:56	1
N-Nitrosodi-n-propylamine	5.2	U	5.2	0.25	ug/L		08/28/15 08:42	09/09/15 15:56	1
2,2'-oxybis[1-chloropropane]	5.2	U	5.2	0.41	ug/L		08/28/15 08:42	09/09/15 15:56	1
Pentachlorophenol	5.2	U	5.2	0.28	ug/L		08/28/15 08:42	09/09/15 15:56	1
Phenanthrene	2.1	U	2.1	0.064	ug/L		08/28/15 08:42	09/09/15 15:56	1
Phenol	5.2	U	5.2	0.62	ug/L		08/28/15 08:42	09/09/15 15:56	1
Pyrene	5.2	U	5.2	0.043	ug/L		08/28/15 08:42	09/09/15 15:56	1
2,4,5-Trichlorophenol	5.2	U	5.2	0.31	ug/L		08/28/15 08:42	09/09/15 15:56	1
2,4,6-Trichlorophenol	4.1	U	4.1	0.25	ug/L		08/28/15 08:42	09/09/15 15:56	1
2,6-Dinitrotoluene	5.2	U	5.2	0.82	ug/L		08/28/15 08:42	09/09/15 15:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	67		29 - 110	08/28/15 08:42	09/09/15 15:56	1
2-Fluorophenol (Surr)	27		15 - 110	08/28/15 08:42	09/09/15 15:56	1
2,4,6-Tribromophenol (Surr)	74		21 - 128	08/28/15 08:42	09/09/15 15:56	1
Nitrobenzene-d5 (Surr)	64		31 - 110	08/28/15 08:42	09/09/15 15:56	1
Phenol-d5 (Surr)	15		10 - 110	08/28/15 08:42	09/09/15 15:56	1
Terphenyl-d14 (Surr)	73		31 - 115	08/28/15 08:42	09/09/15 15:56	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/28/15 08:17	08/31/15 21:03	1
<b>Arsenic</b>	<b>11</b>	<b>B</b>	5.0	0.18	ug/L		08/28/15 08:17	08/31/15 21:03	1
<b>Barium</b>	<b>93</b>	<b>J</b>	100	1.1	ug/L		09/02/15 08:08	09/03/15 15:53	1
<b>Beryllium</b>	<b>0.065</b>	<b>J</b>	1.0	0.053	ug/L		09/02/15 08:08	09/03/15 15:53	1
<b>Cadmium</b>	<b>0.082</b>	<b>J</b>	1.0	0.061	ug/L		09/02/15 08:08	09/03/15 15:53	1
<b>Cobalt</b>	<b>1.4</b>	<b>J</b>	7.0	0.021	ug/L		08/28/15 08:17	08/31/15 21:03	1
<b>Chromium</b>	<b>2.2</b>	<b>J B</b>	5.0	0.20	ug/L		08/28/15 08:17	08/31/15 21:03	1
Copper	2.0	U	2.0	0.75	ug/L		08/28/15 08:17	08/31/15 21:03	1
<b>Manganese</b>	<b>550</b>		15	1.1	ug/L		08/28/15 08:17	08/31/15 21:03	1
<b>Nickel</b>	<b>2.6</b>	<b>J</b>	20	0.23	ug/L		08/28/15 08:17	08/31/15 21:03	1
Lead	3.0	U	3.0	0.11	ug/L		09/02/15 08:08	09/03/15 15:53	1
<b>Selenium</b>	<b>0.30</b>	<b>J B</b>	5.0	0.25	ug/L		08/28/15 08:17	08/31/15 21:03	1
Thallium	1.0	U	1.0	0.074	ug/L		08/28/15 08:17	08/31/15 21:03	1
<b>Vanadium</b>	<b>0.76</b>	<b>J B</b>	4.0	0.23	ug/L		08/28/15 08:17	08/31/15 21:03	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-19**

**Lab Sample ID: 240-54779-7**

**Date Collected: 08/26/15 15:15**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Zinc</b>	<b>13</b>	<b>J</b>	20	7.3	ug/L		08/28/15 08:17	08/31/15 21:03	1
Silver	0.20	U	0.20	0.020	ug/L		08/28/15 08:17	08/31/15 21:03	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/28/15 08:17	08/31/15 21:07	1
<b>Arsenic</b>	<b>9.1</b>	<b>B</b>	5.0	0.18	ug/L		08/28/15 08:17	08/31/15 21:07	1
Beryllium	1.0	U	1.0	0.053	ug/L		09/02/15 08:08	09/03/15 15:57	1
Cadmium	1.0	U	1.0	0.061	ug/L		09/02/15 08:08	09/03/15 15:57	1
<b>Cobalt</b>	<b>1.3</b>	<b>J</b>	7.0	0.021	ug/L		08/28/15 08:17	08/31/15 21:07	1
<b>Chromium</b>	<b>2.1</b>	<b>J B</b>	5.0	0.20	ug/L		08/28/15 08:17	08/31/15 21:07	1
Copper	2.0	U	2.0	0.75	ug/L		08/28/15 08:17	08/31/15 21:07	1
<b>Manganese</b>	<b>520</b>		15	1.1	ug/L		08/28/15 08:17	08/31/15 21:07	1
<b>Nickel</b>	<b>2.4</b>	<b>J</b>	20	0.23	ug/L		08/28/15 08:17	08/31/15 21:07	1
Lead	3.0	U	3.0	0.11	ug/L		09/02/15 08:08	09/03/15 15:57	1
Antimony	2.0	U	2.0	0.16	ug/L		08/28/15 08:17	08/31/15 21:07	1
<b>Selenium</b>	<b>0.37</b>	<b>J B</b>	5.0	0.25	ug/L		08/28/15 08:17	08/31/15 21:07	1
Thallium	1.0	U	1.0	0.074	ug/L		08/28/15 08:17	08/31/15 21:07	1
<b>Vanadium</b>	<b>0.77</b>	<b>J B</b>	4.0	0.23	ug/L		08/28/15 08:17	08/31/15 21:07	1
Zinc	20	U	20	7.3	ug/L		08/28/15 08:17	08/31/15 21:07	1
<b>Barium</b>	<b>92</b>	<b>J</b>	100	1.1	ug/L		09/02/15 08:08	09/03/15 15:57	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/28/15 14:00	08/31/15 15:27	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/28/15 14:00	08/31/15 15:34	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/27/15 11:14	1
Cr (III)	0.020	U	0.020	0.0050	mg/L			09/02/15 07:58	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-20**

**Lab Sample ID: 240-54779-8**

**Date Collected: 08/26/15 15:30**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			08/31/15 23:55	1
Benzene	1.0	U	1.0	0.35	ug/L			08/31/15 23:55	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			08/31/15 23:55	1
Bromoform	1.0	U	1.0	0.56	ug/L			08/31/15 23:55	1
Bromomethane	1.0	U	1.0	0.44	ug/L			08/31/15 23:55	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			08/31/15 23:55	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			08/31/15 23:55	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			08/31/15 23:55	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 23:55	1
Chloroethane	1.0	U	1.0	0.32	ug/L			08/31/15 23:55	1
Chloroform	1.0	U	1.0	0.25	ug/L			08/31/15 23:55	1
Chloromethane	1.0	U	1.0	0.44	ug/L			08/31/15 23:55	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/31/15 23:55	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			08/31/15 23:55	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			08/31/15 23:55	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			08/31/15 23:55	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			08/31/15 23:55	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			08/31/15 23:55	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			08/31/15 23:55	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/31/15 23:55	1
2-Hexanone	10	U	10	0.48	ug/L			08/31/15 23:55	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			08/31/15 23:55	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			08/31/15 23:55	1
Styrene	1.0	U	1.0	0.45	ug/L			08/31/15 23:55	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			08/31/15 23:55	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			08/31/15 23:55	1
Toluene	1.0	U	1.0	0.23	ug/L			08/31/15 23:55	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			08/31/15 23:55	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			08/31/15 23:55	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			08/31/15 23:55	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			08/31/15 23:55	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			08/31/15 23:55	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			08/31/15 23:55	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			08/31/15 23:55	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			08/31/15 23:55	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			08/31/15 23:55	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			08/31/15 23:55	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			08/31/15 23:55	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/31/15 23:55	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			08/31/15 23:55	1
Methyl acetate	10	U	10	2.3	ug/L			08/31/15 23:55	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/31/15 23:55	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			08/31/15 23:55	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			08/31/15 23:55	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 23:55	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			08/31/15 23:55	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			08/31/15 23:55	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			08/31/15 23:55	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			08/31/15 23:55	1

TestAmerica Canton



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-20**

**Lab Sample ID: 240-54779-8**

**Date Collected: 08/26/15 15:30**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			08/31/15 23:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		78 - 125					08/31/15 23:55	1
4-Bromofluorobenzene (Surr)	74		61 - 120					08/31/15 23:55	1
Toluene-d8 (Surr)	83		80 - 120					08/31/15 23:55	1
Dibromofluoromethane (Surr)	105		79 - 120					08/31/15 23:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	4.8	U	4.8	0.042	ug/L		08/28/15 08:42	09/09/15 16:20	1
Acenaphthylene	4.8	U	4.8	0.046	ug/L		08/28/15 08:42	09/09/15 16:20	1
Acetophenone	4.8	U	4.8	0.32	ug/L		08/28/15 08:42	09/09/15 16:20	1
Anthracene	4.8	U	4.8	0.084	ug/L		08/28/15 08:42	09/09/15 16:20	1
Atrazine	2.9	U	2.9	0.32	ug/L		08/28/15 08:42	09/09/15 16:20	1
Benzaldehyde	4.8	U	4.8	0.37	ug/L		08/28/15 08:42	09/09/15 16:20	1
Benzo[a]anthracene	0.95	U	0.95	0.028	ug/L		08/28/15 08:42	09/09/15 16:20	1
Benzo[b]fluoranthene	0.95	U	0.95	0.038	ug/L		08/28/15 08:42	09/09/15 16:20	1
Benzo[k]fluoranthene	0.95	U	0.95	0.043	ug/L		08/28/15 08:42	09/09/15 16:20	1
Benzo[g,h,i]perylene	0.95	U	0.95	0.044	ug/L		08/28/15 08:42	09/09/15 16:20	1
Benzo[a]pyrene	0.95	U	0.95	0.049	ug/L		08/28/15 08:42	09/09/15 16:20	1
Butyl benzyl phthalate	4.8	U	4.8	0.25	ug/L		08/28/15 08:42	09/09/15 16:20	1
1,1'-Biphenyl	4.8	U	4.8	0.12	ug/L		08/28/15 08:42	09/09/15 16:20	1
Bis(2-chloroethoxy)methane	4.8	U	4.8	0.30	ug/L		08/28/15 08:42	09/09/15 16:20	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.095	ug/L		08/28/15 08:42	09/09/15 16:20	1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8	1.6	ug/L		08/28/15 08:42	09/09/15 16:20	1
4-Bromophenyl phenyl ether	4.8	U	4.8	0.21	ug/L		08/28/15 08:42	09/09/15 16:20	1
Caprolactam	9.5	U	9.5	0.19	ug/L		08/28/15 08:42	09/09/15 16:20	1
Carbazole	9.5	U	9.5	0.27	ug/L		08/28/15 08:42	09/09/15 16:20	1
4-Chloroaniline	9.5	U	9.5	0.20	ug/L		08/28/15 08:42	09/09/15 16:20	1
4-Chloro-3-methylphenol	4.8	U	4.8	0.20	ug/L		08/28/15 08:42	09/09/15 16:20	1
2-Chloronaphthalene	4.8	U	4.8	0.095	ug/L		08/28/15 08:42	09/09/15 16:20	1
2-Chlorophenol	4.8	U	4.8	0.28	ug/L		08/28/15 08:42	09/09/15 16:20	1
4-Chlorophenyl phenyl ether	4.8	U	4.8	0.29	ug/L		08/28/15 08:42	09/09/15 16:20	1
Chrysene	0.95	U	0.95	0.048	ug/L		08/28/15 08:42	09/09/15 16:20	1
2-Methylnaphthalene	4.8	U	4.8	0.086	ug/L		08/28/15 08:42	09/09/15 16:20	1
3 & 4 Methylphenol	4.8	U	4.8	0.76	ug/L		08/28/15 08:42	09/09/15 16:20	1
Dibenz(a,h)anthracene	1.9	U	1.9	0.042	ug/L		08/28/15 08:42	09/09/15 16:20	1
Dibenzofuran	3.8	U	3.8	0.019	ug/L		08/28/15 08:42	09/09/15 16:20	1
3,3'-Dichlorobenzidine	0.95	U	0.95	0.35	ug/L		08/28/15 08:42	09/09/15 16:20	1
2,4-Dichlorophenol	9.5	U	9.5	0.18	ug/L		08/28/15 08:42	09/09/15 16:20	1
Diethyl phthalate	4.8	U	4.8	0.57	ug/L		08/28/15 08:42	09/09/15 16:20	1
2,4-Dimethylphenol	4.8	U	4.8	0.24	ug/L		08/28/15 08:42	09/09/15 16:20	1
Dimethyl phthalate	4.8	U	4.8	0.28	ug/L		08/28/15 08:42	09/09/15 16:20	1
4,6-Dinitro-2-methylphenol	19	U	19	2.3	ug/L		08/28/15 08:42	09/09/15 16:20	1
2,4-Dinitrophenol	19	U	19	0.30	ug/L		08/28/15 08:42	09/09/15 16:20	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		08/28/15 08:42	09/09/15 16:20	1
Di-n-butyl phthalate	4.8	U	4.8	1.6	ug/L		08/28/15 08:42	09/09/15 16:20	1
Di-n-octyl phthalate	4.8	U	4.8	0.22	ug/L		08/28/15 08:42	09/09/15 16:20	1
Fluoranthene	0.95	U	0.95	0.042	ug/L		08/28/15 08:42	09/09/15 16:20	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-20**

**Lab Sample ID: 240-54779-8**

**Date Collected: 08/26/15 15:30**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.8	U	4.8	0.039	ug/L		08/28/15 08:42	09/09/15 16:20	1
Hexachlorobenzene	0.19	U	0.19	0.081	ug/L		08/28/15 08:42	09/09/15 16:20	1
Hexachlorobutadiene	0.95	U	0.95	0.26	ug/L		08/28/15 08:42	09/09/15 16:20	1
Hexachlorocyclopentadiene	4.8	U	4.8	0.23	ug/L		08/28/15 08:42	09/09/15 16:20	1
Hexachloroethane	4.8	U	4.8	0.18	ug/L		08/28/15 08:42	09/09/15 16:20	1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	0.041	ug/L		08/28/15 08:42	09/09/15 16:20	1
Isophorone	4.8	U	4.8	0.26	ug/L		08/28/15 08:42	09/09/15 16:20	1
2-Methylphenol	4.8	U	4.8	0.16	ug/L		08/28/15 08:42	09/09/15 16:20	1
Naphthalene	4.8	U	4.8	0.060	ug/L		08/28/15 08:42	09/09/15 16:20	1
2-Nitroaniline	19	U	19	0.20	ug/L		08/28/15 08:42	09/09/15 16:20	1
3-Nitroaniline	19	U	19	0.27	ug/L		08/28/15 08:42	09/09/15 16:20	1
4-Nitroaniline	19	U	19	0.21	ug/L		08/28/15 08:42	09/09/15 16:20	1
Nitrobenzene	2.9	U	2.9	0.038	ug/L		08/28/15 08:42	09/09/15 16:20	1
2-Nitrophenol	4.8	U	4.8	0.27	ug/L		08/28/15 08:42	09/09/15 16:20	1
4-Nitrophenol	19	U	19	0.28	ug/L		08/28/15 08:42	09/09/15 16:20	1
N-Nitrosodiphenylamine	4.8	U	4.8	0.30	ug/L		08/28/15 08:42	09/09/15 16:20	1
N-Nitrosodi-n-propylamine	4.8	U	4.8	0.23	ug/L		08/28/15 08:42	09/09/15 16:20	1
2,2'-oxybis[1-chloropropane]	4.8	U	4.8	0.38	ug/L		08/28/15 08:42	09/09/15 16:20	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		08/28/15 08:42	09/09/15 16:20	1
Phenanthrene	1.9	U	1.9	0.059	ug/L		08/28/15 08:42	09/09/15 16:20	1
Phenol	4.8	U	4.8	0.57	ug/L		08/28/15 08:42	09/09/15 16:20	1
Pyrene	4.8	U	4.8	0.040	ug/L		08/28/15 08:42	09/09/15 16:20	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		08/28/15 08:42	09/09/15 16:20	1
2,4,6-Trichlorophenol	3.8	U	3.8	0.23	ug/L		08/28/15 08:42	09/09/15 16:20	1
2,6-Dinitrotoluene	4.8	U	4.8	0.76	ug/L		08/28/15 08:42	09/09/15 16:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	73		29 - 110	08/28/15 08:42	09/09/15 16:20	1
2-Fluorophenol (Surr)	30		15 - 110	08/28/15 08:42	09/09/15 16:20	1
2,4,6-Tribromophenol (Surr)	77		21 - 128	08/28/15 08:42	09/09/15 16:20	1
Nitrobenzene-d5 (Surr)	72		31 - 110	08/28/15 08:42	09/09/15 16:20	1
Phenol-d5 (Surr)	17		10 - 110	08/28/15 08:42	09/09/15 16:20	1
Terphenyl-d14 (Surr)	73		31 - 115	08/28/15 08:42	09/09/15 16:20	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/28/15 08:17	08/31/15 21:10	1
<b>Arsenic</b>	<b>9.5</b>	<b>B</b>	5.0	0.18	ug/L		08/28/15 08:17	08/31/15 21:10	1
<b>Barium</b>	<b>91</b>	<b>J</b>	100	1.1	ug/L		09/02/15 08:08	09/03/15 16:08	1
Beryllium	1.0	U	1.0	0.053	ug/L		09/02/15 08:08	09/03/15 16:08	1
Cadmium	1.0	U	1.0	0.061	ug/L		09/02/15 08:08	09/03/15 16:08	1
<b>Cobalt</b>	<b>1.3</b>	<b>J</b>	7.0	0.021	ug/L		08/28/15 08:17	08/31/15 21:10	1
<b>Chromium</b>	<b>2.2</b>	<b>J B</b>	5.0	0.20	ug/L		08/28/15 08:17	08/31/15 21:10	1
Copper	2.0	U	2.0	0.75	ug/L		08/28/15 08:17	08/31/15 21:10	1
<b>Manganese</b>	<b>500</b>		15	1.1	ug/L		08/28/15 08:17	08/31/15 21:10	1
<b>Nickel</b>	<b>2.4</b>	<b>J</b>	20	0.23	ug/L		08/28/15 08:17	08/31/15 21:10	1
Lead	3.0	U	3.0	0.11	ug/L		09/02/15 08:08	09/03/15 16:08	1
<b>Selenium</b>	<b>0.33</b>	<b>J B</b>	5.0	0.25	ug/L		08/28/15 08:17	08/31/15 21:10	1
Thallium	1.0	U	1.0	0.074	ug/L		08/28/15 08:17	08/31/15 21:10	1
<b>Vanadium</b>	<b>0.77</b>	<b>J B</b>	4.0	0.23	ug/L		08/28/15 08:17	08/31/15 21:10	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-20**

**Lab Sample ID: 240-54779-8**

**Date Collected: 08/26/15 15:30**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/28/15 08:17	08/31/15 21:10	1
Silver	0.20	U	0.20	0.020	ug/L		08/28/15 08:17	08/31/15 21:10	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/28/15 08:17	08/31/15 21:14	1
<b>Arsenic</b>	<b>8.9</b>	<b>B</b>	5.0	0.18	ug/L		08/28/15 08:17	08/31/15 21:14	1
Beryllium	1.0	U	1.0	0.053	ug/L		09/02/15 08:08	09/03/15 16:11	1
Cadmium	1.0	U	1.0	0.061	ug/L		09/02/15 08:08	09/03/15 16:11	1
<b>Cobalt</b>	<b>1.3</b>	<b>J</b>	7.0	0.021	ug/L		08/28/15 08:17	08/31/15 21:14	1
<b>Chromium</b>	<b>2.2</b>	<b>J B</b>	5.0	0.20	ug/L		08/28/15 08:17	08/31/15 21:14	1
Copper	2.0	U	2.0	0.75	ug/L		08/28/15 08:17	08/31/15 21:14	1
<b>Manganese</b>	<b>500</b>		15	1.1	ug/L		08/28/15 08:17	08/31/15 21:14	1
<b>Nickel</b>	<b>2.4</b>	<b>J</b>	20	0.23	ug/L		08/28/15 08:17	08/31/15 21:14	1
Lead	3.0	U	3.0	0.11	ug/L		09/02/15 08:08	09/03/15 16:11	1
Antimony	2.0	U	2.0	0.16	ug/L		08/28/15 08:17	08/31/15 21:14	1
<b>Selenium</b>	<b>0.35</b>	<b>J B</b>	5.0	0.25	ug/L		08/28/15 08:17	08/31/15 21:14	1
Thallium	1.0	U	1.0	0.074	ug/L		08/28/15 08:17	08/31/15 21:14	1
<b>Vanadium</b>	<b>0.86</b>	<b>J B</b>	4.0	0.23	ug/L		08/28/15 08:17	08/31/15 21:14	1
Zinc	20	U	20	7.3	ug/L		08/28/15 08:17	08/31/15 21:14	1
<b>Barium</b>	<b>86</b>	<b>J</b>	100	1.1	ug/L		09/02/15 08:08	09/03/15 16:11	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/28/15 14:00	08/31/15 15:24	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/28/15 14:00	08/31/15 15:36	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Cr (VI)</b>	<b>0.0024</b>	<b>J</b>	0.020	0.0021	mg/L			08/27/15 11:21	1
Cr (III)	0.020	U	0.020	0.0050	mg/L			09/02/15 07:58	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-21**

**Lab Sample ID: 240-54779-9**

**Date Collected: 08/26/15 15:50**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/01/15 00:17	1
Benzene	1.0	U	1.0	0.35	ug/L			09/01/15 00:17	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/01/15 00:17	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/01/15 00:17	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/01/15 00:17	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/01/15 00:17	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/01/15 00:17	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/01/15 00:17	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/01/15 00:17	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/01/15 00:17	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/01/15 00:17	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/01/15 00:17	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/01/15 00:17	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/01/15 00:17	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/01/15 00:17	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/01/15 00:17	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/01/15 00:17	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/01/15 00:17	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/01/15 00:17	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/01/15 00:17	1
2-Hexanone	10	U	10	0.48	ug/L			09/01/15 00:17	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/01/15 00:17	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/01/15 00:17	1
Styrene	1.0	U	1.0	0.45	ug/L			09/01/15 00:17	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/01/15 00:17	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/01/15 00:17	1
Toluene	1.0	U	1.0	0.23	ug/L			09/01/15 00:17	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/01/15 00:17	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/01/15 00:17	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/01/15 00:17	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/01/15 00:17	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/01/15 00:17	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/01/15 00:17	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/01/15 00:17	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/01/15 00:17	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/01/15 00:17	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/01/15 00:17	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/01/15 00:17	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/01/15 00:17	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/01/15 00:17	1
Methyl acetate	10	U	10	2.3	ug/L			09/01/15 00:17	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/01/15 00:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/01/15 00:17	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/01/15 00:17	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/01/15 00:17	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/01/15 00:17	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/01/15 00:17	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/01/15 00:17	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/01/15 00:17	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-21**

**Lab Sample ID: 240-54779-9**

**Date Collected: 08/26/15 15:50**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/01/15 00:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		78 - 125					09/01/15 00:17	1
4-Bromofluorobenzene (Surr)	74		61 - 120					09/01/15 00:17	1
Toluene-d8 (Surr)	83		80 - 120					09/01/15 00:17	1
Dibromofluoromethane (Surr)	104		79 - 120					09/01/15 00:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	5.0	U	5.0	0.044	ug/L		08/28/15 08:42	09/09/15 16:45	1
Acenaphthylene	5.0	U	5.0	0.048	ug/L		08/28/15 08:42	09/09/15 16:45	1
Acetophenone	5.0	U	5.0	0.34	ug/L		08/28/15 08:42	09/09/15 16:45	1
Anthracene	5.0	U	5.0	0.088	ug/L		08/28/15 08:42	09/09/15 16:45	1
Atrazine	3.0	U	3.0	0.34	ug/L		08/28/15 08:42	09/09/15 16:45	1
Benzaldehyde	5.0	U	5.0	0.39	ug/L		08/28/15 08:42	09/09/15 16:45	1
Benzo[a]anthracene	1.0	U	1.0	0.030	ug/L		08/28/15 08:42	09/09/15 16:45	1
Benzo[b]fluoranthene	1.0	U	1.0	0.039	ug/L		08/28/15 08:42	09/09/15 16:45	1
Benzo[k]fluoranthene	1.0	U	1.0	0.045	ug/L		08/28/15 08:42	09/09/15 16:45	1
Benzo[g,h,i]perylene	1.0	U	1.0	0.046	ug/L		08/28/15 08:42	09/09/15 16:45	1
Benzo[a]pyrene	1.0	U	1.0	0.051	ug/L		08/28/15 08:42	09/09/15 16:45	1
Butyl benzyl phthalate	5.0	U	5.0	0.26	ug/L		08/28/15 08:42	09/09/15 16:45	1
1,1'-Biphenyl	5.0	U	5.0	0.13	ug/L		08/28/15 08:42	09/09/15 16:45	1
Bis(2-chloroethoxy)methane	5.0	U	5.0	0.32	ug/L		08/28/15 08:42	09/09/15 16:45	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.10	ug/L		08/28/15 08:42	09/09/15 16:45	1
Bis(2-ethylhexyl) phthalate	5.0	U	5.0	1.7	ug/L		08/28/15 08:42	09/09/15 16:45	1
4-Bromophenyl phenyl ether	5.0	U	5.0	0.22	ug/L		08/28/15 08:42	09/09/15 16:45	1
Caprolactam	10	U	10	0.20	ug/L		08/28/15 08:42	09/09/15 16:45	1
Carbazole	10	U	10	0.28	ug/L		08/28/15 08:42	09/09/15 16:45	1
4-Chloroaniline	10	U	10	0.21	ug/L		08/28/15 08:42	09/09/15 16:45	1
4-Chloro-3-methylphenol	5.0	U	5.0	0.21	ug/L		08/28/15 08:42	09/09/15 16:45	1
2-Chloronaphthalene	5.0	U	5.0	0.10	ug/L		08/28/15 08:42	09/09/15 16:45	1
2-Chlorophenol	5.0	U	5.0	0.29	ug/L		08/28/15 08:42	09/09/15 16:45	1
4-Chlorophenyl phenyl ether	5.0	U	5.0	0.30	ug/L		08/28/15 08:42	09/09/15 16:45	1
Chrysene	1.0	U	1.0	0.050	ug/L		08/28/15 08:42	09/09/15 16:45	1
2-Methylnaphthalene	5.0	U	5.0	0.090	ug/L		08/28/15 08:42	09/09/15 16:45	1
3 & 4 Methylphenol	5.0	U	5.0	0.80	ug/L		08/28/15 08:42	09/09/15 16:45	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.045	ug/L		08/28/15 08:42	09/09/15 16:45	1
Dibenzofuran	4.0	U	4.0	0.020	ug/L		08/28/15 08:42	09/09/15 16:45	1
3,3'-Dichlorobenzidine	1.0	U	1.0	0.37	ug/L		08/28/15 08:42	09/09/15 16:45	1
2,4-Dichlorophenol	10	U	10	0.19	ug/L		08/28/15 08:42	09/09/15 16:45	1
Diethyl phthalate	5.0	U	5.0	0.60	ug/L		08/28/15 08:42	09/09/15 16:45	1
2,4-Dimethylphenol	5.0	U	5.0	0.25	ug/L		08/28/15 08:42	09/09/15 16:45	1
Dimethyl phthalate	5.0	U	5.0	0.29	ug/L		08/28/15 08:42	09/09/15 16:45	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		08/28/15 08:42	09/09/15 16:45	1
2,4-Dinitrophenol	20	U	20	0.32	ug/L		08/28/15 08:42	09/09/15 16:45	1
2,4-Dinitrotoluene	5.0	U	5.0	0.25	ug/L		08/28/15 08:42	09/09/15 16:45	1
Di-n-butyl phthalate	5.0	U	5.0	1.7	ug/L		08/28/15 08:42	09/09/15 16:45	1
Di-n-octyl phthalate	5.0	U	5.0	0.23	ug/L		08/28/15 08:42	09/09/15 16:45	1
Fluoranthene	1.0	U	1.0	0.045	ug/L		08/28/15 08:42	09/09/15 16:45	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-21**

**Lab Sample ID: 240-54779-9**

**Date Collected: 08/26/15 15:50**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	5.0	U	5.0	0.041	ug/L		08/28/15 08:42	09/09/15 16:45	1
Hexachlorobenzene	0.20	U	0.20	0.085	ug/L		08/28/15 08:42	09/09/15 16:45	1
Hexachlorobutadiene	1.0	U	1.0	0.27	ug/L		08/28/15 08:42	09/09/15 16:45	1
Hexachlorocyclopentadiene	5.0	U	5.0	0.24	ug/L		08/28/15 08:42	09/09/15 16:45	1
Hexachloroethane	5.0	U	5.0	0.19	ug/L		08/28/15 08:42	09/09/15 16:45	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.043	ug/L		08/28/15 08:42	09/09/15 16:45	1
Isophorone	5.0	U	5.0	0.27	ug/L		08/28/15 08:42	09/09/15 16:45	1
2-Methylphenol	5.0	U	5.0	0.17	ug/L		08/28/15 08:42	09/09/15 16:45	1
Naphthalene	5.0	U	5.0	0.063	ug/L		08/28/15 08:42	09/09/15 16:45	1
2-Nitroaniline	20	U	20	0.21	ug/L		08/28/15 08:42	09/09/15 16:45	1
3-Nitroaniline	20	U	20	0.28	ug/L		08/28/15 08:42	09/09/15 16:45	1
4-Nitroaniline	20	U	20	0.22	ug/L		08/28/15 08:42	09/09/15 16:45	1
Nitrobenzene	3.0	U	3.0	0.040	ug/L		08/28/15 08:42	09/09/15 16:45	1
2-Nitrophenol	5.0	U	5.0	0.28	ug/L		08/28/15 08:42	09/09/15 16:45	1
4-Nitrophenol	20	U	20	0.29	ug/L		08/28/15 08:42	09/09/15 16:45	1
N-Nitrosodiphenylamine	5.0	U	5.0	0.31	ug/L		08/28/15 08:42	09/09/15 16:45	1
N-Nitrosodi-n-propylamine	5.0	U	5.0	0.24	ug/L		08/28/15 08:42	09/09/15 16:45	1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	0.40	ug/L		08/28/15 08:42	09/09/15 16:45	1
Pentachlorophenol	5.0	U	5.0	0.27	ug/L		08/28/15 08:42	09/09/15 16:45	1
Phenanthrene	2.0	U	2.0	0.062	ug/L		08/28/15 08:42	09/09/15 16:45	1
Phenol	5.0	U	5.0	0.60	ug/L		08/28/15 08:42	09/09/15 16:45	1
Pyrene	5.0	U	5.0	0.042	ug/L		08/28/15 08:42	09/09/15 16:45	1
2,4,5-Trichlorophenol	5.0	U	5.0	0.30	ug/L		08/28/15 08:42	09/09/15 16:45	1
2,4,6-Trichlorophenol	4.0	U	4.0	0.24	ug/L		08/28/15 08:42	09/09/15 16:45	1
2,6-Dinitrotoluene	5.0	U	5.0	0.80	ug/L		08/28/15 08:42	09/09/15 16:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	83		29 - 110	08/28/15 08:42	09/09/15 16:45	1
2-Fluorophenol (Surr)	33		15 - 110	08/28/15 08:42	09/09/15 16:45	1
2,4,6-Tribromophenol (Surr)	87		21 - 128	08/28/15 08:42	09/09/15 16:45	1
Nitrobenzene-d5 (Surr)	78		31 - 110	08/28/15 08:42	09/09/15 16:45	1
Phenol-d5 (Surr)	20		10 - 110	08/28/15 08:42	09/09/15 16:45	1
Terphenyl-d14 (Surr)	73		31 - 115	08/28/15 08:42	09/09/15 16:45	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.93	J	2.0	0.16	ug/L		08/28/15 08:17	08/31/15 21:17	1
Arsenic	1.2	J B	5.0	0.18	ug/L		08/28/15 08:17	08/31/15 21:17	1
Barium	48	J	100	1.1	ug/L		09/02/15 08:08	09/03/15 16:15	1
Beryllium	1.0	U	1.0	0.053	ug/L		09/02/15 08:08	09/03/15 16:15	1
Cadmium	0.071	J	1.0	0.061	ug/L		09/02/15 08:08	09/03/15 16:15	1
Cobalt	0.078	J	7.0	0.021	ug/L		08/28/15 08:17	08/31/15 21:17	1
Chromium	8.0	B	5.0	0.20	ug/L		08/28/15 08:17	08/31/15 21:17	1
Copper	0.75	J	2.0	0.75	ug/L		08/28/15 08:17	08/31/15 21:17	1
Manganese	24		15	1.1	ug/L		08/28/15 08:17	08/31/15 21:17	1
Nickel	0.80	J	20	0.23	ug/L		08/28/15 08:17	08/31/15 21:17	1
Lead	3.0	U	3.0	0.11	ug/L		09/02/15 08:08	09/03/15 16:15	1
Selenium	0.69	J B	5.0	0.25	ug/L		08/28/15 08:17	08/31/15 21:17	1
Thallium	1.0	U	1.0	0.074	ug/L		08/28/15 08:17	08/31/15 21:17	1
Vanadium	7.5	B	4.0	0.23	ug/L		08/28/15 08:17	08/31/15 21:17	1

TestAmerica Canton



# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-21**

**Lab Sample ID: 240-54779-9**

**Date Collected: 08/26/15 15:50**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/28/15 08:17	08/31/15 21:17	1
Silver	0.20	U	0.20	0.020	ug/L		08/28/15 08:17	08/31/15 21:17	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/28/15 08:17	08/31/15 21:21	1
<b>Arsenic</b>	<b>1.1</b>	<b>J B</b>	5.0	0.18	ug/L		08/28/15 08:17	08/31/15 21:21	1
Beryllium	1.0	U	1.0	0.053	ug/L		09/02/15 08:08	09/03/15 16:19	1
Cadmium	1.0	U	1.0	0.061	ug/L		09/02/15 08:08	09/03/15 16:19	1
<b>Cobalt</b>	<b>0.062</b>	<b>J</b>	7.0	0.021	ug/L		08/28/15 08:17	08/31/15 21:21	1
<b>Chromium</b>	<b>2.4</b>	<b>J B</b>	5.0	0.20	ug/L		08/28/15 08:17	08/31/15 21:21	1
Copper	2.0	U	2.0	0.75	ug/L		08/28/15 08:17	08/31/15 21:21	1
<b>Manganese</b>	<b>15</b>		15	1.1	ug/L		08/28/15 08:17	08/31/15 21:21	1
<b>Nickel</b>	<b>0.55</b>	<b>J</b>	20	0.23	ug/L		08/28/15 08:17	08/31/15 21:21	1
Lead	3.0	U	3.0	0.11	ug/L		09/02/15 08:08	09/03/15 16:19	1
<b>Antimony</b>	<b>0.92</b>	<b>J</b>	2.0	0.16	ug/L		08/28/15 08:17	08/31/15 21:21	1
<b>Selenium</b>	<b>0.53</b>	<b>J B</b>	5.0	0.25	ug/L		08/28/15 08:17	08/31/15 21:21	1
Thallium	1.0	U	1.0	0.074	ug/L		08/28/15 08:17	08/31/15 21:21	1
<b>Vanadium</b>	<b>7.4</b>	<b>B</b>	4.0	0.23	ug/L		08/28/15 08:17	08/31/15 21:21	1
Zinc	20	U	20	7.3	ug/L		08/28/15 08:17	08/31/15 21:21	1
<b>Barium</b>	<b>42</b>	<b>J</b>	100	1.1	ug/L		09/02/15 08:08	09/03/15 16:19	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/28/15 14:00	08/31/15 15:25	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/28/15 14:00	08/31/15 15:28	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/27/15 11:24	1
<b>Cr (III)</b>	<b>0.0080</b>	<b>J</b>	0.020	0.0050	mg/L			09/02/15 07:58	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 240-54779-10**

**Date Collected: 08/26/15 00:00**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>6.4</b>	<b>J</b>	10	0.94	ug/L			09/03/15 16:19	1
Benzene	1.0	U	1.0	0.35	ug/L			09/03/15 16:19	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/03/15 16:19	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/03/15 16:19	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/03/15 16:19	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/03/15 16:19	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/03/15 16:19	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/03/15 16:19	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/03/15 16:19	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/03/15 16:19	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/03/15 16:19	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/03/15 16:19	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/03/15 16:19	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/03/15 16:19	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/03/15 16:19	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/03/15 16:19	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/03/15 16:19	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/03/15 16:19	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/03/15 16:19	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/03/15 16:19	1
2-Hexanone	10	U	10	0.48	ug/L			09/03/15 16:19	1
<b>Methylene Chloride</b>	<b>1.1</b>		1.0	0.33	ug/L			09/03/15 16:19	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/03/15 16:19	1
Styrene	1.0	U	1.0	0.45	ug/L			09/03/15 16:19	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/03/15 16:19	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/03/15 16:19	1
Toluene	1.0	U	1.0	0.23	ug/L			09/03/15 16:19	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/03/15 16:19	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/03/15 16:19	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/03/15 16:19	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/03/15 16:19	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/03/15 16:19	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/03/15 16:19	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/03/15 16:19	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/03/15 16:19	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/03/15 16:19	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/03/15 16:19	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/03/15 16:19	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/03/15 16:19	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/03/15 16:19	1
Methyl acetate	10	U	10	2.3	ug/L			09/03/15 16:19	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/03/15 16:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/03/15 16:19	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/03/15 16:19	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/03/15 16:19	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/03/15 16:19	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/03/15 16:19	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/03/15 16:19	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/03/15 16:19	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 240-54779-10**

**Date Collected: 08/26/15 00:00**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/03/15 16:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		78 - 125					09/03/15 16:19	1
4-Bromofluorobenzene (Surr)	102		61 - 120					09/03/15 16:19	1
Toluene-d8 (Surr)	97		80 - 120					09/03/15 16:19	1
Dibromofluoromethane (Surr)	92		79 - 120					09/03/15 16:19	1

# Surrogate Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (78-125)	BFB (61-120)	TOL (80-120)	DBFM (79-120)
240-54779-1	GW-082615-JL-13	107	74	83	105
240-54779-2	GW-082615-JL-14	99	102	91	93
240-54779-3	GW-082615-JL-15	102	76	85	99
240-54779-4	GW-082615-JL-16	108	71	81	106
240-54779-4 MS	GW-082615-JL-16	91	96	94	94
240-54779-4 MSD	GW-082615-JL-16	92	97	92	91
240-54779-5	GW-082615-JL-17	104	76	84	100
240-54779-6	GW-082615-JL-18	107	75	84	103
240-54779-7	GW-082615-JL-19	107	74	83	106
240-54779-8	GW-082615-JL-20	108	74	83	105
240-54779-9	GW-082615-JL-21	108	74	83	104
240-54779-10	TRIP BLANK	103	102	97	92
LCS 240-195636/4	Lab Control Sample	93	96	95	92
LCS 240-196129/4	Lab Control Sample	101	110	96	97
MB 240-195636/6	Method Blank	105	78	84	98
MB 240-196129/5	Method Blank	102	104	95	88

### Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
TOL = Toluene-d8 (Surr)  
DBFM = Dibromofluoromethane (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (29-110)	2FP (15-110)	TBP (21-128)	NBZ (31-110)	PHL (10-110)	TPH (31-115)
240-54779-1	GW-082615-JL-13	77	38	57	78	23	61
240-54779-2	GW-082615-JL-14	82	36	74	76	19	57
240-54779-3	GW-082615-JL-15	69	31	59	67	18	69
240-54779-4	GW-082615-JL-16	76	29	63	75	16	54
240-54779-4 MS	GW-082615-JL-16	76	31	74	75	17	47
240-54779-4 MSD	GW-082615-JL-16	73	30	77	72	16	49
240-54779-5	GW-082615-JL-17	65	32	65	66	18	60
240-54779-6	GW-082615-JL-18	64	25	64	62	14	72
240-54779-7	GW-082615-JL-19	67	27	74	64	15	73
240-54779-8	GW-082615-JL-20	73	30	77	72	17	73
240-54779-9	GW-082615-JL-21	83	33	87	78	20	73
LCS 240-195276/18-A	Lab Control Sample	81	69	85	83	51	98
MB 240-195276/17-A	Method Blank	76	64	69	76	53	85

### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)  
2FP = 2-Fluorophenol (Surr)  
TBP = 2,4,6-Tribromophenol (Surr)  
NBZ = Nitrobenzene-d5 (Surr)  
PHL = Phenol-d5 (Surr)  
TPH = Terphenyl-d14 (Surr)

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# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 240-195636/6**

**Matrix: Water**

**Analysis Batch: 195636**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			08/31/15 17:09	1
Benzene	1.0	U	1.0	0.35	ug/L			08/31/15 17:09	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			08/31/15 17:09	1
Bromoform	1.0	U	1.0	0.56	ug/L			08/31/15 17:09	1
Bromomethane	1.0	U	1.0	0.44	ug/L			08/31/15 17:09	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			08/31/15 17:09	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			08/31/15 17:09	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			08/31/15 17:09	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 17:09	1
Chloroethane	1.0	U	1.0	0.32	ug/L			08/31/15 17:09	1
Chloroform	1.0	U	1.0	0.25	ug/L			08/31/15 17:09	1
Chloromethane	1.0	U	1.0	0.44	ug/L			08/31/15 17:09	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/31/15 17:09	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			08/31/15 17:09	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			08/31/15 17:09	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			08/31/15 17:09	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			08/31/15 17:09	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			08/31/15 17:09	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			08/31/15 17:09	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/31/15 17:09	1
2-Hexanone	10	U	10	0.48	ug/L			08/31/15 17:09	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			08/31/15 17:09	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			08/31/15 17:09	1
Styrene	1.0	U	1.0	0.45	ug/L			08/31/15 17:09	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			08/31/15 17:09	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			08/31/15 17:09	1
Toluene	1.0	U	1.0	0.23	ug/L			08/31/15 17:09	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			08/31/15 17:09	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			08/31/15 17:09	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			08/31/15 17:09	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			08/31/15 17:09	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			08/31/15 17:09	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			08/31/15 17:09	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			08/31/15 17:09	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			08/31/15 17:09	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			08/31/15 17:09	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			08/31/15 17:09	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			08/31/15 17:09	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/31/15 17:09	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			08/31/15 17:09	1
Methyl acetate	10	U	10	2.3	ug/L			08/31/15 17:09	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/31/15 17:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			08/31/15 17:09	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			08/31/15 17:09	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			08/31/15 17:09	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			08/31/15 17:09	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			08/31/15 17:09	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			08/31/15 17:09	1

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# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 240-195636/6**

**Matrix: Water**

**Analysis Batch: 195636**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			08/31/15 17:09	1
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			08/31/15 17:09	1
Surrogate	MB	MB	Limits				Prepared	Analyzed	Dil Fac
%Recovery	Qualifier								
1,2-Dichloroethane-d4 (Surr)	105		78 - 125					08/31/15 17:09	1
4-Bromofluorobenzene (Surr)	78		61 - 120					08/31/15 17:09	1
Toluene-d8 (Surr)	84		80 - 120					08/31/15 17:09	1
Dibromofluoromethane (Surr)	98		79 - 120					08/31/15 17:09	1

**Lab Sample ID: LCS 240-195636/4**

**Matrix: Water**

**Analysis Batch: 195636**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	10.0	9.72		ug/L		97	80 - 120
Dichlorobromomethane	10.0	9.33		ug/L		93	80 - 120
Bromoform	10.0	9.49		ug/L		95	56 - 122
Bromomethane	10.0	9.96		ug/L		100	38 - 132
2-Butanone (MEK)	20.0	20.7		ug/L		104	56 - 138
Carbon disulfide	10.0	9.18		ug/L		92	65 - 144
Carbon tetrachloride	10.0	10.1		ug/L		101	77 - 131
Chlorobenzene	10.0	9.73		ug/L		97	80 - 120
Chloroethane	10.0	8.99		ug/L		90	36 - 126
Chloroform	10.0	9.89		ug/L		99	80 - 120
Chloromethane	10.0	8.25		ug/L		83	48 - 133
1,1-Dichloroethane	10.0	9.55		ug/L		95	79 - 125
1,2-Dichloroethane	10.0	9.78		ug/L		98	80 - 120
1,1-Dichloroethene	10.0	9.11		ug/L		91	76 - 124
1,2-Dichloropropane	10.0	9.51		ug/L		95	78 - 124
1,2,4-Trimethylbenzene	10.0	9.74		ug/L		97	76 - 120
cis-1,3-Dichloropropene	10.0	9.33		ug/L		93	74 - 126
trans-1,3-Dichloropropene	10.0	10.4		ug/L		104	75 - 131
Ethylbenzene	10.0	9.82		ug/L		98	80 - 120
2-Hexanone	20.0	20.7		ug/L		103	55 - 141
Methylene Chloride	10.0	10.9		ug/L		109	77 - 129
4-Methyl-2-pentanone (MIBK)	20.0	19.1		ug/L		96	64 - 135
Styrene	10.0	9.86		ug/L		99	76 - 122
1,1,2,2-Tetrachloroethane	10.0	9.52		ug/L		95	71 - 123
Tetrachloroethene	10.0	9.93		ug/L		99	78 - 121
Toluene	10.0	9.91		ug/L		99	80 - 120
Trichloroethene	10.0	9.91		ug/L		99	80 - 121
1,3,5-Trimethylbenzene	10.0	9.97		ug/L		100	77 - 120
Vinyl chloride	10.0	8.32		ug/L		83	52 - 121
Xylenes, Total	20.0	20.0		ug/L		100	80 - 120
1,1,1-Trichloroethane	10.0	9.85		ug/L		98	77 - 123
1,1,2-Trichloroethane	10.0	9.99		ug/L		100	80 - 120
Cyclohexane	10.0	9.94		ug/L		99	60 - 140

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# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 240-195636/4**  
**Matrix: Water**  
**Analysis Batch: 195636**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	10.0	9.77		ug/L		98	50 - 132
Ethylene Dibromide	10.0	10.1		ug/L		101	80 - 120
Dichlorodifluoromethane	10.0	9.50		ug/L		95	23 - 136
cis-1,2-Dichloroethene	10.0	9.95		ug/L		99	79 - 120
trans-1,2-Dichloroethene	10.0	10.1		ug/L		101	80 - 124
Isopropylbenzene	10.0	9.81		ug/L		98	77 - 120
Methyl acetate	50.0	54.5		ug/L		109	67 - 131
Methyl tert-butyl ether	10.0	9.85		ug/L		99	69 - 121
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.8		ug/L		108	67 - 138
1,2,4-Trichlorobenzene	10.0	8.21		ug/L		82	61 - 120
1,2-Dichlorobenzene	10.0	9.31		ug/L		93	79 - 120
1,3-Dichlorobenzene	10.0	9.26		ug/L		93	79 - 120
1,4-Dichlorobenzene	10.0	9.31		ug/L		93	79 - 120
Trichlorofluoromethane	10.0	9.69		ug/L		97	61 - 133
Methylcyclohexane	10.0	10.2		ug/L		102	61 - 134
m-Xylene & p-Xylene	10.0	10.0		ug/L		100	80 - 120
o-Xylene	10.0	10.0		ug/L		100	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		78 - 125
4-Bromofluorobenzene (Surr)	96		61 - 120
Toluene-d8 (Surr)	95		80 - 120
Dibromofluoromethane (Surr)	92		79 - 120

**Lab Sample ID: 240-54779-4 MS**  
**Matrix: Water**  
**Analysis Batch: 195636**

**Client Sample ID: GW-082615-JL-16**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	10	U	20.0	17.8		ug/L		89	32 - 126
Benzene	1.0	U	10.0	8.63		ug/L		86	73 - 121
Dichlorobromomethane	1.0	U	10.0	8.26		ug/L		83	72 - 120
Bromoform	1.0	U	10.0	8.54		ug/L		85	45 - 121
Bromomethane	1.0	U	10.0	9.75		ug/L		98	26 - 136
2-Butanone (MEK)	10	U	20.0	16.7		ug/L		84	49 - 132
Carbon disulfide	1.0	U	10.0	7.33		ug/L		73	54 - 144
Carbon tetrachloride	1.0	U	10.0	8.59		ug/L		86	65 - 129
Chlorobenzene	1.0	U	10.0	8.62		ug/L		86	72 - 120
Chloroethane	1.0	U	10.0	8.75		ug/L		88	27 - 131
Chloroform	1.0	U	10.0	9.20		ug/L		92	73 - 121
Chloromethane	1.0	U	10.0	8.67		ug/L		87	39 - 134
1,1-Dichloroethane	1.0	U	10.0	8.55		ug/L		86	73 - 124
1,2-Dichloroethane	1.0	U	10.0	9.19		ug/L		92	74 - 125
1,1-Dichloroethene	1.0	U	10.0	8.10		ug/L		81	67 - 124
1,2-Dichloropropane	1.0	U	10.0	8.24		ug/L		82	73 - 122
1,2,4-Trimethylbenzene	1.0	U	10.0	7.85		ug/L		79	64 - 122
cis-1,3-Dichloropropene	1.0	U	10.0	6.89		ug/L		69	60 - 120

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# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 240-54779-4 MS**  
**Matrix: Water**  
**Analysis Batch: 195636**

**Client Sample ID: GW-082615-JL-16**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	1.0	U	10.0	8.09		ug/L		81	58 - 132
Ethylbenzene	1.0	U	10.0	8.12		ug/L		81	68 - 121
2-Hexanone	10	U	20.0	17.1		ug/L		85	49 - 142
Methylene Chloride	1.0	U	10.0	9.22		ug/L		92	70 - 124
4-Methyl-2-pentanone (MIBK)	10	U	20.0	15.4		ug/L		77	58 - 136
Styrene	1.0	U	10.0	8.44		ug/L		84	64 - 126
1,1,2,2-Tetrachloroethane	1.0	U	10.0	8.63		ug/L		86	61 - 130
Tetrachloroethene	1.0	U	10.0	8.07		ug/L		81	59 - 125
Toluene	1.0	U	10.0	8.73		ug/L		87	72 - 122
Trichloroethene	1.0	U	10.0	8.36		ug/L		84	61 - 129
1,3,5-Trimethylbenzene	1.0	U	10.0	7.98		ug/L		80	62 - 126
Vinyl chloride	1.0	U	10.0	8.27		ug/L		83	44 - 122
Xylenes, Total	2.0	U	20.0	16.8		ug/L		84	67 - 122
1,1,1-Trichloroethane	1.0	U	10.0	8.47		ug/L		85	69 - 122
1,1,2-Trichloroethane	1.0	U	10.0	9.27		ug/L		93	72 - 125
Cyclohexane	1.0	U	10.0	7.27		ug/L		73	41 - 137
1,2-Dibromo-3-Chloropropane	2.0	U	10.0	7.35		ug/L		73	42 - 130
Ethylene Dibromide	1.0	U	10.0	9.11		ug/L		91	69 - 125
Dichlorodifluoromethane	1.0	U	10.0	7.55		ug/L		76	14 - 137
cis-1,2-Dichloroethene	1.0	U	10.0	9.02		ug/L		90	66 - 124
trans-1,2-Dichloroethene	1.0	U	10.0	9.16		ug/L		92	72 - 125
Isopropylbenzene	1.0	U	10.0	7.75		ug/L		77	61 - 122
Methyl acetate	10	U	50.0	44.4		ug/L		89	64 - 124
Methyl tert-butyl ether	1.0	U	10.0	8.24		ug/L		82	61 - 121
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	10.0	9.06		ug/L		91	44 - 140
1,2,4-Trichlorobenzene	1.0	U	10.0	6.12		ug/L		61	48 - 120
1,2-Dichlorobenzene	1.0	U	10.0	8.20		ug/L		82	67 - 118
1,3-Dichlorobenzene	1.0	U	10.0	7.92		ug/L		79	65 - 120
1,4-Dichlorobenzene	1.0	U	10.0	8.19		ug/L		82	66 - 120
Trichlorofluoromethane	1.0	U	10.0	9.40		ug/L		94	49 - 133
Methylcyclohexane	1.0	U	10.0	7.14		ug/L		71	39 - 135
m-Xylene & p-Xylene	2.0	U	10.0	8.37		ug/L		84	66 - 123
o-Xylene	1.0	U	10.0	8.42		ug/L		84	68 - 121

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	91		78 - 125
4-Bromofluorobenzene (Surr)	96		61 - 120
Toluene-d8 (Surr)	94		80 - 120
Dibromofluoromethane (Surr)	94		79 - 120

**Lab Sample ID: 240-54779-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 195636**

**Client Sample ID: GW-082615-JL-16**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	10	U	20.0	18.1		ug/L		90	32 - 126	2	28
Benzene	1.0	U	10.0	8.88		ug/L		89	73 - 121	3	13

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# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 240-54779-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 195636**

**Client Sample ID: GW-082615-JL-16**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorobromomethane	1.0	U	10.0	8.44		ug/L		84	72 - 120	2	19
Bromoform	1.0	U	10.0	8.37		ug/L		84	45 - 121	2	19
Bromomethane	1.0	U	10.0	9.78		ug/L		98	26 - 136	0	35
2-Butanone (MEK)	10	U	20.0	16.8		ug/L		84	49 - 132	0	19
Carbon disulfide	1.0	U	10.0	7.59		ug/L		76	54 - 144	3	34
Carbon tetrachloride	1.0	U	10.0	8.84		ug/L		88	65 - 129	3	20
Chlorobenzene	1.0	U	10.0	8.67		ug/L		87	72 - 120	1	15
Chloroethane	1.0	U	10.0	8.41		ug/L		84	27 - 131	4	35
Chloroform	1.0	U	10.0	9.18		ug/L		92	73 - 121	0	17
Chloromethane	1.0	U	10.0	8.54		ug/L		85	39 - 134	2	20
1,1-Dichloroethane	1.0	U	10.0	8.92		ug/L		89	73 - 124	4	14
1,2-Dichloroethane	1.0	U	10.0	9.22		ug/L		92	74 - 125	0	24
1,1-Dichloroethene	1.0	U	10.0	8.56		ug/L		86	67 - 124	5	24
1,2-Dichloropropane	1.0	U	10.0	8.76		ug/L		88	73 - 122	6	15
1,2,4-Trimethylbenzene	1.0	U	10.0	8.18		ug/L		82	64 - 122	4	14
cis-1,3-Dichloropropene	1.0	U	10.0	7.24		ug/L		72	60 - 120	5	21
trans-1,3-Dichloropropene	1.0	U	10.0	8.51		ug/L		85	58 - 132	5	22
Ethylbenzene	1.0	U	10.0	8.37		ug/L		84	68 - 121	3	16
2-Hexanone	10	U	20.0	17.0		ug/L		85	49 - 142	0	27
Methylene Chloride	1.0	U	10.0	9.60		ug/L		96	70 - 124	4	14
4-Methyl-2-pentanone (MIBK)	10	U	20.0	15.4		ug/L		77	58 - 136	0	32
Styrene	1.0	U	10.0	8.60		ug/L		86	64 - 126	2	15
1,1,2,2-Tetrachloroethane	1.0	U	10.0	8.43		ug/L		84	61 - 130	2	18
Tetrachloroethene	1.0	U	10.0	8.37		ug/L		84	59 - 125	4	20
Toluene	1.0	U	10.0	8.94		ug/L		89	72 - 122	2	15
Trichloroethene	1.0	U	10.0	8.75		ug/L		88	61 - 129	5	14
1,3,5-Trimethylbenzene	1.0	U	10.0	8.17		ug/L		82	62 - 126	2	17
Vinyl chloride	1.0	U	10.0	8.43		ug/L		84	44 - 122	2	35
Xylenes, Total	2.0	U	20.0	17.4		ug/L		87	67 - 122	4	14
1,1,1-Trichloroethane	1.0	U	10.0	8.77		ug/L		88	69 - 122	3	14
1,1,2-Trichloroethane	1.0	U	10.0	9.47		ug/L		95	72 - 125	2	19
Cyclohexane	1.0	U	10.0	7.30		ug/L		73	41 - 137	0	35
1,2-Dibromo-3-Chloropropane	2.0	U	10.0	7.81		ug/L		78	42 - 130	6	24
Ethylene Dibromide	1.0	U	10.0	9.17		ug/L		92	69 - 125	1	24
Dichlorodifluoromethane	1.0	U	10.0	8.03		ug/L		80	14 - 137	6	34
cis-1,2-Dichloroethene	1.0	U	10.0	9.16		ug/L		92	66 - 124	1	22
trans-1,2-Dichloroethene	1.0	U	10.0	9.15		ug/L		91	72 - 125	0	25
Isopropylbenzene	1.0	U	10.0	8.05		ug/L		80	61 - 122	4	20
Methyl acetate	10	U	50.0	44.4		ug/L		89	64 - 124	0	12
Methyl tert-butyl ether	1.0	U	10.0	8.60		ug/L		86	61 - 121	4	12
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	10.0	8.83		ug/L		88	44 - 140	3	35
1,2,4-Trichlorobenzene	1.0	U	10.0	6.84		ug/L		68	48 - 120	11	28
1,2-Dichlorobenzene	1.0	U	10.0	8.29		ug/L		83	67 - 118	1	15
1,3-Dichlorobenzene	1.0	U	10.0	8.11		ug/L		81	65 - 120	2	15
1,4-Dichlorobenzene	1.0	U	10.0	8.02		ug/L		80	66 - 120	2	16
Trichlorofluoromethane	1.0	U	10.0	9.75		ug/L		97	49 - 133	4	25
Methylcyclohexane	1.0	U	10.0	7.42		ug/L		74	39 - 135	4	35

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# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 240-54779-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 195636**

**Client Sample ID: GW-082615-JL-16**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
m-Xylene & p-Xylene	2.0	U	10.0	8.68		ug/L		87	66 - 123	4	15
o-Xylene	1.0	U	10.0	8.74		ug/L		87	68 - 121	4	14
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	92		78 - 125								
4-Bromofluorobenzene (Surr)	97		61 - 120								
Toluene-d8 (Surr)	92		80 - 120								
Dibromofluoromethane (Surr)	91		79 - 120								

**Lab Sample ID: MB 240-196129/5**  
**Matrix: Water**  
**Analysis Batch: 196129**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/03/15 11:52	1
Benzene	1.0	U	1.0	0.35	ug/L			09/03/15 11:52	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/03/15 11:52	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/03/15 11:52	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/03/15 11:52	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/03/15 11:52	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/03/15 11:52	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/03/15 11:52	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/03/15 11:52	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/03/15 11:52	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/03/15 11:52	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/03/15 11:52	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/03/15 11:52	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/03/15 11:52	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/03/15 11:52	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/03/15 11:52	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/03/15 11:52	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/03/15 11:52	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/03/15 11:52	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/03/15 11:52	1
2-Hexanone	10	U	10	0.48	ug/L			09/03/15 11:52	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/03/15 11:52	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/03/15 11:52	1
Styrene	1.0	U	1.0	0.45	ug/L			09/03/15 11:52	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/03/15 11:52	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/03/15 11:52	1
Toluene	1.0	U	1.0	0.23	ug/L			09/03/15 11:52	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/03/15 11:52	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/03/15 11:52	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/03/15 11:52	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/03/15 11:52	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/03/15 11:52	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/03/15 11:52	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/03/15 11:52	1

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# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 240-196129/5**  
**Matrix: Water**  
**Analysis Batch: 196129**

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/03/15 11:52	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/03/15 11:52	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/03/15 11:52	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/03/15 11:52	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/03/15 11:52	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/03/15 11:52	1
Methyl acetate	10	U	10	2.3	ug/L			09/03/15 11:52	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/03/15 11:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/03/15 11:52	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/03/15 11:52	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/03/15 11:52	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/03/15 11:52	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/03/15 11:52	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/03/15 11:52	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/03/15 11:52	1
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/03/15 11:52	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	102		78 - 125		09/03/15 11:52	1
4-Bromofluorobenzene (Surr)	104		61 - 120		09/03/15 11:52	1
Toluene-d8 (Surr)	95		80 - 120		09/03/15 11:52	1
Dibromofluoromethane (Surr)	88		79 - 120		09/03/15 11:52	1

**Lab Sample ID: LCS 240-196129/4**  
**Matrix: Water**  
**Analysis Batch: 196129**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	10.0	10.4		ug/L		104	80 - 120
Dichlorobromomethane	10.0	9.99		ug/L		100	80 - 120
Bromoform	10.0	7.60		ug/L		76	56 - 122
Bromomethane	10.0	7.06		ug/L		71	38 - 132
2-Butanone (MEK)	20.0	21.5		ug/L		107	56 - 138
Carbon disulfide	10.0	9.71		ug/L		97	65 - 144
Carbon tetrachloride	10.0	9.79		ug/L		98	77 - 131
Chlorobenzene	10.0	10.1		ug/L		101	80 - 120
Chloroethane	10.0	7.63		ug/L		76	36 - 126
Chloroform	10.0	10.5		ug/L		105	80 - 120
Chloromethane	10.0	7.14		ug/L		71	48 - 133
1,1-Dichloroethane	10.0	10.9		ug/L		109	79 - 125
1,2-Dichloroethane	10.0	10.7		ug/L		107	80 - 120
1,1-Dichloroethene	10.0	9.60		ug/L		96	76 - 124
1,2-Dichloropropane	10.0	10.7		ug/L		107	78 - 124
1,2,4-Trimethylbenzene	10.0	10.1		ug/L		101	76 - 120
cis-1,3-Dichloropropene	10.0	8.97		ug/L		90	74 - 126
trans-1,3-Dichloropropene	10.0	9.09		ug/L		91	75 - 131
Ethylbenzene	10.0	9.82		ug/L		98	80 - 120

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# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 240-196129/4**  
**Matrix: Water**  
**Analysis Batch: 196129**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Hexanone	20.0	21.8		ug/L		109	55 - 141
Methylene Chloride	10.0	10.8		ug/L		108	77 - 129
4-Methyl-2-pentanone (MIBK)	20.0	22.1		ug/L		110	64 - 135
Styrene	10.0	9.86		ug/L		99	76 - 122
1,1,2,2-Tetrachloroethane	10.0	11.4		ug/L		114	71 - 123
Tetrachloroethene	10.0	9.21		ug/L		92	78 - 121
Toluene	10.0	9.90		ug/L		99	80 - 120
Trichloroethene	10.0	9.98		ug/L		100	80 - 121
1,3,5-Trimethylbenzene	10.0	10.1		ug/L		101	77 - 120
Vinyl chloride	10.0	7.50		ug/L		75	52 - 121
Xylenes, Total	20.0	19.9		ug/L		99	80 - 120
1,1,1-Trichloroethane	10.0	9.58		ug/L		96	77 - 123
1,1,2-Trichloroethane	10.0	10.6		ug/L		106	80 - 120
Cyclohexane	10.0	10.2		ug/L		102	60 - 140
1,2-Dibromo-3-Chloropropane	10.0	7.09		ug/L		71	50 - 132
Ethylene Dibromide	10.0	10.6		ug/L		106	80 - 120
Dichlorodifluoromethane	10.0	4.69		ug/L		47	23 - 136
cis-1,2-Dichloroethene	10.0	9.98		ug/L		100	79 - 120
trans-1,2-Dichloroethene	10.0	10.1		ug/L		101	80 - 124
Isopropylbenzene	10.0	9.71		ug/L		97	77 - 120
Methyl acetate	50.0	54.9		ug/L		110	67 - 131
Methyl tert-butyl ether	10.0	9.07		ug/L		91	69 - 121
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.52		ug/L		95	67 - 138
1,2,4-Trichlorobenzene	10.0	8.45		ug/L		84	61 - 120
1,2-Dichlorobenzene	10.0	9.29		ug/L		93	79 - 120
1,3-Dichlorobenzene	10.0	9.51		ug/L		95	79 - 120
1,4-Dichlorobenzene	10.0	9.64		ug/L		96	79 - 120
Trichlorofluoromethane	10.0	8.61		ug/L		86	61 - 133
Methylcyclohexane	10.0	10.4		ug/L		104	61 - 134
m-Xylene & p-Xylene	10.0	10.2		ug/L		102	80 - 120
o-Xylene	10.0	9.66		ug/L		97	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		78 - 125
4-Bromofluorobenzene (Surr)	110		61 - 120
Toluene-d8 (Surr)	96		80 - 120
Dibromofluoromethane (Surr)	97		79 - 120

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

**Lab Sample ID: MB 240-195276/17-A**  
**Matrix: Water**  
**Analysis Batch: 196570**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 195276**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	5.0	U	5.0	0.044	ug/L		08/28/15 08:42	09/08/15 11:50	1
Acenaphthylene	5.0	U	5.0	0.048	ug/L		08/28/15 08:42	09/08/15 11:50	1

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# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

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

**Lab Sample ID: MB 240-195276/17-A**  
**Matrix: Water**  
**Analysis Batch: 196570**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 195276**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetophenone	5.0	U	5.0	0.34	ug/L		08/28/15 08:42	09/08/15 11:50	1
Anthracene	5.0	U	5.0	0.088	ug/L		08/28/15 08:42	09/08/15 11:50	1
Atrazine	3.0	U	3.0	0.34	ug/L		08/28/15 08:42	09/08/15 11:50	1
Benzaldehyde	5.0	U	5.0	0.39	ug/L		08/28/15 08:42	09/08/15 11:50	1
Benzo[a]anthracene	1.0	U	1.0	0.030	ug/L		08/28/15 08:42	09/08/15 11:50	1
Benzo[b]fluoranthene	1.0	U	1.0	0.039	ug/L		08/28/15 08:42	09/08/15 11:50	1
Benzo[k]fluoranthene	1.0	U	1.0	0.045	ug/L		08/28/15 08:42	09/08/15 11:50	1
Benzo[g,h,i]perylene	1.0	U	1.0	0.046	ug/L		08/28/15 08:42	09/08/15 11:50	1
Benzo[a]pyrene	1.0	U	1.0	0.051	ug/L		08/28/15 08:42	09/08/15 11:50	1
Butyl benzyl phthalate	5.0	U	5.0	0.26	ug/L		08/28/15 08:42	09/08/15 11:50	1
1,1'-Biphenyl	5.0	U	5.0	0.13	ug/L		08/28/15 08:42	09/08/15 11:50	1
Bis(2-chloroethoxy)methane	5.0	U	5.0	0.32	ug/L		08/28/15 08:42	09/08/15 11:50	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.10	ug/L		08/28/15 08:42	09/08/15 11:50	1
Bis(2-ethylhexyl) phthalate	5.0	U	5.0	1.7	ug/L		08/28/15 08:42	09/08/15 11:50	1
4-Bromophenyl phenyl ether	5.0	U	5.0	0.22	ug/L		08/28/15 08:42	09/08/15 11:50	1
Caprolactam	10	U	10	0.20	ug/L		08/28/15 08:42	09/08/15 11:50	1
Carbazole	10	U	10	0.28	ug/L		08/28/15 08:42	09/08/15 11:50	1
4-Chloroaniline	10	U	10	0.21	ug/L		08/28/15 08:42	09/08/15 11:50	1
4-Chloro-3-methylphenol	5.0	U	5.0	0.21	ug/L		08/28/15 08:42	09/08/15 11:50	1
2-Chloronaphthalene	5.0	U	5.0	0.10	ug/L		08/28/15 08:42	09/08/15 11:50	1
2-Chlorophenol	5.0	U	5.0	0.29	ug/L		08/28/15 08:42	09/08/15 11:50	1
4-Chlorophenyl phenyl ether	5.0	U	5.0	0.30	ug/L		08/28/15 08:42	09/08/15 11:50	1
Chrysene	1.0	U	1.0	0.050	ug/L		08/28/15 08:42	09/08/15 11:50	1
2-Methylnaphthalene	5.0	U	5.0	0.090	ug/L		08/28/15 08:42	09/08/15 11:50	1
3 & 4 Methylphenol	5.0	U	5.0	0.80	ug/L		08/28/15 08:42	09/08/15 11:50	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.045	ug/L		08/28/15 08:42	09/08/15 11:50	1
Dibenzofuran	4.0	U	4.0	0.020	ug/L		08/28/15 08:42	09/08/15 11:50	1
3,3'-Dichlorobenzidine	1.0	U	1.0	0.37	ug/L		08/28/15 08:42	09/08/15 11:50	1
2,4-Dichlorophenol	10	U	10	0.19	ug/L		08/28/15 08:42	09/08/15 11:50	1
Diethyl phthalate	5.0	U	5.0	0.60	ug/L		08/28/15 08:42	09/08/15 11:50	1
2,4-Dimethylphenol	5.0	U	5.0	0.25	ug/L		08/28/15 08:42	09/08/15 11:50	1
Dimethyl phthalate	5.0	U	5.0	0.29	ug/L		08/28/15 08:42	09/08/15 11:50	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		08/28/15 08:42	09/08/15 11:50	1
2,4-Dinitrophenol	20	U	20	0.32	ug/L		08/28/15 08:42	09/08/15 11:50	1
2,4-Dinitrotoluene	5.0	U	5.0	0.25	ug/L		08/28/15 08:42	09/08/15 11:50	1
Di-n-butyl phthalate	5.0	U	5.0	1.7	ug/L		08/28/15 08:42	09/08/15 11:50	1
Di-n-octyl phthalate	5.0	U	5.0	0.23	ug/L		08/28/15 08:42	09/08/15 11:50	1
Fluoranthene	1.0	U	1.0	0.045	ug/L		08/28/15 08:42	09/08/15 11:50	1
Fluorene	5.0	U	5.0	0.041	ug/L		08/28/15 08:42	09/08/15 11:50	1
Hexachlorobenzene	0.20	U	0.20	0.085	ug/L		08/28/15 08:42	09/08/15 11:50	1
Hexachlorobutadiene	1.0	U	1.0	0.27	ug/L		08/28/15 08:42	09/08/15 11:50	1
Hexachlorocyclopentadiene	5.0	U	5.0	0.24	ug/L		08/28/15 08:42	09/08/15 11:50	1
Hexachloroethane	5.0	U	5.0	0.19	ug/L		08/28/15 08:42	09/08/15 11:50	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.043	ug/L		08/28/15 08:42	09/08/15 11:50	1
Isophorone	5.0	U	5.0	0.27	ug/L		08/28/15 08:42	09/08/15 11:50	1
2-Methylphenol	5.0	U	5.0	0.17	ug/L		08/28/15 08:42	09/08/15 11:50	1
Naphthalene	5.0	U	5.0	0.063	ug/L		08/28/15 08:42	09/08/15 11:50	1
2-Nitroaniline	20	U	20	0.21	ug/L		08/28/15 08:42	09/08/15 11:50	1

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

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

**Lab Sample ID: MB 240-195276/17-A**  
**Matrix: Water**  
**Analysis Batch: 196570**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 195276**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
3-Nitroaniline	20	U	20	0.28	ug/L		08/28/15 08:42	09/08/15 11:50	1
4-Nitroaniline	20	U	20	0.22	ug/L		08/28/15 08:42	09/08/15 11:50	1
Nitrobenzene	3.0	U	3.0	0.040	ug/L		08/28/15 08:42	09/08/15 11:50	1
2-Nitrophenol	5.0	U	5.0	0.28	ug/L		08/28/15 08:42	09/08/15 11:50	1
4-Nitrophenol	20	U	20	0.29	ug/L		08/28/15 08:42	09/08/15 11:50	1
N-Nitrosodiphenylamine	5.0	U	5.0	0.31	ug/L		08/28/15 08:42	09/08/15 11:50	1
N-Nitrosodi-n-propylamine	5.0	U	5.0	0.24	ug/L		08/28/15 08:42	09/08/15 11:50	1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	0.40	ug/L		08/28/15 08:42	09/08/15 11:50	1
Pentachlorophenol	5.0	U	5.0	0.27	ug/L		08/28/15 08:42	09/08/15 11:50	1
Phenanthrene	2.0	U	2.0	0.062	ug/L		08/28/15 08:42	09/08/15 11:50	1
Phenol	5.0	U	5.0	0.60	ug/L		08/28/15 08:42	09/08/15 11:50	1
Pyrene	5.0	U	5.0	0.042	ug/L		08/28/15 08:42	09/08/15 11:50	1
2,4,5-Trichlorophenol	5.0	U	5.0	0.30	ug/L		08/28/15 08:42	09/08/15 11:50	1
2,4,6-Trichlorophenol	4.0	U	4.0	0.24	ug/L		08/28/15 08:42	09/08/15 11:50	1
2,6-Dinitrotoluene	5.0	U	5.0	0.80	ug/L		08/28/15 08:42	09/08/15 11:50	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorobiphenyl (Surr)	76		29 - 110	08/28/15 08:42	09/08/15 11:50	1
2-Fluorophenol (Surr)	64		15 - 110	08/28/15 08:42	09/08/15 11:50	1
2,4,6-Tribromophenol (Surr)	69		21 - 128	08/28/15 08:42	09/08/15 11:50	1
Nitrobenzene-d5 (Surr)	76		31 - 110	08/28/15 08:42	09/08/15 11:50	1
Phenol-d5 (Surr)	53		10 - 110	08/28/15 08:42	09/08/15 11:50	1
Terphenyl-d14 (Surr)	85		31 - 115	08/28/15 08:42	09/08/15 11:50	1

**Lab Sample ID: LCS 240-195276/18-A**  
**Matrix: Water**  
**Analysis Batch: 196570**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 195276**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	20.0	15.6		ug/L		78	55 - 120
Acenaphthylene	20.0	15.6		ug/L		78	55 - 120
Acetophenone	20.0	16.9		ug/L		84	50 - 120
Anthracene	20.0	16.5		ug/L		83	56 - 120
Atrazine	40.0	35.5		ug/L		89	65 - 161
Benzaldehyde	40.0	33.2		ug/L		83	40 - 122
Benzo[a]anthracene	20.0	17.7		ug/L		89	46 - 120
Benzo[b]fluoranthene	20.0	18.1		ug/L		90	24 - 120
Benzo[k]fluoranthene	20.0	19.0		ug/L		95	30 - 120
Benzo[g,h,i]perylene	20.0	18.6		ug/L		93	24 - 126
Benzo[a]pyrene	20.0	18.8		ug/L		94	24 - 120
Butyl benzyl phthalate	20.0	18.2		ug/L		91	51 - 120
1,1'-Biphenyl	20.0	15.7		ug/L		78	52 - 120
Bis(2-chloroethoxy)methane	20.0	16.9		ug/L		85	48 - 120
Bis(2-chloroethyl)ether	20.0	16.0		ug/L		80	43 - 120
Bis(2-ethylhexyl) phthalate	20.0	19.2		ug/L		96	21 - 125
4-Bromophenyl phenyl ether	20.0	17.2		ug/L		86	47 - 120
Caprolactam	40.0	8.85	J	ug/L		22	10 - 120
Carbazole	20.0	17.9		ug/L		89	57 - 120

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

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

**Lab Sample ID: LCS 240-195276/18-A**  
**Matrix: Water**  
**Analysis Batch: 196570**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 195276**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
4-Chloroaniline	20.0	6.91	J	ug/L		35	15 - 120
4-Chloro-3-methylphenol	20.0	16.4		ug/L		82	45 - 120
2-Chloronaphthalene	20.0	15.8		ug/L		79	47 - 120
2-Chlorophenol	20.0	15.9		ug/L		79	43 - 120
4-Chlorophenyl phenyl ether	20.0	16.6		ug/L		83	47 - 120
Chrysene	20.0	17.8		ug/L		89	49 - 120
2-Methylnaphthalene	20.0	15.7		ug/L		79	52 - 120
3 & 4 Methylphenol	20.0	15.6		ug/L		78	34 - 120
Dibenz(a,h)anthracene	20.0	19.7		ug/L		98	24 - 125
Dibenzofuran	20.0	16.0		ug/L		80	56 - 120
3,3'-Dichlorobenzidine	40.0	33.3		ug/L		83	29 - 120
2,4-Dichlorophenol	20.0	16.8		ug/L		84	46 - 120
Diethyl phthalate	20.0	17.0		ug/L		85	58 - 120
2,4-Dimethylphenol	20.0	14.9		ug/L		75	38 - 120
Dimethyl phthalate	20.0	17.0		ug/L		85	59 - 120
4,6-Dinitro-2-methylphenol	40.0	30.5		ug/L		76	33 - 120
2,4-Dinitrophenol	40.0	26.2		ug/L		65	10 - 120
2,4-Dinitrotoluene	20.0	17.0		ug/L		85	52 - 120
Di-n-butyl phthalate	20.0	18.3		ug/L		92	57 - 122
Di-n-octyl phthalate	20.0	19.0		ug/L		95	21 - 122
Fluoranthene	20.0	17.8		ug/L		89	57 - 120
Fluorene	20.0	16.3		ug/L		81	56 - 120
Hexachlorobenzene	20.0	16.8		ug/L		84	52 - 120
Hexachlorobutadiene	20.0	15.5		ug/L		78	38 - 120
Hexachlorocyclopentadiene	20.0	12.3		ug/L		62	4 - 120
Hexachloroethane	20.0	14.5		ug/L		72	42 - 120
Indeno[1,2,3-cd]pyrene	20.0	18.7		ug/L		93	25 - 120
Isophorone	20.0	16.7		ug/L		84	48 - 123
2-Methylphenol	20.0	16.1		ug/L		81	38 - 120
Naphthalene	20.0	15.1		ug/L		76	52 - 120
2-Nitroaniline	20.0	16.9	J	ug/L		85	48 - 127
3-Nitroaniline	20.0	16.6	J	ug/L		83	52 - 120
4-Nitroaniline	20.0	16.7	J	ug/L		84	48 - 120
Nitrobenzene	20.0	17.0		ug/L		85	41 - 120
2-Nitrophenol	20.0	17.4		ug/L		87	42 - 120
4-Nitrophenol	40.0	22.9		ug/L		57	16 - 120
N-Nitrosodiphenylamine	40.0	33.9		ug/L		85	51 - 120
N-Nitrosodi-n-propylamine	20.0	16.2		ug/L		81	48 - 123
2,2'-oxybis[1-chloropropane]	20.0	15.8		ug/L		79	42 - 120
Pentachlorophenol	40.0	23.6		ug/L		59	14 - 120
Phenanthrene	20.0	16.5		ug/L		82	57 - 120
Phenol	20.0	9.89		ug/L		49	16 - 120
Pyrene	20.0	17.9		ug/L		89	50 - 120
2,4,5-Trichlorophenol	20.0	16.8		ug/L		84	47 - 120
2,4,6-Trichlorophenol	20.0	16.5		ug/L		82	43 - 120
2,6-Dinitrotoluene	20.0	16.6		ug/L		83	52 - 120

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

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

**Lab Sample ID: LCS 240-195276/18-A**  
**Matrix: Water**  
**Analysis Batch: 196570**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 195276**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	81		29 - 110
2-Fluorophenol (Surr)	69		15 - 110
2,4,6-Tribromophenol (Surr)	85		21 - 128
Nitrobenzene-d5 (Surr)	83		31 - 110
Phenol-d5 (Surr)	51		10 - 110
Terphenyl-d14 (Surr)	98		31 - 115

**Lab Sample ID: 240-54779-4 MS**  
**Matrix: Water**  
**Analysis Batch: 196773**

**Client Sample ID: GW-082615-JL-16**  
**Prep Type: Total/NA**  
**Prep Batch: 195276**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	5.0	U	20.6	15.7		ug/L		76	49 - 110
Acenaphthylene	5.0	U	20.6	16.4		ug/L		80	49 - 110
Acetophenone	5.0	U	20.6	15.8		ug/L		76	45 - 110
Anthracene	5.0	U	20.6	16.8		ug/L		81	50 - 110
Atrazine	3.0	U	41.2	37.0		ug/L		90	55 - 110
Benzaldehyde	5.0	U	41.2	30.8		ug/L		75	24 - 119
Benzo[a]anthracene	0.99	U	20.6	13.4		ug/L		65	34 - 110
Benzo[b]fluoranthene	0.99	U	20.6	12.6		ug/L		61	21 - 110
Benzo[k]fluoranthene	0.99	U	20.6	11.9		ug/L		58	24 - 110
Benzo[g,h,i]perylene	0.99	U	20.6	9.23		ug/L		45	18 - 110
Benzo[a]pyrene	0.99	U	20.6	11.9		ug/L		58	17 - 110
Butyl benzyl phthalate	5.0	U	20.6	15.7		ug/L		76	48 - 110
1,1'-Biphenyl	5.0	U	20.6	15.5		ug/L		75	46 - 110
Bis(2-chloroethoxy)methane	5.0	U	20.6	15.5		ug/L		75	45 - 110
Bis(2-chloroethyl)ether	0.99	U	20.6	14.8		ug/L		72	30 - 110
Bis(2-ethylhexyl) phthalate	5.0	U	20.6	11.0		ug/L		53	10 - 110
4-Bromophenyl phenyl ether	5.0	U	20.6	17.9		ug/L		87	51 - 110
Caprolactam	9.9	U F1	41.2	2.87	J F1	ug/L		7	10 - 126
Carbazole	9.9	U	20.6	18.7		ug/L		91	50 - 110
4-Chloroaniline	9.9	U F1	20.6	2.64	J F1	ug/L		13	20 - 110
4-Chloro-3-methylphenol	5.0	U	20.6	16.0		ug/L		78	42 - 110
2-Chloronaphthalene	5.0	U	20.6	15.4		ug/L		75	46 - 110
2-Chlorophenol	5.0	U	20.6	13.6		ug/L		66	35 - 110
4-Chlorophenyl phenyl ether	5.0	U	20.6	16.5		ug/L		80	51 - 110
Chrysene	0.99	U	20.6	12.9		ug/L		62	36 - 110
2-Methylnaphthalene	5.0	U	20.6	15.7		ug/L		76	50 - 110
3 & 4 Methylphenol	5.0	U	20.6	9.21		ug/L		45	26 - 110
Dibenz(a,h)anthracene	2.0	U	20.6	9.75		ug/L		47	14 - 110
Dibenzofuran	4.0	U	20.6	15.9		ug/L		77	51 - 110
3,3'-Dichlorobenzidine	0.99	U	41.2	31.7		ug/L		77	10 - 110
2,4-Dichlorophenol	9.9	U	20.6	16.0		ug/L		78	48 - 110
Diethyl phthalate	5.0	U	20.6	18.6		ug/L		90	53 - 110
2,4-Dimethylphenol	5.0	U	20.6	13.9		ug/L		68	27 - 110
Dimethyl phthalate	5.0	U	20.6	17.7		ug/L		86	54 - 110
4,6-Dinitro-2-methylphenol	20	U	41.2	32.0		ug/L		78	10 - 110
2,4-Dinitrophenol	20	U	41.2	27.8		ug/L		67	10 - 110

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

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

**Lab Sample ID: 240-54779-4 MS**

**Matrix: Water**

**Analysis Batch: 196773**

**Client Sample ID: GW-082615-JL-16**

**Prep Type: Total/NA**

**Prep Batch: 195276**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
2,4-Dinitrotoluene	5.0	U	20.6	18.8		ug/L		91	56 - 110	
Di-n-butyl phthalate	5.0	U	20.6	17.6		ug/L		85	50 - 110	
Di-n-octyl phthalate	5.0	U	20.6	11.8		ug/L		57	10 - 110	
Fluoranthene	0.99	U	20.6	17.0		ug/L		82	54 - 110	
Fluorene	5.0	U	20.6	16.5		ug/L		80	51 - 110	
Hexachlorobenzene	0.20	U	20.6	15.1		ug/L		73	49 - 110	
Hexachlorobutadiene	0.99	U	20.6	14.1		ug/L		69	36 - 110	
Hexachlorocyclopentadiene	5.0	U	20.6	9.53		ug/L		46	4 - 110	
Hexachloroethane	5.0	U	20.6	12.6		ug/L		61	40 - 110	
Indeno[1,2,3-cd]pyrene	2.0	U	20.6	9.97		ug/L		48	16 - 110	
Isophorone	5.0	U	20.6	15.8		ug/L		77	45 - 110	
2-Methylphenol	5.0	U	20.6	11.0		ug/L		54	31 - 110	
Naphthalene	5.0	U	20.6	14.4		ug/L		70	35 - 110	
2-Nitroaniline	20	U	20.6	17.1	J	ug/L		83	42 - 110	
3-Nitroaniline	20	U	20.6	15.4	J	ug/L		75	31 - 110	
4-Nitroaniline	20	U	20.6	16.1	J	ug/L		78	26 - 110	
Nitrobenzene	3.0	U	20.6	15.4		ug/L		75	43 - 110	
2-Nitrophenol	5.0	U	20.6	16.1		ug/L		78	47 - 110	
4-Nitrophenol	20	U	41.2	8.05	J	ug/L		20	10 - 110	
N-Nitrosodiphenylamine	5.0	U	41.2	34.6		ug/L		84	41 - 110	
N-Nitrosodi-n-propylamine	5.0	U	20.6	15.8		ug/L		77	42 - 110	
2,2'-oxybis[1-chloropropane]	5.0	U	20.6	14.8		ug/L		72	26 - 110	
Pentachlorophenol	5.0	U	41.2	28.3		ug/L		69	24 - 110	
Phenanthrene	2.0	U	20.6	16.9		ug/L		82	52 - 110	
Phenol	5.0	U	20.6	3.49	J	ug/L		17	10 - 125	
Pyrene	5.0	U	20.6	16.3		ug/L		79	50 - 110	
2,4,5-Trichlorophenol	5.0	U	20.6	15.7		ug/L		76	53 - 110	
2,4,6-Trichlorophenol	4.0	U	20.6	15.3		ug/L		74	50 - 110	
2,6-Dinitrotoluene	5.0	U	20.6	17.8		ug/L		86	55 - 110	

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	76		29 - 110
2-Fluorophenol (Surr)	31		15 - 110
2,4,6-Tribromophenol (Surr)	74		21 - 128
Nitrobenzene-d5 (Surr)	75		31 - 110
Phenol-d5 (Surr)	17		10 - 110
Terphenyl-d14 (Surr)	47		31 - 115

**Lab Sample ID: 240-54779-4 MSD**

**Matrix: Water**

**Analysis Batch: 196773**

**Client Sample ID: GW-082615-JL-16**

**Prep Type: Total/NA**

**Prep Batch: 195276**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Acenaphthene	5.0	U	20.0	14.9		ug/L		74	49 - 110	5	30	
Acenaphthylene	5.0	U	20.0	15.1		ug/L		76	49 - 110	8	37	
Acetophenone	5.0	U	20.0	14.2		ug/L		71	45 - 110	10	42	
Anthracene	5.0	U	20.0	16.5		ug/L		83	50 - 110	1	30	
Atrazine	3.0	U	40.0	36.6		ug/L		91	55 - 110	1	30	

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# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

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

**Lab Sample ID: 240-54779-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 196773**

**Client Sample ID: GW-082615-JL-16**  
**Prep Type: Total/NA**  
**Prep Batch: 195276**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Benzaldehyde	5.0	U	40.0	28.2		ug/L		71	24 - 119	9	74
Benzo[a]anthracene	0.99	U	20.0	13.1		ug/L		66	34 - 110	2	52
Benzo[b]fluoranthene	0.99	U	20.0	12.8		ug/L		64	21 - 110	1	64
Benzo[k]fluoranthene	0.99	U	20.0	11.7		ug/L		58	24 - 110	2	75
Benzo[g,h,i]perylene	0.99	U	20.0	9.44		ug/L		47	18 - 110	2	87
Benzo[a]pyrene	0.99	U	20.0	11.9		ug/L		60	17 - 110	0	68
Butyl benzyl phthalate	5.0	U	20.0	15.1		ug/L		75	48 - 110	4	30
1,1'-Biphenyl	5.0	U	20.0	14.4		ug/L		72	46 - 110	8	36
Bis(2-chloroethoxy)methane	5.0	U	20.0	15.1		ug/L		76	45 - 110	2	39
Bis(2-chloroethyl)ether	0.99	U	20.0	13.1		ug/L		65	30 - 110	12	56
Bis(2-ethylhexyl) phthalate	5.0	U	20.0	10.6		ug/L		53	10 - 110	4	85
4-Bromophenyl phenyl ether	5.0	U	20.0	17.5		ug/L		87	51 - 110	3	30
Caprolactam	9.9	U F1	40.0	2.91	J F1	ug/L		7	10 - 126	2	59
Carbazole	9.9	U	20.0	18.3		ug/L		91	50 - 110	2	30
4-Chloroaniline	9.9	U F1	20.0	2.23	J F1	ug/L		11	20 - 110	17	50
4-Chloro-3-methylphenol	5.0	U	20.0	15.2		ug/L		76	42 - 110	6	30
2-Chloronaphthalene	5.0	U	20.0	14.8		ug/L		74	46 - 110	4	34
2-Chlorophenol	5.0	U	20.0	11.9		ug/L		59	35 - 110	14	57
4-Chlorophenyl phenyl ether	5.0	U	20.0	16.1		ug/L		80	51 - 110	2	30
Chrysene	0.99	U	20.0	12.8		ug/L		64	36 - 110	1	49
2-Methylnaphthalene	5.0	U	20.0	14.5		ug/L		73	50 - 110	8	37
3 & 4 Methylphenol	5.0	U	20.0	8.58		ug/L		43	26 - 110	7	57
Dibenz(a,h)anthracene	2.0	U	20.0	10.0		ug/L		50	14 - 110	3	92
Dibenzofuran	4.0	U	20.0	15.3		ug/L		76	51 - 110	4	30
3,3'-Dichlorobenzidine	0.99	U	40.0	29.3		ug/L		73	10 - 110	8	99
2,4-Dichlorophenol	9.9	U	20.0	15.2		ug/L		76	48 - 110	5	35
Diethyl phthalate	5.0	U	20.0	17.4		ug/L		87	53 - 110	6	30
2,4-Dimethylphenol	5.0	U	20.0	12.4		ug/L		62	27 - 110	11	62
Dimethyl phthalate	5.0	U	20.0	16.9		ug/L		85	54 - 110	4	30
4,6-Dinitro-2-methylphenol	20	U	40.0	31.3		ug/L		78	10 - 110	2	92
2,4-Dinitrophenol	20	U	40.0	26.8		ug/L		67	10 - 110	3	99
2,4-Dinitrotoluene	5.0	U	20.0	17.9		ug/L		90	56 - 110	5	30
Di-n-butyl phthalate	5.0	U	20.0	17.2		ug/L		86	50 - 110	2	30
Di-n-octyl phthalate	5.0	U	20.0	11.7		ug/L		58	10 - 110	1	95
Fluoranthene	0.99	U	20.0	16.9		ug/L		84	54 - 110	1	30
Fluorene	5.0	U	20.0	15.6		ug/L		78	51 - 110	6	30
Hexachlorobenzene	0.20	U	20.0	15.5		ug/L		78	49 - 110	3	30
Hexachlorobutadiene	0.99	U	20.0	12.9		ug/L		64	36 - 110	10	60
Hexachlorocyclopentadiene	5.0	U	20.0	8.79		ug/L		44	4 - 110	8	68
Hexachloroethane	5.0	U	20.0	11.6		ug/L		58	40 - 110	8	52
Indeno[1,2,3-cd]pyrene	2.0	U	20.0	10.1		ug/L		50	16 - 110	1	89
Isophorone	5.0	U	20.0	15.7		ug/L		79	45 - 110	0	37
2-Methylphenol	5.0	U	20.0	9.88		ug/L		49	31 - 110	11	61
Naphthalene	5.0	U	20.0	13.6		ug/L		68	35 - 110	6	58
2-Nitroaniline	20	U	20.0	16.7	J	ug/L		84	42 - 110	2	30
3-Nitroaniline	20	U	20.0	13.8	J	ug/L		69	31 - 110	11	47
4-Nitroaniline	20	U	20.0	15.8	J	ug/L		79	26 - 110	2	50
Nitrobenzene	3.0	U	20.0	14.8		ug/L		74	43 - 110	5	42

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# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

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

**Lab Sample ID: 240-54779-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 196773**

**Client Sample ID: GW-082615-JL-16**  
**Prep Type: Total/NA**  
**Prep Batch: 195276**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier						
2-Nitrophenol	5.0	U	20.0	15.0		ug/L		75	47 - 110	7	44
4-Nitrophenol	20	U	40.0	7.86	J	ug/L		20	10 - 110	2	74
N-Nitrosodiphenylamine	5.0	U	40.0	33.4		ug/L		83	41 - 110	3	30
N-Nitrosodi-n-propylamine	5.0	U	20.0	14.1		ug/L		70	42 - 110	11	39
2,2'-oxybis[1-chloropropane]	5.0	U	20.0	13.2		ug/L		66	26 - 110	11	63
Pentachlorophenol	5.0	U	40.0	29.3		ug/L		73	24 - 110	3	64
Phenanthrene	2.0	U	20.0	16.6		ug/L		83	52 - 110	2	30
Phenol	5.0	U	20.0	3.42	J	ug/L		17	10 - 125	2	62
Pyrene	5.0	U	20.0	15.4		ug/L		77	50 - 110	5	30
2,4,5-Trichlorophenol	5.0	U	20.0	15.2		ug/L		76	53 - 110	3	30
2,4,6-Trichlorophenol	4.0	U	20.0	14.9		ug/L		75	50 - 110	3	30
2,6-Dinitrotoluene	5.0	U	20.0	17.1		ug/L		85	55 - 110	4	30

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	73		29 - 110
2-Fluorophenol (Surr)	30		15 - 110
2,4,6-Tribromophenol (Surr)	77		21 - 128
Nitrobenzene-d5 (Surr)	72		31 - 110
Phenol-d5 (Surr)	16		10 - 110
Terphenyl-d14 (Surr)	49		31 - 115

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 240-195268/1-A**  
**Matrix: Water**  
**Analysis Batch: 195709**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 195268**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	0.286	J	5.0	0.18	ug/L		08/28/15 08:17	08/31/15 19:38	1
Cobalt	7.0	U	7.0	0.021	ug/L		08/28/15 08:17	08/31/15 19:38	1
Chromium	2.72	J	5.0	0.20	ug/L		08/28/15 08:17	08/31/15 19:38	1
Copper	2.0	U	2.0	0.75	ug/L		08/28/15 08:17	08/31/15 19:38	1
Manganese	15	U	15	1.1	ug/L		08/28/15 08:17	08/31/15 19:38	1
Nickel	20	U	20	0.23	ug/L		08/28/15 08:17	08/31/15 19:38	1
Antimony	2.0	U	2.0	0.16	ug/L		08/28/15 08:17	08/31/15 19:38	1
Selenium	0.318	J	5.0	0.25	ug/L		08/28/15 08:17	08/31/15 19:38	1
Thallium	1.0	U	1.0	0.074	ug/L		08/28/15 08:17	08/31/15 19:38	1
Vanadium	0.881	J	4.0	0.23	ug/L		08/28/15 08:17	08/31/15 19:38	1
Zinc	20	U	20	7.3	ug/L		08/28/15 08:17	08/31/15 19:38	1
Silver	0.20	U	0.20	0.020	ug/L		08/28/15 08:17	08/31/15 19:38	1

**Lab Sample ID: LCS 240-195268/2-A**  
**Matrix: Water**  
**Analysis Batch: 195709**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 195268**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				
Arsenic	1000	1160		ug/L		116	80 - 120
Cobalt	1000	1180		ug/L		118	80 - 120

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# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCS 240-195268/2-A**  
**Matrix: Water**  
**Analysis Batch: 195709**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 195268**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Chromium	1000	1140		ug/L		114	80 - 120	
Copper	1000	1150		ug/L		115	80 - 120	
Manganese	1000	1170		ug/L		117	80 - 120	
Nickel	1000	1140		ug/L		114	80 - 120	
Antimony	100	102		ug/L		102	80 - 120	
Selenium	1000	1150		ug/L		115	80 - 120	
Thallium	250	298		ug/L		119	80 - 120	
Vanadium	1000	1100		ug/L		110	80 - 120	
Zinc	1000	1170		ug/L		117	80 - 120	
Silver	100	104		ug/L		104	80 - 120	

**Lab Sample ID: 240-54779-4 MS**  
**Matrix: Water**  
**Analysis Batch: 195709**

**Client Sample ID: GW-082615-JL-16**  
**Prep Type: Total Recoverable**  
**Prep Batch: 195268**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
Antimony	0.54	J	100	99.9		ug/L		99	75 - 125	
Arsenic	1.0	J B	1000	987		ug/L		99	75 - 125	
Cobalt	0.65	J	1000	960		ug/L		96	75 - 125	
Chromium	51	B	1000	990		ug/L		94	75 - 125	
Copper	2.5		1000	936		ug/L		93	75 - 125	
Manganese	3.5	J	1000	971		ug/L		97	75 - 125	
Nickel	31		1000	965		ug/L		93	75 - 125	
Selenium	1.1	J B	1000	939		ug/L		94	75 - 125	
Thallium	0.12	J	250	246		ug/L		98	75 - 125	
Vanadium	0.90	J B	1000	915		ug/L		91	75 - 125	
Zinc	20	U	1000	965		ug/L		96	75 - 125	
Silver	0.20	U	100	97.6		ug/L		98	75 - 125	

**Lab Sample ID: 240-54779-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 195709**

**Client Sample ID: GW-082615-JL-16**  
**Prep Type: Total Recoverable**  
**Prep Batch: 195268**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	
											RPD	Limit
Antimony	0.54	J	100	113		ug/L		113	75 - 125	13	20	
Arsenic	1.0	J B	1000	993		ug/L		99	75 - 125	1	20	
Cobalt	0.65	J	1000	958		ug/L		96	75 - 125	0	20	
Chromium	51	B	1000	985		ug/L		93	75 - 125	1	20	
Copper	2.5		1000	937		ug/L		93	75 - 125	0	20	
Manganese	3.5	J	1000	966		ug/L		96	75 - 125	1	20	
Nickel	31		1000	963		ug/L		93	75 - 125	0	20	
Selenium	1.1	J B	1000	954		ug/L		95	75 - 125	2	20	
Thallium	0.12	J	250	246		ug/L		98	75 - 125	0	20	
Vanadium	0.90	J B	1000	905		ug/L		90	75 - 125	1	20	
Zinc	20	U	1000	966		ug/L		97	75 - 125	0	20	
Silver	0.20	U	100	113		ug/L		113	75 - 125	14	20	

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# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: MB 240-195891/1-A**  
**Matrix: Water**  
**Analysis Batch: 196166**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 195891**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	1.0	U	1.0	0.053	ug/L		09/02/15 08:08	09/03/15 14:25	1
Cadmium	1.0	U	1.0	0.061	ug/L		09/02/15 08:08	09/03/15 14:25	1
Lead	3.0	U	3.0	0.11	ug/L		09/02/15 08:08	09/03/15 14:25	1
Barium	100	U	100	1.1	ug/L		09/02/15 08:08	09/03/15 14:25	1

**Lab Sample ID: LCS 240-195891/2-A**  
**Matrix: Water**  
**Analysis Batch: 196166**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 195891**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	1000	936		ug/L		94	80 - 120
Cadmium	1000	1070		ug/L		107	80 - 120
Lead	1000	1020		ug/L		102	80 - 120
Barium	1000	1050		ug/L		105	80 - 120

**Lab Sample ID: 240-54779-4 MS**  
**Matrix: Water**  
**Analysis Batch: 196166**

**Client Sample ID: GW-082615-JL-16**  
**Prep Type: Total Recoverable**  
**Prep Batch: 195891**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	82	J	1000	1160		ug/L		107	75 - 125
Beryllium	0.35	J	1000	935		ug/L		93	75 - 125
Cadmium	0.39	J	1000	1070		ug/L		107	75 - 125
Lead	0.19	J	1000	1000		ug/L		100	75 - 125

**Lab Sample ID: 240-54779-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 196166**

**Client Sample ID: GW-082615-JL-16**  
**Prep Type: Total Recoverable**  
**Prep Batch: 195891**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Barium	82	J	1000	1150		ug/L		107	75 - 125	0	20
Beryllium	0.35	J	1000	916		ug/L		92	75 - 125	2	20
Cadmium	0.39	J	1000	1060		ug/L		106	75 - 125	1	20
Lead	0.19	J	1000	999		ug/L		100	75 - 125	0	20

**Lab Sample ID: 240-54779-4 MS**  
**Matrix: Water**  
**Analysis Batch: 195709**

**Client Sample ID: GW-082615-JL-16**  
**Prep Type: Dissolved**  
**Prep Batch: 195268**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.20	U	100	98.5		ug/L		98	75 - 125
Arsenic	0.70	J B	1000	1010		ug/L		101	75 - 125
Cobalt	0.25	J	1000	944		ug/L		94	75 - 125
Chromium	3.0	J B	1000	942		ug/L		94	75 - 125
Copper	2.0	U	1000	938		ug/L		94	75 - 125
Manganese	15	U	1000	970		ug/L		97	75 - 125
Nickel	10	J	1000	948		ug/L		94	75 - 125
Antimony	0.44	J	100	103		ug/L		102	75 - 125
Selenium	0.86	J B	1000	961		ug/L		96	75 - 125

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# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: 240-54779-4 MS**  
**Matrix: Water**  
**Analysis Batch: 195709**

**Client Sample ID: GW-082615-JL-16**  
**Prep Type: Dissolved**  
**Prep Batch: 195268**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Thallium	1.0	U	250	244		ug/L		98		75 - 125
Vanadium	1.4	J B	1000	918		ug/L		92		75 - 125
Zinc	20	U	1000	960		ug/L		96		75 - 125

**Lab Sample ID: 240-54779-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 195709**

**Client Sample ID: GW-082615-JL-16**  
**Prep Type: Dissolved**  
**Prep Batch: 195268**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier							
Silver	0.20	U	100	99.5		ug/L		99		75 - 125	1	20
Arsenic	0.70	J B	1000	1010		ug/L		101		75 - 125	0	20
Cobalt	0.25	J	1000	976		ug/L		98		75 - 125	3	20
Chromium	3.0	J B	1000	971		ug/L		97		75 - 125	3	20
Copper	2.0	U	1000	975		ug/L		97		75 - 125	4	20
Manganese	15	U	1000	991		ug/L		99		75 - 125	2	20
Nickel	10	J	1000	970		ug/L		96		75 - 125	2	20
Antimony	0.44	J	100	101		ug/L		100		75 - 125	2	20
Selenium	0.86	J B	1000	966		ug/L		97		75 - 125	1	20
Thallium	1.0	U	250	255		ug/L		102		75 - 125	4	20
Vanadium	1.4	J B	1000	931		ug/L		93		75 - 125	1	20
Zinc	20	U	1000	998		ug/L		100		75 - 125	4	20

**Lab Sample ID: 240-54779-4 MS**  
**Matrix: Water**  
**Analysis Batch: 196166**

**Client Sample ID: GW-082615-JL-16**  
**Prep Type: Dissolved**  
**Prep Batch: 195891**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Beryllium	0.17	J	1000	943		ug/L		94		75 - 125
Cadmium	0.25	J	1000	1060		ug/L		106		75 - 125
Lead	0.13	J	1000	997		ug/L		100		75 - 125
Barium	80	J	1000	1150		ug/L		107		75 - 125

**Lab Sample ID: 240-54779-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 196166**

**Client Sample ID: GW-082615-JL-16**  
**Prep Type: Dissolved**  
**Prep Batch: 195891**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier							
Beryllium	0.17	J	1000	940		ug/L		94		75 - 125	0	20
Cadmium	0.25	J	1000	1040		ug/L		104		75 - 125	2	20
Lead	0.13	J	1000	1010		ug/L		101		75 - 125	2	20
Barium	80	J	1000	1150		ug/L		107		75 - 125	0	20

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 240-195271/1-A**  
**Matrix: Water**  
**Analysis Batch: 195593**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 195271**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/28/15 14:00	08/31/15 15:03	1

**Lab Sample ID: LCS 240-195271/2-A**  
**Matrix: Water**  
**Analysis Batch: 195593**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 195271**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	5.00	5.10		ug/L		102	80 - 120

**Lab Sample ID: 240-54779-4 MS**  
**Matrix: Water**  
**Analysis Batch: 195593**

**Client Sample ID: GW-082615-JL-16**  
**Prep Type: Total/NA**  
**Prep Batch: 195271**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.20	U	1.00	0.889		ug/L		89	80 - 120

**Lab Sample ID: 240-54779-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 195593**

**Client Sample ID: GW-082615-JL-16**  
**Prep Type: Total/NA**  
**Prep Batch: 195271**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.20	U	1.00	0.963		ug/L		96	80 - 120	8	20

**Lab Sample ID: 240-54779-4 MS**  
**Matrix: Water**  
**Analysis Batch: 195593**

**Client Sample ID: GW-082615-JL-16**  
**Prep Type: Dissolved**  
**Prep Batch: 195271**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.20	U	1.00	0.992		ug/L		99	80 - 120

**Lab Sample ID: 240-54779-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 195593**

**Client Sample ID: GW-082615-JL-16**  
**Prep Type: Dissolved**  
**Prep Batch: 195271**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.20	U	1.00	1.01		ug/L		101	80 - 120	2	20

## Method: 7196A - Chromium, Hexavalent

**Lab Sample ID: MB 240-195126/3**  
**Matrix: Water**  
**Analysis Batch: 195126**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/27/15 11:07	1

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# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## Method: 7196A - Chromium, Hexavalent (Continued)

**Lab Sample ID: LCS 240-195126/4**  
**Matrix: Water**  
**Analysis Batch: 195126**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.250	0.216		mg/L		87	80 - 118

**Lab Sample ID: 240-54779-4 MS**  
**Matrix: Water**  
**Analysis Batch: 195126**

**Client Sample ID: GW-082615-JL-16**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.020	U	0.250	0.197		mg/L		79	41 - 136

**Lab Sample ID: 240-54779-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 195126**

**Client Sample ID: GW-082615-JL-16**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	0.020	U	0.250	0.184		mg/L		74	41 - 136	7	20

**Lab Sample ID: 240-54779-5 MS**  
**Matrix: Water**  
**Analysis Batch: 195126**

**Client Sample ID: GW-082615-JL-17**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.020	U	0.250	0.183		mg/L		73	41 - 136

**Lab Sample ID: 240-54779-5 MSD**  
**Matrix: Water**  
**Analysis Batch: 195126**

**Client Sample ID: GW-082615-JL-17**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	0.020	U	0.250	0.201		mg/L		81	41 - 136	10	20



# QC Association Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## GC/MS VOA

### Analysis Batch: 195636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54779-1	GW-082615-JL-13	Total/NA	Water	8260B	
240-54779-2	GW-082615-JL-14	Total/NA	Water	8260B	
240-54779-3	GW-082615-JL-15	Total/NA	Water	8260B	
240-54779-4	GW-082615-JL-16	Total/NA	Water	8260B	
240-54779-4 MS	GW-082615-JL-16	Total/NA	Water	8260B	
240-54779-4 MSD	GW-082615-JL-16	Total/NA	Water	8260B	
240-54779-5	GW-082615-JL-17	Total/NA	Water	8260B	
240-54779-6	GW-082615-JL-18	Total/NA	Water	8260B	
240-54779-7	GW-082615-JL-19	Total/NA	Water	8260B	
240-54779-8	GW-082615-JL-20	Total/NA	Water	8260B	
240-54779-9	GW-082615-JL-21	Total/NA	Water	8260B	
LCS 240-195636/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-195636/6	Method Blank	Total/NA	Water	8260B	

### Analysis Batch: 196129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54779-10	TRIP BLANK	Total/NA	Water	8260B	
LCS 240-196129/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-196129/5	Method Blank	Total/NA	Water	8260B	

## GC/MS Semi VOA

### Prep Batch: 195276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54779-1	GW-082615-JL-13	Total/NA	Water	3510C	
240-54779-2	GW-082615-JL-14	Total/NA	Water	3510C	
240-54779-3	GW-082615-JL-15	Total/NA	Water	3510C	
240-54779-4	GW-082615-JL-16	Total/NA	Water	3510C	
240-54779-4 MS	GW-082615-JL-16	Total/NA	Water	3510C	
240-54779-4 MSD	GW-082615-JL-16	Total/NA	Water	3510C	
240-54779-5	GW-082615-JL-17	Total/NA	Water	3510C	
240-54779-6	GW-082615-JL-18	Total/NA	Water	3510C	
240-54779-7	GW-082615-JL-19	Total/NA	Water	3510C	
240-54779-8	GW-082615-JL-20	Total/NA	Water	3510C	
240-54779-9	GW-082615-JL-21	Total/NA	Water	3510C	
LCS 240-195276/18-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-195276/17-A	Method Blank	Total/NA	Water	3510C	

### Analysis Batch: 196570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-195276/18-A	Lab Control Sample	Total/NA	Water	8270C	195276
MB 240-195276/17-A	Method Blank	Total/NA	Water	8270C	195276

### Analysis Batch: 196773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54779-1	GW-082615-JL-13	Total/NA	Water	8270C	195276
240-54779-2	GW-082615-JL-14	Total/NA	Water	8270C	195276
240-54779-3	GW-082615-JL-15	Total/NA	Water	8270C	195276
240-54779-4	GW-082615-JL-16	Total/NA	Water	8270C	195276
240-54779-4 MS	GW-082615-JL-16	Total/NA	Water	8270C	195276

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# QC Association Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## GC/MS Semi VOA (Continued)

### Analysis Batch: 196773 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54779-4 MSD	GW-082615-JL-16	Total/NA	Water	8270C	195276
240-54779-5	GW-082615-JL-17	Total/NA	Water	8270C	195276
240-54779-6	GW-082615-JL-18	Total/NA	Water	8270C	195276
240-54779-7	GW-082615-JL-19	Total/NA	Water	8270C	195276
240-54779-8	GW-082615-JL-20	Total/NA	Water	8270C	195276
240-54779-9	GW-082615-JL-21	Total/NA	Water	8270C	195276

## Metals

### Prep Batch: 195268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54779-1	GW-082615-JL-13	Dissolved	Water	3005A	
240-54779-1	GW-082615-JL-13	Total Recoverable	Water	3005A	
240-54779-2	GW-082615-JL-14	Dissolved	Water	3005A	
240-54779-2	GW-082615-JL-14	Total Recoverable	Water	3005A	
240-54779-3	GW-082615-JL-15	Dissolved	Water	3005A	
240-54779-3	GW-082615-JL-15	Total Recoverable	Water	3005A	
240-54779-4	GW-082615-JL-16	Dissolved	Water	3005A	
240-54779-4	GW-082615-JL-16	Total Recoverable	Water	3005A	
240-54779-4 MS	GW-082615-JL-16	Dissolved	Water	3005A	
240-54779-4 MS	GW-082615-JL-16	Total Recoverable	Water	3005A	
240-54779-4 MSD	GW-082615-JL-16	Dissolved	Water	3005A	
240-54779-4 MSD	GW-082615-JL-16	Total Recoverable	Water	3005A	
240-54779-5	GW-082615-JL-17	Dissolved	Water	3005A	
240-54779-5	GW-082615-JL-17	Total Recoverable	Water	3005A	
240-54779-6	GW-082615-JL-18	Dissolved	Water	3005A	
240-54779-6	GW-082615-JL-18	Total Recoverable	Water	3005A	
240-54779-7	GW-082615-JL-19	Dissolved	Water	3005A	
240-54779-7	GW-082615-JL-19	Total Recoverable	Water	3005A	
240-54779-8	GW-082615-JL-20	Dissolved	Water	3005A	
240-54779-8	GW-082615-JL-20	Total Recoverable	Water	3005A	
240-54779-9	GW-082615-JL-21	Dissolved	Water	3005A	
240-54779-9	GW-082615-JL-21	Total Recoverable	Water	3005A	
LCS 240-195268/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 240-195268/1-A	Method Blank	Total Recoverable	Water	3005A	

### Prep Batch: 195271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54779-1	GW-082615-JL-13	Dissolved	Water	7470A	
240-54779-1	GW-082615-JL-13	Total/NA	Water	7470A	
240-54779-2	GW-082615-JL-14	Dissolved	Water	7470A	
240-54779-2	GW-082615-JL-14	Total/NA	Water	7470A	
240-54779-3	GW-082615-JL-15	Dissolved	Water	7470A	
240-54779-3	GW-082615-JL-15	Total/NA	Water	7470A	
240-54779-4	GW-082615-JL-16	Dissolved	Water	7470A	
240-54779-4	GW-082615-JL-16	Total/NA	Water	7470A	
240-54779-4 MS	GW-082615-JL-16	Dissolved	Water	7470A	
240-54779-4 MS	GW-082615-JL-16	Total/NA	Water	7470A	
240-54779-4 MSD	GW-082615-JL-16	Dissolved	Water	7470A	
240-54779-4 MSD	GW-082615-JL-16	Total/NA	Water	7470A	

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# QC Association Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## Metals (Continued)

### Prep Batch: 195271 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54779-5	GW-082615-JL-17	Dissolved	Water	7470A	
240-54779-5	GW-082615-JL-17	Total/NA	Water	7470A	
240-54779-6	GW-082615-JL-18	Dissolved	Water	7470A	
240-54779-6	GW-082615-JL-18	Total/NA	Water	7470A	
240-54779-7	GW-082615-JL-19	Dissolved	Water	7470A	
240-54779-7	GW-082615-JL-19	Total/NA	Water	7470A	
240-54779-8	GW-082615-JL-20	Dissolved	Water	7470A	
240-54779-8	GW-082615-JL-20	Total/NA	Water	7470A	
240-54779-9	GW-082615-JL-21	Dissolved	Water	7470A	
240-54779-9	GW-082615-JL-21	Total/NA	Water	7470A	
LCS 240-195271/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 240-195271/1-A	Method Blank	Total/NA	Water	7470A	

### Analysis Batch: 195593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54779-1	GW-082615-JL-13	Dissolved	Water	7470A	195271
240-54779-1	GW-082615-JL-13	Total/NA	Water	7470A	195271
240-54779-2	GW-082615-JL-14	Total/NA	Water	7470A	195271
240-54779-3	GW-082615-JL-15	Dissolved	Water	7470A	195271
240-54779-3	GW-082615-JL-15	Total/NA	Water	7470A	195271
240-54779-4	GW-082615-JL-16	Dissolved	Water	7470A	195271
240-54779-4	GW-082615-JL-16	Total/NA	Water	7470A	195271
240-54779-4 MS	GW-082615-JL-16	Dissolved	Water	7470A	195271
240-54779-4 MS	GW-082615-JL-16	Total/NA	Water	7470A	195271
240-54779-4 MSD	GW-082615-JL-16	Dissolved	Water	7470A	195271
240-54779-4 MSD	GW-082615-JL-16	Total/NA	Water	7470A	195271
240-54779-5	GW-082615-JL-17	Dissolved	Water	7470A	195271
240-54779-5	GW-082615-JL-17	Total/NA	Water	7470A	195271
240-54779-6	GW-082615-JL-18	Dissolved	Water	7470A	195271
240-54779-6	GW-082615-JL-18	Total/NA	Water	7470A	195271
240-54779-7	GW-082615-JL-19	Dissolved	Water	7470A	195271
240-54779-7	GW-082615-JL-19	Total/NA	Water	7470A	195271
240-54779-8	GW-082615-JL-20	Dissolved	Water	7470A	195271
240-54779-8	GW-082615-JL-20	Total/NA	Water	7470A	195271
240-54779-9	GW-082615-JL-21	Dissolved	Water	7470A	195271
240-54779-9	GW-082615-JL-21	Total/NA	Water	7470A	195271
LCS 240-195271/2-A	Lab Control Sample	Total/NA	Water	7470A	195271
MB 240-195271/1-A	Method Blank	Total/NA	Water	7470A	195271

### Analysis Batch: 195709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54779-1	GW-082615-JL-13	Dissolved	Water	6020	195268
240-54779-1	GW-082615-JL-13	Total Recoverable	Water	6020	195268
240-54779-2	GW-082615-JL-14	Dissolved	Water	6020	195268
240-54779-2	GW-082615-JL-14	Total Recoverable	Water	6020	195268
240-54779-3	GW-082615-JL-15	Dissolved	Water	6020	195268
240-54779-3	GW-082615-JL-15	Total Recoverable	Water	6020	195268
240-54779-4	GW-082615-JL-16	Dissolved	Water	6020	195268
240-54779-4	GW-082615-JL-16	Total Recoverable	Water	6020	195268
240-54779-4 MS	GW-082615-JL-16	Dissolved	Water	6020	195268
240-54779-4 MS	GW-082615-JL-16	Total Recoverable	Water	6020	195268

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# QC Association Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## Metals (Continued)

### Analysis Batch: 195709 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54779-4 MSD	GW-082615-JL-16	Dissolved	Water	6020	195268
240-54779-4 MSD	GW-082615-JL-16	Total Recoverable	Water	6020	195268
240-54779-5	GW-082615-JL-17	Dissolved	Water	6020	195268
240-54779-5	GW-082615-JL-17	Total Recoverable	Water	6020	195268
240-54779-6	GW-082615-JL-18	Dissolved	Water	6020	195268
240-54779-6	GW-082615-JL-18	Total Recoverable	Water	6020	195268
240-54779-7	GW-082615-JL-19	Dissolved	Water	6020	195268
240-54779-7	GW-082615-JL-19	Total Recoverable	Water	6020	195268
240-54779-8	GW-082615-JL-20	Dissolved	Water	6020	195268
240-54779-8	GW-082615-JL-20	Total Recoverable	Water	6020	195268
240-54779-9	GW-082615-JL-21	Dissolved	Water	6020	195268
240-54779-9	GW-082615-JL-21	Total Recoverable	Water	6020	195268
LCS 240-195268/2-A	Lab Control Sample	Total Recoverable	Water	6020	195268
MB 240-195268/1-A	Method Blank	Total Recoverable	Water	6020	195268

### Analysis Batch: 195878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54779-2	GW-082615-JL-14	Dissolved	Water	7470A	195271

### Prep Batch: 195891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54779-1	GW-082615-JL-13	Dissolved	Water	3005A	
240-54779-1	GW-082615-JL-13	Total Recoverable	Water	3005A	
240-54779-2	GW-082615-JL-14	Dissolved	Water	3005A	
240-54779-2	GW-082615-JL-14	Total Recoverable	Water	3005A	
240-54779-3	GW-082615-JL-15	Dissolved	Water	3005A	
240-54779-3	GW-082615-JL-15	Total Recoverable	Water	3005A	
240-54779-4	GW-082615-JL-16	Dissolved	Water	3005A	
240-54779-4	GW-082615-JL-16	Total Recoverable	Water	3005A	
240-54779-4 MS	GW-082615-JL-16	Dissolved	Water	3005A	
240-54779-4 MS	GW-082615-JL-16	Total Recoverable	Water	3005A	
240-54779-4 MSD	GW-082615-JL-16	Dissolved	Water	3005A	
240-54779-4 MSD	GW-082615-JL-16	Total Recoverable	Water	3005A	
240-54779-5	GW-082615-JL-17	Dissolved	Water	3005A	
240-54779-5	GW-082615-JL-17	Total Recoverable	Water	3005A	
240-54779-6	GW-082615-JL-18	Dissolved	Water	3005A	
240-54779-6	GW-082615-JL-18	Total Recoverable	Water	3005A	
240-54779-7	GW-082615-JL-19	Dissolved	Water	3005A	
240-54779-7	GW-082615-JL-19	Total Recoverable	Water	3005A	
240-54779-8	GW-082615-JL-20	Dissolved	Water	3005A	
240-54779-8	GW-082615-JL-20	Total Recoverable	Water	3005A	
240-54779-9	GW-082615-JL-21	Dissolved	Water	3005A	
240-54779-9	GW-082615-JL-21	Total Recoverable	Water	3005A	
LCS 240-195891/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 240-195891/1-A	Method Blank	Total Recoverable	Water	3005A	

### Analysis Batch: 196166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54779-1	GW-082615-JL-13	Dissolved	Water	6020	195891
240-54779-1	GW-082615-JL-13	Total Recoverable	Water	6020	195891
240-54779-2	GW-082615-JL-14	Dissolved	Water	6020	195891

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# QC Association Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## Metals (Continued)

### Analysis Batch: 196166 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54779-2	GW-082615-JL-14	Total Recoverable	Water	6020	195891
240-54779-3	GW-082615-JL-15	Dissolved	Water	6020	195891
240-54779-3	GW-082615-JL-15	Total Recoverable	Water	6020	195891
240-54779-4	GW-082615-JL-16	Dissolved	Water	6020	195891
240-54779-4	GW-082615-JL-16	Total Recoverable	Water	6020	195891
240-54779-4 MS	GW-082615-JL-16	Dissolved	Water	6020	195891
240-54779-4 MS	GW-082615-JL-16	Total Recoverable	Water	6020	195891
240-54779-4 MSD	GW-082615-JL-16	Dissolved	Water	6020	195891
240-54779-4 MSD	GW-082615-JL-16	Total Recoverable	Water	6020	195891
240-54779-5	GW-082615-JL-17	Dissolved	Water	6020	195891
240-54779-5	GW-082615-JL-17	Total Recoverable	Water	6020	195891
240-54779-6	GW-082615-JL-18	Dissolved	Water	6020	195891
240-54779-6	GW-082615-JL-18	Total Recoverable	Water	6020	195891
240-54779-7	GW-082615-JL-19	Dissolved	Water	6020	195891
240-54779-7	GW-082615-JL-19	Total Recoverable	Water	6020	195891
240-54779-8	GW-082615-JL-20	Dissolved	Water	6020	195891
240-54779-8	GW-082615-JL-20	Total Recoverable	Water	6020	195891
240-54779-9	GW-082615-JL-21	Dissolved	Water	6020	195891
240-54779-9	GW-082615-JL-21	Total Recoverable	Water	6020	195891
LCS 240-195891/2-A	Lab Control Sample	Total Recoverable	Water	6020	195891
MB 240-195891/1-A	Method Blank	Total Recoverable	Water	6020	195891

## General Chemistry

### Analysis Batch: 195126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54779-1	GW-082615-JL-13	Total/NA	Water	7196A	
240-54779-2	GW-082615-JL-14	Total/NA	Water	7196A	
240-54779-3	GW-082615-JL-15	Total/NA	Water	7196A	
240-54779-4	GW-082615-JL-16	Total/NA	Water	7196A	
240-54779-4 MS	GW-082615-JL-16	Total/NA	Water	7196A	
240-54779-4 MSD	GW-082615-JL-16	Total/NA	Water	7196A	
240-54779-5	GW-082615-JL-17	Total/NA	Water	7196A	
240-54779-5 MS	GW-082615-JL-17	Total/NA	Water	7196A	
240-54779-5 MSD	GW-082615-JL-17	Total/NA	Water	7196A	
240-54779-6	GW-082615-JL-18	Total/NA	Water	7196A	
240-54779-7	GW-082615-JL-19	Total/NA	Water	7196A	
240-54779-8	GW-082615-JL-20	Total/NA	Water	7196A	
240-54779-9	GW-082615-JL-21	Total/NA	Water	7196A	
LCS 240-195126/4	Lab Control Sample	Total/NA	Water	7196A	
MB 240-195126/3	Method Blank	Total/NA	Water	7196A	

### Analysis Batch: 195885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54779-1	GW-082615-JL-13	Total/NA	Water	7196A	
240-54779-2	GW-082615-JL-14	Total/NA	Water	7196A	
240-54779-3	GW-082615-JL-15	Total/NA	Water	7196A	
240-54779-4	GW-082615-JL-16	Total/NA	Water	7196A	
240-54779-5	GW-082615-JL-17	Total/NA	Water	7196A	
240-54779-6	GW-082615-JL-18	Total/NA	Water	7196A	

TestAmerica Canton

# QC Association Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## General Chemistry (Continued)

### Analysis Batch: 195885 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54779-7	GW-082615-JL-19	Total/NA	Water	7196A	
240-54779-8	GW-082615-JL-20	Total/NA	Water	7196A	
240-54779-9	GW-082615-JL-21	Total/NA	Water	7196A	

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# Lab Chronicle

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-13**

**Lab Sample ID: 240-54779-1**

**Date Collected: 08/26/15 10:35**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195636	08/31/15 21:41	LRW	TAL CAN
Total/NA	Prep	3510C			195276	08/28/15 08:42	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196773	09/09/15 12:38	MRU	TAL CAN
Dissolved	Prep	3005A			195268	08/28/15 08:17	WKD	TAL CAN
Dissolved	Analysis	6020		1	195709	08/31/15 20:23	AS1	TAL CAN
Dissolved	Prep	3005A			195891	09/02/15 08:08	WKD	TAL CAN
Dissolved	Analysis	6020		1	196166	09/03/15 15:13	AS1	TAL CAN
Total Recoverable	Prep	3005A			195268	08/28/15 08:17	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195709	08/31/15 20:19	AS1	TAL CAN
Total Recoverable	Prep	3005A			195891	09/02/15 08:08	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	196166	09/03/15 15:10	AS1	TAL CAN
Dissolved	Prep	7470A			195271	08/28/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195593	08/31/15 15:22	WAL	TAL CAN
Total/NA	Prep	7470A			195271	08/28/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195593	08/31/15 15:21	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195126	08/27/15 11:11	NJE	TAL CAN
Total/NA	Analysis	7196A		1	195885	09/02/15 07:58	KLC	TAL CAN

**Client Sample ID: GW-082615-JL-14**

**Lab Sample ID: 240-54779-2**

**Date Collected: 08/26/15 10:40**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		3.33	195636	08/31/15 22:03	LRW	TAL CAN
Total/NA	Prep	3510C			195276	08/28/15 08:42	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196773	09/09/15 13:03	MRU	TAL CAN
Dissolved	Prep	3005A			195268	08/28/15 08:17	WKD	TAL CAN
Dissolved	Analysis	6020		1	195709	08/31/15 20:30	AS1	TAL CAN
Dissolved	Prep	3005A			195891	09/02/15 08:08	WKD	TAL CAN
Dissolved	Analysis	6020		1	196166	09/03/15 15:28	AS1	TAL CAN
Total Recoverable	Prep	3005A			195268	08/28/15 08:17	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195709	08/31/15 20:26	AS1	TAL CAN
Total Recoverable	Prep	3005A			195891	09/02/15 08:08	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	196166	09/03/15 15:24	AS1	TAL CAN
Dissolved	Prep	7470A			195271	08/28/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195878	09/01/15 11:47	WAL	TAL CAN
Total/NA	Prep	7470A			195271	08/28/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195593	08/31/15 15:50	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195126	08/27/15 11:12	NJE	TAL CAN
Total/NA	Analysis	7196A		1	195885	09/02/15 07:58	KLC	TAL CAN

TestAmerica Canton

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-15**

**Lab Sample ID: 240-54779-3**

**Date Collected: 08/26/15 11:25**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195636	08/31/15 22:26	LRW	TAL CAN
Total/NA	Prep	3510C			195276	08/28/15 08:42	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196773	09/09/15 13:27	MRU	TAL CAN
Dissolved	Prep	3005A			195268	08/28/15 08:17	WKD	TAL CAN
Dissolved	Analysis	6020		1	195709	08/31/15 20:37	AS1	TAL CAN
Dissolved	Prep	3005A			195891	09/02/15 08:08	WKD	TAL CAN
Dissolved	Analysis	6020		1	196166	09/03/15 15:35	AS1	TAL CAN
Total Recoverable	Prep	3005A			195268	08/28/15 08:17	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195709	08/31/15 20:34	AS1	TAL CAN
Total Recoverable	Prep	3005A			195891	09/02/15 08:08	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	196166	09/03/15 15:32	AS1	TAL CAN
Dissolved	Prep	7470A			195271	08/28/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195593	08/31/15 15:47	WAL	TAL CAN
Total/NA	Prep	7470A			195271	08/28/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195593	08/31/15 15:44	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195126	08/27/15 11:13	NJE	TAL CAN
Total/NA	Analysis	7196A		1	195885	09/02/15 07:58	KLC	TAL CAN

**Client Sample ID: GW-082615-JL-16**

**Lab Sample ID: 240-54779-4**

**Date Collected: 08/26/15 12:00**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195636	09/01/15 00:39	LRW	TAL CAN
Total/NA	Prep	3510C			195276	08/28/15 08:42	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196773	09/09/15 13:52	MRU	TAL CAN
Dissolved	Prep	3005A			195268	08/28/15 08:17	WKD	TAL CAN
Dissolved	Analysis	6020		1	195709	08/31/15 20:09	AS1	TAL CAN
Dissolved	Prep	3005A			195891	09/02/15 08:08	WKD	TAL CAN
Dissolved	Analysis	6020		1	196166	09/03/15 14:31	AS1	TAL CAN
Total Recoverable	Prep	3005A			195268	08/28/15 08:17	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195709	08/31/15 19:45	AS1	TAL CAN
Total Recoverable	Prep	3005A			195891	09/02/15 08:08	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	196166	09/03/15 15:00	AS1	TAL CAN
Dissolved	Prep	7470A			195271	08/28/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195593	08/31/15 15:15	WAL	TAL CAN
Total/NA	Prep	7470A			195271	08/28/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195593	08/31/15 15:07	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195126	08/27/15 11:09	NJE	TAL CAN
Total/NA	Analysis	7196A		1	195885	09/02/15 07:58	KLC	TAL CAN

TestAmerica Canton

# Lab Chronicle

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-17**

**Lab Sample ID: 240-54779-5**

**Date Collected: 08/26/15 14:10**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195636	08/31/15 22:48	LRW	TAL CAN
Total/NA	Prep	3510C			195276	08/28/15 08:42	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196773	09/09/15 15:06	MRU	TAL CAN
Dissolved	Prep	3005A			195268	08/28/15 08:17	WKD	TAL CAN
Dissolved	Analysis	6020		1	195709	08/31/15 20:52	AS1	TAL CAN
Dissolved	Prep	3005A			195891	09/02/15 08:08	WKD	TAL CAN
Dissolved	Analysis	6020		1	196166	09/03/15 15:42	AS1	TAL CAN
Total Recoverable	Prep	3005A			195268	08/28/15 08:17	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195709	08/31/15 20:41	AS1	TAL CAN
Total Recoverable	Prep	3005A			195891	09/02/15 08:08	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	196166	09/03/15 15:39	AS1	TAL CAN
Dissolved	Prep	7470A			195271	08/28/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195593	08/31/15 15:40	WAL	TAL CAN
Total/NA	Prep	7470A			195271	08/28/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195593	08/31/15 15:45	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195126	08/27/15 11:25	NJE	TAL CAN
Total/NA	Analysis	7196A		1	195885	09/02/15 07:58	KLC	TAL CAN

**Client Sample ID: GW-082615-JL-18**

**Lab Sample ID: 240-54779-6**

**Date Collected: 08/26/15 14:25**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195636	08/31/15 23:10	LRW	TAL CAN
Total/NA	Prep	3510C			195276	08/28/15 08:42	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196773	09/09/15 15:31	MRU	TAL CAN
Dissolved	Prep	3005A			195268	08/28/15 08:17	WKD	TAL CAN
Dissolved	Analysis	6020		1	195709	08/31/15 20:59	AS1	TAL CAN
Dissolved	Prep	3005A			195891	09/02/15 08:08	WKD	TAL CAN
Dissolved	Analysis	6020		1	196166	09/03/15 15:50	AS1	TAL CAN
Total Recoverable	Prep	3005A			195268	08/28/15 08:17	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195709	08/31/15 20:56	AS1	TAL CAN
Total Recoverable	Prep	3005A			195891	09/02/15 08:08	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	196166	09/03/15 15:46	AS1	TAL CAN
Dissolved	Prep	7470A			195271	08/28/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195593	08/31/15 15:42	WAL	TAL CAN
Total/NA	Prep	7470A			195271	08/28/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195593	08/31/15 15:39	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195126	08/27/15 11:15	NJE	TAL CAN
Total/NA	Analysis	7196A		1	195885	09/02/15 07:58	KLC	TAL CAN

TestAmerica Canton

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-19**

**Lab Sample ID: 240-54779-7**

**Date Collected: 08/26/15 15:15**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195636	08/31/15 23:32	LRW	TAL CAN
Total/NA	Prep	3510C			195276	08/28/15 08:42	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196773	09/09/15 15:56	MRU	TAL CAN
Dissolved	Prep	3005A			195268	08/28/15 08:17	WKD	TAL CAN
Dissolved	Analysis	6020		1	195709	08/31/15 21:07	AS1	TAL CAN
Dissolved	Prep	3005A			195891	09/02/15 08:08	WKD	TAL CAN
Dissolved	Analysis	6020		1	196166	09/03/15 15:57	AS1	TAL CAN
Total Recoverable	Prep	3005A			195268	08/28/15 08:17	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195709	08/31/15 21:03	AS1	TAL CAN
Total Recoverable	Prep	3005A			195891	09/02/15 08:08	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	196166	09/03/15 15:53	AS1	TAL CAN
Dissolved	Prep	7470A			195271	08/28/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195593	08/31/15 15:34	WAL	TAL CAN
Total/NA	Prep	7470A			195271	08/28/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195593	08/31/15 15:27	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195126	08/27/15 11:14	NJE	TAL CAN
Total/NA	Analysis	7196A		1	195885	09/02/15 07:58	KLC	TAL CAN

**Client Sample ID: GW-082615-JL-20**

**Lab Sample ID: 240-54779-8**

**Date Collected: 08/26/15 15:30**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195636	08/31/15 23:55	LRW	TAL CAN
Total/NA	Prep	3510C			195276	08/28/15 08:42	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196773	09/09/15 16:20	MRU	TAL CAN
Dissolved	Prep	3005A			195268	08/28/15 08:17	WKD	TAL CAN
Dissolved	Analysis	6020		1	195709	08/31/15 21:14	AS1	TAL CAN
Dissolved	Prep	3005A			195891	09/02/15 08:08	WKD	TAL CAN
Dissolved	Analysis	6020		1	196166	09/03/15 16:11	AS1	TAL CAN
Total Recoverable	Prep	3005A			195268	08/28/15 08:17	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195709	08/31/15 21:10	AS1	TAL CAN
Total Recoverable	Prep	3005A			195891	09/02/15 08:08	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	196166	09/03/15 16:08	AS1	TAL CAN
Dissolved	Prep	7470A			195271	08/28/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195593	08/31/15 15:36	WAL	TAL CAN
Total/NA	Prep	7470A			195271	08/28/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195593	08/31/15 15:24	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195126	08/27/15 11:21	NJE	TAL CAN
Total/NA	Analysis	7196A		1	195885	09/02/15 07:58	KLC	TAL CAN

TestAmerica Canton

# Lab Chronicle

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

**Client Sample ID: GW-082615-JL-21**

**Lab Sample ID: 240-54779-9**

**Date Collected: 08/26/15 15:50**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195636	09/01/15 00:17	LRW	TAL CAN
Total/NA	Prep	3510C			195276	08/28/15 08:42	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196773	09/09/15 16:45	MRU	TAL CAN
Dissolved	Prep	3005A			195268	08/28/15 08:17	WKD	TAL CAN
Dissolved	Analysis	6020		1	195709	08/31/15 21:21	AS1	TAL CAN
Dissolved	Prep	3005A			195891	09/02/15 08:08	WKD	TAL CAN
Dissolved	Analysis	6020		1	196166	09/03/15 16:19	AS1	TAL CAN
Total Recoverable	Prep	3005A			195268	08/28/15 08:17	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195709	08/31/15 21:17	AS1	TAL CAN
Total Recoverable	Prep	3005A			195891	09/02/15 08:08	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	196166	09/03/15 16:15	AS1	TAL CAN
Dissolved	Prep	7470A			195271	08/28/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195593	08/31/15 15:28	WAL	TAL CAN
Total/NA	Prep	7470A			195271	08/28/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195593	08/31/15 15:25	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195126	08/27/15 11:24	NJE	TAL CAN
Total/NA	Analysis	7196A		1	195885	09/02/15 07:58	KLC	TAL CAN

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 240-54779-10**

**Date Collected: 08/26/15 00:00**

**Matrix: Water**

**Date Received: 08/27/15 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	196129	09/03/15 16:19	LEE	TAL CAN

**Laboratory References:**

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

# Certification Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54779-1

## Laboratory: TestAmerica Canton

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999518190	08-31-16

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
7196A		Water	Cr (III)
7196A		Water	Cr (VI)
8260B		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
8260B		Water	Cyclohexane
8260B		Water	Methyl acetate
8260B		Water	Methylcyclohexane
8270C	3510C	Water	4-Nitroaniline
8270C	3510C	Water	Atrazine
8270C	3510C	Water	Benzaldehyde
8270C	3510C	Water	Caprolactam

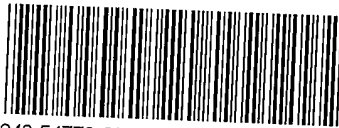


TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

**CHAIN OF CUSTODY  
AND  
RECEIVING DOCUMENTS**



240-54779 Chain of Custody

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2.2/C3.2 1.8/C2.8 2.8/C3.8 3.0/C4.0

**CONESTOGA-ROVERS & ASSOCIATES**  
 8615 W. Bryn Mawr Avenue  
 Chicago, Illinois 60631  
 (773)380-9933 phone  
 (773)380-6421 fax

SHIPPED TO  
 (Laboratory Name):

TEST AMERICA - NORTH CANTON

4 COOLERS

PROJECT NAME: GM JAMESVILLE

REFERENCE NUMBER:  
 58505-01-20402

CHAIN-OF-CUSTODY RECORD

SAMPLER'S SIGNATURE: *Jeff Kozdzieszka* PRINTED NAME: Jeff Kozdzieszka

SEQ. No.	DATE	TIME	SAMPLE IDENTIFICATION No.	SAMPLE MATRIX	No. OF CONTAINERS	PARAMETERS	REMARKS
	8/26/15	1035	GW-082615-JL-13	WATER	8	ALL TOX METALS TEL SWCS ALL TOX METALS TEL SWCS ALL TOX METALS TEL SWCS HEXAMETA (CHROMIUM) TR SWCS (CHROMIUM) HEXAMETA (CHROMIUM)	
		1040			8		
		1125			8		
		1200			8		
		1410			18		
		1425			8		
		1515			8		
		1530			8		
		1550			8		
			TRIP BLANK		1		
					84	(24 HOUR HOLD TIME ON HEXAMETA (CHROMIUM))	

TOTAL NUMBER OF CONTAINERS: 84

RELINQUISHED BY: *Jeff Kozdzieszka* DATE: 8/26/15 TIME: 1730 RECEIVED BY: *Kevin Burns* DATE: 8/27/15 TIME: 0910

RELINQUISHED BY: DATE: TIME: RECEIVED BY: DATE: TIME:

RELINQUISHED BY: DATE: TIME: RECEIVED BY: DATE: TIME:

METHOD OF SHIPMENT: FedEx AIR BILL No. 8085 1559 0516

SAMPLE TEAM:  
*J. Kozdzieszka*  
*J. Lutzmick*

RECEIVED FOR LABORATORY BY: DATE: TIME: 6877

1001-00(SOURCE)GN-CO004



<b>TestAmerica Canton Sample Receipt Form/Narrative</b>		Login # : <u>51779</u>
<b>Canton Facility</b>		
Client: <u>CHD</u>	Site Name: _____	Cooler unpacked by: <u>Darry Burns</u>
Cooler Received on: <u>8/27/15</u>	Opened on: <u>8/27/15</u>	
FedEx: 1 <sup>st</sup> Grd <input checked="" type="checkbox"/> Exp <input type="checkbox"/> UPS <input type="checkbox"/> FAS <input type="checkbox"/> Stetson <input type="checkbox"/> Client Drop Off <input type="checkbox"/> TestAmerica Courier <input type="checkbox"/> Other _____		
Receipt After-hours: Drop-off Date/Time _____		Storage Location _____
TestAmerica Cooler # _____	Foam Box _____	Client Cooler _____
Packing material used: <input checked="" type="checkbox"/> Bubble Wrap <input type="checkbox"/> Foam <input type="checkbox"/> Plastic Bag <input type="checkbox"/> None <input type="checkbox"/> Other _____		Box _____
COOLANT: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> Water <input type="checkbox"/> None		Other <u>Multiple</u>
1. Cooler temperature upon receipt		
IR GUN# A (CF +1.0 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	<input checked="" type="checkbox"/> See Multiple Cooler Form
IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity _____ Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
-Were custody seals on the outside of the cooler(s) signed & dated? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
3. Shippers' packing slip attached to the cooler(s)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
4. Did custody papers accompany the sample(s)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
5. Were the custody papers relinquished & signed in the appropriate place? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
7. Did all bottles arrive in good condition (Unbroken)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
8. Could all bottle labels be reconciled with the COC? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
9. Were correct bottle(s) used for the test(s) indicated? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
10. Sufficient quantity received to perform indicated analyses? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
11. Were sample(s) at the correct pH upon receipt? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA pH Strip Lot# <u>HC432654</u>		
12. Were VOAs on the COC? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
13. Were air bubbles >6 mm in any VOA vials? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA		
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____		
Concerning _____		

<b>14. CHAIN OF CUSTODY &amp; SAMPLE DISCREPANCIES</b>	Samples processed by: _____
<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	

**15. SAMPLE CONDITION**

Sample(s) \_\_\_\_\_ were received after the recommended holding time had expired.

Sample(s) \_\_\_\_\_ were received in a broken container.

Sample(s) \_\_\_\_\_ were received with bubble >6 mm in diameter. (Notify PM)

**16. SAMPLE PRESERVATION**

Sample(s) \_\_\_\_\_ were further preserved in the laboratory.

Time preserved: \_\_\_\_\_ Preservative(s) added/Lot number(s): \_\_\_\_\_



Temperature readings: \_\_\_\_\_

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u> pH	<u>Preservative</u> Added (mls)	<u>Lot #</u>
GW-082615-JL-13	240-54779-E-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082615-JL-13	240-54779-F-1	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082615-JL-14	240-54779-E-2	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082615-JL-14	240-54779-F-2	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082615-JL-15	240-54779-E-3	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082615-JL-15	240-54779-F-3	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082615-JL-16	240-54779-L-4	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082615-JL-16	240-54779-M-4	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082615-JL-16	240-54779-N-4	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082615-JL-16	240-54779-O-4	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082615-JL-17	240-54779-E-5	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082615-JL-17	240-54779-F-5	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082615-JL-18	240-54779-E-6	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082615-JL-18	240-54779-F-6	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082615-JL-19	240-54779-E-7	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082615-JL-19	240-54779-F-7	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082615-JL-20	240-54779-E-8	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082615-JL-20	240-54779-F-8	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082615-JL-21	240-54779-E-9	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082615-JL-21	240-54779-F-9	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-54814-1

Client Project/Site: 58505, Janesville WI, SSOW 108011

For:

GHD Services Inc.

45 Farmington Valley Drive

Plainville, Connecticut 06062

Attn: Ms. Kathy Shaw



Authorized for release by:

9/10/2015 9:57:46 AM

Denise Heckler, Project Manager II

(330)966-9477

[denise.heckler@testamericainc.com](mailto:denise.heckler@testamericainc.com)



### LINKS

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results through

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[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

### GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
U	Indicates the analyte was analyzed for but not detected.
L	A negative instrument reading had an absolute value greater than the reporting limit

### General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Job ID: 240-54814-1**

**Laboratory: TestAmerica Canton**

**Narrative**

## CASE NARRATIVE

**Client: GHD Services Inc.**

**Project: 58505, Janesville WI, SSOW 108011**

**Report Number: 240-54814-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

### **RECEIPT**

The samples were received on 08/28/2015; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 2.6° C, 3.0° C, 3.4° C and 3.4° C.

### **VOLATILE ORGANIC COMPOUNDS (GCMS)**

Samples GW-082715-JL-22 (240-54814-1), GW-082715-JL-23 (240-54814-2), GW-082715-JL-24 (240-54814-3), GW-082715-JL-25 (240-54814-4), GW-082715-JL-26 (240-54814-5), GW-082715-JL-27 (240-54814-6), GW-082715-JL-28 (240-54814-7), GW-082715-JL-29 (240-54814-8), GW-082715-JL-30 (240-54814-9), GW-082715-JL-31 (240-54814-10) and TRIP BLANK (240-54814-11) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 09/02/2015.

Methylene Chloride was detected in method blank MB 240-195997/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

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

### **SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)**

Samples GW-082715-JL-22 (240-54814-1), GW-082715-JL-23 (240-54814-2), GW-082715-JL-24 (240-54814-3), GW-082715-JL-25 (240-54814-4), GW-082715-JL-26 (240-54814-5), GW-082715-JL-27 (240-54814-6), GW-082715-JL-28 (240-54814-7),

# Case Narrative

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

## Job ID: 240-54814-1 (Continued)

### Laboratory: TestAmerica Canton (Continued)

GW-082715-JL-29 (240-54814-8), GW-082715-JL-30 (240-54814-9) and GW-082715-JL-31 (240-54814-10) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 08/31/2015 and analyzed on 09/08/2015.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

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

### DISSOLVED METALS (ICPMS)

Samples GW-082715-JL-22 (240-54814-1), GW-082715-JL-23 (240-54814-2), GW-082715-JL-24 (240-54814-3), GW-082715-JL-25 (240-54814-4), GW-082715-JL-26 (240-54814-5), GW-082715-JL-27 (240-54814-6), GW-082715-JL-28 (240-54814-7), GW-082715-JL-29 (240-54814-8), GW-082715-JL-30 (240-54814-9) and GW-082715-JL-31 (240-54814-10) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 08/31/2015 and analyzed on 09/01/2015.

Some requested practical quantitation limits (PQLs) fall below the laboratory's verified standard quantitation limit. The continuing calibration blanks and method blanks may not support the lower PQL.

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

### TOTAL RECOVERABLE METALS (ICPMS)

Samples GW-082715-JL-22 (240-54814-1), GW-082715-JL-23 (240-54814-2), GW-082715-JL-24 (240-54814-3), GW-082715-JL-25 (240-54814-4), GW-082715-JL-26 (240-54814-5), GW-082715-JL-27 (240-54814-6), GW-082715-JL-28 (240-54814-7), GW-082715-JL-29 (240-54814-8), GW-082715-JL-30 (240-54814-9) and GW-082715-JL-31 (240-54814-10) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 08/31/2015 and analyzed on 09/01/2015 and 09/02/2015.

Some requested practical quantitation limits (PQLs) fall below the laboratory's verified standard quantitation limit. The continuing calibration blanks and method blanks may not support the lower PQL.

Arsenic, Chromium, Lead and Vanadium were detected in method blank MB 240-195534/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Sample GW-082715-JL-25 (240-54814-4)[5X] required dilution prior to analysis due to the nature of the sample matrix. The reporting limits have been adjusted accordingly.

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

### HEXAVALENT CHROMIUM

Samples GW-082715-JL-22 (240-54814-1), GW-082715-JL-23 (240-54814-2), GW-082715-JL-24 (240-54814-3), GW-082715-JL-25 (240-54814-4), GW-082715-JL-26 (240-54814-5), GW-082715-JL-27 (240-54814-6), GW-082715-JL-28 (240-54814-7), GW-082715-JL-29 (240-54814-8), GW-082715-JL-30 (240-54814-9) and GW-082715-JL-31 (240-54814-10) were analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples were analyzed on 08/28/2015.

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

### DISSOLVED MERCURY (CVAA)

Samples GW-082715-JL-22 (240-54814-1), GW-082715-JL-23 (240-54814-2), GW-082715-JL-24 (240-54814-3), GW-082715-JL-25 (240-54814-4), GW-082715-JL-26 (240-54814-5), GW-082715-JL-27 (240-54814-6), GW-082715-JL-28 (240-54814-7), GW-082715-JL-29 (240-54814-8), GW-082715-JL-30 (240-54814-9) and GW-082715-JL-31 (240-54814-10) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 08/31/2015 and analyzed on 09/01/2015.

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

# Case Narrative

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

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## Job ID: 240-54814-1 (Continued)

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### Laboratory: TestAmerica Canton (Continued)

#### **TOTAL MERCURY**

Samples GW-082715-JL-22 (240-54814-1), GW-082715-JL-23 (240-54814-2), GW-082715-JL-24 (240-54814-3), GW-082715-JL-25 (240-54814-4), GW-082715-JL-26 (240-54814-5), GW-082715-JL-27 (240-54814-6), GW-082715-JL-28 (240-54814-7), GW-082715-JL-29 (240-54814-8), GW-082715-JL-30 (240-54814-9) and GW-082715-JL-31 (240-54814-10) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 08/31/2015 and analyzed on 09/01/2015.

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

#### **TRIVALENT CHROMIUM**

Samples GW-082715-JL-22 (240-54814-1), GW-082715-JL-23 (240-54814-2), GW-082715-JL-24 (240-54814-3), GW-082715-JL-25 (240-54814-4), GW-082715-JL-26 (240-54814-5), GW-082715-JL-27 (240-54814-6), GW-082715-JL-28 (240-54814-7), GW-082715-JL-29 (240-54814-8), GW-082715-JL-30 (240-54814-9) and GW-082715-JL-31 (240-54814-10) were analyzed for trivalent chromium in accordance with EPA SW-846 Method 7196A\_CR3. The samples were analyzed on 09/02/2015.

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



# Method Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
6020	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
7196A	Chromium, Hexavalent	SW846	TAL CAN
7196A	Chromium, Trivalent (Colorimetric)	SW846	TAL CAN

**Protocol References:**

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

**Laboratory References:**

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396





# Sample Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-54814-1	GW-082715-JL-22	Water	08/27/15 10:30	08/28/15 09:20
240-54814-2	GW-082715-JL-23	Water	08/27/15 10:55	08/28/15 09:20
240-54814-3	GW-082715-JL-24	Water	08/27/15 11:40	08/28/15 09:20
240-54814-4	GW-082715-JL-25	Water	08/27/15 12:20	08/28/15 09:20
240-54814-5	GW-082715-JL-26	Water	08/27/15 14:30	08/28/15 09:20
240-54814-6	GW-082715-JL-27	Water	08/27/15 13:40	08/28/15 09:20
240-54814-7	GW-082715-JL-28	Water	08/27/15 15:45	08/28/15 09:20
240-54814-8	GW-082715-JL-29	Water	08/27/15 16:20	08/28/15 09:20
240-54814-9	GW-082715-JL-30	Water	08/27/15 16:40	08/28/15 09:20
240-54814-10	GW-082715-JL-31	Water	08/27/15 16:55	08/28/15 09:20
240-54814-11	TRIP BLANK	Water	08/27/15 00:00	08/28/15 09:20



# Detection Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-22**

**Lab Sample ID: 240-54814-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.60	J	2.0	0.16	ug/L	1		6020	Total
Arsenic	5.7	B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	59	J	100	1.1	ug/L	1		6020	Total Recoverable
Beryllium	0.51	J	1.0	0.053	ug/L	1		6020	Total Recoverable
Cadmium	0.33	J	1.0	0.061	ug/L	1		6020	Total Recoverable
Cobalt	2.6	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	560	B	5.0	0.20	ug/L	1		6020	Total Recoverable
Copper	19		2.0	0.75	ug/L	1		6020	Total Recoverable
Manganese	55		15	1.1	ug/L	1		6020	Total Recoverable
Nickel	24		20	0.23	ug/L	1		6020	Total Recoverable
Lead	3.3	B	3.0	0.11	ug/L	1		6020	Total Recoverable
Selenium	3.0	J	5.0	0.25	ug/L	1		6020	Total Recoverable
Thallium	0.21	J	1.0	0.074	ug/L	1		6020	Total Recoverable
Vanadium	25	B	4.0	0.23	ug/L	1		6020	Total Recoverable
Zinc	38		20	7.3	ug/L	1		6020	Total Recoverable
Silver	0.036	J	0.20	0.020	ug/L	1		6020	Total Recoverable
Arsenic	2.2	J B	5.0	0.18	ug/L	1		6020	Dissolved
Beryllium	0.20	J	1.0	0.053	ug/L	1		6020	Dissolved
Cadmium	0.30	J	1.0	0.061	ug/L	1		6020	Dissolved
Cobalt	0.43	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	6.9	B	5.0	0.20	ug/L	1		6020	Dissolved
Copper	6.0		2.0	0.75	ug/L	1		6020	Dissolved
Manganese	1.6	J	15	1.1	ug/L	1		6020	Dissolved
Nickel	4.1	J	20	0.23	ug/L	1		6020	Dissolved
Lead	0.27	J B	3.0	0.11	ug/L	1		6020	Dissolved
Antimony	0.58	J	2.0	0.16	ug/L	1		6020	Dissolved
Selenium	2.2	J	5.0	0.25	ug/L	1		6020	Dissolved
Thallium	0.14	J	1.0	0.074	ug/L	1		6020	Dissolved
Vanadium	6.6	B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	17	J	100	1.1	ug/L	1		6020	Dissolved
Cr (III)	0.56		0.020	0.0050	mg/L	1		7196A	Total/NA

**Client Sample ID: GW-082715-JL-23**

**Lab Sample ID: 240-54814-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1.5		1.0	0.22	ug/L	1		8260B	Total/NA
Antimony	0.28	J	2.0	0.16	ug/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

## Client Sample ID: GW-082715-JL-23 (Continued)

## Lab Sample ID: 240-54814-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.74	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	57	J	100	1.1	ug/L	1		6020	Total Recoverable
Beryllium	0.070	J	1.0	0.053	ug/L	1		6020	Total Recoverable
Cadmium	0.12	J	1.0	0.061	ug/L	1		6020	Total Recoverable
Cobalt	0.13	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	4.2	J B	5.0	0.20	ug/L	1		6020	Total Recoverable
Nickel	0.42	J	20	0.23	ug/L	1		6020	Total Recoverable
Lead	0.17	J B	3.0	0.11	ug/L	1		6020	Total Recoverable
Selenium	1.0	J	5.0	0.25	ug/L	1		6020	Total Recoverable
Vanadium	1.6	J B	4.0	0.23	ug/L	1		6020	Total Recoverable
Arsenic	0.68	J B	5.0	0.18	ug/L	1		6020	Dissolved
Beryllium	0.065	J	1.0	0.053	ug/L	1		6020	Dissolved
Cadmium	0.086	J	1.0	0.061	ug/L	1		6020	Dissolved
Cobalt	0.11	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	4.0	J B	5.0	0.20	ug/L	1		6020	Dissolved
Nickel	0.39	J	20	0.23	ug/L	1		6020	Dissolved
Lead	0.14	J B	3.0	0.11	ug/L	1		6020	Dissolved
Antimony	0.20	J	2.0	0.16	ug/L	1		6020	Dissolved
Selenium	0.81	J	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	1.6	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	54	J	100	1.1	ug/L	1		6020	Dissolved

## Client Sample ID: GW-082715-JL-24

## Lab Sample ID: 240-54814-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2,4-Dichlorophenol	5.2	J	11	0.20	ug/L	1		8270C	Total/NA
Arsenic	0.55	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	32	J	100	1.1	ug/L	1		6020	Total Recoverable
Beryllium	0.073	J	1.0	0.053	ug/L	1		6020	Total Recoverable
Cobalt	0.13	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	3.3	J B	5.0	0.20	ug/L	1		6020	Total Recoverable
Copper	1.2	J	2.0	0.75	ug/L	1		6020	Total Recoverable
Manganese	1.3	J	15	1.1	ug/L	1		6020	Total Recoverable
Nickel	0.54	J	20	0.23	ug/L	1		6020	Total Recoverable
Lead	0.16	J B	3.0	0.11	ug/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

## Client Sample ID: GW-082715-JL-24 (Continued)

## Lab Sample ID: 240-54814-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	1.1	J	5.0	0.25	ug/L	1		6020	Total
Vanadium	1.3	J B	4.0	0.23	ug/L	1		6020	Recoverable Total
Zinc	9.4	J	20	7.3	ug/L	1		6020	Recoverable Total
Arsenic	0.71	J B	5.0	0.18	ug/L	1		6020	Dissolved
Beryllium	0.054	J	1.0	0.053	ug/L	1		6020	Dissolved
Cobalt	0.11	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	3.5	J B	5.0	0.20	ug/L	1		6020	Dissolved
Nickel	0.34	J	20	0.23	ug/L	1		6020	Dissolved
Lead	0.13	J B	3.0	0.11	ug/L	1		6020	Dissolved
Selenium	1.4	J	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	1.5	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	40	J	100	1.1	ug/L	1		6020	Dissolved

## Client Sample ID: GW-082715-JL-25

## Lab Sample ID: 240-54814-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2,4-Dichlorophenol	0.94	J	10	0.19	ug/L	1		8270C	Total/NA
Antimony	0.25	J	2.0	0.16	ug/L	1		6020	Total
Arsenic	1.4	J B	5.0	0.18	ug/L	1		6020	Recoverable Total
Barium	120		100	1.1	ug/L	1		6020	Recoverable Total
Cadmium	0.066	J	1.0	0.061	ug/L	1		6020	Recoverable Total
Cobalt	2.3	J	7.0	0.021	ug/L	1		6020	Recoverable Total
Chromium	1100	B	5.0	0.20	ug/L	1		6020	Recoverable Total
Copper	21		2.0	0.75	ug/L	1		6020	Recoverable Total
Manganese	11	J	15	1.1	ug/L	1		6020	Recoverable Total
Nickel	110		20	0.23	ug/L	1		6020	Recoverable Total
Lead	0.13	J B	3.0	0.11	ug/L	1		6020	Recoverable Total
Selenium	4.4	J	5.0	0.25	ug/L	1		6020	Recoverable Total
Arsenic	1.2	J B	5.0	0.18	ug/L	1		6020	Dissolved
Cadmium	0.087	J	1.0	0.061	ug/L	1		6020	Dissolved
Cobalt	1.3	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	5.2	B	5.0	0.20	ug/L	1		6020	Dissolved
Copper	3.0		2.0	0.75	ug/L	1		6020	Dissolved
Manganese	6.7	J	15	1.1	ug/L	1		6020	Dissolved
Nickel	75		20	0.23	ug/L	1		6020	Dissolved
Lead	0.11	J B	3.0	0.11	ug/L	1		6020	Dissolved
Antimony	0.24	J	2.0	0.16	ug/L	1		6020	Dissolved
Selenium	5.5		5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	1.4	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	130		100	1.1	ug/L	1		6020	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

## Client Sample ID: GW-082715-JL-25 (Continued)

## Lab Sample ID: 240-54814-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (III)	1.1		0.020	0.0050	mg/L	1		7196A	Total/NA

## Client Sample ID: GW-082715-JL-26

## Lab Sample ID: 240-54814-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorobromomethane	0.43	J	1.0	0.29	ug/L	1		8260B	Total/NA
Chloroform	0.37	J	1.0	0.25	ug/L	1		8260B	Total/NA
Arsenic	0.72	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	75	J	100	1.1	ug/L	1		6020	Total Recoverable
Cobalt	0.22	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	26	B	5.0	0.20	ug/L	1		6020	Total Recoverable
Copper	1.5	J	2.0	0.75	ug/L	1		6020	Total Recoverable
Manganese	1.1	J	15	1.1	ug/L	1		6020	Total Recoverable
Nickel	2.7	J	20	0.23	ug/L	1		6020	Total Recoverable
Lead	0.12	J B	3.0	0.11	ug/L	1		6020	Total Recoverable
Selenium	0.60	J	5.0	0.25	ug/L	1		6020	Total Recoverable
Vanadium	1.1	J B	4.0	0.23	ug/L	1		6020	Total Recoverable
Arsenic	0.65	J B	5.0	0.18	ug/L	1		6020	Dissolved
Cobalt	0.14	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	3.4	J B	5.0	0.20	ug/L	1		6020	Dissolved
Nickel	1.6	J	20	0.23	ug/L	1		6020	Dissolved
Selenium	0.42	J	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	1.6	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	73	J	100	1.1	ug/L	1		6020	Dissolved
Cr (III)	0.026		0.020	0.0050	mg/L	1		7196A	Total/NA

## Client Sample ID: GW-082715-JL-27

## Lab Sample ID: 240-54814-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.33	J B	1.0	0.33	ug/L	1		8260B	Total/NA
Arsenic	0.44	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	31	J	100	1.1	ug/L	1		6020	Total Recoverable
Cadmium	0.083	J	1.0	0.061	ug/L	1		6020	Total Recoverable
Cobalt	0.18	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	4.8	J B	5.0	0.20	ug/L	1		6020	Total Recoverable
Copper	2.3		2.0	0.75	ug/L	1		6020	Total Recoverable
Manganese	31		15	1.1	ug/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

## Client Sample ID: GW-082715-JL-27 (Continued)

## Lab Sample ID: 240-54814-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	1.4	J	20	0.23	ug/L	1		6020	Total
Lead	0.27	J B	3.0	0.11	ug/L	1		6020	Total Recoverable
Vanadium	1.0	J B	4.0	0.23	ug/L	1		6020	Total Recoverable
Zinc	17	J	20	7.3	ug/L	1		6020	Total Recoverable
Arsenic	0.59	J B	5.0	0.18	ug/L	1		6020	Dissolved
Cobalt	0.28	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	2.9	J B	5.0	0.20	ug/L	1		6020	Dissolved
Copper	1.2	J	2.0	0.75	ug/L	1		6020	Dissolved
Manganese	25		15	1.1	ug/L	1		6020	Dissolved
Nickel	4.6	J	20	0.23	ug/L	1		6020	Dissolved
Lead	0.12	J B	3.0	0.11	ug/L	1		6020	Dissolved
Vanadium	1.0	J B	4.0	0.23	ug/L	1		6020	Dissolved
Zinc	8.7	J	20	7.3	ug/L	1		6020	Dissolved
Barium	33	J	100	1.1	ug/L	1		6020	Dissolved

## Client Sample ID: GW-082715-JL-28

## Lab Sample ID: 240-54814-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.58	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	57	J	100	1.1	ug/L	1		6020	Total Recoverable
Cobalt	0.18	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	12	B	5.0	0.20	ug/L	1		6020	Total Recoverable
Copper	1.1	J	2.0	0.75	ug/L	1		6020	Total Recoverable
Manganese	220		15	1.1	ug/L	1		6020	Total Recoverable
Nickel	3.2	J	20	0.23	ug/L	1		6020	Total Recoverable
Selenium	0.61	J	5.0	0.25	ug/L	1		6020	Total Recoverable
Vanadium	0.46	J B	4.0	0.23	ug/L	1		6020	Total Recoverable
Arsenic	0.55	J B	5.0	0.18	ug/L	1		6020	Dissolved
Cobalt	0.17	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	2.7	J B	5.0	0.20	ug/L	1		6020	Dissolved
Copper	0.91	J	2.0	0.75	ug/L	1		6020	Dissolved
Manganese	240		15	1.1	ug/L	1		6020	Dissolved
Nickel	3.1	J	20	0.23	ug/L	1		6020	Dissolved
Lead	0.25	J B	3.0	0.11	ug/L	1		6020	Dissolved
Selenium	0.62	J	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	0.90	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	58	J	100	1.1	ug/L	1		6020	Dissolved
Cr (III)	0.012	J	0.020	0.0050	mg/L	1		7196A	Total/NA

## Client Sample ID: GW-082715-JL-29

## Lab Sample ID: 240-54814-8

This Detection Summary does not include radiochemical test results.

TestAmerica Canton



# Detection Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

## Client Sample ID: GW-082715-JL-29 (Continued)

## Lab Sample ID: 240-54814-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.58	J B	5.0	0.18	ug/L	1		6020	Total
Barium	55	J	100	1.1	ug/L	1		6020	Total Recoverable
Cobalt	1.7	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	9.9	B	5.0	0.20	ug/L	1		6020	Total Recoverable
Manganese	22		15	1.1	ug/L	1		6020	Total Recoverable
Nickel	260		20	0.23	ug/L	1		6020	Total Recoverable
Selenium	1.9	J	5.0	0.25	ug/L	1		6020	Total Recoverable
Vanadium	0.54	J B	4.0	0.23	ug/L	1		6020	Total Recoverable
Arsenic	0.65	J B	5.0	0.18	ug/L	1		6020	Dissolved
Cobalt	0.79	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	4.8	J B	5.0	0.20	ug/L	1		6020	Dissolved
Manganese	8.6	J	15	1.1	ug/L	1		6020	Dissolved
Nickel	210		20	0.23	ug/L	1		6020	Dissolved
Selenium	2.4	J	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	0.86	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	60	J	100	1.1	ug/L	1		6020	Dissolved
Cr (III)	0.0099	J	0.020	0.0050	mg/L	1		7196A	Total/NA

## Client Sample ID: GW-082715-JL-30

## Lab Sample ID: 240-54814-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.55	J B	5.0	0.18	ug/L	1		6020	Total
Barium	54	J	100	1.1	ug/L	1		6020	Total Recoverable
Cobalt	1.5	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	6.2	B	5.0	0.20	ug/L	1		6020	Total Recoverable
Manganese	20		15	1.1	ug/L	1		6020	Total Recoverable
Nickel	200		20	0.23	ug/L	1		6020	Total Recoverable
Selenium	2.0	J	5.0	0.25	ug/L	1		6020	Total Recoverable
Vanadium	0.60	J B	4.0	0.23	ug/L	1		6020	Total Recoverable
Arsenic	0.60	J B	5.0	0.18	ug/L	1		6020	Dissolved
Cobalt	0.68	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	4.5	J B	5.0	0.20	ug/L	1		6020	Dissolved
Manganese	14	J	15	1.1	ug/L	1		6020	Dissolved
Nickel	260		20	0.23	ug/L	1		6020	Dissolved
Selenium	2.2	J	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	0.75	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	61	J	100	1.1	ug/L	1		6020	Dissolved
Cr (III)	0.0062	J	0.020	0.0050	mg/L	1		7196A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

## Client Sample ID: GW-082715-JL-31

## Lab Sample ID: 240-54814-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2,4-Dichlorophenol	0.24	J	9.9	0.19	ug/L	1		8270C	Total/NA
Arsenic	0.58	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	35	J	100	1.1	ug/L	1		6020	Total Recoverable
Cobalt	0.12	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	3.4	J B	5.0	0.20	ug/L	1		6020	Total Recoverable
Manganese	2.0	J	15	1.1	ug/L	1		6020	Total Recoverable
Nickel	8.9	J	20	0.23	ug/L	1		6020	Total Recoverable
Lead	0.11	J B	3.0	0.11	ug/L	1		6020	Total Recoverable
Selenium	0.33	J	5.0	0.25	ug/L	1		6020	Total Recoverable
Vanadium	1.2	J B	4.0	0.23	ug/L	1		6020	Total Recoverable
Arsenic	0.50	J B	5.0	0.18	ug/L	1		6020	Dissolved
Cobalt	0.090	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	2.9	J B	5.0	0.20	ug/L	1		6020	Dissolved
Manganese	1.5	J	15	1.1	ug/L	1		6020	Dissolved
Nickel	7.9	J	20	0.23	ug/L	1		6020	Dissolved
Selenium	0.42	J	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	0.95	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	30	J	100	1.1	ug/L	1		6020	Dissolved

## Client Sample ID: TRIP BLANK

## Lab Sample ID: 240-54814-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.5	J	10	0.94	ug/L	1		8260B	Total/NA
Methylene Chloride	2.8	B	1.0	0.33	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-22**

**Lab Sample ID: 240-54814-1**

**Date Collected: 08/27/15 10:30**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/02/15 16:40	1
Benzene	1.0	U	1.0	0.35	ug/L			09/02/15 16:40	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/02/15 16:40	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/02/15 16:40	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/02/15 16:40	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/02/15 16:40	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/02/15 16:40	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/02/15 16:40	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 16:40	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/02/15 16:40	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/02/15 16:40	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/02/15 16:40	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/02/15 16:40	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/02/15 16:40	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/02/15 16:40	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/02/15 16:40	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/02/15 16:40	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/02/15 16:40	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/02/15 16:40	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/02/15 16:40	1
2-Hexanone	10	U	10	0.48	ug/L			09/02/15 16:40	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/02/15 16:40	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/02/15 16:40	1
Styrene	1.0	U	1.0	0.45	ug/L			09/02/15 16:40	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/02/15 16:40	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/02/15 16:40	1
Toluene	1.0	U	1.0	0.23	ug/L			09/02/15 16:40	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/02/15 16:40	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/02/15 16:40	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/02/15 16:40	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/02/15 16:40	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/02/15 16:40	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/02/15 16:40	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/02/15 16:40	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/02/15 16:40	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/02/15 16:40	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/02/15 16:40	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/02/15 16:40	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/02/15 16:40	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/02/15 16:40	1
Methyl acetate	10	U	10	2.3	ug/L			09/02/15 16:40	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/02/15 16:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/02/15 16:40	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/02/15 16:40	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 16:40	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/02/15 16:40	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/02/15 16:40	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/02/15 16:40	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/02/15 16:40	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-22**

**Lab Sample ID: 240-54814-1**

**Date Collected: 08/27/15 10:30**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/02/15 16:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		78 - 125					09/02/15 16:40	1
4-Bromofluorobenzene (Surr)	85		61 - 120					09/02/15 16:40	1
Toluene-d8 (Surr)	94		80 - 120					09/02/15 16:40	1
Dibromofluoromethane (Surr)	95		79 - 120					09/02/15 16:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	4.8	U	4.8	0.043	ug/L		08/31/15 10:13	09/08/15 09:56	1
Acenaphthylene	4.8	U	4.8	0.046	ug/L		08/31/15 10:13	09/08/15 09:56	1
Acetophenone	4.8	U	4.8	0.33	ug/L		08/31/15 10:13	09/08/15 09:56	1
Anthracene	4.8	U	4.8	0.085	ug/L		08/31/15 10:13	09/08/15 09:56	1
Atrazine	2.9	U	2.9	0.33	ug/L		08/31/15 10:13	09/08/15 09:56	1
Benzaldehyde	4.8	U	4.8	0.37	ug/L		08/31/15 10:13	09/08/15 09:56	1
Benzo[a]anthracene	0.96	U	0.96	0.028	ug/L		08/31/15 10:13	09/08/15 09:56	1
Benzo[b]fluoranthene	0.96	U	0.96	0.038	ug/L		08/31/15 10:13	09/08/15 09:56	1
Benzo[k]fluoranthene	0.96	U	0.96	0.043	ug/L		08/31/15 10:13	09/08/15 09:56	1
Benzo[g,h,i]perylene	0.96	U	0.96	0.045	ug/L		08/31/15 10:13	09/08/15 09:56	1
Benzo[a]pyrene	0.96	U	0.96	0.049	ug/L		08/31/15 10:13	09/08/15 09:56	1
Butyl benzyl phthalate	4.8	U	4.8	0.25	ug/L		08/31/15 10:13	09/08/15 09:56	1
1,1'-Biphenyl	4.8	U	4.8	0.13	ug/L		08/31/15 10:13	09/08/15 09:56	1
Bis(2-chloroethoxy)methane	4.8	U	4.8	0.31	ug/L		08/31/15 10:13	09/08/15 09:56	1
Bis(2-chloroethyl)ether	0.96	U	0.96	0.096	ug/L		08/31/15 10:13	09/08/15 09:56	1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8	1.6	ug/L		08/31/15 10:13	09/08/15 09:56	1
4-Bromophenyl phenyl ether	4.8	U	4.8	0.21	ug/L		08/31/15 10:13	09/08/15 09:56	1
Caprolactam	9.6	U	9.6	0.19	ug/L		08/31/15 10:13	09/08/15 09:56	1
Carbazole	9.6	U	9.6	0.27	ug/L		08/31/15 10:13	09/08/15 09:56	1
4-Chloroaniline	9.6	U	9.6	0.20	ug/L		08/31/15 10:13	09/08/15 09:56	1
4-Chloro-3-methylphenol	4.8	U	4.8	0.20	ug/L		08/31/15 10:13	09/08/15 09:56	1
2-Chloronaphthalene	4.8	U	4.8	0.096	ug/L		08/31/15 10:13	09/08/15 09:56	1
2-Chlorophenol	4.8	U	4.8	0.28	ug/L		08/31/15 10:13	09/08/15 09:56	1
4-Chlorophenyl phenyl ether	4.8	U	4.8	0.29	ug/L		08/31/15 10:13	09/08/15 09:56	1
Chrysene	0.96	U	0.96	0.048	ug/L		08/31/15 10:13	09/08/15 09:56	1
2-Methylnaphthalene	4.8	U	4.8	0.087	ug/L		08/31/15 10:13	09/08/15 09:56	1
3 & 4 Methylphenol	4.8	U	4.8	0.77	ug/L		08/31/15 10:13	09/08/15 09:56	1
Dibenz(a,h)anthracene	1.9	U	1.9	0.043	ug/L		08/31/15 10:13	09/08/15 09:56	1
Dibenzofuran	3.8	U	3.8	0.019	ug/L		08/31/15 10:13	09/08/15 09:56	1
3,3'-Dichlorobenzidine	0.96	U	0.96	0.36	ug/L		08/31/15 10:13	09/08/15 09:56	1
2,4-Dichlorophenol	9.6	U	9.6	0.18	ug/L		08/31/15 10:13	09/08/15 09:56	1
Diethyl phthalate	4.8	U	4.8	0.58	ug/L		08/31/15 10:13	09/08/15 09:56	1
2,4-Dimethylphenol	4.8	U	4.8	0.24	ug/L		08/31/15 10:13	09/08/15 09:56	1
Dimethyl phthalate	4.8	U	4.8	0.28	ug/L		08/31/15 10:13	09/08/15 09:56	1
4,6-Dinitro-2-methylphenol	19	U	19	2.3	ug/L		08/31/15 10:13	09/08/15 09:56	1
2,4-Dinitrophenol	19	U	19	0.31	ug/L		08/31/15 10:13	09/08/15 09:56	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		08/31/15 10:13	09/08/15 09:56	1
Di-n-butyl phthalate	4.8	U	4.8	1.6	ug/L		08/31/15 10:13	09/08/15 09:56	1
Di-n-octyl phthalate	4.8	U	4.8	0.22	ug/L		08/31/15 10:13	09/08/15 09:56	1
Fluoranthene	0.96	U	0.96	0.043	ug/L		08/31/15 10:13	09/08/15 09:56	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-22**

**Lab Sample ID: 240-54814-1**

**Date Collected: 08/27/15 10:30**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.8	U	4.8	0.039	ug/L		08/31/15 10:13	09/08/15 09:56	1
Hexachlorobenzene	0.19	U	0.19	0.082	ug/L		08/31/15 10:13	09/08/15 09:56	1
Hexachlorobutadiene	0.96	U	0.96	0.26	ug/L		08/31/15 10:13	09/08/15 09:56	1
Hexachlorocyclopentadiene	4.8	U	4.8	0.23	ug/L		08/31/15 10:13	09/08/15 09:56	1
Hexachloroethane	4.8	U	4.8	0.18	ug/L		08/31/15 10:13	09/08/15 09:56	1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	0.042	ug/L		08/31/15 10:13	09/08/15 09:56	1
Isophorone	4.8	U	4.8	0.26	ug/L		08/31/15 10:13	09/08/15 09:56	1
2-Methylphenol	4.8	U	4.8	0.16	ug/L		08/31/15 10:13	09/08/15 09:56	1
Naphthalene	4.8	U	4.8	0.060	ug/L		08/31/15 10:13	09/08/15 09:56	1
2-Nitroaniline	19	U	19	0.20	ug/L		08/31/15 10:13	09/08/15 09:56	1
3-Nitroaniline	19	U	19	0.27	ug/L		08/31/15 10:13	09/08/15 09:56	1
4-Nitroaniline	19	U	19	0.21	ug/L		08/31/15 10:13	09/08/15 09:56	1
Nitrobenzene	2.9	U	2.9	0.038	ug/L		08/31/15 10:13	09/08/15 09:56	1
2-Nitrophenol	4.8	U	4.8	0.27	ug/L		08/31/15 10:13	09/08/15 09:56	1
4-Nitrophenol	19	U	19	0.28	ug/L		08/31/15 10:13	09/08/15 09:56	1
N-Nitrosodiphenylamine	4.8	U	4.8	0.30	ug/L		08/31/15 10:13	09/08/15 09:56	1
N-Nitrosodi-n-propylamine	4.8	U	4.8	0.23	ug/L		08/31/15 10:13	09/08/15 09:56	1
2,2'-oxybis[1-chloropropane]	4.8	U	4.8	0.38	ug/L		08/31/15 10:13	09/08/15 09:56	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		08/31/15 10:13	09/08/15 09:56	1
Phenanthrene	1.9	U	1.9	0.060	ug/L		08/31/15 10:13	09/08/15 09:56	1
Phenol	4.8	U	4.8	0.58	ug/L		08/31/15 10:13	09/08/15 09:56	1
Pyrene	4.8	U	4.8	0.040	ug/L		08/31/15 10:13	09/08/15 09:56	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		08/31/15 10:13	09/08/15 09:56	1
2,4,6-Trichlorophenol	3.8	U	3.8	0.23	ug/L		08/31/15 10:13	09/08/15 09:56	1
2,6-Dinitrotoluene	4.8	U	4.8	0.77	ug/L		08/31/15 10:13	09/08/15 09:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	66		29 - 110	08/31/15 10:13	09/08/15 09:56	1
2-Fluorophenol (Surr)	31		15 - 110	08/31/15 10:13	09/08/15 09:56	1
2,4,6-Tribromophenol (Surr)	58		21 - 128	08/31/15 10:13	09/08/15 09:56	1
Nitrobenzene-d5 (Surr)	62		31 - 110	08/31/15 10:13	09/08/15 09:56	1
Phenol-d5 (Surr)	16		10 - 110	08/31/15 10:13	09/08/15 09:56	1
Terphenyl-d14 (Surr)	58		31 - 115	08/31/15 10:13	09/08/15 09:56	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.60	J	2.0	0.16	ug/L		08/31/15 08:24	09/01/15 16:45	1
Arsenic	5.7	B	5.0	0.18	ug/L		08/31/15 08:24	09/01/15 16:45	1
Barium	59	J	100	1.1	ug/L		08/31/15 08:24	09/01/15 16:45	1
Beryllium	0.51	J	1.0	0.053	ug/L		08/31/15 08:24	09/01/15 16:45	1
Cadmium	0.33	J	1.0	0.061	ug/L		08/31/15 08:24	09/01/15 16:45	1
Cobalt	2.6	J	7.0	0.021	ug/L		08/31/15 08:24	09/01/15 16:45	1
Chromium	560	B	5.0	0.20	ug/L		08/31/15 08:24	09/01/15 16:45	1
Copper	19		2.0	0.75	ug/L		08/31/15 08:24	09/01/15 16:45	1
Manganese	55		15	1.1	ug/L		08/31/15 08:24	09/01/15 16:45	1
Nickel	24		20	0.23	ug/L		08/31/15 08:24	09/01/15 16:45	1
Lead	3.3	B	3.0	0.11	ug/L		08/31/15 08:24	09/01/15 16:45	1
Selenium	3.0	J	5.0	0.25	ug/L		08/31/15 08:24	09/01/15 16:45	1
Thallium	0.21	J	1.0	0.074	ug/L		08/31/15 08:24	09/01/15 16:45	1
Vanadium	25	B	4.0	0.23	ug/L		08/31/15 08:24	09/01/15 16:45	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-22**

**Lab Sample ID: 240-54814-1**

Date Collected: 08/27/15 10:30

Matrix: Water

Date Received: 08/28/15 09:20

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	38		20	7.3	ug/L		08/31/15 08:24	09/01/15 16:45	1
Silver	0.036	J	0.20	0.020	ug/L		08/31/15 08:24	09/01/15 16:45	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:24	09/01/15 17:02	1
Arsenic	2.2	J B	5.0	0.18	ug/L		08/31/15 08:24	09/01/15 17:02	1
Beryllium	0.20	J	1.0	0.053	ug/L		08/31/15 08:24	09/01/15 17:02	1
Cadmium	0.30	J	1.0	0.061	ug/L		08/31/15 08:24	09/01/15 17:02	1
Cobalt	0.43	J	7.0	0.021	ug/L		08/31/15 08:24	09/01/15 17:02	1
Chromium	6.9	B	5.0	0.20	ug/L		08/31/15 08:24	09/01/15 17:02	1
Copper	6.0		2.0	0.75	ug/L		08/31/15 08:24	09/01/15 17:02	1
Manganese	1.6	J	15	1.1	ug/L		08/31/15 08:24	09/01/15 17:02	1
Nickel	4.1	J	20	0.23	ug/L		08/31/15 08:24	09/01/15 17:02	1
Lead	0.27	J B	3.0	0.11	ug/L		08/31/15 08:24	09/01/15 17:02	1
Antimony	0.58	J	2.0	0.16	ug/L		08/31/15 08:24	09/01/15 17:02	1
Selenium	2.2	J	5.0	0.25	ug/L		08/31/15 08:24	09/01/15 17:02	1
Thallium	0.14	J	1.0	0.074	ug/L		08/31/15 08:24	09/01/15 17:02	1
Vanadium	6.6	B	4.0	0.23	ug/L		08/31/15 08:24	09/01/15 17:02	1
Zinc	20	U	20	7.3	ug/L		08/31/15 08:24	09/01/15 17:02	1
Barium	17	J	100	1.1	ug/L		08/31/15 08:24	09/01/15 17:02	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U L	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 12:23	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 12:35	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/28/15 11:09	1
Cr (III)	0.56		0.020	0.0050	mg/L			09/02/15 13:14	1



# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-23**

**Lab Sample ID: 240-54814-2**

**Date Collected: 08/27/15 10:55**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/02/15 17:03	1
Benzene	1.0	U	1.0	0.35	ug/L			09/02/15 17:03	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/02/15 17:03	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/02/15 17:03	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/02/15 17:03	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/02/15 17:03	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/02/15 17:03	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/02/15 17:03	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 17:03	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/02/15 17:03	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/02/15 17:03	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/02/15 17:03	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/02/15 17:03	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/02/15 17:03	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/02/15 17:03	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/02/15 17:03	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/02/15 17:03	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/02/15 17:03	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/02/15 17:03	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/02/15 17:03	1
2-Hexanone	10	U	10	0.48	ug/L			09/02/15 17:03	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/02/15 17:03	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/02/15 17:03	1
Styrene	1.0	U	1.0	0.45	ug/L			09/02/15 17:03	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/02/15 17:03	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/02/15 17:03	1
Toluene	1.0	U	1.0	0.23	ug/L			09/02/15 17:03	1
<b>Trichloroethene</b>	<b>1.5</b>		1.0	0.22	ug/L			09/02/15 17:03	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/02/15 17:03	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/02/15 17:03	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/02/15 17:03	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/02/15 17:03	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/02/15 17:03	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/02/15 17:03	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/02/15 17:03	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/02/15 17:03	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/02/15 17:03	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/02/15 17:03	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/02/15 17:03	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/02/15 17:03	1
Methyl acetate	10	U	10	2.3	ug/L			09/02/15 17:03	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/02/15 17:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/02/15 17:03	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/02/15 17:03	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 17:03	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/02/15 17:03	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/02/15 17:03	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/02/15 17:03	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/02/15 17:03	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-23**

**Lab Sample ID: 240-54814-2**

**Date Collected: 08/27/15 10:55**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/02/15 17:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		78 - 125					09/02/15 17:03	1
4-Bromofluorobenzene (Surr)	86		61 - 120					09/02/15 17:03	1
Toluene-d8 (Surr)	93		80 - 120					09/02/15 17:03	1
Dibromofluoromethane (Surr)	93		79 - 120					09/02/15 17:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	4.8	U	4.8	0.042	ug/L		08/31/15 10:13	09/08/15 10:19	1
Acenaphthylene	4.8	U	4.8	0.046	ug/L		08/31/15 10:13	09/08/15 10:19	1
Acetophenone	4.8	U	4.8	0.32	ug/L		08/31/15 10:13	09/08/15 10:19	1
Anthracene	4.8	U	4.8	0.084	ug/L		08/31/15 10:13	09/08/15 10:19	1
Atrazine	2.9	U	2.9	0.32	ug/L		08/31/15 10:13	09/08/15 10:19	1
Benzaldehyde	4.8	U	4.8	0.37	ug/L		08/31/15 10:13	09/08/15 10:19	1
Benzo[a]anthracene	0.95	U	0.95	0.028	ug/L		08/31/15 10:13	09/08/15 10:19	1
Benzo[b]fluoranthene	0.95	U	0.95	0.038	ug/L		08/31/15 10:13	09/08/15 10:19	1
Benzo[k]fluoranthene	0.95	U	0.95	0.043	ug/L		08/31/15 10:13	09/08/15 10:19	1
Benzo[g,h,i]perylene	0.95	U	0.95	0.044	ug/L		08/31/15 10:13	09/08/15 10:19	1
Benzo[a]pyrene	0.95	U	0.95	0.049	ug/L		08/31/15 10:13	09/08/15 10:19	1
Butyl benzyl phthalate	4.8	U	4.8	0.25	ug/L		08/31/15 10:13	09/08/15 10:19	1
1,1'-Biphenyl	4.8	U	4.8	0.12	ug/L		08/31/15 10:13	09/08/15 10:19	1
Bis(2-chloroethoxy)methane	4.8	U	4.8	0.30	ug/L		08/31/15 10:13	09/08/15 10:19	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.095	ug/L		08/31/15 10:13	09/08/15 10:19	1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8	1.6	ug/L		08/31/15 10:13	09/08/15 10:19	1
4-Bromophenyl phenyl ether	4.8	U	4.8	0.21	ug/L		08/31/15 10:13	09/08/15 10:19	1
Caprolactam	9.5	U	9.5	0.19	ug/L		08/31/15 10:13	09/08/15 10:19	1
Carbazole	9.5	U	9.5	0.27	ug/L		08/31/15 10:13	09/08/15 10:19	1
4-Chloroaniline	9.5	U	9.5	0.20	ug/L		08/31/15 10:13	09/08/15 10:19	1
4-Chloro-3-methylphenol	4.8	U	4.8	0.20	ug/L		08/31/15 10:13	09/08/15 10:19	1
2-Chloronaphthalene	4.8	U	4.8	0.095	ug/L		08/31/15 10:13	09/08/15 10:19	1
2-Chlorophenol	4.8	U	4.8	0.28	ug/L		08/31/15 10:13	09/08/15 10:19	1
4-Chlorophenyl phenyl ether	4.8	U	4.8	0.29	ug/L		08/31/15 10:13	09/08/15 10:19	1
Chrysene	0.95	U	0.95	0.048	ug/L		08/31/15 10:13	09/08/15 10:19	1
2-Methylnaphthalene	4.8	U	4.8	0.086	ug/L		08/31/15 10:13	09/08/15 10:19	1
3 & 4 Methylphenol	4.8	U	4.8	0.76	ug/L		08/31/15 10:13	09/08/15 10:19	1
Dibenz(a,h)anthracene	1.9	U	1.9	0.042	ug/L		08/31/15 10:13	09/08/15 10:19	1
Dibenzofuran	3.8	U	3.8	0.019	ug/L		08/31/15 10:13	09/08/15 10:19	1
3,3'-Dichlorobenzidine	0.95	U	0.95	0.35	ug/L		08/31/15 10:13	09/08/15 10:19	1
2,4-Dichlorophenol	9.5	U	9.5	0.18	ug/L		08/31/15 10:13	09/08/15 10:19	1
Diethyl phthalate	4.8	U	4.8	0.57	ug/L		08/31/15 10:13	09/08/15 10:19	1
2,4-Dimethylphenol	4.8	U	4.8	0.24	ug/L		08/31/15 10:13	09/08/15 10:19	1
Dimethyl phthalate	4.8	U	4.8	0.28	ug/L		08/31/15 10:13	09/08/15 10:19	1
4,6-Dinitro-2-methylphenol	19	U	19	2.3	ug/L		08/31/15 10:13	09/08/15 10:19	1
2,4-Dinitrophenol	19	U	19	0.30	ug/L		08/31/15 10:13	09/08/15 10:19	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		08/31/15 10:13	09/08/15 10:19	1
Di-n-butyl phthalate	4.8	U	4.8	1.6	ug/L		08/31/15 10:13	09/08/15 10:19	1
Di-n-octyl phthalate	4.8	U	4.8	0.22	ug/L		08/31/15 10:13	09/08/15 10:19	1
Fluoranthene	0.95	U	0.95	0.042	ug/L		08/31/15 10:13	09/08/15 10:19	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-23**

**Lab Sample ID: 240-54814-2**

**Date Collected: 08/27/15 10:55**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.8	U	4.8	0.039	ug/L		08/31/15 10:13	09/08/15 10:19	1
Hexachlorobenzene	0.19	U	0.19	0.081	ug/L		08/31/15 10:13	09/08/15 10:19	1
Hexachlorobutadiene	0.95	U	0.95	0.26	ug/L		08/31/15 10:13	09/08/15 10:19	1
Hexachlorocyclopentadiene	4.8	U	4.8	0.23	ug/L		08/31/15 10:13	09/08/15 10:19	1
Hexachloroethane	4.8	U	4.8	0.18	ug/L		08/31/15 10:13	09/08/15 10:19	1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	0.041	ug/L		08/31/15 10:13	09/08/15 10:19	1
Isophorone	4.8	U	4.8	0.26	ug/L		08/31/15 10:13	09/08/15 10:19	1
2-Methylphenol	4.8	U	4.8	0.16	ug/L		08/31/15 10:13	09/08/15 10:19	1
Naphthalene	4.8	U	4.8	0.060	ug/L		08/31/15 10:13	09/08/15 10:19	1
2-Nitroaniline	19	U	19	0.20	ug/L		08/31/15 10:13	09/08/15 10:19	1
3-Nitroaniline	19	U	19	0.27	ug/L		08/31/15 10:13	09/08/15 10:19	1
4-Nitroaniline	19	U	19	0.21	ug/L		08/31/15 10:13	09/08/15 10:19	1
Nitrobenzene	2.9	U	2.9	0.038	ug/L		08/31/15 10:13	09/08/15 10:19	1
2-Nitrophenol	4.8	U	4.8	0.27	ug/L		08/31/15 10:13	09/08/15 10:19	1
4-Nitrophenol	19	U	19	0.28	ug/L		08/31/15 10:13	09/08/15 10:19	1
N-Nitrosodiphenylamine	4.8	U	4.8	0.30	ug/L		08/31/15 10:13	09/08/15 10:19	1
N-Nitrosodi-n-propylamine	4.8	U	4.8	0.23	ug/L		08/31/15 10:13	09/08/15 10:19	1
2,2'-oxybis[1-chloropropane]	4.8	U	4.8	0.38	ug/L		08/31/15 10:13	09/08/15 10:19	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		08/31/15 10:13	09/08/15 10:19	1
Phenanthrene	1.9	U	1.9	0.059	ug/L		08/31/15 10:13	09/08/15 10:19	1
Phenol	4.8	U	4.8	0.57	ug/L		08/31/15 10:13	09/08/15 10:19	1
Pyrene	4.8	U	4.8	0.040	ug/L		08/31/15 10:13	09/08/15 10:19	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		08/31/15 10:13	09/08/15 10:19	1
2,4,6-Trichlorophenol	3.8	U	3.8	0.23	ug/L		08/31/15 10:13	09/08/15 10:19	1
2,6-Dinitrotoluene	4.8	U	4.8	0.76	ug/L		08/31/15 10:13	09/08/15 10:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	53		29 - 110	08/31/15 10:13	09/08/15 10:19	1
2-Fluorophenol (Surr)	23		15 - 110	08/31/15 10:13	09/08/15 10:19	1
2,4,6-Tribromophenol (Surr)	39		21 - 128	08/31/15 10:13	09/08/15 10:19	1
Nitrobenzene-d5 (Surr)	50		31 - 110	08/31/15 10:13	09/08/15 10:19	1
Phenol-d5 (Surr)	12		10 - 110	08/31/15 10:13	09/08/15 10:19	1
Terphenyl-d14 (Surr)	59		31 - 115	08/31/15 10:13	09/08/15 10:19	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.28	J	2.0	0.16	ug/L		08/31/15 08:24	09/01/15 17:12	1
Arsenic	0.74	J B	5.0	0.18	ug/L		08/31/15 08:24	09/01/15 17:12	1
Barium	57	J	100	1.1	ug/L		08/31/15 08:24	09/01/15 17:12	1
Beryllium	0.070	J	1.0	0.053	ug/L		08/31/15 08:24	09/01/15 17:12	1
Cadmium	0.12	J	1.0	0.061	ug/L		08/31/15 08:24	09/01/15 17:12	1
Cobalt	0.13	J	7.0	0.021	ug/L		08/31/15 08:24	09/01/15 17:12	1
Chromium	4.2	J B	5.0	0.20	ug/L		08/31/15 08:24	09/01/15 17:12	1
Copper	2.0	U	2.0	0.75	ug/L		08/31/15 08:24	09/01/15 17:12	1
Manganese	15	U	15	1.1	ug/L		08/31/15 08:24	09/01/15 17:12	1
Nickel	0.42	J	20	0.23	ug/L		08/31/15 08:24	09/01/15 17:12	1
Lead	0.17	J B	3.0	0.11	ug/L		08/31/15 08:24	09/01/15 17:12	1
Selenium	1.0	J	5.0	0.25	ug/L		08/31/15 08:24	09/01/15 17:12	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:24	09/01/15 17:12	1
Vanadium	1.6	J B	4.0	0.23	ug/L		08/31/15 08:24	09/01/15 17:12	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-23**

**Lab Sample ID: 240-54814-2**

**Date Collected: 08/27/15 10:55**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/31/15 08:24	09/01/15 17:12	1
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:24	09/01/15 17:12	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:24	09/01/15 17:16	1
<b>Arsenic</b>	<b>0.68</b>	<b>J B</b>	5.0	0.18	ug/L		08/31/15 08:24	09/01/15 17:16	1
<b>Beryllium</b>	<b>0.065</b>	<b>J</b>	1.0	0.053	ug/L		08/31/15 08:24	09/01/15 17:16	1
<b>Cadmium</b>	<b>0.086</b>	<b>J</b>	1.0	0.061	ug/L		08/31/15 08:24	09/01/15 17:16	1
<b>Cobalt</b>	<b>0.11</b>	<b>J</b>	7.0	0.021	ug/L		08/31/15 08:24	09/01/15 17:16	1
<b>Chromium</b>	<b>4.0</b>	<b>J B</b>	5.0	0.20	ug/L		08/31/15 08:24	09/01/15 17:16	1
Copper	2.0	U	2.0	0.75	ug/L		08/31/15 08:24	09/01/15 17:16	1
Manganese	15	U	15	1.1	ug/L		08/31/15 08:24	09/01/15 17:16	1
<b>Nickel</b>	<b>0.39</b>	<b>J</b>	20	0.23	ug/L		08/31/15 08:24	09/01/15 17:16	1
<b>Lead</b>	<b>0.14</b>	<b>J B</b>	3.0	0.11	ug/L		08/31/15 08:24	09/01/15 17:16	1
<b>Antimony</b>	<b>0.20</b>	<b>J</b>	2.0	0.16	ug/L		08/31/15 08:24	09/01/15 17:16	1
<b>Selenium</b>	<b>0.81</b>	<b>J</b>	5.0	0.25	ug/L		08/31/15 08:24	09/01/15 17:16	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:24	09/01/15 17:16	1
<b>Vanadium</b>	<b>1.6</b>	<b>J B</b>	4.0	0.23	ug/L		08/31/15 08:24	09/01/15 17:16	1
Zinc	20	U	20	7.3	ug/L		08/31/15 08:24	09/01/15 17:16	1
<b>Barium</b>	<b>54</b>	<b>J</b>	100	1.1	ug/L		08/31/15 08:24	09/01/15 17:16	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 12:39	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 12:42	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/28/15 11:08	1
Cr (III)	0.020	U	0.020	0.0050	mg/L			09/02/15 13:14	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-24**

**Lab Sample ID: 240-54814-3**

**Date Collected: 08/27/15 11:40**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/02/15 17:25	1
Benzene	1.0	U	1.0	0.35	ug/L			09/02/15 17:25	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/02/15 17:25	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/02/15 17:25	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/02/15 17:25	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/02/15 17:25	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/02/15 17:25	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/02/15 17:25	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 17:25	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/02/15 17:25	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/02/15 17:25	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/02/15 17:25	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/02/15 17:25	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/02/15 17:25	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/02/15 17:25	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/02/15 17:25	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/02/15 17:25	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/02/15 17:25	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/02/15 17:25	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/02/15 17:25	1
2-Hexanone	10	U	10	0.48	ug/L			09/02/15 17:25	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/02/15 17:25	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/02/15 17:25	1
Styrene	1.0	U	1.0	0.45	ug/L			09/02/15 17:25	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/02/15 17:25	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/02/15 17:25	1
Toluene	1.0	U	1.0	0.23	ug/L			09/02/15 17:25	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/02/15 17:25	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/02/15 17:25	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/02/15 17:25	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/02/15 17:25	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/02/15 17:25	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/02/15 17:25	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/02/15 17:25	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/02/15 17:25	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/02/15 17:25	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/02/15 17:25	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/02/15 17:25	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/02/15 17:25	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/02/15 17:25	1
Methyl acetate	10	U	10	2.3	ug/L			09/02/15 17:25	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/02/15 17:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/02/15 17:25	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/02/15 17:25	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 17:25	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/02/15 17:25	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/02/15 17:25	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/02/15 17:25	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/02/15 17:25	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-24**

**Lab Sample ID: 240-54814-3**

**Date Collected: 08/27/15 11:40**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/02/15 17:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		78 - 125					09/02/15 17:25	1
4-Bromofluorobenzene (Surr)	85		61 - 120					09/02/15 17:25	1
Toluene-d8 (Surr)	93		80 - 120					09/02/15 17:25	1
Dibromofluoromethane (Surr)	91		79 - 120					09/02/15 17:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	5.3	U	5.3	0.047	ug/L		08/31/15 10:13	09/08/15 10:41	1
Acenaphthylene	5.3	U	5.3	0.051	ug/L		08/31/15 10:13	09/08/15 10:41	1
Acetophenone	5.3	U	5.3	0.36	ug/L		08/31/15 10:13	09/08/15 10:41	1
Anthracene	5.3	U	5.3	0.094	ug/L		08/31/15 10:13	09/08/15 10:41	1
Atrazine	3.2	U	3.2	0.36	ug/L		08/31/15 10:13	09/08/15 10:41	1
Benzaldehyde	5.3	U	5.3	0.41	ug/L		08/31/15 10:13	09/08/15 10:41	1
Benzo[a]anthracene	1.1	U	1.1	0.031	ug/L		08/31/15 10:13	09/08/15 10:41	1
Benzo[b]fluoranthene	1.1	U	1.1	0.042	ug/L		08/31/15 10:13	09/08/15 10:41	1
Benzo[k]fluoranthene	1.1	U	1.1	0.048	ug/L		08/31/15 10:13	09/08/15 10:41	1
Benzo[g,h,i]perylene	1.1	U	1.1	0.049	ug/L		08/31/15 10:13	09/08/15 10:41	1
Benzo[a]pyrene	1.1	U	1.1	0.055	ug/L		08/31/15 10:13	09/08/15 10:41	1
Butyl benzyl phthalate	5.3	U	5.3	0.28	ug/L		08/31/15 10:13	09/08/15 10:41	1
1,1'-Biphenyl	5.3	U	5.3	0.14	ug/L		08/31/15 10:13	09/08/15 10:41	1
Bis(2-chloroethoxy)methane	5.3	U	5.3	0.34	ug/L		08/31/15 10:13	09/08/15 10:41	1
Bis(2-chloroethyl)ether	1.1	U	1.1	0.11	ug/L		08/31/15 10:13	09/08/15 10:41	1
Bis(2-ethylhexyl) phthalate	5.3	U	5.3	1.8	ug/L		08/31/15 10:13	09/08/15 10:41	1
4-Bromophenyl phenyl ether	5.3	U	5.3	0.23	ug/L		08/31/15 10:13	09/08/15 10:41	1
Caprolactam	11	U	11	0.21	ug/L		08/31/15 10:13	09/08/15 10:41	1
Carbazole	11	U	11	0.30	ug/L		08/31/15 10:13	09/08/15 10:41	1
4-Chloroaniline	11	U	11	0.22	ug/L		08/31/15 10:13	09/08/15 10:41	1
4-Chloro-3-methylphenol	5.3	U	5.3	0.22	ug/L		08/31/15 10:13	09/08/15 10:41	1
2-Chloronaphthalene	5.3	U	5.3	0.11	ug/L		08/31/15 10:13	09/08/15 10:41	1
2-Chlorophenol	5.3	U	5.3	0.31	ug/L		08/31/15 10:13	09/08/15 10:41	1
4-Chlorophenyl phenyl ether	5.3	U	5.3	0.32	ug/L		08/31/15 10:13	09/08/15 10:41	1
Chrysene	1.1	U	1.1	0.053	ug/L		08/31/15 10:13	09/08/15 10:41	1
2-Methylnaphthalene	5.3	U	5.3	0.096	ug/L		08/31/15 10:13	09/08/15 10:41	1
3 & 4 Methylphenol	5.3	U	5.3	0.85	ug/L		08/31/15 10:13	09/08/15 10:41	1
Dibenz(a,h)anthracene	2.1	U	2.1	0.047	ug/L		08/31/15 10:13	09/08/15 10:41	1
Dibenzofuran	4.3	U	4.3	0.021	ug/L		08/31/15 10:13	09/08/15 10:41	1
3,3'-Dichlorobenzidine	1.1	U	1.1	0.39	ug/L		08/31/15 10:13	09/08/15 10:41	1
<b>2,4-Dichlorophenol</b>	<b>5.2</b>	<b>J</b>	11	0.20	ug/L		08/31/15 10:13	09/08/15 10:41	1
Diethyl phthalate	5.3	U	5.3	0.64	ug/L		08/31/15 10:13	09/08/15 10:41	1
2,4-Dimethylphenol	5.3	U	5.3	0.27	ug/L		08/31/15 10:13	09/08/15 10:41	1
Dimethyl phthalate	5.3	U	5.3	0.31	ug/L		08/31/15 10:13	09/08/15 10:41	1
4,6-Dinitro-2-methylphenol	21	U	21	2.6	ug/L		08/31/15 10:13	09/08/15 10:41	1
2,4-Dinitrophenol	21	U	21	0.34	ug/L		08/31/15 10:13	09/08/15 10:41	1
2,4-Dinitrotoluene	5.3	U	5.3	0.27	ug/L		08/31/15 10:13	09/08/15 10:41	1
Di-n-butyl phthalate	5.3	U	5.3	1.8	ug/L		08/31/15 10:13	09/08/15 10:41	1
Di-n-octyl phthalate	5.3	U	5.3	0.24	ug/L		08/31/15 10:13	09/08/15 10:41	1
Fluoranthene	1.1	U	1.1	0.047	ug/L		08/31/15 10:13	09/08/15 10:41	1

TestAmerica Canton



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-24**

**Lab Sample ID: 240-54814-3**

**Date Collected: 08/27/15 11:40**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	5.3	U	5.3	0.043	ug/L		08/31/15 10:13	09/08/15 10:41	1
Hexachlorobenzene	0.21	U	0.21	0.091	ug/L		08/31/15 10:13	09/08/15 10:41	1
Hexachlorobutadiene	1.1	U	1.1	0.29	ug/L		08/31/15 10:13	09/08/15 10:41	1
Hexachlorocyclopentadiene	5.3	U	5.3	0.26	ug/L		08/31/15 10:13	09/08/15 10:41	1
Hexachloroethane	5.3	U	5.3	0.20	ug/L		08/31/15 10:13	09/08/15 10:41	1
Indeno[1,2,3-cd]pyrene	2.1	U	2.1	0.046	ug/L		08/31/15 10:13	09/08/15 10:41	1
Isophorone	5.3	U	5.3	0.29	ug/L		08/31/15 10:13	09/08/15 10:41	1
2-Methylphenol	5.3	U	5.3	0.18	ug/L		08/31/15 10:13	09/08/15 10:41	1
Naphthalene	5.3	U	5.3	0.067	ug/L		08/31/15 10:13	09/08/15 10:41	1
2-Nitroaniline	21	U	21	0.22	ug/L		08/31/15 10:13	09/08/15 10:41	1
3-Nitroaniline	21	U	21	0.30	ug/L		08/31/15 10:13	09/08/15 10:41	1
4-Nitroaniline	21	U	21	0.23	ug/L		08/31/15 10:13	09/08/15 10:41	1
Nitrobenzene	3.2	U	3.2	0.043	ug/L		08/31/15 10:13	09/08/15 10:41	1
2-Nitrophenol	5.3	U	5.3	0.30	ug/L		08/31/15 10:13	09/08/15 10:41	1
4-Nitrophenol	21	U	21	0.31	ug/L		08/31/15 10:13	09/08/15 10:41	1
N-Nitrosodiphenylamine	5.3	U	5.3	0.33	ug/L		08/31/15 10:13	09/08/15 10:41	1
N-Nitrosodi-n-propylamine	5.3	U	5.3	0.26	ug/L		08/31/15 10:13	09/08/15 10:41	1
2,2'-oxybis[1-chloropropane]	5.3	U	5.3	0.43	ug/L		08/31/15 10:13	09/08/15 10:41	1
Pentachlorophenol	5.3	U	5.3	0.29	ug/L		08/31/15 10:13	09/08/15 10:41	1
Phenanthrene	2.1	U	2.1	0.066	ug/L		08/31/15 10:13	09/08/15 10:41	1
Phenol	5.3	U	5.3	0.64	ug/L		08/31/15 10:13	09/08/15 10:41	1
Pyrene	5.3	U	5.3	0.045	ug/L		08/31/15 10:13	09/08/15 10:41	1
2,4,5-Trichlorophenol	5.3	U	5.3	0.32	ug/L		08/31/15 10:13	09/08/15 10:41	1
2,4,6-Trichlorophenol	4.3	U	4.3	0.26	ug/L		08/31/15 10:13	09/08/15 10:41	1
2,6-Dinitrotoluene	5.3	U	5.3	0.85	ug/L		08/31/15 10:13	09/08/15 10:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	64		29 - 110	08/31/15 10:13	09/08/15 10:41	1
2-Fluorophenol (Surr)	30		15 - 110	08/31/15 10:13	09/08/15 10:41	1
2,4,6-Tribromophenol (Surr)	43		21 - 128	08/31/15 10:13	09/08/15 10:41	1
Nitrobenzene-d5 (Surr)	60		31 - 110	08/31/15 10:13	09/08/15 10:41	1
Phenol-d5 (Surr)	16		10 - 110	08/31/15 10:13	09/08/15 10:41	1
Terphenyl-d14 (Surr)	67		31 - 115	08/31/15 10:13	09/08/15 10:41	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:24	09/01/15 17:20	1
<b>Arsenic</b>	<b>0.55</b>	<b>J B</b>	5.0	0.18	ug/L		08/31/15 08:24	09/01/15 17:20	1
<b>Barium</b>	<b>32</b>	<b>J</b>	100	1.1	ug/L		08/31/15 08:24	09/01/15 17:20	1
<b>Beryllium</b>	<b>0.073</b>	<b>J</b>	1.0	0.053	ug/L		08/31/15 08:24	09/01/15 17:20	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:24	09/01/15 17:20	1
<b>Cobalt</b>	<b>0.13</b>	<b>J</b>	7.0	0.021	ug/L		08/31/15 08:24	09/01/15 17:20	1
<b>Chromium</b>	<b>3.3</b>	<b>J B</b>	5.0	0.20	ug/L		08/31/15 08:24	09/01/15 17:20	1
<b>Copper</b>	<b>1.2</b>	<b>J</b>	2.0	0.75	ug/L		08/31/15 08:24	09/01/15 17:20	1
<b>Manganese</b>	<b>1.3</b>	<b>J</b>	15	1.1	ug/L		08/31/15 08:24	09/01/15 17:20	1
<b>Nickel</b>	<b>0.54</b>	<b>J</b>	20	0.23	ug/L		08/31/15 08:24	09/01/15 17:20	1
<b>Lead</b>	<b>0.16</b>	<b>J B</b>	3.0	0.11	ug/L		08/31/15 08:24	09/01/15 17:20	1
<b>Selenium</b>	<b>1.1</b>	<b>J</b>	5.0	0.25	ug/L		08/31/15 08:24	09/01/15 17:20	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:24	09/01/15 17:20	1
<b>Vanadium</b>	<b>1.3</b>	<b>J B</b>	4.0	0.23	ug/L		08/31/15 08:24	09/01/15 17:20	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-24**

**Lab Sample ID: 240-54814-3**

**Date Collected: 08/27/15 11:40**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	9.4	J	20	7.3	ug/L		08/31/15 08:24	09/01/15 17:20	1
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:24	09/01/15 17:20	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:24	09/01/15 17:23	1
Arsenic	0.71	J B	5.0	0.18	ug/L		08/31/15 08:24	09/01/15 17:23	1
Beryllium	0.054	J	1.0	0.053	ug/L		08/31/15 08:24	09/01/15 17:23	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:24	09/01/15 17:23	1
Cobalt	0.11	J	7.0	0.021	ug/L		08/31/15 08:24	09/01/15 17:23	1
Chromium	3.5	J B	5.0	0.20	ug/L		08/31/15 08:24	09/01/15 17:23	1
Copper	2.0	U	2.0	0.75	ug/L		08/31/15 08:24	09/01/15 17:23	1
Manganese	15	U	15	1.1	ug/L		08/31/15 08:24	09/01/15 17:23	1
Nickel	0.34	J	20	0.23	ug/L		08/31/15 08:24	09/01/15 17:23	1
Lead	0.13	J B	3.0	0.11	ug/L		08/31/15 08:24	09/01/15 17:23	1
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:24	09/01/15 17:23	1
Selenium	1.4	J	5.0	0.25	ug/L		08/31/15 08:24	09/01/15 17:23	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:24	09/01/15 17:23	1
Vanadium	1.5	J B	4.0	0.23	ug/L		08/31/15 08:24	09/01/15 17:23	1
Zinc	20	U	20	7.3	ug/L		08/31/15 08:24	09/01/15 17:23	1
Barium	40	J	100	1.1	ug/L		08/31/15 08:24	09/01/15 17:23	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 12:45	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 12:50	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/28/15 11:07	1
Cr (III)	0.020	U	0.020	0.0050	mg/L			09/02/15 13:14	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-25**

**Lab Sample ID: 240-54814-4**

**Date Collected: 08/27/15 12:20**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/02/15 17:48	1
Benzene	1.0	U	1.0	0.35	ug/L			09/02/15 17:48	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/02/15 17:48	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/02/15 17:48	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/02/15 17:48	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/02/15 17:48	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/02/15 17:48	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/02/15 17:48	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 17:48	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/02/15 17:48	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/02/15 17:48	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/02/15 17:48	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/02/15 17:48	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/02/15 17:48	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/02/15 17:48	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/02/15 17:48	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/02/15 17:48	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/02/15 17:48	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/02/15 17:48	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/02/15 17:48	1
2-Hexanone	10	U	10	0.48	ug/L			09/02/15 17:48	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/02/15 17:48	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/02/15 17:48	1
Styrene	1.0	U	1.0	0.45	ug/L			09/02/15 17:48	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/02/15 17:48	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/02/15 17:48	1
Toluene	1.0	U	1.0	0.23	ug/L			09/02/15 17:48	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/02/15 17:48	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/02/15 17:48	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/02/15 17:48	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/02/15 17:48	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/02/15 17:48	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/02/15 17:48	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/02/15 17:48	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/02/15 17:48	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/02/15 17:48	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/02/15 17:48	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/02/15 17:48	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/02/15 17:48	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/02/15 17:48	1
Methyl acetate	10	U	10	2.3	ug/L			09/02/15 17:48	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/02/15 17:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/02/15 17:48	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/02/15 17:48	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 17:48	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/02/15 17:48	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/02/15 17:48	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/02/15 17:48	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/02/15 17:48	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-25**

**Lab Sample ID: 240-54814-4**

**Date Collected: 08/27/15 12:20**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/02/15 17:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		78 - 125					09/02/15 17:48	1
4-Bromofluorobenzene (Surr)	83		61 - 120					09/02/15 17:48	1
Toluene-d8 (Surr)	92		80 - 120					09/02/15 17:48	1
Dibromofluoromethane (Surr)	93		79 - 120					09/02/15 17:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	5.0	U	5.0	0.044	ug/L		08/31/15 10:13	09/08/15 11:03	1
Acenaphthylene	5.0	U	5.0	0.048	ug/L		08/31/15 10:13	09/08/15 11:03	1
Acetophenone	5.0	U	5.0	0.34	ug/L		08/31/15 10:13	09/08/15 11:03	1
Anthracene	5.0	U	5.0	0.088	ug/L		08/31/15 10:13	09/08/15 11:03	1
Atrazine	3.0	U	3.0	0.34	ug/L		08/31/15 10:13	09/08/15 11:03	1
Benzaldehyde	5.0	U	5.0	0.39	ug/L		08/31/15 10:13	09/08/15 11:03	1
Benzo[a]anthracene	1.0	U	1.0	0.030	ug/L		08/31/15 10:13	09/08/15 11:03	1
Benzo[b]fluoranthene	1.0	U	1.0	0.039	ug/L		08/31/15 10:13	09/08/15 11:03	1
Benzo[k]fluoranthene	1.0	U	1.0	0.045	ug/L		08/31/15 10:13	09/08/15 11:03	1
Benzo[g,h,i]perylene	1.0	U	1.0	0.046	ug/L		08/31/15 10:13	09/08/15 11:03	1
Benzo[a]pyrene	1.0	U	1.0	0.051	ug/L		08/31/15 10:13	09/08/15 11:03	1
Butyl benzyl phthalate	5.0	U	5.0	0.26	ug/L		08/31/15 10:13	09/08/15 11:03	1
1,1'-Biphenyl	5.0	U	5.0	0.13	ug/L		08/31/15 10:13	09/08/15 11:03	1
Bis(2-chloroethoxy)methane	5.0	U	5.0	0.32	ug/L		08/31/15 10:13	09/08/15 11:03	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.10	ug/L		08/31/15 10:13	09/08/15 11:03	1
Bis(2-ethylhexyl) phthalate	5.0	U	5.0	1.7	ug/L		08/31/15 10:13	09/08/15 11:03	1
4-Bromophenyl phenyl ether	5.0	U	5.0	0.22	ug/L		08/31/15 10:13	09/08/15 11:03	1
Caprolactam	10	U	10	0.20	ug/L		08/31/15 10:13	09/08/15 11:03	1
Carbazole	10	U	10	0.28	ug/L		08/31/15 10:13	09/08/15 11:03	1
4-Chloroaniline	10	U	10	0.21	ug/L		08/31/15 10:13	09/08/15 11:03	1
4-Chloro-3-methylphenol	5.0	U	5.0	0.21	ug/L		08/31/15 10:13	09/08/15 11:03	1
2-Chloronaphthalene	5.0	U	5.0	0.10	ug/L		08/31/15 10:13	09/08/15 11:03	1
2-Chlorophenol	5.0	U	5.0	0.29	ug/L		08/31/15 10:13	09/08/15 11:03	1
4-Chlorophenyl phenyl ether	5.0	U	5.0	0.30	ug/L		08/31/15 10:13	09/08/15 11:03	1
Chrysene	1.0	U	1.0	0.050	ug/L		08/31/15 10:13	09/08/15 11:03	1
2-Methylnaphthalene	5.0	U	5.0	0.090	ug/L		08/31/15 10:13	09/08/15 11:03	1
3 & 4 Methylphenol	5.0	U	5.0	0.80	ug/L		08/31/15 10:13	09/08/15 11:03	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.045	ug/L		08/31/15 10:13	09/08/15 11:03	1
Dibenzofuran	4.0	U	4.0	0.020	ug/L		08/31/15 10:13	09/08/15 11:03	1
3,3'-Dichlorobenzidine	1.0	U	1.0	0.37	ug/L		08/31/15 10:13	09/08/15 11:03	1
<b>2,4-Dichlorophenol</b>	<b>0.94</b>	<b>J</b>	10	0.19	ug/L		08/31/15 10:13	09/08/15 11:03	1
Diethyl phthalate	5.0	U	5.0	0.60	ug/L		08/31/15 10:13	09/08/15 11:03	1
2,4-Dimethylphenol	5.0	U	5.0	0.25	ug/L		08/31/15 10:13	09/08/15 11:03	1
Dimethyl phthalate	5.0	U	5.0	0.29	ug/L		08/31/15 10:13	09/08/15 11:03	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		08/31/15 10:13	09/08/15 11:03	1
2,4-Dinitrophenol	20	U	20	0.32	ug/L		08/31/15 10:13	09/08/15 11:03	1
2,4-Dinitrotoluene	5.0	U	5.0	0.25	ug/L		08/31/15 10:13	09/08/15 11:03	1
Di-n-butyl phthalate	5.0	U	5.0	1.7	ug/L		08/31/15 10:13	09/08/15 11:03	1
Di-n-octyl phthalate	5.0	U	5.0	0.23	ug/L		08/31/15 10:13	09/08/15 11:03	1
Fluoranthene	1.0	U	1.0	0.045	ug/L		08/31/15 10:13	09/08/15 11:03	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-25**

**Lab Sample ID: 240-54814-4**

**Date Collected: 08/27/15 12:20**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	5.0	U	5.0	0.041	ug/L		08/31/15 10:13	09/08/15 11:03	1
Hexachlorobenzene	0.20	U	0.20	0.085	ug/L		08/31/15 10:13	09/08/15 11:03	1
Hexachlorobutadiene	1.0	U	1.0	0.27	ug/L		08/31/15 10:13	09/08/15 11:03	1
Hexachlorocyclopentadiene	5.0	U	5.0	0.24	ug/L		08/31/15 10:13	09/08/15 11:03	1
Hexachloroethane	5.0	U	5.0	0.19	ug/L		08/31/15 10:13	09/08/15 11:03	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.043	ug/L		08/31/15 10:13	09/08/15 11:03	1
Isophorone	5.0	U	5.0	0.27	ug/L		08/31/15 10:13	09/08/15 11:03	1
2-Methylphenol	5.0	U	5.0	0.17	ug/L		08/31/15 10:13	09/08/15 11:03	1
Naphthalene	5.0	U	5.0	0.063	ug/L		08/31/15 10:13	09/08/15 11:03	1
2-Nitroaniline	20	U	20	0.21	ug/L		08/31/15 10:13	09/08/15 11:03	1
3-Nitroaniline	20	U	20	0.28	ug/L		08/31/15 10:13	09/08/15 11:03	1
4-Nitroaniline	20	U	20	0.22	ug/L		08/31/15 10:13	09/08/15 11:03	1
Nitrobenzene	3.0	U	3.0	0.040	ug/L		08/31/15 10:13	09/08/15 11:03	1
2-Nitrophenol	5.0	U	5.0	0.28	ug/L		08/31/15 10:13	09/08/15 11:03	1
4-Nitrophenol	20	U	20	0.29	ug/L		08/31/15 10:13	09/08/15 11:03	1
N-Nitrosodiphenylamine	5.0	U	5.0	0.31	ug/L		08/31/15 10:13	09/08/15 11:03	1
N-Nitrosodi-n-propylamine	5.0	U	5.0	0.24	ug/L		08/31/15 10:13	09/08/15 11:03	1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	0.40	ug/L		08/31/15 10:13	09/08/15 11:03	1
Pentachlorophenol	5.0	U	5.0	0.27	ug/L		08/31/15 10:13	09/08/15 11:03	1
Phenanthrene	2.0	U	2.0	0.062	ug/L		08/31/15 10:13	09/08/15 11:03	1
Phenol	5.0	U	5.0	0.60	ug/L		08/31/15 10:13	09/08/15 11:03	1
Pyrene	5.0	U	5.0	0.042	ug/L		08/31/15 10:13	09/08/15 11:03	1
2,4,5-Trichlorophenol	5.0	U	5.0	0.30	ug/L		08/31/15 10:13	09/08/15 11:03	1
2,4,6-Trichlorophenol	4.0	U	4.0	0.24	ug/L		08/31/15 10:13	09/08/15 11:03	1
2,6-Dinitrotoluene	5.0	U	5.0	0.80	ug/L		08/31/15 10:13	09/08/15 11:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	56		29 - 110	08/31/15 10:13	09/08/15 11:03	1
2-Fluorophenol (Surr)	25		15 - 110	08/31/15 10:13	09/08/15 11:03	1
2,4,6-Tribromophenol (Surr)	40		21 - 128	08/31/15 10:13	09/08/15 11:03	1
Nitrobenzene-d5 (Surr)	53		31 - 110	08/31/15 10:13	09/08/15 11:03	1
Phenol-d5 (Surr)	13		10 - 110	08/31/15 10:13	09/08/15 11:03	1
Terphenyl-d14 (Surr)	51		31 - 115	08/31/15 10:13	09/08/15 11:03	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.25	J	2.0	0.16	ug/L		08/31/15 08:24	09/01/15 17:27	1
Arsenic	1.4	J B	5.0	0.18	ug/L		08/31/15 08:24	09/01/15 17:27	1
Barium	120		100	1.1	ug/L		08/31/15 08:24	09/01/15 17:27	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:24	09/01/15 17:27	1
Cadmium	0.066	J	1.0	0.061	ug/L		08/31/15 08:24	09/01/15 17:27	1
Cobalt	2.3	J	7.0	0.021	ug/L		08/31/15 08:24	09/01/15 17:27	1
Chromium	1100	B	5.0	0.20	ug/L		08/31/15 08:24	09/01/15 17:27	1
Copper	21		2.0	0.75	ug/L		08/31/15 08:24	09/01/15 17:27	1
Manganese	11	J	15	1.1	ug/L		08/31/15 08:24	09/01/15 17:27	1
Nickel	110		20	0.23	ug/L		08/31/15 08:24	09/01/15 17:27	1
Lead	0.13	J B	3.0	0.11	ug/L		08/31/15 08:24	09/01/15 17:27	1
Selenium	4.4	J	5.0	0.25	ug/L		08/31/15 08:24	09/01/15 17:27	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:24	09/01/15 17:27	1
Vanadium	20	U L	20	1.2	ug/L		08/31/15 08:24	09/02/15 13:16	5

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-25**

**Lab Sample ID: 240-54814-4**

**Date Collected: 08/27/15 12:20**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/31/15 08:24	09/01/15 17:27	1
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:24	09/01/15 17:27	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:24	09/01/15 17:31	1
<b>Arsenic</b>	<b>1.2</b>	<b>J B</b>	5.0	0.18	ug/L		08/31/15 08:24	09/01/15 17:31	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:24	09/01/15 17:31	1
<b>Cadmium</b>	<b>0.087</b>	<b>J</b>	1.0	0.061	ug/L		08/31/15 08:24	09/01/15 17:31	1
<b>Cobalt</b>	<b>1.3</b>	<b>J</b>	7.0	0.021	ug/L		08/31/15 08:24	09/01/15 17:31	1
<b>Chromium</b>	<b>5.2</b>	<b>B</b>	5.0	0.20	ug/L		08/31/15 08:24	09/01/15 17:31	1
<b>Copper</b>	<b>3.0</b>		2.0	0.75	ug/L		08/31/15 08:24	09/01/15 17:31	1
<b>Manganese</b>	<b>6.7</b>	<b>J</b>	15	1.1	ug/L		08/31/15 08:24	09/01/15 17:31	1
<b>Nickel</b>	<b>75</b>		20	0.23	ug/L		08/31/15 08:24	09/01/15 17:31	1
<b>Lead</b>	<b>0.11</b>	<b>J B</b>	3.0	0.11	ug/L		08/31/15 08:24	09/01/15 17:31	1
<b>Antimony</b>	<b>0.24</b>	<b>J</b>	2.0	0.16	ug/L		08/31/15 08:24	09/01/15 17:31	1
<b>Selenium</b>	<b>5.5</b>		5.0	0.25	ug/L		08/31/15 08:24	09/01/15 17:31	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:24	09/01/15 17:31	1
<b>Vanadium</b>	<b>1.4</b>	<b>J B</b>	4.0	0.23	ug/L		08/31/15 08:24	09/01/15 17:31	1
Zinc	20	U	20	7.3	ug/L		08/31/15 08:24	09/01/15 17:31	1
<b>Barium</b>	<b>130</b>		100	1.1	ug/L		08/31/15 08:24	09/01/15 17:31	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 12:44	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 12:53	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/28/15 11:04	1
<b>Cr (III)</b>	<b>1.1</b>		0.020	0.0050	mg/L			09/02/15 13:14	1



# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-26**

**Lab Sample ID: 240-54814-5**

**Date Collected: 08/27/15 14:30**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/02/15 18:11	1
Benzene	1.0	U	1.0	0.35	ug/L			09/02/15 18:11	1
<b>Dichlorobromomethane</b>	<b>0.43</b>	<b>J</b>	1.0	0.29	ug/L			09/02/15 18:11	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/02/15 18:11	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/02/15 18:11	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/02/15 18:11	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/02/15 18:11	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/02/15 18:11	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 18:11	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/02/15 18:11	1
<b>Chloroform</b>	<b>0.37</b>	<b>J</b>	1.0	0.25	ug/L			09/02/15 18:11	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/02/15 18:11	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/02/15 18:11	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/02/15 18:11	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/02/15 18:11	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/02/15 18:11	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/02/15 18:11	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/02/15 18:11	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/02/15 18:11	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/02/15 18:11	1
2-Hexanone	10	U	10	0.48	ug/L			09/02/15 18:11	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/02/15 18:11	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/02/15 18:11	1
Styrene	1.0	U	1.0	0.45	ug/L			09/02/15 18:11	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/02/15 18:11	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/02/15 18:11	1
Toluene	1.0	U	1.0	0.23	ug/L			09/02/15 18:11	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/02/15 18:11	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/02/15 18:11	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/02/15 18:11	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/02/15 18:11	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/02/15 18:11	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/02/15 18:11	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/02/15 18:11	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/02/15 18:11	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/02/15 18:11	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/02/15 18:11	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/02/15 18:11	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/02/15 18:11	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/02/15 18:11	1
Methyl acetate	10	U	10	2.3	ug/L			09/02/15 18:11	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/02/15 18:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/02/15 18:11	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/02/15 18:11	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 18:11	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/02/15 18:11	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/02/15 18:11	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/02/15 18:11	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/02/15 18:11	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-26**

**Lab Sample ID: 240-54814-5**

**Date Collected: 08/27/15 14:30**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/02/15 18:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		78 - 125					09/02/15 18:11	1
4-Bromofluorobenzene (Surr)	86		61 - 120					09/02/15 18:11	1
Toluene-d8 (Surr)	95		80 - 120					09/02/15 18:11	1
Dibromofluoromethane (Surr)	94		79 - 120					09/02/15 18:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	5.1	U	5.1	0.045	ug/L		08/31/15 10:13	09/08/15 11:26	1
Acenaphthylene	5.1	U	5.1	0.049	ug/L		08/31/15 10:13	09/08/15 11:26	1
Acetophenone	5.1	U	5.1	0.35	ug/L		08/31/15 10:13	09/08/15 11:26	1
Anthracene	5.1	U	5.1	0.090	ug/L		08/31/15 10:13	09/08/15 11:26	1
Atrazine	3.1	U	3.1	0.35	ug/L		08/31/15 10:13	09/08/15 11:26	1
Benzaldehyde	5.1	U	5.1	0.40	ug/L		08/31/15 10:13	09/08/15 11:26	1
Benzo[a]anthracene	1.0	U	1.0	0.030	ug/L		08/31/15 10:13	09/08/15 11:26	1
Benzo[b]fluoranthene	1.0	U	1.0	0.040	ug/L		08/31/15 10:13	09/08/15 11:26	1
Benzo[k]fluoranthene	1.0	U	1.0	0.046	ug/L		08/31/15 10:13	09/08/15 11:26	1
Benzo[g,h,i]perylene	1.0	U	1.0	0.047	ug/L		08/31/15 10:13	09/08/15 11:26	1
Benzo[a]pyrene	1.0	U	1.0	0.052	ug/L		08/31/15 10:13	09/08/15 11:26	1
Butyl benzyl phthalate	5.1	U	5.1	0.27	ug/L		08/31/15 10:13	09/08/15 11:26	1
1,1'-Biphenyl	5.1	U	5.1	0.13	ug/L		08/31/15 10:13	09/08/15 11:26	1
Bis(2-chloroethoxy)methane	5.1	U	5.1	0.33	ug/L		08/31/15 10:13	09/08/15 11:26	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.10	ug/L		08/31/15 10:13	09/08/15 11:26	1
Bis(2-ethylhexyl) phthalate	5.1	U	5.1	1.7	ug/L		08/31/15 10:13	09/08/15 11:26	1
4-Bromophenyl phenyl ether	5.1	U	5.1	0.22	ug/L		08/31/15 10:13	09/08/15 11:26	1
Caprolactam	10	U	10	0.20	ug/L		08/31/15 10:13	09/08/15 11:26	1
Carbazole	10	U	10	0.29	ug/L		08/31/15 10:13	09/08/15 11:26	1
4-Chloroaniline	10	U	10	0.21	ug/L		08/31/15 10:13	09/08/15 11:26	1
4-Chloro-3-methylphenol	5.1	U	5.1	0.21	ug/L		08/31/15 10:13	09/08/15 11:26	1
2-Chloronaphthalene	5.1	U	5.1	0.10	ug/L		08/31/15 10:13	09/08/15 11:26	1
2-Chlorophenol	5.1	U	5.1	0.30	ug/L		08/31/15 10:13	09/08/15 11:26	1
4-Chlorophenyl phenyl ether	5.1	U	5.1	0.31	ug/L		08/31/15 10:13	09/08/15 11:26	1
Chrysene	1.0	U	1.0	0.051	ug/L		08/31/15 10:13	09/08/15 11:26	1
2-Methylnaphthalene	5.1	U	5.1	0.092	ug/L		08/31/15 10:13	09/08/15 11:26	1
3 & 4 Methylphenol	5.1	U	5.1	0.82	ug/L		08/31/15 10:13	09/08/15 11:26	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.046	ug/L		08/31/15 10:13	09/08/15 11:26	1
Dibenzofuran	4.1	U	4.1	0.020	ug/L		08/31/15 10:13	09/08/15 11:26	1
3,3'-Dichlorobenzidine	1.0	U	1.0	0.38	ug/L		08/31/15 10:13	09/08/15 11:26	1
2,4-Dichlorophenol	10	U	10	0.19	ug/L		08/31/15 10:13	09/08/15 11:26	1
Diethyl phthalate	5.1	U	5.1	0.61	ug/L		08/31/15 10:13	09/08/15 11:26	1
2,4-Dimethylphenol	5.1	U	5.1	0.26	ug/L		08/31/15 10:13	09/08/15 11:26	1
Dimethyl phthalate	5.1	U	5.1	0.30	ug/L		08/31/15 10:13	09/08/15 11:26	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		08/31/15 10:13	09/08/15 11:26	1
2,4-Dinitrophenol	20	U	20	0.33	ug/L		08/31/15 10:13	09/08/15 11:26	1
2,4-Dinitrotoluene	5.1	U	5.1	0.26	ug/L		08/31/15 10:13	09/08/15 11:26	1
Di-n-butyl phthalate	5.1	U	5.1	1.7	ug/L		08/31/15 10:13	09/08/15 11:26	1
Di-n-octyl phthalate	5.1	U	5.1	0.23	ug/L		08/31/15 10:13	09/08/15 11:26	1
Fluoranthene	1.0	U	1.0	0.046	ug/L		08/31/15 10:13	09/08/15 11:26	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-26**

**Lab Sample ID: 240-54814-5**

**Date Collected: 08/27/15 14:30**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	5.1	U	5.1	0.041	ug/L		08/31/15 10:13	09/08/15 11:26	1
Hexachlorobenzene	0.20	U	0.20	0.087	ug/L		08/31/15 10:13	09/08/15 11:26	1
Hexachlorobutadiene	1.0	U	1.0	0.28	ug/L		08/31/15 10:13	09/08/15 11:26	1
Hexachlorocyclopentadiene	5.1	U	5.1	0.24	ug/L		08/31/15 10:13	09/08/15 11:26	1
Hexachloroethane	5.1	U	5.1	0.19	ug/L		08/31/15 10:13	09/08/15 11:26	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.044	ug/L		08/31/15 10:13	09/08/15 11:26	1
Isophorone	5.1	U	5.1	0.28	ug/L		08/31/15 10:13	09/08/15 11:26	1
2-Methylphenol	5.1	U	5.1	0.17	ug/L		08/31/15 10:13	09/08/15 11:26	1
Naphthalene	5.1	U	5.1	0.064	ug/L		08/31/15 10:13	09/08/15 11:26	1
2-Nitroaniline	20	U	20	0.21	ug/L		08/31/15 10:13	09/08/15 11:26	1
3-Nitroaniline	20	U	20	0.29	ug/L		08/31/15 10:13	09/08/15 11:26	1
4-Nitroaniline	20	U	20	0.22	ug/L		08/31/15 10:13	09/08/15 11:26	1
Nitrobenzene	3.1	U	3.1	0.041	ug/L		08/31/15 10:13	09/08/15 11:26	1
2-Nitrophenol	5.1	U	5.1	0.29	ug/L		08/31/15 10:13	09/08/15 11:26	1
4-Nitrophenol	20	U	20	0.30	ug/L		08/31/15 10:13	09/08/15 11:26	1
N-Nitrosodiphenylamine	5.1	U	5.1	0.32	ug/L		08/31/15 10:13	09/08/15 11:26	1
N-Nitrosodi-n-propylamine	5.1	U	5.1	0.24	ug/L		08/31/15 10:13	09/08/15 11:26	1
2,2'-oxybis[1-chloropropane]	5.1	U	5.1	0.41	ug/L		08/31/15 10:13	09/08/15 11:26	1
Pentachlorophenol	5.1	U	5.1	0.28	ug/L		08/31/15 10:13	09/08/15 11:26	1
Phenanthrene	2.0	U	2.0	0.063	ug/L		08/31/15 10:13	09/08/15 11:26	1
Phenol	5.1	U	5.1	0.61	ug/L		08/31/15 10:13	09/08/15 11:26	1
Pyrene	5.1	U	5.1	0.043	ug/L		08/31/15 10:13	09/08/15 11:26	1
2,4,5-Trichlorophenol	5.1	U	5.1	0.31	ug/L		08/31/15 10:13	09/08/15 11:26	1
2,4,6-Trichlorophenol	4.1	U	4.1	0.24	ug/L		08/31/15 10:13	09/08/15 11:26	1
2,6-Dinitrotoluene	5.1	U	5.1	0.82	ug/L		08/31/15 10:13	09/08/15 11:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	59		29 - 110	08/31/15 10:13	09/08/15 11:26	1
2-Fluorophenol (Surr)	26		15 - 110	08/31/15 10:13	09/08/15 11:26	1
2,4,6-Tribromophenol (Surr)	38		21 - 128	08/31/15 10:13	09/08/15 11:26	1
Nitrobenzene-d5 (Surr)	53		31 - 110	08/31/15 10:13	09/08/15 11:26	1
Phenol-d5 (Surr)	14		10 - 110	08/31/15 10:13	09/08/15 11:26	1
Terphenyl-d14 (Surr)	58		31 - 115	08/31/15 10:13	09/08/15 11:26	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:24	09/01/15 17:34	1
<b>Arsenic</b>	<b>0.72</b>	<b>J B</b>	5.0	0.18	ug/L		08/31/15 08:24	09/01/15 17:34	1
<b>Barium</b>	<b>75</b>	<b>J</b>	100	1.1	ug/L		08/31/15 08:24	09/01/15 17:34	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:24	09/01/15 17:34	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:24	09/01/15 17:34	1
<b>Cobalt</b>	<b>0.22</b>	<b>J</b>	7.0	0.021	ug/L		08/31/15 08:24	09/01/15 17:34	1
<b>Chromium</b>	<b>26</b>	<b>B</b>	5.0	0.20	ug/L		08/31/15 08:24	09/01/15 17:34	1
<b>Copper</b>	<b>1.5</b>	<b>J</b>	2.0	0.75	ug/L		08/31/15 08:24	09/01/15 17:34	1
<b>Manganese</b>	<b>1.1</b>	<b>J</b>	15	1.1	ug/L		08/31/15 08:24	09/01/15 17:34	1
<b>Nickel</b>	<b>2.7</b>	<b>J</b>	20	0.23	ug/L		08/31/15 08:24	09/01/15 17:34	1
<b>Lead</b>	<b>0.12</b>	<b>J B</b>	3.0	0.11	ug/L		08/31/15 08:24	09/01/15 17:34	1
<b>Selenium</b>	<b>0.60</b>	<b>J</b>	5.0	0.25	ug/L		08/31/15 08:24	09/01/15 17:34	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:24	09/01/15 17:34	1
<b>Vanadium</b>	<b>1.1</b>	<b>J B</b>	4.0	0.23	ug/L		08/31/15 08:24	09/01/15 17:34	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-26**

**Lab Sample ID: 240-54814-5**

**Date Collected: 08/27/15 14:30**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/31/15 08:24	09/01/15 17:34	1
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:24	09/01/15 17:34	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:24	09/01/15 17:38	1
<b>Arsenic</b>	<b>0.65</b>	<b>J B</b>	5.0	0.18	ug/L		08/31/15 08:24	09/01/15 17:38	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:24	09/01/15 17:38	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:24	09/01/15 17:38	1
<b>Cobalt</b>	<b>0.14</b>	<b>J</b>	7.0	0.021	ug/L		08/31/15 08:24	09/01/15 17:38	1
<b>Chromium</b>	<b>3.4</b>	<b>J B</b>	5.0	0.20	ug/L		08/31/15 08:24	09/01/15 17:38	1
Copper	2.0	U	2.0	0.75	ug/L		08/31/15 08:24	09/01/15 17:38	1
Manganese	15	U	15	1.1	ug/L		08/31/15 08:24	09/01/15 17:38	1
<b>Nickel</b>	<b>1.6</b>	<b>J</b>	20	0.23	ug/L		08/31/15 08:24	09/01/15 17:38	1
Lead	3.0	U	3.0	0.11	ug/L		08/31/15 08:24	09/01/15 17:38	1
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:24	09/01/15 17:38	1
<b>Selenium</b>	<b>0.42</b>	<b>J</b>	5.0	0.25	ug/L		08/31/15 08:24	09/01/15 17:38	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:24	09/01/15 17:38	1
<b>Vanadium</b>	<b>1.6</b>	<b>J B</b>	4.0	0.23	ug/L		08/31/15 08:24	09/01/15 17:38	1
Zinc	20	U	20	7.3	ug/L		08/31/15 08:24	09/01/15 17:38	1
<b>Barium</b>	<b>73</b>	<b>J</b>	100	1.1	ug/L		08/31/15 08:24	09/01/15 17:38	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 12:55	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 12:56	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/28/15 11:10	1
<b>Cr (III)</b>	<b>0.026</b>		0.020	0.0050	mg/L			09/02/15 13:14	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-27**

**Lab Sample ID: 240-54814-6**

**Date Collected: 08/27/15 13:40**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/02/15 18:34	1
Benzene	1.0	U	1.0	0.35	ug/L			09/02/15 18:34	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/02/15 18:34	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/02/15 18:34	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/02/15 18:34	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/02/15 18:34	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/02/15 18:34	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/02/15 18:34	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 18:34	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/02/15 18:34	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/02/15 18:34	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/02/15 18:34	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/02/15 18:34	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/02/15 18:34	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/02/15 18:34	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/02/15 18:34	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/02/15 18:34	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/02/15 18:34	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/02/15 18:34	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/02/15 18:34	1
2-Hexanone	10	U	10	0.48	ug/L			09/02/15 18:34	1
<b>Methylene Chloride</b>	<b>0.33</b>	<b>J B</b>	1.0	0.33	ug/L			09/02/15 18:34	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/02/15 18:34	1
Styrene	1.0	U	1.0	0.45	ug/L			09/02/15 18:34	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/02/15 18:34	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/02/15 18:34	1
Toluene	1.0	U	1.0	0.23	ug/L			09/02/15 18:34	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/02/15 18:34	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/02/15 18:34	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/02/15 18:34	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/02/15 18:34	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/02/15 18:34	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/02/15 18:34	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/02/15 18:34	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/02/15 18:34	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/02/15 18:34	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/02/15 18:34	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/02/15 18:34	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/02/15 18:34	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/02/15 18:34	1
Methyl acetate	10	U	10	2.3	ug/L			09/02/15 18:34	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/02/15 18:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/02/15 18:34	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/02/15 18:34	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 18:34	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/02/15 18:34	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/02/15 18:34	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/02/15 18:34	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/02/15 18:34	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-27**

**Lab Sample ID: 240-54814-6**

**Date Collected: 08/27/15 13:40**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/02/15 18:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		78 - 125					09/02/15 18:34	1
4-Bromofluorobenzene (Surr)	85		61 - 120					09/02/15 18:34	1
Toluene-d8 (Surr)	95		80 - 120					09/02/15 18:34	1
Dibromofluoromethane (Surr)	94		79 - 120					09/02/15 18:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	6.6	U	6.6	0.058	ug/L		08/31/15 10:13	09/08/15 11:48	1
Acenaphthylene	6.6	U	6.6	0.063	ug/L		08/31/15 10:13	09/08/15 11:48	1
Acetophenone	6.6	U	6.6	0.45	ug/L		08/31/15 10:13	09/08/15 11:48	1
Anthracene	6.6	U	6.6	0.12	ug/L		08/31/15 10:13	09/08/15 11:48	1
Atrazine	3.9	U	3.9	0.45	ug/L		08/31/15 10:13	09/08/15 11:48	1
Benzaldehyde	6.6	U	6.6	0.51	ug/L		08/31/15 10:13	09/08/15 11:48	1
Benzo[a]anthracene	1.3	U	1.3	0.039	ug/L		08/31/15 10:13	09/08/15 11:48	1
Benzo[b]fluoranthene	1.3	U	1.3	0.052	ug/L		08/31/15 10:13	09/08/15 11:48	1
Benzo[k]fluoranthene	1.3	U	1.3	0.059	ug/L		08/31/15 10:13	09/08/15 11:48	1
Benzo[g,h,i]perylene	1.3	U	1.3	0.061	ug/L		08/31/15 10:13	09/08/15 11:48	1
Benzo[a]pyrene	1.3	U	1.3	0.068	ug/L		08/31/15 10:13	09/08/15 11:48	1
Butyl benzyl phthalate	6.6	U	6.6	0.34	ug/L		08/31/15 10:13	09/08/15 11:48	1
1,1'-Biphenyl	6.6	U	6.6	0.17	ug/L		08/31/15 10:13	09/08/15 11:48	1
Bis(2-chloroethoxy)methane	6.6	U	6.6	0.42	ug/L		08/31/15 10:13	09/08/15 11:48	1
Bis(2-chloroethyl)ether	1.3	U	1.3	0.13	ug/L		08/31/15 10:13	09/08/15 11:48	1
Bis(2-ethylhexyl) phthalate	6.6	U	6.6	2.2	ug/L		08/31/15 10:13	09/08/15 11:48	1
4-Bromophenyl phenyl ether	6.6	U	6.6	0.29	ug/L		08/31/15 10:13	09/08/15 11:48	1
Caprolactam	13	U	13	0.26	ug/L		08/31/15 10:13	09/08/15 11:48	1
Carbazole	13	U	13	0.37	ug/L		08/31/15 10:13	09/08/15 11:48	1
4-Chloroaniline	13	U	13	0.28	ug/L		08/31/15 10:13	09/08/15 11:48	1
4-Chloro-3-methylphenol	6.6	U	6.6	0.28	ug/L		08/31/15 10:13	09/08/15 11:48	1
2-Chloronaphthalene	6.6	U	6.6	0.13	ug/L		08/31/15 10:13	09/08/15 11:48	1
2-Chlorophenol	6.6	U	6.6	0.38	ug/L		08/31/15 10:13	09/08/15 11:48	1
4-Chlorophenyl phenyl ether	6.6	U	6.6	0.39	ug/L		08/31/15 10:13	09/08/15 11:48	1
Chrysene	1.3	U	1.3	0.066	ug/L		08/31/15 10:13	09/08/15 11:48	1
2-Methylnaphthalene	6.6	U	6.6	0.12	ug/L		08/31/15 10:13	09/08/15 11:48	1
3 & 4 Methylphenol	6.6	U	6.6	1.1	ug/L		08/31/15 10:13	09/08/15 11:48	1
Dibenz(a,h)anthracene	2.6	U	2.6	0.059	ug/L		08/31/15 10:13	09/08/15 11:48	1
Dibenzofuran	5.3	U	5.3	0.026	ug/L		08/31/15 10:13	09/08/15 11:48	1
3,3'-Dichlorobenzidine	1.3	U	1.3	0.49	ug/L		08/31/15 10:13	09/08/15 11:48	1
2,4-Dichlorophenol	13	U	13	0.25	ug/L		08/31/15 10:13	09/08/15 11:48	1
Diethyl phthalate	6.6	U	6.6	0.79	ug/L		08/31/15 10:13	09/08/15 11:48	1
2,4-Dimethylphenol	6.6	U	6.6	0.33	ug/L		08/31/15 10:13	09/08/15 11:48	1
Dimethyl phthalate	6.6	U	6.6	0.38	ug/L		08/31/15 10:13	09/08/15 11:48	1
4,6-Dinitro-2-methylphenol	26	U	26	3.2	ug/L		08/31/15 10:13	09/08/15 11:48	1
2,4-Dinitrophenol	26	U	26	0.42	ug/L		08/31/15 10:13	09/08/15 11:48	1
2,4-Dinitrotoluene	6.6	U	6.6	0.33	ug/L		08/31/15 10:13	09/08/15 11:48	1
Di-n-butyl phthalate	6.6	U	6.6	2.2	ug/L		08/31/15 10:13	09/08/15 11:48	1
Di-n-octyl phthalate	6.6	U	6.6	0.30	ug/L		08/31/15 10:13	09/08/15 11:48	1
Fluoranthene	1.3	U	1.3	0.059	ug/L		08/31/15 10:13	09/08/15 11:48	1

TestAmerica Canton



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-27**

**Lab Sample ID: 240-54814-6**

**Date Collected: 08/27/15 13:40**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	6.6	U	6.6	0.053	ug/L		08/31/15 10:13	09/08/15 11:48	1
Hexachlorobenzene	0.26	U	0.26	0.11	ug/L		08/31/15 10:13	09/08/15 11:48	1
Hexachlorobutadiene	1.3	U	1.3	0.36	ug/L		08/31/15 10:13	09/08/15 11:48	1
Hexachlorocyclopentadiene	6.6	U	6.6	0.32	ug/L		08/31/15 10:13	09/08/15 11:48	1
Hexachloroethane	6.6	U	6.6	0.25	ug/L		08/31/15 10:13	09/08/15 11:48	1
Indeno[1,2,3-cd]pyrene	2.6	U	2.6	0.057	ug/L		08/31/15 10:13	09/08/15 11:48	1
Isophorone	6.6	U	6.6	0.36	ug/L		08/31/15 10:13	09/08/15 11:48	1
2-Methylphenol	6.6	U	6.6	0.22	ug/L		08/31/15 10:13	09/08/15 11:48	1
Naphthalene	6.6	U	6.6	0.083	ug/L		08/31/15 10:13	09/08/15 11:48	1
2-Nitroaniline	26	U	26	0.28	ug/L		08/31/15 10:13	09/08/15 11:48	1
3-Nitroaniline	26	U	26	0.37	ug/L		08/31/15 10:13	09/08/15 11:48	1
4-Nitroaniline	26	U	26	0.29	ug/L		08/31/15 10:13	09/08/15 11:48	1
Nitrobenzene	3.9	U	3.9	0.053	ug/L		08/31/15 10:13	09/08/15 11:48	1
2-Nitrophenol	6.6	U	6.6	0.37	ug/L		08/31/15 10:13	09/08/15 11:48	1
4-Nitrophenol	26	U	26	0.38	ug/L		08/31/15 10:13	09/08/15 11:48	1
N-Nitrosodiphenylamine	6.6	U	6.6	0.41	ug/L		08/31/15 10:13	09/08/15 11:48	1
N-Nitrosodi-n-propylamine	6.6	U	6.6	0.32	ug/L		08/31/15 10:13	09/08/15 11:48	1
2,2'-oxybis[1-chloropropane]	6.6	U	6.6	0.53	ug/L		08/31/15 10:13	09/08/15 11:48	1
Pentachlorophenol	6.6	U	6.6	0.36	ug/L		08/31/15 10:13	09/08/15 11:48	1
Phenanthrene	2.6	U	2.6	0.081	ug/L		08/31/15 10:13	09/08/15 11:48	1
Phenol	6.6	U	6.6	0.79	ug/L		08/31/15 10:13	09/08/15 11:48	1
Pyrene	6.6	U	6.6	0.055	ug/L		08/31/15 10:13	09/08/15 11:48	1
2,4,5-Trichlorophenol	6.6	U	6.6	0.39	ug/L		08/31/15 10:13	09/08/15 11:48	1
2,4,6-Trichlorophenol	5.3	U	5.3	0.32	ug/L		08/31/15 10:13	09/08/15 11:48	1
2,6-Dinitrotoluene	6.6	U	6.6	1.1	ug/L		08/31/15 10:13	09/08/15 11:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	68		29 - 110	08/31/15 10:13	09/08/15 11:48	1
2-Fluorophenol (Surr)	35		15 - 110	08/31/15 10:13	09/08/15 11:48	1
2,4,6-Tribromophenol (Surr)	52		21 - 128	08/31/15 10:13	09/08/15 11:48	1
Nitrobenzene-d5 (Surr)	60		31 - 110	08/31/15 10:13	09/08/15 11:48	1
Phenol-d5 (Surr)	20		10 - 110	08/31/15 10:13	09/08/15 11:48	1
Terphenyl-d14 (Surr)	70		31 - 115	08/31/15 10:13	09/08/15 11:48	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:25	09/01/15 17:42	1
<b>Arsenic</b>	<b>0.44</b>	<b>J B</b>	5.0	0.18	ug/L		08/31/15 08:25	09/01/15 17:42	1
<b>Barium</b>	<b>31</b>	<b>J</b>	100	1.1	ug/L		08/31/15 08:25	09/01/15 17:42	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:25	09/01/15 17:42	1
<b>Cadmium</b>	<b>0.083</b>	<b>J</b>	1.0	0.061	ug/L		08/31/15 08:25	09/01/15 17:42	1
<b>Cobalt</b>	<b>0.18</b>	<b>J</b>	7.0	0.021	ug/L		08/31/15 08:25	09/01/15 17:42	1
<b>Chromium</b>	<b>4.8</b>	<b>J B</b>	5.0	0.20	ug/L		08/31/15 08:25	09/01/15 17:42	1
<b>Copper</b>	<b>2.3</b>		2.0	0.75	ug/L		08/31/15 08:25	09/01/15 17:42	1
<b>Manganese</b>	<b>31</b>		15	1.1	ug/L		08/31/15 08:25	09/01/15 17:42	1
<b>Nickel</b>	<b>1.4</b>	<b>J</b>	20	0.23	ug/L		08/31/15 08:25	09/01/15 17:42	1
<b>Lead</b>	<b>0.27</b>	<b>J B</b>	3.0	0.11	ug/L		08/31/15 08:25	09/01/15 17:42	1
Selenium	5.0	U	5.0	0.25	ug/L		08/31/15 08:25	09/01/15 17:42	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:25	09/01/15 17:42	1
<b>Vanadium</b>	<b>1.0</b>	<b>J B</b>	4.0	0.23	ug/L		08/31/15 08:25	09/01/15 17:42	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-27**

**Lab Sample ID: 240-54814-6**

**Date Collected: 08/27/15 13:40**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	17	J	20	7.3	ug/L		08/31/15 08:25	09/01/15 17:42	1
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:25	09/01/15 17:42	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:25	09/01/15 17:45	1
Arsenic	0.59	J B	5.0	0.18	ug/L		08/31/15 08:25	09/01/15 17:45	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:25	09/01/15 17:45	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:25	09/01/15 17:45	1
Cobalt	0.28	J	7.0	0.021	ug/L		08/31/15 08:25	09/01/15 17:45	1
Chromium	2.9	J B	5.0	0.20	ug/L		08/31/15 08:25	09/01/15 17:45	1
Copper	1.2	J	2.0	0.75	ug/L		08/31/15 08:25	09/01/15 17:45	1
Manganese	25		15	1.1	ug/L		08/31/15 08:25	09/01/15 17:45	1
Nickel	4.6	J	20	0.23	ug/L		08/31/15 08:25	09/01/15 17:45	1
Lead	0.12	J B	3.0	0.11	ug/L		08/31/15 08:25	09/01/15 17:45	1
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:25	09/01/15 17:45	1
Selenium	5.0	U	5.0	0.25	ug/L		08/31/15 08:25	09/01/15 17:45	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:25	09/01/15 17:45	1
Vanadium	1.0	J B	4.0	0.23	ug/L		08/31/15 08:25	09/01/15 17:45	1
Zinc	8.7	J	20	7.3	ug/L		08/31/15 08:25	09/01/15 17:45	1
Barium	33	J	100	1.1	ug/L		08/31/15 08:25	09/01/15 17:45	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 12:52	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 12:58	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/28/15 11:11	1
Cr (III)	0.020	U	0.020	0.0050	mg/L			09/02/15 13:14	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-28**

**Lab Sample ID: 240-54814-7**

**Date Collected: 08/27/15 15:45**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/02/15 18:57	1
Benzene	1.0	U	1.0	0.35	ug/L			09/02/15 18:57	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/02/15 18:57	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/02/15 18:57	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/02/15 18:57	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/02/15 18:57	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/02/15 18:57	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/02/15 18:57	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 18:57	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/02/15 18:57	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/02/15 18:57	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/02/15 18:57	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/02/15 18:57	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/02/15 18:57	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/02/15 18:57	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/02/15 18:57	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/02/15 18:57	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/02/15 18:57	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/02/15 18:57	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/02/15 18:57	1
2-Hexanone	10	U	10	0.48	ug/L			09/02/15 18:57	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/02/15 18:57	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/02/15 18:57	1
Styrene	1.0	U	1.0	0.45	ug/L			09/02/15 18:57	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/02/15 18:57	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/02/15 18:57	1
Toluene	1.0	U	1.0	0.23	ug/L			09/02/15 18:57	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/02/15 18:57	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/02/15 18:57	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/02/15 18:57	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/02/15 18:57	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/02/15 18:57	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/02/15 18:57	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/02/15 18:57	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/02/15 18:57	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/02/15 18:57	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/02/15 18:57	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/02/15 18:57	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/02/15 18:57	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/02/15 18:57	1
Methyl acetate	10	U	10	2.3	ug/L			09/02/15 18:57	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/02/15 18:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/02/15 18:57	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/02/15 18:57	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 18:57	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/02/15 18:57	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/02/15 18:57	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/02/15 18:57	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/02/15 18:57	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-28**

**Lab Sample ID: 240-54814-7**

**Date Collected: 08/27/15 15:45**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/02/15 18:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		78 - 125					09/02/15 18:57	1
4-Bromofluorobenzene (Surr)	82		61 - 120					09/02/15 18:57	1
Toluene-d8 (Surr)	92		80 - 120					09/02/15 18:57	1
Dibromofluoromethane (Surr)	97		79 - 120					09/02/15 18:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	4.8	U	4.8	0.042	ug/L		08/31/15 10:13	09/08/15 12:11	1
Acenaphthylene	4.8	U	4.8	0.046	ug/L		08/31/15 10:13	09/08/15 12:11	1
Acetophenone	4.8	U	4.8	0.32	ug/L		08/31/15 10:13	09/08/15 12:11	1
Anthracene	4.8	U	4.8	0.084	ug/L		08/31/15 10:13	09/08/15 12:11	1
Atrazine	2.9	U	2.9	0.32	ug/L		08/31/15 10:13	09/08/15 12:11	1
Benzaldehyde	4.8	U	4.8	0.37	ug/L		08/31/15 10:13	09/08/15 12:11	1
Benzo[a]anthracene	0.95	U	0.95	0.028	ug/L		08/31/15 10:13	09/08/15 12:11	1
Benzo[b]fluoranthene	0.95	U	0.95	0.038	ug/L		08/31/15 10:13	09/08/15 12:11	1
Benzo[k]fluoranthene	0.95	U	0.95	0.043	ug/L		08/31/15 10:13	09/08/15 12:11	1
Benzo[g,h,i]perylene	0.95	U	0.95	0.044	ug/L		08/31/15 10:13	09/08/15 12:11	1
Benzo[a]pyrene	0.95	U	0.95	0.049	ug/L		08/31/15 10:13	09/08/15 12:11	1
Butyl benzyl phthalate	4.8	U	4.8	0.25	ug/L		08/31/15 10:13	09/08/15 12:11	1
1,1'-Biphenyl	4.8	U	4.8	0.12	ug/L		08/31/15 10:13	09/08/15 12:11	1
Bis(2-chloroethoxy)methane	4.8	U	4.8	0.30	ug/L		08/31/15 10:13	09/08/15 12:11	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.095	ug/L		08/31/15 10:13	09/08/15 12:11	1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8	1.6	ug/L		08/31/15 10:13	09/08/15 12:11	1
4-Bromophenyl phenyl ether	4.8	U	4.8	0.21	ug/L		08/31/15 10:13	09/08/15 12:11	1
Caprolactam	9.5	U	9.5	0.19	ug/L		08/31/15 10:13	09/08/15 12:11	1
Carbazole	9.5	U	9.5	0.27	ug/L		08/31/15 10:13	09/08/15 12:11	1
4-Chloroaniline	9.5	U	9.5	0.20	ug/L		08/31/15 10:13	09/08/15 12:11	1
4-Chloro-3-methylphenol	4.8	U	4.8	0.20	ug/L		08/31/15 10:13	09/08/15 12:11	1
2-Chloronaphthalene	4.8	U	4.8	0.095	ug/L		08/31/15 10:13	09/08/15 12:11	1
2-Chlorophenol	4.8	U	4.8	0.28	ug/L		08/31/15 10:13	09/08/15 12:11	1
4-Chlorophenyl phenyl ether	4.8	U	4.8	0.29	ug/L		08/31/15 10:13	09/08/15 12:11	1
Chrysene	0.95	U	0.95	0.048	ug/L		08/31/15 10:13	09/08/15 12:11	1
2-Methylnaphthalene	4.8	U	4.8	0.086	ug/L		08/31/15 10:13	09/08/15 12:11	1
3 & 4 Methylphenol	4.8	U	4.8	0.76	ug/L		08/31/15 10:13	09/08/15 12:11	1
Dibenz(a,h)anthracene	1.9	U	1.9	0.042	ug/L		08/31/15 10:13	09/08/15 12:11	1
Dibenzofuran	3.8	U	3.8	0.019	ug/L		08/31/15 10:13	09/08/15 12:11	1
3,3'-Dichlorobenzidine	0.95	U	0.95	0.35	ug/L		08/31/15 10:13	09/08/15 12:11	1
2,4-Dichlorophenol	9.5	U	9.5	0.18	ug/L		08/31/15 10:13	09/08/15 12:11	1
Diethyl phthalate	4.8	U	4.8	0.57	ug/L		08/31/15 10:13	09/08/15 12:11	1
2,4-Dimethylphenol	4.8	U	4.8	0.24	ug/L		08/31/15 10:13	09/08/15 12:11	1
Dimethyl phthalate	4.8	U	4.8	0.28	ug/L		08/31/15 10:13	09/08/15 12:11	1
4,6-Dinitro-2-methylphenol	19	U	19	2.3	ug/L		08/31/15 10:13	09/08/15 12:11	1
2,4-Dinitrophenol	19	U	19	0.30	ug/L		08/31/15 10:13	09/08/15 12:11	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		08/31/15 10:13	09/08/15 12:11	1
Di-n-butyl phthalate	4.8	U	4.8	1.6	ug/L		08/31/15 10:13	09/08/15 12:11	1
Di-n-octyl phthalate	4.8	U	4.8	0.22	ug/L		08/31/15 10:13	09/08/15 12:11	1
Fluoranthene	0.95	U	0.95	0.042	ug/L		08/31/15 10:13	09/08/15 12:11	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-28**

**Lab Sample ID: 240-54814-7**

**Date Collected: 08/27/15 15:45**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.8	U	4.8	0.039	ug/L		08/31/15 10:13	09/08/15 12:11	1
Hexachlorobenzene	0.19	U	0.19	0.081	ug/L		08/31/15 10:13	09/08/15 12:11	1
Hexachlorobutadiene	0.95	U	0.95	0.26	ug/L		08/31/15 10:13	09/08/15 12:11	1
Hexachlorocyclopentadiene	4.8	U	4.8	0.23	ug/L		08/31/15 10:13	09/08/15 12:11	1
Hexachloroethane	4.8	U	4.8	0.18	ug/L		08/31/15 10:13	09/08/15 12:11	1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	0.041	ug/L		08/31/15 10:13	09/08/15 12:11	1
Isophorone	4.8	U	4.8	0.26	ug/L		08/31/15 10:13	09/08/15 12:11	1
2-Methylphenol	4.8	U	4.8	0.16	ug/L		08/31/15 10:13	09/08/15 12:11	1
Naphthalene	4.8	U	4.8	0.060	ug/L		08/31/15 10:13	09/08/15 12:11	1
2-Nitroaniline	19	U	19	0.20	ug/L		08/31/15 10:13	09/08/15 12:11	1
3-Nitroaniline	19	U	19	0.27	ug/L		08/31/15 10:13	09/08/15 12:11	1
4-Nitroaniline	19	U	19	0.21	ug/L		08/31/15 10:13	09/08/15 12:11	1
Nitrobenzene	2.9	U	2.9	0.038	ug/L		08/31/15 10:13	09/08/15 12:11	1
2-Nitrophenol	4.8	U	4.8	0.27	ug/L		08/31/15 10:13	09/08/15 12:11	1
4-Nitrophenol	19	U	19	0.28	ug/L		08/31/15 10:13	09/08/15 12:11	1
N-Nitrosodiphenylamine	4.8	U	4.8	0.30	ug/L		08/31/15 10:13	09/08/15 12:11	1
N-Nitrosodi-n-propylamine	4.8	U	4.8	0.23	ug/L		08/31/15 10:13	09/08/15 12:11	1
2,2'-oxybis[1-chloropropane]	4.8	U	4.8	0.38	ug/L		08/31/15 10:13	09/08/15 12:11	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		08/31/15 10:13	09/08/15 12:11	1
Phenanthrene	1.9	U	1.9	0.059	ug/L		08/31/15 10:13	09/08/15 12:11	1
Phenol	4.8	U	4.8	0.57	ug/L		08/31/15 10:13	09/08/15 12:11	1
Pyrene	4.8	U	4.8	0.040	ug/L		08/31/15 10:13	09/08/15 12:11	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		08/31/15 10:13	09/08/15 12:11	1
2,4,6-Trichlorophenol	3.8	U	3.8	0.23	ug/L		08/31/15 10:13	09/08/15 12:11	1
2,6-Dinitrotoluene	4.8	U	4.8	0.76	ug/L		08/31/15 10:13	09/08/15 12:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	58		29 - 110	08/31/15 10:13	09/08/15 12:11	1
2-Fluorophenol (Surr)	28		15 - 110	08/31/15 10:13	09/08/15 12:11	1
2,4,6-Tribromophenol (Surr)	43		21 - 128	08/31/15 10:13	09/08/15 12:11	1
Nitrobenzene-d5 (Surr)	55		31 - 110	08/31/15 10:13	09/08/15 12:11	1
Phenol-d5 (Surr)	15		10 - 110	08/31/15 10:13	09/08/15 12:11	1
Terphenyl-d14 (Surr)	63		31 - 115	08/31/15 10:13	09/08/15 12:11	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:25	09/01/15 17:56	1
<b>Arsenic</b>	<b>0.58</b>	<b>J B</b>	5.0	0.18	ug/L		08/31/15 08:25	09/01/15 17:56	1
<b>Barium</b>	<b>57</b>	<b>J</b>	100	1.1	ug/L		08/31/15 08:25	09/01/15 17:56	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:25	09/01/15 17:56	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:25	09/01/15 17:56	1
<b>Cobalt</b>	<b>0.18</b>	<b>J</b>	7.0	0.021	ug/L		08/31/15 08:25	09/01/15 17:56	1
<b>Chromium</b>	<b>12</b>	<b>B</b>	5.0	0.20	ug/L		08/31/15 08:25	09/01/15 17:56	1
<b>Copper</b>	<b>1.1</b>	<b>J</b>	2.0	0.75	ug/L		08/31/15 08:25	09/01/15 17:56	1
<b>Manganese</b>	<b>220</b>		15	1.1	ug/L		08/31/15 08:25	09/01/15 17:56	1
<b>Nickel</b>	<b>3.2</b>	<b>J</b>	20	0.23	ug/L		08/31/15 08:25	09/01/15 17:56	1
Lead	3.0	U	3.0	0.11	ug/L		08/31/15 08:25	09/01/15 17:56	1
<b>Selenium</b>	<b>0.61</b>	<b>J</b>	5.0	0.25	ug/L		08/31/15 08:25	09/01/15 17:56	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:25	09/01/15 17:56	1
<b>Vanadium</b>	<b>0.46</b>	<b>J B</b>	4.0	0.23	ug/L		08/31/15 08:25	09/01/15 17:56	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-28**

**Lab Sample ID: 240-54814-7**

**Date Collected: 08/27/15 15:45**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/31/15 08:25	09/01/15 17:56	1
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:25	09/01/15 17:56	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:25	09/01/15 18:00	1
<b>Arsenic</b>	<b>0.55</b>	<b>J B</b>	5.0	0.18	ug/L		08/31/15 08:25	09/01/15 18:00	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:25	09/01/15 18:00	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:25	09/01/15 18:00	1
<b>Cobalt</b>	<b>0.17</b>	<b>J</b>	7.0	0.021	ug/L		08/31/15 08:25	09/01/15 18:00	1
<b>Chromium</b>	<b>2.7</b>	<b>J B</b>	5.0	0.20	ug/L		08/31/15 08:25	09/01/15 18:00	1
<b>Copper</b>	<b>0.91</b>	<b>J</b>	2.0	0.75	ug/L		08/31/15 08:25	09/01/15 18:00	1
<b>Manganese</b>	<b>240</b>		15	1.1	ug/L		08/31/15 08:25	09/01/15 18:00	1
<b>Nickel</b>	<b>3.1</b>	<b>J</b>	20	0.23	ug/L		08/31/15 08:25	09/01/15 18:00	1
<b>Lead</b>	<b>0.25</b>	<b>J B</b>	3.0	0.11	ug/L		08/31/15 08:25	09/01/15 18:00	1
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:25	09/01/15 18:00	1
<b>Selenium</b>	<b>0.62</b>	<b>J</b>	5.0	0.25	ug/L		08/31/15 08:25	09/01/15 18:00	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:25	09/01/15 18:00	1
<b>Vanadium</b>	<b>0.90</b>	<b>J B</b>	4.0	0.23	ug/L		08/31/15 08:25	09/01/15 18:00	1
Zinc	20	U	20	7.3	ug/L		08/31/15 08:25	09/01/15 18:00	1
<b>Barium</b>	<b>58</b>	<b>J</b>	100	1.1	ug/L		08/31/15 08:25	09/01/15 18:00	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 12:32	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 12:27	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/28/15 11:12	1
<b>Cr (III)</b>	<b>0.012</b>	<b>J</b>	0.020	0.0050	mg/L			09/02/15 13:14	1



# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-29**

**Lab Sample ID: 240-54814-8**

**Date Collected: 08/27/15 16:20**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/02/15 19:20	1
Benzene	1.0	U	1.0	0.35	ug/L			09/02/15 19:20	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/02/15 19:20	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/02/15 19:20	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/02/15 19:20	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/02/15 19:20	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/02/15 19:20	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/02/15 19:20	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 19:20	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/02/15 19:20	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/02/15 19:20	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/02/15 19:20	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/02/15 19:20	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/02/15 19:20	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/02/15 19:20	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/02/15 19:20	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/02/15 19:20	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/02/15 19:20	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/02/15 19:20	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/02/15 19:20	1
2-Hexanone	10	U	10	0.48	ug/L			09/02/15 19:20	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/02/15 19:20	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/02/15 19:20	1
Styrene	1.0	U	1.0	0.45	ug/L			09/02/15 19:20	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/02/15 19:20	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/02/15 19:20	1
Toluene	1.0	U	1.0	0.23	ug/L			09/02/15 19:20	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/02/15 19:20	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/02/15 19:20	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/02/15 19:20	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/02/15 19:20	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/02/15 19:20	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/02/15 19:20	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/02/15 19:20	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/02/15 19:20	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/02/15 19:20	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/02/15 19:20	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/02/15 19:20	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/02/15 19:20	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/02/15 19:20	1
Methyl acetate	10	U	10	2.3	ug/L			09/02/15 19:20	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/02/15 19:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/02/15 19:20	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/02/15 19:20	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 19:20	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/02/15 19:20	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/02/15 19:20	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/02/15 19:20	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/02/15 19:20	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-29**

**Lab Sample ID: 240-54814-8**

**Date Collected: 08/27/15 16:20**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/02/15 19:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		78 - 125					09/02/15 19:20	1
4-Bromofluorobenzene (Surr)	84		61 - 120					09/02/15 19:20	1
Toluene-d8 (Surr)	95		80 - 120					09/02/15 19:20	1
Dibromofluoromethane (Surr)	94		79 - 120					09/02/15 19:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	4.8	U	4.8	0.042	ug/L		08/31/15 10:13	09/08/15 12:33	1
Acenaphthylene	4.8	U	4.8	0.046	ug/L		08/31/15 10:13	09/08/15 12:33	1
Acetophenone	4.8	U	4.8	0.32	ug/L		08/31/15 10:13	09/08/15 12:33	1
Anthracene	4.8	U	4.8	0.084	ug/L		08/31/15 10:13	09/08/15 12:33	1
Atrazine	2.9	U	2.9	0.32	ug/L		08/31/15 10:13	09/08/15 12:33	1
Benzaldehyde	4.8	U	4.8	0.37	ug/L		08/31/15 10:13	09/08/15 12:33	1
Benzo[a]anthracene	0.95	U	0.95	0.028	ug/L		08/31/15 10:13	09/08/15 12:33	1
Benzo[b]fluoranthene	0.95	U	0.95	0.038	ug/L		08/31/15 10:13	09/08/15 12:33	1
Benzo[k]fluoranthene	0.95	U	0.95	0.043	ug/L		08/31/15 10:13	09/08/15 12:33	1
Benzo[g,h,i]perylene	0.95	U	0.95	0.044	ug/L		08/31/15 10:13	09/08/15 12:33	1
Benzo[a]pyrene	0.95	U	0.95	0.049	ug/L		08/31/15 10:13	09/08/15 12:33	1
Butyl benzyl phthalate	4.8	U	4.8	0.25	ug/L		08/31/15 10:13	09/08/15 12:33	1
1,1'-Biphenyl	4.8	U	4.8	0.12	ug/L		08/31/15 10:13	09/08/15 12:33	1
Bis(2-chloroethoxy)methane	4.8	U	4.8	0.30	ug/L		08/31/15 10:13	09/08/15 12:33	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.095	ug/L		08/31/15 10:13	09/08/15 12:33	1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8	1.6	ug/L		08/31/15 10:13	09/08/15 12:33	1
4-Bromophenyl phenyl ether	4.8	U	4.8	0.21	ug/L		08/31/15 10:13	09/08/15 12:33	1
Caprolactam	9.5	U	9.5	0.19	ug/L		08/31/15 10:13	09/08/15 12:33	1
Carbazole	9.5	U	9.5	0.27	ug/L		08/31/15 10:13	09/08/15 12:33	1
4-Chloroaniline	9.5	U	9.5	0.20	ug/L		08/31/15 10:13	09/08/15 12:33	1
4-Chloro-3-methylphenol	4.8	U	4.8	0.20	ug/L		08/31/15 10:13	09/08/15 12:33	1
2-Chloronaphthalene	4.8	U	4.8	0.095	ug/L		08/31/15 10:13	09/08/15 12:33	1
2-Chlorophenol	4.8	U	4.8	0.28	ug/L		08/31/15 10:13	09/08/15 12:33	1
4-Chlorophenyl phenyl ether	4.8	U	4.8	0.29	ug/L		08/31/15 10:13	09/08/15 12:33	1
Chrysene	0.95	U	0.95	0.048	ug/L		08/31/15 10:13	09/08/15 12:33	1
2-Methylnaphthalene	4.8	U	4.8	0.086	ug/L		08/31/15 10:13	09/08/15 12:33	1
3 & 4 Methylphenol	4.8	U	4.8	0.76	ug/L		08/31/15 10:13	09/08/15 12:33	1
Dibenz(a,h)anthracene	1.9	U	1.9	0.042	ug/L		08/31/15 10:13	09/08/15 12:33	1
Dibenzofuran	3.8	U	3.8	0.019	ug/L		08/31/15 10:13	09/08/15 12:33	1
3,3'-Dichlorobenzidine	0.95	U	0.95	0.35	ug/L		08/31/15 10:13	09/08/15 12:33	1
2,4-Dichlorophenol	9.5	U	9.5	0.18	ug/L		08/31/15 10:13	09/08/15 12:33	1
Diethyl phthalate	4.8	U	4.8	0.57	ug/L		08/31/15 10:13	09/08/15 12:33	1
2,4-Dimethylphenol	4.8	U	4.8	0.24	ug/L		08/31/15 10:13	09/08/15 12:33	1
Dimethyl phthalate	4.8	U	4.8	0.28	ug/L		08/31/15 10:13	09/08/15 12:33	1
4,6-Dinitro-2-methylphenol	19	U	19	2.3	ug/L		08/31/15 10:13	09/08/15 12:33	1
2,4-Dinitrophenol	19	U	19	0.30	ug/L		08/31/15 10:13	09/08/15 12:33	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		08/31/15 10:13	09/08/15 12:33	1
Di-n-butyl phthalate	4.8	U	4.8	1.6	ug/L		08/31/15 10:13	09/08/15 12:33	1
Di-n-octyl phthalate	4.8	U	4.8	0.22	ug/L		08/31/15 10:13	09/08/15 12:33	1
Fluoranthene	0.95	U	0.95	0.042	ug/L		08/31/15 10:13	09/08/15 12:33	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-29**

**Lab Sample ID: 240-54814-8**

**Date Collected: 08/27/15 16:20**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.8	U	4.8	0.039	ug/L		08/31/15 10:13	09/08/15 12:33	1
Hexachlorobenzene	0.19	U	0.19	0.081	ug/L		08/31/15 10:13	09/08/15 12:33	1
Hexachlorobutadiene	0.95	U	0.95	0.26	ug/L		08/31/15 10:13	09/08/15 12:33	1
Hexachlorocyclopentadiene	4.8	U	4.8	0.23	ug/L		08/31/15 10:13	09/08/15 12:33	1
Hexachloroethane	4.8	U	4.8	0.18	ug/L		08/31/15 10:13	09/08/15 12:33	1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	0.041	ug/L		08/31/15 10:13	09/08/15 12:33	1
Isophorone	4.8	U	4.8	0.26	ug/L		08/31/15 10:13	09/08/15 12:33	1
2-Methylphenol	4.8	U	4.8	0.16	ug/L		08/31/15 10:13	09/08/15 12:33	1
Naphthalene	4.8	U	4.8	0.060	ug/L		08/31/15 10:13	09/08/15 12:33	1
2-Nitroaniline	19	U	19	0.20	ug/L		08/31/15 10:13	09/08/15 12:33	1
3-Nitroaniline	19	U	19	0.27	ug/L		08/31/15 10:13	09/08/15 12:33	1
4-Nitroaniline	19	U	19	0.21	ug/L		08/31/15 10:13	09/08/15 12:33	1
Nitrobenzene	2.9	U	2.9	0.038	ug/L		08/31/15 10:13	09/08/15 12:33	1
2-Nitrophenol	4.8	U	4.8	0.27	ug/L		08/31/15 10:13	09/08/15 12:33	1
4-Nitrophenol	19	U	19	0.28	ug/L		08/31/15 10:13	09/08/15 12:33	1
N-Nitrosodiphenylamine	4.8	U	4.8	0.30	ug/L		08/31/15 10:13	09/08/15 12:33	1
N-Nitrosodi-n-propylamine	4.8	U	4.8	0.23	ug/L		08/31/15 10:13	09/08/15 12:33	1
2,2'-oxybis[1-chloropropane]	4.8	U	4.8	0.38	ug/L		08/31/15 10:13	09/08/15 12:33	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		08/31/15 10:13	09/08/15 12:33	1
Phenanthrene	1.9	U	1.9	0.059	ug/L		08/31/15 10:13	09/08/15 12:33	1
Phenol	4.8	U	4.8	0.57	ug/L		08/31/15 10:13	09/08/15 12:33	1
Pyrene	4.8	U	4.8	0.040	ug/L		08/31/15 10:13	09/08/15 12:33	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		08/31/15 10:13	09/08/15 12:33	1
2,4,6-Trichlorophenol	3.8	U	3.8	0.23	ug/L		08/31/15 10:13	09/08/15 12:33	1
2,6-Dinitrotoluene	4.8	U	4.8	0.76	ug/L		08/31/15 10:13	09/08/15 12:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	54		29 - 110	08/31/15 10:13	09/08/15 12:33	1
2-Fluorophenol (Surr)	23		15 - 110	08/31/15 10:13	09/08/15 12:33	1
2,4,6-Tribromophenol (Surr)	39		21 - 128	08/31/15 10:13	09/08/15 12:33	1
Nitrobenzene-d5 (Surr)	50		31 - 110	08/31/15 10:13	09/08/15 12:33	1
Phenol-d5 (Surr)	12		10 - 110	08/31/15 10:13	09/08/15 12:33	1
Terphenyl-d14 (Surr)	59		31 - 115	08/31/15 10:13	09/08/15 12:33	1

**Method: 6020 - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:25	09/01/15 18:03	1
<b>Arsenic</b>	<b>0.58</b>	<b>J B</b>	5.0	0.18	ug/L		08/31/15 08:25	09/01/15 18:03	1
<b>Barium</b>	<b>55</b>	<b>J</b>	100	1.1	ug/L		08/31/15 08:25	09/01/15 18:03	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:25	09/01/15 18:03	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:25	09/01/15 18:03	1
<b>Cobalt</b>	<b>1.7</b>	<b>J</b>	7.0	0.021	ug/L		08/31/15 08:25	09/01/15 18:03	1
<b>Chromium</b>	<b>9.9</b>	<b>B</b>	5.0	0.20	ug/L		08/31/15 08:25	09/01/15 18:03	1
Copper	2.0	U	2.0	0.75	ug/L		08/31/15 08:25	09/01/15 18:03	1
<b>Manganese</b>	<b>22</b>		15	1.1	ug/L		08/31/15 08:25	09/01/15 18:03	1
<b>Nickel</b>	<b>260</b>		20	0.23	ug/L		08/31/15 08:25	09/01/15 18:03	1
Lead	3.0	U	3.0	0.11	ug/L		08/31/15 08:25	09/01/15 18:03	1
<b>Selenium</b>	<b>1.9</b>	<b>J</b>	5.0	0.25	ug/L		08/31/15 08:25	09/01/15 18:03	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:25	09/01/15 18:03	1
<b>Vanadium</b>	<b>0.54</b>	<b>J B</b>	4.0	0.23	ug/L		08/31/15 08:25	09/01/15 18:03	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-29**

**Lab Sample ID: 240-54814-8**

**Date Collected: 08/27/15 16:20**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/31/15 08:25	09/01/15 18:03	1
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:25	09/01/15 18:03	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:25	09/01/15 18:07	1
<b>Arsenic</b>	<b>0.65</b>	<b>J B</b>	5.0	0.18	ug/L		08/31/15 08:25	09/01/15 18:07	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:25	09/01/15 18:07	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:25	09/01/15 18:07	1
<b>Cobalt</b>	<b>0.79</b>	<b>J</b>	7.0	0.021	ug/L		08/31/15 08:25	09/01/15 18:07	1
<b>Chromium</b>	<b>4.8</b>	<b>J B</b>	5.0	0.20	ug/L		08/31/15 08:25	09/01/15 18:07	1
Copper	2.0	U	2.0	0.75	ug/L		08/31/15 08:25	09/01/15 18:07	1
<b>Manganese</b>	<b>8.6</b>	<b>J</b>	15	1.1	ug/L		08/31/15 08:25	09/01/15 18:07	1
<b>Nickel</b>	<b>210</b>		20	0.23	ug/L		08/31/15 08:25	09/01/15 18:07	1
Lead	3.0	U	3.0	0.11	ug/L		08/31/15 08:25	09/01/15 18:07	1
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:25	09/01/15 18:07	1
<b>Selenium</b>	<b>2.4</b>	<b>J</b>	5.0	0.25	ug/L		08/31/15 08:25	09/01/15 18:07	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:25	09/01/15 18:07	1
<b>Vanadium</b>	<b>0.86</b>	<b>J B</b>	4.0	0.23	ug/L		08/31/15 08:25	09/01/15 18:07	1
Zinc	20	U	20	7.3	ug/L		08/31/15 08:25	09/01/15 18:07	1
<b>Barium</b>	<b>60</b>	<b>J</b>	100	1.1	ug/L		08/31/15 08:25	09/01/15 18:07	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 13:01	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 12:34	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/28/15 11:13	1
<b>Cr (III)</b>	<b>0.0099</b>	<b>J</b>	0.020	0.0050	mg/L			09/02/15 13:14	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-30**

**Lab Sample ID: 240-54814-9**

**Date Collected: 08/27/15 16:40**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/02/15 19:43	1
Benzene	1.0	U	1.0	0.35	ug/L			09/02/15 19:43	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/02/15 19:43	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/02/15 19:43	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/02/15 19:43	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/02/15 19:43	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/02/15 19:43	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/02/15 19:43	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 19:43	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/02/15 19:43	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/02/15 19:43	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/02/15 19:43	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/02/15 19:43	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/02/15 19:43	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/02/15 19:43	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/02/15 19:43	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/02/15 19:43	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/02/15 19:43	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/02/15 19:43	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/02/15 19:43	1
2-Hexanone	10	U	10	0.48	ug/L			09/02/15 19:43	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/02/15 19:43	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/02/15 19:43	1
Styrene	1.0	U	1.0	0.45	ug/L			09/02/15 19:43	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/02/15 19:43	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/02/15 19:43	1
Toluene	1.0	U	1.0	0.23	ug/L			09/02/15 19:43	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/02/15 19:43	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/02/15 19:43	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/02/15 19:43	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/02/15 19:43	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/02/15 19:43	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/02/15 19:43	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/02/15 19:43	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/02/15 19:43	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/02/15 19:43	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/02/15 19:43	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/02/15 19:43	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/02/15 19:43	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/02/15 19:43	1
Methyl acetate	10	U	10	2.3	ug/L			09/02/15 19:43	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/02/15 19:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/02/15 19:43	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/02/15 19:43	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 19:43	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/02/15 19:43	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/02/15 19:43	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/02/15 19:43	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/02/15 19:43	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-30**

**Lab Sample ID: 240-54814-9**

**Date Collected: 08/27/15 16:40**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/02/15 19:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		78 - 125					09/02/15 19:43	1
4-Bromofluorobenzene (Surr)	82		61 - 120					09/02/15 19:43	1
Toluene-d8 (Surr)	92		80 - 120					09/02/15 19:43	1
Dibromofluoromethane (Surr)	94		79 - 120					09/02/15 19:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	5.1	U	5.1	0.045	ug/L		08/31/15 10:13	09/08/15 13:40	1
Acenaphthylene	5.1	U	5.1	0.049	ug/L		08/31/15 10:13	09/08/15 13:40	1
Acetophenone	5.1	U	5.1	0.35	ug/L		08/31/15 10:13	09/08/15 13:40	1
Anthracene	5.1	U	5.1	0.090	ug/L		08/31/15 10:13	09/08/15 13:40	1
Atrazine	3.1	U	3.1	0.35	ug/L		08/31/15 10:13	09/08/15 13:40	1
Benzaldehyde	5.1	U	5.1	0.40	ug/L		08/31/15 10:13	09/08/15 13:40	1
Benzo[a]anthracene	1.0	U	1.0	0.030	ug/L		08/31/15 10:13	09/08/15 13:40	1
Benzo[b]fluoranthene	1.0	U	1.0	0.040	ug/L		08/31/15 10:13	09/08/15 13:40	1
Benzo[k]fluoranthene	1.0	U	1.0	0.046	ug/L		08/31/15 10:13	09/08/15 13:40	1
Benzo[g,h,i]perylene	1.0	U	1.0	0.047	ug/L		08/31/15 10:13	09/08/15 13:40	1
Benzo[a]pyrene	1.0	U	1.0	0.052	ug/L		08/31/15 10:13	09/08/15 13:40	1
Butyl benzyl phthalate	5.1	U	5.1	0.27	ug/L		08/31/15 10:13	09/08/15 13:40	1
1,1'-Biphenyl	5.1	U	5.1	0.13	ug/L		08/31/15 10:13	09/08/15 13:40	1
Bis(2-chloroethoxy)methane	5.1	U	5.1	0.33	ug/L		08/31/15 10:13	09/08/15 13:40	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.10	ug/L		08/31/15 10:13	09/08/15 13:40	1
Bis(2-ethylhexyl) phthalate	5.1	U	5.1	1.7	ug/L		08/31/15 10:13	09/08/15 13:40	1
4-Bromophenyl phenyl ether	5.1	U	5.1	0.22	ug/L		08/31/15 10:13	09/08/15 13:40	1
Caprolactam	10	U	10	0.20	ug/L		08/31/15 10:13	09/08/15 13:40	1
Carbazole	10	U	10	0.29	ug/L		08/31/15 10:13	09/08/15 13:40	1
4-Chloroaniline	10	U	10	0.21	ug/L		08/31/15 10:13	09/08/15 13:40	1
4-Chloro-3-methylphenol	5.1	U	5.1	0.21	ug/L		08/31/15 10:13	09/08/15 13:40	1
2-Chloronaphthalene	5.1	U	5.1	0.10	ug/L		08/31/15 10:13	09/08/15 13:40	1
2-Chlorophenol	5.1	U	5.1	0.30	ug/L		08/31/15 10:13	09/08/15 13:40	1
4-Chlorophenyl phenyl ether	5.1	U	5.1	0.31	ug/L		08/31/15 10:13	09/08/15 13:40	1
Chrysene	1.0	U	1.0	0.051	ug/L		08/31/15 10:13	09/08/15 13:40	1
2-Methylnaphthalene	5.1	U	5.1	0.092	ug/L		08/31/15 10:13	09/08/15 13:40	1
3 & 4 Methylphenol	5.1	U	5.1	0.82	ug/L		08/31/15 10:13	09/08/15 13:40	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.046	ug/L		08/31/15 10:13	09/08/15 13:40	1
Dibenzofuran	4.1	U	4.1	0.020	ug/L		08/31/15 10:13	09/08/15 13:40	1
3,3'-Dichlorobenzidine	1.0	U	1.0	0.38	ug/L		08/31/15 10:13	09/08/15 13:40	1
2,4-Dichlorophenol	10	U	10	0.19	ug/L		08/31/15 10:13	09/08/15 13:40	1
Diethyl phthalate	5.1	U	5.1	0.61	ug/L		08/31/15 10:13	09/08/15 13:40	1
2,4-Dimethylphenol	5.1	U	5.1	0.26	ug/L		08/31/15 10:13	09/08/15 13:40	1
Dimethyl phthalate	5.1	U	5.1	0.30	ug/L		08/31/15 10:13	09/08/15 13:40	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		08/31/15 10:13	09/08/15 13:40	1
2,4-Dinitrophenol	20	U	20	0.33	ug/L		08/31/15 10:13	09/08/15 13:40	1
2,4-Dinitrotoluene	5.1	U	5.1	0.26	ug/L		08/31/15 10:13	09/08/15 13:40	1
Di-n-butyl phthalate	5.1	U	5.1	1.7	ug/L		08/31/15 10:13	09/08/15 13:40	1
Di-n-octyl phthalate	5.1	U	5.1	0.23	ug/L		08/31/15 10:13	09/08/15 13:40	1
Fluoranthene	1.0	U	1.0	0.046	ug/L		08/31/15 10:13	09/08/15 13:40	1

TestAmerica Canton



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-30**

**Lab Sample ID: 240-54814-9**

**Date Collected: 08/27/15 16:40**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	5.1	U	5.1	0.041	ug/L		08/31/15 10:13	09/08/15 13:40	1
Hexachlorobenzene	0.20	U	0.20	0.087	ug/L		08/31/15 10:13	09/08/15 13:40	1
Hexachlorobutadiene	1.0	U	1.0	0.28	ug/L		08/31/15 10:13	09/08/15 13:40	1
Hexachlorocyclopentadiene	5.1	U	5.1	0.24	ug/L		08/31/15 10:13	09/08/15 13:40	1
Hexachloroethane	5.1	U	5.1	0.19	ug/L		08/31/15 10:13	09/08/15 13:40	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.044	ug/L		08/31/15 10:13	09/08/15 13:40	1
Isophorone	5.1	U	5.1	0.28	ug/L		08/31/15 10:13	09/08/15 13:40	1
2-Methylphenol	5.1	U	5.1	0.17	ug/L		08/31/15 10:13	09/08/15 13:40	1
Naphthalene	5.1	U	5.1	0.064	ug/L		08/31/15 10:13	09/08/15 13:40	1
2-Nitroaniline	20	U	20	0.21	ug/L		08/31/15 10:13	09/08/15 13:40	1
3-Nitroaniline	20	U	20	0.29	ug/L		08/31/15 10:13	09/08/15 13:40	1
4-Nitroaniline	20	U	20	0.22	ug/L		08/31/15 10:13	09/08/15 13:40	1
Nitrobenzene	3.1	U	3.1	0.041	ug/L		08/31/15 10:13	09/08/15 13:40	1
2-Nitrophenol	5.1	U	5.1	0.29	ug/L		08/31/15 10:13	09/08/15 13:40	1
4-Nitrophenol	20	U	20	0.30	ug/L		08/31/15 10:13	09/08/15 13:40	1
N-Nitrosodiphenylamine	5.1	U	5.1	0.32	ug/L		08/31/15 10:13	09/08/15 13:40	1
N-Nitrosodi-n-propylamine	5.1	U	5.1	0.24	ug/L		08/31/15 10:13	09/08/15 13:40	1
2,2'-oxybis[1-chloropropane]	5.1	U	5.1	0.41	ug/L		08/31/15 10:13	09/08/15 13:40	1
Pentachlorophenol	5.1	U	5.1	0.28	ug/L		08/31/15 10:13	09/08/15 13:40	1
Phenanthrene	2.0	U	2.0	0.063	ug/L		08/31/15 10:13	09/08/15 13:40	1
Phenol	5.1	U	5.1	0.61	ug/L		08/31/15 10:13	09/08/15 13:40	1
Pyrene	5.1	U	5.1	0.043	ug/L		08/31/15 10:13	09/08/15 13:40	1
2,4,5-Trichlorophenol	5.1	U	5.1	0.31	ug/L		08/31/15 10:13	09/08/15 13:40	1
2,4,6-Trichlorophenol	4.1	U	4.1	0.24	ug/L		08/31/15 10:13	09/08/15 13:40	1
2,6-Dinitrotoluene	5.1	U	5.1	0.82	ug/L		08/31/15 10:13	09/08/15 13:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	53		29 - 110	08/31/15 10:13	09/08/15 13:40	1
2-Fluorophenol (Surr)	24		15 - 110	08/31/15 10:13	09/08/15 13:40	1
2,4,6-Tribromophenol (Surr)	43		21 - 128	08/31/15 10:13	09/08/15 13:40	1
Nitrobenzene-d5 (Surr)	50		31 - 110	08/31/15 10:13	09/08/15 13:40	1
Phenol-d5 (Surr)	14		10 - 110	08/31/15 10:13	09/08/15 13:40	1
Terphenyl-d14 (Surr)	54		31 - 115	08/31/15 10:13	09/08/15 13:40	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:25	09/01/15 18:11	1
<b>Arsenic</b>	<b>0.55</b>	<b>J B</b>	5.0	0.18	ug/L		08/31/15 08:25	09/01/15 18:11	1
<b>Barium</b>	<b>54</b>	<b>J</b>	100	1.1	ug/L		08/31/15 08:25	09/01/15 18:11	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:25	09/01/15 18:11	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:25	09/01/15 18:11	1
<b>Cobalt</b>	<b>1.5</b>	<b>J</b>	7.0	0.021	ug/L		08/31/15 08:25	09/01/15 18:11	1
<b>Chromium</b>	<b>6.2</b>	<b>B</b>	5.0	0.20	ug/L		08/31/15 08:25	09/01/15 18:11	1
Copper	2.0	U	2.0	0.75	ug/L		08/31/15 08:25	09/01/15 18:11	1
<b>Manganese</b>	<b>20</b>		15	1.1	ug/L		08/31/15 08:25	09/01/15 18:11	1
<b>Nickel</b>	<b>200</b>		20	0.23	ug/L		08/31/15 08:25	09/01/15 18:11	1
Lead	3.0	U	3.0	0.11	ug/L		08/31/15 08:25	09/01/15 18:11	1
<b>Selenium</b>	<b>2.0</b>	<b>J</b>	5.0	0.25	ug/L		08/31/15 08:25	09/01/15 18:11	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:25	09/01/15 18:11	1
<b>Vanadium</b>	<b>0.60</b>	<b>J B</b>	4.0	0.23	ug/L		08/31/15 08:25	09/01/15 18:11	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-30**

**Lab Sample ID: 240-54814-9**

**Date Collected: 08/27/15 16:40**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/31/15 08:25	09/01/15 18:11	1
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:25	09/01/15 18:11	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:25	09/01/15 18:14	1
<b>Arsenic</b>	<b>0.60</b>	<b>J B</b>	5.0	0.18	ug/L		08/31/15 08:25	09/01/15 18:14	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:25	09/01/15 18:14	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:25	09/01/15 18:14	1
<b>Cobalt</b>	<b>0.68</b>	<b>J</b>	7.0	0.021	ug/L		08/31/15 08:25	09/01/15 18:14	1
<b>Chromium</b>	<b>4.5</b>	<b>J B</b>	5.0	0.20	ug/L		08/31/15 08:25	09/01/15 18:14	1
Copper	2.0	U	2.0	0.75	ug/L		08/31/15 08:25	09/01/15 18:14	1
<b>Manganese</b>	<b>14</b>	<b>J</b>	15	1.1	ug/L		08/31/15 08:25	09/01/15 18:14	1
<b>Nickel</b>	<b>260</b>		20	0.23	ug/L		08/31/15 08:25	09/01/15 18:14	1
Lead	3.0	U	3.0	0.11	ug/L		08/31/15 08:25	09/01/15 18:14	1
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:25	09/01/15 18:14	1
<b>Selenium</b>	<b>2.2</b>	<b>J</b>	5.0	0.25	ug/L		08/31/15 08:25	09/01/15 18:14	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:25	09/01/15 18:14	1
<b>Vanadium</b>	<b>0.75</b>	<b>J B</b>	4.0	0.23	ug/L		08/31/15 08:25	09/01/15 18:14	1
Zinc	20	U	20	7.3	ug/L		08/31/15 08:25	09/01/15 18:14	1
<b>Barium</b>	<b>61</b>	<b>J</b>	100	1.1	ug/L		08/31/15 08:25	09/01/15 18:14	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 13:00	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 12:36	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/28/15 11:15	1
<b>Cr (III)</b>	<b>0.0062</b>	<b>J</b>	0.020	0.0050	mg/L			09/02/15 13:14	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-31**

**Lab Sample ID: 240-54814-10**

**Date Collected: 08/27/15 16:55**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/02/15 20:05	1
Benzene	1.0	U	1.0	0.35	ug/L			09/02/15 20:05	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/02/15 20:05	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/02/15 20:05	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/02/15 20:05	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/02/15 20:05	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/02/15 20:05	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/02/15 20:05	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 20:05	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/02/15 20:05	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/02/15 20:05	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/02/15 20:05	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/02/15 20:05	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/02/15 20:05	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/02/15 20:05	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/02/15 20:05	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/02/15 20:05	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/02/15 20:05	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/02/15 20:05	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/02/15 20:05	1
2-Hexanone	10	U	10	0.48	ug/L			09/02/15 20:05	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/02/15 20:05	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/02/15 20:05	1
Styrene	1.0	U	1.0	0.45	ug/L			09/02/15 20:05	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/02/15 20:05	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/02/15 20:05	1
Toluene	1.0	U	1.0	0.23	ug/L			09/02/15 20:05	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/02/15 20:05	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/02/15 20:05	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/02/15 20:05	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/02/15 20:05	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/02/15 20:05	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/02/15 20:05	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/02/15 20:05	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/02/15 20:05	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/02/15 20:05	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/02/15 20:05	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/02/15 20:05	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/02/15 20:05	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/02/15 20:05	1
Methyl acetate	10	U	10	2.3	ug/L			09/02/15 20:05	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/02/15 20:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/02/15 20:05	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/02/15 20:05	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 20:05	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/02/15 20:05	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/02/15 20:05	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/02/15 20:05	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/02/15 20:05	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-31**

**Lab Sample ID: 240-54814-10**

**Date Collected: 08/27/15 16:55**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/02/15 20:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		78 - 125					09/02/15 20:05	1
4-Bromofluorobenzene (Surr)	85		61 - 120					09/02/15 20:05	1
Toluene-d8 (Surr)	92		80 - 120					09/02/15 20:05	1
Dibromofluoromethane (Surr)	94		79 - 120					09/02/15 20:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	5.0	U	5.0	0.044	ug/L		08/31/15 10:13	09/08/15 14:03	1
Acenaphthylene	5.0	U	5.0	0.048	ug/L		08/31/15 10:13	09/08/15 14:03	1
Acetophenone	5.0	U	5.0	0.34	ug/L		08/31/15 10:13	09/08/15 14:03	1
Anthracene	5.0	U	5.0	0.087	ug/L		08/31/15 10:13	09/08/15 14:03	1
Atrazine	3.0	U	3.0	0.34	ug/L		08/31/15 10:13	09/08/15 14:03	1
Benzaldehyde	5.0	U	5.0	0.39	ug/L		08/31/15 10:13	09/08/15 14:03	1
Benzo[a]anthracene	0.99	U	0.99	0.029	ug/L		08/31/15 10:13	09/08/15 14:03	1
Benzo[b]fluoranthene	0.99	U	0.99	0.039	ug/L		08/31/15 10:13	09/08/15 14:03	1
Benzo[k]fluoranthene	0.99	U	0.99	0.044	ug/L		08/31/15 10:13	09/08/15 14:03	1
Benzo[g,h,i]perylene	0.99	U	0.99	0.046	ug/L		08/31/15 10:13	09/08/15 14:03	1
Benzo[a]pyrene	0.99	U	0.99	0.051	ug/L		08/31/15 10:13	09/08/15 14:03	1
Butyl benzyl phthalate	5.0	U	5.0	0.26	ug/L		08/31/15 10:13	09/08/15 14:03	1
1,1'-Biphenyl	5.0	U	5.0	0.13	ug/L		08/31/15 10:13	09/08/15 14:03	1
Bis(2-chloroethoxy)methane	5.0	U	5.0	0.32	ug/L		08/31/15 10:13	09/08/15 14:03	1
Bis(2-chloroethyl)ether	0.99	U	0.99	0.099	ug/L		08/31/15 10:13	09/08/15 14:03	1
Bis(2-ethylhexyl) phthalate	5.0	U	5.0	1.7	ug/L		08/31/15 10:13	09/08/15 14:03	1
4-Bromophenyl phenyl ether	5.0	U	5.0	0.22	ug/L		08/31/15 10:13	09/08/15 14:03	1
Caprolactam	9.9	U	9.9	0.20	ug/L		08/31/15 10:13	09/08/15 14:03	1
Carbazole	9.9	U	9.9	0.28	ug/L		08/31/15 10:13	09/08/15 14:03	1
4-Chloroaniline	9.9	U	9.9	0.21	ug/L		08/31/15 10:13	09/08/15 14:03	1
4-Chloro-3-methylphenol	5.0	U	5.0	0.21	ug/L		08/31/15 10:13	09/08/15 14:03	1
2-Chloronaphthalene	5.0	U	5.0	0.099	ug/L		08/31/15 10:13	09/08/15 14:03	1
2-Chlorophenol	5.0	U	5.0	0.29	ug/L		08/31/15 10:13	09/08/15 14:03	1
4-Chlorophenyl phenyl ether	5.0	U	5.0	0.30	ug/L		08/31/15 10:13	09/08/15 14:03	1
Chrysene	0.99	U	0.99	0.050	ug/L		08/31/15 10:13	09/08/15 14:03	1
2-Methylnaphthalene	5.0	U	5.0	0.090	ug/L		08/31/15 10:13	09/08/15 14:03	1
3 & 4 Methylphenol	5.0	U	5.0	0.79	ug/L		08/31/15 10:13	09/08/15 14:03	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.044	ug/L		08/31/15 10:13	09/08/15 14:03	1
Dibenzofuran	4.0	U	4.0	0.020	ug/L		08/31/15 10:13	09/08/15 14:03	1
3,3'-Dichlorobenzidine	0.99	U	0.99	0.37	ug/L		08/31/15 10:13	09/08/15 14:03	1
<b>2,4-Dichlorophenol</b>	<b>0.24</b>	<b>J</b>	9.9	0.19	ug/L		08/31/15 10:13	09/08/15 14:03	1
Diethyl phthalate	5.0	U	5.0	0.59	ug/L		08/31/15 10:13	09/08/15 14:03	1
2,4-Dimethylphenol	5.0	U	5.0	0.25	ug/L		08/31/15 10:13	09/08/15 14:03	1
Dimethyl phthalate	5.0	U	5.0	0.29	ug/L		08/31/15 10:13	09/08/15 14:03	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		08/31/15 10:13	09/08/15 14:03	1
2,4-Dinitrophenol	20	U	20	0.32	ug/L		08/31/15 10:13	09/08/15 14:03	1
2,4-Dinitrotoluene	5.0	U	5.0	0.25	ug/L		08/31/15 10:13	09/08/15 14:03	1
Di-n-butyl phthalate	5.0	U	5.0	1.7	ug/L		08/31/15 10:13	09/08/15 14:03	1
Di-n-octyl phthalate	5.0	U	5.0	0.23	ug/L		08/31/15 10:13	09/08/15 14:03	1
Fluoranthene	0.99	U	0.99	0.044	ug/L		08/31/15 10:13	09/08/15 14:03	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-31**

**Lab Sample ID: 240-54814-10**

**Date Collected: 08/27/15 16:55**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	5.0	U	5.0	0.040	ug/L		08/31/15 10:13	09/08/15 14:03	1
Hexachlorobenzene	0.20	U	0.20	0.084	ug/L		08/31/15 10:13	09/08/15 14:03	1
Hexachlorobutadiene	0.99	U	0.99	0.27	ug/L		08/31/15 10:13	09/08/15 14:03	1
Hexachlorocyclopentadiene	5.0	U	5.0	0.24	ug/L		08/31/15 10:13	09/08/15 14:03	1
Hexachloroethane	5.0	U	5.0	0.19	ug/L		08/31/15 10:13	09/08/15 14:03	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.043	ug/L		08/31/15 10:13	09/08/15 14:03	1
Isophorone	5.0	U	5.0	0.27	ug/L		08/31/15 10:13	09/08/15 14:03	1
2-Methylphenol	5.0	U	5.0	0.17	ug/L		08/31/15 10:13	09/08/15 14:03	1
Naphthalene	5.0	U	5.0	0.062	ug/L		08/31/15 10:13	09/08/15 14:03	1
2-Nitroaniline	20	U	20	0.21	ug/L		08/31/15 10:13	09/08/15 14:03	1
3-Nitroaniline	20	U	20	0.28	ug/L		08/31/15 10:13	09/08/15 14:03	1
4-Nitroaniline	20	U	20	0.22	ug/L		08/31/15 10:13	09/08/15 14:03	1
Nitrobenzene	3.0	U	3.0	0.040	ug/L		08/31/15 10:13	09/08/15 14:03	1
2-Nitrophenol	5.0	U	5.0	0.28	ug/L		08/31/15 10:13	09/08/15 14:03	1
4-Nitrophenol	20	U	20	0.29	ug/L		08/31/15 10:13	09/08/15 14:03	1
N-Nitrosodiphenylamine	5.0	U	5.0	0.31	ug/L		08/31/15 10:13	09/08/15 14:03	1
N-Nitrosodi-n-propylamine	5.0	U	5.0	0.24	ug/L		08/31/15 10:13	09/08/15 14:03	1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	0.40	ug/L		08/31/15 10:13	09/08/15 14:03	1
Pentachlorophenol	5.0	U	5.0	0.27	ug/L		08/31/15 10:13	09/08/15 14:03	1
Phenanthrene	2.0	U	2.0	0.061	ug/L		08/31/15 10:13	09/08/15 14:03	1
Phenol	5.0	U	5.0	0.59	ug/L		08/31/15 10:13	09/08/15 14:03	1
Pyrene	5.0	U	5.0	0.042	ug/L		08/31/15 10:13	09/08/15 14:03	1
2,4,5-Trichlorophenol	5.0	U	5.0	0.30	ug/L		08/31/15 10:13	09/08/15 14:03	1
2,4,6-Trichlorophenol	4.0	U	4.0	0.24	ug/L		08/31/15 10:13	09/08/15 14:03	1
2,6-Dinitrotoluene	5.0	U	5.0	0.79	ug/L		08/31/15 10:13	09/08/15 14:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	61		29 - 110	08/31/15 10:13	09/08/15 14:03	1
2-Fluorophenol (Surr)	29		15 - 110	08/31/15 10:13	09/08/15 14:03	1
2,4,6-Tribromophenol (Surr)	44		21 - 128	08/31/15 10:13	09/08/15 14:03	1
Nitrobenzene-d5 (Surr)	57		31 - 110	08/31/15 10:13	09/08/15 14:03	1
Phenol-d5 (Surr)	16		10 - 110	08/31/15 10:13	09/08/15 14:03	1
Terphenyl-d14 (Surr)	57		31 - 115	08/31/15 10:13	09/08/15 14:03	1

**Method: 6020 - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:25	09/01/15 18:18	1
<b>Arsenic</b>	<b>0.58</b>	<b>J B</b>	5.0	0.18	ug/L		08/31/15 08:25	09/01/15 18:18	1
<b>Barium</b>	<b>35</b>	<b>J</b>	100	1.1	ug/L		08/31/15 08:25	09/01/15 18:18	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:25	09/01/15 18:18	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:25	09/01/15 18:18	1
<b>Cobalt</b>	<b>0.12</b>	<b>J</b>	7.0	0.021	ug/L		08/31/15 08:25	09/01/15 18:18	1
<b>Chromium</b>	<b>3.4</b>	<b>J B</b>	5.0	0.20	ug/L		08/31/15 08:25	09/01/15 18:18	1
Copper	2.0	U	2.0	0.75	ug/L		08/31/15 08:25	09/01/15 18:18	1
<b>Manganese</b>	<b>2.0</b>	<b>J</b>	15	1.1	ug/L		08/31/15 08:25	09/01/15 18:18	1
<b>Nickel</b>	<b>8.9</b>	<b>J</b>	20	0.23	ug/L		08/31/15 08:25	09/01/15 18:18	1
<b>Lead</b>	<b>0.11</b>	<b>J B</b>	3.0	0.11	ug/L		08/31/15 08:25	09/01/15 18:18	1
<b>Selenium</b>	<b>0.33</b>	<b>J</b>	5.0	0.25	ug/L		08/31/15 08:25	09/01/15 18:18	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:25	09/01/15 18:18	1
<b>Vanadium</b>	<b>1.2</b>	<b>J B</b>	4.0	0.23	ug/L		08/31/15 08:25	09/01/15 18:18	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-31**

**Lab Sample ID: 240-54814-10**

**Date Collected: 08/27/15 16:55**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/31/15 08:25	09/01/15 18:18	1
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:25	09/01/15 18:18	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:25	09/01/15 18:22	1
<b>Arsenic</b>	<b>0.50</b>	<b>J B</b>	5.0	0.18	ug/L		08/31/15 08:25	09/01/15 18:22	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:25	09/01/15 18:22	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:25	09/01/15 18:22	1
<b>Cobalt</b>	<b>0.090</b>	<b>J</b>	7.0	0.021	ug/L		08/31/15 08:25	09/01/15 18:22	1
<b>Chromium</b>	<b>2.9</b>	<b>J B</b>	5.0	0.20	ug/L		08/31/15 08:25	09/01/15 18:22	1
Copper	2.0	U	2.0	0.75	ug/L		08/31/15 08:25	09/01/15 18:22	1
<b>Manganese</b>	<b>1.5</b>	<b>J</b>	15	1.1	ug/L		08/31/15 08:25	09/01/15 18:22	1
<b>Nickel</b>	<b>7.9</b>	<b>J</b>	20	0.23	ug/L		08/31/15 08:25	09/01/15 18:22	1
Lead	3.0	U	3.0	0.11	ug/L		08/31/15 08:25	09/01/15 18:22	1
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:25	09/01/15 18:22	1
<b>Selenium</b>	<b>0.42</b>	<b>J</b>	5.0	0.25	ug/L		08/31/15 08:25	09/01/15 18:22	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:25	09/01/15 18:22	1
<b>Vanadium</b>	<b>0.95</b>	<b>J B</b>	4.0	0.23	ug/L		08/31/15 08:25	09/01/15 18:22	1
Zinc	20	U	20	7.3	ug/L		08/31/15 08:25	09/01/15 18:22	1
<b>Barium</b>	<b>30</b>	<b>J</b>	100	1.1	ug/L		08/31/15 08:25	09/01/15 18:22	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 12:38	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 12:41	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/28/15 11:14	1
Cr (III)	0.020	U	0.020	0.0050	mg/L			09/02/15 13:14	1



# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 240-54814-11**

**Date Collected: 08/27/15 00:00**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>5.5</b>	<b>J</b>	10	0.94	ug/L			09/02/15 20:28	1
Benzene	1.0	U	1.0	0.35	ug/L			09/02/15 20:28	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/02/15 20:28	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/02/15 20:28	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/02/15 20:28	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/02/15 20:28	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/02/15 20:28	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/02/15 20:28	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 20:28	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/02/15 20:28	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/02/15 20:28	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/02/15 20:28	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/02/15 20:28	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/02/15 20:28	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/02/15 20:28	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/02/15 20:28	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/02/15 20:28	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/02/15 20:28	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/02/15 20:28	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/02/15 20:28	1
2-Hexanone	10	U	10	0.48	ug/L			09/02/15 20:28	1
<b>Methylene Chloride</b>	<b>2.8</b>	<b>B</b>	1.0	0.33	ug/L			09/02/15 20:28	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/02/15 20:28	1
Styrene	1.0	U	1.0	0.45	ug/L			09/02/15 20:28	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/02/15 20:28	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/02/15 20:28	1
Toluene	1.0	U	1.0	0.23	ug/L			09/02/15 20:28	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/02/15 20:28	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/02/15 20:28	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/02/15 20:28	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/02/15 20:28	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/02/15 20:28	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/02/15 20:28	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/02/15 20:28	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/02/15 20:28	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/02/15 20:28	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/02/15 20:28	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/02/15 20:28	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/02/15 20:28	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/02/15 20:28	1
Methyl acetate	10	U	10	2.3	ug/L			09/02/15 20:28	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/02/15 20:28	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/02/15 20:28	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/02/15 20:28	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 20:28	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/02/15 20:28	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/02/15 20:28	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/02/15 20:28	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/02/15 20:28	1

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# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 240-54814-11**

**Date Collected: 08/27/15 00:00**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/02/15 20:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		78 - 125		09/02/15 20:28	1
4-Bromofluorobenzene (Surr)	83		61 - 120		09/02/15 20:28	1
Toluene-d8 (Surr)	91		80 - 120		09/02/15 20:28	1
Dibromofluoromethane (Surr)	92		79 - 120		09/02/15 20:28	1

- 1
- 2
- 3
- 4
- 5
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- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Surrogate Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (78-125)	BFB (61-120)	TOL (80-120)	DBFM (79-120)
240-54814-1	GW-082715-JL-22	95	85	94	95
240-54814-2	GW-082715-JL-23	94	86	93	93
240-54814-3	GW-082715-JL-24	94	85	93	91
240-54814-4	GW-082715-JL-25	96	83	92	93
240-54814-5	GW-082715-JL-26	94	86	95	94
240-54814-6	GW-082715-JL-27	95	85	95	94
240-54814-7	GW-082715-JL-28	95	82	92	97
240-54814-8	GW-082715-JL-29	94	84	95	94
240-54814-9	GW-082715-JL-30	94	82	92	94
240-54814-10	GW-082715-JL-31	94	85	92	94
240-54814-11	TRIP BLANK	95	83	91	92
LCS 240-195997/4	Lab Control Sample	95	86	93	96
MB 240-195997/6	Method Blank	92	85	92	93

#### Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
TOL = Toluene-d8 (Surr)  
DBFM = Dibromofluoromethane (Surr)

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

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (29-110)	2FP (15-110)	TBP (21-128)	NBZ (31-110)	PHL (10-110)	TPH (31-115)
240-54814-1	GW-082715-JL-22	66	31	58	62	16	58
240-54814-2	GW-082715-JL-23	53	23	39	50	12	59
240-54814-3	GW-082715-JL-24	64	30	43	60	16	67
240-54814-4	GW-082715-JL-25	56	25	40	53	13	51
240-54814-5	GW-082715-JL-26	59	26	38	53	14	58
240-54814-6	GW-082715-JL-27	68	35	52	60	20	70
240-54814-7	GW-082715-JL-28	58	28	43	55	15	63
240-54814-8	GW-082715-JL-29	54	23	39	50	12	59
240-54814-9	GW-082715-JL-30	53	24	43	50	14	54
240-54814-10	GW-082715-JL-31	61	29	44	57	16	57
LCS 240-195560/24-A	Lab Control Sample	79	65	69	78	51	86
MB 240-195560/23-A	Method Blank	78	65	56	72	51	90

#### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)  
2FP = 2-Fluorophenol (Surr)  
TBP = 2,4,6-Tribromophenol (Surr)  
NBZ = Nitrobenzene-d5 (Surr)  
PHL = Phenol-d5 (Surr)  
TPH = Terphenyl-d14 (Surr)

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# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 240-195997/6**

**Matrix: Water**

**Analysis Batch: 195997**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	10	U	10	0.94	ug/L			09/02/15 16:17	1
Benzene	1.0	U	1.0	0.35	ug/L			09/02/15 16:17	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/02/15 16:17	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/02/15 16:17	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/02/15 16:17	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/02/15 16:17	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/02/15 16:17	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/02/15 16:17	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 16:17	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/02/15 16:17	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/02/15 16:17	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/02/15 16:17	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/02/15 16:17	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/02/15 16:17	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/02/15 16:17	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/02/15 16:17	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/02/15 16:17	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/02/15 16:17	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/02/15 16:17	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/02/15 16:17	1
2-Hexanone	10	U	10	0.48	ug/L			09/02/15 16:17	1
Methylene Chloride	0.616	J	1.0	0.33	ug/L			09/02/15 16:17	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/02/15 16:17	1
Styrene	1.0	U	1.0	0.45	ug/L			09/02/15 16:17	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/02/15 16:17	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/02/15 16:17	1
Toluene	1.0	U	1.0	0.23	ug/L			09/02/15 16:17	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/02/15 16:17	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/02/15 16:17	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/02/15 16:17	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/02/15 16:17	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/02/15 16:17	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/02/15 16:17	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/02/15 16:17	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/02/15 16:17	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/02/15 16:17	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/02/15 16:17	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/02/15 16:17	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/02/15 16:17	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/02/15 16:17	1
Methyl acetate	10	U	10	2.3	ug/L			09/02/15 16:17	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/02/15 16:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/02/15 16:17	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/02/15 16:17	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 16:17	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/02/15 16:17	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/02/15 16:17	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/02/15 16:17	1

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# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 240-195997/6**

**Matrix: Water**

**Analysis Batch: 195997**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/02/15 16:17	1
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/02/15 16:17	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	92		78 - 125		09/02/15 16:17	1
4-Bromofluorobenzene (Surr)	85		61 - 120		09/02/15 16:17	1
Toluene-d8 (Surr)	92		80 - 120		09/02/15 16:17	1
Dibromofluoromethane (Surr)	93		79 - 120		09/02/15 16:17	1

**Lab Sample ID: LCS 240-195997/4**

**Matrix: Water**

**Analysis Batch: 195997**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Acetone	20.0	17.1		ug/L		86	34 - 148
Benzene	10.0	10.2		ug/L		102	80 - 120
Dichlorobromomethane	10.0	9.72		ug/L		97	80 - 120
Bromoform	10.0	7.43		ug/L		74	56 - 122
Bromomethane	10.0	5.94		ug/L		59	38 - 132
2-Butanone (MEK)	20.0	19.1		ug/L		95	56 - 138
Carbon disulfide	10.0	9.06		ug/L		91	65 - 144
Carbon tetrachloride	10.0	10.9		ug/L		109	77 - 131
Chlorobenzene	10.0	9.84		ug/L		98	80 - 120
Chloroethane	10.0	4.68		ug/L		47	36 - 126
Chloroform	10.0	9.85		ug/L		99	80 - 120
Chloromethane	10.0	7.90		ug/L		79	48 - 133
1,1-Dichloroethane	10.0	10.2		ug/L		102	79 - 125
1,2-Dichloroethane	10.0	10.1		ug/L		101	80 - 120
1,1-Dichloroethene	10.0	9.83		ug/L		98	76 - 124
1,2-Dichloropropane	10.0	10.3		ug/L		103	78 - 124
1,2,4-Trimethylbenzene	10.0	9.26		ug/L		93	76 - 120
cis-1,3-Dichloropropene	10.0	9.55		ug/L		96	74 - 126
trans-1,3-Dichloropropene	10.0	9.38		ug/L		94	75 - 131
Ethylbenzene	10.0	9.93		ug/L		99	80 - 120
2-Hexanone	20.0	18.1		ug/L		91	55 - 141
Methylene Chloride	10.0	10.0		ug/L		100	77 - 129
4-Methyl-2-pentanone (MIBK)	20.0	19.5		ug/L		98	64 - 135
Styrene	10.0	8.95		ug/L		90	76 - 122
1,1,2,2-Tetrachloroethane	10.0	8.80		ug/L		88	71 - 123
Tetrachloroethene	10.0	9.61		ug/L		96	78 - 121
Toluene	10.0	9.65		ug/L		96	80 - 120
Trichloroethene	10.0	10.8		ug/L		108	80 - 121
1,3,5-Trimethylbenzene	10.0	9.35		ug/L		93	77 - 120
Vinyl chloride	10.0	6.81		ug/L		68	52 - 121
Xylenes, Total	20.0	19.3		ug/L		97	80 - 120
1,1,1-Trichloroethane	10.0	9.75		ug/L		97	77 - 123
1,1,2-Trichloroethane	10.0	9.51		ug/L		95	80 - 120
Cyclohexane	10.0	9.75		ug/L		98	60 - 140

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 240-195997/4**  
**Matrix: Water**  
**Analysis Batch: 195997**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	10.0	6.96		ug/L		70	50 - 132
Ethylene Dibromide	10.0	9.38		ug/L		94	80 - 120
Dichlorodifluoromethane	10.0	5.19		ug/L		52	23 - 136
cis-1,2-Dichloroethene	10.0	10.1		ug/L		101	79 - 120
trans-1,2-Dichloroethene	10.0	10.4		ug/L		104	80 - 124
Isopropylbenzene	10.0	9.20		ug/L		92	77 - 120
Methyl acetate	50.0	48.9		ug/L		98	67 - 131
Methyl tert-butyl ether	10.0	9.28		ug/L		93	69 - 121
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.5		ug/L		105	67 - 138
1,2,4-Trichlorobenzene	10.0	9.11		ug/L		91	61 - 120
1,2-Dichlorobenzene	10.0	9.62		ug/L		96	79 - 120
1,3-Dichlorobenzene	10.0	9.54		ug/L		95	79 - 120
1,4-Dichlorobenzene	10.0	9.41		ug/L		94	79 - 120
Trichlorofluoromethane	10.0	8.44		ug/L		84	61 - 133
Methylcyclohexane	10.0	9.70		ug/L		97	61 - 134
m-Xylene & p-Xylene	10.0	9.76		ug/L		98	80 - 120
o-Xylene	10.0	9.55		ug/L		95	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		78 - 125
4-Bromofluorobenzene (Surr)	86		61 - 120
Toluene-d8 (Surr)	93		80 - 120
Dibromofluoromethane (Surr)	96		79 - 120

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

**Lab Sample ID: MB 240-195560/23-A**  
**Matrix: Water**  
**Analysis Batch: 196528**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 195560**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	5.0	U	5.0	0.044	ug/L		08/31/15 10:13	09/08/15 08:05	1
Acenaphthylene	5.0	U	5.0	0.048	ug/L		08/31/15 10:13	09/08/15 08:05	1
Acetophenone	5.0	U	5.0	0.34	ug/L		08/31/15 10:13	09/08/15 08:05	1
Anthracene	5.0	U	5.0	0.088	ug/L		08/31/15 10:13	09/08/15 08:05	1
Atrazine	3.0	U	3.0	0.34	ug/L		08/31/15 10:13	09/08/15 08:05	1
Benzaldehyde	5.0	U	5.0	0.39	ug/L		08/31/15 10:13	09/08/15 08:05	1
Benzo[a]anthracene	1.0	U	1.0	0.030	ug/L		08/31/15 10:13	09/08/15 08:05	1
Benzo[b]fluoranthene	1.0	U	1.0	0.039	ug/L		08/31/15 10:13	09/08/15 08:05	1
Benzo[k]fluoranthene	1.0	U	1.0	0.045	ug/L		08/31/15 10:13	09/08/15 08:05	1
Benzo[g,h,i]perylene	1.0	U	1.0	0.046	ug/L		08/31/15 10:13	09/08/15 08:05	1
Benzo[a]pyrene	1.0	U	1.0	0.051	ug/L		08/31/15 10:13	09/08/15 08:05	1
Butyl benzyl phthalate	5.0	U	5.0	0.26	ug/L		08/31/15 10:13	09/08/15 08:05	1
1,1'-Biphenyl	5.0	U	5.0	0.13	ug/L		08/31/15 10:13	09/08/15 08:05	1
Bis(2-chloroethoxy)methane	5.0	U	5.0	0.32	ug/L		08/31/15 10:13	09/08/15 08:05	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.10	ug/L		08/31/15 10:13	09/08/15 08:05	1
Bis(2-ethylhexyl) phthalate	5.0	U	5.0	1.7	ug/L		08/31/15 10:13	09/08/15 08:05	1

TestAmerica Canton



# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

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

**Lab Sample ID: MB 240-195560/23-A**  
**Matrix: Water**  
**Analysis Batch: 196528**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 195560**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
4-Bromophenyl phenyl ether	5.0	U	5.0	0.22	ug/L		08/31/15 10:13	09/08/15 08:05	1
Caprolactam	10	U	10	0.20	ug/L		08/31/15 10:13	09/08/15 08:05	1
Carbazole	10	U	10	0.28	ug/L		08/31/15 10:13	09/08/15 08:05	1
4-Chloroaniline	10	U	10	0.21	ug/L		08/31/15 10:13	09/08/15 08:05	1
4-Chloro-3-methylphenol	5.0	U	5.0	0.21	ug/L		08/31/15 10:13	09/08/15 08:05	1
2-Chloronaphthalene	5.0	U	5.0	0.10	ug/L		08/31/15 10:13	09/08/15 08:05	1
2-Chlorophenol	5.0	U	5.0	0.29	ug/L		08/31/15 10:13	09/08/15 08:05	1
4-Chlorophenyl phenyl ether	5.0	U	5.0	0.30	ug/L		08/31/15 10:13	09/08/15 08:05	1
Chrysene	1.0	U	1.0	0.050	ug/L		08/31/15 10:13	09/08/15 08:05	1
2-Methylnaphthalene	5.0	U	5.0	0.090	ug/L		08/31/15 10:13	09/08/15 08:05	1
3 & 4 Methylphenol	5.0	U	5.0	0.80	ug/L		08/31/15 10:13	09/08/15 08:05	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.045	ug/L		08/31/15 10:13	09/08/15 08:05	1
Dibenzofuran	4.0	U	4.0	0.020	ug/L		08/31/15 10:13	09/08/15 08:05	1
3,3'-Dichlorobenzidine	1.0	U	1.0	0.37	ug/L		08/31/15 10:13	09/08/15 08:05	1
2,4-Dichlorophenol	10	U	10	0.19	ug/L		08/31/15 10:13	09/08/15 08:05	1
Diethyl phthalate	5.0	U	5.0	0.60	ug/L		08/31/15 10:13	09/08/15 08:05	1
2,4-Dimethylphenol	5.0	U	5.0	0.25	ug/L		08/31/15 10:13	09/08/15 08:05	1
Dimethyl phthalate	5.0	U	5.0	0.29	ug/L		08/31/15 10:13	09/08/15 08:05	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		08/31/15 10:13	09/08/15 08:05	1
2,4-Dinitrophenol	20	U	20	0.32	ug/L		08/31/15 10:13	09/08/15 08:05	1
2,4-Dinitrotoluene	5.0	U	5.0	0.25	ug/L		08/31/15 10:13	09/08/15 08:05	1
Di-n-butyl phthalate	5.0	U	5.0	1.7	ug/L		08/31/15 10:13	09/08/15 08:05	1
Di-n-octyl phthalate	5.0	U	5.0	0.23	ug/L		08/31/15 10:13	09/08/15 08:05	1
Fluoranthene	1.0	U	1.0	0.045	ug/L		08/31/15 10:13	09/08/15 08:05	1
Fluorene	5.0	U	5.0	0.041	ug/L		08/31/15 10:13	09/08/15 08:05	1
Hexachlorobenzene	0.20	U	0.20	0.085	ug/L		08/31/15 10:13	09/08/15 08:05	1
Hexachlorobutadiene	1.0	U	1.0	0.27	ug/L		08/31/15 10:13	09/08/15 08:05	1
Hexachlorocyclopentadiene	5.0	U	5.0	0.24	ug/L		08/31/15 10:13	09/08/15 08:05	1
Hexachloroethane	5.0	U	5.0	0.19	ug/L		08/31/15 10:13	09/08/15 08:05	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.043	ug/L		08/31/15 10:13	09/08/15 08:05	1
Isophorone	5.0	U	5.0	0.27	ug/L		08/31/15 10:13	09/08/15 08:05	1
2-Methylphenol	5.0	U	5.0	0.17	ug/L		08/31/15 10:13	09/08/15 08:05	1
Naphthalene	5.0	U	5.0	0.063	ug/L		08/31/15 10:13	09/08/15 08:05	1
2-Nitroaniline	20	U	20	0.21	ug/L		08/31/15 10:13	09/08/15 08:05	1
3-Nitroaniline	20	U	20	0.28	ug/L		08/31/15 10:13	09/08/15 08:05	1
4-Nitroaniline	20	U	20	0.22	ug/L		08/31/15 10:13	09/08/15 08:05	1
Nitrobenzene	3.0	U	3.0	0.040	ug/L		08/31/15 10:13	09/08/15 08:05	1
2-Nitrophenol	5.0	U	5.0	0.28	ug/L		08/31/15 10:13	09/08/15 08:05	1
4-Nitrophenol	20	U	20	0.29	ug/L		08/31/15 10:13	09/08/15 08:05	1
N-Nitrosodiphenylamine	5.0	U	5.0	0.31	ug/L		08/31/15 10:13	09/08/15 08:05	1
N-Nitrosodi-n-propylamine	5.0	U	5.0	0.24	ug/L		08/31/15 10:13	09/08/15 08:05	1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	0.40	ug/L		08/31/15 10:13	09/08/15 08:05	1
Pentachlorophenol	5.0	U	5.0	0.27	ug/L		08/31/15 10:13	09/08/15 08:05	1
Phenanthrene	2.0	U	2.0	0.062	ug/L		08/31/15 10:13	09/08/15 08:05	1
Phenol	5.0	U	5.0	0.60	ug/L		08/31/15 10:13	09/08/15 08:05	1
Pyrene	5.0	U	5.0	0.042	ug/L		08/31/15 10:13	09/08/15 08:05	1
2,4,5-Trichlorophenol	5.0	U	5.0	0.30	ug/L		08/31/15 10:13	09/08/15 08:05	1
2,4,6-Trichlorophenol	4.0	U	4.0	0.24	ug/L		08/31/15 10:13	09/08/15 08:05	1

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# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

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

**Lab Sample ID: MB 240-195560/23-A**  
**Matrix: Water**  
**Analysis Batch: 196528**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 195560**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dinitrotoluene	5.0	U	5.0	0.80	ug/L		08/31/15 10:13	09/08/15 08:05	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	78		29 - 110				08/31/15 10:13	09/08/15 08:05	1
2-Fluorophenol (Surr)	65		15 - 110				08/31/15 10:13	09/08/15 08:05	1
2,4,6-Tribromophenol (Surr)	56		21 - 128				08/31/15 10:13	09/08/15 08:05	1
Nitrobenzene-d5 (Surr)	72		31 - 110				08/31/15 10:13	09/08/15 08:05	1
Phenol-d5 (Surr)	51		10 - 110				08/31/15 10:13	09/08/15 08:05	1
Terphenyl-d14 (Surr)	90		31 - 115				08/31/15 10:13	09/08/15 08:05	1

**Lab Sample ID: LCS 240-195560/24-A**  
**Matrix: Water**  
**Analysis Batch: 196528**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 195560**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	20.0	16.1		ug/L		80	55 - 120
Acenaphthylene	20.0	16.1		ug/L		81	55 - 120
Acetophenone	20.0	15.9		ug/L		80	50 - 120
Anthracene	20.0	16.0		ug/L		80	56 - 120
Atrazine	40.0	34.2		ug/L		85	65 - 161
Benzaldehyde	40.0	30.5		ug/L		76	40 - 122
Benzo[a]anthracene	20.0	16.1		ug/L		80	46 - 120
Benzo[b]fluoranthene	20.0	18.3		ug/L		91	24 - 120
Benzo[k]fluoranthene	20.0	17.0		ug/L		85	30 - 120
Benzo[g,h,i]perylene	20.0	17.4		ug/L		87	24 - 126
Benzo[a]pyrene	20.0	17.6		ug/L		88	24 - 120
Butyl benzyl phthalate	20.0	16.1		ug/L		81	51 - 120
1,1'-Biphenyl	20.0	15.5		ug/L		78	52 - 120
Bis(2-chloroethoxy)methane	20.0	15.7		ug/L		78	48 - 120
Bis(2-chloroethyl)ether	20.0	15.3		ug/L		77	43 - 120
Bis(2-ethylhexyl) phthalate	20.0	15.9		ug/L		80	21 - 125
4-Bromophenyl phenyl ether	20.0	16.2		ug/L		81	47 - 120
Caprolactam	40.0	11.8		ug/L		30	10 - 120
Carbazole	20.0	17.3		ug/L		87	57 - 120
4-Chloroaniline	20.0	8.06	J	ug/L		40	15 - 120
4-Chloro-3-methylphenol	20.0	16.0		ug/L		80	45 - 120
2-Chloronaphthalene	20.0	15.7		ug/L		79	47 - 120
2-Chlorophenol	20.0	15.8		ug/L		79	43 - 120
4-Chlorophenyl phenyl ether	20.0	16.5		ug/L		83	47 - 120
Chrysene	20.0	16.8		ug/L		84	49 - 120
2-Methylnaphthalene	20.0	16.4		ug/L		82	52 - 120
3 & 4 Methylphenol	20.0	14.5		ug/L		72	34 - 120
Dibenz(a,h)anthracene	20.0	15.2		ug/L		76	24 - 125
Dibenzofuran	20.0	16.2		ug/L		81	56 - 120
3,3'-Dichlorobenzidine	40.0	27.0		ug/L		68	29 - 120
2,4-Dichlorophenol	20.0	16.0		ug/L		80	46 - 120
Diethyl phthalate	20.0	16.7		ug/L		83	58 - 120
2,4-Dimethylphenol	20.0	14.0		ug/L		70	38 - 120

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# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

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

**Lab Sample ID: LCS 240-195560/24-A**  
**Matrix: Water**  
**Analysis Batch: 196528**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 195560**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dimethyl phthalate	20.0	16.7		ug/L		84	59 - 120
4,6-Dinitro-2-methylphenol	40.0	31.4		ug/L		79	33 - 120
2,4-Dinitrophenol	40.0	20.9		ug/L		52	10 - 120
2,4-Dinitrotoluene	20.0	16.9		ug/L		84	52 - 120
Di-n-butyl phthalate	20.0	17.4		ug/L		87	57 - 122
Di-n-octyl phthalate	20.0	16.7		ug/L		84	21 - 122
Fluoranthene	20.0	17.7		ug/L		89	57 - 120
Fluorene	20.0	16.4		ug/L		82	56 - 120
Hexachlorobenzene	20.0	15.8		ug/L		79	52 - 120
Hexachlorobutadiene	20.0	15.6		ug/L		78	38 - 120
Hexachlorocyclopentadiene	20.0	9.45		ug/L		47	4 - 120
Hexachloroethane	20.0	15.0		ug/L		75	42 - 120
Indeno[1,2,3-cd]pyrene	20.0	15.4		ug/L		77	25 - 120
Isophorone	20.0	16.0		ug/L		80	48 - 123
2-Methylphenol	20.0	14.9		ug/L		75	38 - 120
Naphthalene	20.0	15.4		ug/L		77	52 - 120
2-Nitroaniline	20.0	16.1	J	ug/L		81	48 - 127
3-Nitroaniline	20.0	16.7	J	ug/L		83	52 - 120
4-Nitroaniline	20.0	17.7	J	ug/L		89	48 - 120
Nitrobenzene	20.0	15.1		ug/L		76	41 - 120
2-Nitrophenol	20.0	15.8		ug/L		79	42 - 120
4-Nitrophenol	40.0	21.5		ug/L		54	16 - 120
N-Nitrosodiphenylamine	40.0	31.7		ug/L		79	51 - 120
N-Nitrosodi-n-propylamine	20.0	15.5		ug/L		78	48 - 123
2,2'-oxybis[1-chloropropane]	20.0	14.4		ug/L		72	42 - 120
Pentachlorophenol	40.0	19.5		ug/L		49	14 - 120
Phenanthrene	20.0	16.1		ug/L		81	57 - 120
Phenol	20.0	10.3		ug/L		51	16 - 120
Pyrene	20.0	15.6		ug/L		78	50 - 120
2,4,5-Trichlorophenol	20.0	14.9		ug/L		74	47 - 120
2,4,6-Trichlorophenol	20.0	15.3		ug/L		76	43 - 120
2,6-Dinitrotoluene	20.0	17.1		ug/L		86	52 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	79		29 - 110
2-Fluorophenol (Surr)	65		15 - 110
2,4,6-Tribromophenol (Surr)	69		21 - 128
Nitrobenzene-d5 (Surr)	78		31 - 110
Phenol-d5 (Surr)	51		10 - 110
Terphenyl-d14 (Surr)	86		31 - 115

# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 240-195534/1-A**  
**Matrix: Water**  
**Analysis Batch: 195792**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 195534**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.272	J	5.0	0.18	ug/L		08/31/15 08:24	09/01/15 16:38	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:24	09/01/15 16:38	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:24	09/01/15 16:38	1
Cobalt	7.0	U	7.0	0.021	ug/L		08/31/15 08:24	09/01/15 16:38	1
Chromium	3.21	J	5.0	0.20	ug/L		08/31/15 08:24	09/01/15 16:38	1
Copper	2.0	U	2.0	0.75	ug/L		08/31/15 08:24	09/01/15 16:38	1
Manganese	15	U	15	1.1	ug/L		08/31/15 08:24	09/01/15 16:38	1
Nickel	20	U	20	0.23	ug/L		08/31/15 08:24	09/01/15 16:38	1
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:24	09/01/15 16:38	1
Lead	0.316	J	3.0	0.11	ug/L		08/31/15 08:24	09/01/15 16:38	1
Selenium	5.0	U	5.0	0.25	ug/L		08/31/15 08:24	09/01/15 16:38	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:24	09/01/15 16:38	1
Vanadium	1.03	J	4.0	0.23	ug/L		08/31/15 08:24	09/01/15 16:38	1
Zinc	20	U	20	7.3	ug/L		08/31/15 08:24	09/01/15 16:38	1
Barium	100	U	100	1.1	ug/L		08/31/15 08:24	09/01/15 16:38	1
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:24	09/01/15 16:38	1

**Lab Sample ID: LCS 240-195534/2-A**  
**Matrix: Water**  
**Analysis Batch: 195792**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 195534**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	1000	1030		ug/L		103	80 - 120
Beryllium	1000	1020		ug/L		102	80 - 120
Cadmium	1000	1120		ug/L		112	80 - 120
Cobalt	1000	1040		ug/L		104	80 - 120
Chromium	1000	1010		ug/L		101	80 - 120
Copper	1000	1110		ug/L		111	80 - 120
Manganese	1000	1040		ug/L		104	80 - 120
Nickel	1000	1090		ug/L		109	80 - 120
Antimony	100	99.7		ug/L		100	80 - 120
Lead	1000	1080		ug/L		108	80 - 120
Selenium	1000	985		ug/L		98	80 - 120
Thallium	250	259		ug/L		104	80 - 120
Vanadium	1000	970		ug/L		97	80 - 120
Zinc	1000	1140		ug/L		114	80 - 120
Barium	1000	1120		ug/L		112	80 - 120
Silver	100	104		ug/L		104	80 - 120

**Lab Sample ID: 240-54814-1 MS**  
**Matrix: Water**  
**Analysis Batch: 195792**

**Client Sample ID: GW-082715-JL-22**  
**Prep Type: Total Recoverable**  
**Prep Batch: 195534**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	5.7	B	1000	1020		ug/L		102	75 - 125
Beryllium	0.51	J	1000	962		ug/L		96	75 - 125
Cadmium	0.33	J	1000	1110		ug/L		111	75 - 125
Cobalt	2.6	J	1000	1010		ug/L		100	75 - 125

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: 240-54814-1 MS**  
**Matrix: Water**  
**Analysis Batch: 195792**

**Client Sample ID: GW-082715-JL-22**  
**Prep Type: Total Recoverable**  
**Prep Batch: 195534**

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec.	
	Result	Qualifier		Result	Qualifier				Limits	RPD
Chromium	560	B	1000	1510		ug/L		95	75 - 125	
Copper	19		1000	1090		ug/L		108	75 - 125	
Manganese	55		1000	1060		ug/L		101	75 - 125	
Nickel	24		1000	1090		ug/L		106	75 - 125	
Antimony	0.60	J	100	99.8		ug/L		99	75 - 125	
Lead	3.3	B	1000	1050		ug/L		105	75 - 125	
Selenium	3.0	J	1000	957		ug/L		95	75 - 125	
Thallium	0.21	J	250	250		ug/L		100	75 - 125	
Vanadium	25	B	1000	973		ug/L		95	75 - 125	
Zinc	38		1000	1140		ug/L		110	75 - 125	
Barium	59	J	1000	1200		ug/L		114	75 - 125	
Silver	0.036	J	100	100		ug/L		100	75 - 125	

**Lab Sample ID: 240-54814-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 195792**

**Client Sample ID: GW-082715-JL-22**  
**Prep Type: Total Recoverable**  
**Prep Batch: 195534**

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	%Rec.		RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits	RPD		
Arsenic	5.7	B	1000	1020		ug/L		102	75 - 125	0	20	
Beryllium	0.51	J	1000	974		ug/L		97	75 - 125	1	20	
Cadmium	0.33	J	1000	1100		ug/L		110	75 - 125	1	20	
Cobalt	2.6	J	1000	998		ug/L		100	75 - 125	1	20	
Chromium	560	B	1000	1560		ug/L		100	75 - 125	3	20	
Copper	19		1000	1080		ug/L		106	75 - 125	1	20	
Manganese	55		1000	1060		ug/L		101	75 - 125	0	20	
Nickel	24		1000	1090		ug/L		106	75 - 125	0	20	
Antimony	0.60	J	100	100		ug/L		99	75 - 125	0	20	
Lead	3.3	B	1000	1050		ug/L		104	75 - 125	0	20	
Selenium	3.0	J	1000	951		ug/L		95	75 - 125	1	20	
Thallium	0.21	J	250	252		ug/L		101	75 - 125	1	20	
Vanadium	25	B	1000	953		ug/L		93	75 - 125	2	20	
Zinc	38		1000	1130		ug/L		109	75 - 125	0	20	
Barium	59	J	1000	1180		ug/L		112	75 - 125	1	20	
Silver	0.036	J	100	101		ug/L		101	75 - 125	1	20	

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 240-195535/1-A**  
**Matrix: Water**  
**Analysis Batch: 195878**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 195535**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 12:20	1

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

## Method: 7470A - Mercury (CVAA) (Continued)

**Lab Sample ID: LCS 240-195535/2-A**  
**Matrix: Water**  
**Analysis Batch: 195878**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 195535**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	5.00	5.37		ug/L		107	80 - 120

**Lab Sample ID: 240-54814-1 MS**  
**Matrix: Water**  
**Analysis Batch: 195878**

**Client Sample ID: GW-082715-JL-22**  
**Prep Type: Total/NA**  
**Prep Batch: 195535**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.20	U L	1.00	0.959		ug/L		96	80 - 120

**Lab Sample ID: 240-54814-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 195878**

**Client Sample ID: GW-082715-JL-22**  
**Prep Type: Total/NA**  
**Prep Batch: 195535**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.20	U L	1.00	1.03		ug/L		103	80 - 120	7	20

## Method: 7196A - Chromium, Hexavalent

**Lab Sample ID: MB 240-195329/3**  
**Matrix: Water**  
**Analysis Batch: 195329**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/28/15 11:02	1

**Lab Sample ID: LCS 240-195329/4**  
**Matrix: Water**  
**Analysis Batch: 195329**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Cr (VI)	0.250	0.225		mg/L		90	80 - 118

**Lab Sample ID: 240-54814-4 MS**  
**Matrix: Water**  
**Analysis Batch: 195329**

**Client Sample ID: GW-082715-JL-25**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Cr (VI)	0.020	U	0.250	0.226		mg/L		91	41 - 136

**Lab Sample ID: 240-54814-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 195329**

**Client Sample ID: GW-082715-JL-25**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Cr (VI)	0.020	U	0.250	0.213		mg/L		85	41 - 136	6	20

TestAmerica Canton



# QC Association Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

## GC/MS VOA

### Analysis Batch: 195997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54814-1	GW-082715-JL-22	Total/NA	Water	8260B	
240-54814-2	GW-082715-JL-23	Total/NA	Water	8260B	
240-54814-3	GW-082715-JL-24	Total/NA	Water	8260B	
240-54814-4	GW-082715-JL-25	Total/NA	Water	8260B	
240-54814-5	GW-082715-JL-26	Total/NA	Water	8260B	
240-54814-6	GW-082715-JL-27	Total/NA	Water	8260B	
240-54814-7	GW-082715-JL-28	Total/NA	Water	8260B	
240-54814-8	GW-082715-JL-29	Total/NA	Water	8260B	
240-54814-9	GW-082715-JL-30	Total/NA	Water	8260B	
240-54814-10	GW-082715-JL-31	Total/NA	Water	8260B	
240-54814-11	TRIP BLANK	Total/NA	Water	8260B	
LCS 240-195997/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-195997/6	Method Blank	Total/NA	Water	8260B	

## GC/MS Semi VOA

### Prep Batch: 195560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54814-1	GW-082715-JL-22	Total/NA	Water	3510C	
240-54814-2	GW-082715-JL-23	Total/NA	Water	3510C	
240-54814-3	GW-082715-JL-24	Total/NA	Water	3510C	
240-54814-4	GW-082715-JL-25	Total/NA	Water	3510C	
240-54814-5	GW-082715-JL-26	Total/NA	Water	3510C	
240-54814-6	GW-082715-JL-27	Total/NA	Water	3510C	
240-54814-7	GW-082715-JL-28	Total/NA	Water	3510C	
240-54814-8	GW-082715-JL-29	Total/NA	Water	3510C	
240-54814-9	GW-082715-JL-30	Total/NA	Water	3510C	
240-54814-10	GW-082715-JL-31	Total/NA	Water	3510C	
LCS 240-195560/24-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-195560/23-A	Method Blank	Total/NA	Water	3510C	

### Analysis Batch: 196528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54814-1	GW-082715-JL-22	Total/NA	Water	8270C	195560
240-54814-2	GW-082715-JL-23	Total/NA	Water	8270C	195560
240-54814-3	GW-082715-JL-24	Total/NA	Water	8270C	195560
240-54814-4	GW-082715-JL-25	Total/NA	Water	8270C	195560
240-54814-5	GW-082715-JL-26	Total/NA	Water	8270C	195560
240-54814-6	GW-082715-JL-27	Total/NA	Water	8270C	195560
240-54814-7	GW-082715-JL-28	Total/NA	Water	8270C	195560
240-54814-8	GW-082715-JL-29	Total/NA	Water	8270C	195560
240-54814-9	GW-082715-JL-30	Total/NA	Water	8270C	195560
240-54814-10	GW-082715-JL-31	Total/NA	Water	8270C	195560
LCS 240-195560/24-A	Lab Control Sample	Total/NA	Water	8270C	195560
MB 240-195560/23-A	Method Blank	Total/NA	Water	8270C	195560

TestAmerica Canton

# QC Association Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

## Metals

### Prep Batch: 195534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54814-1	GW-082715-JL-22	Dissolved	Water	3005A	
240-54814-1	GW-082715-JL-22	Total Recoverable	Water	3005A	
240-54814-1 MS	GW-082715-JL-22	Total Recoverable	Water	3005A	
240-54814-1 MSD	GW-082715-JL-22	Total Recoverable	Water	3005A	
240-54814-2	GW-082715-JL-23	Dissolved	Water	3005A	
240-54814-2	GW-082715-JL-23	Total Recoverable	Water	3005A	
240-54814-3	GW-082715-JL-24	Dissolved	Water	3005A	
240-54814-3	GW-082715-JL-24	Total Recoverable	Water	3005A	
240-54814-4	GW-082715-JL-25	Dissolved	Water	3005A	
240-54814-4	GW-082715-JL-25	Total Recoverable	Water	3005A	
240-54814-5	GW-082715-JL-26	Dissolved	Water	3005A	
240-54814-5	GW-082715-JL-26	Total Recoverable	Water	3005A	
240-54814-6	GW-082715-JL-27	Dissolved	Water	3005A	
240-54814-6	GW-082715-JL-27	Total Recoverable	Water	3005A	
240-54814-7	GW-082715-JL-28	Dissolved	Water	3005A	
240-54814-7	GW-082715-JL-28	Total Recoverable	Water	3005A	
240-54814-8	GW-082715-JL-29	Dissolved	Water	3005A	
240-54814-8	GW-082715-JL-29	Total Recoverable	Water	3005A	
240-54814-9	GW-082715-JL-30	Dissolved	Water	3005A	
240-54814-9	GW-082715-JL-30	Total Recoverable	Water	3005A	
240-54814-10	GW-082715-JL-31	Dissolved	Water	3005A	
240-54814-10	GW-082715-JL-31	Total Recoverable	Water	3005A	
LCS 240-195534/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 240-195534/1-A	Method Blank	Total Recoverable	Water	3005A	

### Prep Batch: 195535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54814-1	GW-082715-JL-22	Dissolved	Water	7470A	
240-54814-1	GW-082715-JL-22	Total/NA	Water	7470A	
240-54814-1 MS	GW-082715-JL-22	Total/NA	Water	7470A	
240-54814-1 MSD	GW-082715-JL-22	Total/NA	Water	7470A	
240-54814-2	GW-082715-JL-23	Dissolved	Water	7470A	
240-54814-2	GW-082715-JL-23	Total/NA	Water	7470A	
240-54814-3	GW-082715-JL-24	Dissolved	Water	7470A	
240-54814-3	GW-082715-JL-24	Total/NA	Water	7470A	
240-54814-4	GW-082715-JL-25	Dissolved	Water	7470A	
240-54814-4	GW-082715-JL-25	Total/NA	Water	7470A	
240-54814-5	GW-082715-JL-26	Dissolved	Water	7470A	
240-54814-5	GW-082715-JL-26	Total/NA	Water	7470A	
240-54814-6	GW-082715-JL-27	Dissolved	Water	7470A	
240-54814-6	GW-082715-JL-27	Total/NA	Water	7470A	
240-54814-7	GW-082715-JL-28	Dissolved	Water	7470A	
240-54814-7	GW-082715-JL-28	Total/NA	Water	7470A	
240-54814-8	GW-082715-JL-29	Dissolved	Water	7470A	
240-54814-8	GW-082715-JL-29	Total/NA	Water	7470A	
240-54814-9	GW-082715-JL-30	Dissolved	Water	7470A	
240-54814-9	GW-082715-JL-30	Total/NA	Water	7470A	
240-54814-10	GW-082715-JL-31	Dissolved	Water	7470A	
240-54814-10	GW-082715-JL-31	Total/NA	Water	7470A	
LCS 240-195535/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 240-195535/1-A	Method Blank	Total/NA	Water	7470A	

TestAmerica Canton

# QC Association Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

## Analysis Batch: 195792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54814-1	GW-082715-JL-22	Dissolved	Water	6020	195534
240-54814-1	GW-082715-JL-22	Total Recoverable	Water	6020	195534
240-54814-1 MS	GW-082715-JL-22	Total Recoverable	Water	6020	195534
240-54814-1 MSD	GW-082715-JL-22	Total Recoverable	Water	6020	195534
240-54814-2	GW-082715-JL-23	Dissolved	Water	6020	195534
240-54814-2	GW-082715-JL-23	Total Recoverable	Water	6020	195534
240-54814-3	GW-082715-JL-24	Dissolved	Water	6020	195534
240-54814-3	GW-082715-JL-24	Total Recoverable	Water	6020	195534
240-54814-4	GW-082715-JL-25	Dissolved	Water	6020	195534
240-54814-4	GW-082715-JL-25	Total Recoverable	Water	6020	195534
240-54814-5	GW-082715-JL-26	Dissolved	Water	6020	195534
240-54814-5	GW-082715-JL-26	Total Recoverable	Water	6020	195534
240-54814-6	GW-082715-JL-27	Dissolved	Water	6020	195534
240-54814-6	GW-082715-JL-27	Total Recoverable	Water	6020	195534
240-54814-7	GW-082715-JL-28	Dissolved	Water	6020	195534
240-54814-7	GW-082715-JL-28	Total Recoverable	Water	6020	195534
240-54814-8	GW-082715-JL-29	Dissolved	Water	6020	195534
240-54814-8	GW-082715-JL-29	Total Recoverable	Water	6020	195534
240-54814-9	GW-082715-JL-30	Dissolved	Water	6020	195534
240-54814-9	GW-082715-JL-30	Total Recoverable	Water	6020	195534
240-54814-10	GW-082715-JL-31	Dissolved	Water	6020	195534
240-54814-10	GW-082715-JL-31	Total Recoverable	Water	6020	195534
LCS 240-195534/2-A	Lab Control Sample	Total Recoverable	Water	6020	195534
MB 240-195534/1-A	Method Blank	Total Recoverable	Water	6020	195534

## Analysis Batch: 195878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54814-1	GW-082715-JL-22	Dissolved	Water	7470A	195535
240-54814-1	GW-082715-JL-22	Total/NA	Water	7470A	195535
240-54814-1 MS	GW-082715-JL-22	Total/NA	Water	7470A	195535
240-54814-1 MSD	GW-082715-JL-22	Total/NA	Water	7470A	195535
240-54814-2	GW-082715-JL-23	Dissolved	Water	7470A	195535
240-54814-2	GW-082715-JL-23	Total/NA	Water	7470A	195535
240-54814-3	GW-082715-JL-24	Dissolved	Water	7470A	195535
240-54814-3	GW-082715-JL-24	Total/NA	Water	7470A	195535
240-54814-4	GW-082715-JL-25	Dissolved	Water	7470A	195535
240-54814-4	GW-082715-JL-25	Total/NA	Water	7470A	195535
240-54814-5	GW-082715-JL-26	Dissolved	Water	7470A	195535
240-54814-5	GW-082715-JL-26	Total/NA	Water	7470A	195535
240-54814-6	GW-082715-JL-27	Dissolved	Water	7470A	195535
240-54814-6	GW-082715-JL-27	Total/NA	Water	7470A	195535
240-54814-7	GW-082715-JL-28	Dissolved	Water	7470A	195535
240-54814-7	GW-082715-JL-28	Total/NA	Water	7470A	195535
240-54814-8	GW-082715-JL-29	Dissolved	Water	7470A	195535
240-54814-8	GW-082715-JL-29	Total/NA	Water	7470A	195535
240-54814-9	GW-082715-JL-30	Dissolved	Water	7470A	195535
240-54814-9	GW-082715-JL-30	Total/NA	Water	7470A	195535
240-54814-10	GW-082715-JL-31	Dissolved	Water	7470A	195535
240-54814-10	GW-082715-JL-31	Total/NA	Water	7470A	195535
LCS 240-195535/2-A	Lab Control Sample	Total/NA	Water	7470A	195535
MB 240-195535/1-A	Method Blank	Total/NA	Water	7470A	195535

TestAmerica Canton

# QC Association Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

## Metals (Continued)

### Analysis Batch: 195994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54814-4	GW-082715-JL-25	Total Recoverable	Water	6020	195534

## General Chemistry

### Analysis Batch: 195329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54814-1	GW-082715-JL-22	Total/NA	Water	7196A	
240-54814-2	GW-082715-JL-23	Total/NA	Water	7196A	
240-54814-3	GW-082715-JL-24	Total/NA	Water	7196A	
240-54814-4	GW-082715-JL-25	Total/NA	Water	7196A	
240-54814-4 MS	GW-082715-JL-25	Total/NA	Water	7196A	
240-54814-4 MSD	GW-082715-JL-25	Total/NA	Water	7196A	
240-54814-5	GW-082715-JL-26	Total/NA	Water	7196A	
240-54814-6	GW-082715-JL-27	Total/NA	Water	7196A	
240-54814-7	GW-082715-JL-28	Total/NA	Water	7196A	
240-54814-8	GW-082715-JL-29	Total/NA	Water	7196A	
240-54814-9	GW-082715-JL-30	Total/NA	Water	7196A	
240-54814-10	GW-082715-JL-31	Total/NA	Water	7196A	
LCS 240-195329/4	Lab Control Sample	Total/NA	Water	7196A	
MB 240-195329/3	Method Blank	Total/NA	Water	7196A	

### Analysis Batch: 196000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54814-1	GW-082715-JL-22	Total/NA	Water	7196A	
240-54814-2	GW-082715-JL-23	Total/NA	Water	7196A	
240-54814-3	GW-082715-JL-24	Total/NA	Water	7196A	
240-54814-4	GW-082715-JL-25	Total/NA	Water	7196A	
240-54814-5	GW-082715-JL-26	Total/NA	Water	7196A	
240-54814-6	GW-082715-JL-27	Total/NA	Water	7196A	
240-54814-7	GW-082715-JL-28	Total/NA	Water	7196A	
240-54814-8	GW-082715-JL-29	Total/NA	Water	7196A	
240-54814-9	GW-082715-JL-30	Total/NA	Water	7196A	
240-54814-10	GW-082715-JL-31	Total/NA	Water	7196A	

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-22**

**Lab Sample ID: 240-54814-1**

**Date Collected: 08/27/15 10:30**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195997	09/02/15 16:40	LRW	TAL CAN
Total/NA	Prep	3510C			195560	08/31/15 10:13	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196528	09/08/15 09:56	TMH	TAL CAN
Dissolved	Prep	3005A			195534	08/31/15 08:24	WKD	TAL CAN
Dissolved	Analysis	6020		1	195792	09/01/15 17:02	AS1	TAL CAN
Total Recoverable	Prep	3005A			195534	08/31/15 08:24	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195792	09/01/15 16:45	AS1	TAL CAN
Dissolved	Prep	7470A			195535	08/31/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195878	09/01/15 12:35	WAL	TAL CAN
Total/NA	Prep	7470A			195535	08/31/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195878	09/01/15 12:23	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195329	08/28/15 11:09	GNR	TAL CAN
Total/NA	Analysis	7196A		1	196000	09/02/15 13:14	KLC	TAL CAN

**Client Sample ID: GW-082715-JL-23**

**Lab Sample ID: 240-54814-2**

**Date Collected: 08/27/15 10:55**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195997	09/02/15 17:03	LRW	TAL CAN
Total/NA	Prep	3510C			195560	08/31/15 10:13	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196528	09/08/15 10:19	TMH	TAL CAN
Dissolved	Prep	3005A			195534	08/31/15 08:24	WKD	TAL CAN
Dissolved	Analysis	6020		1	195792	09/01/15 17:16	AS1	TAL CAN
Total Recoverable	Prep	3005A			195534	08/31/15 08:24	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195792	09/01/15 17:12	AS1	TAL CAN
Dissolved	Prep	7470A			195535	08/31/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195878	09/01/15 12:42	WAL	TAL CAN
Total/NA	Prep	7470A			195535	08/31/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195878	09/01/15 12:39	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195329	08/28/15 11:08	GNR	TAL CAN
Total/NA	Analysis	7196A		1	196000	09/02/15 13:14	KLC	TAL CAN

**Client Sample ID: GW-082715-JL-24**

**Lab Sample ID: 240-54814-3**

**Date Collected: 08/27/15 11:40**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195997	09/02/15 17:25	LRW	TAL CAN
Total/NA	Prep	3510C			195560	08/31/15 10:13	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196528	09/08/15 10:41	TMH	TAL CAN
Dissolved	Prep	3005A			195534	08/31/15 08:24	WKD	TAL CAN

TestAmerica Canton

# Lab Chronicle

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-24**

**Lab Sample ID: 240-54814-3**

**Date Collected: 08/27/15 11:40**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Analysis	6020		1	195792	09/01/15 17:23	AS1	TAL CAN
Total Recoverable	Prep	3005A			195534	08/31/15 08:24	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195792	09/01/15 17:20	AS1	TAL CAN
Dissolved	Prep	7470A			195535	08/31/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195878	09/01/15 12:50	WAL	TAL CAN
Total/NA	Prep	7470A			195535	08/31/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195878	09/01/15 12:45	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195329	08/28/15 11:07	GNR	TAL CAN
Total/NA	Analysis	7196A		1	196000	09/02/15 13:14	KLC	TAL CAN

**Client Sample ID: GW-082715-JL-25**

**Lab Sample ID: 240-54814-4**

**Date Collected: 08/27/15 12:20**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195997	09/02/15 17:48	LRW	TAL CAN
Total/NA	Prep	3510C			195560	08/31/15 10:13	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196528	09/08/15 11:03	TMH	TAL CAN
Dissolved	Prep	3005A			195534	08/31/15 08:24	WKD	TAL CAN
Dissolved	Analysis	6020		1	195792	09/01/15 17:31	AS1	TAL CAN
Total Recoverable	Prep	3005A			195534	08/31/15 08:24	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195792	09/01/15 17:27	AS1	TAL CAN
Total Recoverable	Prep	3005A			195534	08/31/15 08:24	WKD	TAL CAN
Total Recoverable	Analysis	6020		5	195994	09/02/15 13:16	AS1	TAL CAN
Dissolved	Prep	7470A			195535	08/31/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195878	09/01/15 12:53	WAL	TAL CAN
Total/NA	Prep	7470A			195535	08/31/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195878	09/01/15 12:44	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195329	08/28/15 11:04	GNR	TAL CAN
Total/NA	Analysis	7196A		1	196000	09/02/15 13:14	KLC	TAL CAN

**Client Sample ID: GW-082715-JL-26**

**Lab Sample ID: 240-54814-5**

**Date Collected: 08/27/15 14:30**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195997	09/02/15 18:11	LRW	TAL CAN
Total/NA	Prep	3510C			195560	08/31/15 10:13	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196528	09/08/15 11:26	TMH	TAL CAN
Dissolved	Prep	3005A			195534	08/31/15 08:24	WKD	TAL CAN
Dissolved	Analysis	6020		1	195792	09/01/15 17:38	AS1	TAL CAN
Total Recoverable	Prep	3005A			195534	08/31/15 08:24	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195792	09/01/15 17:34	AS1	TAL CAN

TestAmerica Canton



# Lab Chronicle

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	7470A			195535	08/31/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195878	09/01/15 12:56	WAL	TAL CAN
Total/NA	Prep	7470A			195535	08/31/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195878	09/01/15 12:55	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195329	08/28/15 11:10	GNR	TAL CAN
Total/NA	Analysis	7196A		1	196000	09/02/15 13:14	KLC	TAL CAN

**Client Sample ID: GW-082715-JL-27**

**Lab Sample ID: 240-54814-6**

**Date Collected: 08/27/15 13:40**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195997	09/02/15 18:34	LRW	TAL CAN
Total/NA	Prep	3510C			195560	08/31/15 10:13	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196528	09/08/15 11:48	TMH	TAL CAN
Dissolved	Prep	3005A			195534	08/31/15 08:25	WKD	TAL CAN
Dissolved	Analysis	6020		1	195792	09/01/15 17:45	AS1	TAL CAN
Total Recoverable	Prep	3005A			195534	08/31/15 08:25	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195792	09/01/15 17:42	AS1	TAL CAN
Dissolved	Prep	7470A			195535	08/31/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195878	09/01/15 12:58	WAL	TAL CAN
Total/NA	Prep	7470A			195535	08/31/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195878	09/01/15 12:52	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195329	08/28/15 11:11	GNR	TAL CAN
Total/NA	Analysis	7196A		1	196000	09/02/15 13:14	KLC	TAL CAN

**Client Sample ID: GW-082715-JL-28**

**Lab Sample ID: 240-54814-7**

**Date Collected: 08/27/15 15:45**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195997	09/02/15 18:57	LRW	TAL CAN
Total/NA	Prep	3510C			195560	08/31/15 10:13	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196528	09/08/15 12:11	TMH	TAL CAN
Dissolved	Prep	3005A			195534	08/31/15 08:25	WKD	TAL CAN
Dissolved	Analysis	6020		1	195792	09/01/15 18:00	AS1	TAL CAN
Total Recoverable	Prep	3005A			195534	08/31/15 08:25	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195792	09/01/15 17:56	AS1	TAL CAN
Dissolved	Prep	7470A			195535	08/31/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195878	09/01/15 12:27	WAL	TAL CAN
Total/NA	Prep	7470A			195535	08/31/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195878	09/01/15 12:32	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195329	08/28/15 11:12	GNR	TAL CAN
Total/NA	Analysis	7196A		1	196000	09/02/15 13:14	KLC	TAL CAN

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

**Client Sample ID: GW-082715-JL-29**

**Lab Sample ID: 240-54814-8**

**Date Collected: 08/27/15 16:20**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195997	09/02/15 19:20	LRW	TAL CAN
Total/NA	Prep	3510C			195560	08/31/15 10:13	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196528	09/08/15 12:33	TMH	TAL CAN
Dissolved	Prep	3005A			195534	08/31/15 08:25	WKD	TAL CAN
Dissolved	Analysis	6020		1	195792	09/01/15 18:07	AS1	TAL CAN
Total Recoverable	Prep	3005A			195534	08/31/15 08:25	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195792	09/01/15 18:03	AS1	TAL CAN
Dissolved	Prep	7470A			195535	08/31/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195878	09/01/15 12:34	WAL	TAL CAN
Total/NA	Prep	7470A			195535	08/31/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195878	09/01/15 13:01	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195329	08/28/15 11:13	GNR	TAL CAN
Total/NA	Analysis	7196A		1	196000	09/02/15 13:14	KLC	TAL CAN

**Client Sample ID: GW-082715-JL-30**

**Lab Sample ID: 240-54814-9**

**Date Collected: 08/27/15 16:40**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195997	09/02/15 19:43	LRW	TAL CAN
Total/NA	Prep	3510C			195560	08/31/15 10:13	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196528	09/08/15 13:40	TMH	TAL CAN
Dissolved	Prep	3005A			195534	08/31/15 08:25	WKD	TAL CAN
Dissolved	Analysis	6020		1	195792	09/01/15 18:14	AS1	TAL CAN
Total Recoverable	Prep	3005A			195534	08/31/15 08:25	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195792	09/01/15 18:11	AS1	TAL CAN
Dissolved	Prep	7470A			195535	08/31/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195878	09/01/15 12:36	WAL	TAL CAN
Total/NA	Prep	7470A			195535	08/31/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195878	09/01/15 13:00	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195329	08/28/15 11:15	GNR	TAL CAN
Total/NA	Analysis	7196A		1	196000	09/02/15 13:14	KLC	TAL CAN

**Client Sample ID: GW-082715-JL-31**

**Lab Sample ID: 240-54814-10**

**Date Collected: 08/27/15 16:55**

**Matrix: Water**

**Date Received: 08/28/15 09:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195997	09/02/15 20:05	LRW	TAL CAN
Total/NA	Prep	3510C			195560	08/31/15 10:13	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196528	09/08/15 14:03	TMH	TAL CAN
Dissolved	Prep	3005A			195534	08/31/15 08:25	WKD	TAL CAN
Dissolved	Analysis	6020		1	195792	09/01/15 18:22	AS1	TAL CAN

TestAmerica Canton

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			195534	08/31/15 08:25	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195792	09/01/15 18:18	AS1	TAL CAN
Dissolved	Prep	7470A			195535	08/31/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195878	09/01/15 12:41	WAL	TAL CAN
Total/NA	Prep	7470A			195535	08/31/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195878	09/01/15 12:38	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195329	08/28/15 11:14	GNR	TAL CAN
Total/NA	Analysis	7196A		1	196000	09/02/15 13:14	KLC	TAL CAN

**Client Sample ID: TRIP BLANK**

**Date Collected: 08/27/15 00:00**

**Date Received: 08/28/15 09:20**

**Lab Sample ID: 240-54814-11**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195997	09/02/15 20:28	LRW	TAL CAN

**Laboratory References:**

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

# Certification Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

## Laboratory: TestAmerica Canton

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999518190	08-31-15 *

The following analytes are included in this report, but are not certified under this certification:

Analysis Method	Prep Method	Matrix	Analyte
6020	3005A	Water	Antimony
6020	3005A	Water	Arsenic
6020	3005A	Water	Barium
6020	3005A	Water	Beryllium
6020	3005A	Water	Cadmium
6020	3005A	Water	Chromium
6020	3005A	Water	Cobalt
6020	3005A	Water	Copper
6020	3005A	Water	Lead
6020	3005A	Water	Manganese
6020	3005A	Water	Nickel
6020	3005A	Water	Selenium
6020	3005A	Water	Silver
6020	3005A	Water	Thallium
6020	3005A	Water	Vanadium
6020	3005A	Water	Zinc
7470A	7470A	Water	Mercury
8260B		Water	1,1,1-Trichloroethane
8260B		Water	1,1,2,2-Tetrachloroethane
8260B		Water	1,1,2-Trichloroethane
8260B		Water	1,1-Dichloroethane
8260B		Water	1,1-Dichloroethene
8260B		Water	1,2,4-Trichlorobenzene
8260B		Water	1,2,4-Trimethylbenzene
8260B		Water	1,2-Dibromo-3-Chloropropane
8260B		Water	1,2-Dichlorobenzene
8260B		Water	1,2-Dichloroethane
8260B		Water	1,2-Dichloropropane
8260B		Water	1,3,5-Trimethylbenzene
8260B		Water	1,3-Dichlorobenzene
8260B		Water	1,4-Dichlorobenzene
8260B		Water	2-Butanone (MEK)
8260B		Water	2-Hexanone
8260B		Water	4-Methyl-2-pentanone (MIBK)
8260B		Water	Acetone
8260B		Water	Benzene
8260B		Water	Bromoform
8260B		Water	Bromomethane
8260B		Water	Carbon disulfide
8260B		Water	Carbon tetrachloride
8260B		Water	Chlorobenzene
8260B		Water	Chlorodibromomethane
8260B		Water	Chloroethane
8260B		Water	Chloroform
8260B		Water	Chloromethane
8260B		Water	cis-1,2-Dichloroethene

\* Certification renewal pending - certification considered valid.

# Certification Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

## Laboratory: TestAmerica Canton (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999518190	08-31-15 *

The following analytes are included in this report, but are not certified under this certification:

Analysis Method	Prep Method	Matrix	Analyte
8260B		Water	cis-1,3-Dichloropropene
8260B		Water	Dichlorobromomethane
8260B		Water	Dichlorodifluoromethane
8260B		Water	Ethylbenzene
8260B		Water	Ethylene Dibromide
8260B		Water	Isopropylbenzene
8260B		Water	Methyl tert-butyl ether
8260B		Water	Methylene Chloride
8260B		Water	Styrene
8260B		Water	Tetrachloroethene
8260B		Water	Toluene
8260B		Water	trans-1,2-Dichloroethene
8260B		Water	trans-1,3-Dichloropropene
8260B		Water	Trichloroethene
8260B		Water	Trichlorofluoromethane
8260B		Water	Vinyl chloride
8260B		Water	Xylenes, Total
8270C	3510C	Water	1,1'-Biphenyl
8270C	3510C	Water	2,2'-oxybis[1-chloropropane]
8270C	3510C	Water	2,4,5-Trichlorophenol
8270C	3510C	Water	2,4,6-Trichlorophenol
8270C	3510C	Water	2,4-Dichlorophenol
8270C	3510C	Water	2,4-Dimethylphenol
8270C	3510C	Water	2,4-Dinitrophenol
8270C	3510C	Water	2,4-Dinitrotoluene
8270C	3510C	Water	2,6-Dinitrotoluene
8270C	3510C	Water	2-Chloronaphthalene
8270C	3510C	Water	2-Chlorophenol
8270C	3510C	Water	2-Methylnaphthalene
8270C	3510C	Water	2-Methylphenol
8270C	3510C	Water	2-Nitroaniline
8270C	3510C	Water	2-Nitrophenol
8270C	3510C	Water	3 & 4 Methylphenol
8270C	3510C	Water	3,3'-Dichlorobenzidine
8270C	3510C	Water	3-Nitroaniline
8270C	3510C	Water	4,6-Dinitro-2-methylphenol
8270C	3510C	Water	4-Bromophenyl phenyl ether
8270C	3510C	Water	4-Chloro-3-methylphenol
8270C	3510C	Water	4-Chloroaniline
8270C	3510C	Water	4-Chlorophenyl phenyl ether
8270C	3510C	Water	4-Nitrophenol
8270C	3510C	Water	Acenaphthene
8270C	3510C	Water	Acenaphthylene
8270C	3510C	Water	Acetophenone
8270C	3510C	Water	Anthracene
8270C	3510C	Water	Benzo[a]anthracene

\* Certification renewal pending - certification considered valid.

# Certification Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54814-1

## Laboratory: TestAmerica Canton (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999518190	08-31-15 *

The following analytes are included in this report, but are not certified under this certification:

Analysis Method	Prep Method	Matrix	Analyte
8270C	3510C	Water	Benzo[a]pyrene
8270C	3510C	Water	Benzo[b]fluoranthene
8270C	3510C	Water	Benzo[g,h,i]perylene
8270C	3510C	Water	Benzo[k]fluoranthene
8270C	3510C	Water	Bis(2-chloroethoxy)methane
8270C	3510C	Water	Bis(2-chloroethyl)ether
8270C	3510C	Water	Bis(2-ethylhexyl) phthalate
8270C	3510C	Water	Butyl benzyl phthalate
8270C	3510C	Water	Carbazole
8270C	3510C	Water	Chrysene
8270C	3510C	Water	Dibenz(a,h)anthracene
8270C	3510C	Water	Dibenzofuran
8270C	3510C	Water	Diethyl phthalate
8270C	3510C	Water	Dimethyl phthalate
8270C	3510C	Water	Di-n-butyl phthalate
8270C	3510C	Water	Di-n-octyl phthalate
8270C	3510C	Water	Fluoranthene
8270C	3510C	Water	Fluorene
8270C	3510C	Water	Hexachlorobenzene
8270C	3510C	Water	Hexachlorobutadiene
8270C	3510C	Water	Hexachlorocyclopentadiene
8270C	3510C	Water	Hexachloroethane
8270C	3510C	Water	Indeno[1,2,3-cd]pyrene
8270C	3510C	Water	Isophorone
8270C	3510C	Water	Naphthalene
8270C	3510C	Water	Nitrobenzene
8270C	3510C	Water	N-Nitrosodi-n-propylamine
8270C	3510C	Water	N-Nitrosodiphenylamine
8270C	3510C	Water	Pentachlorophenol
8270C	3510C	Water	Phenanthrene
8270C	3510C	Water	Phenol
8270C	3510C	Water	Pyrene

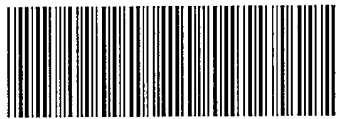
The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
7196A		Water	Cr (III)
7196A		Water	Cr (VI)
8260B		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
8260B		Water	Cyclohexane
8260B		Water	Methyl acetate
8260B		Water	Methylcyclohexane
8270C	3510C	Water	4-Nitroaniline
8270C	3510C	Water	Atrazine
8270C	3510C	Water	Benzaldehyde
8270C	3510C	Water	Caprolactam

\* Certification renewal pending - certification considered valid.



**CHAIN OF CUSTODY  
AND  
RECEIVING DOCUMENTS**



240-54814 Chain of Custody

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241C34 166C26 241C34 201C30

**CONESTOGA-ROVERS & ASSOCIATES**  
8615 W. Bryn Mawr Avenue  
Chicago, Illinois 60631  
(773)380-9933 phone  
(773)380-6421 fax



SHIPPED TO  
(Laboratory Name):

TEST AMERICA - NORTH CANTON

4 COOLERS

REFERENCE NUMBER:  
58505-01-20402

PROJECT NAME: GM JAYESVILLE

CHAIN-OF-CUSTODY RECORD

PRINTED NAME: JEFF KOLODZIEJSKI

SAMPLER'S SIGNATURE: *Jeff Kolodzieski*

SEQ. No.	DATE	TIME	SAMPLE IDENTIFICATION No.	SAMPLE MATRIX	No. OF CONTAINERS	PARAMETERS	REMARKS
	8/21/15	1030	GM-082715-JL-22	WATER	8	TOX SVCS THE TOTAL METALS THE TOX METALS THE TOX CHROMIUM HEXAVALENT CHROMIUM	
		1055	23		8		
		1140	24		8		
		1220	25		8		
		1430	26		8		
		1340	27		8		
		1545	28		8		
		1620	29		8		
		1640	30		8		
		1655	31		8		
			TRIP BLANK		1		24 HOUR HOLD TIME ON HEXAVALENT CHROMIUM
TOTAL NUMBER OF CONTAINERS					81		

RELINQUISHED BY: <i>Jeff Kolodzieski</i>	DATE: 8/27/15	RECEIVED BY: ②	DATE:
	TIME: 1830		TIME:
RELINQUISHED BY:	DATE:	RECEIVED BY: ③	DATE:
	TIME:		TIME:
RELINQUISHED BY:	DATE:	RECEIVED BY: ④	DATE:
	TIME:		TIME:

METHOD OF SHIPMENT: Fed Ex

AIR BILL No. 8085 1559 0505

- White - Fully Executed Copy
- Yellow - Receiving Laboratory Copy
- Pink - Shipper Copy
- Goldenrod - Sampler Copy

SAMPLE TEAM:  
J. KOLODZIEJSKI  
J. LUZMICK

RECEIVED FOR LABORATORY BY:  
*Jeff Kolodzieski*  
DATE: 8/28/15 TIME: 920

6880

1001-00(SOURCE)GN-CO004



Login # : 54814

TestAmerica Canton Sample Receipt Form/Narrative

Canton Facility

Client: Cometega-Rousskas Site Name \_\_\_\_\_

Cooler unpacked by: Alex Culer

Cooler Received on 8/28/15 Opened on 8/28/15

FedEx: 1<sup>st</sup> Grd  UPS FAS Stetson Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time \_\_\_\_\_ Storage Location \_\_\_\_\_

TestAmerica Cooler # \_\_\_\_\_ Foam Box  Client Cooler Box Other \_\_\_\_\_  
Packing material used: Bubble Wrap  Foam Plastic Bag None Other \_\_\_\_\_  
COOLANT: Wet Ice  Blue Ice Dry Ice Water None

- Cooler temperature upon receipt  
 IR GUN# A (CF +1.0 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C  
 IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C  
 IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C  
 IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C

See Multiple Cooler Form

- Were custody seals on the outside of the cooler(s)? If Yes Quantity \_\_\_\_\_ Yes  No 
  - Were custody seals on the outside of the cooler(s) signed & dated? Yes  No
  - Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes  No
- Shippers' packing slip attached to the cooler(s)?  Yes  No
- Did custody papers accompany the sample(s)?  Yes  No
- Were the custody papers relinquished & signed in the appropriate place?  Yes  No
- Was/were the person(s) who collected the samples clearly identified on the COC?  Yes  No
- Did all bottles arrive in good condition (Unbroken)?  Yes  No
- Could all bottle labels be reconciled with the COC?  Yes  No
- Were correct bottle(s) used for the test(s) indicated?  Yes  No
- Sufficient quantity received to perform indicated analyses?  Yes  No
- Were sample(s) at the correct pH upon receipt? Yes  No  NA pH Strip Lot# HC432654
- Were VOAs on the COC?  Yes  No
- Were air bubbles >6 mm in any VOA vials? Yes  No  NA
- Was a trip blank present in the cooler(s)? Trip Blank Lot # B585501B Yes  No

Contacted PM \_\_\_\_\_ Date \_\_\_\_\_ by \_\_\_\_\_ via Verbal Voice Mail Other  
Concerning \_\_\_\_\_

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: \_\_\_\_\_

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15. SAMPLE CONDITION

Sample(s) \_\_\_\_\_ were received after the recommended holding time had expired.  
Sample(s) \_\_\_\_\_ were received in a broken container.  
Sample(s) \_\_\_\_\_ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) GW-082713-JL-27 total metals were further preserved in the laboratory.  
Time preserved: \_\_\_\_\_ Preservative(s) added/Lot number(s): \_\_\_\_\_



Temperature readings: \_\_\_\_\_

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container pH</u>	<u>Preservative Added (mls)</u>	<u>Lot #</u>
GW-082715-JL-22	240-54814-E-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082715-JL-22	240-54814-F-1	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082715-JL-23	240-54814-E-2	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082715-JL-23	240-54814-F-2	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082715-JL-24	240-54814-E-3	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082715-JL-24	240-54814-F-3	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082715-JL-25	240-54814-E-4	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082715-JL-25	240-54814-F-4	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082715-JL-26	240-54814-E-5	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082715-JL-26	240-54814-F-5	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082715-JL-27	240-54814-E-6	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082715-JL-27	240-54814-F-6	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082715-JL-28	240-54814-E-7	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082715-JL-28	240-54814-F-7	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082715-JL-29	240-54814-E-8	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082715-JL-29	240-54814-F-8	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082715-JL-30	240-54814-E-9	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082715-JL-30	240-54814-F-9	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082715-JL-31	240-54814-E-10	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082715-JL-31	240-54814-F-10	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-54873-1

Client Project/Site: 58505, Janesville WI, SSOW 108011

For:

GHD Services Inc.

45 Farmington Valley Drive

Plainville, Connecticut 06062

Attn: Ms. Kathy Shaw



Authorized for release by:

9/14/2015 8:11:54 AM

Denise Heckler, Project Manager II

(330)966-9477

[denise.heckler@testamericainc.com](mailto:denise.heckler@testamericainc.com)



### LINKS

Review your project  
results through

TotalAccess

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.

### Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

### General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Job ID: 240-54873-1**

**Laboratory: TestAmerica Canton**

**Narrative**

## CASE NARRATIVE

**Client: GHD Services Inc.**

**Project: 58505, Janesville WI, SSOW 108011**

**Report Number: 240-54873-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

### **RECEIPT**

The samples were received on 08/29/2015; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 3.4° C, 3.6° C, 4.0° C and 4.2° C.

### **VOLATILE ORGANIC COMPOUNDS (GCMS)**

Samples GW-082815-JL-32 (240-54873-1), GW-082815-JL-33 (240-54873-2), GW-082815-JL-34 (240-54873-3), GW-082815-JL-35 (240-54873-4), GW-082815-JL-36 (240-54873-5), GW-082815-JL-37 (240-54873-6), GW-082815-JL-38 (240-54873-7), GW-082815-JL-39 (240-54873-8), GW-082815-JL-40 (240-54873-9), GW-082815-JL-41 (240-54873-10) and TRIP BLANK (240-54873-11) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 09/02/2015 and 09/03/2015.

Methylene Chloride was detected in method blank MB 240-195997/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Methylene Chloride was detected in method blank MB 240-196179/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

# Case Narrative

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

## Job ID: 240-54873-1 (Continued)

### Laboratory: TestAmerica Canton (Continued)

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

#### **SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)**

Samples GW-082815-JL-32 (240-54873-1), GW-082815-JL-33 (240-54873-2), GW-082815-JL-34 (240-54873-3), GW-082815-JL-35 (240-54873-4), GW-082815-JL-36 (240-54873-5), GW-082815-JL-37 (240-54873-6), GW-082815-JL-38 (240-54873-7), GW-082815-JL-39 (240-54873-8), GW-082815-JL-40 (240-54873-9) and GW-082815-JL-41 (240-54873-10) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 08/31/2015 and 09/01/2015 and analyzed on 09/04/2015 and 09/08/2015.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

4-Chloroaniline and Caprolactam failed the recovery criteria low for the MS of sample GW-082815-JL-34MS (240-54873-3) in batch 240-196375.

4-Chloroaniline and Caprolactam failed the recovery criteria low for the MSD of sample GW-082815-JL-34MSD (240-54873-3) in batch 240-196375.

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

#### **DISSOLVED METALS (ICPMS)**

Samples GW-082815-JL-32 (240-54873-1), GW-082815-JL-33 (240-54873-2), GW-082815-JL-34 (240-54873-3), GW-082815-JL-35 (240-54873-4), GW-082815-JL-36 (240-54873-5), GW-082815-JL-37 (240-54873-6), GW-082815-JL-38 (240-54873-7), GW-082815-JL-39 (240-54873-8), GW-082815-JL-40 (240-54873-9) and GW-082815-JL-41 (240-54873-10) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 08/31/2015 and analyzed on 09/02/2015.

Some requested practical quantitation limits (PQLs) fall below the laboratory's verified standard quantitation limit. The continuing calibration blanks and method blanks may not support the lower PQL.

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

#### **TOTAL RECOVERABLE METALS (ICPMS)**

Samples GW-082815-JL-32 (240-54873-1), GW-082815-JL-33 (240-54873-2), GW-082815-JL-34 (240-54873-3), GW-082815-JL-35 (240-54873-4), GW-082815-JL-36 (240-54873-5), GW-082815-JL-37 (240-54873-6), GW-082815-JL-38 (240-54873-7), GW-082815-JL-39 (240-54873-8), GW-082815-JL-40 (240-54873-9) and GW-082815-JL-41 (240-54873-10) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 08/31/2015 and analyzed on 09/02/2015.

Some requested practical quantitation limits (PQLs) fall below the laboratory's verified standard quantitation limit. The continuing calibration blanks and method blanks may not support the lower PQL.

Arsenic, Chromium, Selenium and Vanadium were detected in method blank MB 240-195540/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

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

#### **HEXAVALENT CHROMIUM**

Samples GW-082815-JL-32 (240-54873-1), GW-082815-JL-33 (240-54873-2), GW-082815-JL-34 (240-54873-3), GW-082815-JL-35 (240-54873-4), GW-082815-JL-36 (240-54873-5), GW-082815-JL-37 (240-54873-6), GW-082815-JL-38 (240-54873-7), GW-082815-JL-39 (240-54873-8), GW-082815-JL-40 (240-54873-9) and GW-082815-JL-41 (240-54873-10) were analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples were analyzed on 08/29/2015.

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

# Case Narrative

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

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## Job ID: 240-54873-1 (Continued)

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### Laboratory: TestAmerica Canton (Continued)

#### **DISSOLVED MERCURY (CVAA)**

Samples GW-082815-JL-32 (240-54873-1), GW-082815-JL-33 (240-54873-2), GW-082815-JL-34 (240-54873-3), GW-082815-JL-35 (240-54873-4), GW-082815-JL-36 (240-54873-5), GW-082815-JL-37 (240-54873-6), GW-082815-JL-38 (240-54873-7), GW-082815-JL-39 (240-54873-8), GW-082815-JL-40 (240-54873-9) and GW-082815-JL-41 (240-54873-10) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 08/31/2015 and analyzed on 09/01/2015.

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

#### **TOTAL MERCURY**

Samples GW-082815-JL-32 (240-54873-1), GW-082815-JL-33 (240-54873-2), GW-082815-JL-34 (240-54873-3), GW-082815-JL-35 (240-54873-4), GW-082815-JL-36 (240-54873-5), GW-082815-JL-37 (240-54873-6), GW-082815-JL-38 (240-54873-7), GW-082815-JL-39 (240-54873-8), GW-082815-JL-40 (240-54873-9) and GW-082815-JL-41 (240-54873-10) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 08/31/2015 and analyzed on 09/01/2015.

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

#### **TRIVALENT CHROMIUM**

Samples GW-082815-JL-32 (240-54873-1), GW-082815-JL-33 (240-54873-2), GW-082815-JL-34 (240-54873-3), GW-082815-JL-35 (240-54873-4), GW-082815-JL-36 (240-54873-5), GW-082815-JL-37 (240-54873-6), GW-082815-JL-38 (240-54873-7), GW-082815-JL-39 (240-54873-8), GW-082815-JL-40 (240-54873-9) and GW-082815-JL-41 (240-54873-10) were analyzed for trivalent chromium in accordance with EPA SW-846 Method 7196A\_CR3. The samples were analyzed on 09/04/2015.

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

# Method Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
6020	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
7196A	Chromium, Hexavalent	SW846	TAL CAN
7196A	Chromium, Trivalent (Colorimetric)	SW846	TAL CAN

**Protocol References:**

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

**Laboratory References:**

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396





# Sample Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-54873-1	GW-082815-JL-32	Water	08/28/15 10:35	08/29/15 09:30
240-54873-2	GW-082815-JL-33	Water	08/28/15 10:40	08/29/15 09:30
240-54873-3	GW-082815-JL-34	Water	08/28/15 11:20	08/29/15 09:30
240-54873-4	GW-082815-JL-35	Water	08/28/15 12:00	08/29/15 09:30
240-54873-5	GW-082815-JL-36	Water	08/28/15 13:45	08/29/15 09:30
240-54873-6	GW-082815-JL-37	Water	08/28/15 14:15	08/29/15 09:30
240-54873-7	GW-082815-JL-38	Water	08/28/15 14:25	08/29/15 09:30
240-54873-8	GW-082815-JL-39	Water	08/28/15 15:55	08/29/15 09:30
240-54873-9	GW-082815-JL-40	Water	08/28/15 15:45	08/29/15 09:30
240-54873-10	GW-082815-JL-41	Water	08/28/15 16:50	08/29/15 09:30
240-54873-11	TRIP BLANK	Water	08/28/15 00:00	08/29/15 09:30



# Detection Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-32**

**Lab Sample ID: 240-54873-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.19	J	2.0	0.16	ug/L	1		6020	Total
Arsenic	1.2	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	73	J	100	1.1	ug/L	1		6020	Total Recoverable
Beryllium	0.13	J	1.0	0.053	ug/L	1		6020	Total Recoverable
Cadmium	0.15	J	1.0	0.061	ug/L	1		6020	Total Recoverable
Cobalt	0.49	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	52	B	5.0	0.20	ug/L	1		6020	Total Recoverable
Copper	2.6		2.0	0.75	ug/L	1		6020	Total Recoverable
Manganese	2.4	J	15	1.1	ug/L	1		6020	Total Recoverable
Nickel	8.2	J	20	0.23	ug/L	1		6020	Total Recoverable
Lead	0.49	J	3.0	0.11	ug/L	1		6020	Total Recoverable
Selenium	1.9	J B	5.0	0.25	ug/L	1		6020	Total Recoverable
Thallium	0.077	J	1.0	0.074	ug/L	1		6020	Total Recoverable
Vanadium	1.4	J B	4.0	0.23	ug/L	1		6020	Total Recoverable
Arsenic	1.2	J B	5.0	0.18	ug/L	1		6020	Dissolved
Beryllium	0.10	J	1.0	0.053	ug/L	1		6020	Dissolved
Cadmium	0.067	J	1.0	0.061	ug/L	1		6020	Dissolved
Cobalt	0.27	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	4.5	J B	5.0	0.20	ug/L	1		6020	Dissolved
Copper	0.78	J	2.0	0.75	ug/L	1		6020	Dissolved
Nickel	4.8	J	20	0.23	ug/L	1		6020	Dissolved
Lead	0.11	J	3.0	0.11	ug/L	1		6020	Dissolved
Selenium	1.9	J B	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	2.0	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	75	J	100	1.1	ug/L	1		6020	Dissolved
Cr (III)	0.052		0.020	0.0050	mg/L	1		7196A	Total/NA

**Client Sample ID: GW-082815-JL-33**

**Lab Sample ID: 240-54873-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	0.11	J	0.98	0.044	ug/L	1		8270C	Total/NA
Arsenic	0.99	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	68	J	100	1.1	ug/L	1		6020	Total Recoverable
Beryllium	0.083	J	1.0	0.053	ug/L	1		6020	Total Recoverable
Cobalt	0.92	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	110	B	5.0	0.20	ug/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

## Client Sample ID: GW-082815-JL-33 (Continued)

## Lab Sample ID: 240-54873-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	5.5		2.0	0.75	ug/L	1		6020	Total
Manganese	5.3	J	15	1.1	ug/L	1		6020	Total Recoverable
Nickel	11	J	20	0.23	ug/L	1		6020	Total Recoverable
Lead	0.13	J	3.0	0.11	ug/L	1		6020	Total Recoverable
Selenium	1.8	J B	5.0	0.25	ug/L	1		6020	Total Recoverable
Arsenic	0.73	J B	5.0	0.18	ug/L	1		6020	Dissolved
Beryllium	0.060	J	1.0	0.053	ug/L	1		6020	Dissolved
Cobalt	0.18	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	3.5	J B	5.0	0.20	ug/L	1		6020	Dissolved
Copper	1.1	J	2.0	0.75	ug/L	1		6020	Dissolved
Nickel	6.7	J	20	0.23	ug/L	1		6020	Dissolved
Selenium	1.8	J B	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	1.4	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	57	J	100	1.1	ug/L	1		6020	Dissolved
Cr (III)	0.11		0.020	0.0050	mg/L	1		7196A	Total/NA

## Client Sample ID: GW-082815-JL-34

## Lab Sample ID: 240-54873-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.1	J	10	0.94	ug/L	1		8260B	Total/NA
Methylene Chloride	0.56	J B	1.0	0.33	ug/L	1		8260B	Total/NA
Antimony	0.51	J	2.0	0.16	ug/L	1		6020	Total Recoverable
Arsenic	1.1	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	70	J	100	1.1	ug/L	1		6020	Total Recoverable
Beryllium	0.17	J	1.0	0.053	ug/L	1		6020	Total Recoverable
Cadmium	0.26	J	1.0	0.061	ug/L	1		6020	Total Recoverable
Cobalt	3.2	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	12	B	5.0	0.20	ug/L	1		6020	Total Recoverable
Copper	1.3	J	2.0	0.75	ug/L	1		6020	Total Recoverable
Manganese	39		15	1.1	ug/L	1		6020	Total Recoverable
Nickel	140		20	0.23	ug/L	1		6020	Total Recoverable
Lead	0.23	J	3.0	0.11	ug/L	1		6020	Total Recoverable
Selenium	1.9	J B	5.0	0.25	ug/L	1		6020	Total Recoverable
Thallium	0.17	J	1.0	0.074	ug/L	1		6020	Total Recoverable
Vanadium	0.99	J B	4.0	0.23	ug/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

## Client Sample ID: GW-082815-JL-34 (Continued)

## Lab Sample ID: 240-54873-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	7.4	J	20	7.3	ug/L	1		6020	Total
Arsenic	1.0	J B	5.0	0.18	ug/L	1		6020	Recoverable Dissolved
Beryllium	0.26	J	1.0	0.053	ug/L	1		6020	Dissolved
Cadmium	0.42	J	1.0	0.061	ug/L	1		6020	Dissolved
Cobalt	3.2	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	4.5	J B	5.0	0.20	ug/L	1		6020	Dissolved
Copper	1.1	J	2.0	0.75	ug/L	1		6020	Dissolved
Manganese	35		15	1.1	ug/L	1		6020	Dissolved
Nickel	150		20	0.23	ug/L	1		6020	Dissolved
Lead	0.25	J	3.0	0.11	ug/L	1		6020	Dissolved
Antimony	0.52	J	2.0	0.16	ug/L	1		6020	Dissolved
Selenium	1.9	J B	5.0	0.25	ug/L	1		6020	Dissolved
Thallium	0.27	J	1.0	0.074	ug/L	1		6020	Dissolved
Vanadium	1.3	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	72	J	100	1.1	ug/L	1		6020	Dissolved
Cr (III)	0.012	J	0.020	0.0050	mg/L	1		7196A	Total/NA

## Client Sample ID: GW-082815-JL-35

## Lab Sample ID: 240-54873-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.33	J	2.0	0.16	ug/L	1		6020	Total
Arsenic	0.56	J B	5.0	0.18	ug/L	1		6020	Recoverable Total
Barium	18	J	100	1.1	ug/L	1		6020	Recoverable Total
Beryllium	0.061	J	1.0	0.053	ug/L	1		6020	Recoverable Total
Cobalt	0.12	J	7.0	0.021	ug/L	1		6020	Recoverable Total
Chromium	3.7	J B	5.0	0.20	ug/L	1		6020	Recoverable Total
Nickel	0.47	J	20	0.23	ug/L	1		6020	Recoverable Total
Selenium	0.84	J B	5.0	0.25	ug/L	1		6020	Recoverable Total
Vanadium	1.8	J B	4.0	0.23	ug/L	1		6020	Recoverable Total
Arsenic	0.55	J B	5.0	0.18	ug/L	1		6020	Dissolved
Beryllium	0.068	J	1.0	0.053	ug/L	1		6020	Dissolved
Cobalt	0.10	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	3.6	J B	5.0	0.20	ug/L	1		6020	Dissolved
Nickel	0.43	J	20	0.23	ug/L	1		6020	Dissolved
Antimony	0.35	J	2.0	0.16	ug/L	1		6020	Dissolved
Selenium	0.94	J B	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	1.7	J B	4.0	0.23	ug/L	1		6020	Dissolved
Zinc	9.1	J	20	7.3	ug/L	1		6020	Dissolved
Barium	18	J	100	1.1	ug/L	1		6020	Dissolved

## Client Sample ID: GW-082815-JL-36

## Lab Sample ID: 240-54873-5

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

## Client Sample ID: GW-082815-JL-36 (Continued)

## Lab Sample ID: 240-54873-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.61	J B	5.0	0.18	ug/L	1		6020	Total
Barium	33	J	100	1.1	ug/L	1		6020	Total
Cobalt	0.24	J	7.0	0.021	ug/L	1		6020	Total
Chromium	3.8	J B	5.0	0.20	ug/L	1		6020	Total
Copper	1.1	J	2.0	0.75	ug/L	1		6020	Total
Manganese	11	J	15	1.1	ug/L	1		6020	Total
Nickel	0.89	J	20	0.23	ug/L	1		6020	Total
Lead	0.11	J	3.0	0.11	ug/L	1		6020	Total
Selenium	1.2	J B	5.0	0.25	ug/L	1		6020	Total
Vanadium	1.9	J B	4.0	0.23	ug/L	1		6020	Total
Zinc	9.4	J	20	7.3	ug/L	1		6020	Total
Arsenic	0.61	J B	5.0	0.18	ug/L	1		6020	Dissolved
Cobalt	0.15	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	3.6	J B	5.0	0.20	ug/L	1		6020	Dissolved
Copper	2.5		2.0	0.75	ug/L	1		6020	Dissolved
Nickel	0.65	J	20	0.23	ug/L	1		6020	Dissolved
Lead	0.11	J	3.0	0.11	ug/L	1		6020	Dissolved
Selenium	1.2	J B	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	2.0	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	38	J	100	1.1	ug/L	1		6020	Dissolved

## Client Sample ID: GW-082815-JL-37

## Lab Sample ID: 240-54873-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Caprolactam	0.36	J	9.6	0.19	ug/L	1		8270C	Total/NA
Arsenic	0.62	J B	5.0	0.18	ug/L	1		6020	Total
Barium	61	J	100	1.1	ug/L	1		6020	Total
Cobalt	0.15	J	7.0	0.021	ug/L	1		6020	Total
Chromium	4.5	J B	5.0	0.20	ug/L	1		6020	Total
Copper	0.84	J	2.0	0.75	ug/L	1		6020	Total
Manganese	1.7	J	15	1.1	ug/L	1		6020	Total
Nickel	0.62	J	20	0.23	ug/L	1		6020	Total
Lead	0.18	J	3.0	0.11	ug/L	1		6020	Total
Selenium	0.62	J B	5.0	0.25	ug/L	1		6020	Total
Vanadium	1.8	J B	4.0	0.23	ug/L	1		6020	Total

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

## Client Sample ID: GW-082815-JL-37 (Continued)

## Lab Sample ID: 240-54873-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.54	J B	5.0	0.18	ug/L	1		6020	Dissolved
Cobalt	0.11	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	3.8	J B	5.0	0.20	ug/L	1		6020	Dissolved
Nickel	0.39	J	20	0.23	ug/L	1		6020	Dissolved
Selenium	0.49	J B	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	1.6	J B	4.0	0.23	ug/L	1		6020	Dissolved
Zinc	9.8	J	20	7.3	ug/L	1		6020	Dissolved
Barium	55	J	100	1.1	ug/L	1		6020	Dissolved

## Client Sample ID: GW-082815-JL-38

## Lab Sample ID: 240-54873-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Caprolactam	0.34	J	11	0.21	ug/L	1		8270C	Total/NA
Arsenic	0.62	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	64	J	100	1.1	ug/L	1		6020	Total Recoverable
Cobalt	0.15	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	4.2	J B	5.0	0.20	ug/L	1		6020	Total Recoverable
Manganese	1.6	J	15	1.1	ug/L	1		6020	Total Recoverable
Nickel	0.46	J	20	0.23	ug/L	1		6020	Total Recoverable
Lead	0.11	J	3.0	0.11	ug/L	1		6020	Total Recoverable
Selenium	0.64	J B	5.0	0.25	ug/L	1		6020	Total Recoverable
Vanadium	1.6	J B	4.0	0.23	ug/L	1		6020	Total Recoverable
Arsenic	0.54	J B	5.0	0.18	ug/L	1		6020	Dissolved
Cobalt	0.11	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	3.7	J B	5.0	0.20	ug/L	1		6020	Dissolved
Nickel	0.43	J	20	0.23	ug/L	1		6020	Dissolved
Selenium	0.61	J B	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	1.5	J B	4.0	0.23	ug/L	1		6020	Dissolved
Zinc	10	J	20	7.3	ug/L	1		6020	Dissolved
Barium	56	J	100	1.1	ug/L	1		6020	Dissolved

## Client Sample ID: GW-082815-JL-39

## Lab Sample ID: 240-54873-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Caprolactam	0.31	J	11	0.22	ug/L	1		8270C	Total/NA
Phenol	0.88	J	5.4	0.65	ug/L	1		8270C	Total/NA
Arsenic	0.68	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	74	J	100	1.1	ug/L	1		6020	Total Recoverable
Cobalt	1.5	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	180	B	5.0	0.20	ug/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton



# Detection Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-39 (Continued)**

**Lab Sample ID: 240-54873-8**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	7.2		2.0	0.75	ug/L	1		6020	Total
Manganese	7.6	J	15	1.1	ug/L	1		6020	Total Recoverable
Nickel	78		20	0.23	ug/L	1		6020	Total Recoverable
Lead	0.12	J	3.0	0.11	ug/L	1		6020	Total Recoverable
Selenium	0.69	J B	5.0	0.25	ug/L	1		6020	Total Recoverable
Vanadium	0.69	J B	4.0	0.23	ug/L	1		6020	Total Recoverable
Zinc	8.8	J	20	7.3	ug/L	1		6020	Total Recoverable
Arsenic	0.55	J B	5.0	0.18	ug/L	1		6020	Dissolved
Cobalt	0.83	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	3.7	J B	5.0	0.20	ug/L	1		6020	Dissolved
Copper	0.77	J	2.0	0.75	ug/L	1		6020	Dissolved
Manganese	3.9	J	15	1.1	ug/L	1		6020	Dissolved
Nickel	54		20	0.23	ug/L	1		6020	Dissolved
Selenium	0.74	J B	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	1.5	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	66	J	100	1.1	ug/L	1		6020	Dissolved
Cr (III)	0.18		0.020	0.0050	mg/L	1		7196A	Total/NA

**Client Sample ID: GW-082815-JL-40**

**Lab Sample ID: 240-54873-9**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.12	J	4.8	0.060	ug/L	1		8270C	Total/NA
Arsenic	0.55	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Barium	68	J	100	1.1	ug/L	1		6020	Total Recoverable
Cobalt	0.12	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	3.5	J B	5.0	0.20	ug/L	1		6020	Total Recoverable
Nickel	0.52	J	20	0.23	ug/L	1		6020	Total Recoverable
Selenium	0.70	J B	5.0	0.25	ug/L	1		6020	Total Recoverable
Vanadium	1.6	J B	4.0	0.23	ug/L	1		6020	Total Recoverable
Zinc	7.5	J	20	7.3	ug/L	1		6020	Total Recoverable
Arsenic	0.55	J B	5.0	0.18	ug/L	1		6020	Dissolved
Cobalt	0.12	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	3.2	J B	5.0	0.20	ug/L	1		6020	Dissolved
Manganese	5.0	J	15	1.1	ug/L	1		6020	Dissolved
Nickel	0.51	J	20	0.23	ug/L	1		6020	Dissolved
Selenium	0.58	J B	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	1.6	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	81	J	100	1.1	ug/L	1		6020	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

## Client Sample ID: GW-082815-JL-41

## Lab Sample ID: 240-54873-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.62	J B	5.0	0.18	ug/L	1		6020	Total
Barium	70	J	100	1.1	ug/L	1		6020	Recoverable Total
Cobalt	0.21	J	7.0	0.021	ug/L	1		6020	Recoverable Total
Chromium	15	B	5.0	0.20	ug/L	1		6020	Recoverable Total
Copper	0.83	J	2.0	0.75	ug/L	1		6020	Recoverable Total
Manganese	6.7	J	15	1.1	ug/L	1		6020	Recoverable Total
Nickel	1.3	J	20	0.23	ug/L	1		6020	Recoverable Total
Lead	0.14	J	3.0	0.11	ug/L	1		6020	Recoverable Total
Selenium	0.80	J B	5.0	0.25	ug/L	1		6020	Recoverable Total
Vanadium	1.5	J B	4.0	0.23	ug/L	1		6020	Recoverable Total
Arsenic	0.60	J B	5.0	0.18	ug/L	1		6020	Dissolved
Cobalt	0.13	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	3.3	J B	5.0	0.20	ug/L	1		6020	Dissolved
Nickel	0.48	J	20	0.23	ug/L	1		6020	Dissolved
Selenium	0.70	J B	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	1.5	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	73	J	100	1.1	ug/L	1		6020	Dissolved
Cr (III)	0.015	J	0.020	0.0050	mg/L	1		7196A	Total/NA

## Client Sample ID: TRIP BLANK

## Lab Sample ID: 240-54873-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	2.5	B	1.0	0.33	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-32**

**Lab Sample ID: 240-54873-1**

**Date Collected: 08/28/15 10:35**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/02/15 20:51	1
Benzene	1.0	U	1.0	0.35	ug/L			09/02/15 20:51	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/02/15 20:51	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/02/15 20:51	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/02/15 20:51	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/02/15 20:51	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/02/15 20:51	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/02/15 20:51	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 20:51	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/02/15 20:51	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/02/15 20:51	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/02/15 20:51	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/02/15 20:51	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/02/15 20:51	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/02/15 20:51	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/02/15 20:51	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/02/15 20:51	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/02/15 20:51	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/02/15 20:51	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/02/15 20:51	1
2-Hexanone	10	U	10	0.48	ug/L			09/02/15 20:51	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/02/15 20:51	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/02/15 20:51	1
Styrene	1.0	U	1.0	0.45	ug/L			09/02/15 20:51	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/02/15 20:51	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/02/15 20:51	1
Toluene	1.0	U	1.0	0.23	ug/L			09/02/15 20:51	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/02/15 20:51	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/02/15 20:51	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/02/15 20:51	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/02/15 20:51	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/02/15 20:51	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/02/15 20:51	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/02/15 20:51	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/02/15 20:51	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/02/15 20:51	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/02/15 20:51	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/02/15 20:51	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/02/15 20:51	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/02/15 20:51	1
Methyl acetate	10	U	10	2.3	ug/L			09/02/15 20:51	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/02/15 20:51	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/02/15 20:51	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/02/15 20:51	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 20:51	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/02/15 20:51	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/02/15 20:51	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/02/15 20:51	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/02/15 20:51	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-32**

**Lab Sample ID: 240-54873-1**

**Date Collected: 08/28/15 10:35**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/02/15 20:51	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	95		78 - 125					09/02/15 20:51	1
4-Bromofluorobenzene (Surr)	84		61 - 120					09/02/15 20:51	1
Toluene-d8 (Surr)	91		80 - 120					09/02/15 20:51	1
Dibromofluoromethane (Surr)	95		79 - 120					09/02/15 20:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	4.8	U	4.8	0.042	ug/L		08/31/15 10:13	09/08/15 14:25	1
Acenaphthylene	4.8	U	4.8	0.046	ug/L		08/31/15 10:13	09/08/15 14:25	1
Acetophenone	4.8	U	4.8	0.32	ug/L		08/31/15 10:13	09/08/15 14:25	1
Anthracene	4.8	U	4.8	0.084	ug/L		08/31/15 10:13	09/08/15 14:25	1
Atrazine	2.9	U	2.9	0.32	ug/L		08/31/15 10:13	09/08/15 14:25	1
Benzaldehyde	4.8	U	4.8	0.37	ug/L		08/31/15 10:13	09/08/15 14:25	1
Benzo[a]anthracene	0.95	U	0.95	0.028	ug/L		08/31/15 10:13	09/08/15 14:25	1
Benzo[b]fluoranthene	0.95	U	0.95	0.038	ug/L		08/31/15 10:13	09/08/15 14:25	1
Benzo[k]fluoranthene	0.95	U	0.95	0.043	ug/L		08/31/15 10:13	09/08/15 14:25	1
Benzo[g,h,i]perylene	0.95	U	0.95	0.044	ug/L		08/31/15 10:13	09/08/15 14:25	1
Benzo[a]pyrene	0.95	U	0.95	0.049	ug/L		08/31/15 10:13	09/08/15 14:25	1
Butyl benzyl phthalate	4.8	U	4.8	0.25	ug/L		08/31/15 10:13	09/08/15 14:25	1
1,1'-Biphenyl	4.8	U	4.8	0.12	ug/L		08/31/15 10:13	09/08/15 14:25	1
Bis(2-chloroethoxy)methane	4.8	U	4.8	0.30	ug/L		08/31/15 10:13	09/08/15 14:25	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.095	ug/L		08/31/15 10:13	09/08/15 14:25	1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8	1.6	ug/L		08/31/15 10:13	09/08/15 14:25	1
4-Bromophenyl phenyl ether	4.8	U	4.8	0.21	ug/L		08/31/15 10:13	09/08/15 14:25	1
Caprolactam	9.5	U	9.5	0.19	ug/L		08/31/15 10:13	09/08/15 14:25	1
Carbazole	9.5	U	9.5	0.27	ug/L		08/31/15 10:13	09/08/15 14:25	1
4-Chloroaniline	9.5	U	9.5	0.20	ug/L		08/31/15 10:13	09/08/15 14:25	1
4-Chloro-3-methylphenol	4.8	U	4.8	0.20	ug/L		08/31/15 10:13	09/08/15 14:25	1
2-Chloronaphthalene	4.8	U	4.8	0.095	ug/L		08/31/15 10:13	09/08/15 14:25	1
2-Chlorophenol	4.8	U	4.8	0.28	ug/L		08/31/15 10:13	09/08/15 14:25	1
4-Chlorophenyl phenyl ether	4.8	U	4.8	0.29	ug/L		08/31/15 10:13	09/08/15 14:25	1
Chrysene	0.95	U	0.95	0.048	ug/L		08/31/15 10:13	09/08/15 14:25	1
2-Methylnaphthalene	4.8	U	4.8	0.086	ug/L		08/31/15 10:13	09/08/15 14:25	1
3 & 4 Methylphenol	4.8	U	4.8	0.76	ug/L		08/31/15 10:13	09/08/15 14:25	1
Dibenz(a,h)anthracene	1.9	U	1.9	0.042	ug/L		08/31/15 10:13	09/08/15 14:25	1
Dibenzofuran	3.8	U	3.8	0.019	ug/L		08/31/15 10:13	09/08/15 14:25	1
3,3'-Dichlorobenzidine	0.95	U	0.95	0.35	ug/L		08/31/15 10:13	09/08/15 14:25	1
2,4-Dichlorophenol	9.5	U	9.5	0.18	ug/L		08/31/15 10:13	09/08/15 14:25	1
Diethyl phthalate	4.8	U	4.8	0.57	ug/L		08/31/15 10:13	09/08/15 14:25	1
2,4-Dimethylphenol	4.8	U	4.8	0.24	ug/L		08/31/15 10:13	09/08/15 14:25	1
Dimethyl phthalate	4.8	U	4.8	0.28	ug/L		08/31/15 10:13	09/08/15 14:25	1
4,6-Dinitro-2-methylphenol	19	U	19	2.3	ug/L		08/31/15 10:13	09/08/15 14:25	1
2,4-Dinitrophenol	19	U	19	0.30	ug/L		08/31/15 10:13	09/08/15 14:25	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		08/31/15 10:13	09/08/15 14:25	1
Di-n-butyl phthalate	4.8	U	4.8	1.6	ug/L		08/31/15 10:13	09/08/15 14:25	1
Di-n-octyl phthalate	4.8	U	4.8	0.22	ug/L		08/31/15 10:13	09/08/15 14:25	1
Fluoranthene	0.95	U	0.95	0.042	ug/L		08/31/15 10:13	09/08/15 14:25	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-32**

**Lab Sample ID: 240-54873-1**

**Date Collected: 08/28/15 10:35**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.8	U	4.8	0.039	ug/L		08/31/15 10:13	09/08/15 14:25	1
Hexachlorobenzene	0.19	U	0.19	0.081	ug/L		08/31/15 10:13	09/08/15 14:25	1
Hexachlorobutadiene	0.95	U	0.95	0.26	ug/L		08/31/15 10:13	09/08/15 14:25	1
Hexachlorocyclopentadiene	4.8	U	4.8	0.23	ug/L		08/31/15 10:13	09/08/15 14:25	1
Hexachloroethane	4.8	U	4.8	0.18	ug/L		08/31/15 10:13	09/08/15 14:25	1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	0.041	ug/L		08/31/15 10:13	09/08/15 14:25	1
Isophorone	4.8	U	4.8	0.26	ug/L		08/31/15 10:13	09/08/15 14:25	1
2-Methylphenol	4.8	U	4.8	0.16	ug/L		08/31/15 10:13	09/08/15 14:25	1
Naphthalene	4.8	U	4.8	0.060	ug/L		08/31/15 10:13	09/08/15 14:25	1
2-Nitroaniline	19	U	19	0.20	ug/L		08/31/15 10:13	09/08/15 14:25	1
3-Nitroaniline	19	U	19	0.27	ug/L		08/31/15 10:13	09/08/15 14:25	1
4-Nitroaniline	19	U	19	0.21	ug/L		08/31/15 10:13	09/08/15 14:25	1
Nitrobenzene	2.9	U	2.9	0.038	ug/L		08/31/15 10:13	09/08/15 14:25	1
2-Nitrophenol	4.8	U	4.8	0.27	ug/L		08/31/15 10:13	09/08/15 14:25	1
4-Nitrophenol	19	U	19	0.28	ug/L		08/31/15 10:13	09/08/15 14:25	1
N-Nitrosodiphenylamine	4.8	U	4.8	0.30	ug/L		08/31/15 10:13	09/08/15 14:25	1
N-Nitrosodi-n-propylamine	4.8	U	4.8	0.23	ug/L		08/31/15 10:13	09/08/15 14:25	1
2,2'-oxybis[1-chloropropane]	4.8	U	4.8	0.38	ug/L		08/31/15 10:13	09/08/15 14:25	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		08/31/15 10:13	09/08/15 14:25	1
Phenanthrene	1.9	U	1.9	0.059	ug/L		08/31/15 10:13	09/08/15 14:25	1
Phenol	4.8	U	4.8	0.57	ug/L		08/31/15 10:13	09/08/15 14:25	1
Pyrene	4.8	U	4.8	0.040	ug/L		08/31/15 10:13	09/08/15 14:25	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		08/31/15 10:13	09/08/15 14:25	1
2,4,6-Trichlorophenol	3.8	U	3.8	0.23	ug/L		08/31/15 10:13	09/08/15 14:25	1
2,6-Dinitrotoluene	4.8	U	4.8	0.76	ug/L		08/31/15 10:13	09/08/15 14:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	66		29 - 110	08/31/15 10:13	09/08/15 14:25	1
2-Fluorophenol (Surr)	28		15 - 110	08/31/15 10:13	09/08/15 14:25	1
2,4,6-Tribromophenol (Surr)	42		21 - 128	08/31/15 10:13	09/08/15 14:25	1
Nitrobenzene-d5 (Surr)	60		31 - 110	08/31/15 10:13	09/08/15 14:25	1
Phenol-d5 (Surr)	15		10 - 110	08/31/15 10:13	09/08/15 14:25	1
Terphenyl-d14 (Surr)	53		31 - 115	08/31/15 10:13	09/08/15 14:25	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.19	J	2.0	0.16	ug/L		08/31/15 08:53	09/02/15 17:37	1
Arsenic	1.2	J B	5.0	0.18	ug/L		08/31/15 08:53	09/02/15 17:37	1
Barium	73	J	100	1.1	ug/L		08/31/15 08:53	09/02/15 17:37	1
Beryllium	0.13	J	1.0	0.053	ug/L		08/31/15 08:53	09/02/15 17:37	1
Cadmium	0.15	J	1.0	0.061	ug/L		08/31/15 08:53	09/02/15 17:37	1
Cobalt	0.49	J	7.0	0.021	ug/L		08/31/15 08:53	09/02/15 17:37	1
Chromium	52	B	5.0	0.20	ug/L		08/31/15 08:53	09/02/15 17:37	1
Copper	2.6		2.0	0.75	ug/L		08/31/15 08:53	09/02/15 17:37	1
Manganese	2.4	J	15	1.1	ug/L		08/31/15 08:53	09/02/15 17:37	1
Nickel	8.2	J	20	0.23	ug/L		08/31/15 08:53	09/02/15 17:37	1
Lead	0.49	J	3.0	0.11	ug/L		08/31/15 08:53	09/02/15 17:37	1
Selenium	1.9	J B	5.0	0.25	ug/L		08/31/15 08:53	09/02/15 17:37	1
Thallium	0.077	J	1.0	0.074	ug/L		08/31/15 08:53	09/02/15 17:37	1
Vanadium	1.4	J B	4.0	0.23	ug/L		08/31/15 08:53	09/02/15 17:37	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-32**

**Lab Sample ID: 240-54873-1**

**Date Collected: 08/28/15 10:35**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/31/15 08:53	09/02/15 17:37	1
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:53	09/02/15 17:37	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:53	09/02/15 17:40	1
<b>Arsenic</b>	<b>1.2</b>	<b>J B</b>	5.0	0.18	ug/L		08/31/15 08:53	09/02/15 17:40	1
<b>Beryllium</b>	<b>0.10</b>	<b>J</b>	1.0	0.053	ug/L		08/31/15 08:53	09/02/15 17:40	1
<b>Cadmium</b>	<b>0.067</b>	<b>J</b>	1.0	0.061	ug/L		08/31/15 08:53	09/02/15 17:40	1
<b>Cobalt</b>	<b>0.27</b>	<b>J</b>	7.0	0.021	ug/L		08/31/15 08:53	09/02/15 17:40	1
<b>Chromium</b>	<b>4.5</b>	<b>J B</b>	5.0	0.20	ug/L		08/31/15 08:53	09/02/15 17:40	1
<b>Copper</b>	<b>0.78</b>	<b>J</b>	2.0	0.75	ug/L		08/31/15 08:53	09/02/15 17:40	1
Manganese	15	U	15	1.1	ug/L		08/31/15 08:53	09/02/15 17:40	1
<b>Nickel</b>	<b>4.8</b>	<b>J</b>	20	0.23	ug/L		08/31/15 08:53	09/02/15 17:40	1
<b>Lead</b>	<b>0.11</b>	<b>J</b>	3.0	0.11	ug/L		08/31/15 08:53	09/02/15 17:40	1
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:53	09/02/15 17:40	1
<b>Selenium</b>	<b>1.9</b>	<b>J B</b>	5.0	0.25	ug/L		08/31/15 08:53	09/02/15 17:40	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:53	09/02/15 17:40	1
<b>Vanadium</b>	<b>2.0</b>	<b>J B</b>	4.0	0.23	ug/L		08/31/15 08:53	09/02/15 17:40	1
Zinc	20	U	20	7.3	ug/L		08/31/15 08:53	09/02/15 17:40	1
<b>Barium</b>	<b>75</b>	<b>J</b>	100	1.1	ug/L		08/31/15 08:53	09/02/15 17:40	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 13:23	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 13:28	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/29/15 10:44	1
<b>Cr (III)</b>	<b>0.052</b>		0.020	0.0050	mg/L			09/04/15 10:16	1



# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-33**

**Lab Sample ID: 240-54873-2**

**Date Collected: 08/28/15 10:40**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/02/15 21:14	1
Benzene	1.0	U	1.0	0.35	ug/L			09/02/15 21:14	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/02/15 21:14	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/02/15 21:14	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/02/15 21:14	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/02/15 21:14	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/02/15 21:14	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/02/15 21:14	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 21:14	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/02/15 21:14	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/02/15 21:14	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/02/15 21:14	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/02/15 21:14	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/02/15 21:14	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/02/15 21:14	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/02/15 21:14	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/02/15 21:14	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/02/15 21:14	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/02/15 21:14	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/02/15 21:14	1
2-Hexanone	10	U	10	0.48	ug/L			09/02/15 21:14	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/02/15 21:14	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/02/15 21:14	1
Styrene	1.0	U	1.0	0.45	ug/L			09/02/15 21:14	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/02/15 21:14	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/02/15 21:14	1
Toluene	1.0	U	1.0	0.23	ug/L			09/02/15 21:14	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/02/15 21:14	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/02/15 21:14	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/02/15 21:14	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/02/15 21:14	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/02/15 21:14	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/02/15 21:14	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/02/15 21:14	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/02/15 21:14	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/02/15 21:14	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/02/15 21:14	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/02/15 21:14	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/02/15 21:14	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/02/15 21:14	1
Methyl acetate	10	U	10	2.3	ug/L			09/02/15 21:14	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/02/15 21:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/02/15 21:14	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/02/15 21:14	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 21:14	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/02/15 21:14	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/02/15 21:14	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/02/15 21:14	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/02/15 21:14	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-33**

**Lab Sample ID: 240-54873-2**

**Date Collected: 08/28/15 10:40**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/02/15 21:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		78 - 125					09/02/15 21:14	1
4-Bromofluorobenzene (Surr)	81		61 - 120					09/02/15 21:14	1
Toluene-d8 (Surr)	92		80 - 120					09/02/15 21:14	1
Dibromofluoromethane (Surr)	92		79 - 120					09/02/15 21:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	4.9	U	4.9	0.043	ug/L		08/31/15 10:13	09/08/15 14:48	1
Acenaphthylene	4.9	U	4.9	0.047	ug/L		08/31/15 10:13	09/08/15 14:48	1
Acetophenone	4.9	U	4.9	0.33	ug/L		08/31/15 10:13	09/08/15 14:48	1
Anthracene	4.9	U	4.9	0.086	ug/L		08/31/15 10:13	09/08/15 14:48	1
Atrazine	2.9	U	2.9	0.33	ug/L		08/31/15 10:13	09/08/15 14:48	1
Benzaldehyde	4.9	U	4.9	0.38	ug/L		08/31/15 10:13	09/08/15 14:48	1
Benzo[a]anthracene	0.98	U	0.98	0.029	ug/L		08/31/15 10:13	09/08/15 14:48	1
Benzo[b]fluoranthene	0.98	U	0.98	0.039	ug/L		08/31/15 10:13	09/08/15 14:48	1
Benzo[k]fluoranthene	0.98	U	0.98	0.044	ug/L		08/31/15 10:13	09/08/15 14:48	1
Benzo[g,h,i]perylene	0.98	U	0.98	0.045	ug/L		08/31/15 10:13	09/08/15 14:48	1
Benzo[a]pyrene	0.98	U	0.98	0.050	ug/L		08/31/15 10:13	09/08/15 14:48	1
Butyl benzyl phthalate	4.9	U	4.9	0.25	ug/L		08/31/15 10:13	09/08/15 14:48	1
1,1'-Biphenyl	4.9	U	4.9	0.13	ug/L		08/31/15 10:13	09/08/15 14:48	1
Bis(2-chloroethoxy)methane	4.9	U	4.9	0.31	ug/L		08/31/15 10:13	09/08/15 14:48	1
Bis(2-chloroethyl)ether	0.98	U	0.98	0.098	ug/L		08/31/15 10:13	09/08/15 14:48	1
Bis(2-ethylhexyl) phthalate	4.9	U	4.9	1.7	ug/L		08/31/15 10:13	09/08/15 14:48	1
4-Bromophenyl phenyl ether	4.9	U	4.9	0.22	ug/L		08/31/15 10:13	09/08/15 14:48	1
Caprolactam	9.8	U	9.8	0.20	ug/L		08/31/15 10:13	09/08/15 14:48	1
Carbazole	9.8	U	9.8	0.27	ug/L		08/31/15 10:13	09/08/15 14:48	1
4-Chloroaniline	9.8	U	9.8	0.21	ug/L		08/31/15 10:13	09/08/15 14:48	1
4-Chloro-3-methylphenol	4.9	U	4.9	0.21	ug/L		08/31/15 10:13	09/08/15 14:48	1
2-Chloronaphthalene	4.9	U	4.9	0.098	ug/L		08/31/15 10:13	09/08/15 14:48	1
2-Chlorophenol	4.9	U	4.9	0.28	ug/L		08/31/15 10:13	09/08/15 14:48	1
4-Chlorophenyl phenyl ether	4.9	U	4.9	0.29	ug/L		08/31/15 10:13	09/08/15 14:48	1
Chrysene	0.98	U	0.98	0.049	ug/L		08/31/15 10:13	09/08/15 14:48	1
2-Methylnaphthalene	4.9	U	4.9	0.089	ug/L		08/31/15 10:13	09/08/15 14:48	1
3 & 4 Methylphenol	4.9	U	4.9	0.78	ug/L		08/31/15 10:13	09/08/15 14:48	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.044	ug/L		08/31/15 10:13	09/08/15 14:48	1
Dibenzofuran	3.9	U	3.9	0.020	ug/L		08/31/15 10:13	09/08/15 14:48	1
3,3'-Dichlorobenzidine	0.98	U	0.98	0.36	ug/L		08/31/15 10:13	09/08/15 14:48	1
2,4-Dichlorophenol	9.8	U	9.8	0.19	ug/L		08/31/15 10:13	09/08/15 14:48	1
Diethyl phthalate	4.9	U	4.9	0.59	ug/L		08/31/15 10:13	09/08/15 14:48	1
2,4-Dimethylphenol	4.9	U	4.9	0.25	ug/L		08/31/15 10:13	09/08/15 14:48	1
Dimethyl phthalate	4.9	U	4.9	0.28	ug/L		08/31/15 10:13	09/08/15 14:48	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		08/31/15 10:13	09/08/15 14:48	1
2,4-Dinitrophenol	20	U	20	0.31	ug/L		08/31/15 10:13	09/08/15 14:48	1
2,4-Dinitrotoluene	4.9	U	4.9	0.25	ug/L		08/31/15 10:13	09/08/15 14:48	1
Di-n-butyl phthalate	4.9	U	4.9	1.7	ug/L		08/31/15 10:13	09/08/15 14:48	1
Di-n-octyl phthalate	4.9	U	4.9	0.23	ug/L		08/31/15 10:13	09/08/15 14:48	1
<b>Fluoranthene</b>	<b>0.11</b>	<b>J</b>	0.98	0.044	ug/L		08/31/15 10:13	09/08/15 14:48	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-33**

**Lab Sample ID: 240-54873-2**

**Date Collected: 08/28/15 10:40**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.9	U	4.9	0.040	ug/L		08/31/15 10:13	09/08/15 14:48	1
Hexachlorobenzene	0.20	U	0.20	0.084	ug/L		08/31/15 10:13	09/08/15 14:48	1
Hexachlorobutadiene	0.98	U	0.98	0.26	ug/L		08/31/15 10:13	09/08/15 14:48	1
Hexachlorocyclopentadiene	4.9	U	4.9	0.24	ug/L		08/31/15 10:13	09/08/15 14:48	1
Hexachloroethane	4.9	U	4.9	0.19	ug/L		08/31/15 10:13	09/08/15 14:48	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.042	ug/L		08/31/15 10:13	09/08/15 14:48	1
Isophorone	4.9	U	4.9	0.26	ug/L		08/31/15 10:13	09/08/15 14:48	1
2-Methylphenol	4.9	U	4.9	0.17	ug/L		08/31/15 10:13	09/08/15 14:48	1
Naphthalene	4.9	U	4.9	0.061	ug/L		08/31/15 10:13	09/08/15 14:48	1
2-Nitroaniline	20	U	20	0.21	ug/L		08/31/15 10:13	09/08/15 14:48	1
3-Nitroaniline	20	U	20	0.27	ug/L		08/31/15 10:13	09/08/15 14:48	1
4-Nitroaniline	20	U	20	0.22	ug/L		08/31/15 10:13	09/08/15 14:48	1
Nitrobenzene	2.9	U	2.9	0.039	ug/L		08/31/15 10:13	09/08/15 14:48	1
2-Nitrophenol	4.9	U	4.9	0.27	ug/L		08/31/15 10:13	09/08/15 14:48	1
4-Nitrophenol	20	U	20	0.28	ug/L		08/31/15 10:13	09/08/15 14:48	1
N-Nitrosodiphenylamine	4.9	U	4.9	0.30	ug/L		08/31/15 10:13	09/08/15 14:48	1
N-Nitrosodi-n-propylamine	4.9	U	4.9	0.24	ug/L		08/31/15 10:13	09/08/15 14:48	1
2,2'-oxybis[1-chloropropane]	4.9	U	4.9	0.39	ug/L		08/31/15 10:13	09/08/15 14:48	1
Pentachlorophenol	4.9	U	4.9	0.26	ug/L		08/31/15 10:13	09/08/15 14:48	1
Phenanthrene	2.0	U	2.0	0.061	ug/L		08/31/15 10:13	09/08/15 14:48	1
Phenol	4.9	U	4.9	0.59	ug/L		08/31/15 10:13	09/08/15 14:48	1
Pyrene	4.9	U	4.9	0.041	ug/L		08/31/15 10:13	09/08/15 14:48	1
2,4,5-Trichlorophenol	4.9	U	4.9	0.29	ug/L		08/31/15 10:13	09/08/15 14:48	1
2,4,6-Trichlorophenol	3.9	U	3.9	0.24	ug/L		08/31/15 10:13	09/08/15 14:48	1
2,6-Dinitrotoluene	4.9	U	4.9	0.78	ug/L		08/31/15 10:13	09/08/15 14:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	55		29 - 110	08/31/15 10:13	09/08/15 14:48	1
2-Fluorophenol (Surr)	24		15 - 110	08/31/15 10:13	09/08/15 14:48	1
2,4,6-Tribromophenol (Surr)	37		21 - 128	08/31/15 10:13	09/08/15 14:48	1
Nitrobenzene-d5 (Surr)	52		31 - 110	08/31/15 10:13	09/08/15 14:48	1
Phenol-d5 (Surr)	13		10 - 110	08/31/15 10:13	09/08/15 14:48	1
Terphenyl-d14 (Surr)	50		31 - 115	08/31/15 10:13	09/08/15 14:48	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:53	09/02/15 17:44	1
<b>Arsenic</b>	<b>0.99</b>	<b>J B</b>	5.0	0.18	ug/L		08/31/15 08:53	09/02/15 17:44	1
<b>Barium</b>	<b>68</b>	<b>J</b>	100	1.1	ug/L		08/31/15 08:53	09/02/15 17:44	1
<b>Beryllium</b>	<b>0.083</b>	<b>J</b>	1.0	0.053	ug/L		08/31/15 08:53	09/02/15 17:44	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:53	09/02/15 17:44	1
<b>Cobalt</b>	<b>0.92</b>	<b>J</b>	7.0	0.021	ug/L		08/31/15 08:53	09/02/15 17:44	1
<b>Chromium</b>	<b>110</b>	<b>B</b>	5.0	0.20	ug/L		08/31/15 08:53	09/02/15 17:44	1
<b>Copper</b>	<b>5.5</b>	<b>J</b>	2.0	0.75	ug/L		08/31/15 08:53	09/02/15 17:44	1
<b>Manganese</b>	<b>5.3</b>	<b>J</b>	15	1.1	ug/L		08/31/15 08:53	09/02/15 17:44	1
<b>Nickel</b>	<b>11</b>	<b>J</b>	20	0.23	ug/L		08/31/15 08:53	09/02/15 17:44	1
<b>Lead</b>	<b>0.13</b>	<b>J</b>	3.0	0.11	ug/L		08/31/15 08:53	09/02/15 17:44	1
<b>Selenium</b>	<b>1.8</b>	<b>J B</b>	5.0	0.25	ug/L		08/31/15 08:53	09/02/15 17:44	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:53	09/02/15 17:44	1
Vanadium	4.0	U	4.0	0.23	ug/L		08/31/15 08:53	09/02/15 17:44	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-33**

**Lab Sample ID: 240-54873-2**

**Date Collected: 08/28/15 10:40**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/31/15 08:53	09/02/15 17:44	1
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:53	09/02/15 17:44	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:53	09/02/15 17:48	1
<b>Arsenic</b>	<b>0.73</b>	<b>J B</b>	5.0	0.18	ug/L		08/31/15 08:53	09/02/15 17:48	1
<b>Beryllium</b>	<b>0.060</b>	<b>J</b>	1.0	0.053	ug/L		08/31/15 08:53	09/02/15 17:48	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:53	09/02/15 17:48	1
<b>Cobalt</b>	<b>0.18</b>	<b>J</b>	7.0	0.021	ug/L		08/31/15 08:53	09/02/15 17:48	1
<b>Chromium</b>	<b>3.5</b>	<b>J B</b>	5.0	0.20	ug/L		08/31/15 08:53	09/02/15 17:48	1
<b>Copper</b>	<b>1.1</b>	<b>J</b>	2.0	0.75	ug/L		08/31/15 08:53	09/02/15 17:48	1
Manganese	15	U	15	1.1	ug/L		08/31/15 08:53	09/02/15 17:48	1
<b>Nickel</b>	<b>6.7</b>	<b>J</b>	20	0.23	ug/L		08/31/15 08:53	09/02/15 17:48	1
Lead	3.0	U	3.0	0.11	ug/L		08/31/15 08:53	09/02/15 17:48	1
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:53	09/02/15 17:48	1
<b>Selenium</b>	<b>1.8</b>	<b>J B</b>	5.0	0.25	ug/L		08/31/15 08:53	09/02/15 17:48	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:53	09/02/15 17:48	1
<b>Vanadium</b>	<b>1.4</b>	<b>J B</b>	4.0	0.23	ug/L		08/31/15 08:53	09/02/15 17:48	1
Zinc	20	U	20	7.3	ug/L		08/31/15 08:53	09/02/15 17:48	1
<b>Barium</b>	<b>57</b>	<b>J</b>	100	1.1	ug/L		08/31/15 08:53	09/02/15 17:48	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 13:21	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 13:31	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/29/15 10:45	1
<b>Cr (III)</b>	<b>0.11</b>		0.020	0.0050	mg/L			09/04/15 10:16	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-34**

**Lab Sample ID: 240-54873-3**

**Date Collected: 08/28/15 11:20**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>1.1</b>	<b>J</b>	10	0.94	ug/L			09/02/15 23:53	1
Benzene	1.0	U	1.0	0.35	ug/L			09/02/15 23:53	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/02/15 23:53	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/02/15 23:53	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/02/15 23:53	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/02/15 23:53	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/02/15 23:53	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/02/15 23:53	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 23:53	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/02/15 23:53	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/02/15 23:53	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/02/15 23:53	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/02/15 23:53	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/02/15 23:53	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/02/15 23:53	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/02/15 23:53	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/02/15 23:53	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/02/15 23:53	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/02/15 23:53	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/02/15 23:53	1
2-Hexanone	10	U	10	0.48	ug/L			09/02/15 23:53	1
<b>Methylene Chloride</b>	<b>0.56</b>	<b>J B</b>	1.0	0.33	ug/L			09/02/15 23:53	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/02/15 23:53	1
Styrene	1.0	U	1.0	0.45	ug/L			09/02/15 23:53	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/02/15 23:53	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/02/15 23:53	1
Toluene	1.0	U	1.0	0.23	ug/L			09/02/15 23:53	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/02/15 23:53	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/02/15 23:53	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/02/15 23:53	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/02/15 23:53	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/02/15 23:53	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/02/15 23:53	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/02/15 23:53	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/02/15 23:53	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/02/15 23:53	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/02/15 23:53	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/02/15 23:53	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/02/15 23:53	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/02/15 23:53	1
Methyl acetate	10	U	10	2.3	ug/L			09/02/15 23:53	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/02/15 23:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/02/15 23:53	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/02/15 23:53	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 23:53	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/02/15 23:53	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/02/15 23:53	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/02/15 23:53	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/02/15 23:53	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-34**

**Lab Sample ID: 240-54873-3**

**Date Collected: 08/28/15 11:20**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/02/15 23:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		78 - 125					09/02/15 23:53	1
4-Bromofluorobenzene (Surr)	83		61 - 120					09/02/15 23:53	1
Toluene-d8 (Surr)	91		80 - 120					09/02/15 23:53	1
Dibromofluoromethane (Surr)	90		79 - 120					09/02/15 23:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	5.0	U	5.0	0.044	ug/L		09/01/15 08:46	09/04/15 20:01	1
Acenaphthylene	5.0	U	5.0	0.048	ug/L		09/01/15 08:46	09/04/15 20:01	1
Acetophenone	5.0	U	5.0	0.34	ug/L		09/01/15 08:46	09/04/15 20:01	1
Anthracene	5.0	U	5.0	0.087	ug/L		09/01/15 08:46	09/04/15 20:01	1
Atrazine	3.0	U	3.0	0.34	ug/L		09/01/15 08:46	09/04/15 20:01	1
Benzaldehyde	5.0	U	5.0	0.39	ug/L		09/01/15 08:46	09/04/15 20:01	1
Benzo[a]anthracene	0.99	U	0.99	0.029	ug/L		09/01/15 08:46	09/04/15 20:01	1
Benzo[b]fluoranthene	0.99	U	0.99	0.039	ug/L		09/01/15 08:46	09/04/15 20:01	1
Benzo[k]fluoranthene	0.99	U	0.99	0.044	ug/L		09/01/15 08:46	09/04/15 20:01	1
Benzo[g,h,i]perylene	0.99	U	0.99	0.046	ug/L		09/01/15 08:46	09/04/15 20:01	1
Benzo[a]pyrene	0.99	U	0.99	0.051	ug/L		09/01/15 08:46	09/04/15 20:01	1
Butyl benzyl phthalate	5.0	U	5.0	0.26	ug/L		09/01/15 08:46	09/04/15 20:01	1
1,1'-Biphenyl	5.0	U	5.0	0.13	ug/L		09/01/15 08:46	09/04/15 20:01	1
Bis(2-chloroethoxy)methane	5.0	U	5.0	0.32	ug/L		09/01/15 08:46	09/04/15 20:01	1
Bis(2-chloroethyl)ether	0.99	U	0.99	0.099	ug/L		09/01/15 08:46	09/04/15 20:01	1
Bis(2-ethylhexyl) phthalate	5.0	U	5.0	1.7	ug/L		09/01/15 08:46	09/04/15 20:01	1
4-Bromophenyl phenyl ether	5.0	U	5.0	0.22	ug/L		09/01/15 08:46	09/04/15 20:01	1
Caprolactam	9.9	U F1	9.9	0.20	ug/L		09/01/15 08:46	09/04/15 20:01	1
Carbazole	9.9	U	9.9	0.28	ug/L		09/01/15 08:46	09/04/15 20:01	1
4-Chloroaniline	9.9	U F1	9.9	0.21	ug/L		09/01/15 08:46	09/04/15 20:01	1
4-Chloro-3-methylphenol	5.0	U	5.0	0.21	ug/L		09/01/15 08:46	09/04/15 20:01	1
2-Chloronaphthalene	5.0	U	5.0	0.099	ug/L		09/01/15 08:46	09/04/15 20:01	1
2-Chlorophenol	5.0	U	5.0	0.29	ug/L		09/01/15 08:46	09/04/15 20:01	1
4-Chlorophenyl phenyl ether	5.0	U	5.0	0.30	ug/L		09/01/15 08:46	09/04/15 20:01	1
Chrysene	0.99	U	0.99	0.050	ug/L		09/01/15 08:46	09/04/15 20:01	1
2-Methylnaphthalene	5.0	U	5.0	0.090	ug/L		09/01/15 08:46	09/04/15 20:01	1
3 & 4 Methylphenol	5.0	U	5.0	0.79	ug/L		09/01/15 08:46	09/04/15 20:01	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.044	ug/L		09/01/15 08:46	09/04/15 20:01	1
Dibenzofuran	4.0	U	4.0	0.020	ug/L		09/01/15 08:46	09/04/15 20:01	1
3,3'-Dichlorobenzidine	0.99	U	0.99	0.37	ug/L		09/01/15 08:46	09/04/15 20:01	1
2,4-Dichlorophenol	9.9	U	9.9	0.19	ug/L		09/01/15 08:46	09/04/15 20:01	1
Diethyl phthalate	5.0	U	5.0	0.59	ug/L		09/01/15 08:46	09/04/15 20:01	1
2,4-Dimethylphenol	5.0	U	5.0	0.25	ug/L		09/01/15 08:46	09/04/15 20:01	1
Dimethyl phthalate	5.0	U	5.0	0.29	ug/L		09/01/15 08:46	09/04/15 20:01	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		09/01/15 08:46	09/04/15 20:01	1
2,4-Dinitrophenol	20	U	20	0.32	ug/L		09/01/15 08:46	09/04/15 20:01	1
2,4-Dinitrotoluene	5.0	U	5.0	0.25	ug/L		09/01/15 08:46	09/04/15 20:01	1
Di-n-butyl phthalate	5.0	U	5.0	1.7	ug/L		09/01/15 08:46	09/04/15 20:01	1
Di-n-octyl phthalate	5.0	U	5.0	0.23	ug/L		09/01/15 08:46	09/04/15 20:01	1
Fluoranthene	0.99	U	0.99	0.044	ug/L		09/01/15 08:46	09/04/15 20:01	1

TestAmerica Canton



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-34**

**Lab Sample ID: 240-54873-3**

**Date Collected: 08/28/15 11:20**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	5.0	U	5.0	0.040	ug/L		09/01/15 08:46	09/04/15 20:01	1
Hexachlorobenzene	0.20	U	0.20	0.084	ug/L		09/01/15 08:46	09/04/15 20:01	1
Hexachlorobutadiene	0.99	U	0.99	0.27	ug/L		09/01/15 08:46	09/04/15 20:01	1
Hexachlorocyclopentadiene	5.0	U	5.0	0.24	ug/L		09/01/15 08:46	09/04/15 20:01	1
Hexachloroethane	5.0	U	5.0	0.19	ug/L		09/01/15 08:46	09/04/15 20:01	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.043	ug/L		09/01/15 08:46	09/04/15 20:01	1
Isophorone	5.0	U	5.0	0.27	ug/L		09/01/15 08:46	09/04/15 20:01	1
2-Methylphenol	5.0	U	5.0	0.17	ug/L		09/01/15 08:46	09/04/15 20:01	1
Naphthalene	5.0	U	5.0	0.062	ug/L		09/01/15 08:46	09/04/15 20:01	1
2-Nitroaniline	20	U	20	0.21	ug/L		09/01/15 08:46	09/04/15 20:01	1
3-Nitroaniline	20	U	20	0.28	ug/L		09/01/15 08:46	09/04/15 20:01	1
4-Nitroaniline	20	U	20	0.22	ug/L		09/01/15 08:46	09/04/15 20:01	1
Nitrobenzene	3.0	U	3.0	0.040	ug/L		09/01/15 08:46	09/04/15 20:01	1
2-Nitrophenol	5.0	U	5.0	0.28	ug/L		09/01/15 08:46	09/04/15 20:01	1
4-Nitrophenol	20	U	20	0.29	ug/L		09/01/15 08:46	09/04/15 20:01	1
N-Nitrosodiphenylamine	5.0	U	5.0	0.31	ug/L		09/01/15 08:46	09/04/15 20:01	1
N-Nitrosodi-n-propylamine	5.0	U	5.0	0.24	ug/L		09/01/15 08:46	09/04/15 20:01	1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	0.40	ug/L		09/01/15 08:46	09/04/15 20:01	1
Pentachlorophenol	5.0	U	5.0	0.27	ug/L		09/01/15 08:46	09/04/15 20:01	1
Phenanthrene	2.0	U	2.0	0.061	ug/L		09/01/15 08:46	09/04/15 20:01	1
Phenol	5.0	U	5.0	0.59	ug/L		09/01/15 08:46	09/04/15 20:01	1
Pyrene	5.0	U	5.0	0.042	ug/L		09/01/15 08:46	09/04/15 20:01	1
2,4,5-Trichlorophenol	5.0	U	5.0	0.30	ug/L		09/01/15 08:46	09/04/15 20:01	1
2,4,6-Trichlorophenol	4.0	U	4.0	0.24	ug/L		09/01/15 08:46	09/04/15 20:01	1
2,6-Dinitrotoluene	5.0	U	5.0	0.79	ug/L		09/01/15 08:46	09/04/15 20:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	54		29 - 110	09/01/15 08:46	09/04/15 20:01	1
2-Fluorophenol (Surr)	24		15 - 110	09/01/15 08:46	09/04/15 20:01	1
2,4,6-Tribromophenol (Surr)	59		21 - 128	09/01/15 08:46	09/04/15 20:01	1
Nitrobenzene-d5 (Surr)	54		31 - 110	09/01/15 08:46	09/04/15 20:01	1
Phenol-d5 (Surr)	14		10 - 110	09/01/15 08:46	09/04/15 20:01	1
Terphenyl-d14 (Surr)	54		31 - 115	09/01/15 08:46	09/04/15 20:01	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.51	J	2.0	0.16	ug/L		08/31/15 08:53	09/02/15 17:02	1
Arsenic	1.1	J B	5.0	0.18	ug/L		08/31/15 08:53	09/02/15 17:02	1
Barium	70	J	100	1.1	ug/L		08/31/15 08:53	09/02/15 17:02	1
Beryllium	0.17	J	1.0	0.053	ug/L		08/31/15 08:53	09/02/15 17:02	1
Cadmium	0.26	J	1.0	0.061	ug/L		08/31/15 08:53	09/02/15 17:02	1
Cobalt	3.2	J	7.0	0.021	ug/L		08/31/15 08:53	09/02/15 17:02	1
Chromium	12	B	5.0	0.20	ug/L		08/31/15 08:53	09/02/15 17:02	1
Copper	1.3	J	2.0	0.75	ug/L		08/31/15 08:53	09/02/15 17:02	1
Manganese	39		15	1.1	ug/L		08/31/15 08:53	09/02/15 17:02	1
Nickel	140		20	0.23	ug/L		08/31/15 08:53	09/02/15 17:02	1
Lead	0.23	J	3.0	0.11	ug/L		08/31/15 08:53	09/02/15 17:02	1
Selenium	1.9	J B	5.0	0.25	ug/L		08/31/15 08:53	09/02/15 17:02	1
Thallium	0.17	J	1.0	0.074	ug/L		08/31/15 08:53	09/02/15 17:02	1
Vanadium	0.99	J B	4.0	0.23	ug/L		08/31/15 08:53	09/02/15 17:02	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-34**

**Lab Sample ID: 240-54873-3**

**Date Collected: 08/28/15 11:20**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	7.4	J	20	7.3	ug/L		08/31/15 08:53	09/02/15 17:02	1
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:53	09/02/15 17:02	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:53	09/02/15 17:19	1
Arsenic	1.0	J B	5.0	0.18	ug/L		08/31/15 08:53	09/02/15 17:19	1
Beryllium	0.26	J	1.0	0.053	ug/L		08/31/15 08:53	09/02/15 17:19	1
Cadmium	0.42	J	1.0	0.061	ug/L		08/31/15 08:53	09/02/15 17:19	1
Cobalt	3.2	J	7.0	0.021	ug/L		08/31/15 08:53	09/02/15 17:19	1
Chromium	4.5	J B	5.0	0.20	ug/L		08/31/15 08:53	09/02/15 17:19	1
Copper	1.1	J	2.0	0.75	ug/L		08/31/15 08:53	09/02/15 17:19	1
Manganese	35		15	1.1	ug/L		08/31/15 08:53	09/02/15 17:19	1
Nickel	150		20	0.23	ug/L		08/31/15 08:53	09/02/15 17:19	1
Lead	0.25	J	3.0	0.11	ug/L		08/31/15 08:53	09/02/15 17:19	1
Antimony	0.52	J	2.0	0.16	ug/L		08/31/15 08:53	09/02/15 17:19	1
Selenium	1.9	J B	5.0	0.25	ug/L		08/31/15 08:53	09/02/15 17:19	1
Thallium	0.27	J	1.0	0.074	ug/L		08/31/15 08:53	09/02/15 17:19	1
Vanadium	1.3	J B	4.0	0.23	ug/L		08/31/15 08:53	09/02/15 17:19	1
Zinc	20	U	20	7.3	ug/L		08/31/15 08:53	09/02/15 17:19	1
Barium	72	J	100	1.1	ug/L		08/31/15 08:53	09/02/15 17:19	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 13:09	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 13:14	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/29/15 10:46	1
Cr (III)	0.012	J	0.020	0.0050	mg/L			09/04/15 10:16	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-35**

**Lab Sample ID: 240-54873-4**

**Date Collected: 08/28/15 12:00**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/02/15 21:37	1
Benzene	1.0	U	1.0	0.35	ug/L			09/02/15 21:37	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/02/15 21:37	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/02/15 21:37	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/02/15 21:37	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/02/15 21:37	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/02/15 21:37	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/02/15 21:37	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 21:37	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/02/15 21:37	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/02/15 21:37	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/02/15 21:37	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/02/15 21:37	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/02/15 21:37	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/02/15 21:37	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/02/15 21:37	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/02/15 21:37	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/02/15 21:37	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/02/15 21:37	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/02/15 21:37	1
2-Hexanone	10	U	10	0.48	ug/L			09/02/15 21:37	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/02/15 21:37	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/02/15 21:37	1
Styrene	1.0	U	1.0	0.45	ug/L			09/02/15 21:37	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/02/15 21:37	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/02/15 21:37	1
Toluene	1.0	U	1.0	0.23	ug/L			09/02/15 21:37	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/02/15 21:37	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/02/15 21:37	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/02/15 21:37	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/02/15 21:37	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/02/15 21:37	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/02/15 21:37	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/02/15 21:37	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/02/15 21:37	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/02/15 21:37	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/02/15 21:37	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/02/15 21:37	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/02/15 21:37	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/02/15 21:37	1
Methyl acetate	10	U	10	2.3	ug/L			09/02/15 21:37	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/02/15 21:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/02/15 21:37	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/02/15 21:37	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 21:37	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/02/15 21:37	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/02/15 21:37	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/02/15 21:37	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/02/15 21:37	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-35**

**Lab Sample ID: 240-54873-4**

**Date Collected: 08/28/15 12:00**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/02/15 21:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		78 - 125					09/02/15 21:37	1
4-Bromofluorobenzene (Surr)	82		61 - 120					09/02/15 21:37	1
Toluene-d8 (Surr)	93		80 - 120					09/02/15 21:37	1
Dibromofluoromethane (Surr)	94		79 - 120					09/02/15 21:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	4.8	U	4.8	0.043	ug/L		08/31/15 10:13	09/08/15 15:10	1
Acenaphthylene	4.8	U	4.8	0.046	ug/L		08/31/15 10:13	09/08/15 15:10	1
Acetophenone	4.8	U	4.8	0.33	ug/L		08/31/15 10:13	09/08/15 15:10	1
Anthracene	4.8	U	4.8	0.085	ug/L		08/31/15 10:13	09/08/15 15:10	1
Atrazine	2.9	U	2.9	0.33	ug/L		08/31/15 10:13	09/08/15 15:10	1
Benzaldehyde	4.8	U	4.8	0.37	ug/L		08/31/15 10:13	09/08/15 15:10	1
Benzo[a]anthracene	0.96	U	0.96	0.028	ug/L		08/31/15 10:13	09/08/15 15:10	1
Benzo[b]fluoranthene	0.96	U	0.96	0.038	ug/L		08/31/15 10:13	09/08/15 15:10	1
Benzo[k]fluoranthene	0.96	U	0.96	0.043	ug/L		08/31/15 10:13	09/08/15 15:10	1
Benzo[g,h,i]perylene	0.96	U	0.96	0.045	ug/L		08/31/15 10:13	09/08/15 15:10	1
Benzo[a]pyrene	0.96	U	0.96	0.049	ug/L		08/31/15 10:13	09/08/15 15:10	1
Butyl benzyl phthalate	4.8	U	4.8	0.25	ug/L		08/31/15 10:13	09/08/15 15:10	1
1,1'-Biphenyl	4.8	U	4.8	0.13	ug/L		08/31/15 10:13	09/08/15 15:10	1
Bis(2-chloroethoxy)methane	4.8	U	4.8	0.31	ug/L		08/31/15 10:13	09/08/15 15:10	1
Bis(2-chloroethyl)ether	0.96	U	0.96	0.096	ug/L		08/31/15 10:13	09/08/15 15:10	1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8	1.6	ug/L		08/31/15 10:13	09/08/15 15:10	1
4-Bromophenyl phenyl ether	4.8	U	4.8	0.21	ug/L		08/31/15 10:13	09/08/15 15:10	1
Caprolactam	9.6	U	9.6	0.19	ug/L		08/31/15 10:13	09/08/15 15:10	1
Carbazole	9.6	U	9.6	0.27	ug/L		08/31/15 10:13	09/08/15 15:10	1
4-Chloroaniline	9.6	U	9.6	0.20	ug/L		08/31/15 10:13	09/08/15 15:10	1
4-Chloro-3-methylphenol	4.8	U	4.8	0.20	ug/L		08/31/15 10:13	09/08/15 15:10	1
2-Chloronaphthalene	4.8	U	4.8	0.096	ug/L		08/31/15 10:13	09/08/15 15:10	1
2-Chlorophenol	4.8	U	4.8	0.28	ug/L		08/31/15 10:13	09/08/15 15:10	1
4-Chlorophenyl phenyl ether	4.8	U	4.8	0.29	ug/L		08/31/15 10:13	09/08/15 15:10	1
Chrysene	0.96	U	0.96	0.048	ug/L		08/31/15 10:13	09/08/15 15:10	1
2-Methylnaphthalene	4.8	U	4.8	0.087	ug/L		08/31/15 10:13	09/08/15 15:10	1
3 & 4 Methylphenol	4.8	U	4.8	0.77	ug/L		08/31/15 10:13	09/08/15 15:10	1
Dibenz(a,h)anthracene	1.9	U	1.9	0.043	ug/L		08/31/15 10:13	09/08/15 15:10	1
Dibenzofuran	3.8	U	3.8	0.019	ug/L		08/31/15 10:13	09/08/15 15:10	1
3,3'-Dichlorobenzidine	0.96	U	0.96	0.36	ug/L		08/31/15 10:13	09/08/15 15:10	1
2,4-Dichlorophenol	9.6	U	9.6	0.18	ug/L		08/31/15 10:13	09/08/15 15:10	1
Diethyl phthalate	4.8	U	4.8	0.58	ug/L		08/31/15 10:13	09/08/15 15:10	1
2,4-Dimethylphenol	4.8	U	4.8	0.24	ug/L		08/31/15 10:13	09/08/15 15:10	1
Dimethyl phthalate	4.8	U	4.8	0.28	ug/L		08/31/15 10:13	09/08/15 15:10	1
4,6-Dinitro-2-methylphenol	19	U	19	2.3	ug/L		08/31/15 10:13	09/08/15 15:10	1
2,4-Dinitrophenol	19	U	19	0.31	ug/L		08/31/15 10:13	09/08/15 15:10	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		08/31/15 10:13	09/08/15 15:10	1
Di-n-butyl phthalate	4.8	U	4.8	1.6	ug/L		08/31/15 10:13	09/08/15 15:10	1
Di-n-octyl phthalate	4.8	U	4.8	0.22	ug/L		08/31/15 10:13	09/08/15 15:10	1
Fluoranthene	0.96	U	0.96	0.043	ug/L		08/31/15 10:13	09/08/15 15:10	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-35**

**Lab Sample ID: 240-54873-4**

**Date Collected: 08/28/15 12:00**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.8	U	4.8	0.039	ug/L		08/31/15 10:13	09/08/15 15:10	1
Hexachlorobenzene	0.19	U	0.19	0.082	ug/L		08/31/15 10:13	09/08/15 15:10	1
Hexachlorobutadiene	0.96	U	0.96	0.26	ug/L		08/31/15 10:13	09/08/15 15:10	1
Hexachlorocyclopentadiene	4.8	U	4.8	0.23	ug/L		08/31/15 10:13	09/08/15 15:10	1
Hexachloroethane	4.8	U	4.8	0.18	ug/L		08/31/15 10:13	09/08/15 15:10	1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	0.042	ug/L		08/31/15 10:13	09/08/15 15:10	1
Isophorone	4.8	U	4.8	0.26	ug/L		08/31/15 10:13	09/08/15 15:10	1
2-Methylphenol	4.8	U	4.8	0.16	ug/L		08/31/15 10:13	09/08/15 15:10	1
Naphthalene	4.8	U	4.8	0.060	ug/L		08/31/15 10:13	09/08/15 15:10	1
2-Nitroaniline	19	U	19	0.20	ug/L		08/31/15 10:13	09/08/15 15:10	1
3-Nitroaniline	19	U	19	0.27	ug/L		08/31/15 10:13	09/08/15 15:10	1
4-Nitroaniline	19	U	19	0.21	ug/L		08/31/15 10:13	09/08/15 15:10	1
Nitrobenzene	2.9	U	2.9	0.038	ug/L		08/31/15 10:13	09/08/15 15:10	1
2-Nitrophenol	4.8	U	4.8	0.27	ug/L		08/31/15 10:13	09/08/15 15:10	1
4-Nitrophenol	19	U	19	0.28	ug/L		08/31/15 10:13	09/08/15 15:10	1
N-Nitrosodiphenylamine	4.8	U	4.8	0.30	ug/L		08/31/15 10:13	09/08/15 15:10	1
N-Nitrosodi-n-propylamine	4.8	U	4.8	0.23	ug/L		08/31/15 10:13	09/08/15 15:10	1
2,2'-oxybis[1-chloropropane]	4.8	U	4.8	0.38	ug/L		08/31/15 10:13	09/08/15 15:10	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		08/31/15 10:13	09/08/15 15:10	1
Phenanthrene	1.9	U	1.9	0.060	ug/L		08/31/15 10:13	09/08/15 15:10	1
Phenol	4.8	U	4.8	0.58	ug/L		08/31/15 10:13	09/08/15 15:10	1
Pyrene	4.8	U	4.8	0.040	ug/L		08/31/15 10:13	09/08/15 15:10	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		08/31/15 10:13	09/08/15 15:10	1
2,4,6-Trichlorophenol	3.8	U	3.8	0.23	ug/L		08/31/15 10:13	09/08/15 15:10	1
2,6-Dinitrotoluene	4.8	U	4.8	0.77	ug/L		08/31/15 10:13	09/08/15 15:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	63		29 - 110	08/31/15 10:13	09/08/15 15:10	1
2-Fluorophenol (Surr)	27		15 - 110	08/31/15 10:13	09/08/15 15:10	1
2,4,6-Tribromophenol (Surr)	45		21 - 128	08/31/15 10:13	09/08/15 15:10	1
Nitrobenzene-d5 (Surr)	61		31 - 110	08/31/15 10:13	09/08/15 15:10	1
Phenol-d5 (Surr)	14		10 - 110	08/31/15 10:13	09/08/15 15:10	1
Terphenyl-d14 (Surr)	52		31 - 115	08/31/15 10:13	09/08/15 15:10	1

**Method: 6020 - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.33	J	2.0	0.16	ug/L		08/31/15 08:53	09/02/15 17:51	1
Arsenic	0.56	J B	5.0	0.18	ug/L		08/31/15 08:53	09/02/15 17:51	1
Barium	18	J	100	1.1	ug/L		08/31/15 08:53	09/02/15 17:51	1
Beryllium	0.061	J	1.0	0.053	ug/L		08/31/15 08:53	09/02/15 17:51	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:53	09/02/15 17:51	1
Cobalt	0.12	J	7.0	0.021	ug/L		08/31/15 08:53	09/02/15 17:51	1
Chromium	3.7	J B	5.0	0.20	ug/L		08/31/15 08:53	09/02/15 17:51	1
Copper	2.0	U	2.0	0.75	ug/L		08/31/15 08:53	09/02/15 17:51	1
Manganese	15	U	15	1.1	ug/L		08/31/15 08:53	09/02/15 17:51	1
Nickel	0.47	J	20	0.23	ug/L		08/31/15 08:53	09/02/15 17:51	1
Lead	3.0	U	3.0	0.11	ug/L		08/31/15 08:53	09/02/15 17:51	1
Selenium	0.84	J B	5.0	0.25	ug/L		08/31/15 08:53	09/02/15 17:51	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:53	09/02/15 17:51	1
Vanadium	1.8	J B	4.0	0.23	ug/L		08/31/15 08:53	09/02/15 17:51	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-35**

**Lab Sample ID: 240-54873-4**

**Date Collected: 08/28/15 12:00**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/31/15 08:53	09/02/15 17:51	1
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:53	09/02/15 17:51	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:53	09/02/15 17:55	1
<b>Arsenic</b>	<b>0.55</b>	<b>J B</b>	5.0	0.18	ug/L		08/31/15 08:53	09/02/15 17:55	1
<b>Beryllium</b>	<b>0.068</b>	<b>J</b>	1.0	0.053	ug/L		08/31/15 08:53	09/02/15 17:55	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:53	09/02/15 17:55	1
<b>Cobalt</b>	<b>0.10</b>	<b>J</b>	7.0	0.021	ug/L		08/31/15 08:53	09/02/15 17:55	1
<b>Chromium</b>	<b>3.6</b>	<b>J B</b>	5.0	0.20	ug/L		08/31/15 08:53	09/02/15 17:55	1
Copper	2.0	U	2.0	0.75	ug/L		08/31/15 08:53	09/02/15 17:55	1
Manganese	15	U	15	1.1	ug/L		08/31/15 08:53	09/02/15 17:55	1
<b>Nickel</b>	<b>0.43</b>	<b>J</b>	20	0.23	ug/L		08/31/15 08:53	09/02/15 17:55	1
Lead	3.0	U	3.0	0.11	ug/L		08/31/15 08:53	09/02/15 17:55	1
<b>Antimony</b>	<b>0.35</b>	<b>J</b>	2.0	0.16	ug/L		08/31/15 08:53	09/02/15 17:55	1
<b>Selenium</b>	<b>0.94</b>	<b>J B</b>	5.0	0.25	ug/L		08/31/15 08:53	09/02/15 17:55	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:53	09/02/15 17:55	1
<b>Vanadium</b>	<b>1.7</b>	<b>J B</b>	4.0	0.23	ug/L		08/31/15 08:53	09/02/15 17:55	1
<b>Zinc</b>	<b>9.1</b>	<b>J</b>	20	7.3	ug/L		08/31/15 08:53	09/02/15 17:55	1
<b>Barium</b>	<b>18</b>	<b>J</b>	100	1.1	ug/L		08/31/15 08:53	09/02/15 17:55	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 13:32	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 13:35	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/29/15 10:49	1
Cr (III)	0.020	U	0.020	0.0050	mg/L			09/04/15 10:16	1



# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-36**

**Lab Sample ID: 240-54873-5**

**Date Collected: 08/28/15 13:45**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/02/15 21:59	1
Benzene	1.0	U	1.0	0.35	ug/L			09/02/15 21:59	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/02/15 21:59	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/02/15 21:59	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/02/15 21:59	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/02/15 21:59	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/02/15 21:59	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/02/15 21:59	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 21:59	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/02/15 21:59	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/02/15 21:59	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/02/15 21:59	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/02/15 21:59	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/02/15 21:59	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/02/15 21:59	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/02/15 21:59	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/02/15 21:59	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/02/15 21:59	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/02/15 21:59	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/02/15 21:59	1
2-Hexanone	10	U	10	0.48	ug/L			09/02/15 21:59	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/02/15 21:59	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/02/15 21:59	1
Styrene	1.0	U	1.0	0.45	ug/L			09/02/15 21:59	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/02/15 21:59	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/02/15 21:59	1
Toluene	1.0	U	1.0	0.23	ug/L			09/02/15 21:59	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/02/15 21:59	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/02/15 21:59	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/02/15 21:59	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/02/15 21:59	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/02/15 21:59	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/02/15 21:59	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/02/15 21:59	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/02/15 21:59	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/02/15 21:59	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/02/15 21:59	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/02/15 21:59	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/02/15 21:59	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/02/15 21:59	1
Methyl acetate	10	U	10	2.3	ug/L			09/02/15 21:59	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/02/15 21:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/02/15 21:59	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/02/15 21:59	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 21:59	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/02/15 21:59	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/02/15 21:59	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/02/15 21:59	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/02/15 21:59	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-36**

**Lab Sample ID: 240-54873-5**

**Date Collected: 08/28/15 13:45**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/02/15 21:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		78 - 125					09/02/15 21:59	1
4-Bromofluorobenzene (Surr)	84		61 - 120					09/02/15 21:59	1
Toluene-d8 (Surr)	93		80 - 120					09/02/15 21:59	1
Dibromofluoromethane (Surr)	93		79 - 120					09/02/15 21:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	5.0	U	5.0	0.044	ug/L		08/31/15 10:13	09/08/15 15:33	1
Acenaphthylene	5.0	U	5.0	0.048	ug/L		08/31/15 10:13	09/08/15 15:33	1
Acetophenone	5.0	U	5.0	0.34	ug/L		08/31/15 10:13	09/08/15 15:33	1
Anthracene	5.0	U	5.0	0.087	ug/L		08/31/15 10:13	09/08/15 15:33	1
Atrazine	3.0	U	3.0	0.34	ug/L		08/31/15 10:13	09/08/15 15:33	1
Benzaldehyde	5.0	U	5.0	0.39	ug/L		08/31/15 10:13	09/08/15 15:33	1
Benzo[a]anthracene	0.99	U	0.99	0.029	ug/L		08/31/15 10:13	09/08/15 15:33	1
Benzo[b]fluoranthene	0.99	U	0.99	0.039	ug/L		08/31/15 10:13	09/08/15 15:33	1
Benzo[k]fluoranthene	0.99	U	0.99	0.044	ug/L		08/31/15 10:13	09/08/15 15:33	1
Benzo[g,h,i]perylene	0.99	U	0.99	0.046	ug/L		08/31/15 10:13	09/08/15 15:33	1
Benzo[a]pyrene	0.99	U	0.99	0.051	ug/L		08/31/15 10:13	09/08/15 15:33	1
Butyl benzyl phthalate	5.0	U	5.0	0.26	ug/L		08/31/15 10:13	09/08/15 15:33	1
1,1'-Biphenyl	5.0	U	5.0	0.13	ug/L		08/31/15 10:13	09/08/15 15:33	1
Bis(2-chloroethoxy)methane	5.0	U	5.0	0.32	ug/L		08/31/15 10:13	09/08/15 15:33	1
Bis(2-chloroethyl)ether	0.99	U	0.99	0.099	ug/L		08/31/15 10:13	09/08/15 15:33	1
Bis(2-ethylhexyl) phthalate	5.0	U	5.0	1.7	ug/L		08/31/15 10:13	09/08/15 15:33	1
4-Bromophenyl phenyl ether	5.0	U	5.0	0.22	ug/L		08/31/15 10:13	09/08/15 15:33	1
Caprolactam	9.9	U	9.9	0.20	ug/L		08/31/15 10:13	09/08/15 15:33	1
Carbazole	9.9	U	9.9	0.28	ug/L		08/31/15 10:13	09/08/15 15:33	1
4-Chloroaniline	9.9	U	9.9	0.21	ug/L		08/31/15 10:13	09/08/15 15:33	1
4-Chloro-3-methylphenol	5.0	U	5.0	0.21	ug/L		08/31/15 10:13	09/08/15 15:33	1
2-Chloronaphthalene	5.0	U	5.0	0.099	ug/L		08/31/15 10:13	09/08/15 15:33	1
2-Chlorophenol	5.0	U	5.0	0.29	ug/L		08/31/15 10:13	09/08/15 15:33	1
4-Chlorophenyl phenyl ether	5.0	U	5.0	0.30	ug/L		08/31/15 10:13	09/08/15 15:33	1
Chrysene	0.99	U	0.99	0.050	ug/L		08/31/15 10:13	09/08/15 15:33	1
2-Methylnaphthalene	5.0	U	5.0	0.090	ug/L		08/31/15 10:13	09/08/15 15:33	1
3 & 4 Methylphenol	5.0	U	5.0	0.79	ug/L		08/31/15 10:13	09/08/15 15:33	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.044	ug/L		08/31/15 10:13	09/08/15 15:33	1
Dibenzofuran	4.0	U	4.0	0.020	ug/L		08/31/15 10:13	09/08/15 15:33	1
3,3'-Dichlorobenzidine	0.99	U	0.99	0.37	ug/L		08/31/15 10:13	09/08/15 15:33	1
2,4-Dichlorophenol	9.9	U	9.9	0.19	ug/L		08/31/15 10:13	09/08/15 15:33	1
Diethyl phthalate	5.0	U	5.0	0.59	ug/L		08/31/15 10:13	09/08/15 15:33	1
2,4-Dimethylphenol	5.0	U	5.0	0.25	ug/L		08/31/15 10:13	09/08/15 15:33	1
Dimethyl phthalate	5.0	U	5.0	0.29	ug/L		08/31/15 10:13	09/08/15 15:33	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		08/31/15 10:13	09/08/15 15:33	1
2,4-Dinitrophenol	20	U	20	0.32	ug/L		08/31/15 10:13	09/08/15 15:33	1
2,4-Dinitrotoluene	5.0	U	5.0	0.25	ug/L		08/31/15 10:13	09/08/15 15:33	1
Di-n-butyl phthalate	5.0	U	5.0	1.7	ug/L		08/31/15 10:13	09/08/15 15:33	1
Di-n-octyl phthalate	5.0	U	5.0	0.23	ug/L		08/31/15 10:13	09/08/15 15:33	1
Fluoranthene	0.99	U	0.99	0.044	ug/L		08/31/15 10:13	09/08/15 15:33	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-36**

**Lab Sample ID: 240-54873-5**

**Date Collected: 08/28/15 13:45**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	5.0	U	5.0	0.040	ug/L		08/31/15 10:13	09/08/15 15:33	1
Hexachlorobenzene	0.20	U	0.20	0.084	ug/L		08/31/15 10:13	09/08/15 15:33	1
Hexachlorobutadiene	0.99	U	0.99	0.27	ug/L		08/31/15 10:13	09/08/15 15:33	1
Hexachlorocyclopentadiene	5.0	U	5.0	0.24	ug/L		08/31/15 10:13	09/08/15 15:33	1
Hexachloroethane	5.0	U	5.0	0.19	ug/L		08/31/15 10:13	09/08/15 15:33	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.043	ug/L		08/31/15 10:13	09/08/15 15:33	1
Isophorone	5.0	U	5.0	0.27	ug/L		08/31/15 10:13	09/08/15 15:33	1
2-Methylphenol	5.0	U	5.0	0.17	ug/L		08/31/15 10:13	09/08/15 15:33	1
Naphthalene	5.0	U	5.0	0.062	ug/L		08/31/15 10:13	09/08/15 15:33	1
2-Nitroaniline	20	U	20	0.21	ug/L		08/31/15 10:13	09/08/15 15:33	1
3-Nitroaniline	20	U	20	0.28	ug/L		08/31/15 10:13	09/08/15 15:33	1
4-Nitroaniline	20	U	20	0.22	ug/L		08/31/15 10:13	09/08/15 15:33	1
Nitrobenzene	3.0	U	3.0	0.040	ug/L		08/31/15 10:13	09/08/15 15:33	1
2-Nitrophenol	5.0	U	5.0	0.28	ug/L		08/31/15 10:13	09/08/15 15:33	1
4-Nitrophenol	20	U	20	0.29	ug/L		08/31/15 10:13	09/08/15 15:33	1
N-Nitrosodiphenylamine	5.0	U	5.0	0.31	ug/L		08/31/15 10:13	09/08/15 15:33	1
N-Nitrosodi-n-propylamine	5.0	U	5.0	0.24	ug/L		08/31/15 10:13	09/08/15 15:33	1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	0.40	ug/L		08/31/15 10:13	09/08/15 15:33	1
Pentachlorophenol	5.0	U	5.0	0.27	ug/L		08/31/15 10:13	09/08/15 15:33	1
Phenanthrene	2.0	U	2.0	0.061	ug/L		08/31/15 10:13	09/08/15 15:33	1
Phenol	5.0	U	5.0	0.59	ug/L		08/31/15 10:13	09/08/15 15:33	1
Pyrene	5.0	U	5.0	0.042	ug/L		08/31/15 10:13	09/08/15 15:33	1
2,4,5-Trichlorophenol	5.0	U	5.0	0.30	ug/L		08/31/15 10:13	09/08/15 15:33	1
2,4,6-Trichlorophenol	4.0	U	4.0	0.24	ug/L		08/31/15 10:13	09/08/15 15:33	1
2,6-Dinitrotoluene	5.0	U	5.0	0.79	ug/L		08/31/15 10:13	09/08/15 15:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	54		29 - 110	08/31/15 10:13	09/08/15 15:33	1
2-Fluorophenol (Surr)	25		15 - 110	08/31/15 10:13	09/08/15 15:33	1
2,4,6-Tribromophenol (Surr)	36		21 - 128	08/31/15 10:13	09/08/15 15:33	1
Nitrobenzene-d5 (Surr)	48		31 - 110	08/31/15 10:13	09/08/15 15:33	1
Phenol-d5 (Surr)	14		10 - 110	08/31/15 10:13	09/08/15 15:33	1
Terphenyl-d14 (Surr)	55		31 - 115	08/31/15 10:13	09/08/15 15:33	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:53	09/02/15 17:59	1
<b>Arsenic</b>	<b>0.61</b>	<b>J B</b>	5.0	0.18	ug/L		08/31/15 08:53	09/02/15 17:59	1
<b>Barium</b>	<b>33</b>	<b>J</b>	100	1.1	ug/L		08/31/15 08:53	09/02/15 17:59	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:53	09/02/15 17:59	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:53	09/02/15 17:59	1
<b>Cobalt</b>	<b>0.24</b>	<b>J</b>	7.0	0.021	ug/L		08/31/15 08:53	09/02/15 17:59	1
<b>Chromium</b>	<b>3.8</b>	<b>J B</b>	5.0	0.20	ug/L		08/31/15 08:53	09/02/15 17:59	1
<b>Copper</b>	<b>1.1</b>	<b>J</b>	2.0	0.75	ug/L		08/31/15 08:53	09/02/15 17:59	1
<b>Manganese</b>	<b>11</b>	<b>J</b>	15	1.1	ug/L		08/31/15 08:53	09/02/15 17:59	1
<b>Nickel</b>	<b>0.89</b>	<b>J</b>	20	0.23	ug/L		08/31/15 08:53	09/02/15 17:59	1
<b>Lead</b>	<b>0.11</b>	<b>J</b>	3.0	0.11	ug/L		08/31/15 08:53	09/02/15 17:59	1
<b>Selenium</b>	<b>1.2</b>	<b>J B</b>	5.0	0.25	ug/L		08/31/15 08:53	09/02/15 17:59	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:53	09/02/15 17:59	1
<b>Vanadium</b>	<b>1.9</b>	<b>J B</b>	4.0	0.23	ug/L		08/31/15 08:53	09/02/15 17:59	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-36**

**Lab Sample ID: 240-54873-5**

**Date Collected: 08/28/15 13:45**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	9.4	J	20	7.3	ug/L		08/31/15 08:53	09/02/15 17:59	1
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:53	09/02/15 17:59	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:53	09/02/15 18:02	1
Arsenic	0.61	J B	5.0	0.18	ug/L		08/31/15 08:53	09/02/15 18:02	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:53	09/02/15 18:02	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:53	09/02/15 18:02	1
Cobalt	0.15	J	7.0	0.021	ug/L		08/31/15 08:53	09/02/15 18:02	1
Chromium	3.6	J B	5.0	0.20	ug/L		08/31/15 08:53	09/02/15 18:02	1
Copper	2.5		2.0	0.75	ug/L		08/31/15 08:53	09/02/15 18:02	1
Manganese	15	U	15	1.1	ug/L		08/31/15 08:53	09/02/15 18:02	1
Nickel	0.65	J	20	0.23	ug/L		08/31/15 08:53	09/02/15 18:02	1
Lead	0.11	J	3.0	0.11	ug/L		08/31/15 08:53	09/02/15 18:02	1
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:53	09/02/15 18:02	1
Selenium	1.2	J B	5.0	0.25	ug/L		08/31/15 08:53	09/02/15 18:02	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:53	09/02/15 18:02	1
Vanadium	2.0	J B	4.0	0.23	ug/L		08/31/15 08:53	09/02/15 18:02	1
Zinc	20	U	20	7.3	ug/L		08/31/15 08:53	09/02/15 18:02	1
Barium	38	J	100	1.1	ug/L		08/31/15 08:53	09/02/15 18:02	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 13:34	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 13:38	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/29/15 10:50	1
Cr (III)	0.020	U	0.020	0.0050	mg/L			09/04/15 10:16	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-37**

**Lab Sample ID: 240-54873-6**

**Date Collected: 08/28/15 14:15**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/02/15 22:22	1
Benzene	1.0	U	1.0	0.35	ug/L			09/02/15 22:22	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/02/15 22:22	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/02/15 22:22	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/02/15 22:22	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/02/15 22:22	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/02/15 22:22	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/02/15 22:22	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 22:22	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/02/15 22:22	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/02/15 22:22	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/02/15 22:22	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/02/15 22:22	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/02/15 22:22	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/02/15 22:22	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/02/15 22:22	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/02/15 22:22	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/02/15 22:22	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/02/15 22:22	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/02/15 22:22	1
2-Hexanone	10	U	10	0.48	ug/L			09/02/15 22:22	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/02/15 22:22	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/02/15 22:22	1
Styrene	1.0	U	1.0	0.45	ug/L			09/02/15 22:22	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/02/15 22:22	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/02/15 22:22	1
Toluene	1.0	U	1.0	0.23	ug/L			09/02/15 22:22	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/02/15 22:22	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/02/15 22:22	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/02/15 22:22	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/02/15 22:22	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/02/15 22:22	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/02/15 22:22	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/02/15 22:22	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/02/15 22:22	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/02/15 22:22	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/02/15 22:22	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/02/15 22:22	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/02/15 22:22	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/02/15 22:22	1
Methyl acetate	10	U	10	2.3	ug/L			09/02/15 22:22	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/02/15 22:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/02/15 22:22	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/02/15 22:22	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 22:22	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/02/15 22:22	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/02/15 22:22	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/02/15 22:22	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/02/15 22:22	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-37**

**Lab Sample ID: 240-54873-6**

**Date Collected: 08/28/15 14:15**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/02/15 22:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		78 - 125					09/02/15 22:22	1
4-Bromofluorobenzene (Surr)	84		61 - 120					09/02/15 22:22	1
Toluene-d8 (Surr)	92		80 - 120					09/02/15 22:22	1
Dibromofluoromethane (Surr)	91		79 - 120					09/02/15 22:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	4.8	U	4.8	0.043	ug/L		09/01/15 08:46	09/04/15 21:16	1
Acenaphthylene	4.8	U	4.8	0.046	ug/L		09/01/15 08:46	09/04/15 21:16	1
Acetophenone	4.8	U	4.8	0.33	ug/L		09/01/15 08:46	09/04/15 21:16	1
Anthracene	4.8	U	4.8	0.085	ug/L		09/01/15 08:46	09/04/15 21:16	1
Atrazine	2.9	U	2.9	0.33	ug/L		09/01/15 08:46	09/04/15 21:16	1
Benzaldehyde	4.8	U	4.8	0.37	ug/L		09/01/15 08:46	09/04/15 21:16	1
Benzo[a]anthracene	0.96	U	0.96	0.028	ug/L		09/01/15 08:46	09/04/15 21:16	1
Benzo[b]fluoranthene	0.96	U	0.96	0.038	ug/L		09/01/15 08:46	09/04/15 21:16	1
Benzo[k]fluoranthene	0.96	U	0.96	0.043	ug/L		09/01/15 08:46	09/04/15 21:16	1
Benzo[g,h,i]perylene	0.96	U	0.96	0.045	ug/L		09/01/15 08:46	09/04/15 21:16	1
Benzo[a]pyrene	0.96	U	0.96	0.049	ug/L		09/01/15 08:46	09/04/15 21:16	1
Butyl benzyl phthalate	4.8	U	4.8	0.25	ug/L		09/01/15 08:46	09/04/15 21:16	1
1,1'-Biphenyl	4.8	U	4.8	0.13	ug/L		09/01/15 08:46	09/04/15 21:16	1
Bis(2-chloroethoxy)methane	4.8	U	4.8	0.31	ug/L		09/01/15 08:46	09/04/15 21:16	1
Bis(2-chloroethyl)ether	0.96	U	0.96	0.096	ug/L		09/01/15 08:46	09/04/15 21:16	1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8	1.6	ug/L		09/01/15 08:46	09/04/15 21:16	1
4-Bromophenyl phenyl ether	4.8	U	4.8	0.21	ug/L		09/01/15 08:46	09/04/15 21:16	1
<b>Caprolactam</b>	<b>0.36</b>	<b>J</b>	9.6	0.19	ug/L		09/01/15 08:46	09/04/15 21:16	1
Carbazole	9.6	U	9.6	0.27	ug/L		09/01/15 08:46	09/04/15 21:16	1
4-Chloroaniline	9.6	U	9.6	0.20	ug/L		09/01/15 08:46	09/04/15 21:16	1
4-Chloro-3-methylphenol	4.8	U	4.8	0.20	ug/L		09/01/15 08:46	09/04/15 21:16	1
2-Chloronaphthalene	4.8	U	4.8	0.096	ug/L		09/01/15 08:46	09/04/15 21:16	1
2-Chlorophenol	4.8	U	4.8	0.28	ug/L		09/01/15 08:46	09/04/15 21:16	1
4-Chlorophenyl phenyl ether	4.8	U	4.8	0.29	ug/L		09/01/15 08:46	09/04/15 21:16	1
Chrysene	0.96	U	0.96	0.048	ug/L		09/01/15 08:46	09/04/15 21:16	1
2-Methylnaphthalene	4.8	U	4.8	0.087	ug/L		09/01/15 08:46	09/04/15 21:16	1
3 & 4 Methylphenol	4.8	U	4.8	0.77	ug/L		09/01/15 08:46	09/04/15 21:16	1
Dibenz(a,h)anthracene	1.9	U	1.9	0.043	ug/L		09/01/15 08:46	09/04/15 21:16	1
Dibenzofuran	3.8	U	3.8	0.019	ug/L		09/01/15 08:46	09/04/15 21:16	1
3,3'-Dichlorobenzidine	0.96	U	0.96	0.36	ug/L		09/01/15 08:46	09/04/15 21:16	1
2,4-Dichlorophenol	9.6	U	9.6	0.18	ug/L		09/01/15 08:46	09/04/15 21:16	1
Diethyl phthalate	4.8	U	4.8	0.58	ug/L		09/01/15 08:46	09/04/15 21:16	1
2,4-Dimethylphenol	4.8	U	4.8	0.24	ug/L		09/01/15 08:46	09/04/15 21:16	1
Dimethyl phthalate	4.8	U	4.8	0.28	ug/L		09/01/15 08:46	09/04/15 21:16	1
4,6-Dinitro-2-methylphenol	19	U	19	2.3	ug/L		09/01/15 08:46	09/04/15 21:16	1
2,4-Dinitrophenol	19	U	19	0.31	ug/L		09/01/15 08:46	09/04/15 21:16	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		09/01/15 08:46	09/04/15 21:16	1
Di-n-butyl phthalate	4.8	U	4.8	1.6	ug/L		09/01/15 08:46	09/04/15 21:16	1
Di-n-octyl phthalate	4.8	U	4.8	0.22	ug/L		09/01/15 08:46	09/04/15 21:16	1
Fluoranthene	0.96	U	0.96	0.043	ug/L		09/01/15 08:46	09/04/15 21:16	1

TestAmerica Canton



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-37**

**Lab Sample ID: 240-54873-6**

**Date Collected: 08/28/15 14:15**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.8	U	4.8	0.039	ug/L		09/01/15 08:46	09/04/15 21:16	1
Hexachlorobenzene	0.19	U	0.19	0.082	ug/L		09/01/15 08:46	09/04/15 21:16	1
Hexachlorobutadiene	0.96	U	0.96	0.26	ug/L		09/01/15 08:46	09/04/15 21:16	1
Hexachlorocyclopentadiene	4.8	U	4.8	0.23	ug/L		09/01/15 08:46	09/04/15 21:16	1
Hexachloroethane	4.8	U	4.8	0.18	ug/L		09/01/15 08:46	09/04/15 21:16	1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	0.042	ug/L		09/01/15 08:46	09/04/15 21:16	1
Isophorone	4.8	U	4.8	0.26	ug/L		09/01/15 08:46	09/04/15 21:16	1
2-Methylphenol	4.8	U	4.8	0.16	ug/L		09/01/15 08:46	09/04/15 21:16	1
Naphthalene	4.8	U	4.8	0.060	ug/L		09/01/15 08:46	09/04/15 21:16	1
2-Nitroaniline	19	U	19	0.20	ug/L		09/01/15 08:46	09/04/15 21:16	1
3-Nitroaniline	19	U	19	0.27	ug/L		09/01/15 08:46	09/04/15 21:16	1
4-Nitroaniline	19	U	19	0.21	ug/L		09/01/15 08:46	09/04/15 21:16	1
Nitrobenzene	2.9	U	2.9	0.038	ug/L		09/01/15 08:46	09/04/15 21:16	1
2-Nitrophenol	4.8	U	4.8	0.27	ug/L		09/01/15 08:46	09/04/15 21:16	1
4-Nitrophenol	19	U	19	0.28	ug/L		09/01/15 08:46	09/04/15 21:16	1
N-Nitrosodiphenylamine	4.8	U	4.8	0.30	ug/L		09/01/15 08:46	09/04/15 21:16	1
N-Nitrosodi-n-propylamine	4.8	U	4.8	0.23	ug/L		09/01/15 08:46	09/04/15 21:16	1
2,2'-oxybis[1-chloropropane]	4.8	U	4.8	0.38	ug/L		09/01/15 08:46	09/04/15 21:16	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		09/01/15 08:46	09/04/15 21:16	1
Phenanthrene	1.9	U	1.9	0.060	ug/L		09/01/15 08:46	09/04/15 21:16	1
Phenol	4.8	U	4.8	0.58	ug/L		09/01/15 08:46	09/04/15 21:16	1
Pyrene	4.8	U	4.8	0.040	ug/L		09/01/15 08:46	09/04/15 21:16	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		09/01/15 08:46	09/04/15 21:16	1
2,4,6-Trichlorophenol	3.8	U	3.8	0.23	ug/L		09/01/15 08:46	09/04/15 21:16	1
2,6-Dinitrotoluene	4.8	U	4.8	0.77	ug/L		09/01/15 08:46	09/04/15 21:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	63		29 - 110	09/01/15 08:46	09/04/15 21:16	1
2-Fluorophenol (Surr)	32		15 - 110	09/01/15 08:46	09/04/15 21:16	1
2,4,6-Tribromophenol (Surr)	61		21 - 128	09/01/15 08:46	09/04/15 21:16	1
Nitrobenzene-d5 (Surr)	65		31 - 110	09/01/15 08:46	09/04/15 21:16	1
Phenol-d5 (Surr)	19		10 - 110	09/01/15 08:46	09/04/15 21:16	1
Terphenyl-d14 (Surr)	62		31 - 115	09/01/15 08:46	09/04/15 21:16	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:53	09/02/15 18:06	1
<b>Arsenic</b>	<b>0.62</b>	<b>J B</b>	5.0	0.18	ug/L		08/31/15 08:53	09/02/15 18:06	1
<b>Barium</b>	<b>61</b>	<b>J</b>	100	1.1	ug/L		08/31/15 08:53	09/02/15 18:06	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:53	09/02/15 18:06	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:53	09/02/15 18:06	1
<b>Cobalt</b>	<b>0.15</b>	<b>J</b>	7.0	0.021	ug/L		08/31/15 08:53	09/02/15 18:06	1
<b>Chromium</b>	<b>4.5</b>	<b>J B</b>	5.0	0.20	ug/L		08/31/15 08:53	09/02/15 18:06	1
<b>Copper</b>	<b>0.84</b>	<b>J</b>	2.0	0.75	ug/L		08/31/15 08:53	09/02/15 18:06	1
<b>Manganese</b>	<b>1.7</b>	<b>J</b>	15	1.1	ug/L		08/31/15 08:53	09/02/15 18:06	1
<b>Nickel</b>	<b>0.62</b>	<b>J</b>	20	0.23	ug/L		08/31/15 08:53	09/02/15 18:06	1
<b>Lead</b>	<b>0.18</b>	<b>J</b>	3.0	0.11	ug/L		08/31/15 08:53	09/02/15 18:06	1
<b>Selenium</b>	<b>0.62</b>	<b>J B</b>	5.0	0.25	ug/L		08/31/15 08:53	09/02/15 18:06	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:53	09/02/15 18:06	1
<b>Vanadium</b>	<b>1.8</b>	<b>J B</b>	4.0	0.23	ug/L		08/31/15 08:53	09/02/15 18:06	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-37**

**Lab Sample ID: 240-54873-6**

**Date Collected: 08/28/15 14:15**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/31/15 08:53	09/02/15 18:06	1
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:53	09/02/15 18:06	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:53	09/02/15 18:10	1
<b>Arsenic</b>	<b>0.54</b>	<b>J B</b>	5.0	0.18	ug/L		08/31/15 08:53	09/02/15 18:10	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:53	09/02/15 18:10	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:53	09/02/15 18:10	1
<b>Cobalt</b>	<b>0.11</b>	<b>J</b>	7.0	0.021	ug/L		08/31/15 08:53	09/02/15 18:10	1
<b>Chromium</b>	<b>3.8</b>	<b>J B</b>	5.0	0.20	ug/L		08/31/15 08:53	09/02/15 18:10	1
Copper	2.0	U	2.0	0.75	ug/L		08/31/15 08:53	09/02/15 18:10	1
Manganese	15	U	15	1.1	ug/L		08/31/15 08:53	09/02/15 18:10	1
<b>Nickel</b>	<b>0.39</b>	<b>J</b>	20	0.23	ug/L		08/31/15 08:53	09/02/15 18:10	1
Lead	3.0	U	3.0	0.11	ug/L		08/31/15 08:53	09/02/15 18:10	1
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:53	09/02/15 18:10	1
<b>Selenium</b>	<b>0.49</b>	<b>J B</b>	5.0	0.25	ug/L		08/31/15 08:53	09/02/15 18:10	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:53	09/02/15 18:10	1
<b>Vanadium</b>	<b>1.6</b>	<b>J B</b>	4.0	0.23	ug/L		08/31/15 08:53	09/02/15 18:10	1
<b>Zinc</b>	<b>9.8</b>	<b>J</b>	20	7.3	ug/L		08/31/15 08:53	09/02/15 18:10	1
<b>Barium</b>	<b>55</b>	<b>J</b>	100	1.1	ug/L		08/31/15 08:53	09/02/15 18:10	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 13:49	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 13:51	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/29/15 10:51	1
Cr (III)	0.020	U	0.020	0.0050	mg/L			09/04/15 10:16	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-38**

**Lab Sample ID: 240-54873-7**

**Date Collected: 08/28/15 14:25**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/02/15 22:45	1
Benzene	1.0	U	1.0	0.35	ug/L			09/02/15 22:45	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/02/15 22:45	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/02/15 22:45	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/02/15 22:45	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/02/15 22:45	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/02/15 22:45	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/02/15 22:45	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 22:45	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/02/15 22:45	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/02/15 22:45	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/02/15 22:45	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/02/15 22:45	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/02/15 22:45	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/02/15 22:45	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/02/15 22:45	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/02/15 22:45	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/02/15 22:45	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/02/15 22:45	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/02/15 22:45	1
2-Hexanone	10	U	10	0.48	ug/L			09/02/15 22:45	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/02/15 22:45	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/02/15 22:45	1
Styrene	1.0	U	1.0	0.45	ug/L			09/02/15 22:45	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/02/15 22:45	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/02/15 22:45	1
Toluene	1.0	U	1.0	0.23	ug/L			09/02/15 22:45	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/02/15 22:45	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/02/15 22:45	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/02/15 22:45	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/02/15 22:45	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/02/15 22:45	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/02/15 22:45	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/02/15 22:45	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/02/15 22:45	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/02/15 22:45	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/02/15 22:45	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/02/15 22:45	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/02/15 22:45	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/02/15 22:45	1
Methyl acetate	10	U	10	2.3	ug/L			09/02/15 22:45	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/02/15 22:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/02/15 22:45	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/02/15 22:45	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 22:45	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/02/15 22:45	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/02/15 22:45	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/02/15 22:45	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/02/15 22:45	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-38**

**Lab Sample ID: 240-54873-7**

**Date Collected: 08/28/15 14:25**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/02/15 22:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		78 - 125					09/02/15 22:45	1
4-Bromofluorobenzene (Surr)	84		61 - 120					09/02/15 22:45	1
Toluene-d8 (Surr)	92		80 - 120					09/02/15 22:45	1
Dibromofluoromethane (Surr)	92		79 - 120					09/02/15 22:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	5.3	U	5.3	0.047	ug/L		09/01/15 08:46	09/04/15 21:40	1
Acenaphthylene	5.3	U	5.3	0.051	ug/L		09/01/15 08:46	09/04/15 21:40	1
Acetophenone	5.3	U	5.3	0.36	ug/L		09/01/15 08:46	09/04/15 21:40	1
Anthracene	5.3	U	5.3	0.094	ug/L		09/01/15 08:46	09/04/15 21:40	1
Atrazine	3.2	U	3.2	0.36	ug/L		09/01/15 08:46	09/04/15 21:40	1
Benzaldehyde	5.3	U	5.3	0.41	ug/L		09/01/15 08:46	09/04/15 21:40	1
Benzo[a]anthracene	1.1	U	1.1	0.031	ug/L		09/01/15 08:46	09/04/15 21:40	1
Benzo[b]fluoranthene	1.1	U	1.1	0.042	ug/L		09/01/15 08:46	09/04/15 21:40	1
Benzo[k]fluoranthene	1.1	U	1.1	0.048	ug/L		09/01/15 08:46	09/04/15 21:40	1
Benzo[g,h,i]perylene	1.1	U	1.1	0.049	ug/L		09/01/15 08:46	09/04/15 21:40	1
Benzo[a]pyrene	1.1	U	1.1	0.055	ug/L		09/01/15 08:46	09/04/15 21:40	1
Butyl benzyl phthalate	5.3	U	5.3	0.28	ug/L		09/01/15 08:46	09/04/15 21:40	1
1,1'-Biphenyl	5.3	U	5.3	0.14	ug/L		09/01/15 08:46	09/04/15 21:40	1
Bis(2-chloroethoxy)methane	5.3	U	5.3	0.34	ug/L		09/01/15 08:46	09/04/15 21:40	1
Bis(2-chloroethyl)ether	1.1	U	1.1	0.11	ug/L		09/01/15 08:46	09/04/15 21:40	1
Bis(2-ethylhexyl) phthalate	5.3	U	5.3	1.8	ug/L		09/01/15 08:46	09/04/15 21:40	1
4-Bromophenyl phenyl ether	5.3	U	5.3	0.23	ug/L		09/01/15 08:46	09/04/15 21:40	1
<b>Caprolactam</b>	<b>0.34</b>	<b>J</b>	11	0.21	ug/L		09/01/15 08:46	09/04/15 21:40	1
Carbazole	11	U	11	0.30	ug/L		09/01/15 08:46	09/04/15 21:40	1
4-Chloroaniline	11	U	11	0.22	ug/L		09/01/15 08:46	09/04/15 21:40	1
4-Chloro-3-methylphenol	5.3	U	5.3	0.22	ug/L		09/01/15 08:46	09/04/15 21:40	1
2-Chloronaphthalene	5.3	U	5.3	0.11	ug/L		09/01/15 08:46	09/04/15 21:40	1
2-Chlorophenol	5.3	U	5.3	0.31	ug/L		09/01/15 08:46	09/04/15 21:40	1
4-Chlorophenyl phenyl ether	5.3	U	5.3	0.32	ug/L		09/01/15 08:46	09/04/15 21:40	1
Chrysene	1.1	U	1.1	0.053	ug/L		09/01/15 08:46	09/04/15 21:40	1
2-Methylnaphthalene	5.3	U	5.3	0.096	ug/L		09/01/15 08:46	09/04/15 21:40	1
3 & 4 Methylphenol	5.3	U	5.3	0.85	ug/L		09/01/15 08:46	09/04/15 21:40	1
Dibenz(a,h)anthracene	2.1	U	2.1	0.047	ug/L		09/01/15 08:46	09/04/15 21:40	1
Dibenzofuran	4.3	U	4.3	0.021	ug/L		09/01/15 08:46	09/04/15 21:40	1
3,3'-Dichlorobenzidine	1.1	U	1.1	0.39	ug/L		09/01/15 08:46	09/04/15 21:40	1
2,4-Dichlorophenol	11	U	11	0.20	ug/L		09/01/15 08:46	09/04/15 21:40	1
Diethyl phthalate	5.3	U	5.3	0.64	ug/L		09/01/15 08:46	09/04/15 21:40	1
2,4-Dimethylphenol	5.3	U	5.3	0.27	ug/L		09/01/15 08:46	09/04/15 21:40	1
Dimethyl phthalate	5.3	U	5.3	0.31	ug/L		09/01/15 08:46	09/04/15 21:40	1
4,6-Dinitro-2-methylphenol	21	U	21	2.6	ug/L		09/01/15 08:46	09/04/15 21:40	1
2,4-Dinitrophenol	21	U	21	0.34	ug/L		09/01/15 08:46	09/04/15 21:40	1
2,4-Dinitrotoluene	5.3	U	5.3	0.27	ug/L		09/01/15 08:46	09/04/15 21:40	1
Di-n-butyl phthalate	5.3	U	5.3	1.8	ug/L		09/01/15 08:46	09/04/15 21:40	1
Di-n-octyl phthalate	5.3	U	5.3	0.24	ug/L		09/01/15 08:46	09/04/15 21:40	1
Fluoranthene	1.1	U	1.1	0.047	ug/L		09/01/15 08:46	09/04/15 21:40	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-38**

**Lab Sample ID: 240-54873-7**

**Date Collected: 08/28/15 14:25**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	5.3	U	5.3	0.043	ug/L		09/01/15 08:46	09/04/15 21:40	1
Hexachlorobenzene	0.21	U	0.21	0.091	ug/L		09/01/15 08:46	09/04/15 21:40	1
Hexachlorobutadiene	1.1	U	1.1	0.29	ug/L		09/01/15 08:46	09/04/15 21:40	1
Hexachlorocyclopentadiene	5.3	U	5.3	0.26	ug/L		09/01/15 08:46	09/04/15 21:40	1
Hexachloroethane	5.3	U	5.3	0.20	ug/L		09/01/15 08:46	09/04/15 21:40	1
Indeno[1,2,3-cd]pyrene	2.1	U	2.1	0.046	ug/L		09/01/15 08:46	09/04/15 21:40	1
Isophorone	5.3	U	5.3	0.29	ug/L		09/01/15 08:46	09/04/15 21:40	1
2-Methylphenol	5.3	U	5.3	0.18	ug/L		09/01/15 08:46	09/04/15 21:40	1
Naphthalene	5.3	U	5.3	0.067	ug/L		09/01/15 08:46	09/04/15 21:40	1
2-Nitroaniline	21	U	21	0.22	ug/L		09/01/15 08:46	09/04/15 21:40	1
3-Nitroaniline	21	U	21	0.30	ug/L		09/01/15 08:46	09/04/15 21:40	1
4-Nitroaniline	21	U	21	0.23	ug/L		09/01/15 08:46	09/04/15 21:40	1
Nitrobenzene	3.2	U	3.2	0.043	ug/L		09/01/15 08:46	09/04/15 21:40	1
2-Nitrophenol	5.3	U	5.3	0.30	ug/L		09/01/15 08:46	09/04/15 21:40	1
4-Nitrophenol	21	U	21	0.31	ug/L		09/01/15 08:46	09/04/15 21:40	1
N-Nitrosodiphenylamine	5.3	U	5.3	0.33	ug/L		09/01/15 08:46	09/04/15 21:40	1
N-Nitrosodi-n-propylamine	5.3	U	5.3	0.26	ug/L		09/01/15 08:46	09/04/15 21:40	1
2,2'-oxybis[1-chloropropane]	5.3	U	5.3	0.43	ug/L		09/01/15 08:46	09/04/15 21:40	1
Pentachlorophenol	5.3	U	5.3	0.29	ug/L		09/01/15 08:46	09/04/15 21:40	1
Phenanthrene	2.1	U	2.1	0.066	ug/L		09/01/15 08:46	09/04/15 21:40	1
Phenol	5.3	U	5.3	0.64	ug/L		09/01/15 08:46	09/04/15 21:40	1
Pyrene	5.3	U	5.3	0.045	ug/L		09/01/15 08:46	09/04/15 21:40	1
2,4,5-Trichlorophenol	5.3	U	5.3	0.32	ug/L		09/01/15 08:46	09/04/15 21:40	1
2,4,6-Trichlorophenol	4.3	U	4.3	0.26	ug/L		09/01/15 08:46	09/04/15 21:40	1
2,6-Dinitrotoluene	5.3	U	5.3	0.85	ug/L		09/01/15 08:46	09/04/15 21:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	77		29 - 110	09/01/15 08:46	09/04/15 21:40	1
2-Fluorophenol (Surr)	36		15 - 110	09/01/15 08:46	09/04/15 21:40	1
2,4,6-Tribromophenol (Surr)	75		21 - 128	09/01/15 08:46	09/04/15 21:40	1
Nitrobenzene-d5 (Surr)	77		31 - 110	09/01/15 08:46	09/04/15 21:40	1
Phenol-d5 (Surr)	22		10 - 110	09/01/15 08:46	09/04/15 21:40	1
Terphenyl-d14 (Surr)	71		31 - 115	09/01/15 08:46	09/04/15 21:40	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:53	09/02/15 18:20	1
<b>Arsenic</b>	<b>0.62</b>	<b>J B</b>	5.0	0.18	ug/L		08/31/15 08:53	09/02/15 18:20	1
<b>Barium</b>	<b>64</b>	<b>J</b>	100	1.1	ug/L		08/31/15 08:53	09/02/15 18:20	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:53	09/02/15 18:20	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:53	09/02/15 18:20	1
<b>Cobalt</b>	<b>0.15</b>	<b>J</b>	7.0	0.021	ug/L		08/31/15 08:53	09/02/15 18:20	1
<b>Chromium</b>	<b>4.2</b>	<b>J B</b>	5.0	0.20	ug/L		08/31/15 08:53	09/02/15 18:20	1
Copper	2.0	U	2.0	0.75	ug/L		08/31/15 08:53	09/02/15 18:20	1
<b>Manganese</b>	<b>1.6</b>	<b>J</b>	15	1.1	ug/L		08/31/15 08:53	09/02/15 18:20	1
<b>Nickel</b>	<b>0.46</b>	<b>J</b>	20	0.23	ug/L		08/31/15 08:53	09/02/15 18:20	1
<b>Lead</b>	<b>0.11</b>	<b>J</b>	3.0	0.11	ug/L		08/31/15 08:53	09/02/15 18:20	1
<b>Selenium</b>	<b>0.64</b>	<b>J B</b>	5.0	0.25	ug/L		08/31/15 08:53	09/02/15 18:20	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:53	09/02/15 18:20	1
<b>Vanadium</b>	<b>1.6</b>	<b>J B</b>	4.0	0.23	ug/L		08/31/15 08:53	09/02/15 18:20	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-38**

**Lab Sample ID: 240-54873-7**

**Date Collected: 08/28/15 14:25**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/31/15 08:53	09/02/15 18:20	1
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:53	09/02/15 18:20	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:53	09/02/15 18:24	1
<b>Arsenic</b>	<b>0.54</b>	<b>J B</b>	5.0	0.18	ug/L		08/31/15 08:53	09/02/15 18:24	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:53	09/02/15 18:24	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:53	09/02/15 18:24	1
<b>Cobalt</b>	<b>0.11</b>	<b>J</b>	7.0	0.021	ug/L		08/31/15 08:53	09/02/15 18:24	1
<b>Chromium</b>	<b>3.7</b>	<b>J B</b>	5.0	0.20	ug/L		08/31/15 08:53	09/02/15 18:24	1
Copper	2.0	U	2.0	0.75	ug/L		08/31/15 08:53	09/02/15 18:24	1
Manganese	15	U	15	1.1	ug/L		08/31/15 08:53	09/02/15 18:24	1
<b>Nickel</b>	<b>0.43</b>	<b>J</b>	20	0.23	ug/L		08/31/15 08:53	09/02/15 18:24	1
Lead	3.0	U	3.0	0.11	ug/L		08/31/15 08:53	09/02/15 18:24	1
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:53	09/02/15 18:24	1
<b>Selenium</b>	<b>0.61</b>	<b>J B</b>	5.0	0.25	ug/L		08/31/15 08:53	09/02/15 18:24	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:53	09/02/15 18:24	1
<b>Vanadium</b>	<b>1.5</b>	<b>J B</b>	4.0	0.23	ug/L		08/31/15 08:53	09/02/15 18:24	1
<b>Zinc</b>	<b>10</b>	<b>J</b>	20	7.3	ug/L		08/31/15 08:53	09/02/15 18:24	1
<b>Barium</b>	<b>56</b>	<b>J</b>	100	1.1	ug/L		08/31/15 08:53	09/02/15 18:24	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 13:37	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 13:48	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/29/15 10:54	1
Cr (III)	0.020	U	0.020	0.0050	mg/L			09/04/15 10:16	1



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-39**

**Lab Sample ID: 240-54873-8**

**Date Collected: 08/28/15 15:55**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/02/15 23:08	1
Benzene	1.0	U	1.0	0.35	ug/L			09/02/15 23:08	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/02/15 23:08	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/02/15 23:08	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/02/15 23:08	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/02/15 23:08	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/02/15 23:08	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/02/15 23:08	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 23:08	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/02/15 23:08	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/02/15 23:08	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/02/15 23:08	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/02/15 23:08	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/02/15 23:08	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/02/15 23:08	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/02/15 23:08	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/02/15 23:08	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/02/15 23:08	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/02/15 23:08	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/02/15 23:08	1
2-Hexanone	10	U	10	0.48	ug/L			09/02/15 23:08	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/02/15 23:08	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/02/15 23:08	1
Styrene	1.0	U	1.0	0.45	ug/L			09/02/15 23:08	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/02/15 23:08	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/02/15 23:08	1
Toluene	1.0	U	1.0	0.23	ug/L			09/02/15 23:08	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/02/15 23:08	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/02/15 23:08	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/02/15 23:08	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/02/15 23:08	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/02/15 23:08	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/02/15 23:08	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/02/15 23:08	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/02/15 23:08	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/02/15 23:08	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/02/15 23:08	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/02/15 23:08	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/02/15 23:08	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/02/15 23:08	1
Methyl acetate	10	U	10	2.3	ug/L			09/02/15 23:08	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/02/15 23:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/02/15 23:08	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/02/15 23:08	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 23:08	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/02/15 23:08	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/02/15 23:08	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/02/15 23:08	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/02/15 23:08	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-39**

**Lab Sample ID: 240-54873-8**

**Date Collected: 08/28/15 15:55**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/02/15 23:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		78 - 125					09/02/15 23:08	1
4-Bromofluorobenzene (Surr)	85		61 - 120					09/02/15 23:08	1
Toluene-d8 (Surr)	91		80 - 120					09/02/15 23:08	1
Dibromofluoromethane (Surr)	95		79 - 120					09/02/15 23:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	5.4	U	5.4	0.048	ug/L		09/01/15 08:46	09/04/15 22:05	1
Acenaphthylene	5.4	U	5.4	0.052	ug/L		09/01/15 08:46	09/04/15 22:05	1
Acetophenone	5.4	U	5.4	0.37	ug/L		09/01/15 08:46	09/04/15 22:05	1
Anthracene	5.4	U	5.4	0.096	ug/L		09/01/15 08:46	09/04/15 22:05	1
Atrazine	3.3	U	3.3	0.37	ug/L		09/01/15 08:46	09/04/15 22:05	1
Benzaldehyde	5.4	U	5.4	0.42	ug/L		09/01/15 08:46	09/04/15 22:05	1
Benzo[a]anthracene	1.1	U	1.1	0.032	ug/L		09/01/15 08:46	09/04/15 22:05	1
Benzo[b]fluoranthene	1.1	U	1.1	0.043	ug/L		09/01/15 08:46	09/04/15 22:05	1
Benzo[k]fluoranthene	1.1	U	1.1	0.049	ug/L		09/01/15 08:46	09/04/15 22:05	1
Benzo[g,h,i]perylene	1.1	U	1.1	0.050	ug/L		09/01/15 08:46	09/04/15 22:05	1
Benzo[a]pyrene	1.1	U	1.1	0.056	ug/L		09/01/15 08:46	09/04/15 22:05	1
Butyl benzyl phthalate	5.4	U	5.4	0.28	ug/L		09/01/15 08:46	09/04/15 22:05	1
1,1'-Biphenyl	5.4	U	5.4	0.14	ug/L		09/01/15 08:46	09/04/15 22:05	1
Bis(2-chloroethoxy)methane	5.4	U	5.4	0.35	ug/L		09/01/15 08:46	09/04/15 22:05	1
Bis(2-chloroethyl)ether	1.1	U	1.1	0.11	ug/L		09/01/15 08:46	09/04/15 22:05	1
Bis(2-ethylhexyl) phthalate	5.4	U	5.4	1.8	ug/L		09/01/15 08:46	09/04/15 22:05	1
4-Bromophenyl phenyl ether	5.4	U	5.4	0.24	ug/L		09/01/15 08:46	09/04/15 22:05	1
<b>Caprolactam</b>	<b>0.31</b>	<b>J</b>	11	0.22	ug/L		09/01/15 08:46	09/04/15 22:05	1
Carbazole	11	U	11	0.30	ug/L		09/01/15 08:46	09/04/15 22:05	1
4-Chloroaniline	11	U	11	0.23	ug/L		09/01/15 08:46	09/04/15 22:05	1
4-Chloro-3-methylphenol	5.4	U	5.4	0.23	ug/L		09/01/15 08:46	09/04/15 22:05	1
2-Chloronaphthalene	5.4	U	5.4	0.11	ug/L		09/01/15 08:46	09/04/15 22:05	1
2-Chlorophenol	5.4	U	5.4	0.32	ug/L		09/01/15 08:46	09/04/15 22:05	1
4-Chlorophenyl phenyl ether	5.4	U	5.4	0.33	ug/L		09/01/15 08:46	09/04/15 22:05	1
Chrysene	1.1	U	1.1	0.055	ug/L		09/01/15 08:46	09/04/15 22:05	1
2-Methylnaphthalene	5.4	U	5.4	0.098	ug/L		09/01/15 08:46	09/04/15 22:05	1
3 & 4 Methylphenol	5.4	U	5.4	0.87	ug/L		09/01/15 08:46	09/04/15 22:05	1
Dibenz(a,h)anthracene	2.2	U	2.2	0.048	ug/L		09/01/15 08:46	09/04/15 22:05	1
Dibenzofuran	4.3	U	4.3	0.022	ug/L		09/01/15 08:46	09/04/15 22:05	1
3,3'-Dichlorobenzidine	1.1	U	1.1	0.40	ug/L		09/01/15 08:46	09/04/15 22:05	1
2,4-Dichlorophenol	11	U	11	0.21	ug/L		09/01/15 08:46	09/04/15 22:05	1
Diethyl phthalate	5.4	U	5.4	0.65	ug/L		09/01/15 08:46	09/04/15 22:05	1
2,4-Dimethylphenol	5.4	U	5.4	0.27	ug/L		09/01/15 08:46	09/04/15 22:05	1
Dimethyl phthalate	5.4	U	5.4	0.32	ug/L		09/01/15 08:46	09/04/15 22:05	1
4,6-Dinitro-2-methylphenol	22	U	22	2.6	ug/L		09/01/15 08:46	09/04/15 22:05	1
2,4-Dinitrophenol	22	U	22	0.35	ug/L		09/01/15 08:46	09/04/15 22:05	1
2,4-Dinitrotoluene	5.4	U	5.4	0.27	ug/L		09/01/15 08:46	09/04/15 22:05	1
Di-n-butyl phthalate	5.4	U	5.4	1.8	ug/L		09/01/15 08:46	09/04/15 22:05	1
Di-n-octyl phthalate	5.4	U	5.4	0.25	ug/L		09/01/15 08:46	09/04/15 22:05	1
Fluoranthene	1.1	U	1.1	0.048	ug/L		09/01/15 08:46	09/04/15 22:05	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-39**

**Lab Sample ID: 240-54873-8**

**Date Collected: 08/28/15 15:55**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	5.4	U	5.4	0.044	ug/L		09/01/15 08:46	09/04/15 22:05	1
Hexachlorobenzene	0.22	U	0.22	0.093	ug/L		09/01/15 08:46	09/04/15 22:05	1
Hexachlorobutadiene	1.1	U	1.1	0.29	ug/L		09/01/15 08:46	09/04/15 22:05	1
Hexachlorocyclopentadiene	5.4	U	5.4	0.26	ug/L		09/01/15 08:46	09/04/15 22:05	1
Hexachloroethane	5.4	U	5.4	0.21	ug/L		09/01/15 08:46	09/04/15 22:05	1
Indeno[1,2,3-cd]pyrene	2.2	U	2.2	0.047	ug/L		09/01/15 08:46	09/04/15 22:05	1
Isophorone	5.4	U	5.4	0.29	ug/L		09/01/15 08:46	09/04/15 22:05	1
2-Methylphenol	5.4	U	5.4	0.18	ug/L		09/01/15 08:46	09/04/15 22:05	1
Naphthalene	5.4	U	5.4	0.068	ug/L		09/01/15 08:46	09/04/15 22:05	1
2-Nitroaniline	22	U	22	0.23	ug/L		09/01/15 08:46	09/04/15 22:05	1
3-Nitroaniline	22	U	22	0.30	ug/L		09/01/15 08:46	09/04/15 22:05	1
4-Nitroaniline	22	U	22	0.24	ug/L		09/01/15 08:46	09/04/15 22:05	1
Nitrobenzene	3.3	U	3.3	0.043	ug/L		09/01/15 08:46	09/04/15 22:05	1
2-Nitrophenol	5.4	U	5.4	0.30	ug/L		09/01/15 08:46	09/04/15 22:05	1
4-Nitrophenol	22	U	22	0.32	ug/L		09/01/15 08:46	09/04/15 22:05	1
N-Nitrosodiphenylamine	5.4	U	5.4	0.34	ug/L		09/01/15 08:46	09/04/15 22:05	1
N-Nitrosodi-n-propylamine	5.4	U	5.4	0.26	ug/L		09/01/15 08:46	09/04/15 22:05	1
2,2'-oxybis[1-chloropropane]	5.4	U	5.4	0.43	ug/L		09/01/15 08:46	09/04/15 22:05	1
Pentachlorophenol	5.4	U	5.4	0.29	ug/L		09/01/15 08:46	09/04/15 22:05	1
Phenanthrene	2.2	U	2.2	0.067	ug/L		09/01/15 08:46	09/04/15 22:05	1
<b>Phenol</b>	<b>0.88</b>	<b>J</b>	5.4	0.65	ug/L		09/01/15 08:46	09/04/15 22:05	1
Pyrene	5.4	U	5.4	0.046	ug/L		09/01/15 08:46	09/04/15 22:05	1
2,4,5-Trichlorophenol	5.4	U	5.4	0.33	ug/L		09/01/15 08:46	09/04/15 22:05	1
2,4,6-Trichlorophenol	4.3	U	4.3	0.26	ug/L		09/01/15 08:46	09/04/15 22:05	1
2,6-Dinitrotoluene	5.4	U	5.4	0.87	ug/L		09/01/15 08:46	09/04/15 22:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	72		29 - 110	09/01/15 08:46	09/04/15 22:05	1
2-Fluorophenol (Surr)	34		15 - 110	09/01/15 08:46	09/04/15 22:05	1
2,4,6-Tribromophenol (Surr)	74		21 - 128	09/01/15 08:46	09/04/15 22:05	1
Nitrobenzene-d5 (Surr)	73		31 - 110	09/01/15 08:46	09/04/15 22:05	1
Phenol-d5 (Surr)	20		10 - 110	09/01/15 08:46	09/04/15 22:05	1
Terphenyl-d14 (Surr)	61		31 - 115	09/01/15 08:46	09/04/15 22:05	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:53	09/02/15 18:28	1
<b>Arsenic</b>	<b>0.68</b>	<b>J B</b>	5.0	0.18	ug/L		08/31/15 08:53	09/02/15 18:28	1
<b>Barium</b>	<b>74</b>	<b>J</b>	100	1.1	ug/L		08/31/15 08:53	09/02/15 18:28	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:53	09/02/15 18:28	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:53	09/02/15 18:28	1
<b>Cobalt</b>	<b>1.5</b>	<b>J</b>	7.0	0.021	ug/L		08/31/15 08:53	09/02/15 18:28	1
<b>Chromium</b>	<b>180</b>	<b>B</b>	5.0	0.20	ug/L		08/31/15 08:53	09/02/15 18:28	1
<b>Copper</b>	<b>7.2</b>	<b>J</b>	2.0	0.75	ug/L		08/31/15 08:53	09/02/15 18:28	1
<b>Manganese</b>	<b>7.6</b>	<b>J</b>	15	1.1	ug/L		08/31/15 08:53	09/02/15 18:28	1
<b>Nickel</b>	<b>78</b>	<b>J</b>	20	0.23	ug/L		08/31/15 08:53	09/02/15 18:28	1
<b>Lead</b>	<b>0.12</b>	<b>J</b>	3.0	0.11	ug/L		08/31/15 08:53	09/02/15 18:28	1
<b>Selenium</b>	<b>0.69</b>	<b>J B</b>	5.0	0.25	ug/L		08/31/15 08:53	09/02/15 18:28	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:53	09/02/15 18:28	1
<b>Vanadium</b>	<b>0.69</b>	<b>J B</b>	4.0	0.23	ug/L		08/31/15 08:53	09/02/15 18:28	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-39**

**Lab Sample ID: 240-54873-8**

**Date Collected: 08/28/15 15:55**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	8.8	J	20	7.3	ug/L		08/31/15 08:53	09/02/15 18:28	1
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:53	09/02/15 18:28	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:53	09/02/15 18:31	1
Arsenic	0.55	J B	5.0	0.18	ug/L		08/31/15 08:53	09/02/15 18:31	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:53	09/02/15 18:31	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:53	09/02/15 18:31	1
Cobalt	0.83	J	7.0	0.021	ug/L		08/31/15 08:53	09/02/15 18:31	1
Chromium	3.7	J B	5.0	0.20	ug/L		08/31/15 08:53	09/02/15 18:31	1
Copper	0.77	J	2.0	0.75	ug/L		08/31/15 08:53	09/02/15 18:31	1
Manganese	3.9	J	15	1.1	ug/L		08/31/15 08:53	09/02/15 18:31	1
Nickel	54		20	0.23	ug/L		08/31/15 08:53	09/02/15 18:31	1
Lead	3.0	U	3.0	0.11	ug/L		08/31/15 08:53	09/02/15 18:31	1
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:53	09/02/15 18:31	1
Selenium	0.74	J B	5.0	0.25	ug/L		08/31/15 08:53	09/02/15 18:31	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:53	09/02/15 18:31	1
Vanadium	1.5	J B	4.0	0.23	ug/L		08/31/15 08:53	09/02/15 18:31	1
Zinc	20	U	20	7.3	ug/L		08/31/15 08:53	09/02/15 18:31	1
Barium	66	J	100	1.1	ug/L		08/31/15 08:53	09/02/15 18:31	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 13:29	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 13:46	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/29/15 10:55	1
Cr (III)	0.18		0.020	0.0050	mg/L			09/04/15 10:16	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-40**

**Lab Sample ID: 240-54873-9**

**Date Collected: 08/28/15 15:45**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/02/15 23:31	1
Benzene	1.0	U	1.0	0.35	ug/L			09/02/15 23:31	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/02/15 23:31	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/02/15 23:31	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/02/15 23:31	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/02/15 23:31	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/02/15 23:31	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/02/15 23:31	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 23:31	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/02/15 23:31	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/02/15 23:31	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/02/15 23:31	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/02/15 23:31	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/02/15 23:31	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/02/15 23:31	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/02/15 23:31	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/02/15 23:31	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/02/15 23:31	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/02/15 23:31	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/02/15 23:31	1
2-Hexanone	10	U	10	0.48	ug/L			09/02/15 23:31	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/02/15 23:31	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/02/15 23:31	1
Styrene	1.0	U	1.0	0.45	ug/L			09/02/15 23:31	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/02/15 23:31	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/02/15 23:31	1
Toluene	1.0	U	1.0	0.23	ug/L			09/02/15 23:31	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/02/15 23:31	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/02/15 23:31	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/02/15 23:31	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/02/15 23:31	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/02/15 23:31	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/02/15 23:31	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/02/15 23:31	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/02/15 23:31	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/02/15 23:31	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/02/15 23:31	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/02/15 23:31	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/02/15 23:31	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/02/15 23:31	1
Methyl acetate	10	U	10	2.3	ug/L			09/02/15 23:31	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/02/15 23:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/02/15 23:31	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/02/15 23:31	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 23:31	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/02/15 23:31	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/02/15 23:31	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/02/15 23:31	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/02/15 23:31	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-40**

**Lab Sample ID: 240-54873-9**

**Date Collected: 08/28/15 15:45**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/02/15 23:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		78 - 125					09/02/15 23:31	1
4-Bromofluorobenzene (Surr)	87		61 - 120					09/02/15 23:31	1
Toluene-d8 (Surr)	96		80 - 120					09/02/15 23:31	1
Dibromofluoromethane (Surr)	94		79 - 120					09/02/15 23:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	4.8	U	4.8	0.042	ug/L		09/01/15 08:46	09/04/15 22:29	1
Acenaphthylene	4.8	U	4.8	0.046	ug/L		09/01/15 08:46	09/04/15 22:29	1
Acetophenone	4.8	U	4.8	0.32	ug/L		09/01/15 08:46	09/04/15 22:29	1
Anthracene	4.8	U	4.8	0.084	ug/L		09/01/15 08:46	09/04/15 22:29	1
Atrazine	2.9	U	2.9	0.32	ug/L		09/01/15 08:46	09/04/15 22:29	1
Benzaldehyde	4.8	U	4.8	0.37	ug/L		09/01/15 08:46	09/04/15 22:29	1
Benzo[a]anthracene	0.95	U	0.95	0.028	ug/L		09/01/15 08:46	09/04/15 22:29	1
Benzo[b]fluoranthene	0.95	U	0.95	0.038	ug/L		09/01/15 08:46	09/04/15 22:29	1
Benzo[k]fluoranthene	0.95	U	0.95	0.043	ug/L		09/01/15 08:46	09/04/15 22:29	1
Benzo[g,h,i]perylene	0.95	U	0.95	0.044	ug/L		09/01/15 08:46	09/04/15 22:29	1
Benzo[a]pyrene	0.95	U	0.95	0.049	ug/L		09/01/15 08:46	09/04/15 22:29	1
Butyl benzyl phthalate	4.8	U	4.8	0.25	ug/L		09/01/15 08:46	09/04/15 22:29	1
1,1'-Biphenyl	4.8	U	4.8	0.12	ug/L		09/01/15 08:46	09/04/15 22:29	1
Bis(2-chloroethoxy)methane	4.8	U	4.8	0.30	ug/L		09/01/15 08:46	09/04/15 22:29	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.095	ug/L		09/01/15 08:46	09/04/15 22:29	1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8	1.6	ug/L		09/01/15 08:46	09/04/15 22:29	1
4-Bromophenyl phenyl ether	4.8	U	4.8	0.21	ug/L		09/01/15 08:46	09/04/15 22:29	1
Caprolactam	9.5	U	9.5	0.19	ug/L		09/01/15 08:46	09/04/15 22:29	1
Carbazole	9.5	U	9.5	0.27	ug/L		09/01/15 08:46	09/04/15 22:29	1
4-Chloroaniline	9.5	U	9.5	0.20	ug/L		09/01/15 08:46	09/04/15 22:29	1
4-Chloro-3-methylphenol	4.8	U	4.8	0.20	ug/L		09/01/15 08:46	09/04/15 22:29	1
2-Chloronaphthalene	4.8	U	4.8	0.095	ug/L		09/01/15 08:46	09/04/15 22:29	1
2-Chlorophenol	4.8	U	4.8	0.28	ug/L		09/01/15 08:46	09/04/15 22:29	1
4-Chlorophenyl phenyl ether	4.8	U	4.8	0.29	ug/L		09/01/15 08:46	09/04/15 22:29	1
Chrysene	0.95	U	0.95	0.048	ug/L		09/01/15 08:46	09/04/15 22:29	1
2-Methylnaphthalene	4.8	U	4.8	0.086	ug/L		09/01/15 08:46	09/04/15 22:29	1
3 & 4 Methylphenol	4.8	U	4.8	0.76	ug/L		09/01/15 08:46	09/04/15 22:29	1
Dibenz(a,h)anthracene	1.9	U	1.9	0.042	ug/L		09/01/15 08:46	09/04/15 22:29	1
Dibenzofuran	3.8	U	3.8	0.019	ug/L		09/01/15 08:46	09/04/15 22:29	1
3,3'-Dichlorobenzidine	0.95	U	0.95	0.35	ug/L		09/01/15 08:46	09/04/15 22:29	1
2,4-Dichlorophenol	9.5	U	9.5	0.18	ug/L		09/01/15 08:46	09/04/15 22:29	1
Diethyl phthalate	4.8	U	4.8	0.57	ug/L		09/01/15 08:46	09/04/15 22:29	1
2,4-Dimethylphenol	4.8	U	4.8	0.24	ug/L		09/01/15 08:46	09/04/15 22:29	1
Dimethyl phthalate	4.8	U	4.8	0.28	ug/L		09/01/15 08:46	09/04/15 22:29	1
4,6-Dinitro-2-methylphenol	19	U	19	2.3	ug/L		09/01/15 08:46	09/04/15 22:29	1
2,4-Dinitrophenol	19	U	19	0.30	ug/L		09/01/15 08:46	09/04/15 22:29	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		09/01/15 08:46	09/04/15 22:29	1
Di-n-butyl phthalate	4.8	U	4.8	1.6	ug/L		09/01/15 08:46	09/04/15 22:29	1
Di-n-octyl phthalate	4.8	U	4.8	0.22	ug/L		09/01/15 08:46	09/04/15 22:29	1
Fluoranthene	0.95	U	0.95	0.042	ug/L		09/01/15 08:46	09/04/15 22:29	1

TestAmerica Canton



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-40**

**Lab Sample ID: 240-54873-9**

**Date Collected: 08/28/15 15:45**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.8	U	4.8	0.039	ug/L		09/01/15 08:46	09/04/15 22:29	1
Hexachlorobenzene	0.19	U	0.19	0.081	ug/L		09/01/15 08:46	09/04/15 22:29	1
Hexachlorobutadiene	0.95	U	0.95	0.26	ug/L		09/01/15 08:46	09/04/15 22:29	1
Hexachlorocyclopentadiene	4.8	U	4.8	0.23	ug/L		09/01/15 08:46	09/04/15 22:29	1
Hexachloroethane	4.8	U	4.8	0.18	ug/L		09/01/15 08:46	09/04/15 22:29	1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	0.041	ug/L		09/01/15 08:46	09/04/15 22:29	1
Isophorone	4.8	U	4.8	0.26	ug/L		09/01/15 08:46	09/04/15 22:29	1
2-Methylphenol	4.8	U	4.8	0.16	ug/L		09/01/15 08:46	09/04/15 22:29	1
<b>Naphthalene</b>	<b>0.12</b>	<b>J</b>	4.8	0.060	ug/L		09/01/15 08:46	09/04/15 22:29	1
2-Nitroaniline	19	U	19	0.20	ug/L		09/01/15 08:46	09/04/15 22:29	1
3-Nitroaniline	19	U	19	0.27	ug/L		09/01/15 08:46	09/04/15 22:29	1
4-Nitroaniline	19	U	19	0.21	ug/L		09/01/15 08:46	09/04/15 22:29	1
Nitrobenzene	2.9	U	2.9	0.038	ug/L		09/01/15 08:46	09/04/15 22:29	1
2-Nitrophenol	4.8	U	4.8	0.27	ug/L		09/01/15 08:46	09/04/15 22:29	1
4-Nitrophenol	19	U	19	0.28	ug/L		09/01/15 08:46	09/04/15 22:29	1
N-Nitrosodiphenylamine	4.8	U	4.8	0.30	ug/L		09/01/15 08:46	09/04/15 22:29	1
N-Nitrosodi-n-propylamine	4.8	U	4.8	0.23	ug/L		09/01/15 08:46	09/04/15 22:29	1
2,2'-oxybis[1-chloropropane]	4.8	U	4.8	0.38	ug/L		09/01/15 08:46	09/04/15 22:29	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		09/01/15 08:46	09/04/15 22:29	1
Phenanthrene	1.9	U	1.9	0.059	ug/L		09/01/15 08:46	09/04/15 22:29	1
Phenol	4.8	U	4.8	0.57	ug/L		09/01/15 08:46	09/04/15 22:29	1
Pyrene	4.8	U	4.8	0.040	ug/L		09/01/15 08:46	09/04/15 22:29	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		09/01/15 08:46	09/04/15 22:29	1
2,4,6-Trichlorophenol	3.8	U	3.8	0.23	ug/L		09/01/15 08:46	09/04/15 22:29	1
2,6-Dinitrotoluene	4.8	U	4.8	0.76	ug/L		09/01/15 08:46	09/04/15 22:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	74		29 - 110	09/01/15 08:46	09/04/15 22:29	1
2-Fluorophenol (Surr)	35		15 - 110	09/01/15 08:46	09/04/15 22:29	1
2,4,6-Tribromophenol (Surr)	67		21 - 128	09/01/15 08:46	09/04/15 22:29	1
Nitrobenzene-d5 (Surr)	74		31 - 110	09/01/15 08:46	09/04/15 22:29	1
Phenol-d5 (Surr)	20		10 - 110	09/01/15 08:46	09/04/15 22:29	1
Terphenyl-d14 (Surr)	63		31 - 115	09/01/15 08:46	09/04/15 22:29	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:53	09/02/15 18:35	1
<b>Arsenic</b>	<b>0.55</b>	<b>J B</b>	5.0	0.18	ug/L		08/31/15 08:53	09/02/15 18:35	1
<b>Barium</b>	<b>68</b>	<b>J</b>	100	1.1	ug/L		08/31/15 08:53	09/02/15 18:35	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:53	09/02/15 18:35	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:53	09/02/15 18:35	1
<b>Cobalt</b>	<b>0.12</b>	<b>J</b>	7.0	0.021	ug/L		08/31/15 08:53	09/02/15 18:35	1
<b>Chromium</b>	<b>3.5</b>	<b>J B</b>	5.0	0.20	ug/L		08/31/15 08:53	09/02/15 18:35	1
Copper	2.0	U	2.0	0.75	ug/L		08/31/15 08:53	09/02/15 18:35	1
Manganese	15	U	15	1.1	ug/L		08/31/15 08:53	09/02/15 18:35	1
<b>Nickel</b>	<b>0.52</b>	<b>J</b>	20	0.23	ug/L		08/31/15 08:53	09/02/15 18:35	1
Lead	3.0	U	3.0	0.11	ug/L		08/31/15 08:53	09/02/15 18:35	1
<b>Selenium</b>	<b>0.70</b>	<b>J B</b>	5.0	0.25	ug/L		08/31/15 08:53	09/02/15 18:35	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:53	09/02/15 18:35	1
<b>Vanadium</b>	<b>1.6</b>	<b>J B</b>	4.0	0.23	ug/L		08/31/15 08:53	09/02/15 18:35	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-40**

**Lab Sample ID: 240-54873-9**

**Date Collected: 08/28/15 15:45**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	7.5	J	20	7.3	ug/L		08/31/15 08:53	09/02/15 18:35	1
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:53	09/02/15 18:35	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:53	09/02/15 18:39	1
Arsenic	0.55	J B	5.0	0.18	ug/L		08/31/15 08:53	09/02/15 18:39	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:53	09/02/15 18:39	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:53	09/02/15 18:39	1
Cobalt	0.12	J	7.0	0.021	ug/L		08/31/15 08:53	09/02/15 18:39	1
Chromium	3.2	J B	5.0	0.20	ug/L		08/31/15 08:53	09/02/15 18:39	1
Copper	2.0	U	2.0	0.75	ug/L		08/31/15 08:53	09/02/15 18:39	1
Manganese	5.0	J	15	1.1	ug/L		08/31/15 08:53	09/02/15 18:39	1
Nickel	0.51	J	20	0.23	ug/L		08/31/15 08:53	09/02/15 18:39	1
Lead	3.0	U	3.0	0.11	ug/L		08/31/15 08:53	09/02/15 18:39	1
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:53	09/02/15 18:39	1
Selenium	0.58	J B	5.0	0.25	ug/L		08/31/15 08:53	09/02/15 18:39	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:53	09/02/15 18:39	1
Vanadium	1.6	J B	4.0	0.23	ug/L		08/31/15 08:53	09/02/15 18:39	1
Zinc	20	U	20	7.3	ug/L		08/31/15 08:53	09/02/15 18:39	1
Barium	81	J	100	1.1	ug/L		08/31/15 08:53	09/02/15 18:39	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 13:40	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 13:18	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/29/15 10:56	1
Cr (III)	0.020	U	0.020	0.0050	mg/L			09/04/15 10:16	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-41**

**Lab Sample ID: 240-54873-10**

**Date Collected: 08/28/15 16:50**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/03/15 18:19	1
Benzene	1.0	U	1.0	0.35	ug/L			09/03/15 18:19	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/03/15 18:19	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/03/15 18:19	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/03/15 18:19	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/03/15 18:19	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/03/15 18:19	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/03/15 18:19	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/03/15 18:19	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/03/15 18:19	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/03/15 18:19	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/03/15 18:19	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/03/15 18:19	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/03/15 18:19	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/03/15 18:19	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/03/15 18:19	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/03/15 18:19	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/03/15 18:19	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/03/15 18:19	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/03/15 18:19	1
2-Hexanone	10	U	10	0.48	ug/L			09/03/15 18:19	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			09/03/15 18:19	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/03/15 18:19	1
Styrene	1.0	U	1.0	0.45	ug/L			09/03/15 18:19	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/03/15 18:19	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/03/15 18:19	1
Toluene	1.0	U	1.0	0.23	ug/L			09/03/15 18:19	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/03/15 18:19	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/03/15 18:19	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/03/15 18:19	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/03/15 18:19	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/03/15 18:19	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/03/15 18:19	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/03/15 18:19	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/03/15 18:19	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/03/15 18:19	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/03/15 18:19	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/03/15 18:19	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/03/15 18:19	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/03/15 18:19	1
Methyl acetate	10	U	10	2.3	ug/L			09/03/15 18:19	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/03/15 18:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/03/15 18:19	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/03/15 18:19	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/03/15 18:19	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/03/15 18:19	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/03/15 18:19	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/03/15 18:19	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/03/15 18:19	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-41**

**Lab Sample ID: 240-54873-10**

**Date Collected: 08/28/15 16:50**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/03/15 18:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		78 - 125					09/03/15 18:19	1
4-Bromofluorobenzene (Surr)	83		61 - 120					09/03/15 18:19	1
Toluene-d8 (Surr)	95		80 - 120					09/03/15 18:19	1
Dibromofluoromethane (Surr)	93		79 - 120					09/03/15 18:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	4.9	U	4.9	0.043	ug/L		09/01/15 08:46	09/04/15 22:54	1
Acenaphthylene	4.9	U	4.9	0.047	ug/L		09/01/15 08:46	09/04/15 22:54	1
Acetophenone	4.9	U	4.9	0.33	ug/L		09/01/15 08:46	09/04/15 22:54	1
Anthracene	4.9	U	4.9	0.086	ug/L		09/01/15 08:46	09/04/15 22:54	1
Atrazine	2.9	U	2.9	0.33	ug/L		09/01/15 08:46	09/04/15 22:54	1
Benzaldehyde	4.9	U	4.9	0.38	ug/L		09/01/15 08:46	09/04/15 22:54	1
Benzo[a]anthracene	0.98	U	0.98	0.029	ug/L		09/01/15 08:46	09/04/15 22:54	1
Benzo[b]fluoranthene	0.98	U	0.98	0.039	ug/L		09/01/15 08:46	09/04/15 22:54	1
Benzo[k]fluoranthene	0.98	U	0.98	0.044	ug/L		09/01/15 08:46	09/04/15 22:54	1
Benzo[g,h,i]perylene	0.98	U	0.98	0.045	ug/L		09/01/15 08:46	09/04/15 22:54	1
Benzo[a]pyrene	0.98	U	0.98	0.050	ug/L		09/01/15 08:46	09/04/15 22:54	1
Butyl benzyl phthalate	4.9	U	4.9	0.25	ug/L		09/01/15 08:46	09/04/15 22:54	1
1,1'-Biphenyl	4.9	U	4.9	0.13	ug/L		09/01/15 08:46	09/04/15 22:54	1
Bis(2-chloroethoxy)methane	4.9	U	4.9	0.31	ug/L		09/01/15 08:46	09/04/15 22:54	1
Bis(2-chloroethyl)ether	0.98	U	0.98	0.098	ug/L		09/01/15 08:46	09/04/15 22:54	1
Bis(2-ethylhexyl) phthalate	4.9	U	4.9	1.7	ug/L		09/01/15 08:46	09/04/15 22:54	1
4-Bromophenyl phenyl ether	4.9	U	4.9	0.22	ug/L		09/01/15 08:46	09/04/15 22:54	1
Caprolactam	9.8	U	9.8	0.20	ug/L		09/01/15 08:46	09/04/15 22:54	1
Carbazole	9.8	U	9.8	0.27	ug/L		09/01/15 08:46	09/04/15 22:54	1
4-Chloroaniline	9.8	U	9.8	0.21	ug/L		09/01/15 08:46	09/04/15 22:54	1
4-Chloro-3-methylphenol	4.9	U	4.9	0.21	ug/L		09/01/15 08:46	09/04/15 22:54	1
2-Chloronaphthalene	4.9	U	4.9	0.098	ug/L		09/01/15 08:46	09/04/15 22:54	1
2-Chlorophenol	4.9	U	4.9	0.28	ug/L		09/01/15 08:46	09/04/15 22:54	1
4-Chlorophenyl phenyl ether	4.9	U	4.9	0.29	ug/L		09/01/15 08:46	09/04/15 22:54	1
Chrysene	0.98	U	0.98	0.049	ug/L		09/01/15 08:46	09/04/15 22:54	1
2-Methylnaphthalene	4.9	U	4.9	0.089	ug/L		09/01/15 08:46	09/04/15 22:54	1
3 & 4 Methylphenol	4.9	U	4.9	0.78	ug/L		09/01/15 08:46	09/04/15 22:54	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.044	ug/L		09/01/15 08:46	09/04/15 22:54	1
Dibenzofuran	3.9	U	3.9	0.020	ug/L		09/01/15 08:46	09/04/15 22:54	1
3,3'-Dichlorobenzidine	0.98	U	0.98	0.36	ug/L		09/01/15 08:46	09/04/15 22:54	1
2,4-Dichlorophenol	9.8	U	9.8	0.19	ug/L		09/01/15 08:46	09/04/15 22:54	1
Diethyl phthalate	4.9	U	4.9	0.59	ug/L		09/01/15 08:46	09/04/15 22:54	1
2,4-Dimethylphenol	4.9	U	4.9	0.25	ug/L		09/01/15 08:46	09/04/15 22:54	1
Dimethyl phthalate	4.9	U	4.9	0.28	ug/L		09/01/15 08:46	09/04/15 22:54	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		09/01/15 08:46	09/04/15 22:54	1
2,4-Dinitrophenol	20	U	20	0.31	ug/L		09/01/15 08:46	09/04/15 22:54	1
2,4-Dinitrotoluene	4.9	U	4.9	0.25	ug/L		09/01/15 08:46	09/04/15 22:54	1
Di-n-butyl phthalate	4.9	U	4.9	1.7	ug/L		09/01/15 08:46	09/04/15 22:54	1
Di-n-octyl phthalate	4.9	U	4.9	0.23	ug/L		09/01/15 08:46	09/04/15 22:54	1
Fluoranthene	0.98	U	0.98	0.044	ug/L		09/01/15 08:46	09/04/15 22:54	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-41**

**Lab Sample ID: 240-54873-10**

**Date Collected: 08/28/15 16:50**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.9	U	4.9	0.040	ug/L		09/01/15 08:46	09/04/15 22:54	1
Hexachlorobenzene	0.20	U	0.20	0.084	ug/L		09/01/15 08:46	09/04/15 22:54	1
Hexachlorobutadiene	0.98	U	0.98	0.26	ug/L		09/01/15 08:46	09/04/15 22:54	1
Hexachlorocyclopentadiene	4.9	U	4.9	0.24	ug/L		09/01/15 08:46	09/04/15 22:54	1
Hexachloroethane	4.9	U	4.9	0.19	ug/L		09/01/15 08:46	09/04/15 22:54	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.042	ug/L		09/01/15 08:46	09/04/15 22:54	1
Isophorone	4.9	U	4.9	0.26	ug/L		09/01/15 08:46	09/04/15 22:54	1
2-Methylphenol	4.9	U	4.9	0.17	ug/L		09/01/15 08:46	09/04/15 22:54	1
Naphthalene	4.9	U	4.9	0.061	ug/L		09/01/15 08:46	09/04/15 22:54	1
2-Nitroaniline	20	U	20	0.21	ug/L		09/01/15 08:46	09/04/15 22:54	1
3-Nitroaniline	20	U	20	0.27	ug/L		09/01/15 08:46	09/04/15 22:54	1
4-Nitroaniline	20	U	20	0.22	ug/L		09/01/15 08:46	09/04/15 22:54	1
Nitrobenzene	2.9	U	2.9	0.039	ug/L		09/01/15 08:46	09/04/15 22:54	1
2-Nitrophenol	4.9	U	4.9	0.27	ug/L		09/01/15 08:46	09/04/15 22:54	1
4-Nitrophenol	20	U	20	0.28	ug/L		09/01/15 08:46	09/04/15 22:54	1
N-Nitrosodiphenylamine	4.9	U	4.9	0.30	ug/L		09/01/15 08:46	09/04/15 22:54	1
N-Nitrosodi-n-propylamine	4.9	U	4.9	0.24	ug/L		09/01/15 08:46	09/04/15 22:54	1
2,2'-oxybis[1-chloropropane]	4.9	U	4.9	0.39	ug/L		09/01/15 08:46	09/04/15 22:54	1
Pentachlorophenol	4.9	U	4.9	0.26	ug/L		09/01/15 08:46	09/04/15 22:54	1
Phenanthrene	2.0	U	2.0	0.061	ug/L		09/01/15 08:46	09/04/15 22:54	1
Phenol	4.9	U	4.9	0.59	ug/L		09/01/15 08:46	09/04/15 22:54	1
Pyrene	4.9	U	4.9	0.041	ug/L		09/01/15 08:46	09/04/15 22:54	1
2,4,5-Trichlorophenol	4.9	U	4.9	0.29	ug/L		09/01/15 08:46	09/04/15 22:54	1
2,4,6-Trichlorophenol	3.9	U	3.9	0.24	ug/L		09/01/15 08:46	09/04/15 22:54	1
2,6-Dinitrotoluene	4.9	U	4.9	0.78	ug/L		09/01/15 08:46	09/04/15 22:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	72		29 - 110	09/01/15 08:46	09/04/15 22:54	1
2-Fluorophenol (Surr)	34		15 - 110	09/01/15 08:46	09/04/15 22:54	1
2,4,6-Tribromophenol (Surr)	67		21 - 128	09/01/15 08:46	09/04/15 22:54	1
Nitrobenzene-d5 (Surr)	73		31 - 110	09/01/15 08:46	09/04/15 22:54	1
Phenol-d5 (Surr)	20		10 - 110	09/01/15 08:46	09/04/15 22:54	1
Terphenyl-d14 (Surr)	64		31 - 115	09/01/15 08:46	09/04/15 22:54	1

**Method: 6020 - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:54	09/02/15 18:42	1
<b>Arsenic</b>	<b>0.62</b>	<b>J B</b>	5.0	0.18	ug/L		08/31/15 08:54	09/02/15 18:42	1
<b>Barium</b>	<b>70</b>	<b>J</b>	100	1.1	ug/L		08/31/15 08:54	09/02/15 18:42	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:54	09/02/15 18:42	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:54	09/02/15 18:42	1
<b>Cobalt</b>	<b>0.21</b>	<b>J</b>	7.0	0.021	ug/L		08/31/15 08:54	09/02/15 18:42	1
<b>Chromium</b>	<b>15</b>	<b>B</b>	5.0	0.20	ug/L		08/31/15 08:54	09/02/15 18:42	1
<b>Copper</b>	<b>0.83</b>	<b>J</b>	2.0	0.75	ug/L		08/31/15 08:54	09/02/15 18:42	1
<b>Manganese</b>	<b>6.7</b>	<b>J</b>	15	1.1	ug/L		08/31/15 08:54	09/02/15 18:42	1
<b>Nickel</b>	<b>1.3</b>	<b>J</b>	20	0.23	ug/L		08/31/15 08:54	09/02/15 18:42	1
<b>Lead</b>	<b>0.14</b>	<b>J</b>	3.0	0.11	ug/L		08/31/15 08:54	09/02/15 18:42	1
<b>Selenium</b>	<b>0.80</b>	<b>J B</b>	5.0	0.25	ug/L		08/31/15 08:54	09/02/15 18:42	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:54	09/02/15 18:42	1
<b>Vanadium</b>	<b>1.5</b>	<b>J B</b>	4.0	0.23	ug/L		08/31/15 08:54	09/02/15 18:42	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-41**

**Lab Sample ID: 240-54873-10**

**Date Collected: 08/28/15 16:50**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	20	U	20	7.3	ug/L		08/31/15 08:54	09/02/15 18:42	1
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:54	09/02/15 18:42	1

**Method: 6020 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:54	09/02/15 18:46	1
<b>Arsenic</b>	<b>0.60</b>	<b>J B</b>	5.0	0.18	ug/L		08/31/15 08:54	09/02/15 18:46	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:54	09/02/15 18:46	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:54	09/02/15 18:46	1
<b>Cobalt</b>	<b>0.13</b>	<b>J</b>	7.0	0.021	ug/L		08/31/15 08:54	09/02/15 18:46	1
<b>Chromium</b>	<b>3.3</b>	<b>J B</b>	5.0	0.20	ug/L		08/31/15 08:54	09/02/15 18:46	1
Copper	2.0	U	2.0	0.75	ug/L		08/31/15 08:54	09/02/15 18:46	1
Manganese	15	U	15	1.1	ug/L		08/31/15 08:54	09/02/15 18:46	1
<b>Nickel</b>	<b>0.48</b>	<b>J</b>	20	0.23	ug/L		08/31/15 08:54	09/02/15 18:46	1
Lead	3.0	U	3.0	0.11	ug/L		08/31/15 08:54	09/02/15 18:46	1
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:54	09/02/15 18:46	1
<b>Selenium</b>	<b>0.70</b>	<b>J B</b>	5.0	0.25	ug/L		08/31/15 08:54	09/02/15 18:46	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:54	09/02/15 18:46	1
<b>Vanadium</b>	<b>1.5</b>	<b>J B</b>	4.0	0.23	ug/L		08/31/15 08:54	09/02/15 18:46	1
Zinc	20	U	20	7.3	ug/L		08/31/15 08:54	09/02/15 18:46	1
<b>Barium</b>	<b>73</b>	<b>J</b>	100	1.1	ug/L		08/31/15 08:54	09/02/15 18:46	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 13:42	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 13:20	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/29/15 10:57	1
<b>Cr (III)</b>	<b>0.015</b>	<b>J</b>	0.020	0.0050	mg/L			09/04/15 10:16	1



# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 240-54873-11**

**Date Collected: 08/28/15 00:00**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/03/15 18:42	1
Benzene	1.0	U	1.0	0.35	ug/L			09/03/15 18:42	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/03/15 18:42	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/03/15 18:42	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/03/15 18:42	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/03/15 18:42	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/03/15 18:42	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/03/15 18:42	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/03/15 18:42	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/03/15 18:42	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/03/15 18:42	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/03/15 18:42	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/03/15 18:42	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/03/15 18:42	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/03/15 18:42	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/03/15 18:42	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/03/15 18:42	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/03/15 18:42	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/03/15 18:42	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/03/15 18:42	1
2-Hexanone	10	U	10	0.48	ug/L			09/03/15 18:42	1
<b>Methylene Chloride</b>	<b>2.5</b>	<b>B</b>	1.0	0.33	ug/L			09/03/15 18:42	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/03/15 18:42	1
Styrene	1.0	U	1.0	0.45	ug/L			09/03/15 18:42	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/03/15 18:42	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/03/15 18:42	1
Toluene	1.0	U	1.0	0.23	ug/L			09/03/15 18:42	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/03/15 18:42	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/03/15 18:42	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/03/15 18:42	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/03/15 18:42	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/03/15 18:42	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/03/15 18:42	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/03/15 18:42	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/03/15 18:42	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/03/15 18:42	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/03/15 18:42	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/03/15 18:42	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/03/15 18:42	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/03/15 18:42	1
Methyl acetate	10	U	10	2.3	ug/L			09/03/15 18:42	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/03/15 18:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/03/15 18:42	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/03/15 18:42	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/03/15 18:42	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/03/15 18:42	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/03/15 18:42	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/03/15 18:42	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/03/15 18:42	1

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# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 240-54873-11**

**Date Collected: 08/28/15 00:00**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/03/15 18:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		78 - 125					09/03/15 18:42	1
4-Bromofluorobenzene (Surr)	84		61 - 120					09/03/15 18:42	1
Toluene-d8 (Surr)	95		80 - 120					09/03/15 18:42	1
Dibromofluoromethane (Surr)	91		79 - 120					09/03/15 18:42	1

# Surrogate Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	12DCE	BFB	TOL	DBFM
		(78-125)	(61-120)	(80-120)	(79-120)
240-54873-1	GW-082815-JL-32	95	84	91	95
240-54873-2	GW-082815-JL-33	92	81	92	92
240-54873-3	GW-082815-JL-34	91	83	91	90
240-54873-3 MS	GW-082815-JL-34	89	88	93	92
240-54873-3 MSD	GW-082815-JL-34	90	89	95	94
240-54873-4	GW-082815-JL-35	95	82	93	94
240-54873-5	GW-082815-JL-36	92	84	93	93
240-54873-6	GW-082815-JL-37	91	84	92	91
240-54873-7	GW-082815-JL-38	94	84	92	92
240-54873-8	GW-082815-JL-39	92	85	91	95
240-54873-9	GW-082815-JL-40	91	87	96	94
240-54873-10	GW-082815-JL-41	91	83	95	93
240-54873-11	TRIP BLANK	92	84	95	91
LCS 240-195997/4	Lab Control Sample	95	86	93	96
LCS 240-196179/4	Lab Control Sample	91	87	96	93
MB 240-195997/6	Method Blank	92	85	92	93
MB 240-196179/6	Method Blank	97	84	95	97

#### Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

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

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	FBP	2FP	TBP	NBZ	PHL	TPH
		(29-110)	(15-110)	(21-128)	(31-110)	(10-110)	(31-115)
240-54873-1	GW-082815-JL-32	66	28	42	60	15	53
240-54873-2	GW-082815-JL-33	55	24	37	52	13	50
240-54873-3	GW-082815-JL-34	54	24	59	54	14	54
240-54873-3 MS	GW-082815-JL-34	61	26	74	60	16	40
240-54873-3 MSD	GW-082815-JL-34	57	23	75	56	15	46
240-54873-4	GW-082815-JL-35	63	27	45	61	14	52
240-54873-5	GW-082815-JL-36	54	25	36	48	14	55
240-54873-6	GW-082815-JL-37	63	32	61	65	19	62
240-54873-7	GW-082815-JL-38	77	36	75	77	22	71
240-54873-8	GW-082815-JL-39	72	34	74	73	20	61
240-54873-9	GW-082815-JL-40	74	35	67	74	20	63
240-54873-10	GW-082815-JL-41	72	34	67	73	20	64
LCS 240-195560/24-A	Lab Control Sample	79	65	69	78	51	86
LCS 240-195716/18-A	Lab Control Sample	81	72	86	82	59	93
MB 240-195560/23-A	Method Blank	78	65	56	72	51	90
MB 240-195716/17-A	Method Blank	83	74	82	87	57	94

#### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

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# Surrogate Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

TBP = 2,4,6-Tribromophenol (Surr)  
NBZ = Nitrobenzene-d5 (Surr)  
PHL = Phenol-d5 (Surr)  
TPH = Terphenyl-d14 (Surr)

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 240-195997/6**

**Matrix: Water**

**Analysis Batch: 195997**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	10	U	10	0.94	ug/L			09/02/15 16:17	1
Benzene	1.0	U	1.0	0.35	ug/L			09/02/15 16:17	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/02/15 16:17	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/02/15 16:17	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/02/15 16:17	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/02/15 16:17	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/02/15 16:17	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/02/15 16:17	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 16:17	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/02/15 16:17	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/02/15 16:17	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/02/15 16:17	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/02/15 16:17	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/02/15 16:17	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/02/15 16:17	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/02/15 16:17	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/02/15 16:17	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/02/15 16:17	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/02/15 16:17	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/02/15 16:17	1
2-Hexanone	10	U	10	0.48	ug/L			09/02/15 16:17	1
Methylene Chloride	0.616	J	1.0	0.33	ug/L			09/02/15 16:17	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/02/15 16:17	1
Styrene	1.0	U	1.0	0.45	ug/L			09/02/15 16:17	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/02/15 16:17	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/02/15 16:17	1
Toluene	1.0	U	1.0	0.23	ug/L			09/02/15 16:17	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/02/15 16:17	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/02/15 16:17	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/02/15 16:17	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/02/15 16:17	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/02/15 16:17	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/02/15 16:17	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/02/15 16:17	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/02/15 16:17	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/02/15 16:17	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/02/15 16:17	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/02/15 16:17	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/02/15 16:17	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/02/15 16:17	1
Methyl acetate	10	U	10	2.3	ug/L			09/02/15 16:17	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/02/15 16:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/02/15 16:17	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/02/15 16:17	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/02/15 16:17	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/02/15 16:17	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/02/15 16:17	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/02/15 16:17	1

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 240-195997/6**  
**Matrix: Water**  
**Analysis Batch: 195997**

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/02/15 16:17	1
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/02/15 16:17	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		78 - 125					09/02/15 16:17	1
4-Bromofluorobenzene (Surr)	85		61 - 120					09/02/15 16:17	1
Toluene-d8 (Surr)	92		80 - 120					09/02/15 16:17	1
Dibromofluoromethane (Surr)	93		79 - 120					09/02/15 16:17	1

**Lab Sample ID: LCS 240-195997/4**  
**Matrix: Water**  
**Analysis Batch: 195997**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Acetone	20.0	17.1		ug/L		86	34 - 148
Benzene	10.0	10.2		ug/L		102	80 - 120
Dichlorobromomethane	10.0	9.72		ug/L		97	80 - 120
Bromoform	10.0	7.43		ug/L		74	56 - 122
Bromomethane	10.0	5.94		ug/L		59	38 - 132
2-Butanone (MEK)	20.0	19.1		ug/L		95	56 - 138
Carbon disulfide	10.0	9.06		ug/L		91	65 - 144
Carbon tetrachloride	10.0	10.9		ug/L		109	77 - 131
Chlorobenzene	10.0	9.84		ug/L		98	80 - 120
Chloroethane	10.0	4.68		ug/L		47	36 - 126
Chloroform	10.0	9.85		ug/L		99	80 - 120
Chloromethane	10.0	7.90		ug/L		79	48 - 133
1,1-Dichloroethane	10.0	10.2		ug/L		102	79 - 125
1,2-Dichloroethane	10.0	10.1		ug/L		101	80 - 120
1,1-Dichloroethene	10.0	9.83		ug/L		98	76 - 124
1,2-Dichloropropane	10.0	10.3		ug/L		103	78 - 124
1,2,4-Trimethylbenzene	10.0	9.26		ug/L		93	76 - 120
cis-1,3-Dichloropropene	10.0	9.55		ug/L		96	74 - 126
trans-1,3-Dichloropropene	10.0	9.38		ug/L		94	75 - 131
Ethylbenzene	10.0	9.93		ug/L		99	80 - 120
2-Hexanone	20.0	18.1		ug/L		91	55 - 141
Methylene Chloride	10.0	10.0		ug/L		100	77 - 129
4-Methyl-2-pentanone (MIBK)	20.0	19.5		ug/L		98	64 - 135
Styrene	10.0	8.95		ug/L		90	76 - 122
1,1,2,2-Tetrachloroethane	10.0	8.80		ug/L		88	71 - 123
Tetrachloroethene	10.0	9.61		ug/L		96	78 - 121
Toluene	10.0	9.65		ug/L		96	80 - 120
Trichloroethene	10.0	10.8		ug/L		108	80 - 121
1,3,5-Trimethylbenzene	10.0	9.35		ug/L		93	77 - 120
Vinyl chloride	10.0	6.81		ug/L		68	52 - 121
Xylenes, Total	20.0	19.3		ug/L		97	80 - 120
1,1,1-Trichloroethane	10.0	9.75		ug/L		97	77 - 123
1,1,2-Trichloroethane	10.0	9.51		ug/L		95	80 - 120
Cyclohexane	10.0	9.75		ug/L		98	60 - 140

TestAmerica Canton



# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 240-195997/4**  
**Matrix: Water**  
**Analysis Batch: 195997**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	10.0	6.96		ug/L		70	50 - 132
Ethylene Dibromide	10.0	9.38		ug/L		94	80 - 120
Dichlorodifluoromethane	10.0	5.19		ug/L		52	23 - 136
cis-1,2-Dichloroethene	10.0	10.1		ug/L		101	79 - 120
trans-1,2-Dichloroethene	10.0	10.4		ug/L		104	80 - 124
Isopropylbenzene	10.0	9.20		ug/L		92	77 - 120
Methyl acetate	50.0	48.9		ug/L		98	67 - 131
Methyl tert-butyl ether	10.0	9.28		ug/L		93	69 - 121
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.5		ug/L		105	67 - 138
1,2,4-Trichlorobenzene	10.0	9.11		ug/L		91	61 - 120
1,2-Dichlorobenzene	10.0	9.62		ug/L		96	79 - 120
1,3-Dichlorobenzene	10.0	9.54		ug/L		95	79 - 120
1,4-Dichlorobenzene	10.0	9.41		ug/L		94	79 - 120
Trichlorofluoromethane	10.0	8.44		ug/L		84	61 - 133
Methylcyclohexane	10.0	9.70		ug/L		97	61 - 134
m-Xylene & p-Xylene	10.0	9.76		ug/L		98	80 - 120
o-Xylene	10.0	9.55		ug/L		95	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		78 - 125
4-Bromofluorobenzene (Surr)	86		61 - 120
Toluene-d8 (Surr)	93		80 - 120
Dibromofluoromethane (Surr)	96		79 - 120

**Lab Sample ID: 240-54873-3 MS**  
**Matrix: Water**  
**Analysis Batch: 195997**

**Client Sample ID: GW-082815-JL-34**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	1.1	J	20.0	15.1		ug/L		70	32 - 126
Benzene	1.0	U	10.0	9.61		ug/L		96	73 - 121
Dichlorobromomethane	1.0	U	10.0	8.95		ug/L		90	72 - 120
Bromoform	1.0	U	10.0	6.25		ug/L		62	45 - 121
Bromomethane	1.0	U	10.0	6.93		ug/L		69	26 - 136
2-Butanone (MEK)	10	U	20.0	15.8		ug/L		79	49 - 132
Carbon disulfide	1.0	U	10.0	8.24		ug/L		82	54 - 144
Carbon tetrachloride	1.0	U	10.0	9.11		ug/L		91	65 - 129
Chlorobenzene	1.0	U	10.0	8.59		ug/L		86	72 - 120
Chloroethane	1.0	U	10.0	5.05		ug/L		50	27 - 131
Chloroform	1.0	U	10.0	9.43		ug/L		94	73 - 121
Chloromethane	1.0	U	10.0	8.89		ug/L		89	39 - 134
1,1-Dichloroethane	1.0	U	10.0	9.55		ug/L		95	73 - 124
1,2-Dichloroethane	1.0	U	10.0	10.0		ug/L		100	74 - 125
1,1-Dichloroethene	1.0	U	10.0	8.98		ug/L		90	67 - 124
1,2-Dichloropropane	1.0	U	10.0	9.79		ug/L		98	73 - 122
1,2,4-Trimethylbenzene	1.0	U	10.0	7.59		ug/L		76	64 - 122
cis-1,3-Dichloropropene	1.0	U	10.0	8.82		ug/L		88	60 - 120

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# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 240-54873-3 MS**  
**Matrix: Water**  
**Analysis Batch: 195997**

**Client Sample ID: GW-082815-JL-34**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	1.0	U	10.0	8.06		ug/L		81	58 - 132
Ethylbenzene	1.0	U	10.0	7.95		ug/L		79	68 - 121
2-Hexanone	10	U	20.0	15.3		ug/L		76	49 - 142
Methylene Chloride	0.56	J B	10.0	10.2		ug/L		96	70 - 124
4-Methyl-2-pentanone (MIBK)	10	U	20.0	17.3		ug/L		87	58 - 136
Styrene	1.0	U	10.0	7.88		ug/L		79	64 - 126
1,1,2,2-Tetrachloroethane	1.0	U	10.0	8.12		ug/L		81	61 - 130
Tetrachloroethene	1.0	U	10.0	7.84		ug/L		78	59 - 125
Toluene	1.0	U	10.0	8.75		ug/L		87	72 - 122
Trichloroethene	1.0	U	10.0	9.43		ug/L		94	61 - 129
1,3,5-Trimethylbenzene	1.0	U	10.0	7.30		ug/L		73	62 - 126
Vinyl chloride	1.0	U	10.0	7.24		ug/L		72	44 - 122
Xylenes, Total	2.0	U	20.0	16.0		ug/L		80	67 - 122
1,1,1-Trichloroethane	1.0	U	10.0	9.18		ug/L		92	69 - 122
1,1,2-Trichloroethane	1.0	U	10.0	9.07		ug/L		91	72 - 125
Cyclohexane	1.0	U	10.0	6.83		ug/L		68	41 - 137
1,2-Dibromo-3-Chloropropane	2.0	U	10.0	6.27		ug/L		63	42 - 130
Ethylene Dibromide	1.0	U	10.0	8.75		ug/L		88	69 - 125
Dichlorodifluoromethane	1.0	U	10.0	5.65		ug/L		56	14 - 137
cis-1,2-Dichloroethene	1.0	U	10.0	9.85		ug/L		98	66 - 124
trans-1,2-Dichloroethene	1.0	U	10.0	9.38		ug/L		94	72 - 125
Isopropylbenzene	1.0	U	10.0	7.28		ug/L		73	61 - 122
Methyl acetate	10	U	50.0	41.9		ug/L		84	64 - 124
Methyl tert-butyl ether	1.0	U	10.0	8.67		ug/L		87	61 - 121
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	10.0	7.90		ug/L		79	44 - 140
1,2,4-Trichlorobenzene	1.0	U	10.0	7.40		ug/L		74	48 - 120
1,2-Dichlorobenzene	1.0	U	10.0	8.60		ug/L		86	67 - 118
1,3-Dichlorobenzene	1.0	U	10.0	8.06		ug/L		81	65 - 120
1,4-Dichlorobenzene	1.0	U	10.0	8.20		ug/L		82	66 - 120
Trichlorofluoromethane	1.0	U	10.0	8.37		ug/L		84	49 - 133
Methylcyclohexane	1.0	U	10.0	6.51		ug/L		65	39 - 135
m-Xylene & p-Xylene	2.0	U	10.0	7.97		ug/L		80	66 - 123
o-Xylene	1.0	U	10.0	8.05		ug/L		81	68 - 121
				<b>MS</b>	<b>MS</b>				
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
1,2-Dichloroethane-d4 (Surr)	89		78 - 125						
4-Bromofluorobenzene (Surr)	88		61 - 120						
Toluene-d8 (Surr)	93		80 - 120						
Dibromofluoromethane (Surr)	92		79 - 120						

**Lab Sample ID: 240-54873-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 195997**

**Client Sample ID: GW-082815-JL-34**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	1.1	J	20.0	14.6		ug/L		68	32 - 126	3	28
Benzene	1.0	U	10.0	9.11		ug/L		91	73 - 121	5	13

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# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-54873-3 MSD

Client Sample ID: GW-082815-JL-34

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 195997

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorobromomethane	1.0	U	10.0	8.75		ug/L		87	72 - 120	2	19
Bromoform	1.0	U	10.0	6.32		ug/L		63	45 - 121	1	19
Bromomethane	1.0	U	10.0	7.43		ug/L		74	26 - 136	7	35
2-Butanone (MEK)	10	U	20.0	15.7		ug/L		79	49 - 132	0	19
Carbon disulfide	1.0	U	10.0	7.84		ug/L		78	54 - 144	5	34
Carbon tetrachloride	1.0	U	10.0	8.56		ug/L		86	65 - 129	6	20
Chlorobenzene	1.0	U	10.0	8.33		ug/L		83	72 - 120	3	15
Chloroethane	1.0	U	10.0	5.11		ug/L		51	27 - 131	1	35
Chloroform	1.0	U	10.0	9.25		ug/L		93	73 - 121	2	17
Chloromethane	1.0	U	10.0	8.56		ug/L		86	39 - 134	4	20
1,1-Dichloroethane	1.0	U	10.0	9.39		ug/L		94	73 - 124	2	14
1,2-Dichloroethane	1.0	U	10.0	9.49		ug/L		95	74 - 125	6	24
1,1-Dichloroethene	1.0	U	10.0	8.29		ug/L		83	67 - 124	8	24
1,2-Dichloropropane	1.0	U	10.0	9.44		ug/L		94	73 - 122	4	15
1,2,4-Trimethylbenzene	1.0	U	10.0	7.18		ug/L		72	64 - 122	6	14
cis-1,3-Dichloropropene	1.0	U	10.0	8.24		ug/L		82	60 - 120	7	21
trans-1,3-Dichloropropene	1.0	U	10.0	8.13		ug/L		81	58 - 132	1	22
Ethylbenzene	1.0	U	10.0	7.35		ug/L		73	68 - 121	8	16
2-Hexanone	10	U	20.0	15.7		ug/L		78	49 - 142	3	27
Methylene Chloride	0.56	J B	10.0	10.3		ug/L		97	70 - 124	1	14
4-Methyl-2-pentanone (MIBK)	10	U	20.0	17.2		ug/L		86	58 - 136	1	32
Styrene	1.0	U	10.0	7.43		ug/L		74	64 - 126	6	15
1,1,2,2-Tetrachloroethane	1.0	U	10.0	8.21		ug/L		82	61 - 130	1	18
Tetrachloroethene	1.0	U	10.0	7.37		ug/L		74	59 - 125	6	20
Toluene	1.0	U	10.0	8.37		ug/L		84	72 - 122	4	15
Trichloroethene	1.0	U	10.0	8.97		ug/L		90	61 - 129	5	14
1,3,5-Trimethylbenzene	1.0	U	10.0	6.98		ug/L		70	62 - 126	4	17
Vinyl chloride	1.0	U	10.0	6.92		ug/L		69	44 - 122	4	35
Xylenes, Total	2.0	U	20.0	15.4		ug/L		77	67 - 122	4	14
1,1,1-Trichloroethane	1.0	U	10.0	8.51		ug/L		85	69 - 122	8	14
1,1,2-Trichloroethane	1.0	U	10.0	9.32		ug/L		93	72 - 125	3	19
Cyclohexane	1.0	U	10.0	6.29		ug/L		63	41 - 137	8	35
1,2-Dibromo-3-Chloropropane	2.0	U	10.0	6.45		ug/L		65	42 - 130	3	24
Ethylene Dibromide	1.0	U	10.0	8.75		ug/L		87	69 - 125	0	24
Dichlorodifluoromethane	1.0	U	10.0	5.36		ug/L		54	14 - 137	5	34
cis-1,2-Dichloroethene	1.0	U	10.0	9.32		ug/L		93	66 - 124	5	22
trans-1,2-Dichloroethene	1.0	U	10.0	9.30		ug/L		93	72 - 125	1	25
Isopropylbenzene	1.0	U	10.0	7.01		ug/L		70	61 - 122	4	20
Methyl acetate	10	U	50.0	40.8		ug/L		82	64 - 124	3	12
Methyl tert-butyl ether	1.0	U	10.0	8.67		ug/L		87	61 - 121	0	12
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	10.0	7.09		ug/L		71	44 - 140	11	35
1,2,4-Trichlorobenzene	1.0	U	10.0	7.03		ug/L		70	48 - 120	5	28
1,2-Dichlorobenzene	1.0	U	10.0	8.30		ug/L		83	67 - 118	4	15
1,3-Dichlorobenzene	1.0	U	10.0	7.99		ug/L		80	65 - 120	1	15
1,4-Dichlorobenzene	1.0	U	10.0	7.83		ug/L		78	66 - 120	5	16
Trichlorofluoromethane	1.0	U	10.0	8.03		ug/L		80	49 - 133	4	25
Methylcyclohexane	1.0	U	10.0	5.50		ug/L		55	39 - 135	17	35

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# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 240-54873-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 195997**

**Client Sample ID: GW-082815-JL-34**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
m-Xylene & p-Xylene	2.0	U	10.0	7.50		ug/L		75	66 - 123	6	15
o-Xylene	1.0	U	10.0	7.93		ug/L		79	68 - 121	1	14
<b>Surrogate</b>	<b>MSD %Recovery</b>	<b>MSD Qualifier</b>	<b>Limits</b>								
1,2-Dichloroethane-d4 (Surr)	90		78 - 125								
4-Bromofluorobenzene (Surr)	89		61 - 120								
Toluene-d8 (Surr)	95		80 - 120								
Dibromofluoromethane (Surr)	94		79 - 120								

**Lab Sample ID: MB 240-196179/6**  
**Matrix: Water**  
**Analysis Batch: 196179**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			09/03/15 15:30	1
Benzene	1.0	U	1.0	0.35	ug/L			09/03/15 15:30	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			09/03/15 15:30	1
Bromoform	1.0	U	1.0	0.56	ug/L			09/03/15 15:30	1
Bromomethane	1.0	U	1.0	0.44	ug/L			09/03/15 15:30	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			09/03/15 15:30	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			09/03/15 15:30	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			09/03/15 15:30	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			09/03/15 15:30	1
Chloroethane	1.0	U	1.0	0.32	ug/L			09/03/15 15:30	1
Chloroform	1.0	U	1.0	0.25	ug/L			09/03/15 15:30	1
Chloromethane	1.0	U	1.0	0.44	ug/L			09/03/15 15:30	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			09/03/15 15:30	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			09/03/15 15:30	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			09/03/15 15:30	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			09/03/15 15:30	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			09/03/15 15:30	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			09/03/15 15:30	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			09/03/15 15:30	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/03/15 15:30	1
2-Hexanone	10	U	10	0.48	ug/L			09/03/15 15:30	1
Methylene Chloride	0.414	J	1.0	0.33	ug/L			09/03/15 15:30	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			09/03/15 15:30	1
Styrene	1.0	U	1.0	0.45	ug/L			09/03/15 15:30	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			09/03/15 15:30	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			09/03/15 15:30	1
Toluene	1.0	U	1.0	0.23	ug/L			09/03/15 15:30	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			09/03/15 15:30	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			09/03/15 15:30	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			09/03/15 15:30	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			09/03/15 15:30	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			09/03/15 15:30	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/03/15 15:30	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			09/03/15 15:30	1

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 240-196179/6**  
**Matrix: Water**  
**Analysis Batch: 196179**

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			09/03/15 15:30	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			09/03/15 15:30	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			09/03/15 15:30	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/03/15 15:30	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/03/15 15:30	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			09/03/15 15:30	1
Methyl acetate	10	U	10	2.3	ug/L			09/03/15 15:30	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/03/15 15:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			09/03/15 15:30	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			09/03/15 15:30	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			09/03/15 15:30	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			09/03/15 15:30	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			09/03/15 15:30	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			09/03/15 15:30	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			09/03/15 15:30	1
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			09/03/15 15:30	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	97		78 - 125		09/03/15 15:30	1
4-Bromofluorobenzene (Surr)	84		61 - 120		09/03/15 15:30	1
Toluene-d8 (Surr)	95		80 - 120		09/03/15 15:30	1
Dibromofluoromethane (Surr)	97		79 - 120		09/03/15 15:30	1

**Lab Sample ID: LCS 240-196179/4**  
**Matrix: Water**  
**Analysis Batch: 196179**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	10.0	10.1		ug/L		101	80 - 120
Dichlorobromomethane	10.0	9.65		ug/L		97	80 - 120
Bromoform	10.0	7.44		ug/L		74	56 - 122
Bromomethane	10.0	6.32		ug/L		63	38 - 132
2-Butanone (MEK)	20.0	18.0		ug/L		90	56 - 138
Carbon disulfide	10.0	9.09		ug/L		91	65 - 144
Carbon tetrachloride	10.0	10.8		ug/L		108	77 - 131
Chlorobenzene	10.0	10.3		ug/L		103	80 - 120
Chloroethane	10.0	4.66		ug/L		47	36 - 126
Chloroform	10.0	9.58		ug/L		96	80 - 120
Chloromethane	10.0	7.06		ug/L		71	48 - 133
1,1-Dichloroethane	10.0	9.85		ug/L		99	79 - 125
1,2-Dichloroethane	10.0	10.2		ug/L		102	80 - 120
1,1-Dichloroethene	10.0	9.52		ug/L		95	76 - 124
1,2-Dichloropropane	10.0	10.2		ug/L		102	78 - 124
1,2,4-Trimethylbenzene	10.0	9.72		ug/L		97	76 - 120
cis-1,3-Dichloropropene	10.0	9.68		ug/L		97	74 - 126
trans-1,3-Dichloropropene	10.0	9.39		ug/L		94	75 - 131
Ethylbenzene	10.0	10.2		ug/L		102	80 - 120

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# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 240-196179/4**

**Matrix: Water**

**Analysis Batch: 196179**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Hexanone	20.0	17.4		ug/L		87	55 - 141
Methylene Chloride	10.0	9.99		ug/L		100	77 - 129
4-Methyl-2-pentanone (MIBK)	20.0	18.4		ug/L		92	64 - 135
Styrene	10.0	9.36		ug/L		94	76 - 122
1,1,2,2-Tetrachloroethane	10.0	8.86		ug/L		89	71 - 123
Tetrachloroethene	10.0	10.5		ug/L		105	78 - 121
Toluene	10.0	10.1		ug/L		101	80 - 120
Trichloroethene	10.0	10.9		ug/L		109	80 - 121
1,3,5-Trimethylbenzene	10.0	9.58		ug/L		96	77 - 120
Vinyl chloride	10.0	5.94		ug/L		59	52 - 121
Xylenes, Total	20.0	19.5		ug/L		98	80 - 120
1,1,1-Trichloroethane	10.0	10.1		ug/L		101	77 - 123
1,1,2-Trichloroethane	10.0	9.73		ug/L		97	80 - 120
Cyclohexane	10.0	9.88		ug/L		99	60 - 140
1,2-Dibromo-3-Chloropropane	10.0	7.31		ug/L		73	50 - 132
Ethylene Dibromide	10.0	9.61		ug/L		96	80 - 120
Dichlorodifluoromethane	10.0	3.46		ug/L		35	23 - 136
cis-1,2-Dichloroethene	10.0	9.99		ug/L		100	79 - 120
trans-1,2-Dichloroethene	10.0	9.66		ug/L		97	80 - 124
Isopropylbenzene	10.0	9.57		ug/L		96	77 - 120
Methyl acetate	50.0	46.6		ug/L		93	67 - 131
Methyl tert-butyl ether	10.0	8.77		ug/L		88	69 - 121
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.6		ug/L		106	67 - 138
1,2,4-Trichlorobenzene	10.0	9.33		ug/L		93	61 - 120
1,2-Dichlorobenzene	10.0	10.1		ug/L		101	79 - 120
1,3-Dichlorobenzene	10.0	10.2		ug/L		102	79 - 120
1,4-Dichlorobenzene	10.0	10.1		ug/L		101	79 - 120
Trichlorofluoromethane	10.0	8.99		ug/L		90	61 - 133
Methylcyclohexane	10.0	9.94		ug/L		99	61 - 134
m-Xylene & p-Xylene	10.0	9.80		ug/L		98	80 - 120
o-Xylene	10.0	9.71		ug/L		97	80 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	91		78 - 125
4-Bromofluorobenzene (Surr)	87		61 - 120
Toluene-d8 (Surr)	96		80 - 120
Dibromofluoromethane (Surr)	93		79 - 120

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

**Lab Sample ID: MB 240-195560/23-A**

**Matrix: Water**

**Analysis Batch: 196528**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 195560**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acenaphthene	5.0	U	5.0	0.044	ug/L		08/31/15 10:13	09/08/15 08:05	1
Acenaphthylene	5.0	U	5.0	0.048	ug/L		08/31/15 10:13	09/08/15 08:05	1

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# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

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

**Lab Sample ID: MB 240-195560/23-A**  
**Matrix: Water**  
**Analysis Batch: 196528**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 195560**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetophenone	5.0	U	5.0	0.34	ug/L		08/31/15 10:13	09/08/15 08:05	1
Anthracene	5.0	U	5.0	0.088	ug/L		08/31/15 10:13	09/08/15 08:05	1
Atrazine	3.0	U	3.0	0.34	ug/L		08/31/15 10:13	09/08/15 08:05	1
Benzaldehyde	5.0	U	5.0	0.39	ug/L		08/31/15 10:13	09/08/15 08:05	1
Benzo[a]anthracene	1.0	U	1.0	0.030	ug/L		08/31/15 10:13	09/08/15 08:05	1
Benzo[b]fluoranthene	1.0	U	1.0	0.039	ug/L		08/31/15 10:13	09/08/15 08:05	1
Benzo[k]fluoranthene	1.0	U	1.0	0.045	ug/L		08/31/15 10:13	09/08/15 08:05	1
Benzo[g,h,i]perylene	1.0	U	1.0	0.046	ug/L		08/31/15 10:13	09/08/15 08:05	1
Benzo[a]pyrene	1.0	U	1.0	0.051	ug/L		08/31/15 10:13	09/08/15 08:05	1
Butyl benzyl phthalate	5.0	U	5.0	0.26	ug/L		08/31/15 10:13	09/08/15 08:05	1
1,1'-Biphenyl	5.0	U	5.0	0.13	ug/L		08/31/15 10:13	09/08/15 08:05	1
Bis(2-chloroethoxy)methane	5.0	U	5.0	0.32	ug/L		08/31/15 10:13	09/08/15 08:05	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.10	ug/L		08/31/15 10:13	09/08/15 08:05	1
Bis(2-ethylhexyl) phthalate	5.0	U	5.0	1.7	ug/L		08/31/15 10:13	09/08/15 08:05	1
4-Bromophenyl phenyl ether	5.0	U	5.0	0.22	ug/L		08/31/15 10:13	09/08/15 08:05	1
Caprolactam	10	U	10	0.20	ug/L		08/31/15 10:13	09/08/15 08:05	1
Carbazole	10	U	10	0.28	ug/L		08/31/15 10:13	09/08/15 08:05	1
4-Chloroaniline	10	U	10	0.21	ug/L		08/31/15 10:13	09/08/15 08:05	1
4-Chloro-3-methylphenol	5.0	U	5.0	0.21	ug/L		08/31/15 10:13	09/08/15 08:05	1
2-Chloronaphthalene	5.0	U	5.0	0.10	ug/L		08/31/15 10:13	09/08/15 08:05	1
2-Chlorophenol	5.0	U	5.0	0.29	ug/L		08/31/15 10:13	09/08/15 08:05	1
4-Chlorophenyl phenyl ether	5.0	U	5.0	0.30	ug/L		08/31/15 10:13	09/08/15 08:05	1
Chrysene	1.0	U	1.0	0.050	ug/L		08/31/15 10:13	09/08/15 08:05	1
2-Methylnaphthalene	5.0	U	5.0	0.090	ug/L		08/31/15 10:13	09/08/15 08:05	1
3 & 4 Methylphenol	5.0	U	5.0	0.80	ug/L		08/31/15 10:13	09/08/15 08:05	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.045	ug/L		08/31/15 10:13	09/08/15 08:05	1
Dibenzofuran	4.0	U	4.0	0.020	ug/L		08/31/15 10:13	09/08/15 08:05	1
3,3'-Dichlorobenzidine	1.0	U	1.0	0.37	ug/L		08/31/15 10:13	09/08/15 08:05	1
2,4-Dichlorophenol	10	U	10	0.19	ug/L		08/31/15 10:13	09/08/15 08:05	1
Diethyl phthalate	5.0	U	5.0	0.60	ug/L		08/31/15 10:13	09/08/15 08:05	1
2,4-Dimethylphenol	5.0	U	5.0	0.25	ug/L		08/31/15 10:13	09/08/15 08:05	1
Dimethyl phthalate	5.0	U	5.0	0.29	ug/L		08/31/15 10:13	09/08/15 08:05	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		08/31/15 10:13	09/08/15 08:05	1
2,4-Dinitrophenol	20	U	20	0.32	ug/L		08/31/15 10:13	09/08/15 08:05	1
2,4-Dinitrotoluene	5.0	U	5.0	0.25	ug/L		08/31/15 10:13	09/08/15 08:05	1
Di-n-butyl phthalate	5.0	U	5.0	1.7	ug/L		08/31/15 10:13	09/08/15 08:05	1
Di-n-octyl phthalate	5.0	U	5.0	0.23	ug/L		08/31/15 10:13	09/08/15 08:05	1
Fluoranthene	1.0	U	1.0	0.045	ug/L		08/31/15 10:13	09/08/15 08:05	1
Fluorene	5.0	U	5.0	0.041	ug/L		08/31/15 10:13	09/08/15 08:05	1
Hexachlorobenzene	0.20	U	0.20	0.085	ug/L		08/31/15 10:13	09/08/15 08:05	1
Hexachlorobutadiene	1.0	U	1.0	0.27	ug/L		08/31/15 10:13	09/08/15 08:05	1
Hexachlorocyclopentadiene	5.0	U	5.0	0.24	ug/L		08/31/15 10:13	09/08/15 08:05	1
Hexachloroethane	5.0	U	5.0	0.19	ug/L		08/31/15 10:13	09/08/15 08:05	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.043	ug/L		08/31/15 10:13	09/08/15 08:05	1
Isophorone	5.0	U	5.0	0.27	ug/L		08/31/15 10:13	09/08/15 08:05	1
2-Methylphenol	5.0	U	5.0	0.17	ug/L		08/31/15 10:13	09/08/15 08:05	1
Naphthalene	5.0	U	5.0	0.063	ug/L		08/31/15 10:13	09/08/15 08:05	1
2-Nitroaniline	20	U	20	0.21	ug/L		08/31/15 10:13	09/08/15 08:05	1

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

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

**Lab Sample ID: MB 240-195560/23-A**  
**Matrix: Water**  
**Analysis Batch: 196528**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 195560**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
3-Nitroaniline	20	U	20	0.28	ug/L		08/31/15 10:13	09/08/15 08:05	1
4-Nitroaniline	20	U	20	0.22	ug/L		08/31/15 10:13	09/08/15 08:05	1
Nitrobenzene	3.0	U	3.0	0.040	ug/L		08/31/15 10:13	09/08/15 08:05	1
2-Nitrophenol	5.0	U	5.0	0.28	ug/L		08/31/15 10:13	09/08/15 08:05	1
4-Nitrophenol	20	U	20	0.29	ug/L		08/31/15 10:13	09/08/15 08:05	1
N-Nitrosodiphenylamine	5.0	U	5.0	0.31	ug/L		08/31/15 10:13	09/08/15 08:05	1
N-Nitrosodi-n-propylamine	5.0	U	5.0	0.24	ug/L		08/31/15 10:13	09/08/15 08:05	1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	0.40	ug/L		08/31/15 10:13	09/08/15 08:05	1
Pentachlorophenol	5.0	U	5.0	0.27	ug/L		08/31/15 10:13	09/08/15 08:05	1
Phenanthrene	2.0	U	2.0	0.062	ug/L		08/31/15 10:13	09/08/15 08:05	1
Phenol	5.0	U	5.0	0.60	ug/L		08/31/15 10:13	09/08/15 08:05	1
Pyrene	5.0	U	5.0	0.042	ug/L		08/31/15 10:13	09/08/15 08:05	1
2,4,5-Trichlorophenol	5.0	U	5.0	0.30	ug/L		08/31/15 10:13	09/08/15 08:05	1
2,4,6-Trichlorophenol	4.0	U	4.0	0.24	ug/L		08/31/15 10:13	09/08/15 08:05	1
2,6-Dinitrotoluene	5.0	U	5.0	0.80	ug/L		08/31/15 10:13	09/08/15 08:05	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorobiphenyl (Surr)	78		29 - 110	08/31/15 10:13	09/08/15 08:05	1
2-Fluorophenol (Surr)	65		15 - 110	08/31/15 10:13	09/08/15 08:05	1
2,4,6-Tribromophenol (Surr)	56		21 - 128	08/31/15 10:13	09/08/15 08:05	1
Nitrobenzene-d5 (Surr)	72		31 - 110	08/31/15 10:13	09/08/15 08:05	1
Phenol-d5 (Surr)	51		10 - 110	08/31/15 10:13	09/08/15 08:05	1
Terphenyl-d14 (Surr)	90		31 - 115	08/31/15 10:13	09/08/15 08:05	1

**Lab Sample ID: LCS 240-195560/24-A**  
**Matrix: Water**  
**Analysis Batch: 196528**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 195560**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	20.0	16.1		ug/L		80	55 - 120
Acenaphthylene	20.0	16.1		ug/L		81	55 - 120
Acetophenone	20.0	15.9		ug/L		80	50 - 120
Anthracene	20.0	16.0		ug/L		80	56 - 120
Atrazine	40.0	34.2		ug/L		85	65 - 161
Benzaldehyde	40.0	30.5		ug/L		76	40 - 122
Benzo[a]anthracene	20.0	16.1		ug/L		80	46 - 120
Benzo[b]fluoranthene	20.0	18.3		ug/L		91	24 - 120
Benzo[k]fluoranthene	20.0	17.0		ug/L		85	30 - 120
Benzo[g,h,i]perylene	20.0	17.4		ug/L		87	24 - 126
Benzo[a]pyrene	20.0	17.6		ug/L		88	24 - 120
Butyl benzyl phthalate	20.0	16.1		ug/L		81	51 - 120
1,1'-Biphenyl	20.0	15.5		ug/L		78	52 - 120
Bis(2-chloroethoxy)methane	20.0	15.7		ug/L		78	48 - 120
Bis(2-chloroethyl)ether	20.0	15.3		ug/L		77	43 - 120
Bis(2-ethylhexyl) phthalate	20.0	15.9		ug/L		80	21 - 125
4-Bromophenyl phenyl ether	20.0	16.2		ug/L		81	47 - 120
Caprolactam	40.0	11.8		ug/L		30	10 - 120
Carbazole	20.0	17.3		ug/L		87	57 - 120

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

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

Lab Sample ID: LCS 240-195560/24-A

Matrix: Water

Analysis Batch: 196528

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 195560

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloroaniline	20.0	8.06	J	ug/L		40	15 - 120
4-Chloro-3-methylphenol	20.0	16.0		ug/L		80	45 - 120
2-Chloronaphthalene	20.0	15.7		ug/L		79	47 - 120
2-Chlorophenol	20.0	15.8		ug/L		79	43 - 120
4-Chlorophenyl phenyl ether	20.0	16.5		ug/L		83	47 - 120
Chrysene	20.0	16.8		ug/L		84	49 - 120
2-Methylnaphthalene	20.0	16.4		ug/L		82	52 - 120
3 & 4 Methylphenol	20.0	14.5		ug/L		72	34 - 120
Dibenz(a,h)anthracene	20.0	15.2		ug/L		76	24 - 125
Dibenzofuran	20.0	16.2		ug/L		81	56 - 120
3,3'-Dichlorobenzidine	40.0	27.0		ug/L		68	29 - 120
2,4-Dichlorophenol	20.0	16.0		ug/L		80	46 - 120
Diethyl phthalate	20.0	16.7		ug/L		83	58 - 120
2,4-Dimethylphenol	20.0	14.0		ug/L		70	38 - 120
Dimethyl phthalate	20.0	16.7		ug/L		84	59 - 120
4,6-Dinitro-2-methylphenol	40.0	31.4		ug/L		79	33 - 120
2,4-Dinitrophenol	40.0	20.9		ug/L		52	10 - 120
2,4-Dinitrotoluene	20.0	16.9		ug/L		84	52 - 120
Di-n-butyl phthalate	20.0	17.4		ug/L		87	57 - 122
Di-n-octyl phthalate	20.0	16.7		ug/L		84	21 - 122
Fluoranthene	20.0	17.7		ug/L		89	57 - 120
Fluorene	20.0	16.4		ug/L		82	56 - 120
Hexachlorobenzene	20.0	15.8		ug/L		79	52 - 120
Hexachlorobutadiene	20.0	15.6		ug/L		78	38 - 120
Hexachlorocyclopentadiene	20.0	9.45		ug/L		47	4 - 120
Hexachloroethane	20.0	15.0		ug/L		75	42 - 120
Indeno[1,2,3-cd]pyrene	20.0	15.4		ug/L		77	25 - 120
Isophorone	20.0	16.0		ug/L		80	48 - 123
2-Methylphenol	20.0	14.9		ug/L		75	38 - 120
Naphthalene	20.0	15.4		ug/L		77	52 - 120
2-Nitroaniline	20.0	16.1	J	ug/L		81	48 - 127
3-Nitroaniline	20.0	16.7	J	ug/L		83	52 - 120
4-Nitroaniline	20.0	17.7	J	ug/L		89	48 - 120
Nitrobenzene	20.0	15.1		ug/L		76	41 - 120
2-Nitrophenol	20.0	15.8		ug/L		79	42 - 120
4-Nitrophenol	40.0	21.5		ug/L		54	16 - 120
N-Nitrosodiphenylamine	40.0	31.7		ug/L		79	51 - 120
N-Nitrosodi-n-propylamine	20.0	15.5		ug/L		78	48 - 123
2,2'-oxybis[1-chloropropane]	20.0	14.4		ug/L		72	42 - 120
Pentachlorophenol	40.0	19.5		ug/L		49	14 - 120
Phenanthrene	20.0	16.1		ug/L		81	57 - 120
Phenol	20.0	10.3		ug/L		51	16 - 120
Pyrene	20.0	15.6		ug/L		78	50 - 120
2,4,5-Trichlorophenol	20.0	14.9		ug/L		74	47 - 120
2,4,6-Trichlorophenol	20.0	15.3		ug/L		76	43 - 120
2,6-Dinitrotoluene	20.0	17.1		ug/L		86	52 - 120

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

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

**Lab Sample ID: LCS 240-195560/24-A**  
**Matrix: Water**  
**Analysis Batch: 196528**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 195560**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	79		29 - 110
2-Fluorophenol (Surr)	65		15 - 110
2,4,6-Tribromophenol (Surr)	69		21 - 128
Nitrobenzene-d5 (Surr)	78		31 - 110
Phenol-d5 (Surr)	51		10 - 110
Terphenyl-d14 (Surr)	86		31 - 115

**Lab Sample ID: MB 240-195716/17-A**  
**Matrix: Water**  
**Analysis Batch: 196375**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 195716**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	5.0	U	5.0	0.044	ug/L		09/01/15 08:46	09/04/15 13:03	1
Acenaphthylene	5.0	U	5.0	0.048	ug/L		09/01/15 08:46	09/04/15 13:03	1
Acetophenone	5.0	U	5.0	0.34	ug/L		09/01/15 08:46	09/04/15 13:03	1
Anthracene	5.0	U	5.0	0.088	ug/L		09/01/15 08:46	09/04/15 13:03	1
Atrazine	3.0	U	3.0	0.34	ug/L		09/01/15 08:46	09/04/15 13:03	1
Benzaldehyde	5.0	U	5.0	0.39	ug/L		09/01/15 08:46	09/04/15 13:03	1
Benzo[a]anthracene	1.0	U	1.0	0.030	ug/L		09/01/15 08:46	09/04/15 13:03	1
Benzo[b]fluoranthene	1.0	U	1.0	0.039	ug/L		09/01/15 08:46	09/04/15 13:03	1
Benzo[k]fluoranthene	1.0	U	1.0	0.045	ug/L		09/01/15 08:46	09/04/15 13:03	1
Benzo[g,h,i]perylene	1.0	U	1.0	0.046	ug/L		09/01/15 08:46	09/04/15 13:03	1
Benzo[a]pyrene	1.0	U	1.0	0.051	ug/L		09/01/15 08:46	09/04/15 13:03	1
Butyl benzyl phthalate	5.0	U	5.0	0.26	ug/L		09/01/15 08:46	09/04/15 13:03	1
1,1'-Biphenyl	5.0	U	5.0	0.13	ug/L		09/01/15 08:46	09/04/15 13:03	1
Bis(2-chloroethoxy)methane	5.0	U	5.0	0.32	ug/L		09/01/15 08:46	09/04/15 13:03	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.10	ug/L		09/01/15 08:46	09/04/15 13:03	1
Bis(2-ethylhexyl) phthalate	5.0	U	5.0	1.7	ug/L		09/01/15 08:46	09/04/15 13:03	1
4-Bromophenyl phenyl ether	5.0	U	5.0	0.22	ug/L		09/01/15 08:46	09/04/15 13:03	1
Caprolactam	10	U	10	0.20	ug/L		09/01/15 08:46	09/04/15 13:03	1
Carbazole	10	U	10	0.28	ug/L		09/01/15 08:46	09/04/15 13:03	1
4-Chloroaniline	10	U	10	0.21	ug/L		09/01/15 08:46	09/04/15 13:03	1
4-Chloro-3-methylphenol	5.0	U	5.0	0.21	ug/L		09/01/15 08:46	09/04/15 13:03	1
2-Chloronaphthalene	5.0	U	5.0	0.10	ug/L		09/01/15 08:46	09/04/15 13:03	1
2-Chlorophenol	5.0	U	5.0	0.29	ug/L		09/01/15 08:46	09/04/15 13:03	1
4-Chlorophenyl phenyl ether	5.0	U	5.0	0.30	ug/L		09/01/15 08:46	09/04/15 13:03	1
Chrysene	1.0	U	1.0	0.050	ug/L		09/01/15 08:46	09/04/15 13:03	1
2-Methylnaphthalene	5.0	U	5.0	0.090	ug/L		09/01/15 08:46	09/04/15 13:03	1
3 & 4 Methylphenol	5.0	U	5.0	0.80	ug/L		09/01/15 08:46	09/04/15 13:03	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.045	ug/L		09/01/15 08:46	09/04/15 13:03	1
Dibenzofuran	4.0	U	4.0	0.020	ug/L		09/01/15 08:46	09/04/15 13:03	1
3,3'-Dichlorobenzidine	1.0	U	1.0	0.37	ug/L		09/01/15 08:46	09/04/15 13:03	1
2,4-Dichlorophenol	10	U	10	0.19	ug/L		09/01/15 08:46	09/04/15 13:03	1
Diethyl phthalate	5.0	U	5.0	0.60	ug/L		09/01/15 08:46	09/04/15 13:03	1
2,4-Dimethylphenol	5.0	U	5.0	0.25	ug/L		09/01/15 08:46	09/04/15 13:03	1
Dimethyl phthalate	5.0	U	5.0	0.29	ug/L		09/01/15 08:46	09/04/15 13:03	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		09/01/15 08:46	09/04/15 13:03	1
2,4-Dinitrophenol	20	U	20	0.32	ug/L		09/01/15 08:46	09/04/15 13:03	1

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

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

**Lab Sample ID: MB 240-195716/17-A**  
**Matrix: Water**  
**Analysis Batch: 196375**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 195716**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2,4-Dinitrotoluene	5.0	U	5.0	0.25	ug/L		09/01/15 08:46	09/04/15 13:03	1
Di-n-butyl phthalate	5.0	U	5.0	1.7	ug/L		09/01/15 08:46	09/04/15 13:03	1
Di-n-octyl phthalate	5.0	U	5.0	0.23	ug/L		09/01/15 08:46	09/04/15 13:03	1
Fluoranthene	1.0	U	1.0	0.045	ug/L		09/01/15 08:46	09/04/15 13:03	1
Fluorene	5.0	U	5.0	0.041	ug/L		09/01/15 08:46	09/04/15 13:03	1
Hexachlorobenzene	0.20	U	0.20	0.085	ug/L		09/01/15 08:46	09/04/15 13:03	1
Hexachlorobutadiene	1.0	U	1.0	0.27	ug/L		09/01/15 08:46	09/04/15 13:03	1
Hexachlorocyclopentadiene	5.0	U	5.0	0.24	ug/L		09/01/15 08:46	09/04/15 13:03	1
Hexachloroethane	5.0	U	5.0	0.19	ug/L		09/01/15 08:46	09/04/15 13:03	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.043	ug/L		09/01/15 08:46	09/04/15 13:03	1
Isophorone	5.0	U	5.0	0.27	ug/L		09/01/15 08:46	09/04/15 13:03	1
2-Methylphenol	5.0	U	5.0	0.17	ug/L		09/01/15 08:46	09/04/15 13:03	1
Naphthalene	5.0	U	5.0	0.063	ug/L		09/01/15 08:46	09/04/15 13:03	1
2-Nitroaniline	20	U	20	0.21	ug/L		09/01/15 08:46	09/04/15 13:03	1
3-Nitroaniline	20	U	20	0.28	ug/L		09/01/15 08:46	09/04/15 13:03	1
4-Nitroaniline	20	U	20	0.22	ug/L		09/01/15 08:46	09/04/15 13:03	1
Nitrobenzene	3.0	U	3.0	0.040	ug/L		09/01/15 08:46	09/04/15 13:03	1
2-Nitrophenol	5.0	U	5.0	0.28	ug/L		09/01/15 08:46	09/04/15 13:03	1
4-Nitrophenol	20	U	20	0.29	ug/L		09/01/15 08:46	09/04/15 13:03	1
N-Nitrosodiphenylamine	5.0	U	5.0	0.31	ug/L		09/01/15 08:46	09/04/15 13:03	1
N-Nitrosodi-n-propylamine	5.0	U	5.0	0.24	ug/L		09/01/15 08:46	09/04/15 13:03	1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	0.40	ug/L		09/01/15 08:46	09/04/15 13:03	1
Pentachlorophenol	5.0	U	5.0	0.27	ug/L		09/01/15 08:46	09/04/15 13:03	1
Phenanthrene	2.0	U	2.0	0.062	ug/L		09/01/15 08:46	09/04/15 13:03	1
Phenol	5.0	U	5.0	0.60	ug/L		09/01/15 08:46	09/04/15 13:03	1
Pyrene	5.0	U	5.0	0.042	ug/L		09/01/15 08:46	09/04/15 13:03	1
2,4,5-Trichlorophenol	5.0	U	5.0	0.30	ug/L		09/01/15 08:46	09/04/15 13:03	1
2,4,6-Trichlorophenol	4.0	U	4.0	0.24	ug/L		09/01/15 08:46	09/04/15 13:03	1
2,6-Dinitrotoluene	5.0	U	5.0	0.80	ug/L		09/01/15 08:46	09/04/15 13:03	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorobiphenyl (Surr)	83		29 - 110	09/01/15 08:46	09/04/15 13:03	1
2-Fluorophenol (Surr)	74		15 - 110	09/01/15 08:46	09/04/15 13:03	1
2,4,6-Tribromophenol (Surr)	82		21 - 128	09/01/15 08:46	09/04/15 13:03	1
Nitrobenzene-d5 (Surr)	87		31 - 110	09/01/15 08:46	09/04/15 13:03	1
Phenol-d5 (Surr)	57		10 - 110	09/01/15 08:46	09/04/15 13:03	1
Terphenyl-d14 (Surr)	94		31 - 115	09/01/15 08:46	09/04/15 13:03	1

**Lab Sample ID: LCS 240-195716/18-A**  
**Matrix: Water**  
**Analysis Batch: 196375**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 195716**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				
Acenaphthene	20.0	16.2		ug/L		81	55 - 120
Acenaphthylene	20.0	16.0		ug/L		80	55 - 120
Acetophenone	20.0	17.9		ug/L		89	50 - 120
Anthracene	20.0	16.4		ug/L		82	56 - 120
Atrazine	40.0	35.6		ug/L		89	65 - 161

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

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

Lab Sample ID: LCS 240-195716/18-A

Matrix: Water

Analysis Batch: 196375

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 195716

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzaldehyde	40.0	33.3		ug/L		83	40 - 122
Benzo[a]anthracene	20.0	17.3		ug/L		87	46 - 120
Benzo[b]fluoranthene	20.0	17.5		ug/L		87	24 - 120
Benzo[k]fluoranthene	20.0	17.4		ug/L		87	30 - 120
Benzo[g,h,i]perylene	20.0	16.6		ug/L		83	24 - 126
Benzo[a]pyrene	20.0	17.7		ug/L		88	24 - 120
Butyl benzyl phthalate	20.0	17.6		ug/L		88	51 - 120
1,1'-Biphenyl	20.0	15.7		ug/L		79	52 - 120
Bis(2-chloroethoxy)methane	20.0	17.0		ug/L		85	48 - 120
Bis(2-chloroethyl)ether	20.0	16.8		ug/L		84	43 - 120
Bis(2-ethylhexyl) phthalate	20.0	18.7		ug/L		94	21 - 125
4-Bromophenyl phenyl ether	20.0	17.3		ug/L		87	47 - 120
Caprolactam	40.0	11.8		ug/L		29	10 - 120
Carbazole	20.0	17.3		ug/L		87	57 - 120
4-Chloroaniline	20.0	10.0		ug/L		50	15 - 120
4-Chloro-3-methylphenol	20.0	16.7		ug/L		83	45 - 120
2-Chloronaphthalene	20.0	15.5		ug/L		78	47 - 120
2-Chlorophenol	20.0	17.1		ug/L		86	43 - 120
4-Chlorophenyl phenyl ether	20.0	17.0		ug/L		85	47 - 120
Chrysene	20.0	17.7		ug/L		88	49 - 120
2-Methylnaphthalene	20.0	16.3		ug/L		81	52 - 120
3 & 4 Methylphenol	20.0	16.3		ug/L		81	34 - 120
Dibenz(a,h)anthracene	20.0	17.3		ug/L		87	24 - 125
Dibenzofuran	20.0	16.0		ug/L		80	56 - 120
3,3'-Dichlorobenzidine	40.0	32.6		ug/L		82	29 - 120
2,4-Dichlorophenol	20.0	16.4		ug/L		82	46 - 120
Diethyl phthalate	20.0	16.7		ug/L		84	58 - 120
2,4-Dimethylphenol	20.0	14.3		ug/L		72	38 - 120
Dimethyl phthalate	20.0	17.2		ug/L		86	59 - 120
4,6-Dinitro-2-methylphenol	40.0	32.8		ug/L		82	33 - 120
2,4-Dinitrophenol	40.0	31.2		ug/L		78	10 - 120
2,4-Dinitrotoluene	20.0	17.7		ug/L		88	52 - 120
Di-n-butyl phthalate	20.0	18.0		ug/L		90	57 - 122
Di-n-octyl phthalate	20.0	17.7		ug/L		89	21 - 122
Fluoranthene	20.0	17.5		ug/L		88	57 - 120
Fluorene	20.0	16.5		ug/L		82	56 - 120
Hexachlorobenzene	20.0	17.2		ug/L		86	52 - 120
Hexachlorobutadiene	20.0	15.9		ug/L		80	38 - 120
Hexachlorocyclopentadiene	20.0	12.0		ug/L		60	4 - 120
Hexachloroethane	20.0	16.3		ug/L		82	42 - 120
Indeno[1,2,3-cd]pyrene	20.0	16.8		ug/L		84	25 - 120
Isophorone	20.0	17.1		ug/L		85	48 - 123
2-Methylphenol	20.0	16.8		ug/L		84	38 - 120
Naphthalene	20.0	15.6		ug/L		78	52 - 120
2-Nitroaniline	20.0	16.8	J	ug/L		84	48 - 127
3-Nitroaniline	20.0	17.1	J	ug/L		85	52 - 120
4-Nitroaniline	20.0	15.5	J	ug/L		77	48 - 120
Nitrobenzene	20.0	16.4		ug/L		82	41 - 120

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# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

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

**Lab Sample ID: LCS 240-195716/18-A**  
**Matrix: Water**  
**Analysis Batch: 196375**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 195716**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Nitrophenol	20.0	17.6		ug/L		88	42 - 120
4-Nitrophenol	40.0	23.4		ug/L		59	16 - 120
N-Nitrosodiphenylamine	40.0	33.6		ug/L		84	51 - 120
N-Nitrosodi-n-propylamine	20.0	17.4		ug/L		87	48 - 123
2,2'-oxybis[1-chloropropane]	20.0	16.7		ug/L		83	42 - 120
Pentachlorophenol	40.0	30.6		ug/L		76	14 - 120
Phenanthrene	20.0	16.7		ug/L		83	57 - 120
Phenol	20.0	11.6		ug/L		58	16 - 120
Pyrene	20.0	17.0		ug/L		85	50 - 120
2,4,5-Trichlorophenol	20.0	16.5		ug/L		83	47 - 120
2,4,6-Trichlorophenol	20.0	16.8		ug/L		84	43 - 120
2,6-Dinitrotoluene	20.0	17.1		ug/L		86	52 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	81		29 - 110
2-Fluorophenol (Surr)	72		15 - 110
2,4,6-Tribromophenol (Surr)	86		21 - 128
Nitrobenzene-d5 (Surr)	82		31 - 110
Phenol-d5 (Surr)	59		10 - 110
Terphenyl-d14 (Surr)	93		31 - 115

**Lab Sample ID: 240-54873-3 MS**  
**Matrix: Water**  
**Analysis Batch: 196375**

**Client Sample ID: GW-082815-JL-34**  
**Prep Type: Total/NA**  
**Prep Batch: 195716**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	5.0	U	20.0	12.9		ug/L		64	49 - 110
Acenaphthylene	5.0	U	20.0	12.8		ug/L		64	49 - 110
Acetophenone	5.0	U	20.0	12.7		ug/L		64	45 - 110
Anthracene	5.0	U	20.0	14.6		ug/L		73	50 - 110
Atrazine	3.0	U	40.0	31.4		ug/L		78	55 - 110
Benzaldehyde	5.0	U	40.0	25.4		ug/L		63	24 - 119
Benzo[a]anthracene	0.99	U	20.0	10.5		ug/L		53	34 - 110
Benzo[b]fluoranthene	0.99	U	20.0	9.54		ug/L		48	21 - 110
Benzo[k]fluoranthene	0.99	U	20.0	9.13		ug/L		46	24 - 110
Benzo[g,h,i]perylene	0.99	U	20.0	7.76		ug/L		39	18 - 110
Benzo[a]pyrene	0.99	U	20.0	9.33		ug/L		47	17 - 110
Butyl benzyl phthalate	5.0	U	20.0	13.6		ug/L		68	48 - 110
1,1'-Biphenyl	5.0	U	20.0	12.1		ug/L		60	46 - 110
Bis(2-chloroethoxy)methane	5.0	U	20.0	12.8		ug/L		64	45 - 110
Bis(2-chloroethyl)ether	0.99	U	20.0	11.8		ug/L		59	30 - 110
Bis(2-ethylhexyl) phthalate	5.0	U	20.0	8.64		ug/L		43	10 - 110
4-Bromophenyl phenyl ether	5.0	U	20.0	14.5		ug/L		73	51 - 110
Caprolactam	9.9	U F1	40.0	2.87	J F1	ug/L		7	10 - 126
Carbazole	9.9	U	20.0	16.1		ug/L		80	50 - 110
4-Chloroaniline	9.9	U F1	20.0	2.64	J F1	ug/L		13	20 - 110
4-Chloro-3-methylphenol	5.0	U	20.0	12.5		ug/L		63	42 - 110
2-Chloronaphthalene	5.0	U	20.0	12.1		ug/L		60	46 - 110

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# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

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

**Lab Sample ID: 240-54873-3 MS**

**Matrix: Water**

**Analysis Batch: 196375**

**Client Sample ID: GW-082815-JL-34**

**Prep Type: Total/NA**

**Prep Batch: 195716**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
2-Chlorophenol	5.0	U	20.0	11.3		ug/L		56	35 - 110
4-Chlorophenyl phenyl ether	5.0	U	20.0	13.6		ug/L		68	51 - 110
Chrysene	0.99	U	20.0	9.94		ug/L		50	36 - 110
2-Methylnaphthalene	5.0	U	20.0	11.9		ug/L		59	50 - 110
3 & 4 Methylphenol	5.0	U	20.0	7.89		ug/L		39	26 - 110
Dibenz(a,h)anthracene	2.0	U	20.0	8.42		ug/L		42	14 - 110
Dibenzofuran	4.0	U	20.0	13.0		ug/L		65	51 - 110
3,3'-Dichlorobenzidine	0.99	U	40.0	28.4		ug/L		71	10 - 110
2,4-Dichlorophenol	9.9	U	20.0	12.2		ug/L		61	48 - 110
Diethyl phthalate	5.0	U	20.0	15.4		ug/L		77	53 - 110
2,4-Dimethylphenol	5.0	U	20.0	10.9		ug/L		54	27 - 110
Dimethyl phthalate	5.0	U	20.0	15.0		ug/L		75	54 - 110
4,6-Dinitro-2-methylphenol	20	U	40.0	27.7		ug/L		69	10 - 110
2,4-Dinitrophenol	20	U	40.0	25.8		ug/L		64	10 - 110
2,4-Dinitrotoluene	5.0	U	20.0	15.7		ug/L		78	56 - 110
Di-n-butyl phthalate	5.0	U	20.0	15.0		ug/L		75	50 - 110
Di-n-octyl phthalate	5.0	U	20.0	8.44		ug/L		42	10 - 110
Fluoranthene	0.99	U	20.0	14.6		ug/L		73	54 - 110
Fluorene	5.0	U	20.0	13.9		ug/L		69	51 - 110
Hexachlorobenzene	0.20	U	20.0	12.3		ug/L		62	49 - 110
Hexachlorobutadiene	0.99	U	20.0	11.0		ug/L		55	36 - 110
Hexachlorocyclopentadiene	5.0	U	20.0	8.31		ug/L		42	4 - 110
Hexachloroethane	5.0	U	20.0	10.5		ug/L		53	40 - 110
Indeno[1,2,3-cd]pyrene	2.0	U	20.0	8.06		ug/L		40	16 - 110
Isophorone	5.0	U	20.0	12.8		ug/L		64	45 - 110
2-Methylphenol	5.0	U	20.0	9.21		ug/L		46	31 - 110
Naphthalene	5.0	U	20.0	11.3		ug/L		57	35 - 110
2-Nitroaniline	20	U	20.0	14.1	J	ug/L		70	42 - 110
3-Nitroaniline	20	U	20.0	13.8	J	ug/L		69	31 - 110
4-Nitroaniline	20	U	20.0	13.7	J	ug/L		68	26 - 110
Nitrobenzene	3.0	U	20.0	12.6		ug/L		63	43 - 110
2-Nitrophenol	5.0	U	20.0	12.4		ug/L		62	47 - 110
4-Nitrophenol	20	U	40.0	8.05	J	ug/L		20	10 - 110
N-Nitrosodiphenylamine	5.0	U	40.0	30.0		ug/L		75	41 - 110
N-Nitrosodi-n-propylamine	5.0	U	20.0	12.5		ug/L		63	42 - 110
2,2'-oxybis[1-chloropropane]	5.0	U	20.0	11.8		ug/L		59	26 - 110
Pentachlorophenol	5.0	U	40.0	26.1		ug/L		65	24 - 110
Phenanthrene	2.0	U	20.0	14.4		ug/L		72	52 - 110
Phenol	5.0	U	20.0	3.37	J	ug/L		17	10 - 125
Pyrene	5.0	U	20.0	14.0		ug/L		70	50 - 110
2,4,5-Trichlorophenol	5.0	U	20.0	13.0		ug/L		65	53 - 110
2,4,6-Trichlorophenol	4.0	U	20.0	13.4		ug/L		67	50 - 110
2,6-Dinitrotoluene	5.0	U	20.0	14.7		ug/L		74	55 - 110

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl (Surr)	61		29 - 110
2-Fluorophenol (Surr)	26		15 - 110
2,4,6-Tribromophenol (Surr)	74		21 - 128

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

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

**Lab Sample ID: 240-54873-3 MS**

**Matrix: Water**

**Analysis Batch: 196375**

**Client Sample ID: GW-082815-JL-34**

**Prep Type: Total/NA**

**Prep Batch: 195716**

Surrogate	MS %Recovery	MS Qualifier	Limits
Nitrobenzene-d5 (Surr)	60		31 - 110
Phenol-d5 (Surr)	16		10 - 110
Terphenyl-d14 (Surr)	40		31 - 115

**Lab Sample ID: 240-54873-3 MSD**

**Matrix: Water**

**Analysis Batch: 196375**

**Client Sample ID: GW-082815-JL-34**

**Prep Type: Total/NA**

**Prep Batch: 195716**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	5.0	U	20.2	12.4		ug/L		61	49 - 110	4	30
Acenaphthylene	5.0	U	20.2	12.6		ug/L		62	49 - 110	2	37
Acetophenone	5.0	U	20.2	12.1		ug/L		60	45 - 110	5	42
Anthracene	5.0	U	20.2	15.4		ug/L		76	50 - 110	5	30
Atrazine	3.0	U	40.4	33.0		ug/L		82	55 - 110	5	30
Benzaldehyde	5.0	U	40.4	23.8		ug/L		59	24 - 119	6	74
Benzo[a]anthracene	0.99	U	20.2	11.2		ug/L		55	34 - 110	6	52
Benzo[b]fluoranthene	0.99	U	20.2	10.6		ug/L		52	21 - 110	10	64
Benzo[k]fluoranthene	0.99	U	20.2	9.97		ug/L		49	24 - 110	9	75
Benzo[g,h,i]perylene	0.99	U	20.2	8.55		ug/L		42	18 - 110	10	87
Benzo[a]pyrene	0.99	U	20.2	10.3		ug/L		51	17 - 110	10	68
Butyl benzyl phthalate	5.0	U	20.2	13.9		ug/L		69	48 - 110	2	30
1,1'-Biphenyl	5.0	U	20.2	11.6		ug/L		57	46 - 110	4	36
Bis(2-chloroethoxy)methane	5.0	U	20.2	12.1		ug/L		60	45 - 110	6	39
Bis(2-chloroethyl)ether	0.99	U	20.2	11.1		ug/L		55	30 - 110	6	56
Bis(2-ethylhexyl) phthalate	5.0	U	20.2	9.53		ug/L		47	10 - 110	10	85
4-Bromophenyl phenyl ether	5.0	U	20.2	15.2		ug/L		75	51 - 110	5	30
Caprolactam	9.9	U F1	40.4	3.04	J F1	ug/L		8	10 - 126	6	59
Carbazole	9.9	U	20.2	16.9		ug/L		84	50 - 110	5	30
4-Chloroaniline	9.9	U F1	20.2	1.83	J F1	ug/L		9	20 - 110	36	50
4-Chloro-3-methylphenol	5.0	U	20.2	12.4		ug/L		61	42 - 110	1	30
2-Chloronaphthalene	5.0	U	20.2	11.7		ug/L		58	46 - 110	3	34
2-Chlorophenol	5.0	U	20.2	10.1		ug/L		50	35 - 110	11	57
4-Chlorophenyl phenyl ether	5.0	U	20.2	14.1		ug/L		70	51 - 110	3	30
Chrysene	0.99	U	20.2	10.8		ug/L		53	36 - 110	8	49
2-Methylnaphthalene	5.0	U	20.2	11.4		ug/L		57	50 - 110	4	37
3 & 4 Methylphenol	5.0	U	20.2	7.23		ug/L		36	26 - 110	9	57
Dibenz(a,h)anthracene	2.0	U	20.2	9.02		ug/L		45	14 - 110	7	92
Dibenzofuran	4.0	U	20.2	12.7		ug/L		63	51 - 110	2	30
3,3'-Dichlorobenzidine	0.99	U	40.4	28.4		ug/L		70	10 - 110	0	99
2,4-Dichlorophenol	9.9	U	20.2	11.3		ug/L		56	48 - 110	8	35
Diethyl phthalate	5.0	U	20.2	15.8		ug/L		78	53 - 110	2	30
2,4-Dimethylphenol	5.0	U	20.2	11.0		ug/L		55	27 - 110	2	62
Dimethyl phthalate	5.0	U	20.2	15.3		ug/L		76	54 - 110	2	30
4,6-Dinitro-2-methylphenol	20	U	40.4	30.6		ug/L		76	10 - 110	10	92
2,4-Dinitrophenol	20	U	40.4	27.8		ug/L		69	10 - 110	8	99
2,4-Dinitrotoluene	5.0	U	20.2	16.0		ug/L		79	56 - 110	2	30
Di-n-butyl phthalate	5.0	U	20.2	16.1		ug/L		80	50 - 110	7	30
Di-n-octyl phthalate	5.0	U	20.2	9.27		ug/L		46	10 - 110	9	95

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# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

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

**Lab Sample ID: 240-54873-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 196375**

**Client Sample ID: GW-082815-JL-34**  
**Prep Type: Total/NA**  
**Prep Batch: 195716**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits	Limit	
Fluoranthene	0.99	U	20.2	15.8		ug/L		78	54 - 110	8	30
Fluorene	5.0	U	20.2	13.7		ug/L		68	51 - 110	1	30
Hexachlorobenzene	0.20	U	20.2	13.3		ug/L		66	49 - 110	8	30
Hexachlorobutadiene	0.99	U	20.2	9.98		ug/L		49	36 - 110	10	60
Hexachlorocyclopentadiene	5.0	U	20.2	7.86		ug/L		39	4 - 110	6	68
Hexachloroethane	5.0	U	20.2	9.45		ug/L		47	40 - 110	11	52
Indeno[1,2,3-cd]pyrene	2.0	U	20.2	8.74		ug/L		43	16 - 110	8	89
Isophorone	5.0	U	20.2	12.2		ug/L		60	45 - 110	5	37
2-Methylphenol	5.0	U	20.2	8.34		ug/L		41	31 - 110	10	61
Naphthalene	5.0	U	20.2	10.8		ug/L		53	35 - 110	5	58
2-Nitroaniline	20	U	20.2	14.0	J	ug/L		69	42 - 110	0	30
3-Nitroaniline	20	U	20.2	12.2	J	ug/L		60	31 - 110	13	47
4-Nitroaniline	20	U	20.2	13.8	J	ug/L		68	26 - 110	1	50
Nitrobenzene	3.0	U	20.2	11.6		ug/L		58	43 - 110	8	42
2-Nitrophenol	5.0	U	20.2	12.0		ug/L		60	47 - 110	3	44
4-Nitrophenol	20	U	40.4	8.29	J	ug/L		21	10 - 110	3	74
N-Nitrosodiphenylamine	5.0	U	40.4	30.9		ug/L		77	41 - 110	3	30
N-Nitrosodi-n-propylamine	5.0	U	20.2	12.3		ug/L		61	42 - 110	1	39
2,2'-oxybis[1-chloropropane]	5.0	U	20.2	11.3		ug/L		56	26 - 110	5	63
Pentachlorophenol	5.0	U	40.4	27.8		ug/L		69	24 - 110	6	64
Phenanthrene	2.0	U	20.2	15.1		ug/L		75	52 - 110	5	30
Phenol	5.0	U	20.2	3.01	J	ug/L		15	10 - 125	12	62
Pyrene	5.0	U	20.2	15.0		ug/L		74	50 - 110	7	30
2,4,5-Trichlorophenol	5.0	U	20.2	13.3		ug/L		66	53 - 110	3	30
2,4,6-Trichlorophenol	4.0	U	20.2	13.2		ug/L		65	50 - 110	2	30
2,6-Dinitrotoluene	5.0	U	20.2	14.7		ug/L		73	55 - 110	0	30

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
2-Fluorobiphenyl (Surr)	57		29 - 110
2-Fluorophenol (Surr)	23		15 - 110
2,4,6-Tribromophenol (Surr)	75		21 - 128
Nitrobenzene-d5 (Surr)	56		31 - 110
Phenol-d5 (Surr)	15		10 - 110
Terphenyl-d14 (Surr)	46		31 - 115

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 240-195540/1-A**  
**Matrix: Water**  
**Analysis Batch: 195994**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 195540**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	0.306	J	5.0	0.18	ug/L		08/31/15 08:53	09/02/15 16:55	1
Beryllium	1.0	U	1.0	0.053	ug/L		08/31/15 08:53	09/02/15 16:55	1
Cadmium	1.0	U	1.0	0.061	ug/L		08/31/15 08:53	09/02/15 16:55	1
Cobalt	7.0	U	7.0	0.021	ug/L		08/31/15 08:53	09/02/15 16:55	1
Chromium	3.06	J	5.0	0.20	ug/L		08/31/15 08:53	09/02/15 16:55	1
Copper	2.0	U	2.0	0.75	ug/L		08/31/15 08:53	09/02/15 16:55	1

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# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: MB 240-195540/1-A**  
**Matrix: Water**  
**Analysis Batch: 195994**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 195540**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Manganese	15	U	15	1.1	ug/L		08/31/15 08:53	09/02/15 16:55	1
Nickel	20	U	20	0.23	ug/L		08/31/15 08:53	09/02/15 16:55	1
Antimony	2.0	U	2.0	0.16	ug/L		08/31/15 08:53	09/02/15 16:55	1
Lead	3.0	U	3.0	0.11	ug/L		08/31/15 08:53	09/02/15 16:55	1
Selenium	0.377	J	5.0	0.25	ug/L		08/31/15 08:53	09/02/15 16:55	1
Thallium	1.0	U	1.0	0.074	ug/L		08/31/15 08:53	09/02/15 16:55	1
Vanadium	1.04	J	4.0	0.23	ug/L		08/31/15 08:53	09/02/15 16:55	1
Zinc	20	U	20	7.3	ug/L		08/31/15 08:53	09/02/15 16:55	1
Barium	100	U	100	1.1	ug/L		08/31/15 08:53	09/02/15 16:55	1
Silver	0.20	U	0.20	0.020	ug/L		08/31/15 08:53	09/02/15 16:55	1

**Lab Sample ID: LCS 240-195540/2-A**  
**Matrix: Water**  
**Analysis Batch: 195994**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 195540**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	1000	882		ug/L		88	80 - 120
Cadmium	1000	1160		ug/L		116	80 - 120
Cobalt	1000	1080		ug/L		108	80 - 120
Chromium	1000	1090		ug/L		109	80 - 120
Copper	1000	1150		ug/L		115	80 - 120
Manganese	1000	1070		ug/L		107	80 - 120
Nickel	1000	1160		ug/L		116	80 - 120
Antimony	100	103		ug/L		103	80 - 120
Lead	1000	1070		ug/L		107	80 - 120
Selenium	1000	1000		ug/L		100	80 - 120
Thallium	250	257		ug/L		103	80 - 120
Vanadium	1000	1080		ug/L		108	80 - 120
Zinc	1000	1060		ug/L		106	80 - 120
Barium	1000	1160		ug/L		116	80 - 120
Silver	100	101		ug/L		101	80 - 120

**Lab Sample ID: 240-54873-3 MS**  
**Matrix: Water**  
**Analysis Batch: 195994**

**Client Sample ID: GW-082815-JL-34**  
**Prep Type: Total Recoverable**  
**Prep Batch: 195540**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.1	J B	1000	1030		ug/L		103	75 - 125
Barium	70	J	1000	1220		ug/L		115	75 - 125
Beryllium	0.17	J	1000	859		ug/L		86	75 - 125
Cadmium	0.26	J	1000	1120		ug/L		112	75 - 125
Cobalt	3.2	J	1000	1070		ug/L		107	75 - 125
Chromium	12	B	1000	1110		ug/L		110	75 - 125
Copper	1.3	J	1000	1130		ug/L		113	75 - 125
Manganese	39		1000	1120		ug/L		108	75 - 125
Nickel	140		1000	1280		ug/L		114	75 - 125
Lead	0.23	J	1000	1060		ug/L		105	75 - 125

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# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: 240-54873-3 MS**  
**Matrix: Water**  
**Analysis Batch: 195994**

**Client Sample ID: GW-082815-JL-34**  
**Prep Type: Total Recoverable**  
**Prep Batch: 195540**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	
	Result	Qualifier		Result	Qualifier				Limits	Limits
Selenium	1.9	J B	1000	983		ug/L		98	75 - 125	
Thallium	0.17	J	250	254		ug/L		101	75 - 125	
Vanadium	0.99	J B	1000	1120		ug/L		112	75 - 125	
Zinc	7.4	J	1000	1060		ug/L		105	75 - 125	
Silver	0.20	U	100	99.7		ug/L		100	75 - 125	

**Lab Sample ID: 240-54873-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 195994**

**Client Sample ID: GW-082815-JL-34**  
**Prep Type: Total Recoverable**  
**Prep Batch: 195540**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits	Limits		
Antimony	0.51	J	100	96.2		ug/L		96	75 - 125	5	20	
Arsenic	1.1	J B	1000	940		ug/L		94	75 - 125	10	20	
Barium	70	J	1000	1150		ug/L		108	75 - 125	6	20	
Beryllium	0.17	J	1000	792		ug/L		79	75 - 125	8	20	
Cadmium	0.26	J	1000	1060		ug/L		106	75 - 125	6	20	
Cobalt	3.2	J	1000	1000		ug/L		100	75 - 125	7	20	
Chromium	12	B	1000	1030		ug/L		101	75 - 125	8	20	
Copper	1.3	J	1000	1060		ug/L		105	75 - 125	7	20	
Manganese	39		1000	1040		ug/L		101	75 - 125	7	20	
Nickel	140		1000	1190		ug/L		106	75 - 125	7	20	
Lead	0.23	J	1000	987		ug/L		99	75 - 125	7	20	
Selenium	1.9	J B	1000	918		ug/L		92	75 - 125	7	20	
Thallium	0.17	J	250	240		ug/L		96	75 - 125	5	20	
Vanadium	0.99	J B	1000	1040		ug/L		104	75 - 125	7	20	
Zinc	7.4	J	1000	986		ug/L		98	75 - 125	7	20	
Silver	0.20	U	100	93.9		ug/L		94	75 - 125	6	20	

**Lab Sample ID: 240-54873-3 MS**  
**Matrix: Water**  
**Analysis Batch: 195994**

**Client Sample ID: GW-082815-JL-34**  
**Prep Type: Dissolved**  
**Prep Batch: 195540**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	
	Result	Qualifier		Result	Qualifier				Limits	Limits
Silver	0.20	U	100	96.2		ug/L		96	75 - 125	
Arsenic	1.0	J B	1000	969		ug/L		97	75 - 125	
Beryllium	0.26	J	1000	841		ug/L		84	75 - 125	
Cadmium	0.42	J	1000	1090		ug/L		109	75 - 125	
Cobalt	3.2	J	1000	1030		ug/L		103	75 - 125	
Chromium	4.5	J B	1000	1060		ug/L		105	75 - 125	
Copper	1.1	J	1000	1090		ug/L		109	75 - 125	
Manganese	35		1000	1070		ug/L		103	75 - 125	
Nickel	150		1000	1230		ug/L		108	75 - 125	
Lead	0.25	J	1000	1030		ug/L		103	75 - 125	
Antimony	0.52	J	100	99.5		ug/L		99	75 - 125	
Selenium	1.9	J B	1000	950		ug/L		95	75 - 125	
Thallium	0.27	J	250	242		ug/L		97	75 - 125	
Vanadium	1.3	J B	1000	1080		ug/L		108	75 - 125	
Zinc	20	U	1000	1000		ug/L		100	75 - 125	
Barium	72	J	1000	1190		ug/L		112	75 - 125	

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# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Lab Sample ID: 240-54873-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 195994**

**Client Sample ID: GW-082815-JL-34**  
**Prep Type: Dissolved**  
**Prep Batch: 195540**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Silver	0.20	U	100	97.8		ug/L		98	75 - 125	2	20
Arsenic	1.0	J B	1000	1010		ug/L		101	75 - 125	4	20
Beryllium	0.26	J	1000	862		ug/L		86	75 - 125	2	20
Cadmium	0.42	J	1000	1120		ug/L		112	75 - 125	3	20
Cobalt	3.2	J	1000	1030		ug/L		103	75 - 125	0	20
Chromium	4.5	J B	1000	1070		ug/L		107	75 - 125	1	20
Copper	1.1	J	1000	1100		ug/L		110	75 - 125	0	20
Manganese	35		1000	1090		ug/L		106	75 - 125	2	20
Nickel	150		1000	1240		ug/L		110	75 - 125	1	20
Lead	0.25	J	1000	1050		ug/L		105	75 - 125	2	20
Antimony	0.52	J	100	101		ug/L		101	75 - 125	2	20
Selenium	1.9	J B	1000	979		ug/L		98	75 - 125	3	20
Thallium	0.27	J	250	249		ug/L		100	75 - 125	3	20
Vanadium	1.3	J B	1000	1070		ug/L		107	75 - 125	1	20
Zinc	20	U	1000	1030		ug/L		103	75 - 125	3	20
Barium	72	J	1000	1230		ug/L		116	75 - 125	3	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 240-195543/1-A**  
**Matrix: Water**  
**Analysis Batch: 195878**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 195543**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	0.20	U	0.20	0.090	ug/L		08/31/15 14:00	09/01/15 13:03	1

**Lab Sample ID: LCS 240-195543/2-A**  
**Matrix: Water**  
**Analysis Batch: 195878**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 195543**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits

**Lab Sample ID: 240-54873-3 MS**  
**Matrix: Water**  
**Analysis Batch: 195878**

**Client Sample ID: GW-082815-JL-34**  
**Prep Type: Total/NA**  
**Prep Batch: 195543**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Mercury	0.20	U	1.00	1.08		ug/L		108	80 - 120		

**Lab Sample ID: 240-54873-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 195878**

**Client Sample ID: GW-082815-JL-34**  
**Prep Type: Total/NA**  
**Prep Batch: 195543**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Mercury	0.20	U	1.00	0.996		ug/L		100	80 - 120	8	20

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

## Method: 7470A - Mercury (CVAA) (Continued)

**Lab Sample ID: 240-54873-3 MS**

**Matrix: Water**

**Analysis Batch: 195878**

**Client Sample ID: GW-082815-JL-34**

**Prep Type: Dissolved**

**Prep Batch: 195543**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.20	U	1.00	1.10		ug/L		110	80 - 120

**Lab Sample ID: 240-54873-3 MSD**

**Matrix: Water**

**Analysis Batch: 195878**

**Client Sample ID: GW-082815-JL-34**

**Prep Type: Dissolved**

**Prep Batch: 195543**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.20	U	1.00	1.07		ug/L		107	80 - 120	3	20

## Method: 7196A - Chromium, Hexavalent

**Lab Sample ID: MB 240-195430/3**

**Matrix: Water**

**Analysis Batch: 195430**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.020	U	0.020	0.0021	mg/L			08/29/15 10:42	1

**Lab Sample ID: LCS 240-195430/4**

**Matrix: Water**

**Analysis Batch: 195430**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.250	0.220		mg/L		88	80 - 118

**Lab Sample ID: 240-54873-3 MS**

**Matrix: Water**

**Analysis Batch: 195430**

**Client Sample ID: GW-082815-JL-34**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.020	U	0.250	0.221		mg/L		89	41 - 136

**Lab Sample ID: 240-54873-3 MSD**

**Matrix: Water**

**Analysis Batch: 195430**

**Client Sample ID: GW-082815-JL-34**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	0.020	U	0.250	0.236		mg/L		95	41 - 136	7	20

TestAmerica Canton

# QC Association Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

## GC/MS VOA

### Analysis Batch: 195997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54873-1	GW-082815-JL-32	Total/NA	Water	8260B	
240-54873-2	GW-082815-JL-33	Total/NA	Water	8260B	
240-54873-3	GW-082815-JL-34	Total/NA	Water	8260B	
240-54873-3 MS	GW-082815-JL-34	Total/NA	Water	8260B	
240-54873-3 MSD	GW-082815-JL-34	Total/NA	Water	8260B	
240-54873-4	GW-082815-JL-35	Total/NA	Water	8260B	
240-54873-5	GW-082815-JL-36	Total/NA	Water	8260B	
240-54873-6	GW-082815-JL-37	Total/NA	Water	8260B	
240-54873-7	GW-082815-JL-38	Total/NA	Water	8260B	
240-54873-8	GW-082815-JL-39	Total/NA	Water	8260B	
240-54873-9	GW-082815-JL-40	Total/NA	Water	8260B	
LCS 240-195997/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-195997/6	Method Blank	Total/NA	Water	8260B	

### Analysis Batch: 196179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54873-10	GW-082815-JL-41	Total/NA	Water	8260B	
240-54873-11	TRIP BLANK	Total/NA	Water	8260B	
LCS 240-196179/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-196179/6	Method Blank	Total/NA	Water	8260B	

## GC/MS Semi VOA

### Prep Batch: 195560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54873-1	GW-082815-JL-32	Total/NA	Water	3510C	
240-54873-2	GW-082815-JL-33	Total/NA	Water	3510C	
240-54873-4	GW-082815-JL-35	Total/NA	Water	3510C	
240-54873-5	GW-082815-JL-36	Total/NA	Water	3510C	
LCS 240-195560/24-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-195560/23-A	Method Blank	Total/NA	Water	3510C	

### Prep Batch: 195716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54873-3	GW-082815-JL-34	Total/NA	Water	3510C	
240-54873-3 MS	GW-082815-JL-34	Total/NA	Water	3510C	
240-54873-3 MSD	GW-082815-JL-34	Total/NA	Water	3510C	
240-54873-6	GW-082815-JL-37	Total/NA	Water	3510C	
240-54873-7	GW-082815-JL-38	Total/NA	Water	3510C	
240-54873-8	GW-082815-JL-39	Total/NA	Water	3510C	
240-54873-9	GW-082815-JL-40	Total/NA	Water	3510C	
240-54873-10	GW-082815-JL-41	Total/NA	Water	3510C	
LCS 240-195716/18-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-195716/17-A	Method Blank	Total/NA	Water	3510C	

### Analysis Batch: 196375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54873-3	GW-082815-JL-34	Total/NA	Water	8270C	195716
240-54873-3 MS	GW-082815-JL-34	Total/NA	Water	8270C	195716
240-54873-3 MSD	GW-082815-JL-34	Total/NA	Water	8270C	195716

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# QC Association Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

## GC/MS Semi VOA (Continued)

### Analysis Batch: 196375 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54873-6	GW-082815-JL-37	Total/NA	Water	8270C	195716
240-54873-7	GW-082815-JL-38	Total/NA	Water	8270C	195716
240-54873-8	GW-082815-JL-39	Total/NA	Water	8270C	195716
240-54873-9	GW-082815-JL-40	Total/NA	Water	8270C	195716
240-54873-10	GW-082815-JL-41	Total/NA	Water	8270C	195716
LCS 240-195716/18-A	Lab Control Sample	Total/NA	Water	8270C	195716
MB 240-195716/17-A	Method Blank	Total/NA	Water	8270C	195716

### Analysis Batch: 196528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54873-1	GW-082815-JL-32	Total/NA	Water	8270C	195560
240-54873-2	GW-082815-JL-33	Total/NA	Water	8270C	195560
240-54873-4	GW-082815-JL-35	Total/NA	Water	8270C	195560
240-54873-5	GW-082815-JL-36	Total/NA	Water	8270C	195560
LCS 240-195560/24-A	Lab Control Sample	Total/NA	Water	8270C	195560
MB 240-195560/23-A	Method Blank	Total/NA	Water	8270C	195560

## Metals

### Prep Batch: 195540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54873-1	GW-082815-JL-32	Dissolved	Water	3005A	
240-54873-1	GW-082815-JL-32	Total Recoverable	Water	3005A	
240-54873-2	GW-082815-JL-33	Dissolved	Water	3005A	
240-54873-2	GW-082815-JL-33	Total Recoverable	Water	3005A	
240-54873-3	GW-082815-JL-34	Dissolved	Water	3005A	
240-54873-3	GW-082815-JL-34	Total Recoverable	Water	3005A	
240-54873-3 MS	GW-082815-JL-34	Dissolved	Water	3005A	
240-54873-3 MS	GW-082815-JL-34	Total Recoverable	Water	3005A	
240-54873-3 MSD	GW-082815-JL-34	Dissolved	Water	3005A	
240-54873-3 MSD	GW-082815-JL-34	Total Recoverable	Water	3005A	
240-54873-4	GW-082815-JL-35	Dissolved	Water	3005A	
240-54873-4	GW-082815-JL-35	Total Recoverable	Water	3005A	
240-54873-5	GW-082815-JL-36	Dissolved	Water	3005A	
240-54873-5	GW-082815-JL-36	Total Recoverable	Water	3005A	
240-54873-6	GW-082815-JL-37	Dissolved	Water	3005A	
240-54873-6	GW-082815-JL-37	Total Recoverable	Water	3005A	
240-54873-7	GW-082815-JL-38	Dissolved	Water	3005A	
240-54873-7	GW-082815-JL-38	Total Recoverable	Water	3005A	
240-54873-8	GW-082815-JL-39	Dissolved	Water	3005A	
240-54873-8	GW-082815-JL-39	Total Recoverable	Water	3005A	
240-54873-9	GW-082815-JL-40	Dissolved	Water	3005A	
240-54873-9	GW-082815-JL-40	Total Recoverable	Water	3005A	
240-54873-10	GW-082815-JL-41	Dissolved	Water	3005A	
240-54873-10	GW-082815-JL-41	Total Recoverable	Water	3005A	
LCS 240-195540/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 240-195540/1-A	Method Blank	Total Recoverable	Water	3005A	

TestAmerica Canton

# QC Association Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

## Metals (Continued)

### Prep Batch: 195543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54873-1	GW-082815-JL-32	Dissolved	Water	7470A	
240-54873-1	GW-082815-JL-32	Total/NA	Water	7470A	
240-54873-2	GW-082815-JL-33	Dissolved	Water	7470A	
240-54873-2	GW-082815-JL-33	Total/NA	Water	7470A	
240-54873-3	GW-082815-JL-34	Dissolved	Water	7470A	
240-54873-3	GW-082815-JL-34	Total/NA	Water	7470A	
240-54873-3 MS	GW-082815-JL-34	Dissolved	Water	7470A	
240-54873-3 MS	GW-082815-JL-34	Total/NA	Water	7470A	
240-54873-3 MSD	GW-082815-JL-34	Dissolved	Water	7470A	
240-54873-3 MSD	GW-082815-JL-34	Total/NA	Water	7470A	
240-54873-4	GW-082815-JL-35	Dissolved	Water	7470A	
240-54873-4	GW-082815-JL-35	Total/NA	Water	7470A	
240-54873-5	GW-082815-JL-36	Dissolved	Water	7470A	
240-54873-5	GW-082815-JL-36	Total/NA	Water	7470A	
240-54873-6	GW-082815-JL-37	Dissolved	Water	7470A	
240-54873-6	GW-082815-JL-37	Total/NA	Water	7470A	
240-54873-7	GW-082815-JL-38	Dissolved	Water	7470A	
240-54873-7	GW-082815-JL-38	Total/NA	Water	7470A	
240-54873-8	GW-082815-JL-39	Dissolved	Water	7470A	
240-54873-8	GW-082815-JL-39	Total/NA	Water	7470A	
240-54873-9	GW-082815-JL-40	Dissolved	Water	7470A	
240-54873-9	GW-082815-JL-40	Total/NA	Water	7470A	
240-54873-10	GW-082815-JL-41	Dissolved	Water	7470A	
240-54873-10	GW-082815-JL-41	Total/NA	Water	7470A	
LCS 240-195543/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 240-195543/1-A	Method Blank	Total/NA	Water	7470A	

### Analysis Batch: 195878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54873-1	GW-082815-JL-32	Dissolved	Water	7470A	195543
240-54873-1	GW-082815-JL-32	Total/NA	Water	7470A	195543
240-54873-2	GW-082815-JL-33	Dissolved	Water	7470A	195543
240-54873-2	GW-082815-JL-33	Total/NA	Water	7470A	195543
240-54873-3	GW-082815-JL-34	Dissolved	Water	7470A	195543
240-54873-3	GW-082815-JL-34	Total/NA	Water	7470A	195543
240-54873-3 MS	GW-082815-JL-34	Dissolved	Water	7470A	195543
240-54873-3 MS	GW-082815-JL-34	Total/NA	Water	7470A	195543
240-54873-3 MSD	GW-082815-JL-34	Dissolved	Water	7470A	195543
240-54873-3 MSD	GW-082815-JL-34	Total/NA	Water	7470A	195543
240-54873-4	GW-082815-JL-35	Dissolved	Water	7470A	195543
240-54873-4	GW-082815-JL-35	Total/NA	Water	7470A	195543
240-54873-5	GW-082815-JL-36	Dissolved	Water	7470A	195543
240-54873-5	GW-082815-JL-36	Total/NA	Water	7470A	195543
240-54873-6	GW-082815-JL-37	Dissolved	Water	7470A	195543
240-54873-6	GW-082815-JL-37	Total/NA	Water	7470A	195543
240-54873-7	GW-082815-JL-38	Dissolved	Water	7470A	195543
240-54873-7	GW-082815-JL-38	Total/NA	Water	7470A	195543
240-54873-8	GW-082815-JL-39	Dissolved	Water	7470A	195543
240-54873-8	GW-082815-JL-39	Total/NA	Water	7470A	195543
240-54873-9	GW-082815-JL-40	Dissolved	Water	7470A	195543
240-54873-9	GW-082815-JL-40	Total/NA	Water	7470A	195543

TestAmerica Canton

# QC Association Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

## Metals (Continued)

### Analysis Batch: 195878 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54873-10	GW-082815-JL-41	Dissolved	Water	7470A	195543
240-54873-10	GW-082815-JL-41	Total/NA	Water	7470A	195543
LCS 240-195543/2-A	Lab Control Sample	Total/NA	Water	7470A	195543
MB 240-195543/1-A	Method Blank	Total/NA	Water	7470A	195543

### Analysis Batch: 195994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54873-1	GW-082815-JL-32	Dissolved	Water	6020	195540
240-54873-1	GW-082815-JL-32	Total Recoverable	Water	6020	195540
240-54873-2	GW-082815-JL-33	Dissolved	Water	6020	195540
240-54873-2	GW-082815-JL-33	Total Recoverable	Water	6020	195540
240-54873-3	GW-082815-JL-34	Dissolved	Water	6020	195540
240-54873-3	GW-082815-JL-34	Total Recoverable	Water	6020	195540
240-54873-3 MS	GW-082815-JL-34	Dissolved	Water	6020	195540
240-54873-3 MS	GW-082815-JL-34	Total Recoverable	Water	6020	195540
240-54873-3 MSD	GW-082815-JL-34	Dissolved	Water	6020	195540
240-54873-3 MSD	GW-082815-JL-34	Total Recoverable	Water	6020	195540
240-54873-4	GW-082815-JL-35	Dissolved	Water	6020	195540
240-54873-4	GW-082815-JL-35	Total Recoverable	Water	6020	195540
240-54873-5	GW-082815-JL-36	Dissolved	Water	6020	195540
240-54873-5	GW-082815-JL-36	Total Recoverable	Water	6020	195540
240-54873-6	GW-082815-JL-37	Dissolved	Water	6020	195540
240-54873-6	GW-082815-JL-37	Total Recoverable	Water	6020	195540
240-54873-7	GW-082815-JL-38	Dissolved	Water	6020	195540
240-54873-7	GW-082815-JL-38	Total Recoverable	Water	6020	195540
240-54873-8	GW-082815-JL-39	Dissolved	Water	6020	195540
240-54873-8	GW-082815-JL-39	Total Recoverable	Water	6020	195540
240-54873-9	GW-082815-JL-40	Dissolved	Water	6020	195540
240-54873-9	GW-082815-JL-40	Total Recoverable	Water	6020	195540
240-54873-10	GW-082815-JL-41	Dissolved	Water	6020	195540
240-54873-10	GW-082815-JL-41	Total Recoverable	Water	6020	195540
LCS 240-195540/2-A	Lab Control Sample	Total Recoverable	Water	6020	195540
MB 240-195540/1-A	Method Blank	Total Recoverable	Water	6020	195540

## General Chemistry

### Analysis Batch: 195430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54873-1	GW-082815-JL-32	Total/NA	Water	7196A	
240-54873-2	GW-082815-JL-33	Total/NA	Water	7196A	
240-54873-3	GW-082815-JL-34	Total/NA	Water	7196A	
240-54873-3 MS	GW-082815-JL-34	Total/NA	Water	7196A	
240-54873-3 MSD	GW-082815-JL-34	Total/NA	Water	7196A	
240-54873-4	GW-082815-JL-35	Total/NA	Water	7196A	
240-54873-5	GW-082815-JL-36	Total/NA	Water	7196A	
240-54873-6	GW-082815-JL-37	Total/NA	Water	7196A	
240-54873-7	GW-082815-JL-38	Total/NA	Water	7196A	
240-54873-8	GW-082815-JL-39	Total/NA	Water	7196A	
240-54873-9	GW-082815-JL-40	Total/NA	Water	7196A	
240-54873-10	GW-082815-JL-41	Total/NA	Water	7196A	

TestAmerica Canton



# QC Association Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

## General Chemistry (Continued)

### Analysis Batch: 195430 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-195430/4	Lab Control Sample	Total/NA	Water	7196A	
MB 240-195430/3	Method Blank	Total/NA	Water	7196A	

### Analysis Batch: 196361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54873-1	GW-082815-JL-32	Total/NA	Water	7196A	
240-54873-2	GW-082815-JL-33	Total/NA	Water	7196A	
240-54873-3	GW-082815-JL-34	Total/NA	Water	7196A	
240-54873-4	GW-082815-JL-35	Total/NA	Water	7196A	
240-54873-5	GW-082815-JL-36	Total/NA	Water	7196A	
240-54873-6	GW-082815-JL-37	Total/NA	Water	7196A	
240-54873-7	GW-082815-JL-38	Total/NA	Water	7196A	
240-54873-8	GW-082815-JL-39	Total/NA	Water	7196A	
240-54873-9	GW-082815-JL-40	Total/NA	Water	7196A	
240-54873-10	GW-082815-JL-41	Total/NA	Water	7196A	

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-32**

**Date Collected: 08/28/15 10:35**

**Date Received: 08/29/15 09:30**

**Lab Sample ID: 240-54873-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195997	09/02/15 20:51	LRW	TAL CAN
Total/NA	Prep	3510C			195560	08/31/15 10:13	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196528	09/08/15 14:25	TMH	TAL CAN
Dissolved	Prep	3005A			195540	08/31/15 08:53	WKD	TAL CAN
Dissolved	Analysis	6020		1	195994	09/02/15 17:40	AS1	TAL CAN
Total Recoverable	Prep	3005A			195540	08/31/15 08:53	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195994	09/02/15 17:37	AS1	TAL CAN
Dissolved	Prep	7470A			195543	08/31/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195878	09/01/15 13:28	WAL	TAL CAN
Total/NA	Prep	7470A			195543	08/31/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195878	09/01/15 13:23	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195430	08/29/15 10:44	BLW	TAL CAN
Total/NA	Analysis	7196A		1	196361	09/04/15 10:16	KLC	TAL CAN

**Client Sample ID: GW-082815-JL-33**

**Date Collected: 08/28/15 10:40**

**Date Received: 08/29/15 09:30**

**Lab Sample ID: 240-54873-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195997	09/02/15 21:14	LRW	TAL CAN
Total/NA	Prep	3510C			195560	08/31/15 10:13	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196528	09/08/15 14:48	TMH	TAL CAN
Dissolved	Prep	3005A			195540	08/31/15 08:53	WKD	TAL CAN
Dissolved	Analysis	6020		1	195994	09/02/15 17:48	AS1	TAL CAN
Total Recoverable	Prep	3005A			195540	08/31/15 08:53	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195994	09/02/15 17:44	AS1	TAL CAN
Dissolved	Prep	7470A			195543	08/31/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195878	09/01/15 13:31	WAL	TAL CAN
Total/NA	Prep	7470A			195543	08/31/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195878	09/01/15 13:21	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195430	08/29/15 10:45	BLW	TAL CAN
Total/NA	Analysis	7196A		1	196361	09/04/15 10:16	KLC	TAL CAN

**Client Sample ID: GW-082815-JL-34**

**Date Collected: 08/28/15 11:20**

**Date Received: 08/29/15 09:30**

**Lab Sample ID: 240-54873-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195997	09/02/15 23:53	LRW	TAL CAN
Total/NA	Prep	3510C			195716	09/01/15 08:46	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196375	09/04/15 20:01	MRU	TAL CAN
Dissolved	Prep	3005A			195540	08/31/15 08:53	WKD	TAL CAN

TestAmerica Canton

# Lab Chronicle

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-34**

**Lab Sample ID: 240-54873-3**

**Date Collected: 08/28/15 11:20**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Analysis	6020		1	195994	09/02/15 17:19	AS1	TAL CAN
Total Recoverable	Prep	3005A			195540	08/31/15 08:53	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195994	09/02/15 17:02	AS1	TAL CAN
Dissolved	Prep	7470A			195543	08/31/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195878	09/01/15 13:14	WAL	TAL CAN
Total/NA	Prep	7470A			195543	08/31/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195878	09/01/15 13:09	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195430	08/29/15 10:46	BLW	TAL CAN
Total/NA	Analysis	7196A		1	196361	09/04/15 10:16	KLC	TAL CAN

**Client Sample ID: GW-082815-JL-35**

**Lab Sample ID: 240-54873-4**

**Date Collected: 08/28/15 12:00**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195997	09/02/15 21:37	LRW	TAL CAN
Total/NA	Prep	3510C			195560	08/31/15 10:13	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196528	09/08/15 15:10	TMH	TAL CAN
Dissolved	Prep	3005A			195540	08/31/15 08:53	WKD	TAL CAN
Dissolved	Analysis	6020		1	195994	09/02/15 17:55	AS1	TAL CAN
Total Recoverable	Prep	3005A			195540	08/31/15 08:53	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195994	09/02/15 17:51	AS1	TAL CAN
Dissolved	Prep	7470A			195543	08/31/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195878	09/01/15 13:35	WAL	TAL CAN
Total/NA	Prep	7470A			195543	08/31/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195878	09/01/15 13:32	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195430	08/29/15 10:49	BLW	TAL CAN
Total/NA	Analysis	7196A		1	196361	09/04/15 10:16	KLC	TAL CAN

**Client Sample ID: GW-082815-JL-36**

**Lab Sample ID: 240-54873-5**

**Date Collected: 08/28/15 13:45**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195997	09/02/15 21:59	LRW	TAL CAN
Total/NA	Prep	3510C			195560	08/31/15 10:13	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196528	09/08/15 15:33	TMH	TAL CAN
Dissolved	Prep	3005A			195540	08/31/15 08:53	WKD	TAL CAN
Dissolved	Analysis	6020		1	195994	09/02/15 18:02	AS1	TAL CAN
Total Recoverable	Prep	3005A			195540	08/31/15 08:53	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195994	09/02/15 17:59	AS1	TAL CAN
Dissolved	Prep	7470A			195543	08/31/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195878	09/01/15 13:38	WAL	TAL CAN

TestAmerica Canton

# Lab Chronicle

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			195543	08/31/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195878	09/01/15 13:34	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195430	08/29/15 10:50	BLW	TAL CAN
Total/NA	Analysis	7196A		1	196361	09/04/15 10:16	KLC	TAL CAN

**Client Sample ID: GW-082815-JL-37**

**Lab Sample ID: 240-54873-6**

**Date Collected: 08/28/15 14:15**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195997	09/02/15 22:22	LRW	TAL CAN
Total/NA	Prep	3510C			195716	09/01/15 08:46	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196375	09/04/15 21:16	MRU	TAL CAN
Dissolved	Prep	3005A			195540	08/31/15 08:53	WKD	TAL CAN
Dissolved	Analysis	6020		1	195994	09/02/15 18:10	AS1	TAL CAN
Total Recoverable	Prep	3005A			195540	08/31/15 08:53	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195994	09/02/15 18:06	AS1	TAL CAN
Dissolved	Prep	7470A			195543	08/31/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195878	09/01/15 13:51	WAL	TAL CAN
Total/NA	Prep	7470A			195543	08/31/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195878	09/01/15 13:49	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195430	08/29/15 10:51	BLW	TAL CAN
Total/NA	Analysis	7196A		1	196361	09/04/15 10:16	KLC	TAL CAN

**Client Sample ID: GW-082815-JL-38**

**Lab Sample ID: 240-54873-7**

**Date Collected: 08/28/15 14:25**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195997	09/02/15 22:45	LRW	TAL CAN
Total/NA	Prep	3510C			195716	09/01/15 08:46	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196375	09/04/15 21:40	MRU	TAL CAN
Dissolved	Prep	3005A			195540	08/31/15 08:53	WKD	TAL CAN
Dissolved	Analysis	6020		1	195994	09/02/15 18:24	AS1	TAL CAN
Total Recoverable	Prep	3005A			195540	08/31/15 08:53	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195994	09/02/15 18:20	AS1	TAL CAN
Dissolved	Prep	7470A			195543	08/31/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195878	09/01/15 13:48	WAL	TAL CAN
Total/NA	Prep	7470A			195543	08/31/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195878	09/01/15 13:37	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195430	08/29/15 10:54	BLW	TAL CAN
Total/NA	Analysis	7196A		1	196361	09/04/15 10:16	KLC	TAL CAN

# Lab Chronicle

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

**Client Sample ID: GW-082815-JL-39**

**Lab Sample ID: 240-54873-8**

**Date Collected: 08/28/15 15:55**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195997	09/02/15 23:08	LRW	TAL CAN
Total/NA	Prep	3510C			195716	09/01/15 08:46	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196375	09/04/15 22:05	MRU	TAL CAN
Dissolved	Prep	3005A			195540	08/31/15 08:53	WKD	TAL CAN
Dissolved	Analysis	6020		1	195994	09/02/15 18:31	AS1	TAL CAN
Total Recoverable	Prep	3005A			195540	08/31/15 08:53	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195994	09/02/15 18:28	AS1	TAL CAN
Dissolved	Prep	7470A			195543	08/31/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195878	09/01/15 13:46	WAL	TAL CAN
Total/NA	Prep	7470A			195543	08/31/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195878	09/01/15 13:29	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195430	08/29/15 10:55	BLW	TAL CAN
Total/NA	Analysis	7196A		1	196361	09/04/15 10:16	KLC	TAL CAN

**Client Sample ID: GW-082815-JL-40**

**Lab Sample ID: 240-54873-9**

**Date Collected: 08/28/15 15:45**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	195997	09/02/15 23:31	LRW	TAL CAN
Total/NA	Prep	3510C			195716	09/01/15 08:46	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196375	09/04/15 22:29	MRU	TAL CAN
Dissolved	Prep	3005A			195540	08/31/15 08:53	WKD	TAL CAN
Dissolved	Analysis	6020		1	195994	09/02/15 18:39	AS1	TAL CAN
Total Recoverable	Prep	3005A			195540	08/31/15 08:53	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195994	09/02/15 18:35	AS1	TAL CAN
Dissolved	Prep	7470A			195543	08/31/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195878	09/01/15 13:18	WAL	TAL CAN
Total/NA	Prep	7470A			195543	08/31/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195878	09/01/15 13:40	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195430	08/29/15 10:56	BLW	TAL CAN
Total/NA	Analysis	7196A		1	196361	09/04/15 10:16	KLC	TAL CAN

**Client Sample ID: GW-082815-JL-41**

**Lab Sample ID: 240-54873-10**

**Date Collected: 08/28/15 16:50**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	196179	09/03/15 18:19	LRW	TAL CAN
Total/NA	Prep	3510C			195716	09/01/15 08:46	JDR	TAL CAN
Total/NA	Analysis	8270C		1	196375	09/04/15 22:54	MRU	TAL CAN
Dissolved	Prep	3005A			195540	08/31/15 08:54	WKD	TAL CAN
Dissolved	Analysis	6020		1	195994	09/02/15 18:46	AS1	TAL CAN

TestAmerica Canton

# Lab Chronicle

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			195540	08/31/15 08:54	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	195994	09/02/15 18:42	AS1	TAL CAN
Dissolved	Prep	7470A			195543	08/31/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	195878	09/01/15 13:20	WAL	TAL CAN
Total/NA	Prep	7470A			195543	08/31/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	195878	09/01/15 13:42	WAL	TAL CAN
Total/NA	Analysis	7196A		1	195430	08/29/15 10:57	BLW	TAL CAN
Total/NA	Analysis	7196A		1	196361	09/04/15 10:16	KLC	TAL CAN

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 240-54873-11**

**Date Collected: 08/28/15 00:00**

**Matrix: Water**

**Date Received: 08/29/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	196179	09/03/15 18:42	LRW	TAL CAN

**Laboratory References:**

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396





# Certification Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-54873-1

## Laboratory: TestAmerica Canton

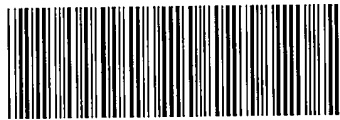
Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999518190	08-31-16

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
7196A		Water	Cr (III)
7196A		Water	Cr (VI)
8260B		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
8260B		Water	Cyclohexane
8260B		Water	Methyl acetate
8260B		Water	Methylcyclohexane
8270C	3510C	Water	4-Nitroaniline
8270C	3510C	Water	Atrazine
8270C	3510C	Water	Benzaldehyde
8270C	3510C	Water	Caprolactam

**CHAIN OF CUSTODY  
AND  
RECEIVING DOCUMENTS**



240-54873 Chain of Custody

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

3.0/CH.0 3.2/CH.2 2.9/CB.4 2.6/C3.6

**CONESTOGA-ROVERS & ASSOCIATES**  
 8615 W. Bryn Mawr Avenue  
 Chicago, Illinois 60631  
 (773)380-9933 phone  
 (773)380-6421 fax

SHIPPED TO  
 (Laboratory Name):

TEST AMERICA - NORTH CANTON

4 COCKERS

REFERENCE NUMBER:  
 58505-01-20402

PROJECT NAME: GM JAMESVILLE

CHAIN-OF-CUSTODY RECORD

SAMPLER'S SIGNATURE: *J. Kolodziej* PRINTED NAME: J. Kolodziej

SEQ. No.	DATE	TIME	SAMPLE IDENTIFICATION No.	SAMPLE MATRIX	No. OF CONTAINERS
	8/28/15	1035	GW-082815-JL-32	WATER	8
		1040			8
		1120			19
		1200			8
		1345			8
		1415			8
		1425			8
		1555			8
		1545			8
		1650			8
			TRIP BLANK		1

PARAMETERS  
 TEL WGS?  
 IN TEL METRS  
 TEL WGS METRS  
 THE DYS (CHROMIUM)  
 THE DYS (CHROMIUM)  
 HEAVY METS (ARSENIC)

REMARKS

MS/MSD

24 HR HOLD TIME  
 (ON HEXAVALENT CHROMIUM)

TOTAL NUMBER OF CONTAINERS 92

RELINQUISHED BY: <i>J. Kolodziej</i>	DATE: 8/28/15	RECEIVED BY: <i>Decalym Fend</i>	DATE: 8/29/15
RELINQUISHED BY:	TIME: 1800	RECEIVED BY:	TIME: 8:30
RELINQUISHED BY:		RECEIVED BY:	
RELINQUISHED BY:		RECEIVED BY:	

METHOD OF SHIPMENT: FedEx (SATURDAY DELIVERY)

AIR BILL No. 8085 1559 0490

White - Fully Executed Copy  
 Yellow - Receiving Laboratory Copy  
 Pink - Shipper Copy  
 Goldenrod - Sampler Copy

SAMPLE TEAM:  
 J. Kolodziej  
 J. Lozwick

RECEIVED FOR LABORATORY BY:  
 DATE: TIME: 6878



1  
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14

**TestAmerica Canton Sample Receipt Form/Narrative** Login # : 31083

Canton Facility \_\_\_\_\_  
 Client GHD Site Name onesu III Cooler unpacked by D. Level  
 Cooler Received on 8/29/15 Opened on 8/29/15  
 FedEx: 1<sup>st</sup> Grd  Bxp UPS FAS Stetson Client Drop Off TestAmerica Courier Other \_\_\_\_\_

Receipt After-hours: Drop-off Date/Time \_\_\_\_\_ Storage Location \_\_\_\_\_

TestAmerica Cooler # \_\_\_\_\_ Foam Box  Client Cooler \_\_\_\_\_ Box \_\_\_\_\_ Other \_\_\_\_\_  
 Packing material used:  Bubble Wrap \_\_\_\_\_ Foam \_\_\_\_\_ Plastic Bag \_\_\_\_\_ None \_\_\_\_\_ Other \_\_\_\_\_  
 COOLANT:  Wet Ice \_\_\_\_\_ Blue Ice \_\_\_\_\_ Dry Ice \_\_\_\_\_ Water \_\_\_\_\_ None \_\_\_\_\_

1. Cooler temperature upon receipt  
 IR GUN# A (CF +1.0 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C  
 IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C  
 IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C  
 IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity \_\_\_\_\_ Yes  No   
 -Were custody seals on the outside of the cooler(s) signed & dated? Yes  No  NA  
 -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes  No

3. Shippers' packing slip attached to the cooler(s)?  Yes  No  
 4. Did custody papers accompany the sample(s)?  Yes  No  
 5. Were the custody papers relinquished & signed in the appropriate place?  Yes  No  
 6. Was/were the person(s) who collected the samples clearly identified on the COC?  Yes  No  
 7. Did all bottles arrive in good condition (Unbroken)?  Yes  No  
 8. Could all bottle labels be reconciled with the COC?  Yes  No  
 9. Were correct bottle(s) used for the test(s) indicated?  Yes  No  
 10. Sufficient quantity received to perform indicated analyses?  Yes  No  
 11. Were sample(s) at the correct pH upon receipt?  Yes  No NA pH Strip Lot# HC554612  
 12. Were VOAs on the COC?  Yes  No  
 13. Were air bubbles >6 mm in any VOA vials? Yes  No  NA  
 14. Was a trip blank present in the cooler(s)? Trip Blank Lot # N/A  Yes  No

Contacted PM \_\_\_\_\_ Date \_\_\_\_\_ by \_\_\_\_\_ via Verbal Voice Mail Other \_\_\_\_\_  
 Concerning \_\_\_\_\_

**14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES** Samples processed by: \_\_\_\_\_

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

**15. SAMPLE CONDITION**  
 Sample(s) \_\_\_\_\_ were received after the recommended holding time had expired.  
 Sample(s) \_\_\_\_\_ were received in a broken container.  
 Sample(s) \_\_\_\_\_ were received with bubble >6 mm in diameter. (Notify PM)

**16. SAMPLE PRESERVATION**  
 Sample(s) \_\_\_\_\_ were further preserved in the laboratory.  
 Time preserved: \_\_\_\_\_ Preservative(s) added/Lot number(s): \_\_\_\_\_



Temperature readings: \_\_\_\_\_

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container pH</u>	<u>Preservative Added (mls)</u>	<u>Lot #</u>
GW-082815-JL-32	240-54873-E-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082815-JL-32	240-54873-F-1	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082815-JL-33	240-54873-E-2	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082815-JL-33	240-54873-F-2	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082815-JL-34	240-54873-L-3	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082815-JL-34	240-54873-M-3	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082815-JL-34	240-54873-N-3	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082815-JL-34	240-54873-O-3	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082815-JL-35	240-54873-E-4	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082815-JL-35	240-54873-F-4	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082815-JL-36	240-54873-E-5	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082815-JL-36	240-54873-F-5	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082815-JL-37	240-54873-E-6	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082815-JL-37	240-54873-F-6	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082815-JL-38	240-54873-E-7	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082815-JL-38	240-54873-F-7	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082815-JL-39	240-54873-E-8	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082815-JL-39	240-54873-F-8	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082815-JL-40	240-54873-E-9	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082815-JL-40	240-54873-F-9	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-082815-JL-41	240-54873-E-10	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-082815-JL-41	240-54873-F-10	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-57165-1

Client Project/Site: 58505, Janesville WI, SSOW 108011

For:

GHD Services Inc.

45 Farmington Valley Drive

Plainville, Connecticut 06062

Attn: Ms. Kathy Shaw



Authorized for release by:

11/12/2015 9:47:06 AM

Denise Heckler, Project Manager II

(330)966-9477

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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
H	Sample was prepped or analyzed beyond the specified holding time
F1	MS and/or MSD Recovery is outside acceptance limits.
E	Result exceeded calibration range.

### Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
U	Indicates the analyte was analyzed for but not detected.

### General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

**Job ID: 240-57165-1**

**Laboratory: TestAmerica Canton**

**Narrative**

## CASE NARRATIVE

**Client: GHD Services Inc.**

**Project: 58505, Janesville WI, SSOW 108011**

**Report Number: 240-57165-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

### **RECEIPT**

The samples were received on 10/28/2015; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.7° C and 4.5° C.

### **VOLATILE ORGANIC COMPOUNDS (GCMS)**

Samples GW-102715-JK-001 (240-57165-1), GW-102715-JK-002 (240-57165-2), GW-102715-JK-003 (240-57165-3) and TRIP BLANK (240-57165-5) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 11/03/2015 and 11/04/2015.

Sample GW-102715-JK-003 (240-57165-3)[3.33X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

### **SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)**

Samples GW-102715-JK-001 (240-57165-1), GW-102715-JK-002 (240-57165-2) and GW-102715-JK-003 (240-57165-3) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 10/30/2015 and 11/09/2015 and analyzed on 11/06/2015 and 11/10/2015.

# Case Narrative

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

## Job ID: 240-57165-1 (Continued)

### Laboratory: TestAmerica Canton (Continued)

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with analytical batch 240-205910.

The laboratory control sample (LCS) for 204513 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine and 3-Nitroaniline. The associated samples were re-prepared and/or re-analyzed outside holding time. Both sets of data have been reported for 3,3'-Dichlorobenzidine and 3-Nitroaniline.

3,3'-Dichlorobenzidine, 3-Nitroaniline, 4-Chloroaniline and Caprolactam failed the recovery criteria low for the MS of sample GW-102715-JK-003MS (240-57165-3) in batch 240-205551. Hexachloroethane failed the recovery criteria high.

3,3'-Dichlorobenzidine, 3-Nitroaniline, 4-Chloroaniline and Caprolactam failed the recovery criteria low for the MSD of sample GW-102715-JK-003MSD (240-57165-3) in batch 240-205551. Hexachloroethane failed the recovery criteria high.

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

### DISSOLVED METALS (ICPMS)

Samples GW-102715-JK-001 (240-57165-1), GW-102715-JK-002 (240-57165-2) and GW-102715-JK-003 (240-57165-3) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 10/29/2015 and analyzed on 10/30/2015.

Some requested practical quantitation limits (PQLs) on the following samples fall below the laboratory's verified standard quantitation limit: GW-102715-JK-001 (240-57165-1), GW-102715-JK-002 (240-57165-2) and GW-102715-JK-003 (240-57165-3). The continuing calibration blanks and method blanks may not support the lower PQL.

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

### TOTAL RECOVERABLE METALS (ICPMS)

Samples GW-102715-JK-001 (240-57165-1), GW-102715-JK-002 (240-57165-2) and GW-102715-JK-003 (240-57165-3) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 10/29/2015 and analyzed on 10/30/2015.

Chromium, Vanadium and Zinc were detected in method blank MB 240-204291/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Some requested practical quantitation limits (PQLs) on the following samples fall below the laboratory's verified standard quantitation limit: GW-102715-JK-001 (240-57165-1), GW-102715-JK-002 (240-57165-2) and GW-102715-JK-003 (240-57165-3). The continuing calibration blanks and method blanks may not support the lower PQL.

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

### HEXAVALENT CHROMIUM

Samples GW-102715-JK-001 (240-57165-1), GW-102715-JK-002 (240-57165-2) and GW-102715-JK-003 (240-57165-3) were analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples were analyzed on 10/28/2015.

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

### DISSOLVED MERCURY (CVAA)

Samples GW-102715-JK-001 (240-57165-1), GW-102715-JK-002 (240-57165-2) and GW-102715-JK-003 (240-57165-3) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 10/29/2015 and analyzed on 10/30/2015.

# Case Narrative

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

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## Job ID: 240-57165-1 (Continued)

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### Laboratory: TestAmerica Canton (Continued)

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

#### TOTAL MERCURY

Samples GW-102715-JK-001 (240-57165-1), GW-102715-JK-002 (240-57165-2) and GW-102715-JK-003 (240-57165-3) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 10/29/2015 and analyzed on 10/30/2015.

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

#### TRIVALENT CHROMIUM

Samples GW-102715-JK-001 (240-57165-1), GW-102715-JK-002 (240-57165-2) and GW-102715-JK-003 (240-57165-3) were analyzed for trivalent chromium in accordance with EPA SW-846 Method 7196A\_CR3. The samples were analyzed on 11/03/2015.

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





# Method Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
6020	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
7196A	Chromium, Hexavalent	SW846	TAL CAN
7196A	Chromium, Trivalent (Colorimetric)	SW846	TAL CAN

**Protocol References:**

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

**Laboratory References:**

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396



# Sample Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-57165-1	GW-102715-JK-001	Water	10/27/15 10:50	10/28/15 09:40
240-57165-2	GW-102715-JK-002	Water	10/27/15 11:10	10/28/15 09:40
240-57165-3	GW-102715-JK-003	Water	10/27/15 12:15	10/28/15 09:40
240-57165-5	TRIP BLANK	Water	10/27/15 00:00	10/28/15 09:40

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# Detection Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

**Client Sample ID: GW-102715-JK-001**

**Lab Sample ID: 240-57165-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	2.2		1.0	0.41	ug/L	1		8260B	Total/NA
Ethylbenzene	1.5		1.0	0.25	ug/L	1		8260B	Total/NA
1,3,5-Trimethylbenzene	0.59	J	1.0	0.48	ug/L	1		8260B	Total/NA
Xylenes, Total	3.9		2.0	0.52	ug/L	1		8260B	Total/NA
Cyclohexane	2.7		1.0	0.45	ug/L	1		8260B	Total/NA
Isopropylbenzene	1.3		1.0	0.35	ug/L	1		8260B	Total/NA
Naphthalene	0.61	J	4.8	0.060	ug/L	1		8270C	Total/NA
Antimony	0.58	J	2.0	0.16	ug/L	1		6020	Total Recoverable
Arsenic	1.0	J	5.0	0.49	ug/L	1		6020	Total Recoverable
Barium	97	J	100	1.1	ug/L	1		6020	Total Recoverable
Beryllium	0.26	J	1.0	0.053	ug/L	1		6020	Total Recoverable
Cadmium	0.38	J	1.0	0.061	ug/L	1		6020	Total Recoverable
Cobalt	0.29	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	1.3	J B	5.0	0.60	ug/L	1		6020	Total Recoverable
Copper	0.92	J	2.0	0.75	ug/L	1		6020	Total Recoverable
Manganese	24		15	1.1	ug/L	1		6020	Total Recoverable
Nickel	0.76	J	20	0.23	ug/L	1		6020	Total Recoverable
Lead	0.18	J	3.0	0.11	ug/L	1		6020	Total Recoverable
Selenium	1.1	J	5.0	0.25	ug/L	1		6020	Total Recoverable
Thallium	0.23	J	1.0	0.074	ug/L	1		6020	Total Recoverable
Vanadium	0.27	J B	4.0	0.23	ug/L	1		6020	Total Recoverable
Arsenic	0.72	J	5.0	0.49	ug/L	1		6020	Dissolved
Beryllium	0.079	J	1.0	0.053	ug/L	1		6020	Dissolved
Cadmium	0.085	J	1.0	0.061	ug/L	1		6020	Dissolved
Cobalt	0.17	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	0.94	J B	5.0	0.60	ug/L	1		6020	Dissolved
Manganese	40		15	1.1	ug/L	1		6020	Dissolved
Nickel	0.67	J	20	0.23	ug/L	1		6020	Dissolved
Selenium	0.75	J	5.0	0.25	ug/L	1		6020	Dissolved
Vanadium	0.27	J B	4.0	0.23	ug/L	1		6020	Dissolved
Barium	94	J	100	1.1	ug/L	1		6020	Dissolved

**Client Sample ID: GW-102715-JK-002**

**Lab Sample ID: 240-57165-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	2.4		1.0	0.41	ug/L	1		8260B	Total/NA
Ethylbenzene	1.9		1.0	0.25	ug/L	1		8260B	Total/NA
1,3,5-Trimethylbenzene	0.68	J	1.0	0.48	ug/L	1		8260B	Total/NA
Xylenes, Total	4.2		2.0	0.52	ug/L	1		8260B	Total/NA
Cyclohexane	3.3		1.0	0.45	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

**Client Sample ID: GW-102715-JK-002 (Continued)**

**Lab Sample ID: 240-57165-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Isopropylbenzene	1.7		1.0	0.35	ug/L	1		8260B	Total/NA
Methylcyclohexane	0.45	J	1.0	0.43	ug/L	1		8260B	Total/NA
Naphthalene	0.60	J	4.8	0.060	ug/L	1		8270C	Total/NA
Arsenic	0.87	J	5.0	0.49	ug/L	1		6020	Total Recoverable
Barium	95	J	100	1.1	ug/L	1		6020	Total Recoverable
Beryllium	0.067	J	1.0	0.053	ug/L	1		6020	Total Recoverable
Cadmium	0.086	J	1.0	0.061	ug/L	1		6020	Total Recoverable
Cobalt	0.16	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Chromium	1.3	J B	5.0	0.60	ug/L	1		6020	Total Recoverable
Manganese	30		15	1.1	ug/L	1		6020	Total Recoverable
Nickel	0.66	J	20	0.23	ug/L	1		6020	Total Recoverable
Selenium	0.81	J	5.0	0.25	ug/L	1		6020	Total Recoverable
Arsenic	0.97	J	5.0	0.49	ug/L	1		6020	Dissolved
Beryllium	0.062	J	1.0	0.053	ug/L	1		6020	Dissolved
Cadmium	0.076	J	1.0	0.061	ug/L	1		6020	Dissolved
Cobalt	0.18	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	1.2	J B	5.0	0.60	ug/L	1		6020	Dissolved
Manganese	44		15	1.1	ug/L	1		6020	Dissolved
Nickel	0.68	J	20	0.23	ug/L	1		6020	Dissolved
Selenium	0.96	J	5.0	0.25	ug/L	1		6020	Dissolved
Zinc	9.0	J B	20	7.3	ug/L	1		6020	Dissolved
Barium	100		100	1.1	ug/L	1		6020	Dissolved

**Client Sample ID: GW-102715-JK-003**

**Lab Sample ID: 240-57165-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	5.6		3.3	0.83	ug/L	3.33		8260B	Total/NA
Cyclohexane	18		3.3	1.5	ug/L	3.33		8260B	Total/NA
Isopropylbenzene	55		3.3	1.2	ug/L	3.33		8260B	Total/NA
Methylcyclohexane	8.9		3.3	1.4	ug/L	3.33		8260B	Total/NA
Acenaphthene	0.23	J	4.8	0.042	ug/L	1		8270C	Total/NA
1,1'-Biphenyl	0.52	J	4.8	0.12	ug/L	1		8270C	Total/NA
2-Methylnaphthalene	20		4.8	0.086	ug/L	1		8270C	Total/NA
Dibenzofuran	0.23	J	3.8	0.019	ug/L	1		8270C	Total/NA
Fluorene	0.27	J	4.8	0.039	ug/L	1		8270C	Total/NA
Naphthalene	25		4.8	0.060	ug/L	1		8270C	Total/NA
Phenanthrene	0.10	J	1.9	0.059	ug/L	1		8270C	Total/NA
Arsenic	2.0	J	5.0	0.49	ug/L	1		6020	Total Recoverable
Barium	110		100	1.1	ug/L	1		6020	Total Recoverable
Cobalt	0.22	J	7.0	0.021	ug/L	1		6020	Total Recoverable
Manganese	490		15	1.1	ug/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

## Client Sample ID: GW-102715-JK-003 (Continued)

## Lab Sample ID: 240-57165-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	0.49	J	20	0.23	ug/L	1		6020	Total Recoverable
Arsenic	2.6	J	5.0	0.49	ug/L	1		6020	Dissolved
Beryllium	0.22	J	1.0	0.053	ug/L	1		6020	Dissolved
Cadmium	0.31	J	1.0	0.061	ug/L	1		6020	Dissolved
Cobalt	0.33	J	7.0	0.021	ug/L	1		6020	Dissolved
Chromium	0.69	J B	5.0	0.60	ug/L	1		6020	Dissolved
Manganese	500		15	1.1	ug/L	1		6020	Dissolved
Nickel	0.58	J	20	0.23	ug/L	1		6020	Dissolved
Lead	0.12	J	3.0	0.11	ug/L	1		6020	Dissolved
Antimony	0.56	J	2.0	0.16	ug/L	1		6020	Dissolved
Thallium	0.21	J	1.0	0.074	ug/L	1		6020	Dissolved
Barium	100		100	1.1	ug/L	1		6020	Dissolved

## Client Sample ID: TRIP BLANK

## Lab Sample ID: 240-57165-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	9.3	J	10	0.94	ug/L	1		8260B	Total/NA
Methylene Chloride	0.67	J	1.0	0.33	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

**Client Sample ID: GW-102715-JK-001**

**Lab Sample ID: 240-57165-1**

**Date Collected: 10/27/15 10:50**

**Matrix: Water**

**Date Received: 10/28/15 09:40**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			11/03/15 07:35	1
Benzene	1.0	U	1.0	0.35	ug/L			11/03/15 07:35	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			11/03/15 07:35	1
Bromoform	1.0	U	1.0	0.56	ug/L			11/03/15 07:35	1
Bromomethane	1.0	U	1.0	0.44	ug/L			11/03/15 07:35	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			11/03/15 07:35	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			11/03/15 07:35	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			11/03/15 07:35	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			11/03/15 07:35	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/03/15 07:35	1
Chloroform	1.0	U	1.0	0.25	ug/L			11/03/15 07:35	1
Chloromethane	1.0	U	1.0	0.44	ug/L			11/03/15 07:35	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/03/15 07:35	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			11/03/15 07:35	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			11/03/15 07:35	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			11/03/15 07:35	1
<b>1,2,4-Trimethylbenzene</b>	<b>2.2</b>		1.0	0.41	ug/L			11/03/15 07:35	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/03/15 07:35	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			11/03/15 07:35	1
<b>Ethylbenzene</b>	<b>1.5</b>		1.0	0.25	ug/L			11/03/15 07:35	1
2-Hexanone	10	U	10	0.48	ug/L			11/03/15 07:35	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			11/03/15 07:35	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			11/03/15 07:35	1
Styrene	1.0	U	1.0	0.45	ug/L			11/03/15 07:35	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			11/03/15 07:35	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			11/03/15 07:35	1
Toluene	1.0	U	1.0	0.23	ug/L			11/03/15 07:35	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			11/03/15 07:35	1
<b>1,3,5-Trimethylbenzene</b>	<b>0.59</b>	<b>J</b>	1.0	0.48	ug/L			11/03/15 07:35	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			11/03/15 07:35	1
<b>Xylenes, Total</b>	<b>3.9</b>		2.0	0.52	ug/L			11/03/15 07:35	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			11/03/15 07:35	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/03/15 07:35	1
<b>Cyclohexane</b>	<b>2.7</b>		1.0	0.45	ug/L			11/03/15 07:35	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			11/03/15 07:35	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			11/03/15 07:35	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			11/03/15 07:35	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			11/03/15 07:35	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/03/15 07:35	1
<b>Isopropylbenzene</b>	<b>1.3</b>		1.0	0.35	ug/L			11/03/15 07:35	1
Methyl acetate	10	U	10	2.3	ug/L			11/03/15 07:35	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			11/03/15 07:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			11/03/15 07:35	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			11/03/15 07:35	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			11/03/15 07:35	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			11/03/15 07:35	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			11/03/15 07:35	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			11/03/15 07:35	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			11/03/15 07:35	1

TestAmerica Canton



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

**Client Sample ID: GW-102715-JK-001**

**Lab Sample ID: 240-57165-1**

**Date Collected: 10/27/15 10:50**

**Matrix: Water**

**Date Received: 10/28/15 09:40**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			11/03/15 07:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		78 - 125					11/03/15 07:35	1
4-Bromofluorobenzene (Surr)	86		61 - 120					11/03/15 07:35	1
Toluene-d8 (Surr)	93		80 - 120					11/03/15 07:35	1
Dibromofluoromethane (Surr)	87		79 - 120					11/03/15 07:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	4.8	U	4.8	0.042	ug/L		10/30/15 09:01	11/06/15 15:00	1
Acenaphthylene	4.8	U	4.8	0.046	ug/L		10/30/15 09:01	11/06/15 15:00	1
Acetophenone	4.8	U	4.8	0.32	ug/L		10/30/15 09:01	11/06/15 15:00	1
Anthracene	4.8	U	4.8	0.084	ug/L		10/30/15 09:01	11/06/15 15:00	1
Atrazine	2.9	U	2.9	0.32	ug/L		10/30/15 09:01	11/06/15 15:00	1
Benzaldehyde	4.8	U	4.8	0.37	ug/L		10/30/15 09:01	11/06/15 15:00	1
Benzo[a]anthracene	0.95	U	0.95	0.028	ug/L		10/30/15 09:01	11/06/15 15:00	1
Benzo[b]fluoranthene	0.95	U	0.95	0.038	ug/L		10/30/15 09:01	11/06/15 15:00	1
Benzo[k]fluoranthene	0.95	U	0.95	0.043	ug/L		10/30/15 09:01	11/06/15 15:00	1
Benzo[g,h,i]perylene	0.95	U	0.95	0.044	ug/L		10/30/15 09:01	11/06/15 15:00	1
Benzo[a]pyrene	0.95	U	0.95	0.049	ug/L		10/30/15 09:01	11/06/15 15:00	1
Butyl benzyl phthalate	4.8	U	4.8	0.25	ug/L		10/30/15 09:01	11/06/15 15:00	1
1,1'-Biphenyl	4.8	U	4.8	0.12	ug/L		10/30/15 09:01	11/06/15 15:00	1
Bis(2-chloroethoxy)methane	4.8	U	4.8	0.30	ug/L		10/30/15 09:01	11/06/15 15:00	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.095	ug/L		10/30/15 09:01	11/06/15 15:00	1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8	1.6	ug/L		10/30/15 09:01	11/06/15 15:00	1
4-Bromophenyl phenyl ether	4.8	U	4.8	0.21	ug/L		10/30/15 09:01	11/06/15 15:00	1
Caprolactam	9.5	U	9.5	0.19	ug/L		10/30/15 09:01	11/06/15 15:00	1
Carbazole	9.5	U	9.5	0.27	ug/L		10/30/15 09:01	11/06/15 15:00	1
4-Chloroaniline	9.5	U	9.5	0.20	ug/L		10/30/15 09:01	11/06/15 15:00	1
4-Chloro-3-methylphenol	4.8	U	4.8	0.20	ug/L		10/30/15 09:01	11/06/15 15:00	1
2-Chloronaphthalene	4.8	U	4.8	0.095	ug/L		10/30/15 09:01	11/06/15 15:00	1
2-Chlorophenol	4.8	U	4.8	0.28	ug/L		10/30/15 09:01	11/06/15 15:00	1
4-Chlorophenyl phenyl ether	4.8	U	4.8	0.29	ug/L		10/30/15 09:01	11/06/15 15:00	1
Chrysene	0.95	U	0.95	0.048	ug/L		10/30/15 09:01	11/06/15 15:00	1
2-Methylnaphthalene	4.8	U	4.8	0.086	ug/L		10/30/15 09:01	11/06/15 15:00	1
3 & 4 Methylphenol	4.8	U	4.8	0.76	ug/L		10/30/15 09:01	11/06/15 15:00	1
Dibenz(a,h)anthracene	1.9	U	1.9	0.042	ug/L		10/30/15 09:01	11/06/15 15:00	1
Dibenzofuran	3.8	U	3.8	0.019	ug/L		10/30/15 09:01	11/06/15 15:00	1
3,3'-Dichlorobenzidine	0.95	U *	0.95	0.35	ug/L		10/30/15 09:01	11/06/15 15:00	1
2,4-Dichlorophenol	9.5	U	9.5	0.18	ug/L		10/30/15 09:01	11/06/15 15:00	1
Diethyl phthalate	4.8	U	4.8	0.57	ug/L		10/30/15 09:01	11/06/15 15:00	1
2,4-Dimethylphenol	4.8	U	4.8	0.24	ug/L		10/30/15 09:01	11/06/15 15:00	1
Dimethyl phthalate	4.8	U	4.8	0.28	ug/L		10/30/15 09:01	11/06/15 15:00	1
4,6-Dinitro-2-methylphenol	19	U	19	2.3	ug/L		10/30/15 09:01	11/06/15 15:00	1
2,4-Dinitrophenol	19	U	19	0.30	ug/L		10/30/15 09:01	11/06/15 15:00	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		10/30/15 09:01	11/06/15 15:00	1
Di-n-butyl phthalate	4.8	U	4.8	1.6	ug/L		10/30/15 09:01	11/06/15 15:00	1
Di-n-octyl phthalate	4.8	U	4.8	0.22	ug/L		10/30/15 09:01	11/06/15 15:00	1
Fluoranthene	0.95	U	0.95	0.042	ug/L		10/30/15 09:01	11/06/15 15:00	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

**Client Sample ID: GW-102715-JK-001**

**Lab Sample ID: 240-57165-1**

**Date Collected: 10/27/15 10:50**

**Matrix: Water**

**Date Received: 10/28/15 09:40**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.8	U	4.8	0.039	ug/L		10/30/15 09:01	11/06/15 15:00	1
Hexachlorobenzene	0.19	U	0.19	0.081	ug/L		10/30/15 09:01	11/06/15 15:00	1
Hexachlorobutadiene	0.95	U	0.95	0.26	ug/L		10/30/15 09:01	11/06/15 15:00	1
Hexachlorocyclopentadiene	4.8	U	4.8	0.23	ug/L		10/30/15 09:01	11/06/15 15:00	1
Hexachloroethane	4.8	U	4.8	0.18	ug/L		10/30/15 09:01	11/06/15 15:00	1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	0.041	ug/L		10/30/15 09:01	11/06/15 15:00	1
Isophorone	4.8	U	4.8	0.26	ug/L		10/30/15 09:01	11/06/15 15:00	1
2-Methylphenol	4.8	U	4.8	0.16	ug/L		10/30/15 09:01	11/06/15 15:00	1
<b>Naphthalene</b>	<b>0.61</b>	<b>J</b>	4.8	0.060	ug/L		10/30/15 09:01	11/06/15 15:00	1
2-Nitroaniline	19	U	19	0.20	ug/L		10/30/15 09:01	11/06/15 15:00	1
3-Nitroaniline	19	U *	19	0.27	ug/L		10/30/15 09:01	11/06/15 15:00	1
4-Nitroaniline	19	U	19	0.21	ug/L		10/30/15 09:01	11/06/15 15:00	1
Nitrobenzene	2.9	U	2.9	0.038	ug/L		10/30/15 09:01	11/06/15 15:00	1
2-Nitrophenol	4.8	U	4.8	0.27	ug/L		10/30/15 09:01	11/06/15 15:00	1
4-Nitrophenol	19	U	19	0.28	ug/L		10/30/15 09:01	11/06/15 15:00	1
N-Nitrosodiphenylamine	4.8	U	4.8	0.30	ug/L		10/30/15 09:01	11/06/15 15:00	1
N-Nitrosodi-n-propylamine	4.8	U	4.8	0.23	ug/L		10/30/15 09:01	11/06/15 15:00	1
2,2'-oxybis[1-chloropropane]	4.8	U	4.8	0.38	ug/L		10/30/15 09:01	11/06/15 15:00	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		10/30/15 09:01	11/06/15 15:00	1
Phenanthrene	1.9	U	1.9	0.059	ug/L		10/30/15 09:01	11/06/15 15:00	1
Phenol	4.8	U	4.8	0.57	ug/L		10/30/15 09:01	11/06/15 15:00	1
Pyrene	4.8	U	4.8	0.040	ug/L		10/30/15 09:01	11/06/15 15:00	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		10/30/15 09:01	11/06/15 15:00	1
2,4,6-Trichlorophenol	3.8	U	3.8	0.23	ug/L		10/30/15 09:01	11/06/15 15:00	1
2,6-Dinitrotoluene	4.8	U	4.8	0.76	ug/L		10/30/15 09:01	11/06/15 15:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	58		29 - 110	10/30/15 09:01	11/06/15 15:00	1
2-Fluorophenol (Surr)	23		15 - 110	10/30/15 09:01	11/06/15 15:00	1
2,4,6-Tribromophenol (Surr)	67		21 - 128	10/30/15 09:01	11/06/15 15:00	1
Nitrobenzene-d5 (Surr)	58		31 - 110	10/30/15 09:01	11/06/15 15:00	1
Phenol-d5 (Surr)	12		10 - 110	10/30/15 09:01	11/06/15 15:00	1
Terphenyl-d14 (Surr)	40		31 - 115	10/30/15 09:01	11/06/15 15:00	1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	0.95	U H	0.95	0.35	ug/L		11/09/15 14:51	11/10/15 18:37	1
3-Nitroaniline	19	U H	19	0.27	ug/L		11/09/15 14:51	11/10/15 18:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	47		29 - 110	11/09/15 14:51	11/10/15 18:37	1
2-Fluorophenol (Surr)	19		15 - 110	11/09/15 14:51	11/10/15 18:37	1
2,4,6-Tribromophenol (Surr)	52		21 - 128	11/09/15 14:51	11/10/15 18:37	1
Nitrobenzene-d5 (Surr)	44		31 - 110	11/09/15 14:51	11/10/15 18:37	1
Phenol-d5 (Surr)	10		10 - 110	11/09/15 14:51	11/10/15 18:37	1
Terphenyl-d14 (Surr)	56		31 - 115	11/09/15 14:51	11/10/15 18:37	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.58</b>	<b>J</b>	2.0	0.16	ug/L		10/29/15 09:40	10/30/15 13:30	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

**Client Sample ID: GW-102715-JK-001**

**Lab Sample ID: 240-57165-1**

**Date Collected: 10/27/15 10:50**

**Matrix: Water**

**Date Received: 10/28/15 09:40**

### Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.0	J	5.0	0.49	ug/L		10/29/15 09:40	10/30/15 13:30	1
Barium	97	J	100	1.1	ug/L		10/29/15 09:40	10/30/15 13:30	1
Beryllium	0.26	J	1.0	0.053	ug/L		10/29/15 09:40	10/30/15 13:30	1
Cadmium	0.38	J	1.0	0.061	ug/L		10/29/15 09:40	10/30/15 13:30	1
Cobalt	0.29	J	7.0	0.021	ug/L		10/29/15 09:40	10/30/15 13:30	1
Chromium	1.3	J B	5.0	0.60	ug/L		10/29/15 09:40	10/30/15 13:30	1
Copper	0.92	J	2.0	0.75	ug/L		10/29/15 09:40	10/30/15 13:30	1
Manganese	24		15	1.1	ug/L		10/29/15 09:40	10/30/15 13:30	1
Nickel	0.76	J	20	0.23	ug/L		10/29/15 09:40	10/30/15 13:30	1
Lead	0.18	J	3.0	0.11	ug/L		10/29/15 09:40	10/30/15 13:30	1
Selenium	1.1	J	5.0	0.25	ug/L		10/29/15 09:40	10/30/15 13:30	1
Thallium	0.23	J	1.0	0.074	ug/L		10/29/15 09:40	10/30/15 13:30	1
Vanadium	0.27	J B	4.0	0.23	ug/L		10/29/15 09:40	10/30/15 13:30	1
Zinc	20	U	20	7.3	ug/L		10/29/15 09:40	10/30/15 13:30	1
Silver	0.20	U	0.20	0.020	ug/L		10/29/15 09:40	10/30/15 13:30	1

### Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		10/29/15 09:40	10/30/15 13:41	1
Arsenic	0.72	J	5.0	0.49	ug/L		10/29/15 09:40	10/30/15 13:41	1
Beryllium	0.079	J	1.0	0.053	ug/L		10/29/15 09:40	10/30/15 13:41	1
Cadmium	0.085	J	1.0	0.061	ug/L		10/29/15 09:40	10/30/15 13:41	1
Cobalt	0.17	J	7.0	0.021	ug/L		10/29/15 09:40	10/30/15 13:41	1
Chromium	0.94	J B	5.0	0.60	ug/L		10/29/15 09:40	10/30/15 13:41	1
Copper	2.0	U	2.0	0.75	ug/L		10/29/15 09:40	10/30/15 13:41	1
Manganese	40		15	1.1	ug/L		10/29/15 09:40	10/30/15 13:41	1
Nickel	0.67	J	20	0.23	ug/L		10/29/15 09:40	10/30/15 13:41	1
Lead	3.0	U	3.0	0.11	ug/L		10/29/15 09:40	10/30/15 13:41	1
Antimony	2.0	U	2.0	0.16	ug/L		10/29/15 09:40	10/30/15 13:41	1
Selenium	0.75	J	5.0	0.25	ug/L		10/29/15 09:40	10/30/15 13:41	1
Thallium	1.0	U	1.0	0.074	ug/L		10/29/15 09:40	10/30/15 13:41	1
Vanadium	0.27	J B	4.0	0.23	ug/L		10/29/15 09:40	10/30/15 13:41	1
Zinc	20	U	20	7.3	ug/L		10/29/15 09:40	10/30/15 13:41	1
Barium	94	J	100	1.1	ug/L		10/29/15 09:40	10/30/15 13:41	1

### Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		10/29/15 14:00	10/30/15 14:04	1

### Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		10/29/15 14:00	10/30/15 14:07	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	5.0	U	5.0	2.1	ug/L			10/28/15 11:15	1
Cr (III)	5.0	U	5.0	2.0	ug/L			11/03/15 10:40	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

**Client Sample ID: GW-102715-JK-002**

**Lab Sample ID: 240-57165-2**

**Date Collected: 10/27/15 11:10**

**Matrix: Water**

**Date Received: 10/28/15 09:40**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			11/03/15 07:59	1
Benzene	1.0	U	1.0	0.35	ug/L			11/03/15 07:59	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			11/03/15 07:59	1
Bromoform	1.0	U	1.0	0.56	ug/L			11/03/15 07:59	1
Bromomethane	1.0	U	1.0	0.44	ug/L			11/03/15 07:59	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			11/03/15 07:59	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			11/03/15 07:59	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			11/03/15 07:59	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			11/03/15 07:59	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/03/15 07:59	1
Chloroform	1.0	U	1.0	0.25	ug/L			11/03/15 07:59	1
Chloromethane	1.0	U	1.0	0.44	ug/L			11/03/15 07:59	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/03/15 07:59	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			11/03/15 07:59	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			11/03/15 07:59	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			11/03/15 07:59	1
<b>1,2,4-Trimethylbenzene</b>	<b>2.4</b>		1.0	0.41	ug/L			11/03/15 07:59	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/03/15 07:59	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			11/03/15 07:59	1
<b>Ethylbenzene</b>	<b>1.9</b>		1.0	0.25	ug/L			11/03/15 07:59	1
2-Hexanone	10	U	10	0.48	ug/L			11/03/15 07:59	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			11/03/15 07:59	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			11/03/15 07:59	1
Styrene	1.0	U	1.0	0.45	ug/L			11/03/15 07:59	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			11/03/15 07:59	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			11/03/15 07:59	1
Toluene	1.0	U	1.0	0.23	ug/L			11/03/15 07:59	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			11/03/15 07:59	1
<b>1,3,5-Trimethylbenzene</b>	<b>0.68</b>	<b>J</b>	1.0	0.48	ug/L			11/03/15 07:59	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			11/03/15 07:59	1
<b>Xylenes, Total</b>	<b>4.2</b>		2.0	0.52	ug/L			11/03/15 07:59	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			11/03/15 07:59	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/03/15 07:59	1
<b>Cyclohexane</b>	<b>3.3</b>		1.0	0.45	ug/L			11/03/15 07:59	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			11/03/15 07:59	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			11/03/15 07:59	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			11/03/15 07:59	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			11/03/15 07:59	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/03/15 07:59	1
<b>Isopropylbenzene</b>	<b>1.7</b>		1.0	0.35	ug/L			11/03/15 07:59	1
Methyl acetate	10	U	10	2.3	ug/L			11/03/15 07:59	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			11/03/15 07:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			11/03/15 07:59	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			11/03/15 07:59	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			11/03/15 07:59	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			11/03/15 07:59	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			11/03/15 07:59	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			11/03/15 07:59	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			11/03/15 07:59	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

**Client Sample ID: GW-102715-JK-002**

**Lab Sample ID: 240-57165-2**

**Date Collected: 10/27/15 11:10**

**Matrix: Water**

**Date Received: 10/28/15 09:40**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	0.45	J	1.0	0.43	ug/L			11/03/15 07:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		78 - 125					11/03/15 07:59	1
4-Bromofluorobenzene (Surr)	85		61 - 120					11/03/15 07:59	1
Toluene-d8 (Surr)	92		80 - 120					11/03/15 07:59	1
Dibromofluoromethane (Surr)	81		79 - 120					11/03/15 07:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	4.8	U	4.8	0.043	ug/L		10/30/15 09:01	11/06/15 19:32	1
Acenaphthylene	4.8	U	4.8	0.046	ug/L		10/30/15 09:01	11/06/15 19:32	1
Acetophenone	4.8	U	4.8	0.33	ug/L		10/30/15 09:01	11/06/15 19:32	1
Anthracene	4.8	U	4.8	0.085	ug/L		10/30/15 09:01	11/06/15 19:32	1
Atrazine	2.9	U	2.9	0.33	ug/L		10/30/15 09:01	11/06/15 19:32	1
Benzaldehyde	4.8	U	4.8	0.37	ug/L		10/30/15 09:01	11/06/15 19:32	1
Benzo[a]anthracene	0.96	U	0.96	0.028	ug/L		10/30/15 09:01	11/06/15 19:32	1
Benzo[b]fluoranthene	0.96	U	0.96	0.038	ug/L		10/30/15 09:01	11/06/15 19:32	1
Benzo[k]fluoranthene	0.96	U	0.96	0.043	ug/L		10/30/15 09:01	11/06/15 19:32	1
Benzo[g,h,i]perylene	0.96	U	0.96	0.045	ug/L		10/30/15 09:01	11/06/15 19:32	1
Benzo[a]pyrene	0.96	U	0.96	0.049	ug/L		10/30/15 09:01	11/06/15 19:32	1
Butyl benzyl phthalate	4.8	U	4.8	0.25	ug/L		10/30/15 09:01	11/06/15 19:32	1
1,1'-Biphenyl	4.8	U	4.8	0.13	ug/L		10/30/15 09:01	11/06/15 19:32	1
Bis(2-chloroethoxy)methane	4.8	U	4.8	0.31	ug/L		10/30/15 09:01	11/06/15 19:32	1
Bis(2-chloroethyl)ether	0.96	U	0.96	0.096	ug/L		10/30/15 09:01	11/06/15 19:32	1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8	1.6	ug/L		10/30/15 09:01	11/06/15 19:32	1
4-Bromophenyl phenyl ether	4.8	U	4.8	0.21	ug/L		10/30/15 09:01	11/06/15 19:32	1
Caprolactam	9.6	U	9.6	0.19	ug/L		10/30/15 09:01	11/06/15 19:32	1
Carbazole	9.6	U	9.6	0.27	ug/L		10/30/15 09:01	11/06/15 19:32	1
4-Chloroaniline	9.6	U	9.6	0.20	ug/L		10/30/15 09:01	11/06/15 19:32	1
4-Chloro-3-methylphenol	4.8	U	4.8	0.20	ug/L		10/30/15 09:01	11/06/15 19:32	1
2-Chloronaphthalene	4.8	U	4.8	0.096	ug/L		10/30/15 09:01	11/06/15 19:32	1
2-Chlorophenol	4.8	U	4.8	0.28	ug/L		10/30/15 09:01	11/06/15 19:32	1
4-Chlorophenyl phenyl ether	4.8	U	4.8	0.29	ug/L		10/30/15 09:01	11/06/15 19:32	1
Chrysene	0.96	U	0.96	0.048	ug/L		10/30/15 09:01	11/06/15 19:32	1
2-Methylnaphthalene	4.8	U	4.8	0.087	ug/L		10/30/15 09:01	11/06/15 19:32	1
3 & 4 Methylphenol	4.8	U	4.8	0.77	ug/L		10/30/15 09:01	11/06/15 19:32	1
Dibenz(a,h)anthracene	1.9	U	1.9	0.043	ug/L		10/30/15 09:01	11/06/15 19:32	1
Dibenzofuran	3.8	U	3.8	0.019	ug/L		10/30/15 09:01	11/06/15 19:32	1
3,3'-Dichlorobenzidine	0.96	U *	0.96	0.36	ug/L		10/30/15 09:01	11/06/15 19:32	1
2,4-Dichlorophenol	9.6	U	9.6	0.18	ug/L		10/30/15 09:01	11/06/15 19:32	1
Diethyl phthalate	4.8	U	4.8	0.58	ug/L		10/30/15 09:01	11/06/15 19:32	1
2,4-Dimethylphenol	4.8	U	4.8	0.24	ug/L		10/30/15 09:01	11/06/15 19:32	1
Dimethyl phthalate	4.8	U	4.8	0.28	ug/L		10/30/15 09:01	11/06/15 19:32	1
4,6-Dinitro-2-methylphenol	19	U	19	2.3	ug/L		10/30/15 09:01	11/06/15 19:32	1
2,4-Dinitrophenol	19	U	19	0.31	ug/L		10/30/15 09:01	11/06/15 19:32	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		10/30/15 09:01	11/06/15 19:32	1
Di-n-butyl phthalate	4.8	U	4.8	1.6	ug/L		10/30/15 09:01	11/06/15 19:32	1
Di-n-octyl phthalate	4.8	U	4.8	0.22	ug/L		10/30/15 09:01	11/06/15 19:32	1
Fluoranthene	0.96	U	0.96	0.043	ug/L		10/30/15 09:01	11/06/15 19:32	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

**Client Sample ID: GW-102715-JK-002**

**Lab Sample ID: 240-57165-2**

**Date Collected: 10/27/15 11:10**

**Matrix: Water**

**Date Received: 10/28/15 09:40**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.8	U	4.8	0.039	ug/L		10/30/15 09:01	11/06/15 19:32	1
Hexachlorobenzene	0.19	U	0.19	0.082	ug/L		10/30/15 09:01	11/06/15 19:32	1
Hexachlorobutadiene	0.96	U	0.96	0.26	ug/L		10/30/15 09:01	11/06/15 19:32	1
Hexachlorocyclopentadiene	4.8	U	4.8	0.23	ug/L		10/30/15 09:01	11/06/15 19:32	1
Hexachloroethane	4.8	U	4.8	0.18	ug/L		10/30/15 09:01	11/06/15 19:32	1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	0.042	ug/L		10/30/15 09:01	11/06/15 19:32	1
Isophorone	4.8	U	4.8	0.26	ug/L		10/30/15 09:01	11/06/15 19:32	1
2-Methylphenol	4.8	U	4.8	0.16	ug/L		10/30/15 09:01	11/06/15 19:32	1
<b>Naphthalene</b>	<b>0.60</b>	<b>J</b>	4.8	0.060	ug/L		10/30/15 09:01	11/06/15 19:32	1
2-Nitroaniline	19	U	19	0.20	ug/L		10/30/15 09:01	11/06/15 19:32	1
3-Nitroaniline	19	U *	19	0.27	ug/L		10/30/15 09:01	11/06/15 19:32	1
4-Nitroaniline	19	U	19	0.21	ug/L		10/30/15 09:01	11/06/15 19:32	1
Nitrobenzene	2.9	U	2.9	0.038	ug/L		10/30/15 09:01	11/06/15 19:32	1
2-Nitrophenol	4.8	U	4.8	0.27	ug/L		10/30/15 09:01	11/06/15 19:32	1
4-Nitrophenol	19	U	19	0.28	ug/L		10/30/15 09:01	11/06/15 19:32	1
N-Nitrosodiphenylamine	4.8	U	4.8	0.30	ug/L		10/30/15 09:01	11/06/15 19:32	1
N-Nitrosodi-n-propylamine	4.8	U	4.8	0.23	ug/L		10/30/15 09:01	11/06/15 19:32	1
2,2'-oxybis[1-chloropropane]	4.8	U	4.8	0.38	ug/L		10/30/15 09:01	11/06/15 19:32	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		10/30/15 09:01	11/06/15 19:32	1
Phenanthrene	1.9	U	1.9	0.060	ug/L		10/30/15 09:01	11/06/15 19:32	1
Phenol	4.8	U	4.8	0.58	ug/L		10/30/15 09:01	11/06/15 19:32	1
Pyrene	4.8	U	4.8	0.040	ug/L		10/30/15 09:01	11/06/15 19:32	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		10/30/15 09:01	11/06/15 19:32	1
2,4,6-Trichlorophenol	3.8	U	3.8	0.23	ug/L		10/30/15 09:01	11/06/15 19:32	1
2,6-Dinitrotoluene	4.8	U	4.8	0.77	ug/L		10/30/15 09:01	11/06/15 19:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	56		29 - 110	10/30/15 09:01	11/06/15 19:32	1
2-Fluorophenol (Surr)	25		15 - 110	10/30/15 09:01	11/06/15 19:32	1
2,4,6-Tribromophenol (Surr)	58		21 - 128	10/30/15 09:01	11/06/15 19:32	1
Nitrobenzene-d5 (Surr)	54		31 - 110	10/30/15 09:01	11/06/15 19:32	1
Phenol-d5 (Surr)	14		10 - 110	10/30/15 09:01	11/06/15 19:32	1
Terphenyl-d14 (Surr)	47		31 - 115	10/30/15 09:01	11/06/15 19:32	1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	1.1	U H	1.1	0.39	ug/L		11/09/15 14:51	11/10/15 19:01	1
3-Nitroaniline	21	U H	21	0.30	ug/L		11/09/15 14:51	11/10/15 19:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	65		29 - 110	11/09/15 14:51	11/10/15 19:01	1
2-Fluorophenol (Surr)	34		15 - 110	11/09/15 14:51	11/10/15 19:01	1
2,4,6-Tribromophenol (Surr)	58		21 - 128	11/09/15 14:51	11/10/15 19:01	1
Nitrobenzene-d5 (Surr)	63		31 - 110	11/09/15 14:51	11/10/15 19:01	1
Phenol-d5 (Surr)	19		10 - 110	11/09/15 14:51	11/10/15 19:01	1
Terphenyl-d14 (Surr)	67		31 - 115	11/09/15 14:51	11/10/15 19:01	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		10/29/15 09:40	10/30/15 13:45	1

TestAmerica Canton



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

**Client Sample ID: GW-102715-JK-002**

**Lab Sample ID: 240-57165-2**

**Date Collected: 10/27/15 11:10**

**Matrix: Water**

**Date Received: 10/28/15 09:40**

## Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.87	J	5.0	0.49	ug/L		10/29/15 09:40	10/30/15 13:45	1
Barium	95	J	100	1.1	ug/L		10/29/15 09:40	10/30/15 13:45	1
Beryllium	0.067	J	1.0	0.053	ug/L		10/29/15 09:40	10/30/15 13:45	1
Cadmium	0.086	J	1.0	0.061	ug/L		10/29/15 09:40	10/30/15 13:45	1
Cobalt	0.16	J	7.0	0.021	ug/L		10/29/15 09:40	10/30/15 13:45	1
Chromium	1.3	J B	5.0	0.60	ug/L		10/29/15 09:40	10/30/15 13:45	1
Copper	2.0	U	2.0	0.75	ug/L		10/29/15 09:40	10/30/15 13:45	1
Manganese	30		15	1.1	ug/L		10/29/15 09:40	10/30/15 13:45	1
Nickel	0.66	J	20	0.23	ug/L		10/29/15 09:40	10/30/15 13:45	1
Lead	3.0	U	3.0	0.11	ug/L		10/29/15 09:40	10/30/15 13:45	1
Selenium	0.81	J	5.0	0.25	ug/L		10/29/15 09:40	10/30/15 13:45	1
Thallium	1.0	U	1.0	0.074	ug/L		10/29/15 09:40	10/30/15 13:45	1
Vanadium	4.0	U	4.0	0.23	ug/L		10/29/15 09:40	10/30/15 13:45	1
Zinc	20	U	20	7.3	ug/L		10/29/15 09:40	10/30/15 13:45	1
Silver	0.20	U	0.20	0.020	ug/L		10/29/15 09:40	10/30/15 13:45	1

## Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		10/29/15 09:40	10/30/15 13:48	1
Arsenic	0.97	J	5.0	0.49	ug/L		10/29/15 09:40	10/30/15 13:48	1
Beryllium	0.062	J	1.0	0.053	ug/L		10/29/15 09:40	10/30/15 13:48	1
Cadmium	0.076	J	1.0	0.061	ug/L		10/29/15 09:40	10/30/15 13:48	1
Cobalt	0.18	J	7.0	0.021	ug/L		10/29/15 09:40	10/30/15 13:48	1
Chromium	1.2	J B	5.0	0.60	ug/L		10/29/15 09:40	10/30/15 13:48	1
Copper	2.0	U	2.0	0.75	ug/L		10/29/15 09:40	10/30/15 13:48	1
Manganese	44		15	1.1	ug/L		10/29/15 09:40	10/30/15 13:48	1
Nickel	0.68	J	20	0.23	ug/L		10/29/15 09:40	10/30/15 13:48	1
Lead	3.0	U	3.0	0.11	ug/L		10/29/15 09:40	10/30/15 13:48	1
Antimony	2.0	U	2.0	0.16	ug/L		10/29/15 09:40	10/30/15 13:48	1
Selenium	0.96	J	5.0	0.25	ug/L		10/29/15 09:40	10/30/15 13:48	1
Thallium	1.0	U	1.0	0.074	ug/L		10/29/15 09:40	10/30/15 13:48	1
Vanadium	4.0	U	4.0	0.23	ug/L		10/29/15 09:40	10/30/15 13:48	1
Zinc	9.0	J B	20	7.3	ug/L		10/29/15 09:40	10/30/15 13:48	1
Barium	100		100	1.1	ug/L		10/29/15 09:40	10/30/15 13:48	1

## Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		10/29/15 14:00	10/30/15 14:08	1

## Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		10/29/15 14:00	10/30/15 14:10	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	5.0	U	5.0	2.1	ug/L			10/28/15 11:16	1
Cr (III)	5.0	U	5.0	2.0	ug/L			11/03/15 10:40	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

**Client Sample ID: GW-102715-JK-003**

**Lab Sample ID: 240-57165-3**

**Date Collected: 10/27/15 12:15**

**Matrix: Water**

**Date Received: 10/28/15 09:40**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	33	U	33	3.1	ug/L			11/04/15 18:45	3.33
Benzene	3.3	U	3.3	1.2	ug/L			11/04/15 18:45	3.33
Dichlorobromomethane	3.3	U	3.3	0.97	ug/L			11/04/15 18:45	3.33
Bromoform	3.3	U	3.3	1.9	ug/L			11/04/15 18:45	3.33
Bromomethane	3.3	U	3.3	1.5	ug/L			11/04/15 18:45	3.33
2-Butanone (MEK)	33	U	33	1.8	ug/L			11/04/15 18:45	3.33
Carbon disulfide	3.3	U	3.3	1.3	ug/L			11/04/15 18:45	3.33
Carbon tetrachloride	3.3	U	3.3	1.4	ug/L			11/04/15 18:45	3.33
Chlorobenzene	3.3	U	3.3	0.83	ug/L			11/04/15 18:45	3.33
Chloroethane	3.3	U	3.3	1.1	ug/L			11/04/15 18:45	3.33
Chloroform	3.3	U	3.3	0.83	ug/L			11/04/15 18:45	3.33
Chloromethane	3.3	U	3.3	1.5	ug/L			11/04/15 18:45	3.33
1,1-Dichloroethane	3.3	U	3.3	1.0	ug/L			11/04/15 18:45	3.33
1,2-Dichloroethane	3.3	U	3.3	0.77	ug/L			11/04/15 18:45	3.33
1,1-Dichloroethene	3.3	U	3.3	1.5	ug/L			11/04/15 18:45	3.33
1,2-Dichloropropane	3.3	U	3.3	0.83	ug/L			11/04/15 18:45	3.33
1,2,4-Trimethylbenzene	3.3	U	3.3	1.4	ug/L			11/04/15 18:45	3.33
cis-1,3-Dichloropropene	3.3	U	3.3	1.5	ug/L			11/04/15 18:45	3.33
trans-1,3-Dichloropropene	3.3	U	3.3	1.9	ug/L			11/04/15 18:45	3.33
<b>Ethylbenzene</b>	<b>5.6</b>		3.3	0.83	ug/L			11/04/15 18:45	3.33
2-Hexanone	33	U	33	1.6	ug/L			11/04/15 18:45	3.33
Methylene Chloride	3.3	U	3.3	1.1	ug/L			11/04/15 18:45	3.33
4-Methyl-2-pentanone (MIBK)	33	U	33	3.3	ug/L			11/04/15 18:45	3.33
Styrene	3.3	U	3.3	1.5	ug/L			11/04/15 18:45	3.33
1,1,2,2-Tetrachloroethane	3.3	U	3.3	0.73	ug/L			11/04/15 18:45	3.33
Tetrachloroethene	3.3	U	3.3	1.0	ug/L			11/04/15 18:45	3.33
Toluene	3.3	U	3.3	0.77	ug/L			11/04/15 18:45	3.33
Trichloroethene	3.3	U	3.3	0.73	ug/L			11/04/15 18:45	3.33
1,3,5-Trimethylbenzene	3.3	U	3.3	1.6	ug/L			11/04/15 18:45	3.33
Vinyl chloride	3.3	U	3.3	0.97	ug/L			11/04/15 18:45	3.33
Xylenes, Total	6.7	U	6.7	1.7	ug/L			11/04/15 18:45	3.33
1,1,1-Trichloroethane	3.3	U	3.3	1.5	ug/L			11/04/15 18:45	3.33
1,1,2-Trichloroethane	3.3	U	3.3	0.80	ug/L			11/04/15 18:45	3.33
<b>Cyclohexane</b>	<b>18</b>		3.3	1.5	ug/L			11/04/15 18:45	3.33
1,2-Dibromo-3-Chloropropane	6.7	U	6.7	2.7	ug/L			11/04/15 18:45	3.33
Ethylene Dibromide	3.3	U	3.3	1.1	ug/L			11/04/15 18:45	3.33
Dichlorodifluoromethane	3.3	U	3.3	1.1	ug/L			11/04/15 18:45	3.33
cis-1,2-Dichloroethene	3.3	U	3.3	0.87	ug/L			11/04/15 18:45	3.33
trans-1,2-Dichloroethene	3.3	U	3.3	1.0	ug/L			11/04/15 18:45	3.33
<b>Isopropylbenzene</b>	<b>55</b>		3.3	1.2	ug/L			11/04/15 18:45	3.33
Methyl acetate	33	U	33	7.6	ug/L			11/04/15 18:45	3.33
Methyl tert-butyl ether	3.3	U	3.3	0.67	ug/L			11/04/15 18:45	3.33
1,1,2-Trichloro-1,2,2-trifluoroethane	3.3	U	3.3	1.5	ug/L			11/04/15 18:45	3.33
1,2,4-Trichlorobenzene	3.3	U	3.3	1.1	ug/L			11/04/15 18:45	3.33
1,2-Dichlorobenzene	3.3	U	3.3	0.83	ug/L			11/04/15 18:45	3.33
1,3-Dichlorobenzene	3.3	U	3.3	0.63	ug/L			11/04/15 18:45	3.33
1,4-Dichlorobenzene	3.3	U	3.3	0.90	ug/L			11/04/15 18:45	3.33
Trichlorofluoromethane	3.3	U	3.3	1.6	ug/L			11/04/15 18:45	3.33
Chlorodibromomethane	3.3	U	3.3	1.4	ug/L			11/04/15 18:45	3.33

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

**Client Sample ID: GW-102715-JK-003**

**Lab Sample ID: 240-57165-3**

**Date Collected: 10/27/15 12:15**

**Matrix: Water**

**Date Received: 10/28/15 09:40**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Methylcyclohexane</b>	<b>8.9</b>		3.3	1.4	ug/L			11/04/15 18:45	3.33
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	101		78 - 125					11/04/15 18:45	3.33
4-Bromofluorobenzene (Surr)	95		61 - 120					11/04/15 18:45	3.33
Toluene-d8 (Surr)	94		80 - 120					11/04/15 18:45	3.33
Dibromofluoromethane (Surr)	87		79 - 120					11/04/15 18:45	3.33

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acenaphthene</b>	<b>0.23</b>	<b>J</b>	4.8	0.042	ug/L		10/30/15 09:01	11/06/15 15:25	1
Acenaphthylene	4.8	U	4.8	0.046	ug/L		10/30/15 09:01	11/06/15 15:25	1
Acetophenone	4.8	U	4.8	0.32	ug/L		10/30/15 09:01	11/06/15 15:25	1
Anthracene	4.8	U	4.8	0.084	ug/L		10/30/15 09:01	11/06/15 15:25	1
Atrazine	2.9	U	2.9	0.32	ug/L		10/30/15 09:01	11/06/15 15:25	1
Benzaldehyde	4.8	U	4.8	0.37	ug/L		10/30/15 09:01	11/06/15 15:25	1
Benzo[a]anthracene	0.95	U	0.95	0.028	ug/L		10/30/15 09:01	11/06/15 15:25	1
Benzo[b]fluoranthene	0.95	U	0.95	0.038	ug/L		10/30/15 09:01	11/06/15 15:25	1
Benzo[k]fluoranthene	0.95	U	0.95	0.043	ug/L		10/30/15 09:01	11/06/15 15:25	1
Benzo[g,h,i]perylene	0.95	U	0.95	0.044	ug/L		10/30/15 09:01	11/06/15 15:25	1
Benzo[a]pyrene	0.95	U	0.95	0.049	ug/L		10/30/15 09:01	11/06/15 15:25	1
Butyl benzyl phthalate	4.8	U	4.8	0.25	ug/L		10/30/15 09:01	11/06/15 15:25	1
<b>1,1'-Biphenyl</b>	<b>0.52</b>	<b>J</b>	4.8	0.12	ug/L		10/30/15 09:01	11/06/15 15:25	1
Bis(2-chloroethoxy)methane	4.8	U	4.8	0.30	ug/L		10/30/15 09:01	11/06/15 15:25	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.095	ug/L		10/30/15 09:01	11/06/15 15:25	1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8	1.6	ug/L		10/30/15 09:01	11/06/15 15:25	1
4-Bromophenyl phenyl ether	4.8	U	4.8	0.21	ug/L		10/30/15 09:01	11/06/15 15:25	1
Caprolactam	9.5	U F1	9.5	0.19	ug/L		10/30/15 09:01	11/06/15 15:25	1
Carbazole	9.5	U	9.5	0.27	ug/L		10/30/15 09:01	11/06/15 15:25	1
4-Chloroaniline	9.5	U F1	9.5	0.20	ug/L		10/30/15 09:01	11/06/15 15:25	1
4-Chloro-3-methylphenol	4.8	U	4.8	0.20	ug/L		10/30/15 09:01	11/06/15 15:25	1
2-Chloronaphthalene	4.8	U	4.8	0.095	ug/L		10/30/15 09:01	11/06/15 15:25	1
2-Chlorophenol	4.8	U	4.8	0.28	ug/L		10/30/15 09:01	11/06/15 15:25	1
4-Chlorophenyl phenyl ether	4.8	U	4.8	0.29	ug/L		10/30/15 09:01	11/06/15 15:25	1
Chrysene	0.95	U	0.95	0.048	ug/L		10/30/15 09:01	11/06/15 15:25	1
<b>2-Methylnaphthalene</b>	<b>20</b>		4.8	0.086	ug/L		10/30/15 09:01	11/06/15 15:25	1
3 & 4 Methylphenol	4.8	U	4.8	0.76	ug/L		10/30/15 09:01	11/06/15 15:25	1
Dibenz(a,h)anthracene	1.9	U	1.9	0.042	ug/L		10/30/15 09:01	11/06/15 15:25	1
<b>Dibenzofuran</b>	<b>0.23</b>	<b>J</b>	3.8	0.019	ug/L		10/30/15 09:01	11/06/15 15:25	1
3,3'-Dichlorobenzidine	0.95	U F1 *	0.95	0.35	ug/L		10/30/15 09:01	11/06/15 15:25	1
2,4-Dichlorophenol	9.5	U	9.5	0.18	ug/L		10/30/15 09:01	11/06/15 15:25	1
Diethyl phthalate	4.8	U	4.8	0.57	ug/L		10/30/15 09:01	11/06/15 15:25	1
2,4-Dimethylphenol	4.8	U	4.8	0.24	ug/L		10/30/15 09:01	11/06/15 15:25	1
Dimethyl phthalate	4.8	U	4.8	0.28	ug/L		10/30/15 09:01	11/06/15 15:25	1
4,6-Dinitro-2-methylphenol	19	U	19	2.3	ug/L		10/30/15 09:01	11/06/15 15:25	1
2,4-Dinitrophenol	19	U	19	0.30	ug/L		10/30/15 09:01	11/06/15 15:25	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		10/30/15 09:01	11/06/15 15:25	1
Di-n-butyl phthalate	4.8	U	4.8	1.6	ug/L		10/30/15 09:01	11/06/15 15:25	1
Di-n-octyl phthalate	4.8	U	4.8	0.22	ug/L		10/30/15 09:01	11/06/15 15:25	1
Fluoranthene	0.95	U	0.95	0.042	ug/L		10/30/15 09:01	11/06/15 15:25	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

**Client Sample ID: GW-102715-JK-003**

**Lab Sample ID: 240-57165-3**

**Date Collected: 10/27/15 12:15**

**Matrix: Water**

**Date Received: 10/28/15 09:40**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Fluorene</b>	<b>0.27</b>	<b>J</b>	4.8	0.039	ug/L		10/30/15 09:01	11/06/15 15:25	1
Hexachlorobenzene	0.19	U	0.19	0.081	ug/L		10/30/15 09:01	11/06/15 15:25	1
Hexachlorobutadiene	0.95	U	0.95	0.26	ug/L		10/30/15 09:01	11/06/15 15:25	1
Hexachlorocyclopentadiene	4.8	U	4.8	0.23	ug/L		10/30/15 09:01	11/06/15 15:25	1
Hexachloroethane	4.8	U F1	4.8	0.18	ug/L		10/30/15 09:01	11/06/15 15:25	1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	0.041	ug/L		10/30/15 09:01	11/06/15 15:25	1
Isophorone	4.8	U	4.8	0.26	ug/L		10/30/15 09:01	11/06/15 15:25	1
2-Methylphenol	4.8	U	4.8	0.16	ug/L		10/30/15 09:01	11/06/15 15:25	1
<b>Naphthalene</b>	<b>25</b>		4.8	0.060	ug/L		10/30/15 09:01	11/06/15 15:25	1
2-Nitroaniline	19	U	19	0.20	ug/L		10/30/15 09:01	11/06/15 15:25	1
3-Nitroaniline	19	U F1 *	19	0.27	ug/L		10/30/15 09:01	11/06/15 15:25	1
4-Nitroaniline	19	U	19	0.21	ug/L		10/30/15 09:01	11/06/15 15:25	1
Nitrobenzene	2.9	U	2.9	0.038	ug/L		10/30/15 09:01	11/06/15 15:25	1
2-Nitrophenol	4.8	U	4.8	0.27	ug/L		10/30/15 09:01	11/06/15 15:25	1
4-Nitrophenol	19	U	19	0.28	ug/L		10/30/15 09:01	11/06/15 15:25	1
N-Nitrosodiphenylamine	4.8	U	4.8	0.30	ug/L		10/30/15 09:01	11/06/15 15:25	1
N-Nitrosodi-n-propylamine	4.8	U	4.8	0.23	ug/L		10/30/15 09:01	11/06/15 15:25	1
2,2'-oxybis[1-chloropropane]	4.8	U	4.8	0.38	ug/L		10/30/15 09:01	11/06/15 15:25	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		10/30/15 09:01	11/06/15 15:25	1
<b>Phenanthrene</b>	<b>0.10</b>	<b>J</b>	1.9	0.059	ug/L		10/30/15 09:01	11/06/15 15:25	1
Phenol	4.8	U	4.8	0.57	ug/L		10/30/15 09:01	11/06/15 15:25	1
Pyrene	4.8	U	4.8	0.040	ug/L		10/30/15 09:01	11/06/15 15:25	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		10/30/15 09:01	11/06/15 15:25	1
2,4,6-Trichlorophenol	3.8	U	3.8	0.23	ug/L		10/30/15 09:01	11/06/15 15:25	1
2,6-Dinitrotoluene	4.8	U	4.8	0.76	ug/L		10/30/15 09:01	11/06/15 15:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	69		29 - 110	10/30/15 09:01	11/06/15 15:25	1
2-Fluorophenol (Surr)	29		15 - 110	10/30/15 09:01	11/06/15 15:25	1
2,4,6-Tribromophenol (Surr)	75		21 - 128	10/30/15 09:01	11/06/15 15:25	1
Nitrobenzene-d5 (Surr)	68		31 - 110	10/30/15 09:01	11/06/15 15:25	1
Phenol-d5 (Surr)	16		10 - 110	10/30/15 09:01	11/06/15 15:25	1
Terphenyl-d14 (Surr)	50		31 - 115	10/30/15 09:01	11/06/15 15:25	1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	0.95	U H	0.95	0.35	ug/L		11/09/15 14:51	11/10/15 19:26	1
3-Nitroaniline	19	U H	19	0.27	ug/L		11/09/15 14:51	11/10/15 19:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	69		29 - 110	11/09/15 14:51	11/10/15 19:26	1
2-Fluorophenol (Surr)	32		15 - 110	11/09/15 14:51	11/10/15 19:26	1
2,4,6-Tribromophenol (Surr)	69		21 - 128	11/09/15 14:51	11/10/15 19:26	1
Nitrobenzene-d5 (Surr)	68		31 - 110	11/09/15 14:51	11/10/15 19:26	1
Phenol-d5 (Surr)	17		10 - 110	11/09/15 14:51	11/10/15 19:26	1
Terphenyl-d14 (Surr)	69		31 - 115	11/09/15 14:51	11/10/15 19:26	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	0.16	ug/L		10/29/15 09:40	10/30/15 13:03	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

**Client Sample ID: GW-102715-JK-003**

**Lab Sample ID: 240-57165-3**

Date Collected: 10/27/15 12:15

Matrix: Water

Date Received: 10/28/15 09:40

## Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>2.0</b>	<b>J</b>	5.0	0.49	ug/L		10/29/15 09:40	10/30/15 13:03	1
<b>Barium</b>	<b>110</b>		100	1.1	ug/L		10/29/15 09:40	10/30/15 13:03	1
Beryllium	1.0	U	1.0	0.053	ug/L		10/29/15 09:40	10/30/15 13:03	1
Cadmium	1.0	U	1.0	0.061	ug/L		10/29/15 09:40	10/30/15 13:03	1
<b>Cobalt</b>	<b>0.22</b>	<b>J</b>	7.0	0.021	ug/L		10/29/15 09:40	10/30/15 13:03	1
Chromium	5.0	U	5.0	0.60	ug/L		10/29/15 09:40	10/30/15 13:03	1
Copper	2.0	U	2.0	0.75	ug/L		10/29/15 09:40	10/30/15 13:03	1
<b>Manganese</b>	<b>490</b>		15	1.1	ug/L		10/29/15 09:40	10/30/15 13:03	1
<b>Nickel</b>	<b>0.49</b>	<b>J</b>	20	0.23	ug/L		10/29/15 09:40	10/30/15 13:03	1
Lead	3.0	U	3.0	0.11	ug/L		10/29/15 09:40	10/30/15 13:03	1
Selenium	5.0	U	5.0	0.25	ug/L		10/29/15 09:40	10/30/15 13:03	1
Thallium	1.0	U	1.0	0.074	ug/L		10/29/15 09:40	10/30/15 13:03	1
Vanadium	4.0	U	4.0	0.23	ug/L		10/29/15 09:40	10/30/15 13:03	1
Zinc	20	U	20	7.3	ug/L		10/29/15 09:40	10/30/15 13:03	1
Silver	0.20	U	0.20	0.020	ug/L		10/29/15 09:40	10/30/15 13:03	1

## Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	U	0.20	0.020	ug/L		10/29/15 09:40	10/30/15 13:20	1
<b>Arsenic</b>	<b>2.6</b>	<b>J</b>	5.0	0.49	ug/L		10/29/15 09:40	10/30/15 13:20	1
<b>Beryllium</b>	<b>0.22</b>	<b>J</b>	1.0	0.053	ug/L		10/29/15 09:40	10/30/15 13:20	1
<b>Cadmium</b>	<b>0.31</b>	<b>J</b>	1.0	0.061	ug/L		10/29/15 09:40	10/30/15 13:20	1
<b>Cobalt</b>	<b>0.33</b>	<b>J</b>	7.0	0.021	ug/L		10/29/15 09:40	10/30/15 13:20	1
<b>Chromium</b>	<b>0.69</b>	<b>J B</b>	5.0	0.60	ug/L		10/29/15 09:40	10/30/15 13:20	1
Copper	2.0	U	2.0	0.75	ug/L		10/29/15 09:40	10/30/15 13:20	1
<b>Manganese</b>	<b>500</b>		15	1.1	ug/L		10/29/15 09:40	10/30/15 13:20	1
<b>Nickel</b>	<b>0.58</b>	<b>J</b>	20	0.23	ug/L		10/29/15 09:40	10/30/15 13:20	1
<b>Lead</b>	<b>0.12</b>	<b>J</b>	3.0	0.11	ug/L		10/29/15 09:40	10/30/15 13:20	1
<b>Antimony</b>	<b>0.56</b>	<b>J</b>	2.0	0.16	ug/L		10/29/15 09:40	10/30/15 13:20	1
Selenium	5.0	U	5.0	0.25	ug/L		10/29/15 09:40	10/30/15 13:20	1
<b>Thallium</b>	<b>0.21</b>	<b>J</b>	1.0	0.074	ug/L		10/29/15 09:40	10/30/15 13:20	1
Vanadium	4.0	U	4.0	0.23	ug/L		10/29/15 09:40	10/30/15 13:20	1
Zinc	20	U	20	7.3	ug/L		10/29/15 09:40	10/30/15 13:20	1
<b>Barium</b>	<b>100</b>		100	1.1	ug/L		10/29/15 09:40	10/30/15 13:20	1

## Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		10/29/15 14:00	10/30/15 13:46	1

## Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		10/29/15 14:00	10/30/15 13:51	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	5.0	U	5.0	2.1	ug/L			10/28/15 11:17	1
Cr (III)	5.0	U	5.0	2.0	ug/L			11/03/15 10:40	1

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 240-57165-5**

**Date Collected: 10/27/15 00:00**

**Matrix: Water**

**Date Received: 10/28/15 09:40**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>9.3</b>	<b>J</b>	10	0.94	ug/L			11/03/15 08:24	1
Benzene	1.0	U	1.0	0.35	ug/L			11/03/15 08:24	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			11/03/15 08:24	1
Bromoform	1.0	U	1.0	0.56	ug/L			11/03/15 08:24	1
Bromomethane	1.0	U	1.0	0.44	ug/L			11/03/15 08:24	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			11/03/15 08:24	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			11/03/15 08:24	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			11/03/15 08:24	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			11/03/15 08:24	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/03/15 08:24	1
Chloroform	1.0	U	1.0	0.25	ug/L			11/03/15 08:24	1
Chloromethane	1.0	U	1.0	0.44	ug/L			11/03/15 08:24	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/03/15 08:24	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			11/03/15 08:24	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			11/03/15 08:24	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			11/03/15 08:24	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			11/03/15 08:24	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/03/15 08:24	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			11/03/15 08:24	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			11/03/15 08:24	1
2-Hexanone	10	U	10	0.48	ug/L			11/03/15 08:24	1
<b>Methylene Chloride</b>	<b>0.67</b>	<b>J</b>	1.0	0.33	ug/L			11/03/15 08:24	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			11/03/15 08:24	1
Styrene	1.0	U	1.0	0.45	ug/L			11/03/15 08:24	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			11/03/15 08:24	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			11/03/15 08:24	1
Toluene	1.0	U	1.0	0.23	ug/L			11/03/15 08:24	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			11/03/15 08:24	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			11/03/15 08:24	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			11/03/15 08:24	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			11/03/15 08:24	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			11/03/15 08:24	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/03/15 08:24	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			11/03/15 08:24	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			11/03/15 08:24	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			11/03/15 08:24	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			11/03/15 08:24	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			11/03/15 08:24	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/03/15 08:24	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			11/03/15 08:24	1
Methyl acetate	10	U	10	2.3	ug/L			11/03/15 08:24	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			11/03/15 08:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			11/03/15 08:24	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			11/03/15 08:24	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			11/03/15 08:24	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			11/03/15 08:24	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			11/03/15 08:24	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			11/03/15 08:24	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			11/03/15 08:24	1

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# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 240-57165-5**

**Date Collected: 10/27/15 00:00**

**Matrix: Water**

**Date Received: 10/28/15 09:40**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			11/03/15 08:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		78 - 125		11/03/15 08:24	1
4-Bromofluorobenzene (Surr)	74		61 - 120		11/03/15 08:24	1
Toluene-d8 (Surr)	85		80 - 120		11/03/15 08:24	1
Dibromofluoromethane (Surr)	94		79 - 120		11/03/15 08:24	1

# Surrogate Summary

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (78-125)	BFB (61-120)	TOL (80-120)	DBFM (79-120)
240-57165-1	GW-102715-JK-001	94	86	93	87
240-57165-2	GW-102715-JK-002	94	85	92	81
240-57165-3	GW-102715-JK-003	101	95	94	87
240-57165-3 MS	GW-102715-JK-003	88	94	97	89
240-57165-3 MSD	GW-102715-JK-003	85	93	93	85
240-57165-5	TRIP BLANK	102	74	85	94
LCS 240-204873/4	Lab Control Sample	88	93	93	86
LCS 240-205220/4	Lab Control Sample	92	93	95	90
MB 240-204873/6	Method Blank	101	76	86	94
MB 240-205220/6	Method Blank	105	73	88	96

### Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)  
 BFB = 4-Bromofluorobenzene (Surr)  
 TOL = Toluene-d8 (Surr)  
 DBFM = Dibromofluoromethane (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (29-110)	2FP (15-110)	TBP (21-128)	NBZ (31-110)	PHL (10-110)	TPH (31-115)
240-57165-1	GW-102715-JK-001	58	23	67	58	12	40
240-57165-1 - RE	GW-102715-JK-001	47	19	52	44	10	56
240-57165-2	GW-102715-JK-002	56	25	58	54	14	47
240-57165-2 - RE	GW-102715-JK-002	65	34	58	63	19	67
240-57165-3	GW-102715-JK-003	69	29	75	68	16	50
240-57165-3 - RE	GW-102715-JK-003	69	32	69	68	17	69
240-57165-3 MS	GW-102715-JK-003	69	29	79	68	17	39
240-57165-3 MSD	GW-102715-JK-003	72	28	79	73	15	36
LCS 240-204513/23-A	Lab Control Sample	80	66	89	82	48	90
LCS 240-205910/5-A	Lab Control Sample	74	64	76	73	52	86
MB 240-204513/22-A	Method Blank	71	60	74	72	43	86
MB 240-205910/4-A	Method Blank	80	65	71	76	50	89

### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)  
 2FP = 2-Fluorophenol (Surr)  
 TBP = 2,4,6-Tribromophenol (Surr)  
 NBZ = Nitrobenzene-d5 (Surr)  
 PHL = Phenol-d5 (Surr)  
 TPH = Terphenyl-d14 (Surr)

# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 240-204873/6**  
**Matrix: Water**  
**Analysis Batch: 204873**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			11/03/15 03:54	1
Benzene	1.0	U	1.0	0.35	ug/L			11/03/15 03:54	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			11/03/15 03:54	1
Bromoform	1.0	U	1.0	0.56	ug/L			11/03/15 03:54	1
Bromomethane	1.0	U	1.0	0.44	ug/L			11/03/15 03:54	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			11/03/15 03:54	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			11/03/15 03:54	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			11/03/15 03:54	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			11/03/15 03:54	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/03/15 03:54	1
Chloroform	1.0	U	1.0	0.25	ug/L			11/03/15 03:54	1
Chloromethane	1.0	U	1.0	0.44	ug/L			11/03/15 03:54	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/03/15 03:54	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			11/03/15 03:54	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			11/03/15 03:54	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			11/03/15 03:54	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			11/03/15 03:54	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/03/15 03:54	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			11/03/15 03:54	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			11/03/15 03:54	1
2-Hexanone	10	U	10	0.48	ug/L			11/03/15 03:54	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			11/03/15 03:54	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			11/03/15 03:54	1
Styrene	1.0	U	1.0	0.45	ug/L			11/03/15 03:54	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			11/03/15 03:54	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			11/03/15 03:54	1
Toluene	1.0	U	1.0	0.23	ug/L			11/03/15 03:54	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			11/03/15 03:54	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			11/03/15 03:54	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			11/03/15 03:54	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			11/03/15 03:54	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			11/03/15 03:54	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/03/15 03:54	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			11/03/15 03:54	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			11/03/15 03:54	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			11/03/15 03:54	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			11/03/15 03:54	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			11/03/15 03:54	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/03/15 03:54	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			11/03/15 03:54	1
Methyl acetate	10	U	10	2.3	ug/L			11/03/15 03:54	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			11/03/15 03:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			11/03/15 03:54	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			11/03/15 03:54	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			11/03/15 03:54	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			11/03/15 03:54	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			11/03/15 03:54	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			11/03/15 03:54	1

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 240-204873/6**  
**Matrix: Water**  
**Analysis Batch: 204873**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			11/03/15 03:54	1
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			11/03/15 03:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		78 - 125		11/03/15 03:54	1
4-Bromofluorobenzene (Surr)	76		61 - 120		11/03/15 03:54	1
Toluene-d8 (Surr)	86		80 - 120		11/03/15 03:54	1
Dibromofluoromethane (Surr)	94		79 - 120		11/03/15 03:54	1

**Lab Sample ID: LCS 240-204873/4**  
**Matrix: Water**  
**Analysis Batch: 204873**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	19.4		ug/L		97	34 - 148
Benzene	10.0	8.81		ug/L		88	80 - 120
Dichlorobromomethane	10.0	8.34		ug/L		83	80 - 120
Bromoform	10.0	7.44		ug/L		74	56 - 122
Bromomethane	10.0	10.7		ug/L		107	38 - 132
2-Butanone (MEK)	20.0	16.9		ug/L		84	56 - 138
Carbon disulfide	10.0	7.89		ug/L		79	65 - 144
Carbon tetrachloride	10.0	8.31		ug/L		83	77 - 131
Chlorobenzene	10.0	9.21		ug/L		92	80 - 120
Chloroethane	10.0	9.05		ug/L		90	36 - 126
Chloroform	10.0	9.47		ug/L		95	80 - 120
Chloromethane	10.0	9.21		ug/L		92	48 - 133
1,1-Dichloroethane	10.0	8.98		ug/L		90	79 - 125
1,2-Dichloroethane	10.0	9.78		ug/L		98	80 - 120
1,1-Dichloroethene	10.0	9.35		ug/L		93	76 - 124
1,2-Dichloropropane	10.0	8.80		ug/L		88	78 - 124
1,2,4-Trimethylbenzene	10.0	8.69		ug/L		87	76 - 120
cis-1,3-Dichloropropene	10.0	7.93		ug/L		79	74 - 126
trans-1,3-Dichloropropene	10.0	8.31		ug/L		83	75 - 131
Ethylbenzene	10.0	9.13		ug/L		91	80 - 120
2-Hexanone	20.0	15.4		ug/L		77	55 - 141
Methylene Chloride	10.0	10.7		ug/L		107	77 - 129
4-Methyl-2-pentanone (MIBK)	20.0	15.1		ug/L		76	64 - 135
Styrene	10.0	8.87		ug/L		89	76 - 122
1,1,2,2-Tetrachloroethane	10.0	8.09		ug/L		81	71 - 123
Tetrachloroethene	10.0	9.52		ug/L		95	78 - 121
Toluene	10.0	9.38		ug/L		94	80 - 120
Trichloroethene	10.0	9.48		ug/L		95	80 - 121
1,3,5-Trimethylbenzene	10.0	8.94		ug/L		89	77 - 120
Vinyl chloride	10.0	8.67		ug/L		87	52 - 121
Xylenes, Total	20.0	18.5		ug/L		92	80 - 120
1,1,1-Trichloroethane	10.0	8.22		ug/L		82	77 - 123
1,1,2-Trichloroethane	10.0	9.24		ug/L		92	80 - 120
Cyclohexane	10.0	8.54		ug/L		85	60 - 140

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 240-204873/4**

**Matrix: Water**

**Analysis Batch: 204873**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	10.0	6.55		ug/L		65	50 - 132
Ethylene Dibromide	10.0	9.10		ug/L		91	80 - 120
Dichlorodifluoromethane	10.0	8.78		ug/L		88	23 - 136
cis-1,2-Dichloroethene	10.0	9.88		ug/L		99	79 - 120
trans-1,2-Dichloroethene	10.0	9.41		ug/L		94	80 - 124
Isopropylbenzene	10.0	8.97		ug/L		90	77 - 120
Methyl acetate	50.0	42.2		ug/L		84	67 - 131
Methyl tert-butyl ether	10.0	9.96		ug/L		100	69 - 121
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	11.2		ug/L		112	67 - 138
1,2,4-Trichlorobenzene	10.0	8.08		ug/L		81	61 - 120
1,2-Dichlorobenzene	10.0	9.19		ug/L		92	79 - 120
1,3-Dichlorobenzene	10.0	8.83		ug/L		88	79 - 120
1,4-Dichlorobenzene	10.0	8.99		ug/L		90	79 - 120
Trichlorofluoromethane	10.0	9.74		ug/L		97	61 - 133
Methylcyclohexane	10.0	7.52		ug/L		75	61 - 134
m-Xylene & p-Xylene	10.0	9.31		ug/L		93	80 - 120
o-Xylene	10.0	9.16		ug/L		92	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	88		78 - 125
4-Bromofluorobenzene (Surr)	93		61 - 120
Toluene-d8 (Surr)	93		80 - 120
Dibromofluoromethane (Surr)	86		79 - 120

**Lab Sample ID: MB 240-205220/6**

**Matrix: Water**

**Analysis Batch: 205220**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	0.94	ug/L			11/04/15 18:20	1
Benzene	1.0	U	1.0	0.35	ug/L			11/04/15 18:20	1
Dichlorobromomethane	1.0	U	1.0	0.29	ug/L			11/04/15 18:20	1
Bromoform	1.0	U	1.0	0.56	ug/L			11/04/15 18:20	1
Bromomethane	1.0	U	1.0	0.44	ug/L			11/04/15 18:20	1
2-Butanone (MEK)	10	U	10	0.53	ug/L			11/04/15 18:20	1
Carbon disulfide	1.0	U	1.0	0.38	ug/L			11/04/15 18:20	1
Carbon tetrachloride	1.0	U	1.0	0.43	ug/L			11/04/15 18:20	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			11/04/15 18:20	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/04/15 18:20	1
Chloroform	1.0	U	1.0	0.25	ug/L			11/04/15 18:20	1
Chloromethane	1.0	U	1.0	0.44	ug/L			11/04/15 18:20	1
1,1-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/04/15 18:20	1
1,2-Dichloroethane	1.0	U	1.0	0.23	ug/L			11/04/15 18:20	1
1,1-Dichloroethene	1.0	U	1.0	0.45	ug/L			11/04/15 18:20	1
1,2-Dichloropropane	1.0	U	1.0	0.25	ug/L			11/04/15 18:20	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.41	ug/L			11/04/15 18:20	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/04/15 18:20	1

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 240-205220/6**  
**Matrix: Water**  
**Analysis Batch: 205220**

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
trans-1,3-Dichloropropene	1.0	U	1.0	0.56	ug/L			11/04/15 18:20	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			11/04/15 18:20	1
2-Hexanone	10	U	10	0.48	ug/L			11/04/15 18:20	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			11/04/15 18:20	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			11/04/15 18:20	1
Styrene	1.0	U	1.0	0.45	ug/L			11/04/15 18:20	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.22	ug/L			11/04/15 18:20	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/L			11/04/15 18:20	1
Toluene	1.0	U	1.0	0.23	ug/L			11/04/15 18:20	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			11/04/15 18:20	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.48	ug/L			11/04/15 18:20	1
Vinyl chloride	1.0	U	1.0	0.29	ug/L			11/04/15 18:20	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			11/04/15 18:20	1
1,1,1-Trichloroethane	1.0	U	1.0	0.44	ug/L			11/04/15 18:20	1
1,1,2-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/04/15 18:20	1
Cyclohexane	1.0	U	1.0	0.45	ug/L			11/04/15 18:20	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.82	ug/L			11/04/15 18:20	1
Ethylene Dibromide	1.0	U	1.0	0.32	ug/L			11/04/15 18:20	1
Dichlorodifluoromethane	1.0	U	1.0	0.32	ug/L			11/04/15 18:20	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			11/04/15 18:20	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/04/15 18:20	1
Isopropylbenzene	1.0	U	1.0	0.35	ug/L			11/04/15 18:20	1
Methyl acetate	10	U	10	2.3	ug/L			11/04/15 18:20	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			11/04/15 18:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.45	ug/L			11/04/15 18:20	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.32	ug/L			11/04/15 18:20	1
1,2-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			11/04/15 18:20	1
1,3-Dichlorobenzene	1.0	U	1.0	0.19	ug/L			11/04/15 18:20	1
1,4-Dichlorobenzene	1.0	U	1.0	0.27	ug/L			11/04/15 18:20	1
Trichlorofluoromethane	1.0	U	1.0	0.49	ug/L			11/04/15 18:20	1
Chlorodibromomethane	1.0	U	1.0	0.43	ug/L			11/04/15 18:20	1
Methylcyclohexane	1.0	U	1.0	0.43	ug/L			11/04/15 18:20	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	105		78 - 125		11/04/15 18:20	1
4-Bromofluorobenzene (Surr)	73		61 - 120		11/04/15 18:20	1
Toluene-d8 (Surr)	88		80 - 120		11/04/15 18:20	1
Dibromofluoromethane (Surr)	96		79 - 120		11/04/15 18:20	1

**Lab Sample ID: LCS 240-205220/4**  
**Matrix: Water**  
**Analysis Batch: 205220**

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

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Acetone	20.0	20.4		ug/L		102	34 - 148
Benzene	10.0	9.15		ug/L		91	80 - 120
Dichlorobromomethane	10.0	8.19		ug/L		82	80 - 120
Bromoform	10.0	7.82		ug/L		78	56 - 122

TestAmerica Canton



# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-205220/4

Matrix: Water

Analysis Batch: 205220

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	10.0	10.5		ug/L		105	38 - 132
2-Butanone (MEK)	20.0	17.8		ug/L		89	56 - 138
Carbon disulfide	10.0	8.54		ug/L		85	65 - 144
Carbon tetrachloride	10.0	8.23		ug/L		82	77 - 131
Chlorobenzene	10.0	9.76		ug/L		98	80 - 120
Chloroethane	10.0	9.13		ug/L		91	36 - 126
Chloroform	10.0	9.39		ug/L		94	80 - 120
Chloromethane	10.0	9.19		ug/L		92	48 - 133
1,1-Dichloroethane	10.0	9.00		ug/L		90	79 - 125
1,2-Dichloroethane	10.0	10.0		ug/L		100	80 - 120
1,1-Dichloroethene	10.0	9.11		ug/L		91	76 - 124
1,2-Dichloropropane	10.0	8.89		ug/L		89	78 - 124
1,2,4-Trimethylbenzene	10.0	9.28		ug/L		93	76 - 120
cis-1,3-Dichloropropene	10.0	8.09		ug/L		81	74 - 126
trans-1,3-Dichloropropene	10.0	8.08		ug/L		81	75 - 131
Ethylbenzene	10.0	9.57		ug/L		96	80 - 120
2-Hexanone	20.0	16.5		ug/L		83	55 - 141
Methylene Chloride	10.0	10.6		ug/L		106	77 - 129
4-Methyl-2-pentanone (MIBK)	20.0	15.5		ug/L		77	64 - 135
Styrene	10.0	9.56		ug/L		96	76 - 122
1,1,2,2-Tetrachloroethane	10.0	8.45		ug/L		84	71 - 123
Tetrachloroethene	10.0	10.3		ug/L		103	78 - 121
Toluene	10.0	9.98		ug/L		100	80 - 120
Trichloroethene	10.0	9.66		ug/L		97	80 - 121
1,3,5-Trimethylbenzene	10.0	9.56		ug/L		96	77 - 120
Vinyl chloride	10.0	8.74		ug/L		87	52 - 121
Xylenes, Total	20.0	19.7		ug/L		98	80 - 120
1,1,1-Trichloroethane	10.0	8.29		ug/L		83	77 - 123
1,1,2-Trichloroethane	10.0	9.90		ug/L		99	80 - 120
Cyclohexane	10.0	8.90		ug/L		89	60 - 140
1,2-Dibromo-3-Chloropropane	10.0	7.02		ug/L		70	50 - 132
Ethylene Dibromide	10.0	9.59		ug/L		96	80 - 120
Dichlorodifluoromethane	10.0	9.46		ug/L		95	23 - 136
cis-1,2-Dichloroethene	10.0	9.94		ug/L		99	79 - 120
trans-1,2-Dichloroethene	10.0	9.99		ug/L		100	80 - 124
Isopropylbenzene	10.0	9.47		ug/L		95	77 - 120
Methyl acetate	50.0	44.6		ug/L		89	67 - 131
Methyl tert-butyl ether	10.0	10.4		ug/L		104	69 - 121
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	12.2		ug/L		122	67 - 138
1,2,4-Trichlorobenzene	10.0	7.92		ug/L		79	61 - 120
1,2-Dichlorobenzene	10.0	9.66		ug/L		97	79 - 120
1,3-Dichlorobenzene	10.0	9.53		ug/L		95	79 - 120
1,4-Dichlorobenzene	10.0	9.69		ug/L		97	79 - 120
Trichlorofluoromethane	10.0	10.5		ug/L		105	61 - 133
Methylcyclohexane	10.0	7.54		ug/L		75	61 - 134
m-Xylene & p-Xylene	10.0	9.89		ug/L		99	80 - 120
o-Xylene	10.0	9.79		ug/L		98	80 - 120

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 240-205220/4**  
**Matrix: Water**  
**Analysis Batch: 205220**

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		78 - 125
4-Bromofluorobenzene (Surr)	93		61 - 120
Toluene-d8 (Surr)	95		80 - 120
Dibromofluoromethane (Surr)	90		79 - 120

**Lab Sample ID: 240-57165-3 MS**  
**Matrix: Water**  
**Analysis Batch: 205220**

**Client Sample ID: GW-102715-JK-003**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	33	U	66.6	49.5		ug/L		74	32 - 126
Benzene	3.3	U	33.3	29.9		ug/L		90	73 - 121
Dichlorobromomethane	3.3	U	33.3	26.6		ug/L		80	72 - 120
Bromoform	3.3	U	33.3	23.8		ug/L		71	45 - 121
Bromomethane	3.3	U	33.3	33.7		ug/L		101	26 - 136
2-Butanone (MEK)	33	U	66.6	49.5		ug/L		74	49 - 132
Carbon disulfide	3.3	U	33.3	27.5		ug/L		83	54 - 144
Carbon tetrachloride	3.3	U	33.3	24.7		ug/L		74	65 - 129
Chlorobenzene	3.3	U	33.3	32.5		ug/L		98	72 - 120
Chloroethane	3.3	U	33.3	29.2		ug/L		88	27 - 131
Chloroform	3.3	U	33.3	31.4		ug/L		94	73 - 121
Chloromethane	3.3	U	33.3	29.5		ug/L		88	39 - 134
1,1-Dichloroethane	3.3	U	33.3	28.0		ug/L		84	73 - 124
1,2-Dichloroethane	3.3	U	33.3	32.2		ug/L		97	74 - 125
1,1-Dichloroethene	3.3	U	33.3	30.6		ug/L		92	67 - 124
1,2-Dichloropropane	3.3	U	33.3	26.9		ug/L		81	73 - 122
1,2,4-Trimethylbenzene	3.3	U	33.3	30.1		ug/L		90	64 - 122
cis-1,3-Dichloropropene	3.3	U	33.3	23.5		ug/L		70	60 - 120
trans-1,3-Dichloropropene	3.3	U	33.3	25.9		ug/L		78	58 - 132
Ethylbenzene	5.6		33.3	38.1		ug/L		97	68 - 121
2-Hexanone	33	U	66.6	49.6		ug/L		74	49 - 142
Methylene Chloride	3.3	U	33.3	36.8		ug/L		111	70 - 124
4-Methyl-2-pentanone (MIBK)	33	U	66.6	45.9		ug/L		69	58 - 136
Styrene	3.3	U	33.3	32.0		ug/L		96	64 - 126
1,1,2,2-Tetrachloroethane	3.3	U	33.3	25.8		ug/L		78	61 - 130
Tetrachloroethene	3.3	U	33.3	32.0		ug/L		96	59 - 125
Toluene	3.3	U	33.3	32.6		ug/L		98	72 - 122
Trichloroethene	3.3	U	33.3	31.2		ug/L		94	61 - 129
1,3,5-Trimethylbenzene	3.3	U	33.3	30.5		ug/L		92	62 - 126
Vinyl chloride	3.3	U	33.3	28.3		ug/L		85	44 - 122
Xylenes, Total	6.7	U	66.6	63.6		ug/L		95	67 - 122
1,1,1-Trichloroethane	3.3	U	33.3	25.5		ug/L		77	69 - 122
1,1,2-Trichloroethane	3.3	U	33.3	33.0		ug/L		99	72 - 125
Cyclohexane	18		33.3	40.2		ug/L		67	41 - 137
1,2-Dibromo-3-Chloropropane	6.7	U	33.3	21.1		ug/L		63	42 - 130
Ethylene Dibromide	3.3	U	33.3	30.5		ug/L		92	69 - 125
Dichlorodifluoromethane	3.3	U	33.3	28.5		ug/L		86	14 - 137
cis-1,2-Dichloroethene	3.3	U	33.3	32.1		ug/L		96	66 - 124

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 240-57165-3 MS**

**Matrix: Water**

**Analysis Batch: 205220**

**Client Sample ID: GW-102715-JK-003**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier		Result	Qualifier				
trans-1,2-Dichloroethene	3.3	U	33.3	31.8		ug/L		96	72 - 125
Isopropylbenzene	55		33.3	90.6		ug/L		108	61 - 122
Methyl acetate	33	U	167	130		ug/L		78	64 - 124
Methyl tert-butyl ether	3.3	U	33.3	32.1		ug/L		96	61 - 121
1,1,2-Trichloro-1,2,2-trifluoroethane	3.3	U	33.3	35.6		ug/L		107	44 - 140
1,2,4-Trichlorobenzene	3.3	U	33.3	32.0		ug/L		96	48 - 120
1,2-Dichlorobenzene	3.3	U	33.3	30.5		ug/L		92	67 - 118
1,3-Dichlorobenzene	3.3	U	33.3	29.8		ug/L		89	65 - 120
1,4-Dichlorobenzene	3.3	U	33.3	29.6		ug/L		89	66 - 120
Trichlorofluoromethane	3.3	U	33.3	28.6		ug/L		86	49 - 133
Methylcyclohexane	8.9		33.3	33.1		ug/L		73	39 - 135
m-Xylene & p-Xylene	6.7	U	33.3	32.6		ug/L		98	66 - 123
o-Xylene	3.3	U	33.3	31.0		ug/L		93	68 - 121
<b>MS MS</b>									
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
1,2-Dichloroethane-d4 (Surr)	88		78 - 125						
4-Bromofluorobenzene (Surr)	94		61 - 120						
Toluene-d8 (Surr)	97		80 - 120						
Dibromofluoromethane (Surr)	89		79 - 120						

**Lab Sample ID: 240-57165-3 MSD**

**Matrix: Water**

**Analysis Batch: 205220**

**Client Sample ID: GW-102715-JK-003**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier		Result	Qualifier						
Acetone	33	U	66.6	46.8		ug/L		70	32 - 126	6	28
Benzene	3.3	U	33.3	28.0		ug/L		84	73 - 121	7	13
Dichlorobromomethane	3.3	U	33.3	25.4		ug/L		76	72 - 120	5	19
Bromoform	3.3	U	33.3	22.4		ug/L		67	45 - 121	6	19
Bromomethane	3.3	U	33.3	34.0		ug/L		102	26 - 136	1	35
2-Butanone (MEK)	33	U	66.6	48.5		ug/L		73	49 - 132	2	19
Carbon disulfide	3.3	U	33.3	25.0		ug/L		75	54 - 144	10	34
Carbon tetrachloride	3.3	U	33.3	22.6		ug/L		68	65 - 129	9	20
Chlorobenzene	3.3	U	33.3	29.6		ug/L		89	72 - 120	9	15
Chloroethane	3.3	U	33.3	29.9		ug/L		90	27 - 131	2	35
Chloroform	3.3	U	33.3	30.3		ug/L		91	73 - 121	4	17
Chloromethane	3.3	U	33.3	30.6		ug/L		92	39 - 134	4	20
1,1-Dichloroethane	3.3	U	33.3	26.8		ug/L		80	73 - 124	4	14
1,2-Dichloroethane	3.3	U	33.3	29.3		ug/L		88	74 - 125	9	24
1,1-Dichloroethene	3.3	U	33.3	29.4		ug/L		88	67 - 124	4	24
1,2-Dichloropropane	3.3	U	33.3	28.3		ug/L		85	73 - 122	5	15
1,2,4-Trimethylbenzene	3.3	U	33.3	29.0		ug/L		87	64 - 122	4	14
cis-1,3-Dichloropropene	3.3	U	33.3	23.1		ug/L		69	60 - 120	2	21
trans-1,3-Dichloropropene	3.3	U	33.3	24.8		ug/L		74	58 - 132	4	22
Ethylbenzene	5.6		33.3	35.8		ug/L		91	68 - 121	6	16
2-Hexanone	33	U	66.6	46.8		ug/L		70	49 - 142	6	27
Methylene Chloride	3.3	U	33.3	34.6		ug/L		104	70 - 124	6	14

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 240-57165-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 205220**

**Client Sample ID: GW-102715-JK-003**  
**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		
4-Methyl-2-pentanone (MIBK)	33	U	66.6	43.3		ug/L		65	58 - 136	6	32
Styrene	3.3	U	33.3	29.0		ug/L		87	64 - 126	10	15
1,1,2,2-Tetrachloroethane	3.3	U	33.3	24.8		ug/L		75	61 - 130	4	18
Tetrachloroethene	3.3	U	33.3	29.4		ug/L		88	59 - 125	8	20
Toluene	3.3	U	33.3	30.5		ug/L		92	72 - 122	7	15
Trichloroethene	3.3	U	33.3	28.3		ug/L		85	61 - 129	10	14
1,3,5-Trimethylbenzene	3.3	U	33.3	29.4		ug/L		88	62 - 126	4	17
Vinyl chloride	3.3	U	33.3	29.1		ug/L		87	44 - 122	3	35
Xylenes, Total	6.7	U	66.6	59.6		ug/L		89	67 - 122	6	14
1,1,1-Trichloroethane	3.3	U	33.3	23.9		ug/L		72	69 - 122	6	14
1,1,2-Trichloroethane	3.3	U	33.3	30.9		ug/L		93	72 - 125	6	19
Cyclohexane	18		33.3	39.3		ug/L		65	41 - 137	2	35
1,2-Dibromo-3-Chloropropane	6.7	U	33.3	20.0		ug/L		60	42 - 130	5	24
Ethylene Dibromide	3.3	U	33.3	28.4		ug/L		85	69 - 125	7	24
Dichlorodifluoromethane	3.3	U	33.3	28.3		ug/L		85	14 - 137	1	34
cis-1,2-Dichloroethene	3.3	U	33.3	29.8		ug/L		90	66 - 124	7	22
trans-1,2-Dichloroethene	3.3	U	33.3	28.3		ug/L		85	72 - 125	12	25
Isopropylbenzene	55		33.3	84.8		ug/L		90	61 - 122	7	20
Methyl acetate	33	U	167	123		ug/L		74	64 - 124	6	12
Methyl tert-butyl ether	3.3	U	33.3	31.7		ug/L		95	61 - 121	1	12
1,1,2-Trichloro-1,2,2-trifluoroethane	3.3	U	33.3	29.9		ug/L		90	44 - 140	17	35
1,2,4-Trichlorobenzene	3.3	U	33.3	33.4		ug/L		100	48 - 120	4	28
1,2-Dichlorobenzene	3.3	U	33.3	29.0		ug/L		87	67 - 118	5	15
1,3-Dichlorobenzene	3.3	U	33.3	29.1		ug/L		87	65 - 120	2	15
1,4-Dichlorobenzene	3.3	U	33.3	29.1		ug/L		88	66 - 120	2	16
Trichlorofluoromethane	3.3	U	33.3	32.1		ug/L		96	49 - 133	11	25
Methylcyclohexane	8.9		33.3	33.2		ug/L		73	39 - 135	0	35
m-Xylene & p-Xylene	6.7	U	33.3	30.0		ug/L		90	66 - 123	8	15
o-Xylene	3.3	U	33.3	29.6		ug/L		89	68 - 121	5	14

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	85		78 - 125
4-Bromofluorobenzene (Surr)	93		61 - 120
Toluene-d8 (Surr)	93		80 - 120
Dibromofluoromethane (Surr)	85		79 - 120

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

**Lab Sample ID: MB 240-204513/22-A**  
**Matrix: Water**  
**Analysis Batch: 205551**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 204513**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acenaphthene	5.0	U	5.0	0.044	ug/L		10/30/15 09:01	11/06/15 11:18	1
Acenaphthylene	5.0	U	5.0	0.048	ug/L		10/30/15 09:01	11/06/15 11:18	1
Acetophenone	5.0	U	5.0	0.34	ug/L		10/30/15 09:01	11/06/15 11:18	1
Anthracene	5.0	U	5.0	0.088	ug/L		10/30/15 09:01	11/06/15 11:18	1

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# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

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

**Lab Sample ID: MB 240-204513/22-A**  
**Matrix: Water**  
**Analysis Batch: 205551**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 204513**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Atrazine	3.0	U	3.0	0.34	ug/L		10/30/15 09:01	11/06/15 11:18	1
Benzaldehyde	5.0	U	5.0	0.39	ug/L		10/30/15 09:01	11/06/15 11:18	1
Benzo[a]anthracene	1.0	U	1.0	0.030	ug/L		10/30/15 09:01	11/06/15 11:18	1
Benzo[b]fluoranthene	1.0	U	1.0	0.039	ug/L		10/30/15 09:01	11/06/15 11:18	1
Benzo[k]fluoranthene	1.0	U	1.0	0.045	ug/L		10/30/15 09:01	11/06/15 11:18	1
Benzo[g,h,i]perylene	1.0	U	1.0	0.046	ug/L		10/30/15 09:01	11/06/15 11:18	1
Benzo[a]pyrene	1.0	U	1.0	0.051	ug/L		10/30/15 09:01	11/06/15 11:18	1
Butyl benzyl phthalate	5.0	U	5.0	0.26	ug/L		10/30/15 09:01	11/06/15 11:18	1
1,1'-Biphenyl	5.0	U	5.0	0.13	ug/L		10/30/15 09:01	11/06/15 11:18	1
Bis(2-chloroethoxy)methane	5.0	U	5.0	0.32	ug/L		10/30/15 09:01	11/06/15 11:18	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.10	ug/L		10/30/15 09:01	11/06/15 11:18	1
Bis(2-ethylhexyl) phthalate	5.0	U	5.0	1.7	ug/L		10/30/15 09:01	11/06/15 11:18	1
4-Bromophenyl phenyl ether	5.0	U	5.0	0.22	ug/L		10/30/15 09:01	11/06/15 11:18	1
Caprolactam	10	U	10	0.20	ug/L		10/30/15 09:01	11/06/15 11:18	1
Carbazole	10	U	10	0.28	ug/L		10/30/15 09:01	11/06/15 11:18	1
4-Chloroaniline	10	U	10	0.21	ug/L		10/30/15 09:01	11/06/15 11:18	1
4-Chloro-3-methylphenol	5.0	U	5.0	0.21	ug/L		10/30/15 09:01	11/06/15 11:18	1
2-Chloronaphthalene	5.0	U	5.0	0.10	ug/L		10/30/15 09:01	11/06/15 11:18	1
2-Chlorophenol	5.0	U	5.0	0.29	ug/L		10/30/15 09:01	11/06/15 11:18	1
4-Chlorophenyl phenyl ether	5.0	U	5.0	0.30	ug/L		10/30/15 09:01	11/06/15 11:18	1
Chrysene	1.0	U	1.0	0.050	ug/L		10/30/15 09:01	11/06/15 11:18	1
2-Methylnaphthalene	5.0	U	5.0	0.090	ug/L		10/30/15 09:01	11/06/15 11:18	1
3 & 4 Methylphenol	5.0	U	5.0	0.80	ug/L		10/30/15 09:01	11/06/15 11:18	1
Dibenz(a,h)anthracene	2.0	U	2.0	0.045	ug/L		10/30/15 09:01	11/06/15 11:18	1
Dibenzofuran	4.0	U	4.0	0.020	ug/L		10/30/15 09:01	11/06/15 11:18	1
3,3'-Dichlorobenzidine	1.0	U	1.0	0.37	ug/L		10/30/15 09:01	11/06/15 11:18	1
2,4-Dichlorophenol	10	U	10	0.19	ug/L		10/30/15 09:01	11/06/15 11:18	1
Diethyl phthalate	5.0	U	5.0	0.60	ug/L		10/30/15 09:01	11/06/15 11:18	1
2,4-Dimethylphenol	5.0	U	5.0	0.25	ug/L		10/30/15 09:01	11/06/15 11:18	1
Dimethyl phthalate	5.0	U	5.0	0.29	ug/L		10/30/15 09:01	11/06/15 11:18	1
4,6-Dinitro-2-methylphenol	20	U	20	2.4	ug/L		10/30/15 09:01	11/06/15 11:18	1
2,4-Dinitrophenol	20	U	20	0.32	ug/L		10/30/15 09:01	11/06/15 11:18	1
2,4-Dinitrotoluene	5.0	U	5.0	0.25	ug/L		10/30/15 09:01	11/06/15 11:18	1
Di-n-butyl phthalate	5.0	U	5.0	1.7	ug/L		10/30/15 09:01	11/06/15 11:18	1
Di-n-octyl phthalate	5.0	U	5.0	0.23	ug/L		10/30/15 09:01	11/06/15 11:18	1
Fluoranthene	1.0	U	1.0	0.045	ug/L		10/30/15 09:01	11/06/15 11:18	1
Fluorene	5.0	U	5.0	0.041	ug/L		10/30/15 09:01	11/06/15 11:18	1
Hexachlorobenzene	0.20	U	0.20	0.085	ug/L		10/30/15 09:01	11/06/15 11:18	1
Hexachlorobutadiene	1.0	U	1.0	0.27	ug/L		10/30/15 09:01	11/06/15 11:18	1
Hexachlorocyclopentadiene	5.0	U	5.0	0.24	ug/L		10/30/15 09:01	11/06/15 11:18	1
Hexachloroethane	5.0	U	5.0	0.19	ug/L		10/30/15 09:01	11/06/15 11:18	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.043	ug/L		10/30/15 09:01	11/06/15 11:18	1
Isophorone	5.0	U	5.0	0.27	ug/L		10/30/15 09:01	11/06/15 11:18	1
2-Methylphenol	5.0	U	5.0	0.17	ug/L		10/30/15 09:01	11/06/15 11:18	1
Naphthalene	5.0	U	5.0	0.063	ug/L		10/30/15 09:01	11/06/15 11:18	1
2-Nitroaniline	20	U	20	0.21	ug/L		10/30/15 09:01	11/06/15 11:18	1
3-Nitroaniline	20	U	20	0.28	ug/L		10/30/15 09:01	11/06/15 11:18	1
4-Nitroaniline	20	U	20	0.22	ug/L		10/30/15 09:01	11/06/15 11:18	1

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

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

**Lab Sample ID: MB 240-204513/22-A**  
**Matrix: Water**  
**Analysis Batch: 205551**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 204513**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	3.0	U	3.0	0.040	ug/L		10/30/15 09:01	11/06/15 11:18	1
2-Nitrophenol	5.0	U	5.0	0.28	ug/L		10/30/15 09:01	11/06/15 11:18	1
4-Nitrophenol	20	U	20	0.29	ug/L		10/30/15 09:01	11/06/15 11:18	1
N-Nitrosodiphenylamine	5.0	U	5.0	0.31	ug/L		10/30/15 09:01	11/06/15 11:18	1
N-Nitrosodi-n-propylamine	5.0	U	5.0	0.24	ug/L		10/30/15 09:01	11/06/15 11:18	1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	0.40	ug/L		10/30/15 09:01	11/06/15 11:18	1
Pentachlorophenol	5.0	U	5.0	0.27	ug/L		10/30/15 09:01	11/06/15 11:18	1
Phenanthrene	2.0	U	2.0	0.062	ug/L		10/30/15 09:01	11/06/15 11:18	1
Phenol	5.0	U	5.0	0.60	ug/L		10/30/15 09:01	11/06/15 11:18	1
Pyrene	5.0	U	5.0	0.042	ug/L		10/30/15 09:01	11/06/15 11:18	1
2,4,5-Trichlorophenol	5.0	U	5.0	0.30	ug/L		10/30/15 09:01	11/06/15 11:18	1
2,4,6-Trichlorophenol	4.0	U	4.0	0.24	ug/L		10/30/15 09:01	11/06/15 11:18	1
2,6-Dinitrotoluene	5.0	U	5.0	0.80	ug/L		10/30/15 09:01	11/06/15 11:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	71		29 - 110	10/30/15 09:01	11/06/15 11:18	1
2-Fluorophenol (Surr)	60		15 - 110	10/30/15 09:01	11/06/15 11:18	1
2,4,6-Tribromophenol (Surr)	74		21 - 128	10/30/15 09:01	11/06/15 11:18	1
Nitrobenzene-d5 (Surr)	72		31 - 110	10/30/15 09:01	11/06/15 11:18	1
Phenol-d5 (Surr)	43		10 - 110	10/30/15 09:01	11/06/15 11:18	1
Terphenyl-d14 (Surr)	86		31 - 115	10/30/15 09:01	11/06/15 11:18	1

**Lab Sample ID: LCS 240-204513/23-A**  
**Matrix: Water**  
**Analysis Batch: 205551**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 204513**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	20.0	16.2		ug/L		81	55 - 120
Acenaphthylene	20.0	15.7		ug/L		78	55 - 120
Acetophenone	20.0	17.4		ug/L		87	50 - 120
Anthracene	20.0	16.7		ug/L		83	56 - 120
Atrazine	40.0	37.6		ug/L		94	65 - 161
Benzaldehyde	40.0	36.1		ug/L		90	40 - 122
Benzo[a]anthracene	20.0	16.4		ug/L		82	46 - 120
Benzo[b]fluoranthene	20.0	17.6		ug/L		88	24 - 120
Benzo[k]fluoranthene	20.0	16.4		ug/L		82	30 - 120
Benzo[g,h,i]perylene	20.0	17.3		ug/L		87	24 - 126
Benzo[a]pyrene	20.0	17.4		ug/L		87	24 - 120
Butyl benzyl phthalate	20.0	17.5		ug/L		88	51 - 120
1,1'-Biphenyl	20.0	16.0		ug/L		80	52 - 120
Bis(2-chloroethoxy)methane	20.0	17.2		ug/L		86	48 - 120
Bis(2-chloroethyl)ether	20.0	16.6		ug/L		83	43 - 120
Bis(2-ethylhexyl) phthalate	20.0	20.5		ug/L		102	21 - 125
4-Bromophenyl phenyl ether	20.0	17.5		ug/L		87	47 - 120
Caprolactam	40.0	7.54	J	ug/L		19	10 - 120
Carbazole	20.0	17.0		ug/L		85	57 - 120
4-Chloroaniline	20.0	3.05	J	ug/L		15	15 - 120
4-Chloro-3-methylphenol	20.0	16.9		ug/L		84	45 - 120

TestAmerica Canton



# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

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

**Lab Sample ID: LCS 240-204513/23-A**

**Matrix: Water**

**Analysis Batch: 205551**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 204513**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chloronaphthalene	20.0	15.7		ug/L		79	47 - 120
2-Chlorophenol	20.0	16.3		ug/L		82	43 - 120
4-Chlorophenyl phenyl ether	20.0	16.8		ug/L		84	47 - 120
Chrysene	20.0	16.6		ug/L		83	49 - 120
2-Methylnaphthalene	20.0	16.6		ug/L		83	52 - 120
3 & 4 Methylphenol	20.0	14.4		ug/L		72	34 - 120
Dibenz(a,h)anthracene	20.0	18.3		ug/L		91	24 - 125
Dibenzofuran	20.0	16.4		ug/L		82	56 - 120
3,3'-Dichlorobenzidine	40.0	7.06	*	ug/L		18	29 - 120
2,4-Dichlorophenol	20.0	16.6		ug/L		83	46 - 120
Diethyl phthalate	20.0	18.3		ug/L		92	58 - 120
2,4-Dimethylphenol	20.0	15.4		ug/L		77	38 - 120
Dimethyl phthalate	20.0	17.3		ug/L		87	59 - 120
4,6-Dinitro-2-methylphenol	40.0	26.9		ug/L		67	33 - 120
2,4-Dinitrophenol	40.0	22.3		ug/L		56	10 - 120
2,4-Dinitrotoluene	20.0	18.2		ug/L		91	52 - 120
Di-n-butyl phthalate	20.0	18.4		ug/L		92	57 - 122
Di-n-octyl phthalate	20.0	18.2		ug/L		91	21 - 122
Fluoranthene	20.0	17.2		ug/L		86	57 - 120
Fluorene	20.0	16.4		ug/L		82	56 - 120
Hexachlorobenzene	20.0	17.1		ug/L		85	52 - 120
Hexachlorobutadiene	20.0	17.1		ug/L		86	38 - 120
Hexachlorocyclopentadiene	20.0	8.69		ug/L		43	4 - 120
Hexachloroethane	20.0	17.4		ug/L		87	42 - 120
Indeno[1,2,3-cd]pyrene	20.0	17.9		ug/L		90	25 - 120
Isophorone	20.0	17.1		ug/L		85	48 - 123
2-Methylphenol	20.0	15.2		ug/L		76	38 - 120
Naphthalene	20.0	16.1		ug/L		81	52 - 120
2-Nitroaniline	20.0	17.8	J	ug/L		89	48 - 127
3-Nitroaniline	20.0	10.0	J *	ug/L		50	52 - 120
4-Nitroaniline	20.0	15.5	J	ug/L		77	48 - 120
Nitrobenzene	20.0	16.9		ug/L		85	41 - 120
2-Nitrophenol	20.0	18.7		ug/L		94	42 - 120
4-Nitrophenol	40.0	22.4		ug/L		56	16 - 120
N-Nitrosodiphenylamine	40.0	34.2		ug/L		86	51 - 120
N-Nitrosodi-n-propylamine	20.0	18.0		ug/L		90	48 - 123
2,2'-oxybis[1-chloropropane]	20.0	17.3		ug/L		86	42 - 120
Pentachlorophenol	40.0	28.6		ug/L		71	14 - 120
Phenanthrene	20.0	16.8		ug/L		84	57 - 120
Phenol	20.0	9.61		ug/L		48	16 - 120
Pyrene	20.0	16.4		ug/L		82	50 - 120
2,4,5-Trichlorophenol	20.0	16.4		ug/L		82	47 - 120
2,4,6-Trichlorophenol	20.0	16.8		ug/L		84	43 - 120
2,6-Dinitrotoluene	20.0	17.8		ug/L		89	52 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	80		29 - 110
2-Fluorophenol (Surr)	66		15 - 110

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

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

**Lab Sample ID: LCS 240-204513/23-A**  
**Matrix: Water**  
**Analysis Batch: 205551**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 204513**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	89		21 - 128
Nitrobenzene-d5 (Surr)	82		31 - 110
Phenol-d5 (Surr)	48		10 - 110
Terphenyl-d14 (Surr)	90		31 - 115

**Lab Sample ID: 240-57165-3 MS**  
**Matrix: Water**  
**Analysis Batch: 205551**

**Client Sample ID: GW-102715-JK-003**  
**Prep Type: Total/NA**  
**Prep Batch: 204513**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	0.23	J	19.0	13.5		ug/L		70	49 - 110
Acenaphthylene	4.8	U	19.0	13.0		ug/L		68	49 - 110
Acetophenone	4.8	U	19.0	14.6		ug/L		77	45 - 110
Anthracene	4.8	U	19.0	12.8		ug/L		67	50 - 110
Atrazine	2.9	U	38.1	29.7		ug/L		78	55 - 110
Benzaldehyde	4.8	U	38.1	28.5		ug/L		75	24 - 119
Benzo[a]anthracene	0.95	U	19.0	9.39		ug/L		49	34 - 110
Benzo[b]fluoranthene	0.95	U	19.0	9.11		ug/L		48	21 - 110
Benzo[k]fluoranthene	0.95	U	19.0	8.79		ug/L		46	24 - 110
Benzo[g,h,i]perylene	0.95	U	19.0	8.14		ug/L		43	18 - 110
Benzo[a]pyrene	0.95	U	19.0	8.41		ug/L		44	17 - 110
Butyl benzyl phthalate	4.8	U	19.0	12.9		ug/L		68	48 - 110
1,1'-Biphenyl	0.52	J	19.0	13.5		ug/L		68	46 - 110
Bis(2-chloroethoxy)methane	4.8	U	19.0	13.7		ug/L		72	45 - 110
Bis(2-chloroethyl)ether	0.95	U	19.0	12.5		ug/L		66	30 - 110
Bis(2-ethylhexyl) phthalate	4.8	U	19.0	9.97		ug/L		52	10 - 110
4-Bromophenyl phenyl ether	4.8	U	19.0	13.5		ug/L		71	51 - 110
Caprolactam	9.5	U F1	38.1	2.36	J F1	ug/L		6	10 - 126
Carbazole	9.5	U	19.0	13.7		ug/L		72	50 - 110
4-Chloroaniline	9.5	U F1	19.0	0.262	J F1	ug/L		1	20 - 110
4-Chloro-3-methylphenol	4.8	U	19.0	13.7		ug/L		72	42 - 110
2-Chloronaphthalene	4.8	U	19.0	12.6		ug/L		66	46 - 110
2-Chlorophenol	4.8	U	19.0	11.7		ug/L		61	35 - 110
4-Chlorophenyl phenyl ether	4.8	U	19.0	13.6		ug/L		72	51 - 110
Chrysene	0.95	U	19.0	9.21		ug/L		48	36 - 110
2-Methylnaphthalene	20		19.0	30.4		ug/L		55	50 - 110
3 & 4 Methylphenol	4.8	U	19.0	7.43		ug/L		39	26 - 110
Dibenz(a,h)anthracene	1.9	U	19.0	8.60		ug/L		45	14 - 110
Dibenzofuran	0.23	J	19.0	13.8		ug/L		71	51 - 110
3,3'-Dichlorobenzidine	0.95	U F1 *	38.1	0.95	U F1	ug/L		0	10 - 110
2,4-Dichlorophenol	9.5	U	19.0	13.4		ug/L		70	48 - 110
Diethyl phthalate	4.8	U	19.0	15.4		ug/L		81	53 - 110
2,4-Dimethylphenol	4.8	U	19.0	9.64		ug/L		51	27 - 110
Dimethyl phthalate	4.8	U	19.0	14.3		ug/L		75	54 - 110
4,6-Dinitro-2-methylphenol	19	U	38.1	21.8		ug/L		57	10 - 110
2,4-Dinitrophenol	19	U	38.1	20.0		ug/L		52	10 - 110
2,4-Dinitrotoluene	4.8	U	19.0	15.1		ug/L		79	56 - 110
Di-n-butyl phthalate	4.8	U	19.0	13.7		ug/L		72	50 - 110

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

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

**Lab Sample ID: 240-57165-3 MS**

**Matrix: Water**

**Analysis Batch: 205551**

**Client Sample ID: GW-102715-JK-003**

**Prep Type: Total/NA**

**Prep Batch: 204513**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Di-n-octyl phthalate	4.8	U	19.0	8.87		ug/L		47	10 - 110	
Fluoranthene	0.95	U	19.0	12.6		ug/L		66	54 - 110	
Fluorene	0.27	J	19.0	13.9		ug/L		72	51 - 110	
Hexachlorobenzene	0.19	U	19.0	12.0		ug/L		63	49 - 110	
Hexachlorobutadiene	0.95	U	19.0	12.5		ug/L		65	36 - 110	
Hexachlorocyclopentadiene	4.8	U	19.0	7.09		ug/L		37	4 - 110	
Hexachloroethane	4.8	U F1	19.0	53.8	E F1	ug/L		282	40 - 110	
Indeno[1,2,3-cd]pyrene	1.9	U	19.0	8.56		ug/L		45	16 - 110	
Isophorone	4.8	U	19.0	13.9		ug/L		73	45 - 110	
2-Methylphenol	4.8	U	19.0	7.72		ug/L		41	31 - 110	
Naphthalene	25		19.0	35.9		ug/L		56	35 - 110	
2-Nitroaniline	19	U	19.0	14.6	J	ug/L		77	42 - 110	
3-Nitroaniline	19	U F1 *	19.0	3.67	J F1	ug/L		19	31 - 110	
4-Nitroaniline	19	U	19.0	8.49	J	ug/L		45	26 - 110	
Nitrobenzene	2.9	U	19.0	15.5		ug/L		81	43 - 110	
2-Nitrophenol	4.8	U	19.0	15.2		ug/L		80	47 - 110	
4-Nitrophenol	19	U	38.1	8.39	J	ug/L		22	10 - 110	
N-Nitrosodiphenylamine	4.8	U	38.1	24.0		ug/L		63	41 - 110	
N-Nitrosodi-n-propylamine	4.8	U	19.0	14.3		ug/L		75	42 - 110	
2,2'-oxybis[1-chloropropane]	4.8	U	19.0	11.6		ug/L		61	26 - 110	
Pentachlorophenol	4.8	U	38.1	27.6		ug/L		72	24 - 110	
Phenanthrene	0.10	J	19.0	13.5		ug/L		70	52 - 110	
Phenol	4.8	U	19.0	3.20	J	ug/L		17	10 - 125	
Pyrene	4.8	U	19.0	12.7		ug/L		66	50 - 110	
2,4,5-Trichlorophenol	4.8	U	19.0	14.4		ug/L		76	53 - 110	
2,4,6-Trichlorophenol	3.8	U	19.0	14.0		ug/L		73	50 - 110	
2,6-Dinitrotoluene	4.8	U	19.0	14.7		ug/L		77	55 - 110	

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	69		29 - 110
2-Fluorophenol (Surr)	29		15 - 110
2,4,6-Tribromophenol (Surr)	79		21 - 128
Nitrobenzene-d5 (Surr)	68		31 - 110
Phenol-d5 (Surr)	17		10 - 110
Terphenyl-d14 (Surr)	39		31 - 115

**Lab Sample ID: 240-57165-3 MSD**

**Matrix: Water**

**Analysis Batch: 205551**

**Client Sample ID: GW-102715-JK-003**

**Prep Type: Total/NA**

**Prep Batch: 204513**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Acenaphthene	0.23	J	19.0	14.1		ug/L		73	49 - 110	4	30	
Acenaphthylene	4.8	U	19.0	13.7		ug/L		72	49 - 110	6	37	
Acetophenone	4.8	U	19.0	15.7		ug/L		82	45 - 110	7	42	
Anthracene	4.8	U	19.0	13.4		ug/L		70	50 - 110	4	30	
Atrazine	2.9	U	38.1	29.7		ug/L		78	55 - 110	0	30	
Benzaldehyde	4.8	U	38.1	29.5		ug/L		77	24 - 119	3	74	
Benzo[a]anthracene	0.95	U	19.0	10.0		ug/L		52	34 - 110	6	52	

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# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

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

**Lab Sample ID: 240-57165-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 205551**

**Client Sample ID: GW-102715-JK-003**  
**Prep Type: Total/NA**  
**Prep Batch: 204513**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Benzo[b]fluoranthene	0.95	U	19.0	10.0		ug/L		53	21 - 110	10	64
Benzo[k]fluoranthene	0.95	U	19.0	9.54		ug/L		50	24 - 110	8	75
Benzo[g,h,i]perylene	0.95	U	19.0	8.98		ug/L		47	18 - 110	10	87
Benzo[a]pyrene	0.95	U	19.0	9.03		ug/L		47	17 - 110	7	68
Butyl benzyl phthalate	4.8	U	19.0	13.4		ug/L		71	48 - 110	4	30
1,1'-Biphenyl	0.52	J	19.0	14.2		ug/L		72	46 - 110	5	36
Bis(2-chloroethoxy)methane	4.8	U	19.0	14.6		ug/L		77	45 - 110	6	39
Bis(2-chloroethyl)ether	0.95	U	19.0	13.3		ug/L		70	30 - 110	6	56
Bis(2-ethylhexyl) phthalate	4.8	U	19.0	10.6		ug/L		56	10 - 110	6	85
4-Bromophenyl phenyl ether	4.8	U	19.0	14.6		ug/L		76	51 - 110	8	30
Caprolactam	9.5	U F1	38.1	2.13	J F1	ug/L		6	10 - 126	10	59
Carbazole	9.5	U	19.0	14.0		ug/L		73	50 - 110	2	30
4-Chloroaniline	9.5	U F1	19.0	0.291	J F1	ug/L		2	20 - 110	10	50
4-Chloro-3-methylphenol	4.8	U	19.0	14.1		ug/L		74	42 - 110	3	30
2-Chloronaphthalene	4.8	U	19.0	13.6		ug/L		71	46 - 110	7	34
2-Chlorophenol	4.8	U	19.0	12.0		ug/L		63	35 - 110	2	57
4-Chlorophenyl phenyl ether	4.8	U	19.0	14.4		ug/L		76	51 - 110	6	30
Chrysene	0.95	U	19.0	9.77		ug/L		51	36 - 110	6	49
2-Methylnaphthalene	20		19.0	33.3		ug/L		70	50 - 110	9	37
3 & 4 Methylphenol	4.8	U	19.0	7.19		ug/L		38	26 - 110	3	57
Dibenz(a,h)anthracene	1.9	U	19.0	9.44		ug/L		50	14 - 110	9	92
Dibenzofuran	0.23	J	19.0	14.4		ug/L		75	51 - 110	4	30
3,3'-Dichlorobenzidine	0.95	U F1 *	38.1	0.95	U F1	ug/L		0	10 - 110	NC	99
2,4-Dichlorophenol	9.5	U	19.0	14.4		ug/L		76	48 - 110	8	35
Diethyl phthalate	4.8	U	19.0	16.0		ug/L		84	53 - 110	4	30
2,4-Dimethylphenol	4.8	U	19.0	10.5		ug/L		55	27 - 110	9	62
Dimethyl phthalate	4.8	U	19.0	15.2		ug/L		80	54 - 110	6	30
4,6-Dinitro-2-methylphenol	19	U	38.1	22.5		ug/L		59	10 - 110	3	92
2,4-Dinitrophenol	19	U	38.1	20.3		ug/L		53	10 - 110	2	99
2,4-Dinitrotoluene	4.8	U	19.0	15.5		ug/L		81	56 - 110	3	30
Di-n-butyl phthalate	4.8	U	19.0	14.3		ug/L		75	50 - 110	4	30
Di-n-octyl phthalate	4.8	U	19.0	10.0		ug/L		53	10 - 110	12	95
Fluoranthene	0.95	U	19.0	13.1		ug/L		69	54 - 110	3	30
Fluorene	0.27	J	19.0	14.3		ug/L		74	51 - 110	3	30
Hexachlorobenzene	0.19	U	19.0	12.7		ug/L		66	49 - 110	5	30
Hexachlorobutadiene	0.95	U	19.0	12.6		ug/L		66	36 - 110	1	60
Hexachlorocyclopentadiene	4.8	U	19.0	7.49		ug/L		39	4 - 110	6	68
Hexachloroethane	4.8	U F1	19.0	59.2	E F1	ug/L		311	40 - 110	10	52
Indeno[1,2,3-cd]pyrene	1.9	U	19.0	9.32		ug/L		49	16 - 110	9	89
Isophorone	4.8	U	19.0	14.7		ug/L		77	45 - 110	6	37
2-Methylphenol	4.8	U	19.0	7.52		ug/L		39	31 - 110	3	61
Naphthalene	25		19.0	37.9		ug/L		66	35 - 110	5	58
2-Nitroaniline	19	U	19.0	14.9	J	ug/L		78	42 - 110	2	30
3-Nitroaniline	19	U F1 *	19.0	3.06	J F1	ug/L		16	31 - 110	18	47
4-Nitroaniline	19	U	19.0	8.76	J	ug/L		46	26 - 110	3	50
Nitrobenzene	2.9	U	19.0	16.5		ug/L		87	43 - 110	6	42
2-Nitrophenol	4.8	U	19.0	15.4		ug/L		81	47 - 110	2	44
4-Nitrophenol	19	U	38.1	7.77	J	ug/L		20	10 - 110	8	74

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

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

**Lab Sample ID: 240-57165-3 MSD**

**Matrix: Water**

**Analysis Batch: 205551**

**Client Sample ID: GW-102715-JK-003**

**Prep Type: Total/NA**

**Prep Batch: 204513**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
N-Nitrosodiphenylamine	4.8	U	38.1	21.8		ug/L		57	41 - 110	10	30
N-Nitrosodi-n-propylamine	4.8	U	19.0	15.2		ug/L		80	42 - 110	6	39
2,2'-oxybis[1-chloropropane]	4.8	U	19.0	12.3		ug/L		65	26 - 110	6	63
Pentachlorophenol	4.8	U	38.1	27.9		ug/L		73	24 - 110	1	64
Phenanthrene	0.10	J	19.0	14.0		ug/L		73	52 - 110	4	30
Phenol	4.8	U	19.0	2.93	J	ug/L		15	10 - 125	9	62
Pyrene	4.8	U	19.0	13.0		ug/L		68	50 - 110	3	30
2,4,5-Trichlorophenol	4.8	U	19.0	15.0		ug/L		79	53 - 110	4	30
2,4,6-Trichlorophenol	3.8	U	19.0	14.9		ug/L		78	50 - 110	6	30
2,6-Dinitrotoluene	4.8	U	19.0	15.6		ug/L		82	55 - 110	6	30

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	72		29 - 110
2-Fluorophenol (Surr)	28		15 - 110
2,4,6-Tribromophenol (Surr)	79		21 - 128
Nitrobenzene-d5 (Surr)	73		31 - 110
Phenol-d5 (Surr)	15		10 - 110
Terphenyl-d14 (Surr)	36		31 - 115

**Lab Sample ID: MB 240-205910/4-A**

**Matrix: Water**

**Analysis Batch: 206026**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 205910**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
3,3'-Dichlorobenzidine	1.0	U	1.0	0.37	ug/L		11/09/15 14:51	11/10/15 12:52	1
3-Nitroaniline	20	U	20	0.28	ug/L		11/09/15 14:51	11/10/15 12:52	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorobiphenyl (Surr)	80		29 - 110	11/09/15 14:51	11/10/15 12:52	1
2-Fluorophenol (Surr)	65		15 - 110	11/09/15 14:51	11/10/15 12:52	1
2,4,6-Tribromophenol (Surr)	71		21 - 128	11/09/15 14:51	11/10/15 12:52	1
Nitrobenzene-d5 (Surr)	76		31 - 110	11/09/15 14:51	11/10/15 12:52	1
Phenol-d5 (Surr)	50		10 - 110	11/09/15 14:51	11/10/15 12:52	1
Terphenyl-d14 (Surr)	89		31 - 115	11/09/15 14:51	11/10/15 12:52	1

**Lab Sample ID: LCS 240-205910/5-A**

**Matrix: Water**

**Analysis Batch: 206026**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 205910**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				Limits
3,3'-Dichlorobenzidine	40.0	30.3		ug/L		76	29 - 120
3-Nitroaniline	20.0	15.1	J	ug/L		76	52 - 120

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	74		29 - 110
2-Fluorophenol (Surr)	64		15 - 110
2,4,6-Tribromophenol (Surr)	76		21 - 128

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

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

**Lab Sample ID: LCS 240-205910/5-A**  
**Matrix: Water**  
**Analysis Batch: 206026**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 205910**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	73		31 - 110
Phenol-d5 (Surr)	52		10 - 110
Terphenyl-d14 (Surr)	86		31 - 115

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 240-204291/1-A**  
**Matrix: Water**  
**Analysis Batch: 204757**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 204291**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.0	U	5.0	0.49	ug/L		10/29/15 09:40	10/30/15 12:27	1
Beryllium	1.0	U	1.0	0.053	ug/L		10/29/15 09:40	10/30/15 12:27	1
Cadmium	1.0	U	1.0	0.061	ug/L		10/29/15 09:40	10/30/15 12:27	1
Cobalt	7.0	U	7.0	0.021	ug/L		10/29/15 09:40	10/30/15 12:27	1
Chromium	0.612	J	5.0	0.60	ug/L		10/29/15 09:40	10/30/15 12:27	1
Copper	2.0	U	2.0	0.75	ug/L		10/29/15 09:40	10/30/15 12:27	1
Manganese	15	U	15	1.1	ug/L		10/29/15 09:40	10/30/15 12:27	1
Nickel	20	U	20	0.23	ug/L		10/29/15 09:40	10/30/15 12:27	1
Antimony	2.0	U	2.0	0.16	ug/L		10/29/15 09:40	10/30/15 12:27	1
Lead	3.0	U	3.0	0.11	ug/L		10/29/15 09:40	10/30/15 12:27	1
Selenium	5.0	U	5.0	0.25	ug/L		10/29/15 09:40	10/30/15 12:27	1
Thallium	1.0	U	1.0	0.074	ug/L		10/29/15 09:40	10/30/15 12:27	1
Vanadium	0.257	J	4.0	0.23	ug/L		10/29/15 09:40	10/30/15 12:27	1
Zinc	12.2	J	20	7.3	ug/L		10/29/15 09:40	10/30/15 12:27	1
Barium	100	U	100	1.1	ug/L		10/29/15 09:40	10/30/15 12:27	1
Silver	0.20	U	0.20	0.020	ug/L		10/29/15 09:40	10/30/15 12:27	1

**Lab Sample ID: LCS 240-204291/2-A**  
**Matrix: Water**  
**Analysis Batch: 204757**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 204291**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	1000	952		ug/L		95	80 - 120
Beryllium	1000	882		ug/L		88	80 - 120
Cadmium	1000	992		ug/L		99	80 - 120
Cobalt	1000	924		ug/L		92	80 - 120
Chromium	1000	907		ug/L		91	80 - 120
Copper	1000	912		ug/L		91	80 - 120
Manganese	1000	915		ug/L		91	80 - 120
Nickel	1000	976		ug/L		98	80 - 120
Antimony	100	90.9		ug/L		91	80 - 120
Lead	1000	960		ug/L		96	80 - 120
Selenium	1000	912		ug/L		91	80 - 120
Thallium	250	226		ug/L		90	80 - 120
Vanadium	1000	874		ug/L		87	80 - 120
Zinc	1000	1000		ug/L		100	80 - 120
Barium	1000	955		ug/L		95	80 - 120

TestAmerica Canton



# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCS 240-204291/2-A**  
**Matrix: Water**  
**Analysis Batch: 204757**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 204291**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	100	94.2		ug/L		94	80 - 120

**Lab Sample ID: 240-57165-3 MS**  
**Matrix: Water**  
**Analysis Batch: 204757**

**Client Sample ID: GW-102715-JK-003**  
**Prep Type: Total Recoverable**  
**Prep Batch: 204291**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	2.0	U	100	92.8		ug/L		93	75 - 125
Arsenic	2.0	J	1000	975		ug/L		97	75 - 125
Barium	110		1000	1070		ug/L		97	75 - 125
Beryllium	1.0	U	1000	894		ug/L		89	75 - 125
Cadmium	1.0	U	1000	987		ug/L		99	75 - 125
Cobalt	0.22	J	1000	922		ug/L		92	75 - 125
Chromium	5.0	U	1000	919		ug/L		92	75 - 125
Copper	2.0	U	1000	891		ug/L		89	75 - 125
Manganese	490		1000	1350		ug/L		86	75 - 125
Nickel	0.49	J	1000	943		ug/L		94	75 - 125
Lead	3.0	U	1000	928		ug/L		93	75 - 125
Selenium	5.0	U	1000	906		ug/L		91	75 - 125
Thallium	1.0	U	250	220		ug/L		88	75 - 125
Vanadium	4.0	U	1000	873		ug/L		87	75 - 125
Zinc	20	U	1000	965		ug/L		96	75 - 125
Silver	0.20	U	100	93.3		ug/L		93	75 - 125

**Lab Sample ID: 240-57165-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 204757**

**Client Sample ID: GW-102715-JK-003**  
**Prep Type: Total Recoverable**  
**Prep Batch: 204291**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	2.0	U	100	92.8		ug/L		93	75 - 125	0	20
Arsenic	2.0	J	1000	971		ug/L		97	75 - 125	0	20
Barium	110		1000	1080		ug/L		97	75 - 125	0	20
Beryllium	1.0	U	1000	902		ug/L		90	75 - 125	1	20
Cadmium	1.0	U	1000	987		ug/L		99	75 - 125	0	20
Cobalt	0.22	J	1000	923		ug/L		92	75 - 125	0	20
Chromium	5.0	U	1000	920		ug/L		92	75 - 125	0	20
Copper	2.0	U	1000	896		ug/L		90	75 - 125	0	20
Manganese	490		1000	1320		ug/L		83	75 - 125	2	20
Nickel	0.49	J	1000	931		ug/L		93	75 - 125	1	20
Lead	3.0	U	1000	940		ug/L		94	75 - 125	1	20
Selenium	5.0	U	1000	906		ug/L		91	75 - 125	0	20
Thallium	1.0	U	250	224		ug/L		90	75 - 125	2	20
Vanadium	4.0	U	1000	863		ug/L		86	75 - 125	1	20
Zinc	20	U	1000	952		ug/L		95	75 - 125	1	20
Silver	0.20	U	100	93.2		ug/L		93	75 - 125	0	20

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: 240-57165-3 MS**  
**Matrix: Water**  
**Analysis Batch: 204757**

**Client Sample ID: GW-102715-JK-003**  
**Prep Type: Dissolved**  
**Prep Batch: 204291**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Silver	0.20	U	100	95.3		ug/L		95	75 - 125
Arsenic	2.6	J	1000	982		ug/L		98	75 - 125
Beryllium	0.22	J	1000	945		ug/L		94	75 - 125
Cadmium	0.31	J	1000	1010		ug/L		101	75 - 125
Cobalt	0.33	J	1000	944		ug/L		94	75 - 125
Chromium	0.69	J B	1000	941		ug/L		94	75 - 125
Copper	2.0	U	1000	916		ug/L		92	75 - 125
Manganese	500		1000	1370		ug/L		87	75 - 125
Nickel	0.58	J	1000	963		ug/L		96	75 - 125
Lead	0.12	J	1000	979		ug/L		98	75 - 125
Antimony	0.56	J	100	95.2		ug/L		95	75 - 125
Selenium	5.0	U	1000	917		ug/L		92	75 - 125
Thallium	0.21	J	250	226		ug/L		90	75 - 125
Vanadium	4.0	U	1000	892		ug/L		89	75 - 125
Zinc	20	U	1000	966		ug/L		97	75 - 125
Barium	100		1000	1090		ug/L		99	75 - 125

**Lab Sample ID: 240-57165-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 204757**

**Client Sample ID: GW-102715-JK-003**  
**Prep Type: Dissolved**  
**Prep Batch: 204291**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Silver	0.20	U	100	95.7		ug/L		96	75 - 125	0	20
Arsenic	2.6	J	1000	998		ug/L		100	75 - 125	2	20
Beryllium	0.22	J	1000	953		ug/L		95	75 - 125	1	20
Cadmium	0.31	J	1000	1020		ug/L		102	75 - 125	1	20
Cobalt	0.33	J	1000	962		ug/L		96	75 - 125	2	20
Chromium	0.69	J B	1000	949		ug/L		95	75 - 125	1	20
Copper	2.0	U	1000	917		ug/L		92	75 - 125	0	20
Manganese	500		1000	1430		ug/L		93	75 - 125	4	20
Nickel	0.58	J	1000	966		ug/L		97	75 - 125	0	20
Lead	0.12	J	1000	970		ug/L		97	75 - 125	1	20
Antimony	0.56	J	100	96.2		ug/L		96	75 - 125	1	20
Selenium	5.0	U	1000	932		ug/L		93	75 - 125	2	20
Thallium	0.21	J	250	228		ug/L		91	75 - 125	1	20
Vanadium	4.0	U	1000	890		ug/L		89	75 - 125	0	20
Zinc	20	U	1000	972		ug/L		97	75 - 125	1	20
Barium	100		1000	1110		ug/L		101	75 - 125	2	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 240-204294/1-A**  
**Matrix: Water**  
**Analysis Batch: 204762**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 204294**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.090	ug/L		10/29/15 14:00	10/30/15 13:43	1

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# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

## Method: 7470A - Mercury (CVAA) (Continued)

**Lab Sample ID: LCS 240-204294/2-A**  
**Matrix: Water**  
**Analysis Batch: 204762**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 204294**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	5.00	4.90		ug/L		98	80 - 120

**Lab Sample ID: 240-57165-3 MS**  
**Matrix: Water**  
**Analysis Batch: 204762**

**Client Sample ID: GW-102715-JK-003**  
**Prep Type: Total/NA**  
**Prep Batch: 204294**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.20	U	1.00	0.928		ug/L		93	80 - 120

**Lab Sample ID: 240-57165-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 204762**

**Client Sample ID: GW-102715-JK-003**  
**Prep Type: Total/NA**  
**Prep Batch: 204294**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.20	U	1.00	0.867		ug/L		87	80 - 120	7	20

**Lab Sample ID: 240-57165-3 MS**  
**Matrix: Water**  
**Analysis Batch: 204762**

**Client Sample ID: GW-102715-JK-003**  
**Prep Type: Dissolved**  
**Prep Batch: 204294**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.20	U	1.00	0.961		ug/L		96	80 - 120

**Lab Sample ID: 240-57165-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 204762**

**Client Sample ID: GW-102715-JK-003**  
**Prep Type: Dissolved**  
**Prep Batch: 204294**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.20	U	1.00	0.955		ug/L		96	80 - 120	1	20

## Method: 7196A - Chromium, Hexavalent

**Lab Sample ID: MB 240-204057/3**  
**Matrix: Water**  
**Analysis Batch: 204057**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	5.0	U	5.0	2.1	ug/L			10/28/15 09:19	1

**Lab Sample ID: LCS 240-204057/4**  
**Matrix: Water**  
**Analysis Batch: 204057**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Cr (VI)	250	224		ug/L		89	80 - 118

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# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

## Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 240-57165-3 MS  
 Matrix: Water  
 Analysis Batch: 204057

Client Sample ID: GW-102715-JK-003  
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	5.0	U	250	253		ug/L		101	41 - 136

Lab Sample ID: 240-57165-3 MSD  
 Matrix: Water  
 Analysis Batch: 204057

Client Sample ID: GW-102715-JK-003  
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	5.0	U	250	238		ug/L		95	41 - 136	6	20

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# QC Association Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

## GC/MS VOA

### Analysis Batch: 204873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57165-1	GW-102715-JK-001	Total/NA	Water	8260B	
240-57165-2	GW-102715-JK-002	Total/NA	Water	8260B	
240-57165-5	TRIP BLANK	Total/NA	Water	8260B	
LCS 240-204873/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-204873/6	Method Blank	Total/NA	Water	8260B	

### Analysis Batch: 205220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57165-3	GW-102715-JK-003	Total/NA	Water	8260B	
240-57165-3 MS	GW-102715-JK-003	Total/NA	Water	8260B	
240-57165-3 MSD	GW-102715-JK-003	Total/NA	Water	8260B	
LCS 240-205220/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-205220/6	Method Blank	Total/NA	Water	8260B	

## GC/MS Semi VOA

### Prep Batch: 204513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57165-1	GW-102715-JK-001	Total/NA	Water	3510C	
240-57165-2	GW-102715-JK-002	Total/NA	Water	3510C	
240-57165-3	GW-102715-JK-003	Total/NA	Water	3510C	
240-57165-3 MS	GW-102715-JK-003	Total/NA	Water	3510C	
240-57165-3 MSD	GW-102715-JK-003	Total/NA	Water	3510C	
LCS 240-204513/23-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-204513/22-A	Method Blank	Total/NA	Water	3510C	

### Analysis Batch: 205551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57165-1	GW-102715-JK-001	Total/NA	Water	8270C	204513
240-57165-2	GW-102715-JK-002	Total/NA	Water	8270C	204513
240-57165-3	GW-102715-JK-003	Total/NA	Water	8270C	204513
240-57165-3 MS	GW-102715-JK-003	Total/NA	Water	8270C	204513
240-57165-3 MSD	GW-102715-JK-003	Total/NA	Water	8270C	204513
LCS 240-204513/23-A	Lab Control Sample	Total/NA	Water	8270C	204513
MB 240-204513/22-A	Method Blank	Total/NA	Water	8270C	204513

### Prep Batch: 205910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57165-1 - RE	GW-102715-JK-001	Total/NA	Water	3510C	
240-57165-2 - RE	GW-102715-JK-002	Total/NA	Water	3510C	
240-57165-3 - RE	GW-102715-JK-003	Total/NA	Water	3510C	
LCS 240-205910/5-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-205910/4-A	Method Blank	Total/NA	Water	3510C	

### Analysis Batch: 206026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57165-1 - RE	GW-102715-JK-001	Total/NA	Water	8270C	205910
240-57165-2 - RE	GW-102715-JK-002	Total/NA	Water	8270C	205910
240-57165-3 - RE	GW-102715-JK-003	Total/NA	Water	8270C	205910
LCS 240-205910/5-A	Lab Control Sample	Total/NA	Water	8270C	205910

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# QC Association Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

## GC/MS Semi VOA (Continued)

### Analysis Batch: 206026 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-205910/4-A	Method Blank	Total/NA	Water	8270C	205910

## Metals

### Prep Batch: 204291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57165-1	GW-102715-JK-001	Dissolved	Water	3005A	
240-57165-1	GW-102715-JK-001	Total Recoverable	Water	3005A	
240-57165-2	GW-102715-JK-002	Dissolved	Water	3005A	
240-57165-2	GW-102715-JK-002	Total Recoverable	Water	3005A	
240-57165-3	GW-102715-JK-003	Dissolved	Water	3005A	
240-57165-3	GW-102715-JK-003	Total Recoverable	Water	3005A	
240-57165-3 MS	GW-102715-JK-003	Dissolved	Water	3005A	
240-57165-3 MS	GW-102715-JK-003	Total Recoverable	Water	3005A	
240-57165-3 MSD	GW-102715-JK-003	Dissolved	Water	3005A	
240-57165-3 MSD	GW-102715-JK-003	Total Recoverable	Water	3005A	
LCS 240-204291/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 240-204291/1-A	Method Blank	Total Recoverable	Water	3005A	

### Prep Batch: 204294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57165-1	GW-102715-JK-001	Dissolved	Water	7470A	
240-57165-1	GW-102715-JK-001	Total/NA	Water	7470A	
240-57165-2	GW-102715-JK-002	Dissolved	Water	7470A	
240-57165-2	GW-102715-JK-002	Total/NA	Water	7470A	
240-57165-3	GW-102715-JK-003	Dissolved	Water	7470A	
240-57165-3	GW-102715-JK-003	Total/NA	Water	7470A	
240-57165-3 MS	GW-102715-JK-003	Dissolved	Water	7470A	
240-57165-3 MS	GW-102715-JK-003	Total/NA	Water	7470A	
240-57165-3 MSD	GW-102715-JK-003	Dissolved	Water	7470A	
240-57165-3 MSD	GW-102715-JK-003	Total/NA	Water	7470A	
LCS 240-204294/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 240-204294/1-A	Method Blank	Total/NA	Water	7470A	

### Analysis Batch: 204757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57165-1	GW-102715-JK-001	Dissolved	Water	6020	204291
240-57165-1	GW-102715-JK-001	Total Recoverable	Water	6020	204291
240-57165-2	GW-102715-JK-002	Dissolved	Water	6020	204291
240-57165-2	GW-102715-JK-002	Total Recoverable	Water	6020	204291
240-57165-3	GW-102715-JK-003	Dissolved	Water	6020	204291
240-57165-3	GW-102715-JK-003	Total Recoverable	Water	6020	204291
240-57165-3 MS	GW-102715-JK-003	Dissolved	Water	6020	204291
240-57165-3 MS	GW-102715-JK-003	Total Recoverable	Water	6020	204291
240-57165-3 MSD	GW-102715-JK-003	Dissolved	Water	6020	204291
240-57165-3 MSD	GW-102715-JK-003	Total Recoverable	Water	6020	204291
LCS 240-204291/2-A	Lab Control Sample	Total Recoverable	Water	6020	204291
MB 240-204291/1-A	Method Blank	Total Recoverable	Water	6020	204291

TestAmerica Canton



# QC Association Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

## Metals (Continued)

### Analysis Batch: 204762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57165-1	GW-102715-JK-001	Dissolved	Water	7470A	204294
240-57165-1	GW-102715-JK-001	Total/NA	Water	7470A	204294
240-57165-2	GW-102715-JK-002	Dissolved	Water	7470A	204294
240-57165-2	GW-102715-JK-002	Total/NA	Water	7470A	204294
240-57165-3	GW-102715-JK-003	Dissolved	Water	7470A	204294
240-57165-3	GW-102715-JK-003	Total/NA	Water	7470A	204294
240-57165-3 MS	GW-102715-JK-003	Dissolved	Water	7470A	204294
240-57165-3 MS	GW-102715-JK-003	Total/NA	Water	7470A	204294
240-57165-3 MSD	GW-102715-JK-003	Dissolved	Water	7470A	204294
240-57165-3 MSD	GW-102715-JK-003	Total/NA	Water	7470A	204294
LCS 240-204294/2-A	Lab Control Sample	Total/NA	Water	7470A	204294
MB 240-204294/1-A	Method Blank	Total/NA	Water	7470A	204294

## General Chemistry

### Analysis Batch: 204057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57165-1	GW-102715-JK-001	Total/NA	Water	7196A	
240-57165-2	GW-102715-JK-002	Total/NA	Water	7196A	
240-57165-3	GW-102715-JK-003	Total/NA	Water	7196A	
240-57165-3 MS	GW-102715-JK-003	Total/NA	Water	7196A	
240-57165-3 MSD	GW-102715-JK-003	Total/NA	Water	7196A	
LCS 240-204057/4	Lab Control Sample	Total/NA	Water	7196A	
MB 240-204057/3	Method Blank	Total/NA	Water	7196A	

### Analysis Batch: 204983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57165-1	GW-102715-JK-001	Total/NA	Water	7196A	
240-57165-2	GW-102715-JK-002	Total/NA	Water	7196A	
240-57165-3	GW-102715-JK-003	Total/NA	Water	7196A	

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

**Client Sample ID: GW-102715-JK-001**

**Lab Sample ID: 240-57165-1**

**Date Collected: 10/27/15 10:50**

**Matrix: Water**

**Date Received: 10/28/15 09:40**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	204873	11/03/15 07:35	LRW	TAL CAN
Total/NA	Prep	3510C			204513	10/30/15 09:01	CS	TAL CAN
Total/NA	Analysis	8270C		1	205551	11/06/15 15:00	JMG	TAL CAN
Total/NA	Prep	3510C	RE		205910	11/09/15 14:51	JDR	TAL CAN
Total/NA	Analysis	8270C	RE	1	206026	11/10/15 18:37	JMG	TAL CAN
Dissolved	Prep	3005A			204291	10/29/15 09:40	WKD	TAL CAN
Dissolved	Analysis	6020		1	204757	10/30/15 13:41	AS1	TAL CAN
Total Recoverable	Prep	3005A			204291	10/29/15 09:40	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	204757	10/30/15 13:30	AS1	TAL CAN
Dissolved	Prep	7470A			204294	10/29/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	204762	10/30/15 14:07	WAL	TAL CAN
Total/NA	Prep	7470A			204294	10/29/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	204762	10/30/15 14:04	WAL	TAL CAN
Total/NA	Analysis	7196A		1	204057	10/28/15 11:15	LCN	TAL CAN
Total/NA	Analysis	7196A		1	204983	11/03/15 10:40	KLC	TAL CAN

**Client Sample ID: GW-102715-JK-002**

**Lab Sample ID: 240-57165-2**

**Date Collected: 10/27/15 11:10**

**Matrix: Water**

**Date Received: 10/28/15 09:40**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	204873	11/03/15 07:59	LRW	TAL CAN
Total/NA	Prep	3510C			204513	10/30/15 09:01	CS	TAL CAN
Total/NA	Analysis	8270C		1	205551	11/06/15 19:32	JMG	TAL CAN
Total/NA	Prep	3510C	RE		205910	11/09/15 14:51	JDR	TAL CAN
Total/NA	Analysis	8270C	RE	1	206026	11/10/15 19:01	JMG	TAL CAN
Dissolved	Prep	3005A			204291	10/29/15 09:40	WKD	TAL CAN
Dissolved	Analysis	6020		1	204757	10/30/15 13:48	AS1	TAL CAN
Total Recoverable	Prep	3005A			204291	10/29/15 09:40	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	204757	10/30/15 13:45	AS1	TAL CAN
Dissolved	Prep	7470A			204294	10/29/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	204762	10/30/15 14:10	WAL	TAL CAN
Total/NA	Prep	7470A			204294	10/29/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	204762	10/30/15 14:08	WAL	TAL CAN
Total/NA	Analysis	7196A		1	204057	10/28/15 11:16	LCN	TAL CAN
Total/NA	Analysis	7196A		1	204983	11/03/15 10:40	KLC	TAL CAN

TestAmerica Canton

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

**Client Sample ID: GW-102715-JK-003**

**Lab Sample ID: 240-57165-3**

**Date Collected: 10/27/15 12:15**

**Matrix: Water**

**Date Received: 10/28/15 09:40**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		3.33	205220	11/04/15 18:45	LRW	TAL CAN
Total/NA	Prep	3510C			204513	10/30/15 09:01	CS	TAL CAN
Total/NA	Analysis	8270C		1	205551	11/06/15 15:25	JMG	TAL CAN
Total/NA	Prep	3510C	RE		205910	11/09/15 14:51	JDR	TAL CAN
Total/NA	Analysis	8270C	RE	1	206026	11/10/15 19:26	JMG	TAL CAN
Dissolved	Prep	3005A			204291	10/29/15 09:40	WKD	TAL CAN
Dissolved	Analysis	6020		1	204757	10/30/15 13:20	AS1	TAL CAN
Total Recoverable	Prep	3005A			204291	10/29/15 09:40	WKD	TAL CAN
Total Recoverable	Analysis	6020		1	204757	10/30/15 13:03	AS1	TAL CAN
Dissolved	Prep	7470A			204294	10/29/15 14:00	WKD	TAL CAN
Dissolved	Analysis	7470A		1	204762	10/30/15 13:51	WAL	TAL CAN
Total/NA	Prep	7470A			204294	10/29/15 14:00	WKD	TAL CAN
Total/NA	Analysis	7470A		1	204762	10/30/15 13:46	WAL	TAL CAN
Total/NA	Analysis	7196A		1	204057	10/28/15 11:17	LCN	TAL CAN
Total/NA	Analysis	7196A		1	204983	11/03/15 10:40	KLC	TAL CAN

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 240-57165-5**

**Date Collected: 10/27/15 00:00**

**Matrix: Water**

**Date Received: 10/28/15 09:40**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	204873	11/03/15 08:24	LRW	TAL CAN

**Laboratory References:**

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

# Certification Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-1

## Laboratory: TestAmerica Canton

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999518190	08-31-16

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
7196A		Water	Cr (III)
7196A		Water	Cr (VI)
8260B		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
8260B		Water	Cyclohexane
8260B		Water	Methyl acetate
8260B		Water	Methylcyclohexane
8270C	3510C	Water	4-Nitroaniline
8270C	3510C	Water	Atrazine
8270C	3510C	Water	Benzaldehyde
8270C	3510C	Water	Caprolactam

**CHAIN OF CUSTODY  
AND  
RECEIVING DOCUMENTS**



240-57165 Chain of Custody

5.0 / C4.5 3.2 / C2.7

**CONESTOGA-ROVERS & ASSOCIATES**  
 8615 W. Bryn Mawr Avenue  
 Chicago, Illinois 60631  
 (773)380-9933 phone  
 (773)380-6421 fax



SHIPPED TO  
 (Laboratory Name): **TEST AMERICA - NORTH CANTON**

**2 COOLERS**

REFERENCE NUMBER:  
**58505-a-20403**

PROJECT NAME: **GM JAMESVILLE**

**CHAIN-OF-CUSTODY RECORD**

SAMPLER'S SIGNATURE: *[Signature]* PRINTED NAME: **JEFF KOLODZIEJKA**

SEQ. No.	DATE	TIME	SAMPLE IDENTIFICATION No.	SAMPLE MATRIX	No. OF CONTAINERS	PARAMETERS	REMARKS
	10/27/15	1050	GW-102715-JK-01	WATER	8	TEL METALS TEL DYS METALS TEL DYS CHROM WA HEAVY METALS TRI-CRO TRI-DRO CORROSION	
		1110	↓		8		
		1215	↓		19		
		1315	↓		7		
			TRIP BLANK		2		
<b>TOTAL NUMBER OF CONTAINERS</b>					<b>44</b>		

RELINQUISHED BY: <i>[Signature]</i>	DATE: 10/27/15	RECEIVED BY:	DATE:
	TIME: 1500		TIME:
RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
	TIME:		TIME:
RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
	TIME:		TIME:

METHOD OF SHIPMENT: **FedEx** AIR BILL No. **8089 0434 3828**

SAMPLE TEAM: **J. KOLODZIEJKA**  
 RECEIVED FOR LABORATORY BY: *[Signature]*  
 DATE: 10/28/15 TIME: 940

- Fully Executed Copy
- Receiving Laboratory Copy
- Shipper Copy
- Sampler Copy



**TestAmerica Canton Sample Receipt Form/Narrative** Login # : 1571105  
**Canton Facility**

Client CRA Site Name \_\_\_\_\_ Cooler unpacked by: Ally Bell  
Cooler Received on 10/28/13 Opened on 10/28/13  
FedEx: 1<sup>st</sup> Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other \_\_\_\_\_

Receipt After-hours: Drop-off Date/Time \_\_\_\_\_ Storage Location \_\_\_\_\_

TestAmerica Cooler # \_\_\_\_\_ Foam Box Client Cooler Box Other \_\_\_\_\_  
Packing material used: Bubble Wrap Foam Plastic Bag None Other \_\_\_\_\_  
COOLANT: Wet Ice Blue Ice Dry Ice Water None \_\_\_\_\_

1. Cooler temperature upon receipt  
IR GUN# 53 (CF +0.1 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C  
IR GUN# 48 (CF -0.3 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C  
IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C  
IR GUN# 8 (CF -0.5 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No  
-Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA  
-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes  No

3. Shippers' packing slip attached to the cooler(s)? Yes No  
4. Did custody papers accompany the sample(s)? Yes No  
5. Were the custody papers relinquished & signed in the appropriate place? Yes No  
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No  
7. Did all bottles arrive in good condition (Unbroken)? Yes No  
8. Could all bottle labels be reconciled with the COC? Yes No  
9. Were correct bottle(s) used for the test(s) indicated? Yes No  
10. Sufficient quantity received to perform indicated analyses? Yes No  
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC554612  
12. Were VOAs on the COC? Yes No  
13. Were air bubbles >6 mm in any VOA vials? Yes  No  
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # B516701U5 Yes  No

Contacted PM \_\_\_\_\_ Date \_\_\_\_\_ by \_\_\_\_\_ via Verbal Voice Mail Other \_\_\_\_\_  
Concerning \_\_\_\_\_

**14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES** Samples processed by: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**15. SAMPLE CONDITION**

Sample(s) \_\_\_\_\_ were received after the recommended holding time had expired.  
Sample(s) \_\_\_\_\_ were received in a broken container.  
Sample(s) \_\_\_\_\_ were received with bubble >6 mm in diameter. (Notify PM)

**16. SAMPLE PRESERVATION**

Sample(s) \_\_\_\_\_ were further preserved in the laboratory.  
Time preserved: \_\_\_\_\_ Preservative(s) added/Lot number(s): \_\_\_\_\_

Ref: SOP NC-SC-0005, Sample Receiving  
X:\X-Drive Document Control\SOPs\Work Instructions\Word Version Work Instructions\WI-NC-099V-102115 Cooler Receipt Form.doc djf





Temperature readings: \_\_\_\_\_

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container pH</u>	<u>Preservative Added (mls)</u>	<u>Lot #</u>
GW-102715-JK-001	240-57165-E-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-102715-JK-001	240-57165-F-1	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
<del>GW-102715-JK-002</del>	<del>240-57165-E-2</del>	<del>Plastic 500ml - with Nitric Acid</del>	<del>&lt;2</del>	<del>_____</del>	<del>_____</del>
GW-102715-JK-002	240-57165-F-2	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-102715-JK-003	240-57165-L-3	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-102715-JK-003	240-57165-M-3	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-102715-JK-003	240-57165-N-3	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-102715-JK-003	240-57165-O-3	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-102715-JK-004	240-57165-F-4	Amber Glass 1 liter - Hydrochloric	<2	_____	_____
GW-102715-JK-004	240-57165-G-4	Amber Glass 1 liter - Hydrochloric	<2	_____	_____

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# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-57165-2

Client Project/Site: 58505, Janesville WI, SSOW 108011

For:

GHD Services Inc.

45 Farmington Valley Drive

Plainville, Connecticut 06062

Attn: Ms. Kathy Shaw



Authorized for release by:

11/6/2015 10:45:18 AM

Denise Heckler, Project Manager II

(330)966-9477

[denise.heckler@testamericainc.com](mailto:denise.heckler@testamericainc.com)



### LINKS

Review your project  
results through

Total Access

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-2

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

### GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

### GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

### Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-2

**Job ID: 240-57165-2**

**Laboratory: TestAmerica Canton**

**Narrative**

## CASE NARRATIVE

**Client: GHD Services Inc.**

**Project: 58505, Janesville WI, SSOW 108011**

**Report Number: 240-57165-2**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

### **RECEIPT**

The samples were received on 10/28/2015; the samples arrived in good condition, properly preserved and on ice.

### **TCLP VOLATILE ORGANIC COMPOUNDS (GCMS)**

Sample GW-102715-JK-004 (240-57165-4) was analyzed for TCLP volatile organic compounds (GCMS) in accordance with EPA SW-846 Methods 1311/8260B. The samples were leached on 10/28/2015 and analyzed on 10/30/2015.

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

### **WISCONSIN DRO**

Sample GW-102715-JK-004 (240-57165-4) was analyzed for Wisconsin DRO in accordance with Wisconsin DNR Modified DRO. The samples were prepared on 10/29/2015 and analyzed on 11/03/2015.

Insufficient sample was provided for batch QC.

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

### **WISCONSIN GRO**

# Case Narrative

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-2

---

## Job ID: 240-57165-2 (Continued)

---

### Laboratory: TestAmerica Canton (Continued)

Sample GW-102715-JK-004 (240-57165-4) was analyzed for Wisconsin GRO in accordance with Wisconsin DNR Modified GRO. The samples were analyzed on 10/30/2015.

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

### TCLP METALS (ICP)

Sample GW-102715-JK-004 (240-57165-4) was analyzed for TCLP metals (ICP) in accordance with EPA SW-846 Methods 1311/6010B. The samples were leached on 10/28/2015, prepared on 10/29/2015 and analyzed on 10/30/2015.

Arsenic, Barium, Chromium and Lead were detected in method blank LB 240-204179/1-B at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

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

### TCLP MERCURY

Sample GW-102715-JK-004 (240-57165-4) was analyzed for TCLP mercury in accordance with EPA SW-846 Methods 1311/7470A. The samples were leached on 10/28/2015, prepared on 10/29/2015 and analyzed on 10/30/2015.

Mercury was detected in method blank LB 240-204179/1-C at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

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

### PH

Sample GW-102715-JK-004 (240-57165-4) was analyzed for pH in accordance with EPA SW-846 Method 9040C. The samples were analyzed past the method recommended 15 minute holding time on 10/28/2015.

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



# Method Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-2

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
WI-GRO	Wisconsin - Gasoline Range Organics (GC)	WI-GRO	TAL CAN
WI-DRO	Wisconsin - Diesel Range Organics (GC)	WI-DRO	TAL CAN
6010B	Metals (ICP)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
9040C	pH	SW846	TAL CAN

#### Protocol References:

- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- WI-DRO = "Modified DRO: Method For Determining Diesel Range Organics", Wisconsin DNR, Publ-SW-141, September, 1995.
- WI-GRO = "Modified GRO: Method For Determining Gasoline Range Organics", Wisconsin DNR, Publ-SW-140, September, 1995.

#### Laboratory References:

- TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

# Sample Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-2

---

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-57165-4	GW-102715-JK-004	Water	10/27/15 13:15	10/28/15 09:40

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# Detection Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-2

**Client Sample ID: GW-102715-JK-004**

**Lab Sample ID: 240-57165-4**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
WI Diesel Range Organics (C10-C28)	0.074	J	0.095	0.048	mg/L	1		WI-DRO	Total/NA
Barium	0.0075	J B	10	0.0010	mg/L	1		6010B	TCLP
Chromium	0.0015	J B	0.50	0.00055	mg/L	1		6010B	TCLP
pH	8.47	H	0.100	0.100	SU	1		9040C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-2

**Client Sample ID: GW-102715-JK-004**

**Lab Sample ID: 240-57165-4**

**Date Collected: 10/27/15 13:15**

**Matrix: Water**

**Date Received: 10/28/15 09:40**

## Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.025	U	0.025	0.0095	mg/L			10/30/15 01:35	1
1,2-Dichloroethane	0.025	U	0.025	0.011	mg/L			10/30/15 01:35	1
2-Butanone (MEK)	0.25	U	0.25	0.029	mg/L			10/30/15 01:35	1
Benzene	0.025	U	0.025	0.0065	mg/L			10/30/15 01:35	1
Carbon tetrachloride	0.025	U	0.025	0.0065	mg/L			10/30/15 01:35	1
Chlorobenzene	0.025	U	0.025	0.0075	mg/L			10/30/15 01:35	1
Chloroform	0.025	U	0.025	0.0080	mg/L			10/30/15 01:35	1
Tetrachloroethene	0.025	U	0.025	0.015	mg/L			10/30/15 01:35	1
Trichloroethene	0.025	U	0.025	0.0085	mg/L			10/30/15 01:35	1
Vinyl chloride	0.025	U	0.025	0.011	mg/L			10/30/15 01:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		80 - 121		10/30/15 01:35	1
4-Bromofluorobenzene (Surr)	86		70 - 124		10/30/15 01:35	1
Toluene-d8 (Surr)	93		80 - 120		10/30/15 01:35	1
Dibromofluoromethane (Surr)	92		80 - 128		10/30/15 01:35	1

## Method: WI-GRO - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
WI Gasoline Range Organics (C6-C10)	100	U	100	19	ug/L			10/30/15 23:59	1

## Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
WI Diesel Range Organics (C10-C28)	0.074	J	0.095	0.048	mg/L		10/29/15 06:19	11/03/15 03:01	1

## Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.50	U	0.50	0.0029	mg/L		10/29/15 07:19	10/30/15 23:21	1
Barium	0.0075	J B	10	0.0010	mg/L		10/29/15 07:19	10/30/15 23:21	1
Cadmium	0.10	U	0.10	0.00014	mg/L		10/29/15 07:19	10/30/15 23:21	1
Chromium	0.0015	J B	0.50	0.00055	mg/L		10/29/15 07:19	10/30/15 23:21	1
Lead	0.50	U	0.50	0.0019	mg/L		10/29/15 07:19	10/30/15 23:21	1
Selenium	0.25	U	0.25	0.0040	mg/L		10/29/15 07:19	10/30/15 23:21	1
Silver	0.50	U	0.50	0.00092	mg/L		10/29/15 07:19	10/30/15 23:21	1

## Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0020	U	0.0020	0.000090	mg/L		10/29/15 14:00	10/30/15 15:09	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.47	H	0.100	0.100	SU			10/28/15 14:56	1

TestAmerica Canton

# Surrogate Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-2

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	12DCE (80-121)	BFB (70-124)	TOL (80-120)	DBFM (80-128)
LCS 240-204421/13	Lab Control Sample	94	88	95	92

#### Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
TOL = Toluene-d8 (Surr)  
DBFM = Dibromofluoromethane (Surr)

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: TCLP

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	12DCE (80-121)	BFB (70-124)	TOL (80-120)	DBFM (80-128)
240-57165-4	GW-102715-JK-004	88	86	93	92
LB 240-204178/1-A MB	Method Blank	85	81	86	84

#### Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
TOL = Toluene-d8 (Surr)  
DBFM = Dibromofluoromethane (Surr)

# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-2

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: LCS 240-204421/13**  
**Matrix: Water**  
**Analysis Batch: 204421**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	1.00	0.985		mg/L		99	71 - 133
1,2-Dichloroethane	1.00	0.943		mg/L		94	80 - 120
2-Butanone (MEK)	2.00	1.92		mg/L		96	49 - 120
Benzene	1.00	0.936		mg/L		94	80 - 120
Carbon tetrachloride	1.00	0.941		mg/L		94	54 - 122
Chlorobenzene	1.00	0.952		mg/L		95	80 - 120
Chloroform	1.00	0.887		mg/L		89	80 - 123
Tetrachloroethene	1.00	0.915		mg/L		91	79 - 134
Trichloroethene	1.00	0.907		mg/L		91	78 - 130
Vinyl chloride	1.00	0.961		mg/L		96	56 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		80 - 121
4-Bromofluorobenzene (Surr)	88		70 - 124
Toluene-d8 (Surr)	95		80 - 120
Dibromofluoromethane (Surr)	92		80 - 128

**Lab Sample ID: LB 240-204178/1-A MB**  
**Matrix: Water**  
**Analysis Batch: 204421**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.025	U	0.025	0.0095	mg/L			10/29/15 20:55	1
1,2-Dichloroethane	0.025	U	0.025	0.011	mg/L			10/29/15 20:55	1
2-Butanone (MEK)	0.25	U	0.25	0.029	mg/L			10/29/15 20:55	1
Benzene	0.025	U	0.025	0.0065	mg/L			10/29/15 20:55	1
Carbon tetrachloride	0.025	U	0.025	0.0065	mg/L			10/29/15 20:55	1
Chlorobenzene	0.025	U	0.025	0.0075	mg/L			10/29/15 20:55	1
Chloroform	0.025	U	0.025	0.0080	mg/L			10/29/15 20:55	1
Tetrachloroethene	0.025	U	0.025	0.015	mg/L			10/29/15 20:55	1
Trichloroethene	0.025	U	0.025	0.0085	mg/L			10/29/15 20:55	1
Vinyl chloride	0.025	U	0.025	0.011	mg/L			10/29/15 20:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		80 - 121		10/29/15 20:55	1
4-Bromofluorobenzene (Surr)	81		70 - 124		10/29/15 20:55	1
Toluene-d8 (Surr)	86		80 - 120		10/29/15 20:55	1
Dibromofluoromethane (Surr)	84		80 - 128		10/29/15 20:55	1

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-2

## Method: WI-GRO - Wisconsin - Gasoline Range Organics (GC)

**Lab Sample ID: MB 240-204486/5**  
**Matrix: Water**  
**Analysis Batch: 204486**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
WI Gasoline Range Organics (C6-C10)	100	U	100	19	ug/L			10/30/15 10:24	1

**Lab Sample ID: LCS 240-204486/6**  
**Matrix: Water**  
**Analysis Batch: 204486**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
WI Gasoline Range Organics (C6-C10)	800	814		ug/L		102	80 - 120

**Lab Sample ID: LCSD 240-204486/30**  
**Matrix: Water**  
**Analysis Batch: 204486**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
WI Gasoline Range Organics (C6-C10)	800	757		ug/L		95	80 - 120	7	20

## Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)

**Lab Sample ID: MB 240-204230/2-A**  
**Matrix: Water**  
**Analysis Batch: 204826**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 204230**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
WI Diesel Range Organics (C10-C28)	0.10	U	0.10	0.050	mg/L		10/29/15 06:19	11/03/15 02:07	1

**Lab Sample ID: LCS 240-204230/3-A**  
**Matrix: Water**  
**Analysis Batch: 204826**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 204230**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
WI Diesel Range Organics (C10-C28)	0.500	0.453		mg/L		91	75 - 115

**Lab Sample ID: LCSD 240-204230/4-A**  
**Matrix: Water**  
**Analysis Batch: 204826**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 204230**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
WI Diesel Range Organics (C10-C28)	0.500	0.497		mg/L		99	75 - 115	9	20

TestAmerica Canton



# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-2

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 240-204247/2-A**  
**Matrix: Water**  
**Analysis Batch: 204749**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 204247**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.50	U	0.50	0.0029	mg/L		10/29/15 07:19	10/30/15 22:26	1
Barium	10	U	10	0.0010	mg/L		10/29/15 07:19	10/30/15 22:26	1
Cadmium	0.10	U	0.10	0.00014	mg/L		10/29/15 07:19	10/30/15 22:26	1
Chromium	0.50	U	0.50	0.00055	mg/L		10/29/15 07:19	10/30/15 22:26	1
Lead	0.50	U	0.50	0.0019	mg/L		10/29/15 07:19	10/30/15 22:26	1
Selenium	0.25	U	0.25	0.0040	mg/L		10/29/15 07:19	10/30/15 22:26	1
Silver	0.50	U	0.50	0.00092	mg/L		10/29/15 07:19	10/30/15 22:26	1

**Lab Sample ID: LCS 240-204247/3-A**  
**Matrix: Water**  
**Analysis Batch: 204749**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 204247**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	2.00	2.13		mg/L		107	50 - 150
Barium	2.00	1.89	J	mg/L		95	50 - 150
Cadmium	0.0500	0.0524	J	mg/L		105	50 - 150
Chromium	0.200	0.198	J	mg/L		99	50 - 150
Lead	0.500	0.472	J	mg/L		94	50 - 150
Selenium	2.00	2.15		mg/L		107	50 - 150
Silver	0.0500	0.0534	J	mg/L		107	50 - 150

**Lab Sample ID: LB 240-204179/1-B**  
**Matrix: Water**  
**Analysis Batch: 204749**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 204247**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00447	J	0.50	0.0029	mg/L		10/29/15 07:19	10/30/15 22:22	1
Barium	0.00264	J	10	0.0010	mg/L		10/29/15 07:19	10/30/15 22:22	1
Cadmium	0.10	U	0.10	0.00014	mg/L		10/29/15 07:19	10/30/15 22:22	1
Chromium	0.00134	J	0.50	0.00055	mg/L		10/29/15 07:19	10/30/15 22:22	1
Lead	0.00334	J	0.50	0.0019	mg/L		10/29/15 07:19	10/30/15 22:22	1
Selenium	0.25	U	0.25	0.0040	mg/L		10/29/15 07:19	10/30/15 22:22	1
Silver	0.50	U	0.50	0.00092	mg/L		10/29/15 07:19	10/30/15 22:22	1

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 240-204250/2-A**  
**Matrix: Water**  
**Analysis Batch: 204762**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 204250**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0020	U	0.0020	0.000090	mg/L		10/29/15 14:00	10/30/15 14:50	1

**Lab Sample ID: LCS 240-204250/3-A**  
**Matrix: Water**  
**Analysis Batch: 204762**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 204250**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00500	0.00515		mg/L		103	80 - 120

TestAmerica Canton

# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-2

Lab Sample ID: LB 240-204179/1-C  
 Matrix: Water  
 Analysis Batch: 204762

Client Sample ID: Method Blank  
 Prep Type: TCLP  
 Prep Batch: 204250

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000111	J	0.0020	0.000090	mg/L		10/29/15 14:00	10/30/15 14:48	1

## Method: 9040C - pH

Lab Sample ID: LCS 240-204069/43  
 Matrix: Water  
 Analysis Batch: 204069

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	6.15	6.130		SU		100	97 - 103

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# QC Association Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-2

## GC/MS VOA

### Leach Batch: 204178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57165-4	GW-102715-JK-004	TCLP	Water	1311	
LB 240-204178/1-A MB	Method Blank	TCLP	Water	1311	

### Analysis Batch: 204421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57165-4	GW-102715-JK-004	TCLP	Water	8260B	204178
LB 240-204178/1-A MB	Method Blank	TCLP	Water	8260B	204178
LCS 240-204421/13	Lab Control Sample	Total/NA	Water	8260B	

## GC VOA

### Analysis Batch: 204486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57165-4	GW-102715-JK-004	Total/NA	Water	WI-GRO	
LCS 240-204486/6	Lab Control Sample	Total/NA	Water	WI-GRO	
LCSD 240-204486/30	Lab Control Sample Dup	Total/NA	Water	WI-GRO	
MB 240-204486/5	Method Blank	Total/NA	Water	WI-GRO	

## GC Semi VOA

### Prep Batch: 204230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57165-4	GW-102715-JK-004	Total/NA	Water	3520C	
LCS 240-204230/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 240-204230/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 240-204230/2-A	Method Blank	Total/NA	Water	3520C	

### Analysis Batch: 204826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57165-4	GW-102715-JK-004	Total/NA	Water	WI-DRO	204230
LCS 240-204230/3-A	Lab Control Sample	Total/NA	Water	WI-DRO	204230
LCSD 240-204230/4-A	Lab Control Sample Dup	Total/NA	Water	WI-DRO	204230
MB 240-204230/2-A	Method Blank	Total/NA	Water	WI-DRO	204230

## Metals

### Leach Batch: 204179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57165-4	GW-102715-JK-004	TCLP	Water	1311	
LB 240-204179/1-B	Method Blank	TCLP	Water	1311	
LB 240-204179/1-C	Method Blank	TCLP	Water	1311	

### Prep Batch: 204247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57165-4	GW-102715-JK-004	TCLP	Water	3010A	204179
LB 240-204179/1-B	Method Blank	TCLP	Water	3010A	204179
LCS 240-204247/3-A	Lab Control Sample	Total/NA	Water	3010A	
MB 240-204247/2-A	Method Blank	Total/NA	Water	3010A	

TestAmerica Canton

# QC Association Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-2

## Metals (Continued)

### Prep Batch: 204250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57165-4	GW-102715-JK-004	TCLP	Water	7470A	204179
LB 240-204179/1-C	Method Blank	TCLP	Water	7470A	204179
LCS 240-204250/3-A	Lab Control Sample	Total/NA	Water	7470A	
MB 240-204250/2-A	Method Blank	Total/NA	Water	7470A	

### Analysis Batch: 204749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57165-4	GW-102715-JK-004	TCLP	Water	6010B	204247
LB 240-204179/1-B	Method Blank	TCLP	Water	6010B	204247
LCS 240-204247/3-A	Lab Control Sample	Total/NA	Water	6010B	204247
MB 240-204247/2-A	Method Blank	Total/NA	Water	6010B	204247

### Analysis Batch: 204762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57165-4	GW-102715-JK-004	TCLP	Water	7470A	204250
LB 240-204179/1-C	Method Blank	TCLP	Water	7470A	204250
LCS 240-204250/3-A	Lab Control Sample	Total/NA	Water	7470A	204250
MB 240-204250/2-A	Method Blank	Total/NA	Water	7470A	204250

## General Chemistry

### Analysis Batch: 204069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57165-4	GW-102715-JK-004	Total/NA	Water	9040C	
LCS 240-204069/43	Lab Control Sample	Total/NA	Water	9040C	

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-2

**Client Sample ID: GW-102715-JK-004**

**Lab Sample ID: 240-57165-4**

**Date Collected: 10/27/15 13:15**

**Matrix: Water**

**Date Received: 10/28/15 09:40**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			204178	10/28/15 15:45	DRJ	TAL CAN
TCLP	Analysis	8260B		1	204421	10/30/15 01:35	TJL1	TAL CAN
Total/NA	Analysis	WI-GRO		1	204486	10/30/15 23:59	RTR	TAL CAN
Total/NA	Prep	3520C			204230	10/29/15 06:19	CSC	TAL CAN
Total/NA	Analysis	WI-DRO		1	204826	11/03/15 03:01	RES	TAL CAN
TCLP	Leach	1311			204179	10/28/15 15:00	DRJ	TAL CAN
TCLP	Prep	3010A			204247	10/29/15 07:19	WKD	TAL CAN
TCLP	Analysis	6010B		1	204749	10/30/15 23:21	KLC	TAL CAN
TCLP	Leach	1311			204179	10/28/15 15:00	DRJ	TAL CAN
TCLP	Prep	7470A			204250	10/29/15 14:00	WKD	TAL CAN
TCLP	Analysis	7470A		1	204762	10/30/15 15:09	WAL	TAL CAN
Total/NA	Analysis	9040C		1	204069	10/28/15 14:56	LKG	TAL CAN

#### Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

# Certification Summary

Client: GHD Services Inc.  
Project/Site: 58505, Janesville WI, SSOW 108011

TestAmerica Job ID: 240-57165-2

## Laboratory: TestAmerica Canton

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999518190	08-31-16

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
9040C		Water	pH

- 1
- 2
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- 11
- 12
- 13
- 14

**CHAIN OF CUSTODY  
AND  
RECEIVING DOCUMENTS**



240-57165 Chain of Custody



5.0 / C4.5 3.2 / C2.7

**CONESTOGA-ROVERS & ASSOCIATES**  
 8615 W. Bryn Mawr Avenue  
 Chicago, Illinois 60631  
 (773)380-9933 phone  
 (773)380-6421 fax



SHIPPED TO  
 (Laboratory Name): **TEST AMERICA - NORTH CANTON**

**2 COOLERS**

REFERENCE NUMBER:  
**58505-a-20403**

PROJECT NAME: **GM JAMESVILLE**

**CHAIN-OF-CUSTODY RECORD**

SAMPLER'S SIGNATURE: *[Signature]* PRINTED NAME: **JEFF KOLODZIEJKA**

SEQ. No.	DATE	TIME	SAMPLE IDENTIFICATION No.	SAMPLE MATRIX	No. OF CONTAINERS	PARAMETERS	REMARKS
	10/27/15	1050	GW-102715-JK-01	WATER	8	TEL METALS TEL DYS METALS TEL TOX METALS TEL DYS CHROM WA HEAVY METALS TRI-CRO TRI-DRO CORROSIVITY TEL VOLATILES METALS	
		1110	↓	↓	8		
		1215	↓	↓	19		
		1315	↓	↓	7		
			TRIP BLANK	↓	2		
<b>TOTAL NUMBER OF CONTAINERS</b>					<b>44</b>		

RELINQUISHED BY: <i>[Signature]</i>	DATE: 10/27/15	RECEIVED BY:	DATE:
	TIME: 1500	②	TIME:
RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
	TIME:	③	TIME:
RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
	TIME:	④	TIME:

METHOD OF SHIPMENT: **FedEx** AIR BILL No. **8089 0434 3828**

SAMPLE TEAM: **J. KOLODZIEJKA**  
 RECEIVED FOR LABORATORY BY: *[Signature]*  
 DATE: 10/28/15 TIME: 940

- White - Fully Executed Copy
- Yellow - Receiving Laboratory Copy
- Pink - Shipper Copy
- Goldenrod - Sampler Copy



TestAmerica Canton Sample Receipt Form/Narrative  
 Canton Facility

Login # : 1571105

Client CRA Site Name \_\_\_\_\_ Cooler unpacked by: [Signature]  
 Cooler Received on 10/28/13 Opened on 10/28/13  
 FedEx: 1<sup>st</sup> Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other \_\_\_\_\_

Receipt After-hours: Drop-off Date/Time \_\_\_\_\_ Storage Location \_\_\_\_\_

TestAmerica Cooler # \_\_\_\_\_ Foam Box  Client Cooler  Box  Other \_\_\_\_\_  
 Packing material used: Bubble Wrap Foam  Plastic Bag  None  Other \_\_\_\_\_  
 COOLANT: Wet Ice Blue Ice  Dry Ice  Water  None

1. Cooler temperature upon receipt
- |                                   |   |  |  |
|-----------------------------------|---|--|--|
| IR GUN# 53 (CF +0.1 °C)           | Observed Cooler Temp. _____ °C            | Corrected Cooler Temp. _____ °C            | <input checked="" type="checkbox"/> See Multiple Cooler Form |
| IR GUN# 48 (CF -0.3 °C)           | Observed Cooler Temp. _____ °C            | Corrected Cooler Temp. _____ °C            |  |
| <del>IR GUN# 5 (CF +0.4 °C)</del> | <del>Observed Cooler Temp. _____ °C</del> | <del>Corrected Cooler Temp. _____ °C</del> |  |
| IR GUN# 8 (CF -0.5 °C)            | Observed Cooler Temp. _____ °C            | Corrected Cooler Temp. _____ °C            |  |
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes  No   
 -Were custody seals on the outside of the cooler(s) signed & dated? Yes  No  NA   
 -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes  No
3. Shippers' packing slip attached to the cooler(s)? Yes  No   
 4. Did custody papers accompany the sample(s)? Yes  No   
 5. Were the custody papers relinquished & signed in the appropriate place? Yes  No   
 6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes  No   
 7. Did all bottles arrive in good condition (Unbroken)? Yes  No   
 8. Could all bottle labels be reconciled with the COC? Yes  No   
 9. Were correct bottle(s) used for the test(s) indicated? Yes  No   
 10. Sufficient quantity received to perform indicated analyses? Yes  No   
 11. Were sample(s) at the correct pH upon receipt? Yes  No  NA  pH Strip Lot# HC554612  
 12. Were VOAs on the COC? Yes  No   
 13. Were air bubbles >6 mm in any VOA vials? Yes  No  NA   
 14. Was a trip blank present in the cooler(s)? Trip Blank Lot # B516701UD Yes  No

Contacted PM \_\_\_\_\_ Date \_\_\_\_\_ by \_\_\_\_\_ via Verbal Voice Mail Other \_\_\_\_\_  
 Concerning \_\_\_\_\_

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: \_\_\_\_\_

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15. SAMPLE CONDITION

Sample(s) \_\_\_\_\_ were received after the recommended holding time had expired.  
 Sample(s) \_\_\_\_\_ were received in a broken container.  
 Sample(s) \_\_\_\_\_ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) \_\_\_\_\_ were further preserved in the laboratory.  
 Time preserved: \_\_\_\_\_ Preservative(s) added/Lot number(s): \_\_\_\_\_

Ref: SOP NC-SC-0005, Sample Receiving  
 X:\X-Drive Document Control\SOPs\Work Instructions\Word Version Work Instructions\WI-NC-099V-102115 Cooler Receipt Form.doc djf





Temperature readings: \_\_\_\_\_

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container pH</u>	<u>Preservative Added (mls)</u>	<u>Lot #</u>
GW-102715-JK-001	240-57165-E-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-102715-JK-001	240-57165-F-1	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
<del>GW-102715-JK-002</del>	<del>240-57165-E-2</del>	<del>Plastic 500ml - with Nitric Acid</del>	<del>&lt;2</del>	<del>_____</del>	<del>_____</del>
GW-102715-JK-002	240-57165-F-2	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-102715-JK-003	240-57165-L-3	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-102715-JK-003	240-57165-M-3	Plastic 500ml - with Nitric Acid	<2	_____	_____
GW-102715-JK-003	240-57165-N-3	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-102715-JK-003	240-57165-O-3	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
GW-102715-JK-004	240-57165-F-4	Amber Glass 1 liter - Hydrochloric	<2	_____	_____
GW-102715-JK-004	240-57165-G-4	Amber Glass 1 liter - Hydrochloric	<2	_____	_____

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# Appendix B

## Data Validation Memorandum



## MEMORANDUM

To: Julie Charlton REF. No.: 058507  
FROM: Kathy Shaw/eew/129-NF *KSW* DATE: April 15, 2015  
RE: **Analytical Results and Full Validation  
Quarterly Groundwater Monitoring  
General Motors Janesville Assembly Plant  
Janesville, Wisconsin  
March 2015**

### 1.0 Introduction

The following document details a validation of analytical results for groundwater samples collected in support of the Quarterly Groundwater Monitoring at the General Motors Janesville Assembly Plant Site during March 2015. Samples were submitted to TestAmerica Laboratories, Inc., located in North Canton, Ohio. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Evaluation of the data was based on information obtained from the finished data sheets, chain of custody forms, blank data, duplicate data, recovery data from surrogate spikes, laboratory control samples (LCS), matrix spike samples (MS) and calibration summaries. The laboratory data packages were submitted as a full Level IV report containing all the calibration and raw data for all the methods. The assessment of analytical and in-house data included checks for: data consistency (by observing comparability of duplicate analyses); adherence to accuracy and precision criteria; and electronic transmittal errors.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the documents entitled:

- i) QAPP - General Motors Janesville Assembly Plant, Janesville, Wisconsin, September, 2014.
- ii) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review", USEPA 540-R-10-011, January 2010
- iii) "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review", USEPA 540-R-08-01, June 2008

Items i), ii), and iii) will subsequently be referred to as the "Guidelines" in this Memorandum.

## 2.0 Sample Holding Time and Preservation

The sample holding time criteria and sample preservation requirements for the analyses are summarized in Table 3. Sample chain of custody documents and analytical reports were used to determine sample holding times. All samples were prepared and analyzed within the required holding times.

All samples were properly preserved, delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

## 3.0 Gas Chromatography/Mass Spectrometer (GC/MS) – Tuning and Mass Calibration (Instrument Performance Check) and Inductively Coupled Plasma/Mass Spectrometer (ICP/MS)

### Organic Analyses

Prior to volatile organic compound (VOC) and semi-volatile organic compound (SVOC) analysis, GC/MS instrumentation is tuned to ensure optimization over the mass range of interest. To evaluate instrument tuning, methods require the analysis of specific tuning compounds bromofluorobenzene (BFB) and decafluorotriphenylphosphine (DFTPP), respectively. The resulting spectra must meet the criteria cited in the methods before analysis is initiated. Analysis of the tuning compound must then be repeated every 12 hours throughout sample analysis to ensure the continued optimization of the instrument.

Tuning compounds were analyzed at the required frequency throughout VOC and SVOC analysis periods. All tuning criteria were met, indicating that proper optimization of the instrumentation was achieved.

### Inorganic Analyses

To ensure adequate mass resolution, identification, and to some degree, sensitivity, the performance of each ICP/MS instrument used for metals analyses is checked prior to calibration and initiating an analysis sequence through the analysis of a tuning solution.

Instrument performance check data were reviewed. The tuning solution was analyzed at the required frequency throughout the analyses. The results of all instrument performance checks were within the method acceptance criteria, indicating that proper optimization of the instrumentation was achieved.

## 4.0 Initial Calibration - Organic Analyses

### GC/MS

To quantify VOC and SVOC compounds of interest in samples, calibration of the GC/MS over a specific concentration range must be performed. Initially, a five-point calibration curve containing all compounds of interest is analyzed to characterize instrument response for each analyte over a specific concentration



range. Linearity of the calibration curve and instrument sensitivity are evaluated against the following criteria:

- i) All relative response factors (RRFs) must be greater than or equal to 0.05
- ii) The percent relative standard deviation (RSD) values must not exceed 20.0 percent or a minimum correlation coefficient (R) of 0.995 and minimum coefficient of determination ( $R^2$ ) of 0.99 if linear and quadratic equation calibration curves, respectively, are used

The initial calibration data for VOCs and SVOCs were reviewed. All compounds met the above criteria for sensitivity and linearity.

## 5.0 Initial Calibration – Inorganic Analyses

Initial calibration of the instruments ensures that they are capable of producing satisfactory quantitative data at the beginning of a series of analyses. For ICP/MS analysis, a calibration blank and at least one standard must be analyzed at each wavelength to establish the analytical curve. For mercury atomic absorption (AA) analyses, a calibration blank and a minimum of five standards must be analyzed to establish the analytical curve, and resulting correlation coefficients (R) must be 0.995 or greater. For instrumental general chemistry analyses, a calibration blank and a minimum of five standards must be analyzed to establish the analytical curve, and resulting correlation coefficients (R) must be 0.995 or greater.

After the analyses of the calibration curves, an initial calibration verification (ICV) standard must be analyzed to verify the analytical accuracy of the calibration curves. All analyte recoveries from the analyses of the ICVs must be within the following control limits:

<i>Analytical Method</i>	<i>Parameter</i>	<i>Control Limits</i>
Cold Vapor AA	Mercury	80 - 120%
Instrumental Wet Chemistry	Hexavalent Chromium	85 - 115%

Upon review of the data, it was determined that the calibration curves and ICVs were analyzed at the proper frequencies and that all of the above-specified criteria were met. The laboratory effectively demonstrated that the instrumentation used for metals and general chemistry analyses were properly calibrated prior to sample analysis.

## 6.0 Continuing Calibration - Organic Analyses

### GC/MS

To ensure that instrument calibration for VOC and SVOC analyses is acceptable throughout the sample analysis period, continuing calibration standards must be analyzed and compared to the initial calibration curve every 12 hours.

The following criteria were employed to evaluate continuing calibration data:

- i) All RRF values must be greater than or equal to 0.05
- ii) Percent difference (%D) values must not exceed 25 percent

Calibration standards were analyzed at the required frequency, and the results met the above criteria for instrument sensitivity.

## 7.0 Continuing Calibration - Inorganic Analyses

To ensure that instrument calibration is acceptable throughout the sample analysis period, continuing calibration verification (CCV) standards are analyzed on a regular basis. Each CCV is deemed acceptable if all analyte recoveries are within the control limits specified above for the ICVs. If some of the CCV analyte recoveries are outside the control limits, samples analyzed before and after the CCV, up until the previous and proceeding CCV analyses, are affected.

For this study, CCVs were analyzed at the proper frequency. All analyte recoveries reported for the CCVs were within the specified limits.

## 8.0 Contract Required Detection Limit (CRDL) Standard Analyses

To verify the linearity of the ICP/MS calibration near the detection limit, a standard is analyzed which contains the ICP/MS analytes at specified concentrations. This standard must be analyzed at the beginning and end of each sample analysis run or a minimum of twice per 8-hour period.

CRDL recoveries were evaluated using the criteria specified in the October 2004 "Guidelines". The CRDL recoveries were acceptable.

## 9.0 Laboratory Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures. Additionally, initial and continuing calibration blanks (ICBs/CCBs) are routinely analyzed after each ICV/CCV for the inorganic parameters.

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

### **Organic Analyses**

The method blank results were non-detect with the exception of low concentrations of acetone. The associated sample with a concentration similar to the blank concentration was qualified as non-detect in Table 4.

### **Inorganic Analyses**

Upon review of the ICBs, CCBs, and method blanks, it was noted that metal concentrations were observed above the method detection limit (MDL). Associated positive sample results with similar concentrations to the levels reported in the method blanks were qualified as non-detect in Table 4 and, the associated positive sample results with similar concentrations to the levels reported in the instrument blanks were qualified as non-detect in Table 5.

## **10.0 Surrogate Spike Recoveries**

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for SVOC and VOC determinations were spiked with the appropriate number of surrogate compounds prior to sample extraction and/or analysis.

Each individual surrogate compound is expected to meet the laboratory control limits with the exception of SVOC analyses. According to the "Guidelines" for SVOC analyses, up to one outlying surrogate in the base/neutral or acid fractions is acceptable as long as the recovery is at least 10 percent.

Surrogate recoveries were assessed against laboratory control limits. All surrogate recoveries met the above criteria.

## **11.0 Internal Standards (IS) Analyses**

IS data were evaluated for all VOC, SVOC, and ICP/MS metals sample analyses.

### **Organics Analyses**

To ensure that changes in the GC/MS sensitivity and response do not affect sample analysis results, IS compounds are added to each sample prior to analysis. All results are then calculated as a ratio of the IS responses.

The sample IS results were evaluated against the following criteria:

- i) The retention time of the IS must not vary more than  $\pm 30$  seconds from the associated calibration standard
- ii) IS area counts must not vary by more than a factor of two (-50 percent to +100 percent) from the associated calibration standard

All organic IS recoveries and retention times met the above criteria.

### **Inorganic Analyses**

IS elements were added to all samples prior to metals analysis by ICP/MS. Overall instrument stability and performance for metals analyses were monitored using the IS intensity data. IS recoveries were assessed using control limits of 60-125 percent.

All inorganic IS recoveries were acceptable, demonstrating adequate analytical performance.

## **12.0 Laboratory Control Sample Analyses**

The LCSs are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects

For this study, LCSs were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

### **Organic Analyses**

The LCS contained all compounds of interest (the compounds specified in the method). All LCS recoveries were within the laboratory control limits, demonstrating acceptable analytical accuracy.

### **Inorganic Analyses**

The LCS contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries were within the control limits, demonstrating acceptable analytical accuracy.

## **13.0 Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses**

To evaluate the effects of sample matrices on the extraction or digestion process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision. If the original sample concentration is significantly greater than the spike concentration, the recovery is not assessed.

## Organic Analyses

The MS/MSD samples were spiked with all compounds of interest. All percent recoveries and RPD values were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision with the exception of the samples qualified in Table 6.

A high RPD value was reported for Isopropyl benzene. The positive result for sample GW-032615-JK-03 was qualified as estimated.

Zero percent recovery was reported for Hexachloroethane. Non-detect results associated with MS or MSD recoveries less than ten percent are rejected due to the demonstrated poor analytical efficiency.

## Inorganic Analyses

The MS/MSD samples were spiked with the analytes of interest, and the results were evaluated using the "Guidelines". All percent recoveries and RPD values were within the control limits, demonstrating acceptable analytical accuracy and precision.

## 14.0 ICP Interference Check Sample Analysis (ICS)

To verify that the laboratory has established proper inter-element and background correction factors, ICSs are analyzed. These samples contain high concentrations of aluminum, calcium, magnesium, and iron and are analyzed at the beginning and end of each sample analysis period. The ICSs are evaluated against recovery control limits of 80 to 120 percent.

ICS analysis results were evaluated for all samples using the criteria in the "Guidelines". All ICS recoveries and results were acceptable.

## 15.0 Field QA/QC Samples

The field QA/QC consisted of one trip blank sample, and one field duplicate sample set.

### Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, the trip blank was submitted to the laboratory for VOC analysis. All results were non-detect for the compounds of interest.

### Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, the field duplicate sample was collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with this duplicate sample set must be less than 50 percent for water samples. If the reported concentration in either the

investigative sample or its duplicate is less than five times the practical quantitation limit (PQL), the evaluation criterion is one times the PQL value for water samples.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision.

## **16.0 Analyte Reporting**

The laboratory reported detected results down to the laboratory's MDL for each analyte. Positive analyte detections less than the PQL but greater than the MDL were qualified as estimated (J) in Table 2 unless qualified otherwise in this memorandum. Non-detect results were presented as non-detect at the PQL in Table 2.

## **17.0 Target Compound Identification**

To minimize erroneous compound identification during organic analyses, qualitative criteria including compound retention time and mass spectra were evaluated according to the identification criteria established by the methods. The samples identified in Table 1 were reviewed. The organic compounds reported adhered to the specified identification criteria.

## **18.0 Conclusion**

Based on the assessment detailed in the foregoing, the data summarized in Tables 2 - 6 are acceptable with the specific exceptions and qualifications noted herein.

**TABLE 1**  
**SAMPLE COLLECTION AND ANALYSIS SUMMARY**  
**QUARTERLY GROUNDWATER MONITORING**  
**GENERAL MOTORS JANESVILLE ASSEMBLY PLANT**  
**JANESVILLE, WISCONSIN**  
**MARCH 2015**

<i>Sample Identification</i>	<i>Location</i>	<i>Matrix</i>	<i>Collection Date (mm/dd/yyyy)</i>	<i>Collection Time (hr:min)</i>	<u><i>Analysis/Parameters</i></u>				<i>Comments</i>
					<i>TCL VOC + TMB</i>	<i>TCL SVOC</i>	<i>TAL* Metals T/D</i>	<i>Hex/Tri Cr</i>	
GW-032615-JK-01	MW-10S	Water	03/26/2015	11:05	X	X	X	X	
GW-032615-JK-02	MW-10S	Water	03/26/2015	11:35	X	X	X	X	GW-032615-JK-01
GW-032615-JK-03	MW4	Water	03/26/2015	12:55	X	X	X	X	MS/MSD
TRIP BLANK	--	Water	03/26/2015	--	X				Trip Blank

## Notes:

- Cr - Chromium
- Hex/Tri - Hexavalent/Trivalent
- MS/MSD - Matrix spike/matrix spike duplicate
- SVOC - Semi-volatile organic compounds
- T/D - Total/dissolved
- TAL\* - Target analyte list -less earth metals
- TCL - Target compound list
- TMB - Trimethylbenzene
- VOC - Volatile organic compounds



**ANALYTICAL RESULTS SUMMARY  
QUARTERLY GROUNDWATER MONITORING  
GENERAL MOTORS JANESVILLE ASSEMBLY PLANT  
JANESVILLE, WISCONSIN  
MARCH 2015**

	<i>Sample Location:</i>	<i>MW4</i>	<i>MW-10S</i>	<i>MW-10S</i>	<i>Trip Blank</i>
	<i>Sample Identification:</i>	<i>GW-032615-JK-03</i>	<i>GW-032615-JK-01</i>	<i>GW-032615-JK-02</i>	<i>TRIP BLANK</i>
	<i>Sample Date:</i>	<i>3/26/2015</i>	<i>3/26/2015</i>	<i>3/26/2015</i>	<i>3/26/2015</i>
	<i>Sample Type:</i>			<i>Duplicate</i>	
<i>Parameter</i>	<i>Units</i>				
<b><i>Volatile Organic Compounds</i></b>					
1,1,1-Trichloroethane	µg/L	5.0 U	33 U	33 U	1.0 U
1,1,1,2-Tetrachloroethane	µg/L	5.0 U	33 U	33 U	1.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	33 U	33 U	1.0 U
1,1-Dichloroethane	µg/L	5.0 U	33 U	33 U	1.0 U
1,1-Dichloroethene	µg/L	5.0 U	33 U	33 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	5.0 U	33 U	33 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	160	610	630	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	10 U	67 U	67 U	2.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	5.0 U	33 U	33 U	1.0 U
1,2-Dichlorobenzene	µg/L	5.0 U	33 U	33 U	1.0 U
1,2-Dichloroethane	µg/L	5.0 U	33 U	33 U	1.0 U
1,2-Dichloropropane	µg/L	5.0 U	33 U	33 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	88	160	160	1.0 U
1,3-Dichlorobenzene	µg/L	5.0 U	33 U	33 U	1.0 U
1,4-Dichlorobenzene	µg/L	5.0 U	33 U	33 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	50 U	330 U	330 U	10 U
2-Hexanone	µg/L	50 U	330 U	330 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	50 U	330 U	330 U	10 U
Acetone	µg/L	50 U	330 U	330 U	9.7 J
Benzene	µg/L	5.0 U	33 U	33 U	1.0 U
Bromodichloromethane	µg/L	5.0 U	33 U	33 U	1.0 U
Bromoform	µg/L	5.0 U	33 U	33 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	33 U	33 U	1.0 U
Carbon disulfide	µg/L	5.0 U	33 U	33 U	1.0 U
Carbon tetrachloride	µg/L	5.0 U	33 U	33 U	1.0 U
Chlorobenzene	µg/L	5.0 U	33 U	33 U	1.0 U
Chloroethane	µg/L	5.0 U	33 U	33 U	1.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	33 U	33 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U	33 U	33 U	1.0 U
cis-1,2-Dichloroethene	µg/L	5.0 U	33 U	33 U	1.0 U
cis-1,3-Dichloropropene	µg/L	5.0 U	33 U	33 U	1.0 U
Cyclohexane	µg/L	31	74	76	1.0 U
Dibromochloromethane	µg/L	5.0 U	33 U	33 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	5.0 U	33 U	33 U	1.0 U
Ethylbenzene	µg/L	31	410	410	1.0 U
Isopropyl benzene	µg/L	57 J	29 J	29 J	1.0 U
Methyl acetate	µg/L	50 U	330 U	330 U	10 U
Methyl cyclohexane	µg/L	14	21 J	22 J	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	5.0 U	33 U	33 U	1.0 U
Methylene chloride	µg/L	5.0 U	33 U	33 U	1.5
Styrene	µg/L	5.0 U	33 U	33 U	1.0 U
Tetrachloroethene	µg/L	5.0 U	33 U	33 U	1.0 U
Toluene	µg/L	5.0 U	33 U	33 U	1.0 U
trans-1,2-Dichloroethene	µg/L	5.0 U	33 U	33 U	1.0 U

**ANALYTICAL RESULTS SUMMARY  
QUARTERLY GROUNDWATER MONITORING  
GENERAL MOTORS JANESVILLE ASSEMBLY PLANT  
JANESVILLE, WISCONSIN  
MARCH 2015**

<i>Sample Location:</i>	<i>MW4</i>	<i>MW-10S</i>	<i>MW-10S</i>	<i>Trip Blank</i>	
<i>Sample Identification:</i>	<i>GW-032615-JK-03</i>	<i>GW-032615-JK-01</i>	<i>GW-032615-JK-02</i>	<i>TRIP BLANK</i>	
<i>Sample Date:</i>	<i>3/26/2015</i>	<i>3/26/2015</i>	<i>3/26/2015</i>	<i>3/26/2015</i>	
<i>Sample Type:</i>			<i>Duplicate</i>		
<i>Parameter</i>	<i>Units</i>				
<b><i>Volatile Organic Compounds (Continued)</i></b>					
trans-1,3-Dichloropropene	µg/L	5.0 U	33 U	33 U	1.0 U
Trichloroethene	µg/L	5.0 U	33 U	33 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	5.0 U	33 U	33 U	1.0 U
Trifluorotrchloroethane (Freon 113)	µg/L	5.0 U	33 U	33 U	1.0 U
Vinyl chloride	µg/L	5.0 U	33 U	33 U	1.0 U
Xylenes (total)	µg/L	97	1300	1200	2.0 U
<b><i>Semi-Volatile Organic Compounds</i></b>					
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	4.8 U	5.0 U	4.8 U	--
2,4,5-Trichlorophenol	µg/L	4.8 U	5.0 U	4.8 U	--
2,4,6-Trichlorophenol	µg/L	3.8 U	4.0 U	3.8 U	--
2,4-Dichlorophenol	µg/L	9.5 U	9.9 U	9.5 U	--
2,4-Dimethylphenol	µg/L	4.8 U	3.9 J	2.9 J	--
2,4-Dinitrophenol	µg/L	19 U	20 U	19 U	--
2,4-Dinitrotoluene	µg/L	4.8 U	5.0 U	4.8 U	--
2,6-Dinitrotoluene	µg/L	4.8 U	5.0 U	4.8 U	--
2-Chloronaphthalene	µg/L	4.8 U	5.0 U	4.8 U	--
2-Chlorophenol	µg/L	4.8 U	5.0 U	4.8 U	--
2-Methylnaphthalene	µg/L	19	18	18	--
2-Methylphenol	µg/L	4.8 U	5.0 U	4.8 U	--
2-Nitroaniline	µg/L	19 U	20 U	19 U	--
2-Nitrophenol	µg/L	4.8 U	5.0 U	4.8 U	--
3&4-Methylphenol	µg/L	4.8 U	5.0 U	4.8 U	--
3,3'-Dichlorobenzidine	µg/L	0.95 U	0.99 U	0.95 U	--
3-Nitroaniline	µg/L	19 U	20 U	19 U	--
4,6-Dinitro-2-methylphenol	µg/L	19 U	20 U	19 U	--
4-Bromophenyl phenyl ether	µg/L	4.8 U	5.0 U	4.8 U	--
4-Chloro-3-methylphenol	µg/L	4.8 U	5.0 U	4.8 U	--
4-Chloroaniline	µg/L	9.5 U	9.9 U	9.5 U	--
4-Chlorophenyl phenyl ether	µg/L	4.8 U	5.0 U	4.8 U	--
4-Nitroaniline	µg/L	19 U	20 U	19 U	--
4-Nitrophenol	µg/L	19 U	20 U	19 U	--
Acenaphthene	µg/L	4.8 U	0.11 J	4.8 U	--
Acenaphthylene	µg/L	4.8 U	5.0 U	4.8 U	--
Acetophenone	µg/L	4.8 U	5.0 U	4.8 U	--
Anthracene	µg/L	4.8 U	5.0 U	4.8 U	--
Atrazine	µg/L	2.9 U	3.0 U	2.9 U	--
Benzaldehyde	µg/L	4.8 U	5.0 U	4.8 U	--
Benzo(a)anthracene	µg/L	0.95 U	0.99 U	0.95 U	--
Benzo(a)pyrene	µg/L	0.95 U	0.99 U	0.95 U	--
Benzo(b)fluoranthene	µg/L	0.95 U	0.99 U	0.95 U	--
Benzo(g,h,i)perylene	µg/L	0.95 U	0.99 U	0.95 U	--
Benzo(k)fluoranthene	µg/L	0.95 U	0.99 U	0.95 U	--
Biphenyl (1,1-Biphenyl)	µg/L	0.56 J	0.26 J	0.27 J	--

**ANALYTICAL RESULTS SUMMARY  
 QUARTERLY GROUNDWATER MONITORING  
 GENERAL MOTORS JANESVILLE ASSEMBLY PLANT  
 JANESVILLE, WISCONSIN  
 MARCH 2015**

<i>Sample Location:</i>	<i>MW4</i>	<i>MW-10S</i>	<i>MW-10S</i>	<i>Trip Blank</i>	
<i>Sample Identification:</i>	<i>GW-032615-JK-03</i>	<i>GW-032615-JK-01</i>	<i>GW-032615-JK-02</i>	<i>TRIP BLANK</i>	
<i>Sample Date:</i>	<i>3/26/2015</i>	<i>3/26/2015</i>	<i>3/26/2015</i>	<i>3/26/2015</i>	
<i>Sample Type:</i>			<i>Duplicate</i>		
<b>Parameter</b>	<b>Units</b>				
<b>Semi-Volatile Organic Compounds (Continued)</b>					
bis(2-Chloroethoxy)methane	µg/L	4.8 U	5.0 U	4.8 U	--
bis(2-Chloroethyl)ether	µg/L	0.95 U	0.99 U	0.95 U	--
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	4.8 U	5.0 U	4.8 U	--
Butyl benzylphthalate (BBP)	µg/L	4.8 U	5.0 U	4.8 U	--
Caprolactam	µg/L	9.5 U	9.9 U	9.5 U	--
Carbazole	µg/L	9.5 U	9.9 U	9.5 U	--
Chrysene	µg/L	0.95 U	0.99 U	0.95 U	--
Dibenz(a,h)anthracene	µg/L	1.9 U	2.0 U	1.9 U	--
Dibenzofuran	µg/L	0.18 J	4.0 U	3.8 U	--
Diethyl phthalate	µg/L	4.8 U	5.0 U	4.8 U	--
Dimethyl phthalate	µg/L	4.8 U	5.0 U	4.8 U	--
Di-n-butylphthalate (DBP)	µg/L	4.8 U	5.0 U	4.8 U	--
Di-n-octyl phthalate (DnOP)	µg/L	4.8 U	5.0 U	4.8 U	--
Fluoranthene	µg/L	0.95 U	0.99 U	0.95 U	--
Fluorene	µg/L	0.23 J	0.12 J	0.13 J	--
Hexachlorobenzene	µg/L	0.19 U	0.20 U	0.19 U	--
Hexachlorobutadiene	µg/L	0.95 U	0.99 U	0.95 U	--
Hexachlorocyclopentadiene	µg/L	4.8 U	5.0 U	4.8 U	--
Hexachloroethane	µg/L	R	5.0 U	4.8 U	--
Indeno(1,2,3-cd)pyrene	µg/L	1.9 U	2.0 U	1.9 U	--
Isophorone	µg/L	4.8 U	5.0 U	4.8 U	--
Naphthalene	µg/L	21	98	89	--
Nitrobenzene	µg/L	2.9 U	3.0 U	2.9 U	--
N-Nitrosodi-n-propylamine	µg/L	4.8 U	5.0 U	4.8 U	--
N-Nitrosodiphenylamine	µg/L	4.8 U	5.0 U	4.8 U	--
Pentachlorophenol	µg/L	4.8 U	5.0 U	4.8 U	--
Phenanthrene	µg/L	1.9 U	2.0 U	1.9 U	--
Phenol	µg/L	4.8 U	5.0 U	4.8 U	--
Pyrene	µg/L	4.8 U	5.0 U	4.8 U	--
<b>Metals</b>					
Antimony	µg/L	2.0 U	2.0 U	2.0 U	--
Antimony (dissolved)	µg/L	2.0 U	2.0 U	2.0 U	--
Arsenic	µg/L	5.0 U	5.0 U	5.0 U	--
Arsenic (dissolved)	µg/L	5.0 U	5.0 U	5.0 U	--
Barium	µg/L	100	120	120	--
Barium (dissolved)	µg/L	110	120	120	--
Beryllium	µg/L	1.0 U	1.0 U	1.0 U	--
Beryllium (dissolved)	µg/L	1.0 U	1.0 U	1.0 U	--
Cadmium	µg/L	1.0 U	1.0 U	1.0 U	--
Cadmium (dissolved)	µg/L	1.0 U	1.0 U	1.0 U	--
Chromium	µg/L	5.0 U	5.0 U	5.0 U	--
Chromium (dissolved)	µg/L	5.0 U	5.0 U	5.0 U	--
Chromium III (trivalent)	µg/L	20 U	20 U	20 U	--

**ANALYTICAL RESULTS SUMMARY  
QUARTERLY GROUNDWATER MONITORING  
GENERAL MOTORS JANESVILLE ASSEMBLY PLANT  
JANESVILLE, WISCONSIN  
MARCH 2015**

	<i>Sample Location:</i>	<i>MW4</i>	<i>MW-10S</i>	<i>MW-10S</i>	<i>Trip Blank</i>
	<i>Sample Identification:</i>	<i>GW-032615-JK-03</i>	<i>GW-032615-JK-01</i>	<i>GW-032615-JK-02</i>	<i>TRIP BLANK</i>
	<i>Sample Date:</i>	<i>3/26/2015</i>	<i>3/26/2015</i>	<i>3/26/2015</i>	<i>3/26/2015</i>
	<i>Sample Type:</i>			<i>Duplicate</i>	
<i>Parameter</i>	<i>Units</i>				
<b>Metals (Continued)</b>					
Chromium VI (hexavalent)	µg/L	20 U	20 U	20 U	--
Cobalt	µg/L	0.35 J	0.29 J	0.18 J	--
Cobalt (dissolved)	µg/L	0.28 J	0.19 J	0.18 J	--
Copper	µg/L	2.0 U	2.0 U	2.0 U	--
Copper (dissolved)	µg/L	2.0 U	2.0 U	2.0 U	--
Lead	µg/L	0.15 J	0.15 J	3.0 U	--
Lead (dissolved)	µg/L	3.0 U	3.0 U	3.0 U	--
Manganese	µg/L	470	440	430	--
Manganese (dissolved)	µg/L	500	460	460	--
Mercury	µg/L	0.20 U	0.20 U	0.20 U	--
Mercury (dissolved)	µg/L	0.20 U	0.20 U	0.20 U	--
Nickel	µg/L	0.55 J	1.2 J	1.1 J	--
Nickel (dissolved)	µg/L	0.44 J	0.88 J	1.0 J	--
Selenium	µg/L	0.33 J	0.83 J	0.66 J	--
Selenium (dissolved)	µg/L	0.46 J	0.80 J	0.70 J	--
Silver	µg/L	0.20 U	0.20 U	0.20 U	--
Silver (dissolved)	µg/L	0.20 U	0.20 U	0.20 U	--
Thallium	µg/L	0.19 J	0.25 J	1.0 U	--
Thallium (dissolved)	µg/L	1.0 U	1.0 U	1.0 U	--
Vanadium	µg/L	0.39 J	0.48 J	0.32 J	--
Vanadium (dissolved)	µg/L	4.0 U	0.30 J	4.0 U	--
Zinc	µg/L	20 U	20 U	20 U	--
Zinc (dissolved)	µg/L	20 U	20 U	20 U	--

## Notes:

-- Not analyzed

U - Not detected at the associated reporting limit

J - Estimated concentration

R - Rejected

**TABLE 3**  
**ANALYTICAL METHODS AND HOLDING TIME CRITERIA**  
**QUARTERLY GROUNDWATER MONITORING**  
**GENERAL MOTORS JANESVILLE ASSEMBLY PLANT**  
**JANESVILLE, WISCONSIN**  
**MARCH 2015**

<i>Parameter</i>	<i>Method</i>	<i>Matrix</i>	<i>Preservation</i>	<i>Holding Time</i>	
				<i>Collection to Extraction (Days)</i>	<i>Collection or Extraction to Analysis (Days)</i>
TCL VOC + TMB	SW-846 8260	Water	pH < 2 and Iced, 4 ± 2° C	-	14
TCL SVOC	SW-846 8270C	Water	Iced, 4 ± 2° C	7	40
TAL Metals	SW-846 6020	Water	pH < 2 and Iced, 4 ± 2° C	-	180
Mercury	SW-846 7470A/7471A	Water	pH < 2 and Iced, 4 ± 2° C	-	28
Hexavalent Chromium	SW-846 7196	Water	Iced, 4 ± 2° C	-	24 hours
Trivalent Chromium	SW-846 7196	Water	Iced, 4 ± 2° C	-	24 hours

Notes:

- SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions
- TCL - Target Compound List
- VOC - Volatile Organic Compounds
- TMB - Trimethylbenzene
- SVOC - Semi-volatile Organic Compounds
- TAL - Target Analyte List

**TABLE 4**  
**QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE METHOD BLANKS**  
**QUARTERLY GROUNDWATER MONITORING**  
**GENERAL MOTORS JANESVILLE ASSEMBLY PLANT**  
**JANESVILLE, WISCONSIN**  
**MARCH 2015**

<i>Parameter</i>	<i>Analyte</i>	<i>Analysis Date</i>	<i>Blank Result</i>	<i>Associated Sample ID</i>	<i>Original Result</i>	<i>Qualified Result</i>	<i>Units</i>
VOAs	Acetone	03/31/2015	0.944 J	GW-032615-JK-02	44 JB	330 U	µg/L
Metals	Arsenic	03/30/2015	0.213 J	GW-032615-JK-01	1.3 JB	5.0 U	µg/L
				GW-032615-JK-02	1.3 JB	5.0 U	µg/L
				GW-032615-JK-03	1.6 JB	5.0 U	µg/L
Metals	Arsenic (dissolved)	03/30/2015	0.213 J	GW-032615-JK-01	1.4 JB	5.0 U	µg/L
				GW-032615-JK-02	1.3 JB	5.0 U	µg/L
				GW-032615-JK-03	1.9 JB	5.0 U	µg/L
Metals	Beryllium	03/30/2015	0.173 J	GW-032615-JK-01	0.79 JB	1.0 U	µg/L
				GW-032615-JK-02	0.36 JB	1.0 U	µg/L
				GW-032615-JK-03	0.41 JB	1.0 U	µg/L
Metals	Beryllium (dissolved)	03/30/2015	0.173 J	GW-032615-JK-01	0.50 JB	1.0 U	µg/L
				GW-032615-JK-02	0.32 JB	1.0 U	µg/L
				GW-032615-JK-03	0.51 JB	1.0 U	µg/L
Metals	Cadmium	03/30/2015	0.0900 J	GW-032615-JK-01	0.46 JB	1.0 U	µg/L
				GW-032615-JK-02	0.14 JB	1.0 U	µg/L
				GW-032615-JK-03	0.35 JB	1.0 U	µg/L
Metals	Cadmium (dissolved)	03/30/2015	0.0900 J	GW-032615-JK-01	0.21 JB	1.0 U	µg/L
				GW-032615-JK-02	0.13 JB	1.0 U	µg/L
				GW-032615-JK-03	0.25 JB	1.0 U	µg/L

TABLE 4

**QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE METHOD BLANKS  
 QUARTERLY GROUNDWATER MONITORING  
 GENERAL MOTORS JANESVILLE ASSEMBLY PLANT  
 JANESVILLE, WISCONSIN  
 MARCH 2015**

<i>Parameter</i>	<i>Analyte</i>	<i>Analysis Date</i>	<i>Blank Result</i>	<i>Associated Sample ID</i>	<i>Original Result</i>	<i>Qualified Result</i>	<i>Units</i>
Metals	Chromium	03/30/2015	1.11 J	GW-032615-JK-01	1.6 JB	5.0 U	µg/L
				GW-032615-JK-02	1.5 JB	5.0 U	µg/L
				GW-032615-JK-03	1.4 JB	5.0 U	µg/L
Metals	Chromium (dissolved)	03/30/2015	1.11 J	GW-032615-JK-01	1.3 JB	5.0 U	µg/L
				GW-032615-JK-02	1.4 JB	5.0 U	µg/L
				GW-032615-JK-03	1.3 JB	5.0 U	µg/L
Metals	Copper	03/30/2015	0.851 J	GW-032615-JK-03	0.84 JB	2.0 U	µg/L

## Notes:

- U - Not detected at the associated reporting limit
- J - Estimated concentration



TABLE 5

**QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE INSTRUMENT BLANKS  
 QUARTERLY GROUNDWATER MONITORING  
 GENERAL MOTORS JANESVILLE ASSEMBLY PLANT  
 JANESVILLE, WISCONSIN  
 MARCH 2015**

<i>Parameter</i>	<i>Analyte</i>	<i>Blank ID</i>	<i>Analysis Date</i>	<i>Blank Result</i>	<i>Sample ID</i>	<i>Original Result</i>	<i>Qualified Result</i>	<i>Units</i>
Metals	Antimony	ICB	3/31/2015	0.720 J	GW-032615-JK-01	0.57 J	2.0 U	µg/L
					GW-032615-JK-03	0.47 J	2.0 U	µg/L
Metals	Antimony (dissolved)	ICB	3/31/2015	0.720 J	GW-032615-JK-01	0.21 J	2.0 U	µg/L
					GW-032615-JK-03	0.23 J	2.0 U	µg/L

## Notes:

- ICB - Initial Calibration Blank
- U - Not detected at the associated reporting limit
- J - Estimated concentration

**TABLE 6**  
**QUALIFIED SAMPLE RESULTS DUE TO OUTLYING MS/MSD RESULTS**  
**QUARTERLY GROUNDWATER MONITORING**  
**GENERAL MOTORS JANESVILLE ASSEMBLY PLANT**  
**JANESVILLE, WISCONSIN**  
**MARCH 2015**

<i>Parameter</i>	<i>Sample ID</i>	<i>Analyte</i>	<i>MS</i> <i>% Recovery</i>	<i>MSD</i> <i>% Recovery</i>	<i>RPD</i> <i>(percent)</i>	<i>Control Limits</i>		<i>Qualified Result</i>	<i>Units</i>
						<i>% Recovery</i>	<i>RPD</i>		
VOAs	GW-032615-JK-03	Isopropyl benzene	126	124	1	68 - 120	30	57 J	µg/L
SVOAs	GW-032615-JK-03	Hexachloroethane	0	0	NC	40 - 110	52	R	


Notes:

- MS - Matrix Spike
- MSD - Matrix Spike Duplicate
- RPD - Relative Percent Difference
- VOAs - Volatile Organic Analytes
- SVOAs - Semi-volatile Organic Analytes
- J - Estimated concentration
- R - Rejected



## MEMORANDUM

To: Julie Charlton REF. No.: 058505-108011

FROM: Kathy Shaw/eew/3-NF  DATE: June 25, 2015

RE: **Analytical Results and Full Validation  
Quarterly Groundwater Monitoring  
General Motors Janesville Assembly Plant  
Janesville, Wisconsin  
June 2015**

### 1.0 Introduction

The following document details a validation of analytical results for groundwater samples collected in support of the Quarterly Groundwater Monitoring at the General Motors Janesville Assembly Plant Site during June 2015. Samples were submitted to TestAmerica Laboratories, Inc., located in North Canton, Ohio. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Evaluation of the data was based on information obtained from the finished data sheets, chain of custody forms, blank data, duplicate data, recovery data from surrogate spikes, laboratory control samples (LCS), matrix spike samples (MS) and calibration summaries. The laboratory data packages were submitted as a full Level IV report containing all the calibration and raw data for all the methods. The assessment of analytical and in-house data included checks for: data consistency (by observing comparability of duplicate analyses); adherence to accuracy and precision criteria; and electronic transmittal errors.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the documents entitled:

- i) QAPP - General Motors Janesville Assembly Plant, Janesville, Wisconsin, September 2014.
- ii) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review", USEPA 540-R-10-011, January 2010
- iii) "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review", USEPA 540-R-08-01, June 2008

Items i), ii), and iii) will subsequently be referred to as the "Guidelines" in this Memorandum.

## 2.0 Sample Holding Time and Preservation

The sample holding time criteria and sample preservation requirements for the analyses are summarized in Table 3. Sample chain of custody documents and analytical reports were used to determine sample holding times. All samples were prepared and analyzed within the required holding times.

All samples were properly preserved, delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

## 3.0 Gas Chromatography/Mass Spectrometer (GC/MS) – Tuning and Mass Calibration (Instrument Performance Check) and Inductively Coupled Plasma/Mass Spectrometer (ICP/MS)

### Organic Analyses

Prior to volatile organic compound (VOC) and semi-volatile organic compound (SVOC) analysis, GC/MS instrumentation is tuned to ensure optimization over the mass range of interest. To evaluate instrument tuning, methods require the analysis of specific tuning compounds bromofluorobenzene (BFB) and decafluorotriphenylphosphine (DFTPP), respectively. The resulting spectra must meet the criteria cited in the methods before analysis is initiated. Analysis of the tuning compound must then be repeated every 12 hours throughout sample analysis to ensure the continued optimization of the instrument.

Tuning compounds were analyzed at the required frequency throughout VOC and SVOC analysis periods. All tuning criteria were met, indicating that proper optimization of the instrumentation was achieved.

### Inorganic Analyses

To ensure adequate mass resolution, identification, and to some degree, sensitivity, the performance of each ICP/MS instrument used for metals analyses is checked prior to calibration and initiating an analysis sequence through the analysis of a tuning solution.

Instrument performance check data were reviewed. The tuning solution was analyzed at the required frequency throughout the analyses. The results of all instrument performance checks were within the method acceptance criteria, indicating that proper optimization of the instrumentation was achieved.

## 4.0 Initial Calibration - Organic Analyses

### GC/MS

To quantify VOC and SVOC compounds of interest in samples, calibration of the GC/MS over a specific concentration range must be performed. Initially, a five-point calibration curve containing all compounds of interest is analyzed to characterize instrument response for each analyte over a specific concentration

range. Linearity of the calibration curve and instrument sensitivity are evaluated against the following criteria:

- i) All relative response factors (RRFs) must be greater than or equal to 0.05
- ii) The percent relative standard deviation (RSD) values must not exceed 20.0 percent or a minimum correlation coefficient (R) of 0.995 and minimum coefficient of determination ( $R^2$ ) of 0.99 if linear and quadratic equation calibration curves, respectively, are used

The initial calibration data for VOCs and SVOCs were reviewed. All compounds met the above criteria for sensitivity and linearity.

## 5.0 Initial Calibration – Inorganic Analyses

Initial calibration of the instruments ensures that they are capable of producing satisfactory quantitative data at the beginning of a series of analyses. For ICP/MS analysis, a calibration blank and at least one standard must be analyzed at each wavelength to establish the analytical curve. For mercury atomic absorption (AA) analyses, a calibration blank and a minimum of five standards must be analyzed to establish the analytical curve, and resulting correlation coefficients (R) must be 0.995 or greater. For instrumental general chemistry analyses, a calibration blank and a minimum of five standards must be analyzed to establish the analytical curve, and resulting correlation coefficients (R) must be 0.995 or greater.

After the analyses of the calibration curves, an initial calibration verification (ICV) standard must be analyzed to verify the analytical accuracy of the calibration curves. All analyte recoveries from the analyses of the ICVs must be within the following control limits:

<i>Analytical Method</i>	<i>Parameter</i>	<i>Control Limits</i>
Cold Vapor AA	Mercury	80 - 120%
Instrumental Wet Chemistry	Hexavalent Chromium	85 - 115%

Upon review of the data, it was determined that the calibration curves and ICVs were analyzed at the proper frequencies and that all of the above-specified criteria were met. The laboratory effectively demonstrated that the instrumentation used for metals and general chemistry analyses were properly calibrated prior to sample analysis.

## 6.0 Continuing Calibration - Organic Analyses

### GC/MS

To ensure that instrument calibration for VOC and SVOC analyses is acceptable throughout the sample analysis period, continuing calibration standards must be analyzed and compared to the initial calibration curve every 12 hours.

The following criteria were employed to evaluate continuing calibration data:

- i) All RRF values must be greater than or equal to 0.05
- ii) Percent difference (%D) values must not exceed 25 percent

Calibration standards were analyzed at the required frequency, and the results met the above criteria for instrument sensitivity.

## 7.0 Continuing Calibration - Inorganic Analyses

To ensure that instrument calibration is acceptable throughout the sample analysis period, continuing calibration verification (CCV) standards are analyzed on a regular basis. Each CCV is deemed acceptable if all analyte recoveries are within the control limits specified above for the ICVs. If some of the CCV analyte recoveries are outside the control limits, samples analyzed before and after the CCV, up until the previous and proceeding CCV analyses, are affected.

For this study, CCVs were analyzed at the proper frequency. All analyte recoveries reported for the CCVs were within the specified limits.

## 8.0 Contract Required Detection Limit (CRDL) Standard Analyses

To verify the linearity of the ICP/MS calibration near the detection limit, a standard is analyzed which contains the ICP/MS analytes at specified concentrations. This standard must be analyzed at the beginning and end of each sample analysis run or a minimum of twice per 8-hour period.

CRDL recoveries were evaluated using the criteria specified in the October 2004 "Guidelines". The CRDL recoveries were acceptable.

## 9.0 Laboratory Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

Additionally, initial and continuing calibration blanks (ICBs/CCBs) are routinely analyzed after each ICV/CCV for the inorganic parameters.

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

### **Organic Analyses**

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

### **Inorganic Analyses**

Upon review of the ICBs, CCBs, and method blanks, it was noted that metal concentrations were observed above the method detection limit (MDL). Associated positive sample results with similar concentrations to the levels reported in the method blanks were qualified as non-detect in Table 4 and, the associated positive sample results with similar concentrations to the levels reported in the instrument blanks were qualified as non-detect in Table 5.

## **10.0 Surrogate Spike Recoveries**

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for SVOC and VOC determinations were spiked with the appropriate number of surrogate compounds prior to sample extraction and/or analysis.

Each individual surrogate compound is expected to meet the laboratory control limits with the exception of SVOC analyses. According to the "Guidelines" for SVOC analyses, up to one outlying surrogate in the base/neutral or acid fractions is acceptable as long as the recovery is at least 10 percent.

Surrogate recoveries were assessed against laboratory control limits. All surrogate recoveries met the above criteria.

## **11.0 Internal Standards (IS) Analyses**

IS data were evaluated for all VOC, SVOC, and ICP/MS metals sample analyses.



### Organics Analyses

To ensure that changes in the GC/MS sensitivity and response do not affect sample analysis results, IS compounds are added to each sample prior to analysis. All results are then calculated as a ratio of the IS responses.

The sample IS results were evaluated against the following criteria:

- i) The retention time of the IS must not vary more than  $\pm 30$  seconds from the associated calibration standard
- ii) IS area counts must not vary by more than a factor of two (-50 percent to +100 percent) from the associated calibration standard

All organic IS recoveries and retention times met the above criteria.

### Inorganic Analyses

IS elements were added to all samples prior to metals analysis by ICP/MS. Overall instrument stability and performance for metals analyses were monitored using the IS intensity data. IS recoveries were assessed using control limits of 60-125 percent.

All inorganic IS recoveries were acceptable, demonstrating adequate analytical performance.

## 12.0 Laboratory Control Sample Analyses

The LCSs are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects

For this study, LCSs were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

### Organic Analyses

The LCS contained all compounds of interest. All LCS recoveries were within the laboratory control limits, demonstrating acceptable analytical accuracy.

### Inorganic Analyses

The LCS contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries were within the control limits, demonstrating acceptable analytical accuracy.

### 13.0 Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the extraction or digestion process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision. If the original sample concentration is significantly greater than the spike concentration, the recovery is not assessed.

#### Organic Analyses

The MS/MSD samples were spiked with all compounds of interest. All percent recoveries and RPD values were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision with the exception of the samples qualified in Table 6.

Samples associated with outlying recoveries were qualified as follows:

- i) Positive sample results associated with high or low outlying recoveries were qualified as estimated.
- ii) Non-detect results associated with high MS/MSD recoveries were not qualified. The indicated high bias would not impact the data.
- iii) Non-detect results associated with low MS/MSD recoveries greater than 10 percent were qualified as estimated

#### Inorganic Analyses

The MS/MSD samples were spiked with the analytes of interest, and the results were evaluated using the "Guidelines". All percent recoveries and RPD values were within the control limits, demonstrating acceptable analytical accuracy and precision.

### 14.0 ICP Interference Check Sample Analysis (ICS)

To verify that the laboratory has established proper inter-element and background correction factors, ICSs are analyzed. These samples contain high concentrations of aluminum, calcium, magnesium, and iron and are analyzed at the beginning and end of each sample analysis period. The ICSs are evaluated against recovery control limits of 80 to 120 percent.

ICS analysis results were evaluated for all samples using the criteria in the "Guidelines". All ICS recoveries and results were acceptable.

### 15.0 Field QA/QC Samples

The field QA/QC consisted of one trip blank sample, and one field duplicate sample set.

### **Trip Blank Sample Analysis**

To evaluate contamination from sample collection, transportation, storage, and analytical activities, the trip blank was submitted to the laboratory for VOC analysis. All results were non-detect for the compounds of interest.

### **Field Duplicate Sample Analysis**

To assess the analytical and sampling protocol precision, the field duplicate sample was collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with this duplicate sample set must be less than 50 percent for water samples. If the reported concentration in either the investigative sample or its duplicate is less than five times the practical quantitation limit (PQL), the evaluation criterion is one times the PQL value for water samples.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision.

## **16.0 Analyte Reporting**

The laboratory reported detected results down to the laboratory's MDL for each analyte. Positive analyte detections less than the PQL but greater than the MDL were qualified as estimated (J) in Table 2 unless qualified otherwise in this memorandum. Non-detect results were presented as non-detect at the PQL in Table 2.

## **17.0 Target Compound Identification**

To minimize erroneous compound identification during organic analyses, qualitative criteria including compound retention time and mass spectra were evaluated according to the identification criteria established by the methods. The organic compounds reported adhered to the specified identification criteria.

## **18.0 Conclusion**

Based on the assessment detailed in the foregoing, the data summarized in Tables 2 - 6 are acceptable with the specific exceptions and qualifications noted herein.

**TABLE 1**  
**SAMPLE COLLECTION AND ANALYSIS SUMMARY**  
**QUARTERLY GROUNDWATER MONITORING**  
**GENERAL MOTORS JANESVILLE ASSEMBLY PLANT**  
**JANESVILLE, WISCONSIN**  
**JUNE 2015**

<i>Sample Identification</i>	<i>Location</i>	<i>Matrix</i>	<i>Collection Date (mm/dd/yyyy)</i>	<i>Collection Time (hr:min)</i>	<u><i>Analysis/Parameters</i></u>				<i>Comments</i>
					<i>TCL VOC + TMB</i>	<i>TCL SVOC</i>	<i>TAL* Metals T/D</i>	<i>Hex/Tri Cr</i>	
GW-060215-JK-01	MW-10S	Water	06/02/2015	10:50	X	X	X	X	
GW-060215-JK-02	MW-10S	Water	06/02/2015	11:10	X	X	X	X	Field Duplicate (MW-10S)
GW-060215-JK-03	MW4	Water	06/02/2015	12:25	X	X	X	X	MS/MSD
TRIP BLANK	--	Water	06/02/2015	00:00	X				Trip Blank

## Notes:

- Cr - Chromium
- Hex/Tri - Hexavalent/Trivalent
- MS/MSD - Matrix Spike/Matrix Spike Duplicate
- SVOC - Semi-volatile Organic Compounds
- T/D - Total/dissolved
- TAL\* - Target Analyte List -less earth metals
- TCL - Target Compound List
- TMB - Trimethylbenzene
- VOC - Volatile Organic Compounds

TABLE 2

**ANALYTICAL RESULTS SUMMARY  
QUARTERLY GROUNDWATER MONITORING  
GENERAL MOTORS JANESVILLE ASSEMBLY PLANT  
JANESVILLE, WISCONSIN  
JUNE 2015**

	<i>Sample Location:</i>	<i>MW4</i>	<i>MW-10S</i>	<i>MW-10S</i>	<i>Trip Blank</i>
	<i>Sample Identification:</i>	<i>GW-060215-JK-03</i>	<i>GW-060215-JK-01</i>	<i>GW-060215-JK-02</i>	<i>TRIP BLANK</i>
	<i>Sample Date:</i>	<i>6/2/2015</i>	<i>6/2/2015</i>	<i>6/2/2015</i>	<i>6/2/2015</i>
	<i>Sample Type:</i>			<i>Duplicate</i>	
<i>Parameter</i>					
	<i>Units</i>				
<b>Volatile Organic Compounds</b>					
1,1,1-Trichloroethane	µg/L	10 U	25 U	25 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	10 U	25 U	25 U	1.0 U
1,1,2-Trichloroethane	µg/L	10 U	25 U	25 U	1.0 U
1,1-Dichloroethane	µg/L	10 U	25 U	25 U	1.0 U
1,1-Dichloroethene	µg/L	10 U	25 U	25 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	10 U	25 U	25 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	330 J	470	460	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	20 U	50 U	50 U	2.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	10 U	25 U	25 U	1.0 U
1,2-Dichlorobenzene	µg/L	10 U	25 U	25 U	1.0 U
1,2-Dichloroethane	µg/L	10 U	25 U	25 U	1.0 U
1,2-Dichloropropane	µg/L	10 U	25 U	25 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	150	110	110	1.0 U
1,3-Dichlorobenzene	µg/L	10 U	25 U	25 U	1.0 U
1,4-Dichlorobenzene	µg/L	10 U	25 U	25 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	100 U	250 U	250 U	10 U
2-Hexanone	µg/L	100 U	250 U	250 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	100 U	250 U	250 U	10 U
Acetone	µg/L	100 U	250 U	250 U	10 U
Benzene	µg/L	10 U	25 U	25 U	1.0 U
Bromodichloromethane	µg/L	10 U	25 U	25 U	1.0 U
Bromoform	µg/L	10 U	25 U	25 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	10 U	25 U	25 U	1.0 U
Carbon disulfide	µg/L	10 U	25 U	25 U	1.0 U
Carbon tetrachloride	µg/L	10 U	25 U	25 U	1.0 U
Chlorobenzene	µg/L	10 U	25 U	25 U	1.0 U
Chloroethane	µg/L	10 U	25 U	25 U	1.0 U
Chloroform (Trichloromethane)	µg/L	10 U	25 U	25 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	10 U	25 U	25 U	1.0 U
cis-1,2-Dichloroethene	µg/L	10 U	25 U	25 U	1.0 U
cis-1,3-Dichloropropene	µg/L	10 U	25 U	25 U	1.0 U
Cyclohexane	µg/L	31	53	51	1.0 U
Dibromochloromethane	µg/L	10 U	25 U	25 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	10 U	25 U	25 U	1.0 U
Ethylbenzene	µg/L	59	300	290	1.0 U
Isopropyl benzene	µg/L	91	25	24 J	1.0 U
Methyl acetate	µg/L	100 U	250 U	250 U	10 U
Methyl cyclohexane	µg/L	12	16 J	15 J	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	10 U	25 U	25 U	1.0 U
Methylene chloride	µg/L	10 U	25 U	25 U	1.0 U
Styrene	µg/L	10 U	25 U	25 U	1.0 U
Tetrachloroethene	µg/L	10 U	25 U	25 U	1.0 U
Toluene	µg/L	10 U	25 U	25 U	1.0 U
trans-1,2-Dichloroethene	µg/L	10 U	25 U	25 U	1.0 U
trans-1,3-Dichloropropene	µg/L	10 U	25 U	25 U	1.0 U
Trichloroethene	µg/L	10 U	25 U	25 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	10 U	25 U	25 U	1.0 U
Trifluorotrchloroethane (Freon 113)	µg/L	10 U	25 U	25 U	1.0 U
Vinyl chloride	µg/L	10 U	25 U	25 U	1.0 U
Xylenes (total)	µg/L	110	820	770	2.0 U

TABLE 2

**ANALYTICAL RESULTS SUMMARY  
QUARTERLY GROUNDWATER MONITORING  
GENERAL MOTORS JANESVILLE ASSEMBLY PLANT  
JANESVILLE, WISCONSIN  
JUNE 2015**

<i>Parameter</i>	<i>Units</i>	<i>Sample Location:</i> <i>Sample Identification:</i> <i>Sample Date:</i> <i>Sample Type:</i>	<i>MW4</i> <i>GW-060215-JK-03</i> <i>6/2/2015</i>	<i>MW-10S</i> <i>GW-060215-JK-01</i> <i>6/2/2015</i>	<i>MW-10S</i> <i>GW-060215-JK-02</i> <i>6/2/2015</i> <i>Duplicate</i>	<i>Trip Blank</i> <i>TRIP BLANK</i> <i>6/2/2015</i>
<b>Semi-Volatile Organic Compounds</b>						
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L		5.1 U	5.2 U	5.0 U	--
2,4,5-Trichlorophenol	µg/L		5.1 U	5.2 U	5.0 U	--
2,4,6-Trichlorophenol	µg/L		4.0 U	4.1 U	4.0 U	--
2,4-Dichlorophenol	µg/L		10 U	10 U	9.9 U	--
2,4-Dimethylphenol	µg/L		0.28 J	5.2 U	5.0 U	--
2,4-Dinitrophenol	µg/L		20 U	21 U	20 U	--
2,4-Dinitrotoluene	µg/L		5.1 U	5.2 U	5.0 U	--
2,6-Dinitrotoluene	µg/L		5.1 U	5.2 U	5.0 U	--
2-Chloronaphthalene	µg/L		5.1 U	5.2 U	5.0 U	--
2-Chlorophenol	µg/L		5.1 U	5.2 U	5.0 U	--
2-Methylnaphthalene	µg/L		26 J	0.22 J	5.0 U	--
2-Methylphenol	µg/L		5.1 U	5.2 U	5.0 U	--
2-Nitroaniline	µg/L		20 U	21 U	20 U	--
2-Nitrophenol	µg/L		5.1 U	5.2 U	5.0 U	--
3&4-Methylphenol	µg/L		5.1 U	5.2 U	5.0 U	--
3,3'-Dichlorobenzidine	µg/L		1.0 U	1.0 U	0.99 U	--
3-Nitroaniline	µg/L		20 U	21 U	20 U	--
4,6-Dinitro-2-methylphenol	µg/L		20 U	21 U	20 U	--
4-Bromophenyl phenyl ether	µg/L		5.1 U	5.2 U	5.0 U	--
4-Chloro-3-methylphenol	µg/L		5.1 U	5.2 U	5.0 U	--
4-Chloroaniline	µg/L		10 UJ	10 U	9.9 U	--
4-Chlorophenyl phenyl ether	µg/L		5.1 U	5.2 U	5.0 U	--
4-Nitroaniline	µg/L		20 U	21 U	20 U	--
4-Nitrophenol	µg/L		20 U	21 U	20 U	--
Acenaphthene	µg/L		0.34 J	5.2 U	0.13 J	--
Acenaphthylene	µg/L		5.1 U	5.2 U	5.0 U	--
Acetophenone	µg/L		5.1 U	5.2 U	5.0 U	--
Anthracene	µg/L		5.1 U	5.2 U	5.0 U	--
Atrazine	µg/L		3.0 U	3.1 U	3.0 U	--
Benzaldehyde	µg/L		5.1 U	5.2 U	5.0 U	--
Benzo(a)anthracene	µg/L		1.0 U	1.0 U	0.99 U	--
Benzo(a)pyrene	µg/L		1.0 U	1.0 U	0.99 U	--
Benzo(b)fluoranthene	µg/L		1.0 U	1.0 U	0.99 U	--
Benzo(g,h,i)perylene	µg/L		1.0 U	1.0 U	0.99 U	--
Benzo(k)fluoranthene	µg/L		1.0 U	1.0 U	0.99 U	--
Biphenyl (1,1-Biphenyl)	µg/L		0.84 J	0.30 J	0.31 J	--
bis(2-Chloroethoxy)methane	µg/L		5.1 U	5.2 U	5.0 U	--
bis(2-Chloroethyl)ether	µg/L		1.0 U	1.0 U	0.99 U	--
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L		5.1 U	5.2 U	5.0 U	--
Butyl benzylphthalate (BBP)	µg/L		5.1 U	5.2 U	5.0 U	--
Caprolactam	µg/L		10 U	10 U	9.9 U	--
Carbazole	µg/L		10 U	10 U	9.9 U	--
Chrysene	µg/L		1.0 U	1.0 U	0.99 U	--
Dibenz(a,h)anthracene	µg/L		2.0 U	2.1 U	2.0 U	--
Dibenzofuran	µg/L		0.30 J	4.1 U	4.0 U	--
Diethyl phthalate	µg/L		5.1 U	5.2 U	5.0 U	--
Dimethyl phthalate	µg/L		5.1 U	5.2 U	5.0 U	--
Di-n-butylphthalate (DBP)	µg/L		5.1 U	5.2 U	5.0 U	--
Di-n-octyl phthalate (DnOP)	µg/L		5.1 U	5.2 U	5.0 U	--

TABLE 2

**ANALYTICAL RESULTS SUMMARY  
QUARTERLY GROUNDWATER MONITORING  
GENERAL MOTORS JANESVILLE ASSEMBLY PLANT  
JANESVILLE, WISCONSIN  
JUNE 2015**

	<i>Sample Location:</i>	<i>MW4</i>	<i>MW-10S</i>	<i>MW-10S</i>	<i>Trip Blank</i>
	<i>Sample Identification:</i>	<i>GW-060215-JK-03</i>	<i>GW-060215-JK-01</i>	<i>GW-060215-JK-02</i>	<i>TRIP BLANK</i>
	<i>Sample Date:</i>	<i>6/2/2015</i>	<i>6/2/2015</i>	<i>6/2/2015</i>	<i>6/2/2015</i>
	<i>Sample Type:</i>			<i>Duplicate</i>	
<i>Parameter</i>					
	<i>Units</i>				
<b><i>Semi-Volatile Organic Compounds (Continued)</i></b>					
Fluoranthene	µg/L	1.0 U	1.0 U	0.99 U	--
Fluorene	µg/L	0.39 J	0.16 J	0.16 J	--
Hexachlorobenzene	µg/L	0.20 U	0.21 U	0.20 U	--
Hexachlorobutadiene	µg/L	1.0 U	1.0 U	0.99 U	--
Hexachlorocyclopentadiene	µg/L	5.1 U	5.2 U	5.0 U	--
Hexachloroethane	µg/L	5.1 U	5.2 U	5.0 U	--
Indeno(1,2,3-cd)pyrene	µg/L	2.0 U	2.1 U	2.0 U	--
Isophorone	µg/L	5.1 U	5.2 U	5.0 U	--
Naphthalene	µg/L	48 J	5.2 U	5.0 U	--
Nitrobenzene	µg/L	3.0 U	3.1 U	3.0 U	--
N-Nitrosodi-n-propylamine	µg/L	5.1 U	5.2 U	5.0 U	--
N-Nitrosodiphenylamine	µg/L	5.1 U	5.2 U	5.0 U	--
Pentachlorophenol	µg/L	5.1 U	5.2 U	5.0 U	--
Phenanthrene	µg/L	0.13 J	0.10 J	2.0 U	--
Phenol	µg/L	5.1 U	5.2 U	5.0 U	--
Pyrene	µg/L	5.1 U	5.2 U	5.0 U	--
<b><i>Metals</i></b>					
Antimony	µg/L	2.0 U	2.0 U	2.0 U	--
Antimony (dissolved)	µg/L	2.0 U	2.0 U	2.0 U	--
Arsenic	µg/L	5.0 U	5.0 U	5.0 U	--
Arsenic (dissolved)	µg/L	5.0 U	5.0 U	5.0 U	--
Barium	µg/L	98 J	120	120	--
Barium (dissolved)	µg/L	100	110	110	--
Beryllium	µg/L	1.0 U	1.0 U	1.0 U	--
Beryllium (dissolved)	µg/L	1.0 U	1.0 U	1.0 U	--
Cadmium	µg/L	1.0 U	1.0 U	1.0 U	--
Cadmium (dissolved)	µg/L	1.0 U	1.0 U	1.0 U	--
Chromium	µg/L	5.0 U	5.0 U	5.0 U	--
Chromium (dissolved)	µg/L	5.0 U	5.0 U	5.0 U	--
Chromium III (trivalent)	µg/L	20 U	20 U	20 U	--
Chromium VI (hexavalent)	µg/L	40 U	20 U	20 U	--
Cobalt	µg/L	7.0 U	7.0 U	7.0 U	--
Cobalt (dissolved)	µg/L	7.0 U	7.0 U	7.0 U	--
Copper	µg/L	2.0 U	2.0 U	2.0 U	--
Copper (dissolved)	µg/L	2.0 U	2.0 U	2.0 U	--
Lead	µg/L	3.0 U	3.0 U	3.0 U	--
Lead (dissolved)	µg/L	3.0 U	3.0 U	3.0 U	--
Manganese	µg/L	500	310	330	--
Manganese (dissolved)	µg/L	510	330	330	--
Mercury	µg/L	0.20 U	0.20 U	0.20 U	--
Mercury (dissolved)	µg/L	0.20 U	0.20 U	0.20 U	--
Nickel	µg/L	20 U	20 U	20 U	--
Nickel (dissolved)	µg/L	20 U	20 U	20 U	--
Selenium	µg/L	5.0 U	5.0 U	5.0 U	--
Selenium (dissolved)	µg/L	5.0 U	5.0 U	5.0 U	--



TABLE 2

**ANALYTICAL RESULTS SUMMARY  
 QUARTERLY GROUNDWATER MONITORING  
 GENERAL MOTORS JANESVILLE ASSEMBLY PLANT  
 JANESVILLE, WISCONSIN  
 JUNE 2015**

	<i>Sample Location:</i>	<i>MW4</i>	<i>MW-10S</i>	<i>MW-10S</i>	<i>Trip Blank</i>
	<i>Sample Identification:</i>	<i>GW-060215-JK-03</i>	<i>GW-060215-JK-01</i>	<i>GW-060215-JK-02</i>	<i>TRIP BLANK</i>
	<i>Sample Date:</i>	<i>6/2/2015</i>	<i>6/2/2015</i>	<i>6/2/2015</i>	<i>6/2/2015</i>
	<i>Sample Type:</i>			<i>Duplicate</i>	
<i>Parameter</i>		<i>Units</i>			
<b>Metals (Continued)</b>					
Silver		µg/L	0.20 U	0.20 U	0.20 U
Silver (dissolved)		µg/L	0.20 U	0.20 U	0.20 U
Thallium		µg/L	1.0 U	1.0 U	1.0 U
Thallium (dissolved)		µg/L	1.0 U	1.0 U	1.0 U
Vanadium		µg/L	4.0 U	4.0 U	4.0 U
Vanadium (dissolved)		µg/L	4.0 U	4.0 U	4.0 U
Zinc		µg/L	20 U	20 U	20 U
Zinc (dissolved)		µg/L	20 U	20 U	20 U

## Notes:

-- Not analyzed

U - Not detected at the associated reporting limit

J - Estimated concentration

UJ - Not detected; associated reporting limit is estimated

TABLE 3

**ANALYTICAL METHODS AND HOLDING TIME CRITERIA  
 QUARTERLY GROUNDWATER MONITORING  
 GENERAL MOTORS JANESVILLE ASSEMBLY PLANT  
 JANESVILLE, WISCONSIN  
 JUNE 2015**

<i>Parameter</i>	<i>Method</i>	<i>Matrix</i>	<i>Preservation</i>	<i>Holding Time</i>	
				<i>Collection to Extraction (Days)</i>	<i>Collection or Extraction to Analysis (Days)</i>
TCL VOC + TMB	SW-846 8260	Water	pH < 2 and Iced, 4 ± 2° C	-	14
TCL SVOC	SW-846 8270C	Water	Iced, 4 ± 2° C	7	40
TAL Metals	SW-846 6020	Water	pH < 2 and Iced, 4 ± 2° C	-	180
Mercury	SW-846 7470A/7471A	Water	pH < 2 and Iced, 4 ± 2° C	-	28
Hexavalent Chromium	SW-846 7196	Water	Iced, 4 ± 2° C	-	24 hours
Trivalent Chromium	SW-846 7196	Water	Iced, 4 ± 2° C	-	24 hours

## Notes:

SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions

TCL - Target Compound List

VOC - Volatile Organic Compounds

TMB - Trimethylbenzene

SVOC - Semi-volatile Organic Compounds

TAL - Target Analyte List

TABLE 4

**QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE METHOD BLANKS**  
**QUARTERLY GROUNDWATER MONITORING**  
**GENERAL MOTORS JANESVILLE ASSEMBLY PLANT**  
**JANESVILLE, WISCONSIN**  
**JUNE 2015**

<i>Parameter</i>	<i>Analyte</i>	<i>Analysis Date</i>	<i>Blank Result</i>	<i>Sample ID</i>	<i>Original Result</i>	<i>Qualified Result</i>	<i>Units</i>
Metals	Arsenic	06/05/2015	0.224 J	GW-060215-JK-01	1.9 J	5.0 U	µg/L
				GW-060215-JK-02	2.0 J	5.0 U	µg/L
				GW-060215-JK-03	2.3 J	5.0 U	µg/L
Metals	Arsenic (dissolved)	06/05/2015	0.224 J	GW-060215-JK-01	2.1 J	5.0 U	µg/L
				GW-060215-JK-02	2.1 J	5.0 U	µg/L
				GW-060215-JK-03	3.7 J	5.0 U	µg/L
Metals	Chromium	06/05/2015	1.37 J	GW-060215-JK-01	1.7 J	5.0 U	µg/L
				GW-060215-JK-02	1.8 J	5.0 U	µg/L
				GW-060215-JK-03	1.4 J	5.0 U	µg/L
Metals	Chromium (dissolved)	06/05/2015	1.37 J	GW-060215-JK-01	1.5 J	5.0 U	µg/L
				GW-060215-JK-02	1.5 J	5.0 U	µg/L
				GW-060215-JK-03	1.5 J	5.0 U	µg/L
Metals	Cobalt	06/05/2015	0.0990 J	GW-060215-JK-01	0.16 J	7.0 U	µg/L
				GW-060215-JK-02	0.16 J	7.0 U	µg/L
				GW-060215-JK-03	0.31 J	7.0 U	µg/L
Metals	Cobalt (dissolved)	06/05/2015	0.0990 J	GW-060215-JK-01	0.15 J	7.0 U	µg/L
				GW-060215-JK-02	0.15 J	7.0 U	µg/L
				GW-060215-JK-03	0.37 J	7.0 U	µg/L
Metals	Lead	06/05/2015	0.317 J	GW-060215-JK-03	0.13 J	3.0 U	µg/L
Metals	Lead (dissolved)	06/05/2015	0.317 J	GW-060215-JK-03	0.15 J	3.0 U	µg/L
Metals	Nickel	06/05/2015	0.534 J	GW-060215-JK-01	1.3 J	20 U	µg/L
				GW-060215-JK-02	1.4 J	20 U	µg/L
				GW-060215-JK-03	0.87 J	20 U	µg/L
Metals	Nickel (dissolved)	06/05/2015	0.534 J	GW-060215-JK-01	1.0 J	20 U	µg/L
				GW-060215-JK-02	1.1 J	20 U	µg/L
				GW-060215-JK-03	1.0 J	20 U	µg/L
Metals	Thallium (dissolved)	06/05/2015	0.276 J	GW-060215-JK-03	0.30 J	1.0 U	µg/L
Metals	Vanadium	06/05/2015	0.897 J	GW-060215-JK-01	1.1 J	4.0 U	µg/L
				GW-060215-JK-02	1.1 J	4.0 U	µg/L
				GW-060215-JK-03	1.1 J	4.0 U	µg/L
Metals	Vanadium (dissolved)	06/05/2015	0.897 J	GW-060215-JK-01	0.98 J	4.0 U	µg/L
				GW-060215-JK-02	0.99 J	4.0 U	µg/L
				GW-060215-JK-03	1.1 J	4.0 U	µg/L

## Notes:

U - Not detected at the associated reporting limit

J - Estimated concentration

**TABLE 5**  
**QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE INSTRUMENT BLANKS**  
**QUARTERLY GROUNDWATER MONITORING**  
**GENERAL MOTORS JANESVILLE ASSEMBLY PLANT**  
**JANESVILLE, WISCONSIN**  
**JUNE 2015**

<i>Parameter</i>	<i>Analyte</i>	<i>Blank ID</i>	<i>Analysis Date</i>	<i>Blank Result</i>	<i>Sample ID</i>	<i>Original Result</i>	<i>Qualified Result</i>	<i>Units</i>
Metals	Antimony (dissolved)	CCB 3	6/5/2015	0.238 J	GW-060215-JK-03	0.24 J	2.0 U	µg/L
Metals	Beryllium	CCB 3	6/5/2015	0.330 J	GW-060215-JK-01	0.099 J	1.0 U	µg/L
					GW-060215-JK-02	0.062 J	1.0 U	µg/L
Metals	Beryllium (dissolved)	CCB 3	6/5/2015	0.330 J	GW-060215-JK-01	0.090 J	1.0 U	µg/L
					GW-060215-JK-02	0.078 J	1.0 U	µg/L
					GW-060215-JK-03	0.78 J	1.0 U	µg/L
Metals	Cadmium (dissolved)	CCB 3	6/5/2015	0.102 J	GW-060215-JK-03	0.29 J	1.0 U	µg/L
Metals	Selenium	CCB 3	6/5/2015	0.286 J	GW-060215-JK-01	0.63 J	5.0 U	µg/L
					GW-060215-JK-02	0.51 J	5.0 U	µg/L
					GW-060215-JK-03	0.27 J	5.0 U	µg/L
Metals	Selenium (dissolved)	CCB 3	6/5/2015	0.286 J	GW-060215-JK-01	0.36 J	5.0 U	µg/L
					GW-060215-JK-02	0.43 J	5.0 U	µg/L
					GW-060215-JK-03	1.6 J	5.0 U	µg/L

## Notes:

- CCB - Continuing Calibration Blank
- ICB - Initial Calibration Blank
- U - Not detected at the associated reporting limit
- J - Estimated concentration

**TABLE 6**  
**QUALIFIED SAMPLE RESULTS DUE TO OUTLYING MS/MSD RESULTS**  
**QUARTERLY GROUNDWATER MONITORING**  
**GENERAL MOTORS JANESVILLE ASSEMBLY PLANT**  
**JANESVILLE, WISCONSIN**  
**JUNE 2015**

<i>Parameter</i>	<i>Sample ID</i>	<i>Analyte</i>	<i>MS</i> <i>% Recovery</i>	<i>MSD</i> <i>% Recovery</i>	<i>RPD</i> <i>(percent)</i>	<i>Control Limits</i>		<i>Qualified</i> <i>Result</i>	<i>Units</i>
						<i>% Recovery</i>	<i>RPD</i>		
TCL VOC	GW-060215-JK-03	1,2,4-Trimethylbenzene	143	152	2	67 - 124	30	330 J	µg/L
TCL SVOC	GW-060215-JK-03	2-Methylnaphthalene	36	48	5	50 - 110	37	26 J	µg/L
		4-Chloroaniline	13	18	24	20 - 110	50	10 UJ	µg/L
		Naphthalene	-3	7	4	35 - 110	58	48 J	µg/L

## Notes:

MS - Matrix Spike

MSD - Matrix Spike Duplicate

RPD - Relative Percent Difference

J - Estimated concentration

UJ - Not detected; associated reporting limit is estimated



# Memorandum

To: Julie Charlton

Ref. No.: 058507-108011

From: Kathy Shaw 

Date: October 20, 2015

**Re: Analytical Results and Full Validation  
Quarterly Groundwater Monitoring  
General Motors Janesville Assembly Plant  
Janesville, Wisconsin  
August 2015**

## 1. Introduction

This document details a validation of analytical results for groundwater samples collected in support of Quarterly Groundwater Monitoring at the General Motors Janesville Assembly Plant Site during August 2015. The samples were submitted to TestAmerica Laboratories, Inc., located in North Canton, Ohio. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Full Contract Laboratory Program (CLP) equivalent raw data deliverables were provided by the laboratory. Evaluation of the data was based on information obtained from the finished data sheets, raw data, chain of custody forms, calibration data, blank data, recovery data from surrogate spikes/laboratory control samples (LCS)/matrix spike (MS) samples, and field quality assurance/quality control (QA/QC) samples. The assessment of analytical and in-house data included checks for: data consistency (by observing comparability of duplicate analyses), adherence to accuracy and precision criteria, and transmittal errors.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the documents entitled:

- i) QAPP - General Motors Janesville Assembly Plant, Janesville, Wisconsin, September, 2014.
- ii) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review", USEPA 540-R-10-011, January 2010
- iii) "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review", USEPA 540-R-08-01, June 2008

Items i), ii), and iii) will subsequently be referred to as the "Guidelines" in this Memorandum.

## 2. Sample Holding Time and Preservation

The sample holding time criteria and sample preservation requirements for the analyses are summarized in Table 3. Sample chain of custody documents and analytical reports were used to determine sample holding times. All samples were prepared and analyzed within the required holding times.

All samples were properly preserved, delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

## 3. Gas Chromatography/Mass Spectrometer (GC/MS) – Tuning and Mass Calibration (Instrument Performance Check) and Inductively Coupled Plasma/Mass Spectrometer (ICP/MS)

### 3.1 Organic Analyses

Prior to volatile organic compound (VOC) and semi-volatile organic compound (SVOC) analysis, GC/MS instrumentation is tuned to ensure optimization over the mass range of interest. To evaluate instrument tuning, methods require the analysis of specific tuning compounds bromofluorobenzene (BFB) and decafluorotriphenylphosphine (DFTPP), respectively. The resulting spectra must meet the criteria cited in the methods before analysis is initiated. Analysis of the tuning compound must then be repeated every 12 hours throughout sample analysis to ensure the continued optimization of the instrument.

Tuning compounds were analyzed at the required frequency throughout VOC and SVOC analysis periods. All tuning criteria were met, indicating that proper optimization of the instrumentation was achieved.

### 3.2 Inorganic Analyses

To ensure adequate mass resolution, identification, and to some degree, sensitivity, the performance of each ICP/MS instrument used for metals analyses is checked prior to calibration and initiating an analysis sequence through the analysis of a tuning solution.

Instrument performance check data were reviewed. The tuning solution was analyzed at the required frequency throughout the analyses. The results of all instrument performance checks were within the method acceptance criteria, indicating that proper optimization of the instrumentation was achieved.

## 4. Initial Calibration - Organic Analyses

### 4.1 GC/MS

To quantify VOCs and SVOCs of interest in samples, calibration of the GC/MS over a specific concentration range must be performed. Initially, a five-point calibration curve containing all compounds of interest is analyzed to characterize instrument response for each analyte over a specific concentration range. Linearity of the calibration curve and instrument sensitivity are evaluated against the following criteria:

- i) All relative response factors (RRFs) must be greater than or equal to 0.050 (greater than or equal to 0.010 for compounds that exhibit poor response)



- ii) The percent relative standard deviation (%RSD) values must not exceed 20.0 percent (40.0 percent for compounds that exhibit poor response) or a minimum correlation coefficient (R) and minimum coefficient of determination (R<sup>2</sup>) of 0.99 if linear and quadratic equation calibration curves are used

The initial calibration data for VOCs and SVOCs were reviewed. All compounds met the above criteria for sensitivity and linearity.

## 5. Initial Calibration – Inorganic Analyses

Initial calibration of the instruments ensures that they are capable of producing satisfactory quantitative data at the beginning of a series of analyses. For ICP/MS analysis, a calibration blank and at least one standard must be analyzed at each wavelength to establish the analytical curve. For mercury atomic absorption (AA) analyses, a calibration blank and a minimum of five standards must be analyzed to establish the analytical curve, and resulting correlation coefficients (R) must be 0.995 or greater. For instrumental general chemistry analyses, a calibration blank and a minimum of five (this could vary by method) standards must be analyzed to establish the analytical curve, and resulting correlation coefficients (R) must be 0.995 or greater.

After the analyses of the calibration curves, an initial calibration verification (ICV) standard must be analyzed to verify the analytical accuracy of the calibration curves. All analyte recoveries from the analyses of the ICVs must be within the following control limits:

Analytical Method	Parameter	Control Limits
Cold Vapor AA	Mercury	80 - 120%
Instrumental Wet Chemistry	Hexavalent Chromium	85 - 115%

Upon review of the data, it was determined that the calibration curves and ICVs were analyzed at the proper frequencies and that all of the above-specified criteria were met. The laboratory effectively demonstrated that the instrumentation used for metals and general chemistry analyses were properly calibrated prior to sample analysis.

## 6. Continuing Calibration - Organic Analyses

### 6.1 GC/MS

To ensure that instrument calibration for VOC and SVOC analyses is acceptable throughout the sample analysis period, continuing calibration standards must be analyzed and compared to the initial calibration curve every 12 hours.

The following criteria were employed to evaluate continuing calibration data:

- i) All RRF values must be greater than or equal to 0.050 (greater than or equal to 0.010 for compounds that exhibit poor response)
- ii) Percent difference (%D) values must not exceed 25.0 percent (40.0 percent for compounds that exhibit poor response)

The calibration standards were analyzed at the required frequency, and the results met the above criteria for instrument sensitivity. Some continuing calibration standard results indicated variability in instrument response for various compounds yielding a high %D. Associated results affected by the change in instrument response are qualified in Table 4.

## 7. Continuing Calibration - Inorganic Analyses

To ensure that instrument calibration is acceptable throughout the sample analysis period, continuing calibration verification (CCV) standards are analyzed on a regular basis. Each CCV is deemed acceptable if all analyte recoveries are within the control limits specified above for the ICVs. If some of the CCV analyte recoveries are outside the control limits, samples analyzed before and after the CCV, up until the previous and preceding CCV analyses, are affected.

For this study, CCVs were analyzed at the proper frequency. All analyte recoveries reported for the CCVs were within the specified limits.

## 8. Contract Required Detection Limit (CRDL) Standard Analyses

To verify the linearity of the ICP/MS calibration near the detection limit, a standard is analyzed which contains the ICP/MS analytes at specified concentrations. This standard must be analyzed at the beginning and end of each sample analysis run or a minimum of twice per 8-hour period.

CRDL recoveries were evaluated using the criteria specified in the October 2004 "Guidelines". The CRDL recoveries were acceptable.

## 9. Laboratory Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures. Additionally, initial and continuing calibration blanks (ICBs/CCBs) are routinely analyzed after each ICV/CCV for the inorganic parameters.

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

### 9.1 Organic Analyses

All method blank results were non-detect with the exception of low concentrations of acetone and methylene chloride (common laboratory contaminants). Associated samples with acetone and methylene chloride concentrations similar to the blank concentrations were qualified as non-detect in Table 5.

### 9.2 Inorganic Analyses

Upon review of the ICBs, CCBs, and method blanks, it was noted that metal concentrations were observed above the method detection limit (MDL). Associated positive sample results with similar concentrations to the levels reported in the method blanks were qualified as non-detect in Table 5 and, the associated positive

sample results with similar concentrations to the levels reported in the instrument blanks were qualified as non-detect in Table 6.

## 10. Surrogate Spike Recoveries

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for VOC and SVOC determinations were spiked with the appropriate number of surrogate compounds prior to sample extraction and/or analysis.

Each individual surrogate compound is expected to meet the laboratory control limits with the exception of SVOC analyses. According to the "Guidelines" for SVOC analyses, up to one outlying surrogate in the base/neutral or acid fraction is acceptable as long as the recovery is at least 10 percent.

Surrogate recoveries were assessed against laboratory control limits. All surrogate recoveries met the laboratory criteria.

## 11. Internal Standards (IS) Analyses

IS data were evaluated for all VOC, SVOC, and ICP/MS metals sample analyses.

### 11.1 Organics Analyses

To ensure that changes in the GC/MS sensitivity and response do not affect sample analysis results IS compounds are added to each sample prior to analysis. All results are then calculated as a ratio of the IS responses.

The sample IS results were evaluated against the following criteria:

- i) The retention time of the IS must not vary more than  $\pm 30$  seconds from the associated calibration standard
- ii) IS area counts must not vary by more than a factor of two (-50 percent to +100 percent) from the associated calibration standard

All organic IS recoveries and retention times met the above criteria.

### 11.2 Inorganic Analyses

IS elements were added to all samples prior to metals analysis by ICP/MS. Overall instrument stability and performance for metals analyses were monitored using the IS intensity data. IS recoveries were assessed using control limits of 60-125 percent.

All inorganic IS recoveries were acceptable, demonstrating adequate analytical performance.

## 12. Laboratory Control Sample Analyses

The LCS are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects.

For this study, the LCS was analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

### 12.1 Organic Analyses

The LCS contained all compounds of interest (the compounds specified in the method). All LCS recoveries were within the laboratory control limits, demonstrating acceptable analytical accuracy.

### 12.2 Inorganic Analyses

The LCS contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries were within the control limits, demonstrating acceptable analytical accuracy.

## 13. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with known concentrations of the analytes of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision. If the original sample concentration is significantly greater than the spike concentration, the recovery is not assessed.

MS/MSD analyses were performed as specified in Table 1. The laboratory performed additional site-specific MS/MSD analyses internally.

### 13.1 Organic Analyses

The MS/MSD samples were spiked with all compounds of interest. All percent recoveries and RPD values were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision with the exception of the samples qualified in Table 7.

Samples associated with outlying recoveries were qualified as follows:

- i) Non-detect results associated with low MS/MSD recoveries greater than ten percent were qualified as estimated
- ii) Non-detect results associated with MS or MSD recoveries less than ten percent were rejected due to the demonstrated poor analytical efficiency

### 13.2 Inorganic Analyses

The MS/MSD samples were spiked with the analytes of interest, and the results were evaluated using the "Guidelines". All percent recoveries and RPD values were within the control limits, demonstrating acceptable analytical accuracy and precision.

## 14. ICP Interference Check Sample Analysis (ICS)

To verify that the laboratory has established proper inter-element and background correction factors, ICSs are analyzed. These samples contain high concentrations of aluminum, calcium, magnesium, and iron and are analyzed at the beginning and end of each sample analysis period. The ICSs are evaluated against recovery control limits of 80 to 120 percent.

ICS analysis results were evaluated for all samples using the criteria in the "Guidelines". All ICS recoveries and results were acceptable.

## 15. Field QA/QC Samples

The field QA/QC consisted of five trip blank samples, and four field duplicate sample sets.

### 15.1 Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, five trip blanks were submitted to the laboratory for VOC analysis. Acetone was present in a trip blank sample.

- i) Positive sample results with concentrations less than that of the trip blank were qualified as non-detect in Table 8

### 15.2 Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, four field duplicate samples were collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than 50 percent for water samples. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criteria is one time the RL value for water samples.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision.

## 16. Analyte Reporting

The laboratory reported detected results down to the laboratory's MDL for each analyte. Positive analyte detections less than the RL but greater than the MDL were qualified as estimated (J) in Table 2 unless qualified otherwise in this memorandum. Non-detect results were presented as non-detect at the RL in Table 2.

Hexavalent chromium was reported in two samples without total chromium detected and were qualified as estimated in Table 9.

## 17. Target Compound Identification

To minimize erroneous compound identification during organic analyses, qualitative criteria including compound retention time and mass spectra were evaluated according to the identification criteria established by the methods. The samples identified in Table 1 were reviewed. The organic compounds reported adhered to the specified identification criteria.

## 18. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable with the specific exceptions and qualifications noted herein.

Table 1

**Sample Collection and Analysis Summary  
Quarterly Groundwater Monitoring  
General Motors Janesville Assembly Plant  
Janesville, Wisconsin  
August 2015**

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters				Comments
					TAL* Metals T/D	Hex/Tri Cr	TCL VOC + TMB	TCL SVOC	
<b>GW-082415-JL-01</b>	<b>MW-4D</b>	<b>Water</b>	<b>08/24/2015</b>	<b>03:00</b>	X	X	X	X	
<b>GW-082415-JL-02</b>	<b>MW-4S</b>	<b>Water</b>	<b>08/24/2015</b>	<b>03:05</b>	X	X	X	X	
TRIP BLANK	--	Water	08/24/2015	00:00			X		Trip Blank
GW-082515-JL-03	MW-14S	Water	08/25/2015	10:40	X	X	X	X	
GW-082515-JL-04	MW-13S	Water	08/25/2015	10:45	X	X	X	X	
GW-082515-JL-07	MW-3S	Water	08/25/2015	01:55	X	X	X	X	
GW-082515-JL-08	MW-12S	Water	08/25/2015	02:05	X	X	X	X	
GW-082515-JL-09	MW-3D	Water	08/25/2015	03:00	X	X	X	X	
GW-082515-JL-10	MW-3D	Water	08/25/2015	03:15	X	X	X	X	Field Duplicate (MW-3D)
GW-082515-JL-11	MW-11S	Water	08/25/2015	03:15	X	X	X	X	
GW-082515-JL-12	MW-10S	Water	08/25/2015	04:15	X	X	X	X	
TRIP BLANK	--	Water	08/25/2015	8/25/2015			X		Trip Blank
<b>GW-082515-JL-05</b>	<b>MW-26S</b>	<b>Water</b>	<b>08/25/2015</b>	<b>11:55</b>	X	X	X	X	
<b>GW-082515-JL-06</b>	<b>MW-27S</b>	<b>Water</b>	<b>08/25/2015</b>	<b>12:00</b>	X	X	X	X	
GW-082615-JL-13	MW2	Water	08/26/2015	10:35	X	X	X	X	
TRIP BLANK	--	Water	08/26/2015	8/26/2015			X		Trip Blank
GW-082615-JL-14	MW4	Water	08/26/2015	10:40	X	X	X	X	
GW-082615-JL-15	MW5	Water	08/26/2015	11:25	X	X	X	X	
GW-082615-JL-16	MW-9S	Water	08/26/2015	12:00	X	X	X	X	MS/MSD
GW-082615-JL-17	MW-2S	Water	08/26/2015	02:10	X	X	X	X	



Table 1

**Sample Collection and Analysis Summary  
Quarterly Groundwater Monitoring  
General Motors Janesville Assembly Plant  
Janesville, Wisconsin  
August 2015**

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters				Comments
					TAL* Metals T/D	Hex/Tri Cr	TCL VOC + TMB	TCL SVOC	
GW-082615-JL-18	MW-2D	Water	08/26/2015	02:25	X	X	X	X	
GW-082615-JL-19	MW-17S	Water	08/26/2015	03:15	X	X	X	X	
GW-082615-JL-20	MW-17S	Water	08/26/2015	03:30	X	X	X	X	Field Duplicate (MW-17S)
GW-082615-JL-21	MW-20S	Water	08/26/2015	03:50	X	X	X	X	
GW-082715-JL-22	MW-22S	Water	08/27/2015	10:30	X	X	X	X	
GW-082715-JL-31	MW-1D	Water	08/27/2015	04:55	X	X	X	X	
TRIP BLANK	--	Water	08/27/2015	8/27/2015			X		Trip Blank
GW-082715-JL-23	MW-24S	Water	08/27/2015	10:55	X	X	X	X	
GW-082715-JL-24	MW-25S	Water	08/27/2015	11:40	X	X	X	X	
GW-082715-JL-25	MW-7S	Water	08/27/2015	12:20	X	X	X	X	
GW-082715-JL-26	MW-8S	Water	08/27/2015	02:30	X	X	X	X	
GW-082715-JL-27	MW-7D	Water	08/27/2015	01:40	X	X	X	X	
GW-082715-JL-28	MW-1S	Water	08/27/2015	03:45	X	X	X	X	
GW-082715-JL-29	MW-16S	Water	08/27/2015	04:20	X	X	X	X	
GW-082715-JL-30	MW-16S	Water	08/27/2015	04:40	X	X	X	X	Field Duplicate (MW-16S)
GW-082815-JL-32	MW-5D	Water	08/28/2015	10:35	X	X	X	X	
GW-082815-JL-41	MW-15S	Water	08/28/2015	04:50	X	X	X	X	
TRIP BLANK	--	Water	08/28/2015	8/28/2015			X		Trip Blank
GW-082815-JL-33	MW-5S	Water	08/28/2015	10:40	X	X	X	X	
GW-082815-JL-34	MW-19S	Water	08/28/2015	11:20	X	X	X	X	MS/MSD

Table 1

**Sample Collection and Analysis Summary  
Quarterly Groundwater Monitoring  
General Motors Janesville Assembly Plant  
Janesville, Wisconsin  
August 2015**

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters				Comments
					TAL* Metals T/D	Hex/Tri Cr	TCL VOC + TMB	TCL SVOC	
GW-082815-JL-35	MW-6S	Water	08/28/2015	12:00	X	X	X	X	
GW-082815-JL-36	MW-23S	Water	08/28/2015	01:45	X	X	X	X	
GW-082815-JL-37	MW-6D	Water	08/28/2015	02:15	X	X	X	X	
GW-082815-JL-38	MW-6D	Water	08/28/2015	02:25	X	X	X	X	Field Duplicate (MW-6D)
GW-082815-JL-39	MW-21S	Water	08/28/2015	03:55	X	X	X	X	
GW-082815-JL-40	MW-18S	Water	08/28/2015	03:45	X	X	X	X	

**The samples in bold font received full validation**

Notes:

- Cr - Chromium
- Hex/Tri - Hexavalent/Trivalent
- MS/MSD - Matrix Spike/Matrix Spike Duplicate
- SVOC - Semi-volatile Organic Compounds
- T/D - Total/dissolved
- TAL\* - Target Analyte List - less earth metals
- TCL - Target Compound List
- TMB - Trimethylbenzene
- VOC - Volatile Organic Compounds

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

<b>Sample Location:</b>	<b>MW-1D</b>	<b>MW-1S</b>	<b>MW2</b>	<b>MW-2D</b>	<b>MW-2S</b>	<b>MW-3D</b>
<b>Sample Identification:</b>	<b>GW-082715-JL-31</b>	<b>GW-082715-JL-28</b>	<b>GW-082615-JL-13</b>	<b>GW-082615-JL-18</b>	<b>GW-082615-JL-17</b>	<b>GW-082515-JL-09</b>
<b>Sample Date:</b>	<b>8/27/2015</b>	<b>8/27/2015</b>	<b>8/26/2015</b>	<b>8/26/2015</b>	<b>8/26/2015</b>	<b>8/25/2015</b>
<b>Sample Type:</b>						

<b>Parameter</b>	<b>Units</b>						
<b>Volatile Organic Compounds</b>							
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	µg/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Sample Location:	MW-1D	MW-1S	MW2	MW-2D	MW-2S	MW-3D
Sample Identification:	GW-082715-JL-31	GW-082715-JL-28	GW-082615-JL-13	GW-082615-JL-18	GW-082615-JL-17	GW-082515-JL-09
Sample Date:	8/27/2015	8/27/2015	8/26/2015	8/26/2015	8/26/2015	8/25/2015
Sample Type:						
Parameter	Units					
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	10 U	10 U	10 U	10 U	10 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
<b>Semi-Volatile Organic Compounds</b>						
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	4.8 U
2,4,5-Trichlorophenol	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	4.8 U
2,4,6-Trichlorophenol	µg/L	4.0 U	3.8 U	3.9 U	3.8 U	3.8 U
2,4-Dichlorophenol	µg/L	0.24 J	9.5 U	9.7 U	9.5 U	9.5 U
2,4-Dimethylphenol	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	4.8 U
2,4-Dinitrophenol	µg/L	20 U	19 U	19 U	19 U	19 U
2,4-Dinitrotoluene	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	4.8 U
2,6-Dinitrotoluene	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	4.8 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Sample Location:	MW-1D	MW-1S	MW2	MW-2D	MW-2S	MW-3D
Sample Identification:	GW-082715-JL-31	GW-082715-JL-28	GW-082615-JL-13	GW-082615-JL-18	GW-082615-JL-17	GW-082515-JL-09
Sample Date:	8/27/2015	8/27/2015	8/26/2015	8/26/2015	8/26/2015	8/25/2015
Sample Type:						

Parameter	Units						
<b>Semi-Volatile Organic Compounds (Continued)</b>							
2-Chloronaphthalene	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
2-Chlorophenol	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
2-Methylnaphthalene	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
2-Methylphenol	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
2-Nitroaniline	µg/L	20 U	19 U	19 U	19 U	21 U	19 U
2-Nitrophenol	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
3&4-Methylphenol	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
3,3'-Dichlorobenzidine	µg/L	0.99 U	0.95 U	0.97 U	0.95 U	1.0 U	0.95 U
3-Nitroaniline	µg/L	20 U	19 U	19 U	19 U	21 U	19 U
4,6-Dinitro-2-methylphenol	µg/L	20 U	19 U	19 U	19 U	21 U	19 U
4-Bromophenyl phenyl ether	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
4-Chloro-3-methylphenol	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
4-Chloroaniline	µg/L	9.9 U	9.5 U	9.7 U	9.5 U	10 U	9.5 U
4-Chlorophenyl phenyl ether	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
4-Nitroaniline	µg/L	20 U	19 U	19 U	19 U	21 U	19 U
4-Nitrophenol	µg/L	20 U	19 U	19 U	19 U	21 U	19 U
Acenaphthene	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
Acenaphthylene	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
Acetophenone	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
Anthracene	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
Atrazine	µg/L	3.0 U	2.9 U	2.9 U	2.9 U	3.1 U	2.9 U
Benzaldehyde	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
Benzo(a)anthracene	µg/L	0.99 U	0.95 U	0.97 U	0.95 U	1.0 U	0.95 U
Benzo(a)pyrene	µg/L	0.99 U	0.95 U	0.97 U	0.95 U	1.0 U	0.95 U
Benzo(b)fluoranthene	µg/L	0.99 U	0.95 U	0.97 U	0.95 U	1.0 U	0.95 U
Benzo(g,h,i)perylene	µg/L	0.99 U	0.95 U	0.97 U	0.95 U	1.0 U	0.95 U
Benzo(k)fluoranthene	µg/L	0.99 U	0.95 U	0.97 U	0.95 U	1.0 U	0.95 U
Biphenyl (1,1-Biphenyl)	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
bis(2-Chloroethoxy)methane	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Sample Location:	MW-1D	MW-1S	MW2	MW-2D	MW-2S	MW-3D	
Sample Identification:	GW-082715-JL-31	GW-082715-JL-28	GW-082615-JL-13	GW-082615-JL-18	GW-082615-JL-17	GW-082515-JL-09	
Sample Date:	8/27/2015	8/27/2015	8/26/2015	8/26/2015	8/26/2015	8/25/2015	
Sample Type:							
Parameter	Units						
<b>Semi-Volatile Organic Compounds (Continued)</b>							
bis(2-Chloroethyl)ether	µg/L	0.99 U	0.95 U	0.97 U	0.95 U	1.0 U	0.95 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
Butyl benzylphthalate (BBP)	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
Caprolactam	µg/L	9.9 U	9.5 U	9.7 U	9.5 U	0.29 J	9.5 U
Carbazole	µg/L	9.9 U	9.5 U	9.7 U	9.5 U	10 U	9.5 U
Chrysene	µg/L	0.99 U	0.95 U	0.97 U	0.95 U	1.0 U	0.95 U
Dibenz(a,h)anthracene	µg/L	2.0 U	1.9 U	1.9 U	1.9 U	2.1 U	1.9 U
Dibenzofuran	µg/L	4.0 U	3.8 U	3.9 U	3.8 U	4.1 U	3.8 U
Diethyl phthalate	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
Dimethyl phthalate	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
Di-n-butylphthalate (DBP)	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
Di-n-octyl phthalate (DnOP)	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
Fluoranthene	µg/L	0.99 U	0.95 U	0.97 U	0.95 U	1.0 U	0.95 U
Fluorene	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
Hexachlorobenzene	µg/L	0.20 U	0.19 U	0.19 U	0.19 U	0.21 U	0.19 U
Hexachlorobutadiene	µg/L	0.99 U	0.95 U	0.97 U	0.95 U	1.0 U	0.95 U
Hexachlorocyclopentadiene	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
Hexachloroethane	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
Indeno(1,2,3-cd)pyrene	µg/L	2.0 U	1.9 U	1.9 U	1.9 U	2.1 U	1.9 U
Isophorone	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
Naphthalene	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
Nitrobenzene	µg/L	3.0 U	2.9 U	2.9 U	2.9 U	3.1 U	2.9 U
N-Nitrosodi-n-propylamine	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
N-Nitrosodiphenylamine	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
Pentachlorophenol	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
Phenanthrene	µg/L	2.0 U	1.9 U	1.9 U	1.9 U	2.1 U	1.9 U
Phenol	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U
Pyrene	µg/L	5.0 U	4.8 U	4.9 U	4.8 U	5.2 U	4.8 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

	MW-1D	MW-1S	MW2	MW-2D	MW-2S	MW-3D
Sample Location:						
Sample Identification:	GW-082715-JL-31	GW-082715-JL-28	GW-082615-JL-13	GW-082615-JL-18	GW-082615-JL-17	GW-082515-JL-09
Sample Date:	8/27/2015	8/27/2015	8/26/2015	8/26/2015	8/26/2015	8/25/2015
Sample Type:						
Parameter	Units					
<b>Metals</b>						
Antimony	µg/L	2.0 U	2.0 U	1.2 J	2.0 U	2.0 U
Antimony (dissolved)	µg/L	2.0 U	2.0 U	0.92 J	2.0 U	2.0 U
Arsenic	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Arsenic (dissolved)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Barium	µg/L	35 J	57 J	90 J	30 J	70 J
Barium (dissolved)	µg/L	30 J	58 J	90 J	29 J	64 J
Beryllium	µg/L	1.0 U	1.0 U	0.40 J	1.0 U	0.074 J
Beryllium (dissolved)	µg/L	1.0 U	1.0 U	0.22 J	0.053 J	0.070 J
Cadmium	µg/L	1.0 U	1.0 U	0.35 J	1.0 U	1.0 U
Cadmium (dissolved)	µg/L	1.0 U	1.0 U	0.11 J	1.0 U	1.0 U
Chromium	µg/L	5.0 U	12 U	5.0 U	5.0 U	160
Chromium (dissolved)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chromium III (trivalent)	µg/L	20 U	12 J	20 U	20 U	160
Chromium VI (hexavalent)	µg/L	20 U	20 U	20 U	20 U	20 U
Cobalt	µg/L	0.12 J	0.18 J	0.30 J	0.087 J	1.3 J
Cobalt (dissolved)	µg/L	0.090 J	0.17 J	0.16 J	0.086 J	0.26 J
Copper	µg/L	2.0 U	1.1 J	2.0 U	2.0 U	5.7
Copper (dissolved)	µg/L	2.0 U	0.91 J	2.0 U	2.0 U	0.84 J
Lead	µg/L	3.0 U	3.0 U	0.28 J	3.0 U	3.0 U
Lead (dissolved)	µg/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Manganese	µg/L	2.0 J	220	5.2 J	15 U	17
Manganese (dissolved)	µg/L	1.5 J	240	15 U	15 U	3.1 J
Mercury	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Mercury (dissolved)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.15 J
Nickel	µg/L	8.9 J	3.2 J	0.59 J	0.29 J	15 J
Nickel (dissolved)	µg/L	7.9 J	3.1 J	0.45 J	0.26 J	8.5 J
Selenium	µg/L	0.33 J	0.61 J	5.0 U	5.0 U	5.0 U
Selenium (dissolved)	µg/L	0.42 J	0.62 J	5.0 U	5.0 U	5.0 U
Silver	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U



Table 2

**Analytical Results Summary  
 Quarterly Groundwater Monitoring  
 General Motors Janesville Assembly Plant  
 Janesville, Wisconsin  
 August 2015**

<b>Sample Location:</b>	<b>MW-1D</b>	<b>MW-1S</b>	<b>MW2</b>	<b>MW-2D</b>	<b>MW-2S</b>	<b>MW-3D</b>
<b>Sample Identification:</b>	<b>GW-082715-JL-31</b>	<b>GW-082715-JL-28</b>	<b>GW-082615-JL-13</b>	<b>GW-082615-JL-18</b>	<b>GW-082615-JL-17</b>	<b>GW-082515-JL-09</b>
<b>Sample Date:</b>	<b>8/27/2015</b>	<b>8/27/2015</b>	<b>8/26/2015</b>	<b>8/26/2015</b>	<b>8/26/2015</b>	<b>8/25/2015</b>
<b>Sample Type:</b>						

<b>Parameter</b>	<b>Units</b>						
<b>Metals (Continued)</b>							
Silver (dissolved)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Thallium	µg/L	1.0 U	1.0 U	0.18 J	1.0 U	1.0 U	1.0 U
Thallium (dissolved)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Vanadium (dissolved)	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Zinc	µg/L	20 U	20 U	7.5 J	20 U	20 U	20 U
Zinc (dissolved)	µg/L	20 U	20 U	20 U	20 U	20 U	20 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Sample Location:	MW-3D	MW-3S	MW4	MW-4D	MW-4S	MW5
Sample Identification:	GW-082515-JL-10	GW-082515-JL-07	GW-082615-JL-14	GW-082415-JL-01	GW-082415-JL-02	GW-082615-JL-15
Sample Date:	8/25/2015	8/25/2015	8/26/2015	8/24/2015	8/24/2015	8/26/2015
Sample Type:	Duplicate					
Parameter	Units					
<b>Volatile Organic Compounds</b>						
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	3.3 U	1.0 UJ	1.0 UJ
1,2,4-Trimethylbenzene	µg/L	1.0 U	1.0 U	2.9 J	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	2.0 U	2.0 U	6.7 U	2.0 U	2.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.6 J	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	33 U	0.69 J	10 U
2-Hexanone	µg/L	10 U	10 U	33 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	33 U	10 U	10 U
Acetone	µg/L	10 U	10 U	33 U	10 U	10 U
Benzene	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	0.50 J	3.3 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	3.3 U	1.0 UJ	1.0 UJ
Carbon disulfide	µg/L	1.0 U	1.0 U	3.3 U	8.3	1.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	3.3 U	1.0 UJ	1.0 UJ
Chloroform (Trichloromethane)	µg/L	1.0 U	0.68 J	3.3 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Sample Location:	MW-3D	MW-3S	MW4	MW-4D	MW-4S	MW5
Sample Identification:	GW-082515-JL-10	GW-082515-JL-07	GW-082615-JL-14	GW-082415-JL-01	GW-082415-JL-02	GW-082615-JL-15
Sample Date:	8/25/2015	8/25/2015	8/26/2015	8/24/2015	8/24/2015	8/26/2015
Sample Type:	Duplicate					
Parameter	Units					
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
Cyclohexane	µg/L	1.0 U	1.0 U	17	1.0 U	1.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	6.0	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	63	1.0 U	1.0 U
Methyl acetate	µg/L	10 U	10 U	33 U	10 U	10 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U	8.5	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
Methylene chloride	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
Styrene	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	0.45 J
Toluene	µg/L	1.0 U	1.0 U	3.3 U	0.70 J	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	3.3 U	1.0 U	1.0 U
Xylenes (total)	µg/L	2.0 U	2.0 U	6.7 U	2.0 U	2.0 U
<b>Semi-Volatile Organic Compounds</b>						
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U
2,4,5-Trichlorophenol	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U
2,4,6-Trichlorophenol	µg/L	4.1 U	3.8 U	3.8 U	4.0 U	3.8 U
2,4-Dichlorophenol	µg/L	10 U	9.5 U	9.5 U	0.20 J	9.5 U
2,4-Dimethylphenol	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U
2,4-Dinitrophenol	µg/L	20 U	19 U	19 U	20 U	19 U
2,4-Dinitrotoluene	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U
2,6-Dinitrotoluene	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Sample Location:	MW-3D	MW-3S	MW4	MW-4D	MW-4S	MW5
Sample Identification:	GW-082515-JL-10	GW-082515-JL-07	GW-082615-JL-14	GW-082415-JL-01	GW-082415-JL-02	GW-082615-JL-15
Sample Date:	8/25/2015	8/25/2015	8/26/2015	8/24/2015	8/24/2015	8/26/2015
Sample Type:	Duplicate					

Parameter	Units						
<b>Semi-Volatile Organic Compounds (Continued)</b>							
2-Chloronaphthalene	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U	5.3 U
2-Chlorophenol	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U	5.3 U
2-Methylnaphthalene	µg/L	5.1 U	4.8 U	20	5.0 U	4.8 U	5.3 U
2-Methylphenol	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U	5.3 U
2-Nitroaniline	µg/L	20 U	19 U	19 U	20 U	19 U	21 U
2-Nitrophenol	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U	5.3 U
3&4-Methylphenol	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U	5.3 U
3,3'-Dichlorobenzidine	µg/L	1.0 U	0.95 U	0.95 U	1.0 U	0.95 U	1.1 U
3-Nitroaniline	µg/L	20 U	19 U	19 U	20 U	19 U	21 U
4,6-Dinitro-2-methylphenol	µg/L	20 U	19 U	19 U	20 U	19 U	21 U
4-Bromophenyl phenyl ether	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U	5.3 U
4-Chloro-3-methylphenol	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U	5.3 U
4-Chloroaniline	µg/L	10 U	9.5 U	9.5 U	10 U	9.5 U	11 U
4-Chlorophenyl phenyl ether	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U	5.3 U
4-Nitroaniline	µg/L	20 U	19 U	19 U	20 U	19 U	21 U
4-Nitrophenol	µg/L	20 U	19 U	19 U	20 U	19 U	21 U
Acenaphthene	µg/L	5.1 U	4.8 U	0.22 J	5.0 U	4.8 U	5.3 U
Acenaphthylene	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U	5.3 U
Acetophenone	µg/L	5.1 U	4.8 U	4.8 U	0.35 J	4.8 U	5.3 U
Anthracene	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U	5.3 U
Atrazine	µg/L	3.1 U	2.9 U	2.9 U	3.0 U	2.9 U	3.2 U
Benzaldehyde	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U	5.3 U
Benzo(a)anthracene	µg/L	1.0 U	0.95 U	0.95 U	1.0 U	0.95 U	1.1 U
Benzo(a)pyrene	µg/L	1.0 U	0.95 U	0.95 U	1.0 U	0.95 U	1.1 U
Benzo(b)fluoranthene	µg/L	1.0 U	0.95 U	0.95 U	1.0 U	0.95 U	1.1 U
Benzo(g,h,i)perylene	µg/L	1.0 U	0.95 U	0.95 U	1.0 U	0.95 U	1.1 U
Benzo(k)fluoranthene	µg/L	1.0 U	0.95 U	0.95 U	1.0 U	0.95 U	1.1 U
Biphenyl (1,1-Biphenyl)	µg/L	5.1 U	4.8 U	0.57 J	5.0 U	4.8 U	5.3 U
bis(2-Chloroethoxy)methane	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U	5.3 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Sample Location:	MW-3D	MW-3S	MW4	MW-4D	MW-4S	MW5	
Sample Identification:	GW-082515-JL-10	GW-082515-JL-07	GW-082615-JL-14	GW-082415-JL-01	GW-082415-JL-02	GW-082615-JL-15	
Sample Date:	8/25/2015	8/25/2015	8/26/2015	8/24/2015	8/24/2015	8/26/2015	
Sample Type:	Duplicate						
Parameter	Units						
<b>Semi-Volatile Organic Compounds (Continued)</b>							
bis(2-Chloroethyl)ether	µg/L	1.0 U	0.95 U	0.95 U	1.0 U	0.95 U	1.1 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U	5.3 U
Butyl benzylphthalate (BBP)	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U	5.3 U
Caprolactam	µg/L	10 U	9.5 U	9.5 U	1.1 J	0.45 J	11 U
Carbazole	µg/L	10 U	9.5 U	9.5 U	10 U	9.5 U	11 U
Chrysene	µg/L	1.0 U	0.95 U	0.95 U	1.0 U	0.95 U	1.1 U
Dibenz(a,h)anthracene	µg/L	2.0 U	1.9 U	1.9 U	2.0 U	1.9 U	2.1 U
Dibenzofuran	µg/L	4.1 U	3.8 U	0.22 J	4.0 U	3.8 U	4.2 U
Diethyl phthalate	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U	5.3 U
Dimethyl phthalate	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U	5.3 U
Di-n-butylphthalate (DBP)	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U	5.3 U
Di-n-octyl phthalate (DnOP)	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U	5.3 U
Fluoranthene	µg/L	1.0 U	0.95 U	0.95 U	1.0 U	0.95 U	1.1 U
Fluorene	µg/L	5.1 U	4.8 U	0.28 J	5.0 U	4.8 U	5.3 U
Hexachlorobenzene	µg/L	0.20 U	0.19 U	0.19 U	0.20 U	0.19 U	0.21 U
Hexachlorobutadiene	µg/L	1.0 U	0.95 U	0.95 U	1.0 U	0.95 U	1.1 U
Hexachlorocyclopentadiene	µg/L	5.1 U	4.8 U	4.8 U	5.0 UJ	4.8 UJ	5.3 U
Hexachloroethane	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U	5.3 U
Indeno(1,2,3-cd)pyrene	µg/L	2.0 U	1.9 U	1.9 U	2.0 U	1.9 U	2.1 U
Isophorone	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U	5.3 U
Naphthalene	µg/L	5.1 U	4.8 U	27	5.0 U	4.8 U	5.3 U
Nitrobenzene	µg/L	3.1 U	2.9 U	2.9 U	3.0 U	2.9 U	3.2 U
N-Nitrosodi-n-propylamine	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U	5.3 U
N-Nitrosodiphenylamine	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U	5.3 U
Pentachlorophenol	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U	5.3 U
Phenanthrene	µg/L	2.0 U	1.9 U	0.11 J	2.0 U	1.9 U	2.1 U
Phenol	µg/L	5.1 U	4.8 U	4.8 U	0.65 J	4.8 U	5.3 U
Pyrene	µg/L	5.1 U	4.8 U	4.8 U	5.0 U	4.8 U	5.3 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

	Sample Location:	MW-3D	MW-3S	MW4	MW-4D	MW-4S	MW5
	Sample Identification:	GW-082515-JL-10	GW-082515-JL-07	GW-082615-JL-14	GW-082415-JL-01	GW-082415-JL-02	GW-082615-JL-15
	Sample Date:	8/25/2015	8/25/2015	8/26/2015	8/24/2015	8/24/2015	8/26/2015
	Sample Type:	Duplicate					
Parameter	Units						
<b>Metals</b>							
Antimony	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Antimony (dissolved)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Arsenic	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Arsenic (dissolved)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Barium	µg/L	85 J	75 J	110	2.3 J	62 J	62 J
Barium (dissolved)	µg/L	82 J	76 J	110	2.0 J	62 J	59 J
Beryllium	µg/L	1.0 U	1.0 U	0.13 J	1.0 U	1.0 U	0.090 J
Beryllium (dissolved)	µg/L	1.0 U	1.0 U	0.11 J	1.0 U	1.0 U	0.074 J
Cadmium	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium (dissolved)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chromium	µg/L	5.0 U	150	5.0 U	5.0 U	5.8 U	5.0 U
Chromium (dissolved)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chromium III (trivalent)	µg/L	20 U	150	20 U	20 U	20 U	20 U
Chromium VI (hexavalent)	µg/L	20 U	20 U	6.2 J	20 U	20 U	20 U
Cobalt	µg/L	0.16 J	0.90 J	0.21 J	7.0 U	7.0 U	0.24 J
Cobalt (dissolved)	µg/L	0.091 J	0.10 J	0.19 J	7.0 U	7.0 U	0.14 J
Copper	µg/L	0.96 J	5.6	2.0 U	2.0 U	2.0 U	1.3 J
Copper (dissolved)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Lead	µg/L	3.0 U	3.0 U	0.16 J	3.0 U	3.0 U	3.0 U
Lead (dissolved)	µg/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Manganese	µg/L	3.0 J	6.1 J	460	15 U	1.4 J	17
Manganese (dissolved)	µg/L	15 U	15 U	480	15 U	15 U	7.2 J
Mercury	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Mercury (dissolved)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	0.49 J	10 J	0.49 J	2.5 J	4.4 J	0.90 J
Nickel (dissolved)	µg/L	0.36 J	1.1 J	0.44 J	2.2 J	5.5 J	0.62 J
Selenium	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Selenium (dissolved)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Silver	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.029 J

**Table 2**  
**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

<b>Sample Location:</b>	<b>MW-3D</b>	<b>MW-3S</b>	<b>MW4</b>	<b>MW-4D</b>	<b>MW-4S</b>	<b>MW5</b>
<b>Sample Identification:</b>	<b>GW-082515-JL-10</b>	<b>GW-082515-JL-07</b>	<b>GW-082615-JL-14</b>	<b>GW-082415-JL-01</b>	<b>GW-082415-JL-02</b>	<b>GW-082615-JL-15</b>
<b>Sample Date:</b>	<b>8/25/2015</b>	<b>8/25/2015</b>	<b>8/26/2015</b>	<b>8/24/2015</b>	<b>8/24/2015</b>	<b>8/26/2015</b>
<b>Sample Type:</b>	<b>Duplicate</b>					

<b>Parameter</b>	<b>Units</b>						
<b>Metals (Continued)</b>							
Silver (dissolved)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Thallium	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Thallium (dissolved)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Vanadium (dissolved)	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Zinc	µg/L	20 U	20 U	20 U	20 U	20 U	20 U
Zinc (dissolved)	µg/L	20 U	20 U	20 U	20 U	20 U	20 U



Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Sample Location:	MW-5D	MW-5S	MW-6D	MW-6D	MW-6S
Sample Identification:	GW-082815-JL-32	GW-082815-JL-33	GW-082815-JL-37	GW-082815-JL-38	GW-082815-JL-35
Sample Date:	8/28/2015	8/28/2015	8/28/2015	8/28/2015	8/28/2015
Sample Type:				Duplicate	
Parameter	Units				
<b>Volatile Organic Compounds</b>					
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	10 U	10 U	10 U	10 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Sample Location:	MW-5D	MW-5S	MW-6D	MW-6D	MW-6S
Sample Identification:	GW-082815-JL-32	GW-082815-JL-33	GW-082815-JL-37	GW-082815-JL-38	GW-082815-JL-35
Sample Date:	8/28/2015	8/28/2015	8/28/2015	8/28/2015	8/28/2015
Sample Type:				Duplicate	
Parameter	Units				
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	10 U	10 U	10 U	10 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
<b>Semi-Volatile Organic Compounds</b>					
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	4.8 U	4.9 U	4.8 U	5.3 U
2,4,5-Trichlorophenol	µg/L	4.8 U	4.9 U	4.8 U	5.3 U
2,4,6-Trichlorophenol	µg/L	3.8 U	3.9 U	3.8 U	4.3 U
2,4-Dichlorophenol	µg/L	9.5 U	9.8 U	9.6 U	11 U
2,4-Dimethylphenol	µg/L	4.8 U	4.9 U	4.8 U	5.3 U
2,4-Dinitrophenol	µg/L	19 U	20 U	19 U	21 U
2,4-Dinitrotoluene	µg/L	4.8 U	4.9 U	4.8 U	5.3 U
2,6-Dinitrotoluene	µg/L	4.8 U	4.9 U	4.8 U	5.3 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Sample Location:	MW-5D	MW-5S	MW-6D	MW-6D	MW-6S	
Sample Identification:	GW-082815-JL-32	GW-082815-JL-33	GW-082815-JL-37	GW-082815-JL-38	GW-082815-JL-35	
Sample Date:	8/28/2015	8/28/2015	8/28/2015	8/28/2015	8/28/2015	
Sample Type:				Duplicate		
Parameter	Units					
<b>Semi-Volatile Organic Compounds (Continued)</b>						
2-Chloronaphthalene	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
2-Chlorophenol	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
2-Methylnaphthalene	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
2-Methylphenol	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
2-Nitroaniline	µg/L	19 U	20 U	19 U	21 U	19 U
2-Nitrophenol	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
3&4-Methylphenol	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
3,3'-Dichlorobenzidine	µg/L	0.95 U	0.98 U	0.96 U	1.1 U	0.96 U
3-Nitroaniline	µg/L	19 U	20 U	19 U	21 U	19 U
4,6-Dinitro-2-methylphenol	µg/L	19 U	20 U	19 U	21 U	19 U
4-Bromophenyl phenyl ether	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
4-Chloro-3-methylphenol	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
4-Chloroaniline	µg/L	9.5 U	9.8 U	9.6 U	11 U	9.6 U
4-Chlorophenyl phenyl ether	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
4-Nitroaniline	µg/L	19 U	20 U	19 U	21 U	19 U
4-Nitrophenol	µg/L	19 U	20 U	19 U	21 U	19 U
Acenaphthene	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
Acenaphthylene	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
Acetophenone	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
Anthracene	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
Atrazine	µg/L	2.9 U	2.9 U	2.9 U	3.2 U	2.9 U
Benzaldehyde	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
Benzo(a)anthracene	µg/L	0.95 U	0.98 U	0.96 U	1.1 U	0.96 U
Benzo(a)pyrene	µg/L	0.95 U	0.98 U	0.96 U	1.1 U	0.96 U
Benzo(b)fluoranthene	µg/L	0.95 U	0.98 U	0.96 U	1.1 U	0.96 U
Benzo(g,h,i)perylene	µg/L	0.95 U	0.98 U	0.96 U	1.1 U	0.96 U
Benzo(k)fluoranthene	µg/L	0.95 U	0.98 U	0.96 U	1.1 U	0.96 U
Biphenyl (1,1-Biphenyl)	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
bis(2-Chloroethoxy)methane	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Sample Location:	MW-5D	MW-5S	MW-6D	MW-6D	MW-6S	
Sample Identification:	GW-082815-JL-32	GW-082815-JL-33	GW-082815-JL-37	GW-082815-JL-38	GW-082815-JL-35	
Sample Date:	8/28/2015	8/28/2015	8/28/2015	8/28/2015	8/28/2015	
Sample Type:				Duplicate		
Parameter	Units					
<b>Semi-Volatile Organic Compounds (Continued)</b>						
bis(2-Chloroethyl)ether	µg/L	0.95 U	0.98 U	0.96 U	1.1 U	0.96 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
Butyl benzylphthalate (BBP)	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
Caprolactam	µg/L	9.5 U	9.8 U	0.36 J	0.34 J	9.6 U
Carbazole	µg/L	9.5 U	9.8 U	9.6 U	11 U	9.6 U
Chrysene	µg/L	0.95 U	0.98 U	0.96 U	1.1 U	0.96 U
Dibenz(a,h)anthracene	µg/L	1.9 U	2.0 U	1.9 U	2.1 U	1.9 U
Dibenzofuran	µg/L	3.8 U	3.9 U	3.8 U	4.3 U	3.8 U
Diethyl phthalate	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
Dimethyl phthalate	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
Di-n-butylphthalate (DBP)	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
Di-n-octyl phthalate (DnOP)	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
Fluoranthene	µg/L	0.95 U	0.11 J	0.96 U	1.1 U	0.96 U
Fluorene	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
Hexachlorobenzene	µg/L	0.19 U	0.20 U	0.19 U	0.21 U	0.19 U
Hexachlorobutadiene	µg/L	0.95 U	0.98 U	0.96 U	1.1 U	0.96 U
Hexachlorocyclopentadiene	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
Hexachloroethane	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
Indeno(1,2,3-cd)pyrene	µg/L	1.9 U	2.0 U	1.9 U	2.1 U	1.9 U
Isophorone	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
Naphthalene	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
Nitrobenzene	µg/L	2.9 U	2.9 U	2.9 U	3.2 U	2.9 U
N-Nitrosodi-n-propylamine	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
N-Nitrosodiphenylamine	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
Pentachlorophenol	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
Phenanthrene	µg/L	1.9 U	2.0 U	1.9 U	2.1 U	1.9 U
Phenol	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U
Pyrene	µg/L	4.8 U	4.9 U	4.8 U	5.3 U	4.8 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

	Sample Location:	MW-5D	MW-5S	MW-6D	MW-6D	MW-6S
	Sample Identification:	GW-082815-JL-32	GW-082815-JL-33	GW-082815-JL-37	GW-082815-JL-38	GW-082815-JL-35
	Sample Date:	8/28/2015	8/28/2015	8/28/2015	8/28/2015	8/28/2015
	Sample Type:				Duplicate	
Parameter	Units					
<b>Metals</b>						
Antimony	µg/L	0.19 J	2.0 U	2.0 U	2.0 U	0.33 J
Antimony (dissolved)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	0.35 J
Arsenic	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Arsenic (dissolved)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Barium	µg/L	73 J	68 J	61 J	64 J	18 J
Barium (dissolved)	µg/L	75 J	57 J	55 J	56 J	18 J
Beryllium	µg/L	0.13 J	0.083 J	1.0 U	1.0 U	0.061 J
Beryllium (dissolved)	µg/L	0.10 J	0.060 J	1.0 U	1.0 U	0.068 J
Cadmium	µg/L	0.15 J	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium (dissolved)	µg/L	0.067 J	1.0 U	1.0 U	1.0 U	1.0 U
Chromium	µg/L	52	110	5.0 U	5.0 U	5.0 U
Chromium (dissolved)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chromium III (trivalent)	µg/L	52	110	20 U	20 U	20 U
Chromium VI (hexavalent)	µg/L	20 U	20 U	20 U	20 U	20 U
Cobalt	µg/L	0.49 J	0.92 J	0.15 J	0.15 J	0.12 J
Cobalt (dissolved)	µg/L	0.27 J	0.18 J	0.11 J	0.11 J	0.10 J
Copper	µg/L	2.6	5.5	0.84 J	2.0 U	2.0 U
Copper (dissolved)	µg/L	0.78 J	1.1 J	2.0 U	2.0 U	2.0 U
Lead	µg/L	0.49 J	0.13 J	0.18 J	0.11 J	3.0 U
Lead (dissolved)	µg/L	0.11 J	3.0 U	3.0 U	3.0 U	3.0 U
Manganese	µg/L	2.4 J	5.3 J	1.7 J	1.6 J	15 U
Manganese (dissolved)	µg/L	15 U	15 U	15 U	15 U	15 U
Mercury	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Mercury (dissolved)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	8.2 J	11 J	0.62 J	0.46 J	0.47 J
Nickel (dissolved)	µg/L	4.8 J	6.7 J	0.39 J	0.43 J	0.43 J
Selenium	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Selenium (dissolved)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Silver	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U

Table 2

**Analytical Results Summary  
 Quarterly Groundwater Monitoring  
 General Motors Janesville Assembly Plant  
 Janesville, Wisconsin  
 August 2015**

	<b>Sample Location:</b>	<b>MW-5D</b>	<b>MW-5S</b>	<b>MW-6D</b>	<b>MW-6D</b>	<b>MW-6S</b>
	<b>Sample Identification:</b>	<b>GW-082815-JL-32</b>	<b>GW-082815-JL-33</b>	<b>GW-082815-JL-37</b>	<b>GW-082815-JL-38</b>	<b>GW-082815-JL-35</b>
	<b>Sample Date:</b>	<b>8/28/2015</b>	<b>8/28/2015</b>	<b>8/28/2015</b>	<b>8/28/2015</b>	<b>8/28/2015</b>
	<b>Sample Type:</b>				<b>Duplicate</b>	
<b>Parameter</b>	<b>Units</b>					
<b>Metals (Continued)</b>						
Silver (dissolved)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Thallium	µg/L	0.077 J	1.0 U	1.0 U	1.0 U	1.0 U
Thallium (dissolved)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Vanadium (dissolved)	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Zinc	µg/L	20 U	20 U	20 U	20 U	20 U
Zinc (dissolved)	µg/L	20 U	20 U	9.8 J	10 J	9.1 J

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Sample Location:	MW-7D	MW-7S	MW-8S	MW-9S	MW-10S
Sample Identification:	GW-082715-JL-27	GW-082715-JL-25	GW-082715-JL-26	GW-082615-JL-16	GW-082515-JL-12
Sample Date:	8/27/2015	8/27/2015	8/27/2015	8/26/2015	8/25/2015
Sample Type:					
Parameter	Units				
<b>Volatile Organic Compounds</b>					
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	21
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	4.6
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	0.98 J
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	10 U	10 U	10 U	10 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	0.43 J	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	0.37 J	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U



Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Sample Location:	MW-7D	MW-7S	MW-8S	MW-9S	MW-10S
Sample Identification:	GW-082715-JL-27	GW-082715-JL-25	GW-082715-JL-26	GW-082615-JL-16	GW-082515-JL-12
Sample Date:	8/27/2015	8/27/2015	8/27/2015	8/26/2015	8/25/2015
Sample Type:					
Parameter	Units				
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	7.3
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	11
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	3.9
Methyl acetate	µg/L	10 U	10 U	10 U	10 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.5
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	2.0 U	2.0 U	2.0 U	23
<b>Semi-Volatile Organic Compounds</b>					
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	6.6 U	5.0 U	5.1 U	5.7 U
2,4,5-Trichlorophenol	µg/L	6.6 U	5.0 U	5.1 U	5.7 U
2,4,6-Trichlorophenol	µg/L	5.3 U	4.0 U	4.1 U	4.5 U
2,4-Dichlorophenol	µg/L	13 U	0.94 J	10 U	9.9 U
2,4-Dimethylphenol	µg/L	6.6 U	5.0 U	5.1 U	5.7 U
2,4-Dinitrophenol	µg/L	26 U	20 U	20 U	23 U
2,4-Dinitrotoluene	µg/L	6.6 U	5.0 U	5.1 U	5.7 U
2,6-Dinitrotoluene	µg/L	6.6 U	5.0 U	5.1 U	5.7 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Sample Location:	MW-7D	MW-7S	MW-8S	MW-9S	MW-10S
Sample Identification:	GW-082715-JL-27	GW-082715-JL-25	GW-082715-JL-26	GW-082615-JL-16	GW-082515-JL-12
Sample Date:	8/27/2015	8/27/2015	8/27/2015	8/26/2015	8/25/2015
Sample Type:					
Parameter	Units				
<b>Semi-Volatile Organic Compounds (Continued)</b>					
2-Chloronaphthalene	µg/L	6.6 U	5.0 U	5.1 U	5.7 U
2-Chlorophenol	µg/L	6.6 U	5.0 U	5.1 U	5.7 U
2-Methylnaphthalene	µg/L	6.6 U	5.0 U	5.1 U	0.22 J
2-Methylphenol	µg/L	6.6 U	5.0 U	5.1 U	5.7 U
2-Nitroaniline	µg/L	26 U	20 U	20 U	23 U
2-Nitrophenol	µg/L	6.6 U	5.0 U	5.1 U	5.7 U
3&4-Methylphenol	µg/L	6.6 U	5.0 U	5.1 U	5.7 U
3,3'-Dichlorobenzidine	µg/L	1.3 U	1.0 U	1.0 U	0.99 U
3-Nitroaniline	µg/L	26 U	20 U	20 U	23 U
4,6-Dinitro-2-methylphenol	µg/L	26 U	20 U	20 U	23 U
4-Bromophenyl phenyl ether	µg/L	6.6 U	5.0 U	5.1 U	5.7 U
4-Chloro-3-methylphenol	µg/L	6.6 U	5.0 U	5.1 U	5.7 U
4-Chloroaniline	µg/L	13 U	10 U	10 U	9.9 UJ
4-Chlorophenyl phenyl ether	µg/L	6.6 U	5.0 U	5.1 U	5.7 U
4-Nitroaniline	µg/L	26 U	20 U	20 U	23 U
4-Nitrophenol	µg/L	26 U	20 U	20 U	23 U
Acenaphthene	µg/L	6.6 U	5.0 U	5.1 U	5.7 U
Acenaphthylene	µg/L	6.6 U	5.0 U	5.1 U	5.7 U
Acetophenone	µg/L	6.6 U	5.0 U	5.1 U	5.7 U
Anthracene	µg/L	6.6 U	5.0 U	5.1 U	5.7 U
Atrazine	µg/L	3.9 U	3.0 U	3.1 U	3.0 U
Benzaldehyde	µg/L	6.6 U	5.0 U	5.1 U	5.7 U
Benzo(a)anthracene	µg/L	1.3 U	1.0 U	1.0 U	0.99 U
Benzo(a)pyrene	µg/L	1.3 U	1.0 U	1.0 U	0.99 U
Benzo(b)fluoranthene	µg/L	1.3 U	1.0 U	1.0 U	0.99 U
Benzo(g,h,i)perylene	µg/L	1.3 U	1.0 U	1.0 U	0.99 U
Benzo(k)fluoranthene	µg/L	1.3 U	1.0 U	1.0 U	0.99 U
Biphenyl (1,1-Biphenyl)	µg/L	6.6 U	5.0 U	5.1 U	5.7 U
bis(2-Chloroethoxy)methane	µg/L	6.6 U	5.0 U	5.1 U	5.7 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Sample Location:	MW-7D	MW-7S	MW-8S	MW-9S	MW-10S	
Sample Identification:	GW-082715-JL-27	GW-082715-JL-25	GW-082715-JL-26	GW-082615-JL-16	GW-082515-JL-12	
Sample Date:	8/27/2015	8/27/2015	8/27/2015	8/26/2015	8/25/2015	
Sample Type:						
Parameter	Units					
<b>Semi-Volatile Organic Compounds (Continued)</b>						
bis(2-Chloroethyl)ether	µg/L	1.3 U	1.0 U	1.0 U	0.99 U	1.1 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	6.6 U	5.0 U	5.1 U	5.0 U	5.7 U
Butyl benzylphthalate (BBP)	µg/L	6.6 U	5.0 U	5.1 U	5.0 U	5.7 U
Caprolactam	µg/L	13 U	10 U	10 U	R	11 U
Carbazole	µg/L	13 U	10 U	10 U	9.9 U	11 U
Chrysene	µg/L	1.3 U	1.0 U	1.0 U	0.99 U	1.1 U
Dibenz(a,h)anthracene	µg/L	2.6 U	2.0 U	2.0 U	2.0 U	2.3 U
Dibenzofuran	µg/L	5.3 U	4.0 U	4.1 U	4.0 U	4.5 U
Diethyl phthalate	µg/L	6.6 U	5.0 U	5.1 U	5.0 U	5.7 U
Dimethyl phthalate	µg/L	6.6 U	5.0 U	5.1 U	5.0 U	5.7 U
Di-n-butylphthalate (DBP)	µg/L	6.6 U	5.0 U	5.1 U	5.0 U	5.7 U
Di-n-octyl phthalate (DnOP)	µg/L	6.6 U	5.0 U	5.1 U	5.0 U	5.7 U
Fluoranthene	µg/L	1.3 U	1.0 U	1.0 U	0.99 U	1.1 U
Fluorene	µg/L	6.6 U	5.0 U	5.1 U	5.0 U	5.7 U
Hexachlorobenzene	µg/L	0.26 U	0.20 U	0.20 U	0.20 U	0.23 U
Hexachlorobutadiene	µg/L	1.3 U	1.0 U	1.0 U	0.99 U	1.1 U
Hexachlorocyclopentadiene	µg/L	6.6 U	5.0 U	5.1 U	5.0 U	5.7 U
Hexachloroethane	µg/L	6.6 U	5.0 U	5.1 U	5.0 U	5.7 U
Indeno(1,2,3-cd)pyrene	µg/L	2.6 U	2.0 U	2.0 U	2.0 U	2.3 U
Isophorone	µg/L	6.6 U	5.0 U	5.1 U	5.0 U	5.7 U
Naphthalene	µg/L	6.6 U	5.0 U	5.1 U	5.0 U	3.8 J
Nitrobenzene	µg/L	3.9 U	3.0 U	3.1 U	3.0 U	3.4 U
N-Nitrosodi-n-propylamine	µg/L	6.6 U	5.0 U	5.1 U	5.0 U	5.7 U
N-Nitrosodiphenylamine	µg/L	6.6 U	5.0 U	5.1 U	5.0 U	5.7 U
Pentachlorophenol	µg/L	6.6 U	5.0 U	5.1 U	5.0 U	5.7 U
Phenanthrene	µg/L	2.6 U	2.0 U	2.0 U	2.0 U	2.3 U
Phenol	µg/L	6.6 U	5.0 U	5.1 U	5.0 U	5.7 U
Pyrene	µg/L	6.6 U	5.0 U	5.1 U	5.0 U	5.7 U

Table 2

**Analytical Results Summary  
 Quarterly Groundwater Monitoring  
 General Motors Janesville Assembly Plant  
 Janesville, Wisconsin  
 August 2015**

Sample Location:	MW-7D	MW-7S	MW-8S	MW-9S	MW-10S
Sample Identification:	GW-082715-JL-27	GW-082715-JL-25	GW-082715-JL-26	GW-082615-JL-16	GW-082515-JL-12
Sample Date:	8/27/2015	8/27/2015	8/27/2015	8/26/2015	8/25/2015
Sample Type:					

Parameter	Units					
<b>Metals</b>						
Antimony	µg/L	2.0 U	0.25 J	2.0 U	0.54 J	2.0 U
Antimony (dissolved)	µg/L	2.0 U	0.24 J	2.0 U	0.44 J	2.0 U
Arsenic	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Arsenic (dissolved)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Barium	µg/L	31 J	120	75 J	82 J	110
Barium (dissolved)	µg/L	33 J	130	73 J	80 J	110
Beryllium	µg/L	1.0 U	1.0 U	1.0 U	0.35 J	1.0 U
Beryllium (dissolved)	µg/L	1.0 U	1.0 U	1.0 U	0.17 J	1.0 U
Cadmium	µg/L	0.083 J	0.066 J	1.0 U	0.39 J	1.0 U
Cadmium (dissolved)	µg/L	1.0 U	0.087 J	1.0 U	0.25 J	1.0 U
Chromium	µg/L	5.0 U	1100	26	51	5.0 U
Chromium (dissolved)	µg/L	5.0 U	5.2 U	5.0 U	5.0 U	5.0 U
Chromium III (trivalent)	µg/L	20 U	1100	26	51	20 U
Chromium VI (hexavalent)	µg/L	20 U	20 U	20 U	20 U	20 U
Cobalt	µg/L	0.18 J	2.3 J	0.22 J	0.65 J	0.14 J
Cobalt (dissolved)	µg/L	0.28 J	1.3 J	0.14 J	0.25 J	0.14 J
Copper	µg/L	2.3	21	1.5 J	2.5	0.86 J
Copper (dissolved)	µg/L	1.2 J	3.0	2.0 U	2.0 U	2.0 U
Lead	µg/L	3.0 U	3.0 U	3.0 U	0.19 J	3.0 U
Lead (dissolved)	µg/L	3.0 U	3.0 U	3.0 U	0.13 J	3.0 U
Manganese	µg/L	31	11 J	1.1 J	3.5 J	110
Manganese (dissolved)	µg/L	25	6.7 J	15 U	15 U	120
Mercury	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Mercury (dissolved)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	1.4 J	110	2.7 J	31	1.1 J
Nickel (dissolved)	µg/L	4.6 J	75	1.6 J	10 J	1.1 J
Selenium	µg/L	5.0 U	4.4 J	0.60 J	5.0 U	5.0 U
Selenium (dissolved)	µg/L	5.0 U	5.5	0.42 J	5.0 U	5.0 U
Silver	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U

**Table 2**  
**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

	<b>Sample Location:</b>	<b>MW-7D</b>	<b>MW-7S</b>	<b>MW-8S</b>	<b>MW-9S</b>	<b>MW-10S</b>
	<b>Sample Identification:</b>	<b>GW-082715-JL-27</b>	<b>GW-082715-JL-25</b>	<b>GW-082715-JL-26</b>	<b>GW-082615-JL-16</b>	<b>GW-082515-JL-12</b>
	<b>Sample Date:</b>	<b>8/27/2015</b>	<b>8/27/2015</b>	<b>8/27/2015</b>	<b>8/26/2015</b>	<b>8/25/2015</b>
	<b>Sample Type:</b>					
<b>Parameter</b>	<b>Units</b>					
<b>Metals (Continued)</b>						
Silver (dissolved)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Thallium	µg/L	1.0 U	1.0 U	1.0 U	0.12 J	1.0 U
Thallium (dissolved)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	µg/L	4.0 U	20 U	4.0 U	4.0 U	4.0 U
Vanadium (dissolved)	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Zinc	µg/L	17 J	20 U	20 U	20 U	20
Zinc (dissolved)	µg/L	8.7 J	20 U	20 U	20 U	20 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Sample Location:	MW-11S	MW-12S	MW-13S	MW-14S	MW-15S
Sample Identification:	GW-082515-JL-11	GW-082515-JL-08	GW-082515-JL-04	GW-082515-JL-03	GW-082815-JL-41
Sample Date:	8/25/2015	8/25/2015	8/25/2015	8/25/2015	8/28/2015
Sample Type:					
Parameter	Units				
<b>Volatile Organic Compounds</b>					
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	10 U	10 U	10 U	10 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	0.26 J	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

	<b>Sample Location:</b>	<b>MW-11S</b>	<b>MW-12S</b>	<b>MW-13S</b>	<b>MW-14S</b>	<b>MW-15S</b>
	<b>Sample Identification:</b>	<b>GW-082515-JL-11</b>	<b>GW-082515-JL-08</b>	<b>GW-082515-JL-04</b>	<b>GW-082515-JL-03</b>	<b>GW-082815-JL-41</b>
	<b>Sample Date:</b>	<b>8/25/2015</b>	<b>8/25/2015</b>	<b>8/25/2015</b>	<b>8/25/2015</b>	<b>8/28/2015</b>
	<b>Sample Type:</b>					
<b>Parameter</b>	<b>Units</b>					
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	10 U	10 U	10 U	10 U	10 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
<b>Semi-Volatile Organic Compounds</b>						
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U
2,4,5-Trichlorophenol	µg/L	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U
2,4,6-Trichlorophenol	µg/L	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U
2,4-Dichlorophenol	µg/L	9.8 U	9.8 U	1.6 J	9.8 U	9.8 U
2,4-Dimethylphenol	µg/L	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U
2,4-Dinitrophenol	µg/L	20 U	20 U	19 U	20 U	20 U
2,4-Dinitrotoluene	µg/L	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U
2,6-Dinitrotoluene	µg/L	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U



Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Sample Location:	MW-11S	MW-12S	MW-13S	MW-14S	MW-15S
Sample Identification:	GW-082515-JL-11	GW-082515-JL-08	GW-082515-JL-04	GW-082515-JL-03	GW-082815-JL-41
Sample Date:	8/25/2015	8/25/2015	8/25/2015	8/25/2015	8/28/2015
Sample Type:					
Parameter	Units				
<b>Semi-Volatile Organic Compounds (Continued)</b>					
2-Chloronaphthalene	µg/L	4.9 U	4.9 U	4.9 U	4.9 U
2-Chlorophenol	µg/L	4.9 U	4.9 U	4.9 U	4.9 U
2-Methylnaphthalene	µg/L	4.9 U	4.9 U	4.9 U	4.9 U
2-Methylphenol	µg/L	4.9 U	4.9 U	4.9 U	4.9 U
2-Nitroaniline	µg/L	20 U	20 U	19 U	20 U
2-Nitrophenol	µg/L	4.9 U	4.9 U	4.9 U	4.9 U
3&4-Methylphenol	µg/L	4.9 U	4.9 U	4.9 U	4.9 U
3,3'-Dichlorobenzidine	µg/L	0.98 U	0.98 U	0.97 U	0.98 U
3-Nitroaniline	µg/L	20 U	20 U	19 U	20 U
4,6-Dinitro-2-methylphenol	µg/L	20 U	20 U	19 U	20 U
4-Bromophenyl phenyl ether	µg/L	4.9 U	4.9 U	4.9 U	4.9 U
4-Chloro-3-methylphenol	µg/L	4.9 U	4.9 U	4.9 U	4.9 U
4-Chloroaniline	µg/L	9.8 U	9.8 U	9.7 U	9.8 U
4-Chlorophenyl phenyl ether	µg/L	4.9 U	4.9 U	4.9 U	4.9 U
4-Nitroaniline	µg/L	20 U	20 U	19 U	20 U
4-Nitrophenol	µg/L	20 U	20 U	19 U	20 U
Acenaphthene	µg/L	4.9 U	4.9 U	4.9 U	4.9 U
Acenaphthylene	µg/L	4.9 U	4.9 U	4.9 U	4.9 U
Acetophenone	µg/L	4.9 U	4.9 U	4.9 U	4.9 U
Anthracene	µg/L	4.9 U	4.9 U	4.9 U	4.9 U
Atrazine	µg/L	2.9 U	2.9 U	2.9 U	2.9 U
Benzaldehyde	µg/L	4.9 U	4.9 U	4.9 U	4.9 U
Benzo(a)anthracene	µg/L	0.98 U	0.98 U	0.97 U	0.98 U
Benzo(a)pyrene	µg/L	0.98 U	0.98 U	0.97 U	0.98 U
Benzo(b)fluoranthene	µg/L	0.98 U	0.98 U	0.97 U	0.98 U
Benzo(g,h,i)perylene	µg/L	0.98 U	0.98 U	0.97 U	0.98 U
Benzo(k)fluoranthene	µg/L	0.98 U	0.98 U	0.97 U	0.98 U
Biphenyl (1,1-Biphenyl)	µg/L	4.9 U	4.9 U	4.9 U	4.9 U
bis(2-Chloroethoxy)methane	µg/L	4.9 U	4.9 U	4.9 U	4.9 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Sample Location:	MW-11S	MW-12S	MW-13S	MW-14S	MW-15S	
Sample Identification:	GW-082515-JL-11	GW-082515-JL-08	GW-082515-JL-04	GW-082515-JL-03	GW-082815-JL-41	
Sample Date:	8/25/2015	8/25/2015	8/25/2015	8/25/2015	8/28/2015	
Sample Type:						
Parameter	Units					
<b>Semi-Volatile Organic Compounds (Continued)</b>						
bis(2-Chloroethyl)ether	µg/L	0.98 U	0.98 U	0.97 U	0.98 U	0.98 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U
Butyl benzylphthalate (BBP)	µg/L	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U
Caprolactam	µg/L	9.8 U	9.8 U	9.7 U	9.8 U	9.8 U
Carbazole	µg/L	9.8 U	9.8 U	9.7 U	9.8 U	9.8 U
Chrysene	µg/L	0.98 U	0.98 U	0.97 U	0.98 U	0.98 U
Dibenz(a,h)anthracene	µg/L	2.0 U	2.0 U	1.9 U	2.0 U	2.0 U
Dibenzofuran	µg/L	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U
Diethyl phthalate	µg/L	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U
Dimethyl phthalate	µg/L	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U
Di-n-butylphthalate (DBP)	µg/L	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U
Di-n-octyl phthalate (DnOP)	µg/L	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U
Fluoranthene	µg/L	0.98 U	0.98 U	0.97 U	0.98 U	0.98 U
Fluorene	µg/L	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U
Hexachlorobenzene	µg/L	0.20 U	0.20 U	0.19 U	0.20 U	0.20 U
Hexachlorobutadiene	µg/L	0.98 U	0.98 U	0.97 U	0.98 U	0.98 U
Hexachlorocyclopentadiene	µg/L	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U
Hexachloroethane	µg/L	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U
Indeno(1,2,3-cd)pyrene	µg/L	2.0 U	2.0 U	1.9 U	2.0 U	2.0 U
Isophorone	µg/L	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U
Naphthalene	µg/L	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U
Nitrobenzene	µg/L	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U
N-Nitrosodi-n-propylamine	µg/L	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U
N-Nitrosodiphenylamine	µg/L	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U
Pentachlorophenol	µg/L	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U
Phenanthrene	µg/L	2.0 U	2.0 U	1.9 U	2.0 U	2.0 U
Phenol	µg/L	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U
Pyrene	µg/L	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

	Sample Location:	MW-11S	MW-12S	MW-13S	MW-14S	MW-15S
	Sample Identification:	GW-082515-JL-11	GW-082515-JL-08	GW-082515-JL-04	GW-082515-JL-03	GW-082815-JL-41
	Sample Date:	8/25/2015	8/25/2015	8/25/2015	8/25/2015	8/28/2015
	Sample Type:					
Parameter	Units					
<b>Metals</b>						
Antimony	µg/L	2.0 U	0.18 J	0.24 J	0.38 J	2.0 U
Antimony (dissolved)	µg/L	2.0 U	0.17 J	0.19 J	0.45 J	2.0 U
Arsenic	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Arsenic (dissolved)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Barium	µg/L	79 J	50 J	90 J	76 J	70 J
Barium (dissolved)	µg/L	81 J	50 J	85 J	66 J	73 J
Beryllium	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Beryllium (dissolved)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	µg/L	1.0 U	1.0 U	0.10 J	1.0 U	1.0 U
Cadmium (dissolved)	µg/L	1.0 U	1.0 U	0.079 J	0.072 J	1.0 U
Chromium	µg/L	5.0 U	52	410	8.2 U	15 U
Chromium (dissolved)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chromium III (trivalent)	µg/L	20 U	52	410	20 U	15 J
Chromium VI (hexavalent)	µg/L	20 U	20 U	20 U	20 U	20 U
Cobalt	µg/L	0.58 J	0.26 J	0.85 J	0.69 J	0.21 J
Cobalt (dissolved)	µg/L	0.40 J	0.11 J	0.20 J	0.58 J	0.13 J
Copper	µg/L	2.0 U	2.7	12	0.79 J	0.83 J
Copper (dissolved)	µg/L	1.1 J	0.78 J	0.75 J	2.0 U	2.0 U
Lead	µg/L	3.0 U	3.0 U	3.0 U	3.0 U	0.14 J
Lead (dissolved)	µg/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Manganese	µg/L	3.6 J	3.6 J	7.2 J	5.1 J	6.7 J
Manganese (dissolved)	µg/L	2.5 J	15 U	1.5 J	3.9 J	15 U
Mercury	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Mercury (dissolved)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	12 J	4.1 J	26	26	1.3 J
Nickel (dissolved)	µg/L	8.7 J	0.44 J	4.0 J	21	0.48 J
Selenium	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Selenium (dissolved)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Silver	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U

**Table 2**  
**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

	<b>Sample Location:</b>	<b>MW-11S</b>	<b>MW-12S</b>	<b>MW-13S</b>	<b>MW-14S</b>	<b>MW-15S</b>
	<b>Sample Identification:</b>	<b>GW-082515-JL-11</b>	<b>GW-082515-JL-08</b>	<b>GW-082515-JL-04</b>	<b>GW-082515-JL-03</b>	<b>GW-082815-JL-41</b>
	<b>Sample Date:</b>	<b>8/25/2015</b>	<b>8/25/2015</b>	<b>8/25/2015</b>	<b>8/25/2015</b>	<b>8/28/2015</b>
	<b>Sample Type:</b>					
<b>Parameter</b>	<b>Units</b>					
<b>Metals (Continued)</b>						
Silver (dissolved)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Thallium	µg/L	1.0 U	1.0 U	0.10 J	0.14 J	1.0 U
Thallium (dissolved)	µg/L	1.0 U	1.0 U	1.0 U	0.27 J	1.0 U
Vanadium	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Vanadium (dissolved)	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Zinc	µg/L	20 U	20 U	20 U	20 U	20 U
Zinc (dissolved)	µg/L	20 U	20 U	20 U	20 U	20 U

Table 2

**Analytical Results Summary  
Quarterly Groundwater Monitoring  
General Motors Janesville Assembly Plant  
Janesville, Wisconsin  
August 2015**

Sample Location:	MW-16S	MW-16S	MW-17S	MW-17S	MW-18S
Sample Identification:	GW-082715-JL-29	GW-082715-JL-30	GW-082615-JL-19	GW-082615-JL-20	GW-082815-JL-40
Sample Date:	8/27/2015	8/27/2015	8/26/2015	8/26/2015	8/28/2015
Sample Type:		Duplicate		Duplicate	

Parameter	Units					
<b>Volatile Organic Compounds</b>						
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U	10 U
Acetone	µg/L	10 U	10 U	10 U	10 U	10 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

	<b>Sample Location:</b>	<b>MW-16S</b>	<b>MW-16S</b>	<b>MW-17S</b>	<b>MW-17S</b>	<b>MW-18S</b>
	<b>Sample Identification:</b>	<b>GW-082715-JL-29</b>	<b>GW-082715-JL-30</b>	<b>GW-082615-JL-19</b>	<b>GW-082615-JL-20</b>	<b>GW-082815-JL-40</b>
	<b>Sample Date:</b>	<b>8/27/2015</b>	<b>8/27/2015</b>	<b>8/26/2015</b>	<b>8/26/2015</b>	<b>8/28/2015</b>
	<b>Sample Type:</b>		<b>Duplicate</b>		<b>Duplicate</b>	
<b>Parameter</b>	<b>Units</b>					
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	10 U	10 U	10 U	10 U	10 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
<b>Semi-Volatile Organic Compounds</b>						
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	4.8 U	5.1 U	5.2 U	4.8 U	4.8 U
2,4,5-Trichlorophenol	µg/L	4.8 U	5.1 U	5.2 U	4.8 U	4.8 U
2,4,6-Trichlorophenol	µg/L	3.8 U	4.1 U	4.1 U	3.8 U	3.8 U
2,4-Dichlorophenol	µg/L	9.5 U	10 U	10 U	9.5 U	9.5 U
2,4-Dimethylphenol	µg/L	4.8 U	5.1 U	5.2 U	4.8 U	4.8 U
2,4-Dinitrophenol	µg/L	19 U	20 U	21 U	19 U	19 U
2,4-Dinitrotoluene	µg/L	4.8 U	5.1 U	5.2 U	4.8 U	4.8 U
2,6-Dinitrotoluene	µg/L	4.8 U	5.1 U	5.2 U	4.8 U	4.8 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Sample Location:	MW-16S	MW-16S	MW-17S	MW-17S	MW-18S	
Sample Identification:	GW-082715-JL-29	GW-082715-JL-30	GW-082615-JL-19	GW-082615-JL-20	GW-082815-JL-40	
Sample Date:	8/27/2015	8/27/2015	8/26/2015	8/26/2015	8/28/2015	
Sample Type:		Duplicate		Duplicate		
Parameter	Units					
<b>Semi-Volatile Organic Compounds (Continued)</b>						
2-Chloronaphthalene	µg/L	4.8 U	5.1 U	5.2 U	4.8 U	4.8 U
2-Chlorophenol	µg/L	4.8 U	5.1 U	5.2 U	4.8 U	4.8 U
2-Methylnaphthalene	µg/L	4.8 U	5.1 U	5.2 U	4.8 U	4.8 U
2-Methylphenol	µg/L	4.8 U	5.1 U	5.2 U	4.8 U	4.8 U
2-Nitroaniline	µg/L	19 U	20 U	21 U	19 U	19 U
2-Nitrophenol	µg/L	4.8 U	5.1 U	5.2 U	4.8 U	4.8 U
3&4-Methylphenol	µg/L	4.8 U	5.1 U	5.2 U	4.8 U	4.8 U
3,3'-Dichlorobenzidine	µg/L	0.95 U	1.0 U	1.0 U	0.95 U	0.95 U
3-Nitroaniline	µg/L	19 U	20 U	21 U	19 U	19 U
4,6-Dinitro-2-methylphenol	µg/L	19 U	20 U	21 U	19 U	19 U
4-Bromophenyl phenyl ether	µg/L	4.8 U	5.1 U	5.2 U	4.8 U	4.8 U
4-Chloro-3-methylphenol	µg/L	4.8 U	5.1 U	5.2 U	4.8 U	4.8 U
4-Chloroaniline	µg/L	9.5 U	10 U	10 U	9.5 U	9.5 U
4-Chlorophenyl phenyl ether	µg/L	4.8 U	5.1 U	5.2 U	4.8 U	4.8 U
4-Nitroaniline	µg/L	19 U	20 U	21 U	19 U	19 U
4-Nitrophenol	µg/L	19 U	20 U	21 U	19 U	19 U
Acenaphthene	µg/L	4.8 U	5.1 U	5.2 U	4.8 U	4.8 U
Acenaphthylene	µg/L	4.8 U	5.1 U	5.2 U	4.8 U	4.8 U
Acetophenone	µg/L	4.8 U	5.1 U	5.2 U	4.8 U	4.8 U
Anthracene	µg/L	4.8 U	5.1 U	5.2 U	4.8 U	4.8 U
Atrazine	µg/L	2.9 U	3.1 U	3.1 U	2.9 U	2.9 U
Benzaldehyde	µg/L	4.8 U	5.1 U	5.2 U	4.8 U	4.8 U
Benzo(a)anthracene	µg/L	0.95 U	1.0 U	1.0 U	0.95 U	0.95 U
Benzo(a)pyrene	µg/L	0.95 U	1.0 U	1.0 U	0.95 U	0.95 U
Benzo(b)fluoranthene	µg/L	0.95 U	1.0 U	1.0 U	0.95 U	0.95 U
Benzo(g,h,i)perylene	µg/L	0.95 U	1.0 U	1.0 U	0.95 U	0.95 U
Benzo(k)fluoranthene	µg/L	0.95 U	1.0 U	1.0 U	0.95 U	0.95 U
Biphenyl (1,1-Biphenyl)	µg/L	4.8 U	5.1 U	5.2 U	4.8 U	4.8 U
bis(2-Chloroethoxy)methane	µg/L	4.8 U	5.1 U	5.2 U	4.8 U	4.8 U



Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Sample Location:	MW-16S	MW-16S	MW-17S	MW-17S	MW-18S
Sample Identification:	GW-082715-JL-29	GW-082715-JL-30	GW-082615-JL-19	GW-082615-JL-20	GW-082815-JL-40
Sample Date:	8/27/2015	8/27/2015	8/26/2015	8/26/2015	8/28/2015
Sample Type:		Duplicate		Duplicate	
Parameter	Units				
<b>Semi-Volatile Organic Compounds (Continued)</b>					
bis(2-Chloroethyl)ether	µg/L	0.95 U	1.0 U	1.0 U	0.95 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	4.8 U	5.1 U	5.2 U	4.8 U
Butyl benzylphthalate (BBP)	µg/L	4.8 U	5.1 U	5.2 U	4.8 U
Caprolactam	µg/L	9.5 U	10 U	10 U	9.5 U
Carbazole	µg/L	9.5 U	10 U	10 U	9.5 U
Chrysene	µg/L	0.95 U	1.0 U	1.0 U	0.95 U
Dibenz(a,h)anthracene	µg/L	1.9 U	2.0 U	2.1 U	1.9 U
Dibenzofuran	µg/L	3.8 U	4.1 U	4.1 U	3.8 U
Diethyl phthalate	µg/L	4.8 U	5.1 U	5.2 U	4.8 U
Dimethyl phthalate	µg/L	4.8 U	5.1 U	5.2 U	4.8 U
Di-n-butylphthalate (DBP)	µg/L	4.8 U	5.1 U	5.2 U	4.8 U
Di-n-octyl phthalate (DnOP)	µg/L	4.8 U	5.1 U	5.2 U	4.8 U
Fluoranthene	µg/L	0.95 U	1.0 U	1.0 U	0.95 U
Fluorene	µg/L	4.8 U	5.1 U	5.2 U	4.8 U
Hexachlorobenzene	µg/L	0.19 U	0.20 U	0.21 U	0.19 U
Hexachlorobutadiene	µg/L	0.95 U	1.0 U	1.0 U	0.95 U
Hexachlorocyclopentadiene	µg/L	4.8 U	5.1 U	5.2 U	4.8 U
Hexachloroethane	µg/L	4.8 U	5.1 U	5.2 U	4.8 U
Indeno(1,2,3-cd)pyrene	µg/L	1.9 U	2.0 U	2.1 U	1.9 U
Isophorone	µg/L	4.8 U	5.1 U	5.2 U	4.8 U
Naphthalene	µg/L	4.8 U	5.1 U	5.2 U	4.8 U
Nitrobenzene	µg/L	2.9 U	3.1 U	3.1 U	2.9 U
N-Nitrosodi-n-propylamine	µg/L	4.8 U	5.1 U	5.2 U	4.8 U
N-Nitrosodiphenylamine	µg/L	4.8 U	5.1 U	5.2 U	4.8 U
Pentachlorophenol	µg/L	4.8 U	5.1 U	5.2 U	4.8 U
Phenanthrene	µg/L	1.9 U	2.0 U	2.1 U	1.9 U
Phenol	µg/L	4.8 U	5.1 U	5.2 U	4.8 U
Pyrene	µg/L	4.8 U	5.1 U	5.2 U	4.8 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

	Sample Location:	MW-16S	MW-16S	MW-17S	MW-17S	MW-18S
	Sample Identification:	GW-082715-JL-29	GW-082715-JL-30	GW-082615-JL-19	GW-082615-JL-20	GW-082815-JL-40
	Sample Date:	8/27/2015	8/27/2015	8/26/2015	8/26/2015	8/28/2015
	Sample Type:		Duplicate		Duplicate	
Parameter	Units					
<b>Metals</b>						
Antimony	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Antimony (dissolved)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Arsenic	µg/L	5.0 U	5.0 U	11	9.5	5.0 U
Arsenic (dissolved)	µg/L	5.0 U	5.0 U	9.1	8.9	5.0 U
Barium	µg/L	55 J	54 J	93 J	91 J	68 J
Barium (dissolved)	µg/L	60 J	61 J	92 J	86 J	81 J
Beryllium	µg/L	1.0 U	1.0 U	0.065 J	1.0 U	1.0 U
Beryllium (dissolved)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	µg/L	1.0 U	1.0 U	0.082 J	1.0 U	1.0 U
Cadmium (dissolved)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chromium	µg/L	9.9 U	6.2 U	5.0 U	5.0 U	5.0 U
Chromium (dissolved)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chromium III (trivalent)	µg/L	9.9 J	6.2 J	20 U	20 U	20 U
Chromium VI (hexavalent)	µg/L	20 U	20 U	20 U	2.4 J	20 U
Cobalt	µg/L	1.7 J	1.5 J	1.4 J	1.3 J	0.12 J
Cobalt (dissolved)	µg/L	0.79 J	0.68 J	1.3 J	1.3 J	0.12 J
Copper	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Copper (dissolved)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Lead	µg/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Lead (dissolved)	µg/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Manganese	µg/L	22	20	550	500	15 U
Manganese (dissolved)	µg/L	8.6 J	14 J	520	500	5.0 J
Mercury	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Mercury (dissolved)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	260	200	2.6 J	2.4 J	0.52 J
Nickel (dissolved)	µg/L	210	260	2.4 J	2.4 J	0.51 J
Selenium	µg/L	1.9 J	2.0 J	5.0 U	5.0 U	5.0 U
Selenium (dissolved)	µg/L	2.4 J	2.2 J	5.0 U	5.0 U	5.0 U
Silver	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U

Table 2

**Analytical Results Summary  
 Quarterly Groundwater Monitoring  
 General Motors Janesville Assembly Plant  
 Janesville, Wisconsin  
 August 2015**

	<b>Sample Location:</b>	<b>MW-16S</b>	<b>MW-16S</b>	<b>MW-17S</b>	<b>MW-17S</b>	<b>MW-18S</b>
	<b>Sample Identification:</b>	<b>GW-082715-JL-29</b>	<b>GW-082715-JL-30</b>	<b>GW-082615-JL-19</b>	<b>GW-082615-JL-20</b>	<b>GW-082815-JL-40</b>
	<b>Sample Date:</b>	<b>8/27/2015</b>	<b>8/27/2015</b>	<b>8/26/2015</b>	<b>8/26/2015</b>	<b>8/28/2015</b>
	<b>Sample Type:</b>		<b>Duplicate</b>		<b>Duplicate</b>	
<b>Parameter</b>	<b>Units</b>					
<b>Metals (Continued)</b>						
Silver (dissolved)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Thallium	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Thallium (dissolved)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Vanadium (dissolved)	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Zinc	µg/L	20 U	20 U	13 J	20 U	7.5 J
Zinc (dissolved)	µg/L	20 U	20 U	20 U	20 U	20 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Sample Location:	MW-19S	MW-20S	MW-21S	MW-22S	MW-23S
Sample Identification:	GW-082815-JL-34	GW-082615-JL-21	GW-082815-JL-39	GW-082715-JL-22	GW-082815-JL-36
Sample Date:	8/28/2015	8/26/2015	8/28/2015	8/27/2015	8/28/2015
Sample Type:					
Parameter	Units				
<b>Volatile Organic Compounds</b>					
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	1.1 J	10 U	10 U	10 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

	<b>Sample Location:</b>	<b>MW-19S</b>	<b>MW-20S</b>	<b>MW-21S</b>	<b>MW-22S</b>	<b>MW-23S</b>
	<b>Sample Identification:</b>	<b>GW-082815-JL-34</b>	<b>GW-082615-JL-21</b>	<b>GW-082815-JL-39</b>	<b>GW-082715-JL-22</b>	<b>GW-082815-JL-36</b>
	<b>Sample Date:</b>	<b>8/28/2015</b>	<b>8/26/2015</b>	<b>8/28/2015</b>	<b>8/27/2015</b>	<b>8/28/2015</b>
	<b>Sample Type:</b>					
<b>Parameter</b>	<b>Units</b>					
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	10 U	10 U	10 U	10 U	10 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
<b>Semi-Volatile Organic Compounds</b>						
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
2,4,5-Trichlorophenol	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
2,4,6-Trichlorophenol	µg/L	4.0 U	4.0 U	4.3 U	3.8 U	4.0 U
2,4-Dichlorophenol	µg/L	9.9 U	10 U	11 U	9.6 U	9.9 U
2,4-Dimethylphenol	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
2,4-Dinitrophenol	µg/L	20 U	20 U	22 U	19 U	20 U
2,4-Dinitrotoluene	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
2,6-Dinitrotoluene	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Sample Location:	MW-19S	MW-20S	MW-21S	MW-22S	MW-23S	
Sample Identification:	GW-082815-JL-34	GW-082615-JL-21	GW-082815-JL-39	GW-082715-JL-22	GW-082815-JL-36	
Sample Date:	8/28/2015	8/26/2015	8/28/2015	8/27/2015	8/28/2015	
Sample Type:						
Parameter	Units					
<b>Semi-Volatile Organic Compounds (Continued)</b>						
2-Chloronaphthalene	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
2-Chlorophenol	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
2-Methylnaphthalene	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
2-Methylphenol	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
2-Nitroaniline	µg/L	20 U	20 U	22 U	19 U	20 U
2-Nitrophenol	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
3&4-Methylphenol	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
3,3'-Dichlorobenzidine	µg/L	0.99 U	1.0 U	1.1 U	0.96 U	0.99 U
3-Nitroaniline	µg/L	20 U	20 U	22 U	19 U	20 U
4,6-Dinitro-2-methylphenol	µg/L	20 U	20 U	22 U	19 U	20 U
4-Bromophenyl phenyl ether	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
4-Chloro-3-methylphenol	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
4-Chloroaniline	µg/L	R	10 U	11 U	9.6 U	9.9 U
4-Chlorophenyl phenyl ether	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
4-Nitroaniline	µg/L	20 U	20 U	22 U	19 U	20 U
4-Nitrophenol	µg/L	20 U	20 U	22 U	19 U	20 U
Acenaphthene	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
Acenaphthylene	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
Acetophenone	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
Anthracene	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
Atrazine	µg/L	3.0 U	3.0 U	3.3 U	2.9 U	3.0 U
Benzaldehyde	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
Benzo(a)anthracene	µg/L	0.99 U	1.0 U	1.1 U	0.96 U	0.99 U
Benzo(a)pyrene	µg/L	0.99 U	1.0 U	1.1 U	0.96 U	0.99 U
Benzo(b)fluoranthene	µg/L	0.99 U	1.0 U	1.1 U	0.96 U	0.99 U
Benzo(g,h,i)perylene	µg/L	0.99 U	1.0 U	1.1 U	0.96 U	0.99 U
Benzo(k)fluoranthene	µg/L	0.99 U	1.0 U	1.1 U	0.96 U	0.99 U
Biphenyl (1,1-Biphenyl)	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
bis(2-Chloroethoxy)methane	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Sample Location:	MW-19S	MW-20S	MW-21S	MW-22S	MW-23S	
Sample Identification:	GW-082815-JL-34	GW-082615-JL-21	GW-082815-JL-39	GW-082715-JL-22	GW-082815-JL-36	
Sample Date:	8/28/2015	8/26/2015	8/28/2015	8/27/2015	8/28/2015	
Sample Type:						
Parameter	Units					
<b>Semi-Volatile Organic Compounds (Continued)</b>						
bis(2-Chloroethyl)ether	µg/L	0.99 U	1.0 U	1.1 U	0.96 U	0.99 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
Butyl benzylphthalate (BBP)	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
Caprolactam	µg/L	R	10 U	0.31 J	9.6 U	9.9 U
Carbazole	µg/L	9.9 U	10 U	11 U	9.6 U	9.9 U
Chrysene	µg/L	0.99 U	1.0 U	1.1 U	0.96 U	0.99 U
Dibenz(a,h)anthracene	µg/L	2.0 U	2.0 U	2.2 U	1.9 U	2.0 U
Dibenzofuran	µg/L	4.0 U	4.0 U	4.3 U	3.8 U	4.0 U
Diethyl phthalate	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
Dimethyl phthalate	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
Di-n-butylphthalate (DBP)	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
Di-n-octyl phthalate (DnOP)	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
Fluoranthene	µg/L	0.99 U	1.0 U	1.1 U	0.96 U	0.99 U
Fluorene	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
Hexachlorobenzene	µg/L	0.20 U	0.20 U	0.22 U	0.19 U	0.20 U
Hexachlorobutadiene	µg/L	0.99 U	1.0 U	1.1 U	0.96 U	0.99 U
Hexachlorocyclopentadiene	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
Hexachloroethane	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
Indeno(1,2,3-cd)pyrene	µg/L	2.0 U	2.0 U	2.2 U	1.9 U	2.0 U
Isophorone	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
Naphthalene	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
Nitrobenzene	µg/L	3.0 U	3.0 U	3.3 U	2.9 U	3.0 U
N-Nitrosodi-n-propylamine	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
N-Nitrosodiphenylamine	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
Pentachlorophenol	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U
Phenanthrene	µg/L	2.0 U	2.0 U	2.2 U	1.9 U	2.0 U
Phenol	µg/L	5.0 U	5.0 U	0.88 J	4.8 U	5.0 U
Pyrene	µg/L	5.0 U	5.0 U	5.4 U	4.8 U	5.0 U



Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

	Sample Location:	MW-19S	MW-20S	MW-21S	MW-22S	MW-23S
	Sample Identification:	GW-082815-JL-34	GW-082615-JL-21	GW-082815-JL-39	GW-082715-JL-22	GW-082815-JL-36
	Sample Date:	8/28/2015	8/26/2015	8/28/2015	8/27/2015	8/28/2015
	Sample Type:					
Parameter	Units					
<b>Metals</b>						
Antimony	µg/L	0.51 J	0.93 J	2.0 U	0.60 J	2.0 U
Antimony (dissolved)	µg/L	0.52 J	0.92 J	2.0 U	0.58 J	2.0 U
Arsenic	µg/L	5.0 U	5.0 U	5.0 U	5.7	5.0 U
Arsenic (dissolved)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Barium	µg/L	70 J	48 J	74 J	59 J	33 J
Barium (dissolved)	µg/L	72 J	42 J	66 J	17 J	38 J
Beryllium	µg/L	0.17 J	1.0 U	1.0 U	0.51 J	1.0 U
Beryllium (dissolved)	µg/L	0.26 J	1.0 U	1.0 U	0.20 J	1.0 U
Cadmium	µg/L	0.26 J	0.071 J	1.0 U	0.33 J	1.0 U
Cadmium (dissolved)	µg/L	0.42 J	1.0 U	1.0 U	0.30 J	1.0 U
Chromium	µg/L	12 U	8.0 U	180	560	5.0 U
Chromium (dissolved)	µg/L	5.0 U	5.0 U	5.0 U	6.9 U	5.0 U
Chromium III (trivalent)	µg/L	12 J	8 J	180	560	20 U
Chromium VI (hexavalent)	µg/L	20 U	20 U	20 U	20 U	20 U
Cobalt	µg/L	3.2 J	0.078 J	1.5 J	2.6 J	0.24 J
Cobalt (dissolved)	µg/L	3.2 J	0.062 J	0.83 J	0.43 J	0.15 J
Copper	µg/L	1.3 J	0.75 J	7.2	19	1.1 J
Copper (dissolved)	µg/L	1.1 J	2.0 U	0.77 J	6.0	2.5
Lead	µg/L	0.23 J	3.0 U	0.12 J	3.3	0.11 J
Lead (dissolved)	µg/L	0.25 J	3.0 U	3.0 U	3.0 U	0.11 J
Manganese	µg/L	39	24	7.6 J	55	11 J
Manganese (dissolved)	µg/L	35	15	3.9 J	1.6 J	15 U
Mercury	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Mercury (dissolved)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	140	0.80 J	78	24	0.89 J
Nickel (dissolved)	µg/L	150	0.55 J	54	4.1 J	0.65 J
Selenium	µg/L	5.0 U	5.0 U	5.0 U	3.0 J	5.0 U
Selenium (dissolved)	µg/L	5.0 U	5.0 U	5.0 U	2.2 J	5.0 U
Silver	µg/L	0.20 U	0.20 U	0.20 U	0.036 J	0.20 U

**Table 2**  
**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

	<b>Sample Location:</b>	<b>MW-19S</b>	<b>MW-20S</b>	<b>MW-21S</b>	<b>MW-22S</b>	<b>MW-23S</b>
	<b>Sample Identification:</b>	<b>GW-082815-JL-34</b>	<b>GW-082615-JL-21</b>	<b>GW-082815-JL-39</b>	<b>GW-082715-JL-22</b>	<b>GW-082815-JL-36</b>
	<b>Sample Date:</b>	<b>8/28/2015</b>	<b>8/26/2015</b>	<b>8/28/2015</b>	<b>8/27/2015</b>	<b>8/28/2015</b>
	<b>Sample Type:</b>					
<b>Parameter</b>	<b>Units</b>					
<b>Metals (Continued)</b>						
Silver (dissolved)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Thallium	µg/L	0.17 J	1.0 U	1.0 U	0.21 J	1.0 U
Thallium (dissolved)	µg/L	0.27 J	1.0 U	1.0 U	0.14 J	1.0 U
Vanadium	µg/L	4.0 U	7.5	4.0 U	25	4.0 U
Vanadium (dissolved)	µg/L	4.0 U	7.4	4.0 U	6.6	4.0 U
Zinc	µg/L	7.4 J	20 U	8.8 J	38	9.4 J
Zinc (dissolved)	µg/L	20 U	20 U	20 U	20 U	20 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Sample Location:	MW-24S	MW-25S	MW-26S	MW-27S	MW-27S
Sample Identification:	GW-082715-JL-23	GW-082715-JL-24	GW-082515-JL-05	GW-082515-JL-06	GW-083515-JL-06
Sample Date:	8/27/2015	8/27/2015	8/25/2015	8/25/2015	8/25/2015
Sample Type:					

Parameter	Units					
<b>Volatile Organic Compounds</b>						
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 UJ	1.0 UJ	--
1,2,4-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	--
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
1,3,5-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U	--
2-Hexanone	µg/L	10 U	10 U	10 U	10 U	--
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U	--
Acetone	µg/L	10 U	10 U	10 U	10 U	--
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
Carbon disulfide	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--

Table 2

**Analytical Results Summary  
Quarterly Groundwater Monitoring  
General Motors Janesville Assembly Plant  
Janesville, Wisconsin  
August 2015**

Sample Location:	MW-24S	MW-25S	MW-26S	MW-27S	MW-27S
Sample Identification:	GW-082715-JL-23	GW-082715-JL-24	GW-082515-JL-05	GW-082515-JL-06	GW-083515-JL-06
Sample Date:	8/27/2015	8/27/2015	8/25/2015	8/25/2015	8/25/2015
Sample Type:					

Parameter	Units					
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
Cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
Methyl acetate	µg/L	10 U	10 U	10 U	10 U	--
Methyl cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
Methylene chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
Tetrachloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
Trichloroethene	µg/L	1.5	1.0 U	1.0 U	1.0 U	--
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
Vinyl chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
Xylenes (total)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	--
<b>Semi-Volatile Organic Compounds</b>						
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
2,4,5-Trichlorophenol	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
2,4,6-Trichlorophenol	µg/L	3.8 U	4.3 U	3.8 U	3.8 U	--
2,4-Dichlorophenol	µg/L	9.5 U	5.2 J	9.5 U	9.6 U	--
2,4-Dimethylphenol	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
2,4-Dinitrophenol	µg/L	19 U	21 U	19 U	19 U	--
2,4-Dinitrotoluene	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
2,6-Dinitrotoluene	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Sample Location:	MW-24S	MW-25S	MW-26S	MW-27S	MW-27S	
Sample Identification:	GW-082715-JL-23	GW-082715-JL-24	GW-082515-JL-05	GW-082515-JL-06	GW-083515-JL-06	
Sample Date:	8/27/2015	8/27/2015	8/25/2015	8/25/2015	8/25/2015	
Sample Type:						
Parameter	Units					
<b>Semi-Volatile Organic Compounds (Continued)</b>						
2-Chloronaphthalene	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
2-Chlorophenol	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
2-Methylnaphthalene	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
2-Methylphenol	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
2-Nitroaniline	µg/L	19 U	21 U	19 U	19 U	--
2-Nitrophenol	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
3&4-Methylphenol	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
3,3'-Dichlorobenzidine	µg/L	0.95 U	1.1 U	0.95 U	0.96 U	--
3-Nitroaniline	µg/L	19 U	21 U	19 U	19 U	--
4,6-Dinitro-2-methylphenol	µg/L	19 U	21 U	19 U	19 U	--
4-Bromophenyl phenyl ether	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
4-Chloro-3-methylphenol	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
4-Chloroaniline	µg/L	9.5 U	11 U	9.5 U	9.6 U	--
4-Chlorophenyl phenyl ether	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
4-Nitroaniline	µg/L	19 U	21 U	19 U	19 U	--
4-Nitrophenol	µg/L	19 U	21 U	19 U	19 U	--
Acenaphthene	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
Acenaphthylene	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
Acetophenone	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
Anthracene	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
Atrazine	µg/L	2.9 U	3.2 U	2.9 U	2.9 U	--
Benzaldehyde	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
Benzo(a)anthracene	µg/L	0.95 U	1.1 U	0.95 U	0.96 U	--
Benzo(a)pyrene	µg/L	0.95 U	1.1 U	0.95 U	0.96 U	--
Benzo(b)fluoranthene	µg/L	0.95 U	1.1 U	0.95 U	0.96 U	--
Benzo(g,h,i)perylene	µg/L	0.95 U	1.1 U	0.95 U	0.96 U	--
Benzo(k)fluoranthene	µg/L	0.95 U	1.1 U	0.95 U	0.96 U	--
Biphenyl (1,1-Biphenyl)	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
bis(2-Chloroethoxy)methane	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

	MW-24S	MW-25S	MW-26S	MW-27S	MW-27S	
<b>Sample Location:</b>						
<b>Sample Identification:</b>	GW-082715-JL-23	GW-082715-JL-24	GW-082515-JL-05	GW-082515-JL-06	GW-083515-JL-06	
<b>Sample Date:</b>	8/27/2015	8/27/2015	8/25/2015	8/25/2015	8/25/2015	
<b>Sample Type:</b>						
<b>Parameter</b>	<b>Units</b>					
<b>Semi-Volatile Organic Compounds (Continued)</b>						
bis(2-Chloroethyl)ether	µg/L	0.95 U	1.1 U	0.95 U	0.96 U	--
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
Butyl benzylphthalate (BBP)	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
Caprolactam	µg/L	9.5 U	11 U	9.5 U	9.6 U	--
Carbazole	µg/L	9.5 U	11 U	9.5 U	9.6 U	--
Chrysene	µg/L	0.95 U	1.1 U	0.95 U	0.96 U	--
Dibenz(a,h)anthracene	µg/L	1.9 U	2.1 U	1.9 U	1.9 U	--
Dibenzofuran	µg/L	3.8 U	4.3 U	3.8 U	3.8 U	--
Diethyl phthalate	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
Dimethyl phthalate	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
Di-n-butylphthalate (DBP)	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
Di-n-octyl phthalate (DnOP)	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
Fluoranthene	µg/L	0.95 U	1.1 U	0.95 U	0.96 U	--
Fluorene	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
Hexachlorobenzene	µg/L	0.19 U	0.21 U	0.19 U	0.19 U	--
Hexachlorobutadiene	µg/L	0.95 U	1.1 U	0.95 U	0.96 U	--
Hexachlorocyclopentadiene	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
Hexachloroethane	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
Indeno(1,2,3-cd)pyrene	µg/L	1.9 U	2.1 U	1.9 U	1.9 U	--
Isophorone	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
Naphthalene	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
Nitrobenzene	µg/L	2.9 U	3.2 U	2.9 U	2.9 U	--
N-Nitrosodi-n-propylamine	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
N-Nitrosodiphenylamine	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
Pentachlorophenol	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
Phenanthrene	µg/L	1.9 U	2.1 U	1.9 U	1.9 U	--
Phenol	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--
Pyrene	µg/L	4.8 U	5.3 U	4.8 U	4.8 U	--

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

	Sample Location:	MW-24S	MW-25S	MW-26S	MW-27S	MW-27S
	Sample Identification:	GW-082715-JL-23	GW-082715-JL-24	GW-082515-JL-05	GW-082515-JL-06	GW-083515-JL-06
	Sample Date:	8/27/2015	8/27/2015	8/25/2015	8/25/2015	8/25/2015
	Sample Type:					
Parameter	Units					
<b>Metals</b>						
Antimony	µg/L	0.28 J	2.0 U	2.0 U	2.0 U	--
Antimony (dissolved)	µg/L	0.20 J	2.0 U	2.0 U	2.0 U	--
Arsenic	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	--
Arsenic (dissolved)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	--
Barium	µg/L	57 J	32 J	97 J	96 J	--
Barium (dissolved)	µg/L	54 J	40 J	100	95 J	--
Beryllium	µg/L	0.070 J	0.073 J	1.0 U	1.0 U	--
Beryllium (dissolved)	µg/L	0.065 J	0.054 J	1.0 U	1.0 U	--
Cadmium	µg/L	0.12 J	1.0 U	1.0 U	1.0 U	--
Cadmium (dissolved)	µg/L	0.086 J	1.0 U	1.0 U	1.0 U	--
Chromium	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	--
Chromium (dissolved)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	--
Chromium III (trivalent)	µg/L	20 U	20 U	20 U	20 U	--
Chromium VI (hexavalent)	µg/L	20 U	20 U	20 U	20 U	--
Cobalt	µg/L	0.13 J	0.13 J	0.12 J	0.13 J	--
Cobalt (dissolved)	µg/L	0.11 J	0.11 J	0.12 J	0.11 J	--
Copper	µg/L	2.0 U	1.2 J	0.94 J	2.0 U	--
Copper (dissolved)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	--
Lead	µg/L	3.0 U	3.0 U	3.0 U	3.0 U	--
Lead (dissolved)	µg/L	3.0 U	3.0 U	3.0 U	3.0 U	--
Manganese	µg/L	15 U	1.3 J	3.7 J	15 U	--
Manganese (dissolved)	µg/L	15 U	15 U	4.0 J	15 U	--
Mercury	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	--
Mercury (dissolved)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	--
Nickel	µg/L	0.42 J	0.54 J	0.49 J	0.48 J	--
Nickel (dissolved)	µg/L	0.39 J	0.34 J	0.46 J	0.47 J	--
Selenium	µg/L	1.0 J	1.1 J	5.0 U	5.0 U	--
Selenium (dissolved)	µg/L	0.81 J	1.4 J	5.0 U	5.0 U	--
Silver	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	--



**Table 2**  
**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

	<b>Sample Location:</b>	<b>MW-24S</b>	<b>MW-25S</b>	<b>MW-26S</b>	<b>MW-27S</b>	<b>MW-27S</b>
	<b>Sample Identification:</b>	<b>GW-082715-JL-23</b>	<b>GW-082715-JL-24</b>	<b>GW-082515-JL-05</b>	<b>GW-082515-JL-06</b>	<b>GW-083515-JL-06</b>
	<b>Sample Date:</b>	<b>8/27/2015</b>	<b>8/27/2015</b>	<b>8/25/2015</b>	<b>8/25/2015</b>	<b>8/25/2015</b>
	<b>Sample Type:</b>					
<b>Parameter</b>	<b>Units</b>					
<b>Metals (Continued)</b>						
Silver (dissolved)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	--
Thallium	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
Thallium (dissolved)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	--
Vanadium	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	--
Vanadium (dissolved)	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	--
Zinc	µg/L	20 U	9.4 J	20 U	20 U	--
Zinc (dissolved)	µg/L	20 U	20 U	20 U	20 U	--

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Sample Location: Sample Identification: Sample Date: Sample Type:		Trip Blank TRIP BLANK 8/24/2015 (other)	Trip Blank TRIP BLANK 8/25/2015 (other)	Trip Blank TRIP BLANK 8/26/2015 (other)	Trip Blank TRIP BLANK 8/27/2015 (other)	Trip Blank TRIP BLANK 8/28/2015 (other)
<b>Parameter</b>	<b>Units</b>					
<b>Volatile Organic Compounds</b>						
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U	10 U
Acetone	µg/L	11	10 U	6.4 J	5.5 J	10 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

**Analytical Results Summary  
 Quarterly Groundwater Monitoring  
 General Motors Janesville Assembly Plant  
 Janesville, Wisconsin  
 August 2015**

Sample Location: Sample Identification: Sample Date: Sample Type:		Trip Blank TRIP BLANK 8/24/2015 (other)	Trip Blank TRIP BLANK 8/25/2015 (other)	Trip Blank TRIP BLANK 8/26/2015 (other)	Trip Blank TRIP BLANK 8/27/2015 (other)	Trip Blank TRIP BLANK 8/28/2015 (other)
<b>Parameter</b>	<b>Units</b>					
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	10 U	10 U	10 U	10 U	10 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	1.2	1.0 U	1.1	2.8	2.5
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
<b>Semi-Volatile Organic Compounds</b>						
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	--	--	--	--	--
2,4,5-Trichlorophenol	µg/L	--	--	--	--	--
2,4,6-Trichlorophenol	µg/L	--	--	--	--	--
2,4-Dichlorophenol	µg/L	--	--	--	--	--
2,4-Dimethylphenol	µg/L	--	--	--	--	--
2,4-Dinitrophenol	µg/L	--	--	--	--	--
2,4-Dinitrotoluene	µg/L	--	--	--	--	--
2,6-Dinitrotoluene	µg/L	--	--	--	--	--

**Table 2**  
**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Sample Location:	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank
Sample Identification:	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK
Sample Date:	8/24/2015	8/25/2015	8/26/2015	8/27/2015	8/28/2015
Sample Type:	(other)	(other)	(other)	(other)	(other)
Parameter	Units				
<b>Semi-Volatile Organic Compounds (Continued)</b>					
2-Chloronaphthalene	µg/L	--	--	--	--
2-Chlorophenol	µg/L	--	--	--	--
2-Methylnaphthalene	µg/L	--	--	--	--
2-Methylphenol	µg/L	--	--	--	--
2-Nitroaniline	µg/L	--	--	--	--
2-Nitrophenol	µg/L	--	--	--	--
3&4-Methylphenol	µg/L	--	--	--	--
3,3'-Dichlorobenzidine	µg/L	--	--	--	--
3-Nitroaniline	µg/L	--	--	--	--
4,6-Dinitro-2-methylphenol	µg/L	--	--	--	--
4-Bromophenyl phenyl ether	µg/L	--	--	--	--
4-Chloro-3-methylphenol	µg/L	--	--	--	--
4-Chloroaniline	µg/L	--	--	--	--
4-Chlorophenyl phenyl ether	µg/L	--	--	--	--
4-Nitroaniline	µg/L	--	--	--	--
4-Nitrophenol	µg/L	--	--	--	--
Acenaphthene	µg/L	--	--	--	--
Acenaphthylene	µg/L	--	--	--	--
Acetophenone	µg/L	--	--	--	--
Anthracene	µg/L	--	--	--	--
Atrazine	µg/L	--	--	--	--
Benzaldehyde	µg/L	--	--	--	--
Benzo(a)anthracene	µg/L	--	--	--	--
Benzo(a)pyrene	µg/L	--	--	--	--
Benzo(b)fluoranthene	µg/L	--	--	--	--
Benzo(g,h,i)perylene	µg/L	--	--	--	--
Benzo(k)fluoranthene	µg/L	--	--	--	--
Biphenyl (1,1-Biphenyl)	µg/L	--	--	--	--
bis(2-Chloroethoxy)methane	µg/L	--	--	--	--

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

	Sample Location: Sample Identification: Sample Date: Sample Type:	Trip Blank TRIP BLANK 8/24/2015 (other)	Trip Blank TRIP BLANK 8/25/2015 (other)	Trip Blank TRIP BLANK 8/26/2015 (other)	Trip Blank TRIP BLANK 8/27/2015 (other)	Trip Blank TRIP BLANK 8/28/2015 (other)
Parameter	Units					
<b>Semi-Volatile Organic Compounds (Continued)</b>						
bis(2-Chloroethyl)ether	µg/L	--	--	--	--	--
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	--	--	--	--	--
Butyl benzylphthalate (BBP)	µg/L	--	--	--	--	--
Caprolactam	µg/L	--	--	--	--	--
Carbazole	µg/L	--	--	--	--	--
Chrysene	µg/L	--	--	--	--	--
Dibenz(a,h)anthracene	µg/L	--	--	--	--	--
Dibenzofuran	µg/L	--	--	--	--	--
Diethyl phthalate	µg/L	--	--	--	--	--
Dimethyl phthalate	µg/L	--	--	--	--	--
Di-n-butylphthalate (DBP)	µg/L	--	--	--	--	--
Di-n-octyl phthalate (DnOP)	µg/L	--	--	--	--	--
Fluoranthene	µg/L	--	--	--	--	--
Fluorene	µg/L	--	--	--	--	--
Hexachlorobenzene	µg/L	--	--	--	--	--
Hexachlorobutadiene	µg/L	--	--	--	--	--
Hexachlorocyclopentadiene	µg/L	--	--	--	--	--
Hexachloroethane	µg/L	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	µg/L	--	--	--	--	--
Isophorone	µg/L	--	--	--	--	--
Naphthalene	µg/L	--	--	--	--	--
Nitrobenzene	µg/L	--	--	--	--	--
N-Nitrosodi-n-propylamine	µg/L	--	--	--	--	--
N-Nitrosodiphenylamine	µg/L	--	--	--	--	--
Pentachlorophenol	µg/L	--	--	--	--	--
Phenanthrene	µg/L	--	--	--	--	--
Phenol	µg/L	--	--	--	--	--
Pyrene	µg/L	--	--	--	--	--

**Table 2**  
**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

	<b>Sample Location:</b>	<b>Trip Blank</b>	<b>Trip Blank</b>	<b>Trip Blank</b>	<b>Trip Blank</b>	<b>Trip Blank</b>
	<b>Sample Identification:</b>	<b>TRIP BLANK</b>	<b>TRIP BLANK</b>	<b>TRIP BLANK</b>	<b>TRIP BLANK</b>	<b>TRIP BLANK</b>
	<b>Sample Date:</b>	<b>8/24/2015</b>	<b>8/25/2015</b>	<b>8/26/2015</b>	<b>8/27/2015</b>	<b>8/28/2015</b>
	<b>Sample Type:</b>	<b>(other)</b>	<b>(other)</b>	<b>(other)</b>	<b>(other)</b>	<b>(other)</b>
<b>Parameter</b>	<b>Units</b>					
<b>Metals</b>						
Antimony	µg/L	--	--	--	--	--
Antimony (dissolved)	µg/L	--	--	--	--	--
Arsenic	µg/L	--	--	--	--	--
Arsenic (dissolved)	µg/L	--	--	--	--	--
Barium	µg/L	--	--	--	--	--
Barium (dissolved)	µg/L	--	--	--	--	--
Beryllium	µg/L	--	--	--	--	--
Beryllium (dissolved)	µg/L	--	--	--	--	--
Cadmium	µg/L	--	--	--	--	--
Cadmium (dissolved)	µg/L	--	--	--	--	--
Chromium	µg/L	--	--	--	--	--
Chromium (dissolved)	µg/L	--	--	--	--	--
Chromium III (trivalent)	µg/L	--	--	--	--	--
Chromium VI (hexavalent)	µg/L	--	--	--	--	--
Cobalt	µg/L	--	--	--	--	--
Cobalt (dissolved)	µg/L	--	--	--	--	--
Copper	µg/L	--	--	--	--	--
Copper (dissolved)	µg/L	--	--	--	--	--
Lead	µg/L	--	--	--	--	--
Lead (dissolved)	µg/L	--	--	--	--	--
Manganese	µg/L	--	--	--	--	--
Manganese (dissolved)	µg/L	--	--	--	--	--
Mercury	µg/L	--	--	--	--	--
Mercury (dissolved)	µg/L	--	--	--	--	--
Nickel	µg/L	--	--	--	--	--
Nickel (dissolved)	µg/L	--	--	--	--	--
Selenium	µg/L	--	--	--	--	--
Selenium (dissolved)	µg/L	--	--	--	--	--
Silver	µg/L	--	--	--	--	--

**Table 2**  
**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

	<b>Sample Location:</b>	<b>Trip Blank</b>	<b>Trip Blank</b>	<b>Trip Blank</b>	<b>Trip Blank</b>	<b>Trip Blank</b>
	<b>Sample Identification:</b>	<b>TRIP BLANK</b>	<b>TRIP BLANK</b>	<b>TRIP BLANK</b>	<b>TRIP BLANK</b>	<b>TRIP BLANK</b>
	<b>Sample Date:</b>	<b>8/24/2015</b>	<b>8/25/2015</b>	<b>8/26/2015</b>	<b>8/27/2015</b>	<b>8/28/2015</b>
	<b>Sample Type:</b>	<b>(other)</b>	<b>(other)</b>	<b>(other)</b>	<b>(other)</b>	<b>(other)</b>
<b>Parameter</b>	<b>Units</b>					
<b>Metals (Continued)</b>						
Silver (dissolved)	µg/L	--	--	--	--	--
Thallium	µg/L	--	--	--	--	--
Thallium (dissolved)	µg/L	--	--	--	--	--
Vanadium	µg/L	--	--	--	--	--
Vanadium (dissolved)	µg/L	--	--	--	--	--
Zinc	µg/L	--	--	--	--	--
Zinc (dissolved)	µg/L	--	--	--	--	--

Notes:

- Not analyzed
- J - Estimated concentration
- U - Not detected at the associated reporting limit
- UJ - Not detected; associated reporting limit is estimated
- R - Rejected



**Table 3**  
**Analytical Methods**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Parameter	Method	Matrix	Preservation	Holding Time	
				Collection to Extraction (Days)	Collection or Extraction to Analysis (Days)
TCL VOC + TMB	SW-846 8260	Water	pH < 2 and Iced, 4 ± 2° C	-	14
TCL SVOC	SW-846 8270C	Water	Iced, 4 ± 2° C	7	40
TAL Metals	SW-846 6020	Water	pH < 2 and Iced, 4 ± 2° C	-	180
Mercury	SW-846 7470A	Water	pH < 2 and Iced, 4 ± 2° C	-	28
Hexavalent Chromium	SW-846 7196	Water	Iced, 4 ± 2° C	-	24 hours
Trivalent Chromium	SW-846 7196	Water	Iced, 4 ± 2° C	-	24 hours

## Notes:

## Method References:

SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions

TCL - Target Compound List  
TMB - Trimethylbenzene  
VOC - Volatile Organic Compounds  
SVOC - Semi-volatile Organic Compounds  
TAL - Target Analyte List

Table 4

**Qualified Sample Results Due to Outlying Continuing Calibration Results  
Quarterly Groundwater Monitoring  
General Motors Janesville Assembly Plant  
Janesville, Wisconsin  
August 2015**

Parameter	Analyte	Calibration Date (mm/dd/yyyy)	%D	Associated Sample ID	Qualified Result	Units
TCL VOC	1,2,4-Trichlorobenzene	8/31/2015	-25.5	GW-082515-JL-05	1.0 UJ	µg/L
				GW-082515-JL-06	1.0 UJ	µg/L
TCL VOC	1,2,4-Trichlorobenzene	8/31/2015	-28.9	GW-082415-JL-01	1.0 UJ	µg/L
				GW-082415-JL-02	1.0 UJ	µg/L
TCL VOC	Bromomethane	8/31/2015	-33.6	GW-082415-JL-01	1.0 UJ	µg/L
				GW-082415-JL-02	1.0 UJ	µg/L
TCL VOC	Chloroethane	8/31/2015	-29.1	GW-082415-JL-01	1.0 UJ	µg/L
				GW-082415-JL-02	1.0 UJ	µg/L
TCL SVOC	Hexachlorocyclopentadiene	8/27/2015	-27.9	GW-082415-JL-01	5.0 UJ	µg/L
				GW-082415-JL-02	4.8 UJ	µg/L

## Notes:

- %D - Percent difference
- UJ - Not detected; associated reporting limit is estimated
- TCL - Target Compound List
- VOC - Volatile Organic Compounds
- SVOC - Semi-volatile Organic Compounds

Table 5

**Qualified Sample Results Due to Analyte Concentrations in the Method Blanks**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Parameter	Analyte	Analysis Date (mm/dd/yyyy)	Blank Result	Sample ID	Original Result	Qualified Result	Units
TCL VOC	Acetone	9/1/2015	2.46 J	GW-082515-JL-12	1.8 J	10 U	µg/L
TCL VOC	Methylene chloride	9/2/2015	0.616 J	GW-082715-JL-27 GW-082815-JL-34	0.33 J 0.56 J	1.0 U 1.0 U	µg/L µg/L
TAL Metals	Arsenic	8/31/2015	0.215 J	GW-082415-JL-01 GW-082415-JL-02	0.36 J 0.84 J	5.0 U 5.0 U	µg/L µg/L
TAL Metals	Arsenic (dissolved)	8/31/2015	0.215 J	GW-082415-JL-01 GW-082415-JL-02	0.35 J 0.84 J	5.0 U 5.0 U	µg/L µg/L
TAL Metals	Cadmium Cadmium (dissolved)	8/28/2015	0.0790 J	GW-082415-JL-02 GW-082415-JL-02	0.091 J 0.079 J	1.0 U 1.0 U	µg/L µg/L
TAL Metals	Chromium	8/28/2015	2.52 J	GW-082415-JL-01 GW-082415-JL-02	2.3 J 5.8	5.0 U 5.8 U	µg/L µg/L
TAL Metals	Chromium (dissolved)	8/28/2015	2.52 J	GW-082415-JL-01 GW-082415-JL-02	2.4 J 3.4 J	5.0 U 5.0 U	µg/L µg/L
Cr III	Chromium III (trivalent)	9/01/2015	2.52 J	GW-082415-JL-02	0.0058 J	0.020 U	mg/L
TAL Metals	Cobalt	8/28/2015	0.0400 J	GW-082415-JL-01 GW-082415-JL-02	0.20 J 0.15 J	7.0 U 7.0 U	µg/L µg/L
TAL Metals	Cobalt (dissolved)	8/28/2015	0.0400 J	GW-082415-JL-01 GW-082415-JL-02	0.14 J 0.13 J	7.0 U 7.0 U	µg/L µg/L

Table 5

**Qualified Sample Results Due to Analyte Concentrations in the Method Blanks**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Parameter	Analyte	Analysis Date (mm/dd/yyyy)	Blank Result	Sample ID	Original Result	Qualified Result	Units
TAL Metals	Copper	8/28/2015	0.967 J	GW-082415-JL-02	0.96 J	2.0 U	µg/L
	Copper (dissolved)			GW-082415-JL-02	0.99 J	2.0 U	µg/L
TAL Metals	Lead	8/28/2015	0.227 J	GW-082415-JL-01	0.25 J	3.0 U	µg/L
				GW-082415-JL-02	0.13 J	3.0 U	µg/L
TAL Metals	Vanadium	8/28/2015	0.650 J	GW-082415-JL-01	0.59 J	4.0 U	µg/L
				GW-082415-JL-02	1.3 J	4.0 U	µg/L
TAL Metals	Vanadium (dissolved)	8/28/2015	0.650 J	GW-082415-JL-01	0.47 J	4.0 U	µg/L
				GW-082415-JL-02	1.5 J	4.0 U	µg/L
TAL Metals	Arsenic	8/28/2015	0.396 J	GW-082515-JL-03	0.93 J	5.0 U	µg/L
				GW-082515-JL-04	0.97 J	5.0 U	µg/L
				GW-082515-JL-07	0.79 J	5.0 U	µg/L
				GW-082515-JL-08	0.93 J	5.0 U	µg/L
				GW-082515-JL-09	0.77 J	5.0 U	µg/L
				GW-082515-JL-10	0.76 J	5.0 U	µg/L
				GW-082515-JL-11	0.80 J	5.0 U	µg/L
				GW-082515-JL-12	1.0 J	5.0 U	µg/L
				GW-082515-JL-05	0.77 J	5.0 U	µg/L
				GW-082515-JL-06	0.76 J	5.0 U	µg/L
TAL Metals	Arsenic (dissolved)	8/28/2015	0.396 J	GW-082515-JL-03	0.77 J	5.0 U	µg/L
				GW-082515-JL-04	0.68 J	5.0 U	µg/L
				GW-082515-JL-07	0.69 J	5.0 U	µg/L
				GW-082515-JL-08	0.83 J	5.0 U	µg/L

Table 5

**Qualified Sample Results Due to Analyte Concentrations in the Method Blanks**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Parameter	Analyte	Analysis Date (mm/dd/yyyy)	Blank Result	Sample ID	Original Result	Qualified Result	Units
TAL Metals	Arsenic (dissolved)	8/28/2015	0.396 J	GW-082515-JL-09	0.69 J	5.0 U	µg/L
				GW-082515-JL-10	0.71 J	5.0 U	µg/L
				GW-082515-JL-11	0.77 J	5.0 U	µg/L
				GW-082515-JL-12	0.98 J	5.0 U	µg/L
				GW-082515-JL-05	0.75 J	5.0 U	µg/L
				GW-082515-JL-06	0.74 J	5.0 U	µg/L
TAL Metals	Chromium	8/28/2015	2.37 J	GW-082515-JL-03	8.2	8.2 U	µg/L
				GW-082515-JL-09	3.5 J	5.0 U	µg/L
				GW-082515-JL-10	3.4 J	5.0 U	µg/L
				GW-082515-JL-11	4.2 J	5.0 U	µg/L
				GW-082515-JL-12	3.3 J	5.0 U	µg/L
				GW-082515-JL-05	2.7 J	5.0 U	µg/L
TAL Metals	Chromium (dissolved)	8/28/2015	2.37 J	GW-082515-JL-03	3.0 J	5.0 U	µg/L
				GW-082515-JL-04	3.7 J	5.0 U	µg/L
				GW-082515-JL-07	2.7 J	5.0 U	µg/L
				GW-082515-JL-08	3.0 J	5.0 U	µg/L
				GW-082515-JL-09	3.1 J	5.0 U	µg/L
				GW-082515-JL-10	3.1 J	5.0 U	µg/L
				GW-082515-JL-11	3.1 J	5.0 U	µg/L
				GW-082515-JL-12	2.6 J	5.0 U	µg/L
				GW-082515-JL-05	2.5 J	5.0 U	µg/L
GW-082515-JL-06	2.9 J	5.0 U	µg/L				

Table 5

**Qualified Sample Results Due to Analyte Concentrations in the Method Blanks**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Parameter	Analyte	Analysis Date (mm/dd/yyyy)	Blank Result	Sample ID	Original Result	Qualified Result	Units
Cr III	Chromium III (trivalent)	9/1/2015	2.37 J	GW-082515-JL-03	0.0082	0.020 U	mg/L
TAL Metals	Lead	8/28/2015	0.126 J	GW-082515-JL-04	0.15 J	3.0 U	µg/L
				GW-082515-JL-07	0.15 J	3.0 U	µg/L
				GW-082515-JL-08	0.18 J	3.0 U	µg/L
				GW-082515-JL-09	0.20 J	3.0 U	µg/L
				GW-082515-JL-10	0.17 J	3.0 U	µg/L
				GW-082515-JL-12	0.19 J	3.0 U	µg/L
				GW-082515-JL-05	0.14 J	3.0 U	µg/L
TAL Metals	Lead (dissolved)	8/28/2015	0.126 J	GW-082515-JL-03	0.12 J	3.0 U	µg/L
				GW-082515-JL-07	0.14 J	3.0 U	µg/L
				GW-082515-JL-11	0.13 J	3.0 U	µg/L
TAL Metals	Selenium	8/28/2015	0.805 J	GW-082515-JL-03	1.2 J	5.0 U	µg/L
				GW-082515-JL-04	1.4 J	5.0 U	µg/L
				GW-082515-JL-07	1.2 J	5.0 U	µg/L
				GW-082515-JL-08	2.4 J	5.0 U	µg/L
				GW-082515-JL-09	1.2 J	5.0 U	µg/L
				GW-082515-JL-10	1.1 J	5.0 U	µg/L
				GW-082515-JL-11	1.1 J	5.0 U	µg/L
				GW-082515-JL-12	1.4 J	5.0 U	µg/L
				GW-082515-JL-05	1.6 J	5.0 U	µg/L
				GW-082515-JL-06	1.3 J	5.0 U	µg/L
TAL Metals	Selenium (dissolved)	8/28/2015	0.805 J	GW-082515-JL-03	1.3 J	5.0 U	µg/L
				GW-082515-JL-04	1.2 J	5.0 U	µg/L
				GW-082515-JL-07	1.3 J	5.0 U	µg/L

Table 5

**Qualified Sample Results Due to Analyte Concentrations in the Method Blanks**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Parameter	Analyte	Analysis Date (mm/dd/yyyy)	Blank Result	Sample ID	Original Result	Qualified Result	Units
TAL Metals	Selenium (dissolved)	8/28/2015	0.805 J	GW-082515-JL-08	2.4 J	5.0 U	µg/L
				GW-082515-JL-09	1.1 J	5.0 U	µg/L
				GW-082515-JL-10	1.2 J	5.0 U	µg/L
				GW-082515-JL-11	1.1 J	5.0 U	µg/L
				GW-082515-JL-12	1.4 J	5.0 U	µg/L
				GW-082515-JL-05	1.5 J	5.0 U	µg/L
				GW-082515-JL-06	1.2 J	5.0 U	µg/L
TAL Metals	Vanadium	8/28/2015	0.646 J	GW-082515-JL-03	1.3 J	4.0 U	µg/L
				GW-082515-JL-08	0.86 J	4.0 U	µg/L
				GW-082515-JL-09	1.1 J	4.0 U	µg/L
				GW-082515-JL-10	1.1 J	4.0 U	µg/L
				GW-082515-JL-11	1.1 J	4.0 U	µg/L
				GW-082515-JL-12	0.74 J	4.0 U	µg/L
				GW-082515-JL-05	0.95 J	4.0 U	µg/L
TAL Metals	Vanadium (dissolved)	8/28/2015	0.646 J	GW-082515-JL-03	1.1 J	4.0 U	µg/L
				GW-082515-JL-04	1.2 J	4.0 U	µg/L
				GW-082515-JL-07	0.98 J	4.0 U	µg/L
				GW-082515-JL-08	1.5 J	4.0 U	µg/L
				GW-082515-JL-09	1.2 J	4.0 U	µg/L
				GW-082515-JL-10	1.1 J	4.0 U	µg/L
				GW-082515-JL-11	1.3 J	4.0 U	µg/L
				GW-082515-JL-12	0.93 J	4.0 U	µg/L
GW-082515-JL-05	0.94 J	4.0 U	µg/L				
GW-082515-JL-06	1.1 J	4.0 U	µg/L				



Table 5

**Qualified Sample Results Due to Analyte Concentrations in the Method Blanks**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Parameter	Analyte	Analysis Date (mm/dd/yyyy)	Blank Result	Sample ID	Original Result	Qualified Result	Units
TAL Metals	Arsenic	8/31/2015	0.286 J	GW-082615-JL-13	0.96 J	5.0 U	µg/L
				GW-082615-JL-14	2.1 J	5.0 U	µg/L
				GW-082615-JL-15	0.75 J	5.0 U	µg/L
				GW-082615-JL-16	1.0 J	5.0 U	µg/L
				GW-082615-JL-17	1.1 J	5.0 U	µg/L
				GW-082615-JL-18	0.55 J	5.0 U	µg/L
				GW-082615-JL-21	1.2 J	5.0 U	µg/L
TAL Metals	Arsenic (dissolved)	8/31/2015	0.286 J	GW-082615-JL-13	0.72 J	5.0 U	µg/L
				GW-082615-JL-14	2.3 J	5.0 U	µg/L
				GW-082615-JL-15	0.67 J	5.0 U	µg/L
				GW-082615-JL-16	0.70 J	5.0 U	µg/L
				GW-082615-JL-17	0.70 J	5.0 U	µg/L
				GW-082615-JL-18	0.57 J	5.0 U	µg/L
				GW-082615-JL-21	1.1 J	5.0 U	µg/L
TAL Metals	Chromium	8/31/2015	2.72 J	GW-082615-JL-13	3.6 J	5.0 U	µg/L
				GW-082615-JL-14	2.7 J	5.0 U	µg/L
				GW-082615-JL-15	3.3 J	5.0 U	µg/L
				GW-082615-JL-18	3.1 J	5.0 U	µg/L
				GW-082615-JL-19	2.2 J	5.0 U	µg/L
				GW-082615-JL-20	2.2 J	5.0 U	µg/L
				GW-082615-JL-21	8.0	8.0 U	µg/L
TAL Metals	Chromium (dissolved)	8/31/2015	2.72 J	GW-082615-JL-13	3.3 J	5.0 U	µg/L
				GW-082615-JL-14	2.7 J	5.0 U	µg/L
				GW-082615-JL-15	3.0 J	5.0 U	µg/L

Table 5

**Qualified Sample Results Due to Analyte Concentrations in the Method Blanks**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Parameter	Analyte	Analysis Date (mm/dd/yyyy)	Blank Result	Sample ID	Original Result	Qualified Result	Units
TAL Metals	Chromium (dissolved)	8/31/2015	2.72 J	GW-082615-JL-16	3.0 J	5.0 U	µg/L
				GW-082615-JL-17	2.9 J	5.0 U	µg/L
				GW-082615-JL-18	3.1 J	5.0 U	µg/L
				GW-082615-JL-19	2.1 J	5.0 U	µg/L
				GW-082615-JL-20	2.2 J	5.0 U	µg/L
				GW-082615-JL-21	2.4 J	5.0 U	µg/L
TAL Metals	Selenium	8/31/2015	0.318 J	GW-082615-JL-13	1.1 J	5.0 U	µg/L
				GW-082615-JL-14	0.28 J	5.0 U	µg/L
				GW-082615-JL-15	1.8 J	5.0 U	µg/L
				GW-082615-JL-16	1.1 J	5.0 U	µg/L
				GW-082615-JL-17	0.95 J	5.0 U	µg/L
				GW-082615-JL-18	0.59 J	5.0 U	µg/L
				GW-082615-JL-19	0.30 J	5.0 U	µg/L
				GW-082615-JL-20	0.33 J	5.0 U	µg/L
GW-082615-JL-21	0.69 J	5.0 U	µg/L				
TAL Metals	Selenium (dissolved)	8/31/2015	0.318 J	GW-082615-JL-13	0.77 J	5.0 U	µg/L
				GW-082615-JL-14	0.38 J	5.0 U	µg/L
				GW-082615-JL-15	1.7 J	5.0 U	µg/L
				GW-082615-JL-16	0.86 J	5.0 U	µg/L
				GW-082615-JL-17	0.94 J	5.0 U	µg/L
				GW-082615-JL-18	0.63 J	5.0 U	µg/L
				GW-082615-JL-19	0.37 J	5.0 U	µg/L
				GW-082615-JL-20	0.35 J	5.0 U	µg/L
GW-082615-JL-21	0.53 J	5.0 U	µg/L				

Table 5

**Qualified Sample Results Due to Analyte Concentrations in the Method Blanks**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Parameter	Analyte	Analysis Date (mm/dd/yyyy)	Blank Result	Sample ID	Original Result	Qualified Result	Units
TAL Metals	Vanadium	8/31/2015	0.881 J	GW-082615-JL-13	1.6 J	4.0 U	µg/L
				GW-082615-JL-14	0.87 J	4.0 U	µg/L
				GW-082615-JL-15	1.2 J	4.0 U	µg/L
				GW-082615-JL-16	0.90 J	4.0 U	µg/L
				GW-082615-JL-18	1.4 J	4.0 U	µg/L
				GW-082615-JL-19	0.76 J	4.0 U	µg/L
				GW-082615-JL-20	0.77 J	4.0 U	µg/L
TAL Metals	Vanadium (dissolved)	8/31/2015	0.881 J	GW-082615-JL-13	1.5 J	4.0 U	µg/L
				GW-082615-JL-14	0.93 J	4.0 U	µg/L
				GW-082615-JL-15	1.2 J	4.0 U	µg/L
				GW-082615-JL-16	1.4 J	4.0 U	µg/L
				GW-082615-JL-17	1.3 J	4.0 U	µg/L
				GW-082615-JL-18	1.2 J	4.0 U	µg/L
				GW-082615-JL-19	0.77 J	4.0 U	µg/L
TAL Metals	Arsenic	9/1/2015	0.272 J	GW-082615-JL-20	0.86 J	4.0 U	µg/L
				GW-082715-JL-23	0.74 J	5.0 U	µg/L
				GW-082715-JL-24	0.55 J	5.0 U	µg/L
				GW-082715-JL-25	1.4 J	5.0 U	µg/L
				GW-082715-JL-26	0.72 J	5.0 U	µg/L
				GW-082715-JL-27	0.44 J	5.0 U	µg/L
				GW-082715-JL-28	0.58 J	5.0 U	µg/L
GW-082715-JL-29	0.58 J	5.0 U	µg/L				
	GW-082715-JL-30	0.55 J	5.0 U	µg/L			

Table 5

**Qualified Sample Results Due to Analyte Concentrations in the Method Blanks**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Parameter	Analyte	Analysis Date (mm/dd/yyyy)	Blank Result	Sample ID	Original Result	Qualified Result	Units
TAL Metals	Arsenic (dissolved)	9/1/2015	0.272 J	GW-082715-JL-31	0.58 J	5.0 U	µg/L
				GW-082715-JL-22	2.2 J	5.0 U	µg/L
				GW-082715-JL-23	0.68 J	5.0 U	µg/L
				GW-082715-JL-24	0.71 J	5.0 U	µg/L
				GW-082715-JL-25	1.2 J	5.0 U	µg/L
				GW-082715-JL-26	0.65 J	5.0 U	µg/L
				GW-082715-JL-27	0.59 J	5.0 U	µg/L
				GW-082715-JL-28	0.55 J	5.0 U	µg/L
				GW-082715-JL-29	0.65 J	5.0 U	µg/L
				GW-082715-JL-30	0.60 J	5.0 U	µg/L
TAL Metals	Chromium	9/1/2015	3.21 J	GW-082715-JL-31	0.50 J	5.0 U	µg/L
				GW-082715-JL-23	4.2 J	5.0 U	µg/L
				GW-082715-JL-24	3.3 J	5.0 U	µg/L
				GW-082715-JL-27	4.8 J	5.0 U	µg/L
				GW-082715-JL-28	12	12 U	µg/L
				GW-082715-JL-29	9.9	9.9 U	µg/L
				GW-082715-JL-30	6.2	6.2 U	µg/L
TAL Metals	Chromium (dissolved)	9/1/2015	3.21 J	GW-082715-JL-31	3.4 J	5.0 U	µg/L
				GW-082715-JL-22	6.9	6.9 U	µg/L
				GW-082715-JL-23	4.0 J	5.0 U	µg/L
				GW-082715-JL-24	3.5 J	5.0 U	µg/L
				GW-082715-JL-25	5.2	5.2 U	µg/L
				GW-082715-JL-26	3.4 J	5.0 U	µg/L
				GW-082715-JL-27	2.9 J	5.0 U	µg/L
				GW-082715-JL-28	2.7 J	5.0 U	µg/L

Table 5

**Qualified Sample Results Due to Analyte Concentrations in the Method Blanks**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Parameter	Analyte	Analysis Date (mm/dd/yyyy)	Blank Result	Sample ID	Original Result	Qualified Result	Units
TAL Metals	Chromium (dissolved)	9/1/2015	3.21 J	GW-082715-JL-29	4.8 J	5.0 U	µg/L
				GW-082715-JL-30	4.5 J	5.0 U	µg/L
TAL Metals	Lead	9/1/2015	0.316 J	GW-082715-JL-31	2.9 J	5.0 U	µg/L
				GW-082715-JL-23	0.17 J	3.0 U	µg/L
				GW-082715-JL-24	0.16 J	3.0 U	µg/L
				GW-082715-JL-25	0.13 J	3.0 U	µg/L
				GW-082715-JL-26	0.12 J	3.0 U	µg/L
				GW-082715-JL-27	0.27 J	3.0 U	µg/L
TAL Metals	Lead (dissolved)	9/1/2015	0.316 J	GW-082715-JL-31	0.11 J	3.0 U	µg/L
				GW-082715-JL-22	0.27 J	3.0 U	µg/L
				GW-082715-JL-23	0.14 J	3.0 U	µg/L
				GW-082715-JL-24	0.13 J	3.0 U	µg/L
				GW-082715-JL-25	0.11 J	3.0 U	µg/L
				GW-082715-JL-27	0.12 J	3.0 U	µg/L
TAL Metals	Vanadium	9/1/2015	1.03 J	GW-082715-JL-28	0.25 J	3.0 U	µg/L
				GW-082715-JL-23	1.6 J	4.0 U	µg/L
				GW-082715-JL-24	1.3 J	4.0 U	µg/L
				GW-082715-JL-26	1.1 J	4.0 U	µg/L
				GW-082715-JL-27	1.0 J	4.0 U	µg/L
				GW-082715-JL-28	0.46 J	4.0 U	µg/L
				GW-082715-JL-29	0.54 J	4.0 U	µg/L
GW-082715-JL-30	0.60 J	4.0 U	µg/L				

Table 5

**Qualified Sample Results Due to Analyte Concentrations in the Method Blanks**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Parameter	Analyte	Analysis Date (mm/dd/yyyy)	Blank Result	Sample ID	Original Result	Qualified Result	Units
TAL Metals	Vanadium (dissolved)	9/1/2015	1.03 J	GW-082715-JL-31	1.2 J	4.0 U	µg/L
				GW-082715-JL-23	1.6 J	4.0 U	µg/L
				GW-082715-JL-24	1.5 J	4.0 U	µg/L
				GW-082715-JL-25	1.4 J	4.0 U	µg/L
				GW-082715-JL-26	1.6 J	4.0 U	µg/L
				GW-082715-JL-27	1.0 J	4.0 U	µg/L
				GW-082715-JL-28	0.90 J	4.0 U	µg/L
				GW-082715-JL-29	0.86 J	4.0 U	µg/L
				GW-082715-JL-30	0.75 J	4.0 U	µg/L
				GW-082715-JL-31	0.95 J	4.0 U	µg/L
TAL Metals	Arsenic	9/2/2015	0.306 J	GW-082815-JL-32	1.2 J	5.0 U	µg/L
				GW-082815-JL-33	0.99 J	5.0 U	µg/L
				GW-082815-JL-34	1.1 J	5.0 U	µg/L
				GW-082815-JL-35	0.56 J	5.0 U	µg/L
				GW-082815-JL-36	0.61 J	5.0 U	µg/L
				GW-082815-JL-37	0.62 J	5.0 U	µg/L
				GW-082815-JL-38	0.62 J	5.0 U	µg/L
				GW-082815-JL-39	0.68 J	5.0 U	µg/L
				GW-082815-JL-40	0.55 J	5.0 U	µg/L
				GW-082815-JL-41	0.62 J	5.0 U	µg/L
TAL Metals	Arsenic (dissolved)	9/2/2015	0.306 J	GW-082815-JL-32	1.2 J	5.0 U	µg/L
				GW-082815-JL-33	0.73 J	5.0 U	µg/L
				GW-082815-JL-34	1.0 J	5.0 U	µg/L
				GW-082815-JL-35	0.55 J	5.0 U	µg/L
				GW-082815-JL-36	0.61 J	5.0 U	µg/L

Table 5

**Qualified Sample Results Due to Analyte Concentrations in the Method Blanks**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Parameter	Analyte	Analysis Date (mm/dd/yyyy)	Blank Result	Sample ID	Original Result	Qualified Result	Units
TAL Metals	Arsenic (dissolved)	9/2/2015	0.306 J	GW-082815-JL-37	0.54 J	5.0 U	µg/L
				GW-082815-JL-38	0.54 J	5.0 U	µg/L
				GW-082815-JL-39	0.55 J	5.0 U	µg/L
				GW-082815-JL-40	0.55 J	5.0 U	µg/L
				GW-082815-JL-41	0.60 J	5.0 U	µg/L
TAL Metals	Chromium	9/2/2015	3.06 J	GW-082815-JL-34	12	12 U	µg/L
				GW-082815-JL-35	3.7 J	5.0 U	µg/L
				GW-082815-JL-36	3.8 J	5.0 U	µg/L
				GW-082815-JL-37	4.5 J	5.0 U	µg/L
				GW-082815-JL-38	4.2 J	5.0 U	µg/L
				GW-082815-JL-40	3.5 J	5.0 U	µg/L
				GW-082815-JL-41	15	15 U	µg/L
TAL Metals	Chromium (dissolved)	9/2/2015	3.06 J	GW-082815-JL-32	4.5 J	5.0 U	µg/L
				GW-082815-JL-33	3.5 J	5.0 U	µg/L
				GW-082815-JL-34	4.5 J	5.0 U	µg/L
				GW-082815-JL-35	3.6 J	5.0 U	µg/L
				GW-082815-JL-36	3.6 J	5.0 U	µg/L
				GW-082815-JL-37	3.8 J	5.0 U	µg/L
				GW-082815-JL-38	3.7 J	5.0 U	µg/L
				GW-082815-JL-39	3.7 J	5.0 U	µg/L
				GW-082815-JL-40	3.2 J	5.0 U	µg/L
GW-082815-JL-41	3.3 J	5.0 U	µg/L				
TAL Metals	Selenium	9/2/2015	0.377 J	GW-082815-JL-32	1.9 J	5.0 U	µg/L
				GW-082815-JL-33	1.8 J	5.0 U	µg/L



Table 5

**Qualified Sample Results Due to Analyte Concentrations in the Method Blanks**  
**Quarterly Groundwater Monitoring**  
**General Motors Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**August 2015**

Parameter	Analyte	Analysis Date (mm/dd/yyyy)	Blank Result	Sample ID	Original Result	Qualified Result	Units
TAL Metals	Selenium	9/2/2015	0.377 J	GW-082815-JL-34	1.9 J	5.0 U	µg/L
				GW-082815-JL-35	0.84 J	5.0 U	µg/L
				GW-082815-JL-36	1.2 J	5.0 U	µg/L
				GW-082815-JL-37	0.62 J	5.0 U	µg/L
				GW-082815-JL-38	0.64 J	5.0 U	µg/L
				GW-082815-JL-39	0.69 J	5.0 U	µg/L
				GW-082815-JL-40	0.70 J	5.0 U	µg/L
				GW-082815-JL-41	0.80 J	5.0 U	µg/L
TAL Metals	Selenium (dissolved)	9/2/2015	0.377 J	GW-082815-JL-32	1.9 J	5.0 U	µg/L
				GW-082815-JL-33	1.8 J	5.0 U	µg/L
				GW-082815-JL-34	1.9 J	5.0 U	µg/L
				GW-082815-JL-35	0.94 J	5.0 U	µg/L
				GW-082815-JL-36	1.2 J	5.0 U	µg/L
				GW-082815-JL-37	0.49 J	5.0 U	µg/L
				GW-082815-JL-38	0.61 J	5.0 U	µg/L
				GW-082815-JL-39	0.74 J	5.0 U	µg/L
				GW-082815-JL-40	0.58 J	5.0 U	µg/L
				GW-082815-JL-41	0.70 J	5.0 U	µg/L
TAL Metals	Vanadium	9/2/2015	1.04 J	GW-082815-JL-32	1.4 J	4.0 U	µg/L
				GW-082815-JL-34	0.99 J	4.0 U	µg/L
				GW-082815-JL-35	1.8 J	4.0 U	µg/L
				GW-082815-JL-36	1.9 J	4.0 U	µg/L
				GW-082815-JL-37	1.8 J	4.0 U	µg/L
				GW-082815-JL-38	1.6 J	4.0 U	µg/L
				GW-082815-JL-39	0.69 J	4.0 U	µg/L

Table 5

**Qualified Sample Results Due to Analyte Concentrations in the Method Blanks  
Quarterly Groundwater Monitoring  
General Motors Janesville Assembly Plant  
Janesville, Wisconsin  
August 2015**

Parameter	Analyte	Analysis Date (mm/dd/yyyy)	Blank Result	Sample ID	Original Result	Qualified Result	Units
TAL Metals	Vanadium	9/2/2015	1.04 J	GW-082815-JL-40	1.6 J	4.0 U	µg/L
				GW-082815-JL-41	1.5 J	4.0 U	µg/L
TAL Metals	Vanadium (dissolved)	9/2/2015	1.04 J	GW-082815-JL-32	2.0 J	4.0 U	µg/L
				GW-082815-JL-33	1.4 J	4.0 U	µg/L
				GW-082815-JL-34	1.3 J	4.0 U	µg/L
				GW-082815-JL-35	1.7 J	4.0 U	µg/L
				GW-082815-JL-36	2.0 J	4.0 U	µg/L
				GW-082815-JL-37	1.6 J	4.0 U	µg/L
				GW-082815-JL-38	1.5 J	4.0 U	µg/L
				GW-082815-JL-39	1.5 J	4.0 U	µg/L
				GW-082815-JL-40	1.6 J	4.0 U	µg/L
				GW-082815-JL-41	1.5 J	4.0 U	µg/L

## Notes:

- U - Not detected at the associated reporting limit
- J - Estimated concentration
- TAL - Target Analyte List
- VOC - Volatile Organic Compounds

Table 6

**Qualified Sample Results Due to Analyte Concentrations in the Instrument Blanks  
Quarterly Groundwater Monitoring  
General Motors Janesville Assembly Plant  
Janesville, Wisconsin  
August 2015**

Parameter	Analyte	Blank ID	Analysis Date (mm/dd/yyyy)	Blank Result	Sample ID	Original Result	Qualified Result	Units
TAL Metals	Selenium	CBK	8/31/2015	0.371 J	GW-082415-JL-01	0.36 J	5.0 U	µg/L
					GW-082415-JL-02	0.50 J	5.0 U	µg/L
TAL Metals	Selenium (dissolved)	CBK	8/31/2015	0.371 J	GW-082415-JL-01	0.33 J	5.0 U	µg/L
					GW-082415-JL-02	0.51 J	5.0 U	µg/L

## Notes:

- CCB - Continuing Calibration Blank
- ICB - Initial Calibration Blank
- U - Not detected at the associated reporting limit
- J - Estimated concentration
- TAL - Target Analyte List

Table 7

**Qualified Sample Results Due to Outlying MS/MSD Results  
Quarterly Groundwater Monitoring  
General Motors Janesville Assembly Plant  
Janesville, Wisconsin  
August 2015**

Parameter	Sample ID	Analyte	MS	MSD	RPD (percent)	Control Limits		Qualified Result	Units
			% Recovery	% Recovery		% Recovery	RPD		
TCL SVOC	GW-082615-JL-16	4-Chloroaniline	13	11	17	20 - 110	50	9.9 UJ	µg/L
		Caprolactam	7	7	2	10 - 126	59	R	
TCL SVOC	GW-082815-JL-34	4-Chloroaniline	13	9	36	20 - 110	50	R	
		Caprolactam	7	8	6	10 - 126	59	R	

## Notes:

- MS - Matrix Spike
- MSD - Matrix Spike Duplicate
- RPD - Relative Percent Difference
- UJ - Not detected; associated reporting limit is estimated
- R - Rejected
- TCL - Target Compound List
- SVOC - Semi-volatile Organic Compounds

Table 8

**Qualified Sample Data Due to Analyte Concentrations in the Trip Blanks  
Quarterly Groundwater Monitoring  
General Motors Janesville Assembly Plant  
Janesville, Wisconsin  
August 2015**

<b>Parameter</b>	<b>Blank Date (mm/dd/yyyy)</b>	<b>Analyte</b>	<b>Blank Result</b>	<b>Associated Sample ID</b>	<b>Original Result</b>	<b>Qualified Result</b>	<b>Units</b>
VOC	8/25/2015	Acetone	11	GW-082415-JL-01	3.3 J	10 U	µg/L

## Notes:

- U - Not detected at the associated reporting limit
- J - Estimated concentration
- VOC - Volatile Organic Compounds

Table 9

**Summary of Qualified Sample Data Due to Discrepancies Between Total/Hexavalent Chromium Results  
Quarterly Groundwater Monitoring  
General Motors Janesville Assembly Plant  
Janesville, Wisconsin  
August 2015**

<b>Sample ID</b>	<b>Analyte</b>	<b>Qualified Total Cr Result</b>	<b>Qualified Hex Cr Result</b>	<b>Units</b>
GW-082615-JL-14	Chromium VI (hexavalent)	0.005 U	0.0062 J	mg/L
GW-082615-JL-20	Chromium VI (hexavalent)	0.005 U	0.0024 J	mg/L

## Notes:

%D - Percent Difference

Cr - Chromium

Hex Cr - Hexavalent Chromium

J - Estimated concentration


UJ - Not detected; associated reporting limit is estimated



# Memorandum

To: Julie Charlton

Ref. No.: 058507-108011

From: Kathy Shaw/eew/150-NF 

Date: November 24, 2015

**Re: Analytical Results and Full Validation  
Quarterly Groundwater Monitoring  
General Motors Janesville Assembly Plant  
Janesville, Wisconsin  
October 2015**

## 1. Introduction

This document details a validation of analytical results for groundwater samples collected in support of Quarterly Groundwater Monitoring at the General Motors Janesville Assembly Plant Site during October 2015. The samples were submitted to TestAmerica Laboratories, Inc., located in North Canton, Ohio. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Full Contract Laboratory Program (CLP) equivalent raw data deliverables were provided by the laboratory. Evaluation of the data was based on information obtained from the finished data sheets, raw data, chain of custody forms, calibration data, blank data, recovery data from surrogate spikes/laboratory control samples (LCS)/matrix spike (MS) samples, and field quality assurance/quality control (QA/QC) samples. The assessment of analytical and in-house data included checks for: data consistency (by observing comparability of duplicate analyses), adherence to accuracy and precision criteria, and transmittal errors.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the documents entitled:

- i) QAPP - General Motors Janesville Assembly Plant, Janesville, Wisconsin, September, 2014.
- ii) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review", USEPA 540-R-10-011, January 2010.
- iii) "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review", USEPA 540-R-08-01, June 2008.

Items i), ii), and iii) will subsequently be referred to as the "Guidelines" in this Memorandum.



## 2. Sample Holding Time and Preservation

The sample holding time criteria and sample preservation requirements for the analyses are summarized in Table 3. Sample chain of custody documents and analytical reports were used to determine sample holding times. All samples were prepared and analyzed within the required holding times.

All samples were properly preserved, delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

## 3. Gas Chromatography/Mass Spectrometer (GC/MS) – Tuning and Mass Calibration (Instrument Performance Check) and Inductively Coupled Plasma/Mass Spectrometer (ICP/MS)

### 3.1 Organic Analyses

Prior to volatile organic compound (VOC) and semi-volatile organic compound (SVOC) analysis, GC/MS instrumentation is tuned to ensure optimization over the mass range of interest. To evaluate instrument tuning, methods require the analysis of specific tuning compounds bromofluorobenzene (BFB) and decafluorotriphenylphosphine (DFTPP), respectively. The resulting spectra must meet the criteria cited in the methods before analysis is initiated. Analysis of the tuning compound must then be repeated every 12 hours throughout sample analysis to ensure the continued optimization of the instrument.

Tuning compounds were analyzed at the required frequency throughout VOC and SVOC analysis periods. All tuning criteria were met; indicating that proper optimization of the instrumentation was achieved.

### 3.2 Inorganic Analyses

To ensure adequate mass resolution, identification, and to some degree, sensitivity, the performance of each ICP/MS instrument used for metals analyses is checked prior to calibration and initiating an analysis sequence through the analysis of a tuning solution.

Instrument performance check data were reviewed. The tuning solution was analyzed at the required frequency throughout the analyses. The results of all instrument performance checks were within the method acceptance criteria, indicating that proper optimization of the instrumentation was achieved.

## 4. Initial Calibration - Organic Analyses

### 4.1 GC/MS

To quantify VOCs and SVOCs of interest in samples, calibration of the GC/MS over a specific concentration range must be performed. Initially, a five-point calibration curve containing all compounds of interest is analyzed to characterize instrument response for each analyte over a specific concentration range. Linearity of the calibration curve and instrument sensitivity are evaluated against the following criteria:

- i) All relative response factors (RRFs) must be greater than or equal to 0.050 (greater than or equal to 0.010 for compounds that exhibit poor response).

- ii) The percent relative standard deviation (%RSD) values must not exceed 20.0 percent (40.0 percent for compounds that exhibit poor response) or a minimum correlation coefficient (R) and minimum coefficient of determination (R<sup>2</sup>) of 0.99 if linear and quadratic equation calibration curves are used.

The initial calibration data for VOCs and SVOCs were reviewed. All compounds met the above criteria for sensitivity and linearity.

## 5. Initial Calibration – Inorganic Analyses

Initial calibration of the instruments ensures that they are capable of producing satisfactory quantitative data at the beginning of a series of analyses. For ICP/MS analysis, a calibration blank and at least one standard must be analyzed at each wavelength to establish the analytical curve. For mercury atomic absorption (AA) analyses, a calibration blank and a minimum of five standards must be analyzed to establish the analytical curve, and resulting correlation coefficients (R) must be 0.995 or greater. For instrumental general chemistry analyses, a calibration blank and a minimum of five (this could vary by method) standards must be analyzed to establish the analytical curve, and resulting correlation coefficients (R) must be 0.995 or greater.

After the analyses of the calibration curves, an initial calibration verification (ICV) standard must be analyzed to verify the analytical accuracy of the calibration curves. All analyte recoveries from the analyses of the ICVs must be within the following control limits:

Analytical Method	Parameter	Control Limits
Cold Vapor AA	Mercury	80 - 120%
Instrumental Wet Chemistry	Hexavalent Chromium	85 - 115%

Upon review of the data, it was determined that the calibration curves and ICVs were analyzed at the proper frequencies and that all of the above-specified criteria were met. The laboratory effectively demonstrated that the instrumentation used for metals and general chemistry analyses were properly calibrated prior to sample analysis.

## 6. Continuing Calibration - Organic Analyses

### 6.1 GC/MS

To ensure that instrument calibration for VOC and SVOC analyses is acceptable throughout the sample analysis period, continuing calibration standards must be analyzed and compared to the initial calibration curve every 12 hours.

The following criteria were employed to evaluate continuing calibration data:

- i) All RRF values must be greater than or equal to 0.050 (greater than or equal to 0.010 for compounds that exhibit poor response)
- ii) Percent difference (%D) values must not exceed 25.0 percent (40.0 percent for compounds that exhibit poor response)

The calibration standards were analyzed at the required frequency, and the results met the above criteria for instrument sensitivity. Some continuing calibration standard results indicated variability in instrument

response for various compounds yielding a high %D. Associated results affected by the change in instrument response are qualified in Table 4.

## 7. Continuing Calibration - Inorganic Analyses

To ensure that instrument calibration is acceptable throughout the sample analysis period, continuing calibration verification (CCV) standards are analyzed on a regular basis. Each CCV is deemed acceptable if all analyte recoveries are within the control limits specified above for the ICVs. If some of the CCV analyte recoveries are outside the control limits, samples analyzed before and after the CCV, up until the previous and proceeding CCV analyses, are affected.

For this study, CCVs were analyzed at the proper frequency. All analyte recoveries reported for the CCVs were within the specified limits.

## 8. Contract Required Detection Limit (CRDL) Standard Analyses

To verify the linearity of the ICP/MS calibration near the detection limit, a standard is analyzed which contains the ICP/MS analytes at specified concentrations. This standard must be analyzed at the beginning and end of each sample analysis run or a minimum of twice per 8-hour period.

CRDL recoveries were evaluated using the criteria specified in the October 2004 "Guidelines". The CRDL recoveries were acceptable.

## 9. Laboratory Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures. Additionally, initial and continuing calibration blanks (ICBs/CCBs) are routinely analyzed after each ICV/CCV for the inorganic parameters.

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

### 9.1 Organic Analyses

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

### 9.2 Inorganic Analyses

Upon review of the ICBs, CCBs, and method blanks, it was noted that metal concentrations were observed above the method detection limit (MDL). Associated positive sample results with similar concentrations to the levels reported in the method blanks were qualified as non-detect in Table 5 and, the associated positive sample results with similar concentrations to the levels reported in the instrument blanks were qualified as non-detect in Table 6.

## 10. Surrogate Spike Recoveries

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for VOC and SVOC determinations were spiked with the appropriate number of surrogate compounds prior to sample extraction and/or analysis.

Each individual surrogate compound is expected to meet the laboratory control limits with the exception of SVOC analyses. According to the "Guidelines" for SVOC analyses, up to one outlying surrogate in the base/neutral or acid fraction is acceptable as long as the recovery is at least 10 percent.

Surrogate recoveries were assessed against laboratory control limits. All surrogate recoveries met the laboratory criteria.

## 11. Internal Standards (IS) Analyses

IS data were evaluated for all VOC, SVOC, and ICP/MS metals sample analyses.

### 11.1 Organics Analyses

To ensure that changes in the GC/MS sensitivity and response do not affect sample analysis results IS compounds are added to each sample prior to analysis. All results are then calculated as a ratio of the IS responses.

The sample IS results were evaluated against the following criteria:

- i) The retention time of the IS must not vary more than  $\pm 30$  seconds from the associated calibration standard
- ii) IS area counts must not vary by more than a factor of two (-50 percent to +100 percent) from the associated calibration standard

All organic IS recoveries and retention times met the above criteria.

### 11.2 Inorganic Analyses

IS elements were added to all samples prior to metals analysis by ICP/MS. Overall instrument stability and performance for metals analyses were monitored using the IS intensity data. IS recoveries were assessed using control limits of 60-125 percent.

All inorganic IS recoveries were acceptable, demonstrating adequate analytical performance.

## 12. Laboratory Control Sample Analyses

The LCS are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects.

For this study, the LCS was analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

### **12.1 Organic Analyses**

The LCS contained all compounds of interest. LCS percent recovery values were outside of control limits for several analytes. Samples associated with outlying recoveries were qualified in Table 7 as follows:

- i) Non-detect results associated with low LCS recoveries greater than 10 percent were qualified as estimated.

### **12.2 Inorganic Analyses**

The LCS contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries were within the control limits, demonstrating acceptable analytical accuracy.

## **13. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses**

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with known concentrations of the analytes of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision. If the original sample concentration is significantly greater than the spike concentration, the recovery is not assessed.

MS/MSD analyses were performed as specified in Table 1. The laboratory performed additional site-specific MS/MSD analyses internally.

### **13.1 Organic Analyses**

The MS/MSD samples were spiked with all compounds of interest. All percent recoveries and RPD values were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision with the exception of the samples qualified in Table 8.

Samples associated with outlying recoveries were qualified as follows:

- i) Non-detect results associated with low MS/MSD recoveries greater than ten percent were qualified as estimated
- ii) Non-detect results associated with MS or MSD recoveries less than ten percent were rejected due to the demonstrated poor analytical efficiency

### **13.2 Inorganic Analyses**

The MS/MSD samples were spiked with the analytes of interest, and the results were evaluated using the "Guidelines". All percent recoveries and RPD values were within the control limits, demonstrating acceptable analytical accuracy and precision.

## 14. ICP Interference Check Sample Analysis (ICS)

To verify that the laboratory has established proper inter-element and background correction factors, ICSs are analyzed. These samples contain high concentrations of aluminum, calcium, magnesium, and iron and are analyzed at the beginning and end of each sample analysis period. The ICSs are evaluated against recovery control limits of 80 to 120 percent.

ICS analysis results were evaluated for all samples using the criteria in the "Guidelines". All ICS recoveries and results were acceptable.

## 15. Field QA/QC Samples

The field QA/QC consisted of one trip blank sample, and one field duplicate sample set.

### 15.1 Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, one trip blank was submitted to the laboratory for VOC analysis. Low level concentrations of acetone and methylene chloride were detected in the trip blank. All associated sample results were non-detect and were not impacted by the laboratory contamination.

### 15.2 Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, one field duplicate sample was collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with this duplicate sample must be less than 50 percent for water samples. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criteria is one time the RL value for water samples.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision.

## 16. Analyte Reporting

The laboratory reported detected results down to the laboratory's MDL for each analyte. Positive analyte detections less than the RL but greater than the MDL were qualified as estimated (J) in Table 2 unless qualified otherwise in this memorandum. Non-detect results were presented as non-detect at the RL in Table 2.

## 17. Target Compound Identification

To minimize erroneous compound identification during organic analyses, qualitative criteria including compound retention time and mass spectra were evaluated according to the identification criteria established by the methods. The organic compounds reported adhered to the specified identification criteria.

## 18. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable with the specific exceptions and qualifications noted herein.



Table 1

**Sample Collection and Analysis Summary  
 Quarterly Groundwater Monitoring  
 General Motors - Janesville Assembly Plant  
 Janesville, Wisconsin  
 October 2015**

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters				Comments
					TAL* Metals T/D	Hex/Tri Cr	TCL VOC + TMB	TCL SVOC	
GW-102715-JK-01	MW-10S	Water	10/27/2015	10:50	X	X	X	X	
GW-102715-JK-02	MW-10S	Water	10/27/2015	11:10	X	X	X	X	Field Duplicate (MW-10S)
GW-102715-JK-03	MW4	Water	10/27/2015	12:15	X	X	X	X	MS/MSD
TRIP BLANK	--	Water	10/27/2015	00:00			X		Trip Blank

Notes:

- Cr - Chromium
- Hex/Tri - Hexavalent/Trivalent
- MS/MSD - Matrix Spike/Matrix Spike Duplicate
- SVOC - Semi-volatile Organic Compounds
- T/D - Total/dissolved
- TAL\* - Target Analyte List - less earth metals
- TCL - Target Compound List
- TMB - Trimethylbenzene
- VOC - Volatile Organic Compounds

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors - Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**October 2015**

Sample Location:	MW4	MW-10S	MW-10S	Trip Blank
Sample Identification:	GW-102715-JK-03	GW-102715-JK-01	GW-102715-JK-02	TRIP BLANK
Sample Date:	10/27/2015	10/27/2015	10/27/2015	10/27/2015
Sample Type:			Duplicate	

Parameter	Units				
<b>Volatile Organic Compounds</b>					
1,1,1-Trichloroethane	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	3.3 UJ	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	3.3 U	2.2	2.4	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	6.7 U	2.0 U	2.0 U	2.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	3.3 U	0.59 J	0.68 J	1.0 U
1,3-Dichlorobenzene	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	33 U	10 U	10 U	10 U
2-Hexanone	µg/L	33 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	33 U	10 U	10 U	10 U
Acetone	µg/L	33 U	10 U	10 U	9.3 J
Benzene	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	3.3 U	1.0 UJ	1.0 UJ	1.0 UJ
Bromomethane (Methyl bromide)	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	18	2.7	3.3	1.0 U
Dibromochloromethane	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	5.6	1.5	1.9	1.0 U
Isopropyl benzene	µg/L	55	1.3	1.7	1.0 U
Methyl acetate	µg/L	33 U	10 U	10 U	10 U
Methyl cyclohexane	µg/L	8.9	1.0 U	0.45 J	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	3.3 U	1.0 U	1.0 U	0.67 J
Styrene	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	3.3 U	1.0 U	1.0 U	1.0 U

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors - Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**October 2015**

<b>Sample Location:</b>	<b>MW4</b>	<b>MW-10S</b>	<b>MW-10S</b>	
<b>Sample Identification:</b>	GW-102715-JK-03	GW-102715-JK-01	GW-102715-JK-02	<b>Trip Blank</b>
<b>Sample Date:</b>	10/27/2015	10/27/2015	10/27/2015	TRIP BLANK
<b>Sample Type:</b>			Duplicate	10/27/2015

Parameter	Units				
<b>Volatile Organic Compounds (Continued)</b>					
trans-1,3-Dichloropropene	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	3.3 UJ	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	3.3 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	6.7 U	3.9	4.2	2.0 U
<b>Semi-Volatile Organic Compounds</b>					
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	4.8 U	4.8 U	4.8 U	--
2,4,5-Trichlorophenol	µg/L	4.8 U	4.8 U	4.8 U	--
2,4,6-Trichlorophenol	µg/L	3.8 U	3.8 U	3.8 U	--
2,4-Dichlorophenol	µg/L	9.5 U	9.5 U	9.6 U	--
2,4-Dimethylphenol	µg/L	4.8 U	4.8 U	4.8 U	--
2,4-Dinitrophenol	µg/L	19 U	19 U	19 U	--
2,4-Dinitrotoluene	µg/L	4.8 U	4.8 U	4.8 U	--
2,6-Dinitrotoluene	µg/L	4.8 U	4.8 U	4.8 U	--
2-Chloronaphthalene	µg/L	4.8 U	4.8 U	4.8 U	--
2-Chlorophenol	µg/L	4.8 U	4.8 U	4.8 U	--
2-Methylnaphthalene	µg/L	20	4.8 U	4.8 U	--
2-Methylphenol	µg/L	4.8 U	4.8 U	4.8 U	--
2-Nitroaniline	µg/L	19 U	19 U	19 U	--
2-Nitrophenol	µg/L	4.8 U	4.8 U	4.8 U	--
3&4-Methylphenol	µg/L	4.8 U	4.8 U	4.8 U	--
3,3'-Dichlorobenzidine	µg/L	R	0.95 UJ	0.96 UJ	--
3-Nitroaniline	µg/L	19 UJ	19 UJ	19 UJ	--
4,6-Dinitro-2-methylphenol	µg/L	19 U	19 U	19 U	--
4-Bromophenyl phenyl ether	µg/L	4.8 U	4.8 U	4.8 U	--
4-Chloro-3-methylphenol	µg/L	4.8 U	4.8 U	4.8 U	--
4-Chloroaniline	µg/L	R	9.5 U	9.6 U	--
4-Chlorophenyl phenyl ether	µg/L	4.8 U	4.8 U	4.8 U	--
4-Nitroaniline	µg/L	19 U	19 U	19 U	--
4-Nitrophenol	µg/L	19 U	19 U	19 U	--
Acenaphthene	µg/L	0.23 J	4.8 U	4.8 U	--
Acenaphthylene	µg/L	4.8 U	4.8 U	4.8 U	--
Acetophenone	µg/L	4.8 U	4.8 U	4.8 U	--
Anthracene	µg/L	4.8 U	4.8 U	4.8 U	--
Atrazine	µg/L	2.9 U	2.9 U	2.9 U	--
Benzaldehyde	µg/L	4.8 U	4.8 U	4.8 U	--
Benzo(a)anthracene	µg/L	0.95 U	0.95 U	0.96 U	--
Benzo(a)pyrene	µg/L	0.95 U	0.95 U	0.96 U	--
Benzo(b)fluoranthene	µg/L	0.95 U	0.95 U	0.96 U	--
Benzo(g,h,i)perylene	µg/L	0.95 U	0.95 U	0.96 U	--
Benzo(k)fluoranthene	µg/L	0.95 U	0.95 U	0.96 U	--
Biphenyl (1,1-Biphenyl)	µg/L	0.52 J	4.8 U	4.8 U	--

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors - Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**October 2015**

<b>Sample Location:</b>	<b>MW4</b>	<b>MW-10S</b>	<b>MW-10S</b>	<b>Trip Blank</b>
<b>Sample Identification:</b>	<b>GW-102715-JK-03</b>	<b>GW-102715-JK-01</b>	<b>GW-102715-JK-02</b>	<b>TRIP BLANK</b>
<b>Sample Date:</b>	<b>10/27/2015</b>	<b>10/27/2015</b>	<b>10/27/2015</b>	<b>10/27/2015</b>
<b>Sample Type:</b>			<b>Duplicate</b>	

Parameter	Units				
<b>Semi-Volatile Organic Compounds (Continued)</b>					
bis(2-Chloroethoxy)methane	µg/L	4.8 U	4.8 U	4.8 U	--
bis(2-Chloroethyl)ether	µg/L	0.95 U	0.95 U	0.96 U	--
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	4.8 U	4.8 U	4.8 U	--
Butyl benzylphthalate (BBP)	µg/L	4.8 U	4.8 U	4.8 U	--
Caprolactam	µg/L	R	9.5 U	9.6 U	--
Carbazole	µg/L	9.5 U	9.5 U	9.6 U	--
Chrysene	µg/L	0.95 U	0.95 U	0.96 U	--
Dibenz(a,h)anthracene	µg/L	1.9 U	1.9 U	1.9 U	--
Dibenzofuran	µg/L	0.23 J	3.8 U	3.8 U	--
Diethyl phthalate	µg/L	4.8 U	4.8 U	4.8 U	--
Dimethyl phthalate	µg/L	4.8 U	4.8 U	4.8 U	--
Di-n-butylphthalate (DBP)	µg/L	4.8 U	4.8 U	4.8 U	--
Di-n-octyl phthalate (DnOP)	µg/L	4.8 U	4.8 U	4.8 U	--
Fluoranthene	µg/L	0.95 U	0.95 U	0.96 U	--
Fluorene	µg/L	0.27 J	4.8 U	4.8 U	--
Hexachlorobenzene	µg/L	0.19 U	0.19 U	0.19 U	--
Hexachlorobutadiene	µg/L	0.95 U	0.95 U	0.96 U	--
Hexachlorocyclopentadiene	µg/L	4.8 U	4.8 U	4.8 U	--
Hexachloroethane	µg/L	4.8 U	4.8 U	4.8 U	--
Indeno(1,2,3-cd)pyrene	µg/L	1.9 U	1.9 U	1.9 U	--
Isophorone	µg/L	4.8 U	4.8 U	4.8 U	--
Naphthalene	µg/L	25	0.61 J	0.60 J	--
Nitrobenzene	µg/L	2.9 U	2.9 U	2.9 U	--
N-Nitrosodi-n-propylamine	µg/L	4.8 U	4.8 U	4.8 U	--
N-Nitrosodiphenylamine	µg/L	4.8 U	4.8 U	4.8 U	--
Pentachlorophenol	µg/L	4.8 U	4.8 U	4.8 U	--
Phenanthrene	µg/L	0.10 J	1.9 U	1.9 U	--
Phenol	µg/L	4.8 U	4.8 U	4.8 U	--
Pyrene	µg/L	4.8 U	4.8 U	4.8 U	--
<b>Metals</b>					
Antimony	µg/L	2.0 U	2.0 U	2.0 U	--
Antimony (dissolved)	µg/L	2.0 U	2.0 U	2.0 U	--
Arsenic	µg/L	2.0 J	1.0 J	0.87 J	--
Arsenic (dissolved)	µg/L	2.6 J	0.72 J	0.97 J	--
Barium	µg/L	110	97 J	95 J	--
Barium (dissolved)	µg/L	100	94 J	100	--
Beryllium	µg/L	1.0 U	1.0 U	1.0 U	--
Beryllium (dissolved)	µg/L	1.0 U	1.0 U	1.0 U	--
Cadmium	µg/L	1.0 U	1.0 U	1.0 U	--
Cadmium (dissolved)	µg/L	1.0 U	1.0 U	1.0 U	--
Chromium	µg/L	5.0 U	5.0 U	5.0 U	--
Chromium (dissolved)	µg/L	5.0 U	5.0 U	5.0 U	--
Chromium III (trivalent)	µg/L	5.0 U	5.0 U	5.0 U	--

Table 2

**Analytical Results Summary**  
**Quarterly Groundwater Monitoring**  
**General Motors - Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**October 2015**

<b>Sample Location:</b>	<b>MW4</b>	<b>MW-10S</b>	<b>MW-10S</b>	<b>Trip Blank</b>
<b>Sample Identification:</b>	<b>GW-102715-JK-03</b>	<b>GW-102715-JK-01</b>	<b>GW-102715-JK-02</b>	<b>TRIP BLANK</b>
<b>Sample Date:</b>	<b>10/27/2015</b>	<b>10/27/2015</b>	<b>10/27/2015</b>	<b>10/27/2015</b>
<b>Sample Type:</b>			<b>Duplicate</b>	

Parameter	Units				
<b>Metals (Continued)</b>					
Chromium VI (hexavalent)	µg/L	5.0 U	5.0 U	5.0 U	--
Cobalt	µg/L	0.22 J	0.29 J	0.16 J	--
Cobalt (dissolved)	µg/L	0.33 J	0.17 J	0.18 J	--
Copper	µg/L	2.0 U	0.92 J	2.0 U	--
Copper (dissolved)	µg/L	2.0 U	2.0 U	2.0 U	--
Lead	µg/L	3.0 U	0.18 J	3.0 U	--
Lead (dissolved)	µg/L	0.12 J	3.0 U	3.0 U	--
Manganese	µg/L	490	24	30	--
Manganese (dissolved)	µg/L	500	40	44	--
Mercury	µg/L	0.20 U	0.20 U	0.20 U	--
Mercury (dissolved)	µg/L	0.20 U	0.20 U	0.20 U	--
Nickel	µg/L	0.49 J	0.76 J	0.66 J	--
Nickel (dissolved)	µg/L	0.58 J	0.67 J	0.68 J	--
Selenium	µg/L	5.0 U	1.1 J	0.81 J	--
Selenium (dissolved)	µg/L	5.0 U	0.75 J	0.96 J	--
Silver	µg/L	0.20 U	0.20 U	0.20 U	--
Silver (dissolved)	µg/L	0.20 U	0.20 U	0.20 U	--
Thallium	µg/L	1.0 U	1.0 U	1.0 U	--
Thallium (dissolved)	µg/L	1.0 U	1.0 U	1.0 U	--
Vanadium	µg/L	4.0 U	4.0 U	4.0 U	--
Vanadium (dissolved)	µg/L	4.0 U	4.0 U	4.0 U	--
Zinc	µg/L	20 U	20 U	20 U	--
Zinc (dissolved)	µg/L	20 U	20 U	20 U	--

## Notes:

U - Not detected at the associated reporting limit

J - Estimated concentration

UJ - Not detected; associated reporting limit is estimated

R - Rejected

**Table 3**  
**Analytical Methods**  
**Quarterly Groundwater Monitoring**  
**General Motors - Janesville Assembly Plant**  
**Janesville, Wisconsin**  
**October 2015**

Parameter	Method	Matrix	Preservation	Holding Time	
				Collection to Extraction (Days)	Collection or Extraction to Analysis (Days)
TCL VOC + TMB	SW-846 8260	Water	pH < 2 and Iced, 4 ± 2° C	-	14
TCL SVOC	SW-846 8270C	Water	Iced, 4 ± 2° C	7	40
TAL Metals	SW-846 6020	Water	pH < 2 and Iced, 4 ± 2° C	-	180
Mercury	SW-846 7470A	Water	pH < 2 and Iced, 4 ± 2° C	-	28
Hexavalent Chromium	SW-846 7196	Water	Iced, 4 ± 2° C	-	24 hours
Trivalent Chromium	SW-846 7196	Water	Iced, 4 ± 2° C	-	24 hours

Notes:

Method References:

SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions

- TCL - Target Compound List
- VOC - Volatile Organic Compounds
- TMB - Trimethylbenzene
- SVOC - Semi-volatile Organic Compounds
- TAL - Target Analyte List

Table 4

**Qualified Sample Results Due to Outlying Continuing Calibration Results  
 Quarterly Groundwater Monitoring  
 General Motors - Janesville Assembly Plant  
 Janesville, Wisconsin  
 October 2015**

Parameter	Analyte	Calibration Date (mm/dd/yyyy)	%D	Associated Sample ID	Qualified Result	Units
VOC	1,2,4-Trichlorobenzene	11/04/2015	-26.4	GW-102715-JK-03	3.3 UJ	µg/L
VOC	Bromoform	11/03/2015	-25.6	GW-102715-JK-01 GW-102715-JK-02	1.0 UJ 1.0 UJ	µg/L µg/L
VOC	Trifluorotrichloroethane	11/04/2015	58	GW-102715-JK-03	3.3 UJ	µg/L

## Notes:

- %D - Percent difference
- UJ - Not detected; associated reporting limit is estimated
- VOC - Volatile Organic Compounds



Table 5

**Qualified Sample Results Due to Analyte Concentrations in the Method Blanks  
Quarterly Groundwater Monitoring  
General Motors - Janesville Assembly Plant  
Janesville, Wisconsin  
October 2015**

Parameter	Analyte	Analysis Date (mm/dd/yyyy)	Blank Result	Sample ID	Original Result	Qualified Result	Units
Metals	Chromium	10/30/2015	0.612 J	GW-102715-JK-01	1.3 J	5.0 U	µg/L
				GW-102715-JK-02	1.3 J	5.0 U	µg/L
Metals	Chromium (dissolved)	10/30/2015	0.612 J	GW-102715-JK-01	0.94 J	5.0 U	µg/L
				GW-102715-JK-02	1.2 J	5.0 U	µg/L
				GW-102715-JK-03	0.69 J	5.0 U	µg/L
Metals	Vanadium	10/30/2015	0.257 J	GW-102715-JK-01	0.27 J	4.0 U	µg/L
Metals	Vanadium (dissolved)	10/30/2015	0.257 J	GW-102715-JK-01	0.27 J	4.0 U	µg/L
Metals	Zinc (dissolved)	10/30/2015	12.2 J	GW-102715-JK-02	9.0 J	20 U	µg/L

## Notes:

- U - Not detected at the associated reporting limit
- J - Estimated concentration

Table 6

**Qualified Sample Results Due to Analyte Concentrations in the Instrument Blanks  
Quarterly Groundwater Monitoring  
General Motors - Janesville Assembly Plant  
Janesville, Wisconsin  
October 2015**

Parameter	Analyte	Blank ID	Analysis Date (mm/dd/yyyy)	Blank Result		Sample ID	Original Result	Qualified Result	Units
Metals	Antimony	ICB	10/30/2015	0.218	J	GW-102715-JK-01	0.58 J	2.0 U	µg/L
Metals	Antimony (dissolved)	ICB	10/30/2015	0.218	J	GW-102715-JK-03	0.56 J	2.0 U	µg/L
Metals	Beryllium	CCB	10/30/2015	0.101	J	GW-102715-JK-01	0.26 J	1.0 U	µg/L
						GW-102715-JK-02	0.067 J	1.0 U	µg/L
Metals	Beryllium (dissolved)	CCB	10/30/2015	0.101	J	GW-102715-JK-01	0.079 J	1.0 U	µg/L
						GW-102715-JK-02	0.062 J	1.0 U	µg/L
						GW-102715-JK-03	0.22 J	1.0 U	µg/L
Metals	Cadmium	CCB	10/30/2015	0.118	J	GW-102715-JK-01	0.38 J	1.0 U	µg/L
						GW-102715-JK-02	0.086 J	1.0 U	µg/L
Metals	Cadmium (dissolved)	CCB	10/30/2015	0.118	J	GW-102715-JK-01	0.085 J	1.0 U	µg/L
						GW-102715-JK-02	0.076 J	1.0 U	µg/L
						GW-102715-JK-03	0.31 J	1.0 U	µg/L
Metals	Thallium	CCB	10/30/2015	0.106	J	GW-102715-JK-01	0.23 J	1.0 U	µg/L
Metals	Thallium (dissolved)	CCB	10/30/2015	0.106	J	GW-102715-JK-03	0.21 J	1.0 U	µg/L

## Notes:

- CCB - Continuing Calibration Blank
- ICB - Initial Calibration Blank
- U - Not detected at the associated reporting limit
- J - Estimated concentration
- UJ - Not detected; associated reporting limit is estimated

Table 7

**Qualified Sample Results Due to Outlying Laboratory Control Sample Results  
Quarterly Groundwater Monitoring  
General Motors - Janesville Assembly Plant  
Janesville, Wisconsin  
October 2015**

Parameter	Analyte	LCS Date (mm/dd/yyyy)	LCS	Control Limits	Associated Sample ID	Qualified Results	Units
			% Recovery	% Recovery			
SVOC	3,3'-Dichlorobenzidine	11/06/2015	18	29 - 120	GW-102715-JK-01	0.95 UJ	µg/L
					GW-102715-JK-02	0.96 UJ	µg/L
SVOC	3-Nitroaniline	11/06/2015	50	52 - 120	GW-102715-JK-01	19 UJ	µg/L
					GW-102715-JK-02	19 UJ	µg/L
					GW-102715-JK-03	19 UJ	µg/L

## Notes:

LCS - Laboratory Control Sample

UJ - Not detected; associated reporting limit is estimated

SVOC - Semi-volatile Organic Compounds

Table 8

**Qualified Sample Results Due to Outlying MS/MSD Results  
Quarterly Groundwater Monitoring  
General Motors - Janesville Assembly Plant  
Janesville, Wisconsin  
October 2015**

Parameter	Sample ID	Analyte	MS % Recovery	MSD % Recovery	RPD (percent)	Control Limits		Qualified Result	Units
						% Recovery	RPD		
SVOC	GW-102715-JK-03	3,3'-Dichlorobenzidine	0	0	NC	10 - 110	99	R	µg/L
		3-Nitroaniline	19	16	18	31 - 110	47	19 UJ	
		4-Chloroaniline	1	2	10	20 - 110	50	R	
		Caprolactam	6	6	10	10 - 126	59	R	

## Notes:

- MS - Matrix Spike
- MSD - Matrix Spike Duplicate
- NC - Not calculable
- R - Rejected
- RPD - Relative Percent Difference
- UJ - Not detected; associated reporting limit is estimated
- SVOC - Semi-volatile Organic Compounds

# Appendix C

## Dilution Factor for Groundwater Discharge to Rock River

## APPENDIX C DILUTION FACTOR FOR GROUNDWATER DISCHARGE TO ROCK RIVER

This appendix describes the derivation of a dilution factor for discharge of groundwater from part of the site to the Rock River. As discussed in Section 5.4.3.6, this dilution factor is used to assess the effects of constituents in groundwater at monitoring well MW-2S if constituents in the groundwater were to migrate unattenuated to the Rock River.

The dilution factor (DF) can be derived from the following mass balance equation:

$$C_d Q_d = C_u Q_u + C_{gw} Q_{gw}$$

where  $C_d$  = downstream constituent concentration  
 $Q_d$  = downstream river flow rate  
 $C_{gw}$  = groundwater constituent concentration  
 $Q_{gw}$  = groundwater discharge rate  
 $C_u$  = upstream constituent concentration  
 $Q_u$  = upstream river flow rate which equals  $Q_d - Q_{gw}$ .

Assuming the upstream constituent concentration  $C_u$  is zero, the mass balance equation simplifies to the following equation for the dilution factor:

$$DF = \frac{C_{gw}}{C_d} = \frac{Q_d}{Q_{gw}}$$

The groundwater discharge rate  $Q_{gw}$  is estimated based on Darcy's law for groundwater flow in porous media:

$$Q_{gw} = K \cdot i \cdot A$$

where  $K$  = hydraulic conductivity of the saturated zone  
 $i$  = hydraulic gradient  
 $A$  = groundwater discharge area

The value of  $K$  is assumed to equal the default value for sand used by HYDRUS and USEPA<sup>1</sup>, because sand is the predominant soil type in the saturated zone at the site and is the most conservative (highest  $K$ ) of the 12 standardized soil types. This value is 7.44E-3 cm/s, or 2.44E-4 ft/s.

The hydraulic gradient  $i$  is relatively constant in the vicinity of MW-2S (and much of the site), as indicated by the groundwater contour figures for multiple monitoring events presented in the Site Investigation Work Plan and the Site Investigation Report (SIR). Using Figure 4.2 of the SIR, the gradient is approximately 1.4 ft elevation change over a distance of about 880 ft, or approximately 0.0016 ft/ft.

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<sup>1</sup> United States Environmental Protection Agency (USEPA), 2004. User's Guide for Evaluating Subsurface Vapor Intrusion into Buildings. Office of Emergency and Remedial Response, Washington DC, February.

The groundwater discharge area A is a vertical area with a height that extends from the water surface at 761.4 ft amsl (see Figure 4.2 of the SIR) down to bedrock at approximately 660 ft amsl (see Figure 2.13 in the Site Investigation Work Plan), or approximately 100 ft. Using this height is conservative for two reasons. First, it assumes the entire saturated zone is represented by MW-2S, which is screened from 764 to 754 ft amsl. Second, it assumes no groundwater flows underneath the river (even though the river is no deeper than 755 ft amsl, as shown on Figure 2.11 in the Site Investigation Work Plan). The width of the groundwater discharge area A extends from MW-2S to half of the distance between the two nearest sidegradient monitoring wells: MW-8S to the west and MW-9S to the east. This width is 530 feet.

Based on the above values, the groundwater discharge rate  $Q_{gw}$  is 0.02 cubic feet per second.

The downstream river flow rate  $Q_d$  is estimated according to Wisconsin DNR regulations (NR 106.06(4)3.c.) which specifies that the design flow rate of the receiving waters should not exceed the minimum 7-day flow that occurs once in 10 years (7-day  $Q_{10}$ ). The 7-day  $Q_{10}$  for the Rock River is estimated using USGS data from the closest station, and the one with the fewest tributaries between it and the site, which is at Afton (USGS 05430500) located approximately 4 miles downstream of the Site. The 7-day  $Q_{10}$  was estimated by taking the most recent 10-year period, finding the period with the lowest flows, and taking the lowest 7-day moving average in this period. This 7-day  $Q_{10}$  value is 300 cubic feet per second.

Based on the above  $Q_{gw}$  and  $Q_d$ , the DF is estimated to be 15,000.



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