



**GROUNDWATER SAMPLING  
AND INVENTORY**

**DEPOT AVENUE  
WINDSOR, VERMONT**

**VT HAZARDOUS SITE #20093977**

WHERE BUSINESS AND THE ENVIRONMENT CONVERGE

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Project No. 04-224488  
April, 2016

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## EXECUTIVE SUMMARY

On behalf of the Vermont Department of Environmental Conservation (DEC), Environmental Compliance Services, Inc. (ECS) has completed monitoring well inventory and assessment activities and site groundwater monitoring activities at the Depot Avenue site (VT Hazardous Site #20093977) in Windsor, Vermont. The work was performed on behalf of the VT DEC in accordance with the Work Plan and Cost Estimate prepared by ECS and dated December 17, 2015. The site consists of multiple properties in downtown Windsor, Vermont primarily in the area of Depot Avenue. A detailed site locus and site plan are included as **Figure 1** and **Figure 2**, respectively.

The State of Vermont requested that ECS complete additional investigation activities to further characterize the chlorinated volatile organic compound (CVOC) contamination and conduct long term monitoring. It is ECS' understanding that groundwater sampling has not occurred at the site since 2007.

The source of the CVOC-impacted groundwater plume appears to be from the vicinity of the Carter & Carter building (former Windsor Dry Cleaner) located at 9 Depot Avenue. In 2007, Golder Associates Inc. (Golder) detected the highest CVOC concentrations in the groundwater sample collected from monitoring well GAI-1S (located approximately 40 feet east and downgradient of the Carter & Carter building). In 2016, the highest CVOC groundwater concentrations were detected in GAI-3S which is approximately 100 feet east of GAI-1S. In addition, increases in CVOC concentrations were observed during the 2016 monitoring event in wells J-GW-DEP9 and J-GW-DEP8, both located along Depot Avenue, northeast of the Windsor Station Restaurant. It appears as though the main plume of CVOC-impacted groundwater has migrated east, as CVOC concentrations within GAI-1S dramatically decreased by an order of magnitude. The CVOC-impacted groundwater is primarily confined to the upper portion (approximately top ten feet) of the surficial aquifer on Depot Avenue. The CVOC concentrations observed in the shallow interval are two to three orders of magnitude higher than the CVOC concentrations observed in the deeper portion of the surficial aquifer.

The scope of work included the assessment and inventory of previously installed site monitoring wells; gauging of site wells for depth to light and dense non-aqueous phase liquid (LNAPL and DNAPL) and for depth to water; screening the PVC well heads for Total Organic Vapors (TOVs) with a photoionization detector (PID); determining groundwater elevations, flow directions and gradients; and, the collection of groundwater samples via low flow purging techniques. In addition, one drum of impacted purge water was disposed of as hazardous waste.

In total, 15 monitoring wells (GAI-1S, GAI-1D, GAI-2S, GAI-3S, GAI-3D, J-GW-APT2, J-GW-APT3, KAS-1, J-GW-DEP8, J-GW-DEP9, CBM-1, CBM-2, CBM-3, CBM-4 and CBM-5) were located and deemed viable for sampling. Samples were collected via low flow techniques and were submitted for laboratory analysis for Volatile Organic Compounds (VOCs) via Environmental Protection Agency (EPA) method 8260C.

Our findings based on this work are as follows:

- LNAPL or DNAPL was not identified in any of the wells gauged. Maximum TOVs were detected at 5.9 parts per million by volume (ppmv) within monitoring well GAI-1S. With the exception of GAI-3S (0.1 ppmv) and J-GW-DEP9 (0.8 ppmv), TOVs were not detected within the headspace of any other wells.

- Groundwater was generally encountered at depths ranging from 1.00 foot below grade surface (ft bgs) at KAS-1, located on the former Hunter Oil Co. property, to 8.28 ft bgs at GAI-2S, located south of the Carter and Carter property within shallow site wells. Groundwater was encountered at depths ranging from 13.61 ft bgs at GAI-1D to 29.10 ft bgs at CBM-1; both of these wells were installed to monitor the deep surficial aquifer (greater than 10 feet). Groundwater generally flows west to east across the Carter and Carter property and then appears to flow east/northeasterly along Depot Street and southeast towards the Windsor Station Restaurant.
- The groundwater sample collected from monitoring well GAI-3S contained the highest concentrations of total CVOCs. Tetrachloroethene was detected at 9,240 µg/L, trichloroethene was detected at 1,460 µg/L and cis-1,2-Dichloroethene was detected at 3,050 µg/L. In the associated deeper aquifer monitoring well GAI-3D, only tetrachloroethene was detected above laboratory detection limits and the Vermont Groundwater Quality Preventative Action Level (VGPA); however, below the Vermont Groundwater Enforcement Standards (VGES).
- Groundwater collected from monitoring well GAI-1S, exhibited the second highest concentrations of CVOCs across the site. This well previously contained the highest concentrations of CVOCs during the 2007 sampling event completed by Golder. All concentrations exceeded the VGES for each compound. In the associated deeper aquifer monitoring well GAI-1D, only tetrachloroethene was detected above LDL and VGPA, however below VGES.
- Additional VGES exceedances of tetrachloroethene were detected in groundwater samples collected from J-GW-APT3 (8.8 µg/L), J-GW-DEP8 (9.2 µg/L) and J-GW-DEP9 (76.0 µg/L). Concentrations of trichloroethene were detected above VGES in J-GW-DEP9 (7.0 µg/L). Concentrations of cis-1,2-Dichloroethene were detected above LDLs in all three wells, however concentrations were below VGES and VGPA.
- The main plume of CVOC-impacted groundwater appears to have migrated approximately 100 feet east of GAI-1S towards GAI-3S in the Depot Avenue area. CVOC concentrations also increased in wells J-GW-DEP9 and J-GW-DEP8, east of the source area which suggests further migration of the groundwater plume east.
- The CVOC-impacted groundwater appears primarily contained to the top ten feet of the surficial Depot Avenue aquifer, as CVOCs detected in deeper wells (GAI-1D and GAI-3D) were not detected above VGES, and only tetrachloroethene was detected above VGPA within both wells.
- Concentrations of tetrachloroethene degradation products, specifically cis-1,2-Dichloroethene, trichloroethene and vinyl chloride did not appear to increase with the exception of concentrations detected in groundwater collected from monitoring well GAI-3S. The increased concentrations within GAI-3S, appeared more related to movement of the groundwater plume, rather than increased degradation of CVOCs across the site.

Based on these findings, ECS has the following recommendations:

- Re-installation of monitoring wells including at least (Stacey)-MW-202, (Stacey)-MW-201, JGW-DEP5, JGW-DEP6 and JGW-DEP11.
- Groundwater monitoring and reporting should continue on a bi-annual basis to further assess the migration of the CVOC plume across the site.

- Indoor air quality should be monitored again within the Windsor Station Restaurant due to the presence CVOC impacted groundwater migrating towards the structure.

## 1.0 INTRODUCTION

On behalf of the Vermont DEC, ECS has completed monitoring well inventory and assessment activities and site monitoring activities on January 29, February 1 and February 3, 2016 at the Depot Avenue site (VT Hazardous Site #20093977) in Windsor, Vermont. The work was performed on behalf of the VT DEC in accordance with the Work Plan and Cost Estimate prepared by ECS dated December 17, 2015. The Work Plan was approved by the DEC in email correspondence dated December 22, 2015.

The site consists of multiple properties in downtown Windsor, Vermont primarily in the area of Depot Avenue. A detailed site locus and site plan are included as Figure 1 and Figure 2, respectively.

### 1.1 SCOPE OF WORK

The scope of work included the assessment and inventory of previously installed site monitoring wells; gauging of site wells for depth to light and dense non-aqueous phase liquid (LNAPL and DNAPL) and for depth to water; screening the PVC well heads for Total Organic Vapors (TOVs) with a photoionization detector (PID); determining groundwater elevations, flow directions and gradients; and, the collection of groundwater samples via low flow purging techniques. In addition, one drum of impacted purge water was disposed of as hazardous waste.

In total 15 monitoring wells (GAI-1S, GAI-1D, GAI-2S, GAI-3S, GAI-3D, J-GW-APT2, J-GW-APT3, KAS-1, J-GW-DEP8, J-GW-DEP9, CBM-1, CBM-2, CBM-3, CBM-4 and CBM-5) were located and deemed viable for sampling. Samples were collected via low flow techniques and were submitted for laboratory analysis of Volatile Organic Compounds (VOCs) via Environmental Protection Agency (EPA) method 8260C.

### 1.2 SITE BACKGROUND

The site has undergone numerous environmental site investigations which has included the assessment of chlorinated solvents in soil, groundwater, sediment and vapor across the site and nearby properties. Initial investigations of the site occurred in 1997 and 1998 by Heindel and Noyes (H&N). Tetrachloroethene (PCE) and trichloroethene (TCE)-impacted groundwater was initially discovered on the CN Real Estate Property (formerly Stacey Fuels) located east of Depot Avenue. At that time the highest concentrations of chlorinated VOCs (CVOCs) were detected within monitoring well MW-202 which was located on the western edge of the Stacey Fuels property where it meets Depot Avenue. In a follow-up investigation by H&N in 2000, the former Windsor Dry Cleaning operation located at 9 Depot Avenue was identified as the most likely source of CVOC impacts to groundwater.

In 2002 AEGIS Engineering Services Inc. (AEGIS) performed a limited subsurface investigation of the 9 Depot Avenue property. The property was owned at the time by Carter and Carter Construction Inc., and therefore is referred to as the Carter & Carter property. Three soil borings were completed as monitoring wells and soil and groundwater samples were collected for VOC analysis. Concentrations of CVOCs were not detected within soil samples from the site; however, PCE was detected within groundwater monitoring well CC-MW-2 at 2 micrograms per liter ( $\mu\text{g/L}$ ), which was located downgradient of the Carter and Carter building. AEGIS concluded that the release was not associated with the Carter and Carter property based on low levels of CVOCs detected in groundwater and the absence of CVOCs detected in soil samples.

In 2005, The Johnson Company (TJC) performed a Targeted Brownfields Assessment of the downtown Windsor, Depot Avenue area. TJC conducted groundwater quality screening and sampling, soil vapor

screening and soil type and quality sampling. Analysis of groundwater samples concluded that the highest concentrations of PCE exist in an isolated area around MW-202, which was located in the approximate center of a large 10-inch thick concrete pad, immediately northwest of the Windsor Station Restaurant. TJC also found elevated concentrations of PCE degradation products, specifically TCE and 1,2-Dichloroethene (cis-1,2-DCE) above Vermont Standards, indicating the degradation of PCE in the area. Groundwater samples collected from cross-gradient wells to MW-202, J-GW-APT1 and J-GW-APT3, revealed concentrations of PCE above Vermont Standards. TJC concluded that this data suggests that PCE-impacted groundwater observed at monitoring well MW-202 was not the source area of the PCE-impacted groundwater plume. Additional soil vapor data collected by TJC, supported this conclusion and TJC concluded that the source was upgradient of MW-202 in the vicinity of the Carter and Carter (Former Windsor Dry Cleaning) property.

In 2006, Stone Environmental (Stone) conducted indoor air quality and soil gas monitoring at properties located in the Depot Avenue area. Stone collected 28 soil gas and 32 indoor air quality samples. PCE concentrations were detected near the Carter & Carter building and Windsor Station Restaurant at concentrations of 3.6 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) and  $19 \mu\text{g}/\text{m}^3$ , respectively. Stone also assessed whether the sanitary sewer and storm sewer lines were providing a preferential pathway for CVOC impacted groundwater in the Depot Avenue area. Stone did not detect PCE in water samples collected from sanitary sewer lines or within soil in the vicinity of MW-202. However, PCE was detected within a sludge/sediment sample collected from sanitary sewer lines beneath the Windsor Station Restaurant at concentrations of  $1,380 \mu\text{g}/\text{L}$ . The source of PCE within the sludge sample was undetermined.

In 2007 Golder Associates Inc. (Golder) further assessed the site area via a Limited Phase II Site Assessment. Golder concluded that the CVOC-impacted groundwater plume appeared to migrate from the Carter and Carter building (Former Windsor Dry Cleaner). The highest CVOC concentrations were detected within groundwater samples collected from monitoring well GAI-1S which was located forty feet downgradient of the Carter and Carter building. CVOCs were detected at higher concentrations within groundwater from GAI-1S than in groundwater samples from MW-202. In addition, Golder found that CVOC-impacted groundwater was primarily contained to the upper portion (top ten feet) of the surficial Depot Avenue aquifer. CVOCs observed in the shallow aquifer were two orders of magnitude greater than those observed in the deeper portions of the surficial aquifer.

### **1.3 PURPOSE AND OBJECTIVES**

The purpose of this work was to further characterize the degree and extent of CVOC contamination located in the Depot Avenue Area in Downtown Windsor, Vermont as part of a long-term monitoring plan. The objective was to further assess groundwater contamination in the area and to determine the extent and migration of the CVOC plume in shallow and deep surficial aquifers. The purpose was to also assess the viability of site monitoring wells as the wells had not been sampled since 2007.

### **1.4 UPDATED CONCEPTUAL SITE MODEL**

The source of the CVOC-impacted groundwater plume appears to be from the vicinity of the Carter & Carter building (former Windsor Dry Cleaner) located at 9 Depot Avenue. In 2007, Golder detected the highest CVOC concentrations in the groundwater sample collected from monitoring well GAI-1S (located approximately 40 feet downgradient of the Carter & Carter building). In 2016, the highest CVOC groundwater concentrations were detected in GAI-3S which is approximately 100 feet east of GAI-1S. In addition increases in CVOC concentrations were observed during the 2016 monitoring event in wells J-GW-DEP9 and J-GW-DEP8, both located along Depot Avenue, northeast of the Windsor Station Restaurant. It appears as though the main plume of CVOC impacted groundwater has migrated east, as CVOC concentrations within GAI-1S also dramatically decreased by an order of magnitude. The CVOC-

impacted groundwater is primarily confined to the upper portion (approximately top ten feet) of the surficial aquifer on Depot Avenue. The CVOC concentrations observed in the shallow interval are two to three orders of magnitude higher than the CVOC concentrations observed in the deeper portion of the surficial aquifer.

ECS' groundwater table surface map shows a groundwater flow direction from the area around the Carter and Carter building towards GAI-3S to the east, the Windsor Station Restaurant and the Former Stacey Fuels Property. The groundwater flow direction parallels the sanitary drain line that runs from the Carter & Carter building towards The Windsor Station Restaurant and GAI-3S. In addition, according to Golder, a water line runs parallel to Depot Avenue towards the east/northeast along the southern side of Depot Avenue. Both the water line and the sanitary drain line utility trench transects the water table near GAI-1S. Given the groundwater flow direction, the sanitary drain line and the water line running parallel to groundwater flow, and the preferential pathway along the sanitary drain and water line trench, the CVOC-impacted groundwater may be flowing within the utility trench towards the east/northeast. ECS was unable to located MW-202 which is located downgradient of GAI-3S and in between GAI-3S and the Windsor Station Restaurant. Data from this monitoring well would further confirm the easterly movement of the CVOC impacted groundwater plume.



## **2.0 INVESTIGATIVE PROCEDURES**

### **2.1 MONITORING WELL INVENTORY AND ASSESSMENT EVENT**

On January 29, 2016 and February 1, 2016, ECS visited the site and attempted to locate previously installed monitoring wells. The wells extend across multiple properties in Downtown Windsor and had not been sampled since 2007. Utilizing a metal detector, ECS was able to locate fifteen of thirty-four previously installed monitoring wells. Once the wells were located they were gauged for depth to water, depth to NAPL and were checked for structural integrity in order to determine if they could be sampled. No issues were identified with the viability of located monitoring wells with the exception of monitoring well GAI-2S which had a broken road box cover and J-GW-APT2, which had kinked PVC at six inches below grade. Both wells were deemed viable for sampling. Former wells which were previously located east of the Former Hunter Oil Co. building (current Paradise Sports Shop) and north/northwest of the Windsor Station Restaurant were presumed paved over (GAI-6, GAI-4, J-GW-APT1, GAI-5, MW-203 and MW-202). Former wells located on the Town of Windsor Highway Department property (J-GW-STA2, J-GW-STA3 and J-GW-STA4) were covered by a large sand pile. Former wells located in the grassy field, east of the railroad tracks and northeast of the Windsor Station Restaurant (Stacey-MW-102, GAI-7 and GAI-8) were not located due to metal interference with the metal detector and frozen ground. Monitoring wells CBM-1 through CBM-5 were all stick-up wells and were located.

### **2.2 NAPL, GROUNDWATER GAUGING AND TOV SCREENING**

On January 29, February 1 and February 3, fifteen of thirty-four previously installed wells north of River Street were located and gauged for water levels and were also checked for LNAPL and DNAPL with an electronic interface probe. LNAPL or DNAPL was not identified in any of the wells gauged.

In addition each well was screened for TOVs utilizing a Tiger Ionscience PID equipped with a 10.7 ev lamp. The PID was referenced to isobutylene and calibrated to 100 ppmv with isobutylene span gas. Weather at the time of calibration was cloudy with temperatures at approximately 35 degrees Fahrenheit. TOVs were measured by screening headspace concentrations from the top of monitoring well PVC within each well. In summary maximum TOVs were detected at 5.9 ppmv within monitoring well GAI-1S. With the exception of GAI-3S (0.1 ppmv) and J-GW-DEP9 (0.8 ppmv), TOVs were not detected within the headspace of any other wells.

Static water-table elevations were computed for each monitoring well by subtracting the measured depth-to-water readings from the surveyed top-of-casing elevations. Horizontal gradients were calculated by dividing the groundwater elevation differences between two wells by the lateral distance between the wells.

### **2.3 GROUNDWATER SAMPLING**

On February 1 and 3, 2016, groundwater samples were collected using low-flow sampling methods from fifteen site monitoring wells. These wells included GAI-1S, GAI-1D, GAI-2S, GAI-3S, GAI-3D, J-GW-APT2, J-GW-APT3, J-GW-DEP8, J-GW-DEP9, CBM-1, CBM-2, CBM-3, CMB-4 and CBM-5. The samples were submitted for laboratory analysis of VOCs by EPA Method 8260C.

All monitoring wells were purged and sampled using low-flow techniques in accordance with EPA Region I, "Low Stress (low flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells", revised January 2010 and ECS Standard Operating Procedures. The monitoring wells were purged and sampled using low-flow sampling techniques through a peristaltic

pump. Field indicator parameters including oxidation reduction potential (ORP), dissolved oxygen (DO), temperature, specific conductance, and pH were obtained during well purging for all wells via a portable multi-parameter water quality meter and flow through cell. In accordance with EPA recommended practices, samples for turbidity evaluation were collected prior to the flow through cell and measured with a turbidity meter. After stabilization of field indicator parameters, samples were collected from all wells for laboratory analysis. Turbidity values remained elevated and did not stabilize at monitoring wells CMB-3, J-GW-DEP8 and KAS-1 throughout the purging process while all other parameters stabilized. The appearance of the water was cloudy through one hour of purging. Due to the elevated turbidity after one hour, ECS re-sampled the three affected wells on February 3, in an effort to get the turbidity values to stabilize. Turbidity values stabilized ( $<1.58$  NTU) within monitoring wells CBM-3 and KAS-1 on February 3, and groundwater samples were collected. On February 3, after two hours of purging there was no improved clarity of the groundwater ( $>1,000$  NTU) from monitoring well J-GW-DEP8, so in accordance with the EPA guidance and correspondence with VT DEC personnel a sample was collected. Analytical data may be biased high due to the turbidity of the sample.

Oxidation-Reduction Potential (ORP) measures available oxygen used to reduce petroleum contaminants aerobically. A negative ORP would indicate an anaerobic environment, ideal of reductive dechlorination. Monitoring wells GAI-1D, GAI-3S, GAI-3D, J-GW-APT2, J-GW-DEP9, KAS-1, CBM-1 and CBM-3 exhibited negative ORP values. Chlorinated solvents naturally attenuate in anaerobic environments via reductive dechlorination. PCE will typically degrade via anaerobic dechlorination into TCE to 1,2-DCE to Vinyl Chloride to ethene and finally ethane.

Literature indicates that anaerobic environments occur when dissolved oxygen (DO) concentrations are below 2.0 milligrams per liter (mg/L). Monitoring wells GAI-1S, GAI-2S, GAI-3S, GAI-3D, J-GW-APT2 all had DO concentrations below 2.0 mg/L.

Samples were transported under chain of custody in an ice-filled cooler to Eurofins Spectrum Analytical, Inc. (Spectrum) of Agawam, Massachusetts. All field procedures were conducted in accordance with ECS standard protocols. A summary of stabilized field parameters is presented in Table 1. Low flow field sheets are included as Appendix A.

Trip blanks, equipment blank and duplicate samples were collected to ensure that adequate quality assurance/quality control (QA/QC) standards were maintained.

## **2.4 WASTE MANAGEMENT**

Purge water was collected from each monitoring well across the site and temporarily stored in 5-gallon buckets with secured plastic lids. After completion of sampling each well, the purge water was then emptied into a metal 55-gallon drum temporarily staged at the Windsor Fire Department.

The drum was subsequently picked-up for disposal by Environmental Products and Solutions of Williston, Vermont on February 18, 2016 and was subsequently transported to their Syracuse, New York facility for disposal. Waste manifest documents are presented in Appendix B.

## 3.0 INVESTIGATIVE RESULTS

### 3.1 GROUNDWATER FLOW DIRECTION AND GRADIENTS

Groundwater was generally encountered at depths ranging from 1.00 ft bgs at KAS-1, located on the former Hunter Oil Co. property, to 8.28 ft bgs at GAI-2S, located south of the Carter and Carter property within shallow site wells. Groundwater within the deep surficial aquifer (greater than 10 feet) was encountered at depths ranging from 13.61 at GAI-1D to 15.27 at GAI-3D. Groundwater generally flows west to east across the Carter and Carter property and then appears to flow east/northeasterly along Depot Street and southeast towards the Windsor Station Restaurant.

A hydraulic gradient of 0.026 feet per foot was calculated on March 1, 2016 between GAI-1S and CBM-3. The two wells are separated by a distance of approximately 800 feet. The hydraulic relationship between the shallow unconfined overburden aquifer and the deeper aquifer (greater than 10 ft bgs) is currently unknown.

A groundwater contour map (**Figure 3**) was prepared using these data. Measurements and groundwater elevation calculations are presented in **Table 1**. Due to the various top of casing (TOC) elevations from multiple investigations at these sites, ECS utilized the 2007 survey data from Golder to calculate groundwater elevation at all wells in the sampling plan.

### 3.2 DISSOLVED-PHASE GROUNDWATER ANALYTICAL

VOC laboratory analytical results are summarized in **Table 2**. Laboratory analytical reports are presented in Appendix C. Dissolved VOC contaminant distribution maps are presented as Figures 4 through 6. A total of fifteen out of thirty-four wells north of River Street were sampled. Data was compared to the Vermont Groundwater Quality Enforcement Standards (VGES).

The groundwater sample collected from monitoring well GAI-3S contained the highest concentrations of total CVOCs. Tetrachloroethene was detected at 9,240 µg/L, trichloroethene was detected at 1,460 µg/L and cis-1,2-Dichloroethene was detected at 3,050 µg/L. No other VOCs were detected in groundwater samples from this well; however, due to elevated concentrations of CVOCs, the laboratory detection limit (LDL) for the sample was elevated (200 µg/L). All three detected CVOCs were detected above the VGES. In the associated deeper aquifer monitoring well GAI-3D, only tetrachloroethene was detected above laboratory detection limits and the Vermont Groundwater Quality Preventative Action Level (VGPA). However, tetrachloroethene was detected below the VGES in this deep well.

Groundwater collected from monitoring well GAI-1S, exhibited the second highest concentrations of CVOCs across the site. This well previously contained the highest concentrations of CVOCs during the 2007 sampling event completed by Golder. Tetrachloroethene was detected at 250 µg/L, trichloroethene was detected at 912 µg/L, cis-1,2-Dichloroethene was detected at 6,280, and vinyl chloride was detected at 74.8 µg/L. All concentrations exceeded the VGES for each compound. In addition, trans-1,2-Dichloroethene was detected below VGES but above the VGPA. In the associated deeper aquifer monitoring well GAI-1D, only tetrachloroethene was detected above LDL and VGPA but below VGES.

Concentrations of tetrachloroethene were detected above VGES in groundwater samples collected from J-GW-APT3 (8.8 µg/L), J-GW-DEP8 (9.2 µg/L) and J-GW-DEP9 (76.0 µg/L).

Concentrations of trichloroethene were detected above VGES in J-GW-DEP9 (7.0 µg/L). Concentrations of trichloroethene were detected above VGPA in J-GW-APT3 (1.8 µg/L) but below VGES.

Concentrations of cis-1,2-Dichloroethene were detected above LDLs in all three wells mentioned above; however, concentrations were below VGES and VGPA.

Concentrations of tetrachloroethene were detected within two of five wells located on the former Perne Building property, east of Depot Avenue and the former Stacey Fuel property at concentrations above the VGPA but below VGES; monitoring wells CBM-2 (4.5 µg/L) and CBM-3 (2.0 µg/L). No other CVOCs were detected above LDLs within these wells.

CVOCs were not detected above LDLs within groundwater samples collected from GAI-2S, KAS-1 or J-GW-APT2. These wells are located crossgradient of the source area on Depot Avenue.

In general, site concentrations of CVOCs decreased in groundwater with the exception of monitoring wells GAI-3S, J-GW-DEP8 and J-GW-DEP9. In addition, CVOCs concentrations, specifically tetrachloroethene, increased in monitoring wells CBM-2 and CBM-3, though these concentrations were below VGES.

The plume of CVOC-impacted groundwater appears to have migrated approximately 100 feet east of GAI-1S towards GAI-3S in the Depot Avenue area. The CVOC-impacted groundwater appears primarily contained to the top ten feet of the surficial Depot Avenue aquifer, as CVOCs detected in deeper wells (GAI-1D and GAI-3D) were not detected above VGES, and only tetrachloroethene was detected above VGPA. CVOC concentrations also increased in wells east of the source area specifically in J-GW-DEP9 and J-GW-DEP8, which suggests further migration of the groundwater plume to the east.

Concentrations of tetrachloroethene degradation products, specifically cis-1,2-Dichloroethene, trichloroethene and vinyl chloride did not appear to increase with the exception of concentrations detected in groundwater collected from monitoring well GAI-3S. The increased concentrations within GAI-3S appeared more related to movement of the groundwater plume, rather than increased degradation of CVOCs across the site.

### **3.3 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)**

No VOCs were detected in the trip blank samples collected on February 1, 2016 or February 3, 2016. Additionally, VOCs were not detected within the equipment blank sample collected on February 1, 2015 (Table 2). Analytical results of VOCs in the duplicate sample collected from GAI-3D were all within the EPA's relative percent difference (RPD) guidance value of 30 percent for groundwater. The RPD values for the VOC analysis was 24.56 percent.

According to the laboratory, six VOC compounds (1,2-Dibromo-3-chloropropane, bromoform, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene and tert-butylbenzene) were outside of individual acceptance criteria in the Laboratory Control Sample (LCS), but within overall method allowances. 1,2-Dibromo-3-chloropropane, bromoform and naphthalene could potentially have a low bias in the sample results while 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene and tert-butylbenzene could potentially have a high bias within the sampling data. As none of these compounds are contaminants of concern at the site, the biases are not expected to impact sampling results. Additional qualifiers were identified in the analytical report, however none appeared to affect the integrity of the sampling data.

To assure sample representativeness, all sampling methods were in accordance with EPA sampling policies currently in effect. Upon receipt of groundwater samples to the laboratory, all temperatures were within 6 degrees Celsius range with an infrared thermometer with a tolerance of +/- 1.0 degree. All groundwater samples were stored in a cooler with ice as required at the time of collection and later stored in a sample

refrigerator until the samples were picked-up by a currier for Eurofins Spectrum Analytical and transported within an iced cooler to the laboratory in Agawam, Massachusetts. All sampling containers and preservation methods complied with all applicable method requirements. All groundwater samples were analyzed within recommended analytical holding times.

## 4.0 FINDINGS AND RECOMMENDATIONS

Our findings based on this work are as follows:

- ECS visited the site and attempted to locate previously installed monitoring wells. Utilizing a metal detector, ECS was able to locate fifteen of thirty-four previously installed monitoring wells north of River Street. Former wells which were previously located east of the Former Hunter Oil Co. building (current Paradise Sports Shop) and west of the Windsor Station Restaurant were presumed paved over (GAI-6, GAI-4, J-GW-APT1, GAI-5, MW-203 and MW-202). Former wells located on the Town of Windsor Highway Department property (J-GW-STA2, J-GW-STA3 and J-GW-STA4) were covered by a large sand pile. Former wells located in the grassy field, east of the railroad tracks and northeast of the Windsor Station Restaurant (MW-102, GAI-7 and GAI-8) were not located due to metal interference with the metal detector and frozen ground.
- LNAPL or DNAPL was not identified in any of the wells gauged. Maximum TOVs were detected at 5.9 ppmv within monitoring well GAI-1S. With the exception of GAI-3S (0.1 ppmv) and J-GW-DEP9 (0.8 ppmv), TOVs were not detected within the headspace of any other wells.
- Groundwater was generally encountered at depths ranging from 1.00 ft bgs at KAS-1, located on the former Hunter Oil Co. property, to 8.28 ft bgs at GAI-2S, located south of the Carter and Carter property within shallow site wells. Groundwater was encountered at depths ranging from 13.61 ft bgs at GAI-1D to 29.10 ft bgs at CBM-1; both of these wells were installed to monitor the deep surficial aquifer (greater than 10 feet). Groundwater generally flows west to east across the Carter and Carter property and then appears to flow east/northeasterly along Depot Street and southeast towards the Windsor Station Restaurant.
- The groundwater sample collected from monitoring well GAI-3S contained the highest concentrations of total CVOCs. Tetrachloroethene was detected at 9,240 µg/L, trichloroethene was detected at 1,460 µg/L and cis-1,2-Dichloroethene was detected at 3,050 µg/L. In the associated deeper aquifer monitoring well GAI-3D, only tetrachloroethene was detected above laboratory detection limits and the Vermont Groundwater Quality Preventative Action Level (VGPA); however, below the VGES.
- Groundwater collected from monitoring well GAI-1S, exhibited the second highest concentrations of CVOCs across the site. This well previously contained the highest concentrations of CVOCs during the 2007 sampling event completed by Golder. All concentrations exceeded the VGES for each compound. In the associated deeper aquifer monitoring well GAI-1D, only tetrachloroethene was detected above LDL and VGPA, however below VGES.
- Additional VGES exceedances of tetrachloroethene were detected in groundwater samples collected from J-GW-APT3 (8.8 µg/L), J-GW-DEP8 (9.2 µg/L) and J-GW-DEP9 (76.0 µg/L). Concentrations of trichloroethene were detected above VGES in J-GW-DEP9 (7.0 µg/L). Concentrations of cis-1,2-Dichloroethene were detected above LDLs in all three wells, however concentrations were below VGES and VGPA.
- The main plume of CVOC-impacted groundwater appears to have migrated approximately 100 feet east of GAI-1S towards GAI-3S in the Depot Avenue area. CVOC concentrations also increased in wells J-GW-DEP9 and J-GW-DEP8, east of the source area which suggests further migration of the groundwater plume east.

- The CVOC-impacted groundwater appears primarily contained to the top ten feet of the surficial Depot Avenue aquifer, as CVOCs detected in deeper wells (GAI-1D and GAI-3D) were not detected above VGES, and only tetrachloroethene was detected above VGPA within both wells.
- Concentrations of tetrachloroethene degradation products, specifically cis-1,2-Dichloroethene, trichloroethene and vinyl chloride did not appear to increase with the exception of concentrations detected in groundwater collected from monitoring well GAI-3S. The increased concentrations within GAI-3S, appeared more related to movement of the groundwater plume, rather than increased degradation of CVOCs across the site.

Based on these findings, ECS has the following recommendations:

- Re-installation of monitoring wells including at least (Stacey)-MW-202, (Stacey)-MW-201, JGW-DEP5, JGW-DEP6 and JGW-DEP11.
- Groundwater monitoring and reporting should continue on a bi-annual basis to further assess the migration of the CVOC plume across the site.
- Indoor air quality should be monitored again within the Windsor Station Restaurant due to the presence CVOC impacted groundwater migrating towards the structure.

## FIGURES

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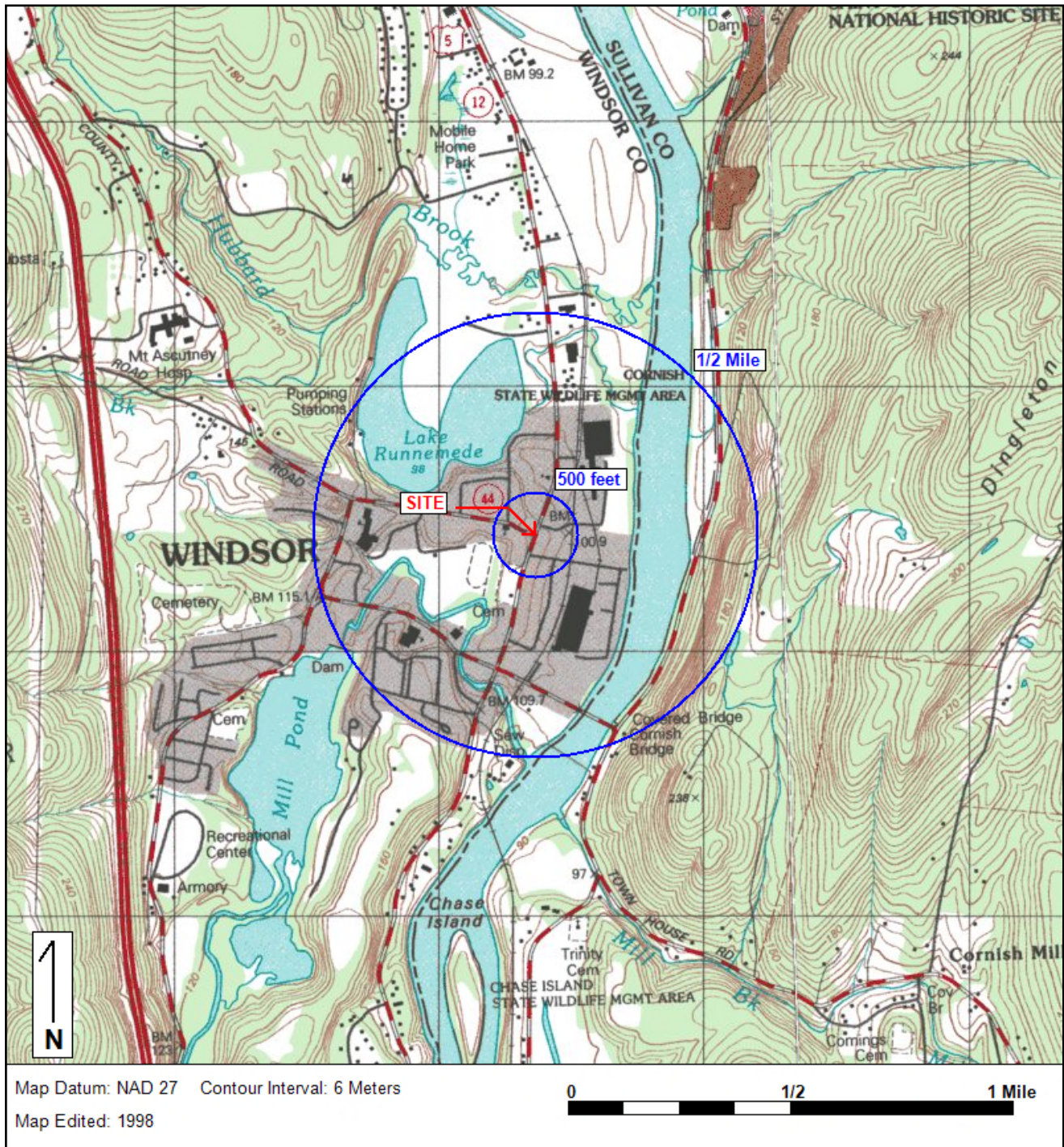




Downtown Windsor  
Depot Avenue  
Windsor, VT

Environmental Compliance Services, Inc.  
70 Landmark Hill Drive  
Brattleboro, VT 05301  
Phone 802-257-1195 Fax 802-257-1603  
www.ecsconsult.com

**Figure 1: SITE LOCUS**

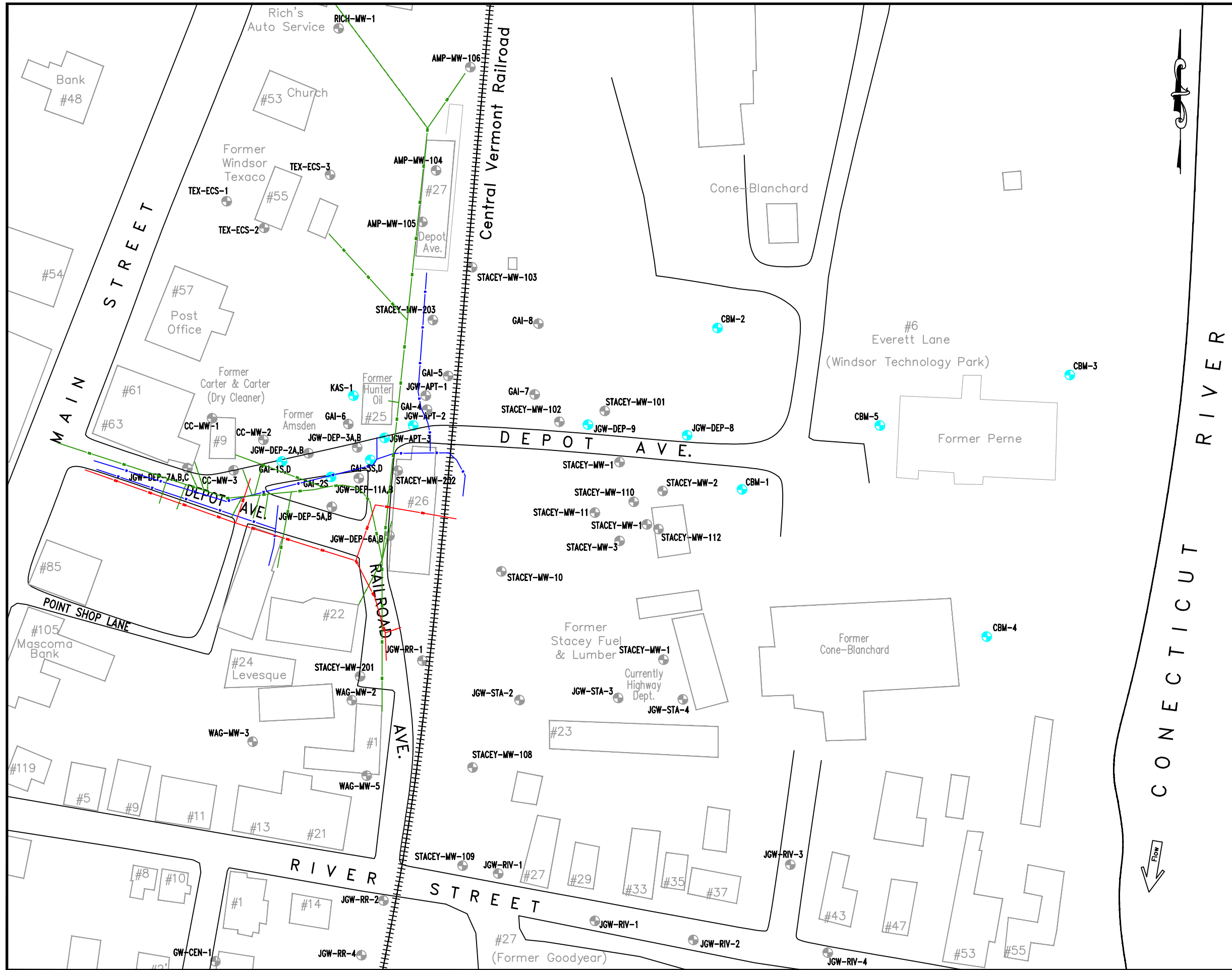


Base Map: U.S. Geological Survey; Quadrangle Location: Windsor, VT

Lat/Lon: 43 28' 48.08" NORTH, 72 23' 11.65" WEST - UTM Coordinates: 18 711354.7 EAST / 4817440.7 NORTH

Generated By: Carol Farrington





Legend

- Railroad Track
- Sanitary Sewer Line
- Water Line
- Storm Sewer Line
- Monitoring Well Sampled
- Monitoring Wells Not Located

General Notes:

Site plan based on Town of Windsor Assessors Maps, an airphoto by Google Earth circa 9/19/13, plans and information from previous reports by various consultants and observations by representatives of ECS.

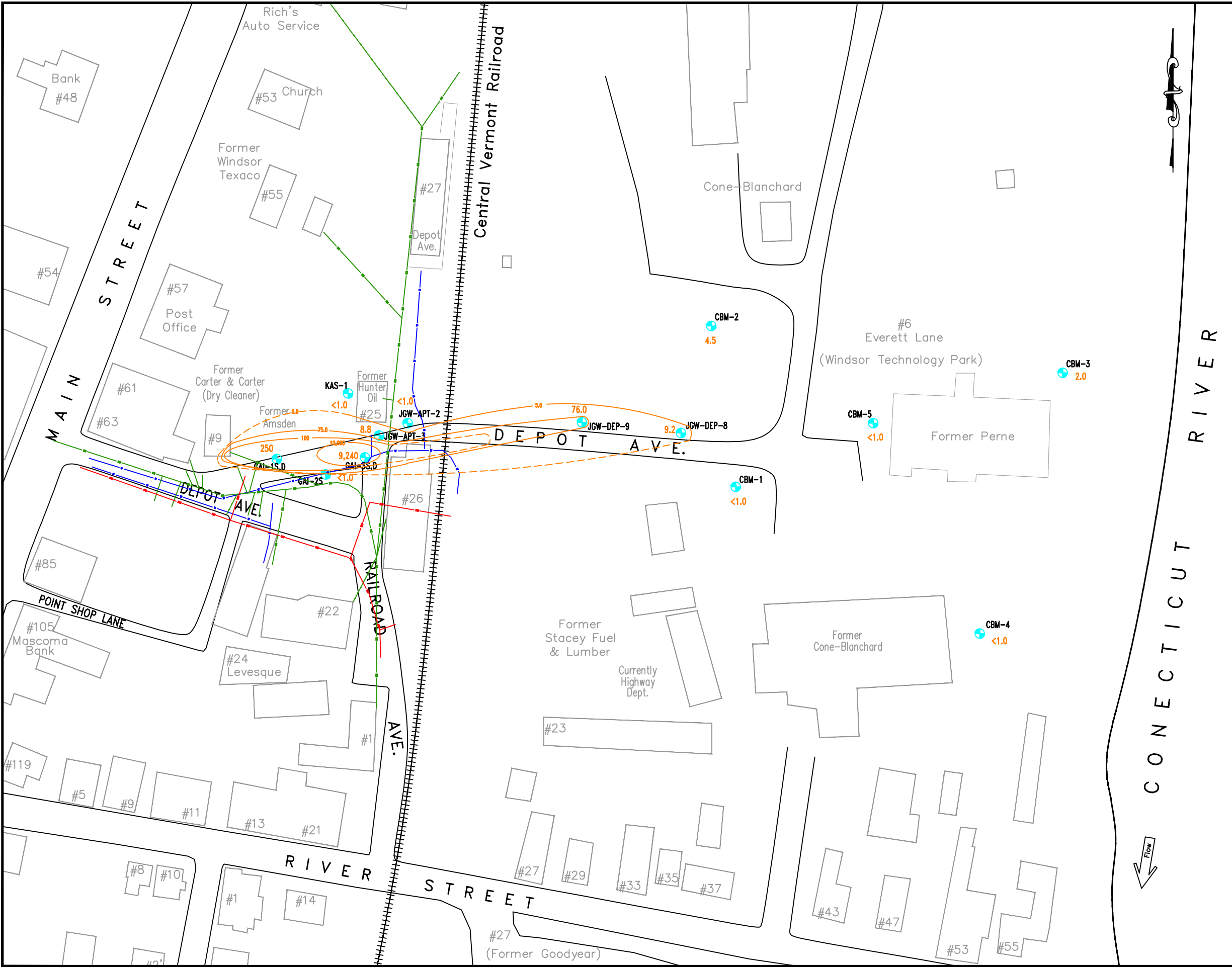
All locations and dimensions on this plan are approximate only. This plan should not be used for construction or land conveyance purposes.



70 Landmark Hill • Brattleboro, VT 05301  
Phone: 866-718-1195 Fax: 802-257-1003  
ecsconsult.com

PROJECT: Downtown Windsor Downtown Windsor Area Windsor, Vermont			
TITLE: Site Plan			
CLIENT: State of Vermont			
GRAPHIC SCALE: 100 50 0 50 100			
COMPUTER CADFILE : 224488e.dwg			
DRAWN BY:	DESIGNED BY:	CHECKED BY:	APPROVED BY:
RAS	WV	WV	
SCALE:	DATE:	JOB NO.:	FIGURE NO.:
1" = 100'	4/7/16	224488	2





Legend

+++++

Railroad Track

—●—

Sanitary Sewer Line

—■—

Water Line

—■—

Storm Sewer Line

⊕

Monitoring Well Sampled

—

Interpreted PCE ISO-Concen.(dashed where inferred)


9,280

PCE Concentration ug/L

**General Notes:**

Site plan based on Town of Windsor Assessors Maps, an airphoto by Google Earth circa 9/19/13, plans and information from previous reports by various consultants and observations by representatives of ECS.

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Phone: 866-718-1195 Fax: 802-257-1003  
ecsconsult.com

PROJECT:

Downtown Windsor  
Downtown Windsor Area  
Windsor, Vermont

TITLE:

PCE Iso-Concentration Map

CLIENT:

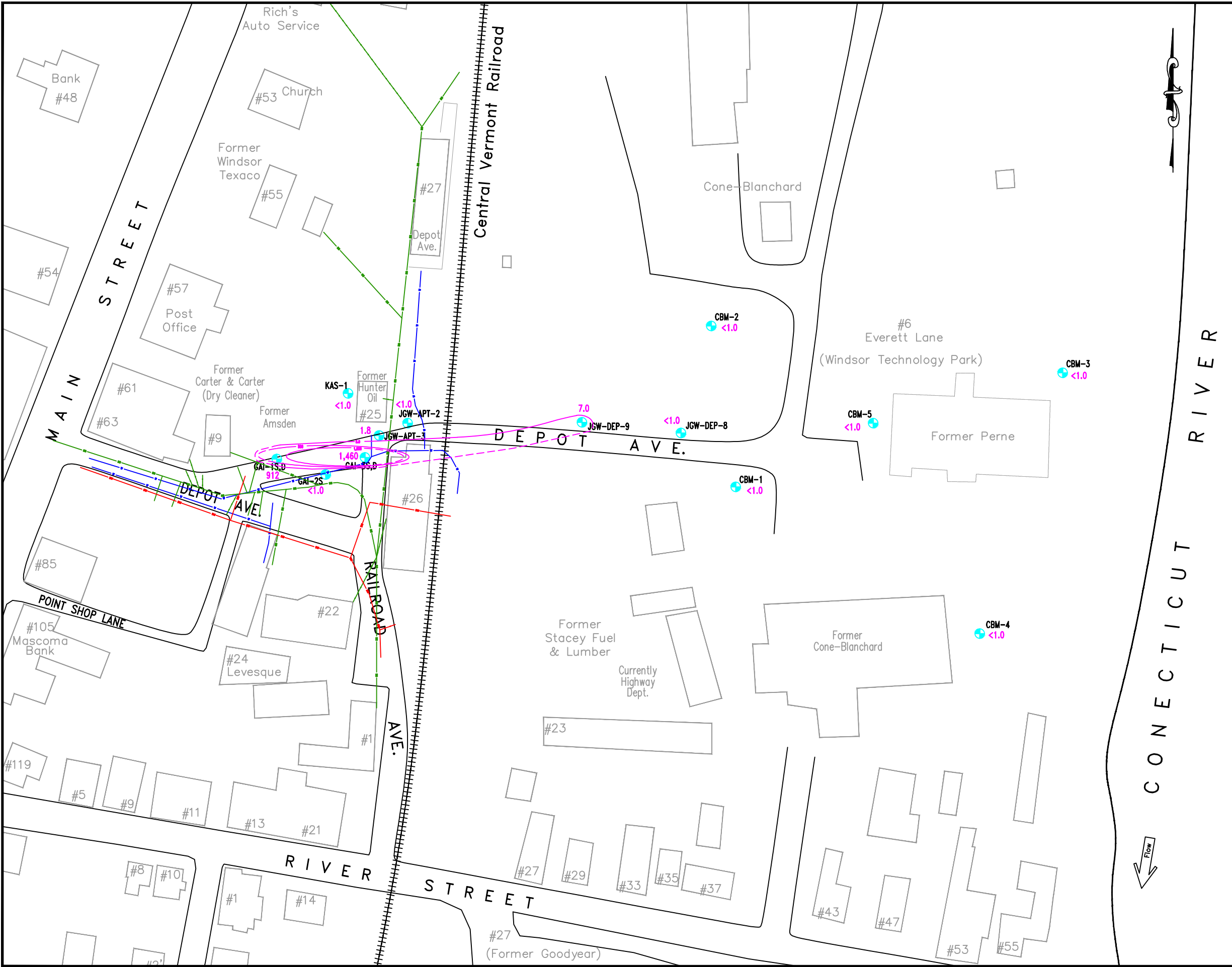
State of Vermont

GRAPHIC SCALE:

100 50 0 50 100

COMPUTER CADFILE : 224488e.dwg

DRAWN BY:	DESIGNED BY:	CHECKED BY:	APPROVED BY:
RAS	WV	WV	AF
SCALE:	DATE:	JOB NO.:	FIGURE NO.:
1" = 100'	4/7/16	224488	4



### Legend

- Railroad Track
- Sanitary Sewer Line
- Water Line
- Storm Sewer Line
- Monitoring Well Sampled
- Interpreted TCE ISO-Concen. (dashed where inferred)
- TCE Concentration ug/L

### General Notes:

Site plan based on Town of Windsor Assessors Maps, an airphoto by Google Earth circa 9/19/13, plans and information from previous reports by various consultants and observations by representatives of ECS.

All locations and dimensions on this plan are approximate only. This plan should not be used for construction or land conveyance purposes.

70 Landmark Hill • Brattleboro, VT 05301  
Phone: 866-718-1195 Fax: 802-257-1803  
ecsconsult.com

PROJECT:

**Downtown Windsor**  
Downtown Windsor Area  
Windsor, Vermont

TITLE:

**TCE Iso-Concentration Map**

CLIENT:

**State of Vermont**

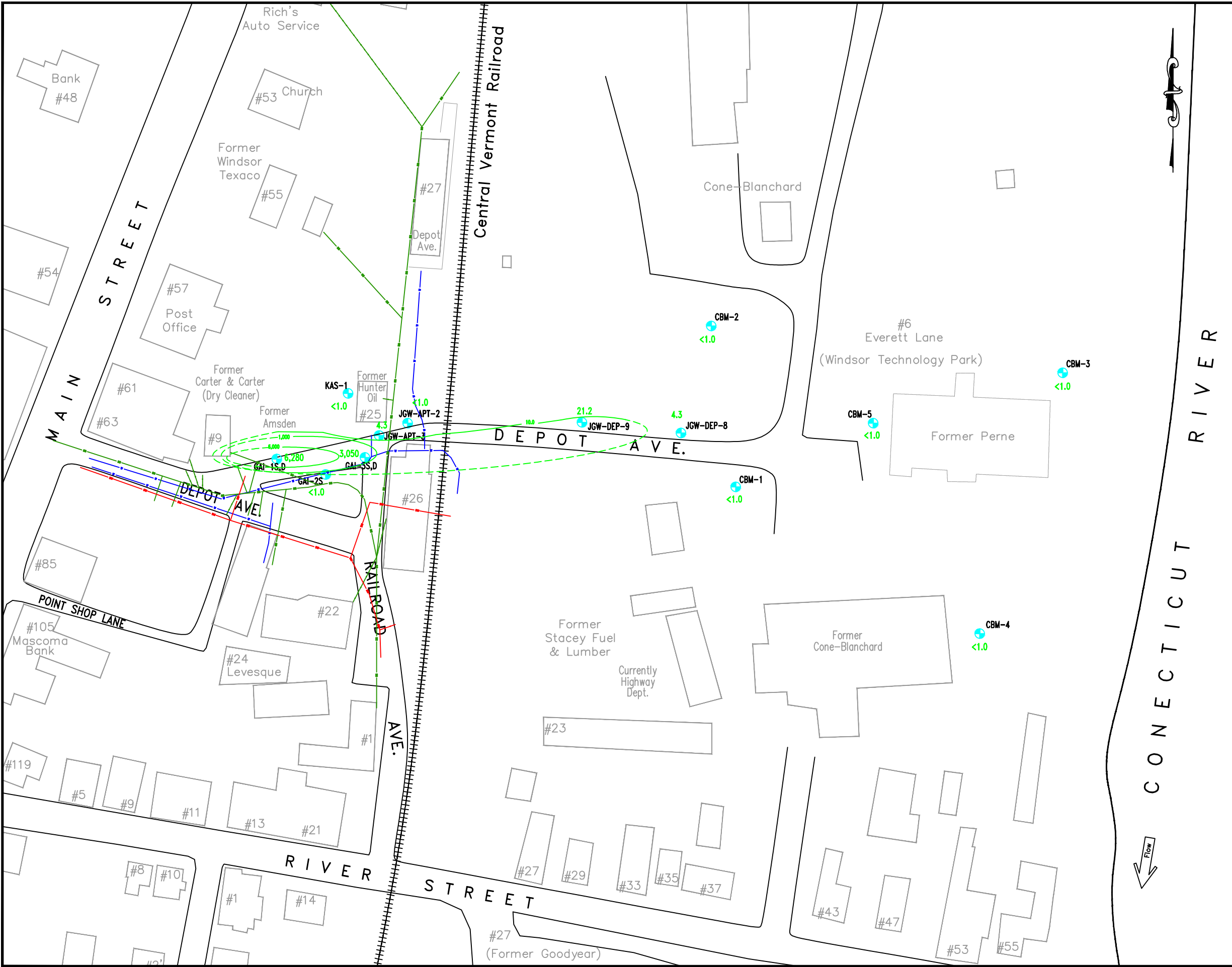
GRAPHIC SCALE:

100 50 0 50 100

COMPUTER CADFILE : 224488e.dwg

DRAWN BY:	DESIGNED BY:	CHECKED BY:	APPROVED BY:
RAS	WV	WV	AF
SCALE:	DATE:	JOB NO.:	FIGURE NO.:
1" = 100'	4/7/16	224488	5






### Legend

- Railroad Track
- Sanitary Sewer Line
- Water Line
- Storm Sewer Line
- Monitoring Well Sampled
- Interpreted 1,2-DCE ISO-Concen.(dashed where inferred)
- 6,280 1,2-DCE Concentration ug/L

### General Notes:

Site plan based on Town of Windsor Assessors Maps, an airphoto by Google Earth circa 9/19/13, plans and information from previous reports by various consultants and observations by representatives of ECS.

All locations and dimensions on this plan are approximate only. This plan should not be used for construction or land conveyance purposes.



70 Landmark Hill • Brattleboro, VT 05301  
Phone: 866-718-1195 Fax: 802-257-1803  
ecsconsult.com

PROJECT:

**Downtown Windsor**  
Downtown Windsor Area  
Windsor, Vermont

TITLE:

**1,2-DCE Iso-Concentration Map**

CLIENT:

**State of Vermont**

GRAPHIC SCALE:

100 50 0 50 100

COMPUTER CADFILE : 224488e.dwg

DRAWN BY:	DESIGNED BY:	CHECKED BY:	APPROVED BY:
RAS	WV	WV	AF
SCALE:	DATE:	JOB NO.:	FIGURE NO.:
1" = 100'	4/7/16	224488	6

## TABLES

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Environmental Compliance Services, Inc.  
70 Landmark Hill, Brattleboro, Vermont 05301  
(802) 257-1195 FAX (802) 257-1603

GROUNDWATER SAMPLING LOG

Client/Site: **Depot Avenue**

Job Number: **04-224488**

Location: **Windsor, VT**

Date: **1/29/16**

Personnel: **Jason Scholz-Karabakakis, Bradley Conway**

Weather Conditions: **Cloudy 35 degrees F**

Well ID	Time Sampled	D (in.)	Point of Reference (PVC/Rim)	Total Depth (feet)	Depth to Product (feet)	Depth to Water (feet)	Water Height (feet)	Standing Volume (gallons)	Volume Purged (gallons)	Odors (Y/N)	pH	Temp (°C)	Sp. Cond. (umhos/sec)	ORP/Eh (mV)	Dissolved Oxygen (mg/L)	TOV	Comments
GAI-1S	13:12	2	PVC	15.28	NA	7.53	7.75	1.26	2.00	N	7.18	10.2	1373	6.6	1.90	5.9	
GAI-1D	18:37	2	PVC	25.99	NA	12.380	13.61	2.22	2.00	N	8.81	11.25	940	-246	5.91	0.0	
GAI-2S	17:25	2	PVC	14.88	NA	6.60	8.28	1.35	2.00	N	6.93	9.04	1236	10.7	1.83	0.0	Broken Cover
GAI-2D		2	PVC	28.38													1/29/2016 Unable to find
GAI-3S	16:25	2	PVC	14.83	NA	8.05	6.78	1.11	1.50	N	8.40	11.3	1783	-329.6	0.52	0.1	
GAI-3D	17:35	2	PVC	26.28	NA	11.01	15.27	2.49	2.5	N	8.73	11.2	1359	-295.3	1.03	0.0	
GAI-4		2	PVC	22.81													1/29/2016 Unable to find
GAI-5		2	PVC	19.53													1/29/2016 Unable to find
GAI-6		2	PVC	14.38													1/29/2016 Unable to find
GAI-7		2	PVC	26.28													1/29/2016 Unable to find
GAI-8		2	PVC	29.23													1/29/2016 Unable to find
J-GW-APT1		1	PVC	16.71													1/29/2016 Unable to find
J-GW-APT2	15:35	1	PVC	15.10	NA	13.00	2.10	0.34	2.0	N	8.5	11.4	1452	-34.9	0.80	0.0	PVC Kinked/Pinched at 6" below grade
J-GW-APT3	15:55	1	PVC	16.08	NA	8.45	7.63	1.24	2.5	N	6.9	10.58	1890	25.9	3.11	0.0	
J-GW-STA2		1	PVC	26.78													1/29/2016 Unable to find
J-GW-STA3		1	PVC	26.88													1/29/2016 Unable to find
J-GW-STA4		1	PVC	26.73													1/29/2016 Unable to find
J-GW-DEP8	14:05	1	PVC	29.58	NA	25.50	4.08	0.67	1.25	N	6.4	10.97	1074	74.5	5.54	0.0	
J-GW-DEP9	14:12	1	PVC	28.88	NA	26.00	2.88	0.47	1.2	N	7.8	10.66	1029	-252	5.98	0.8	
KAS-1	18:42	1	PVC	8.50	NA	7.50	1.00	0.16	3.6	N	8.0	3.83	405	-202.2	10.34	0.0	
MW-1																	1/29/2016 Unable to find
MW-2																	1/29/2016 Unable to find
MW-3																	1/29/2016 Unable to find
MW-4																	1/29/2016 Unable to find
Stacey-MW-101																	1/29/2016 Unable to find
Stacey-MW-102																	1/29/2016 Unable to find
Stacey-MW-103																	1/29/2016 Unable to find
Stacey-MW-104																	1/29/2016 Unable to find
Stacey-MW-105																	1/29/2016 Unable to find
Stacey-MW-106																	1/29/2016 Unable to find
Stacey-MW-107																	1/29/2016 Unable to find
Stacey-MW-108																	1/29/2016 Unable to find
Stacey-MW-109																	1/29/2016 Unable to find
Stacey-MW-110																	1/29/2016 Unable to find
Stacey-MW-111																	1/29/2016 Unable to find
Stacey-MW-112																	1/29/2016 Unable to find
Stacey-MW-201																	1/29/2016 Unable to find
MW-202																	1/29/2016 Unable to find
MW-203																	10/16/07 Destroyed
CC-MW-2																	1/29/2016 Unable to find
CC-MW-3																	1/29/2016 Unable to find
CBM-1	13:20	2	PVC	35.65	NA	29.10	6.55	1.07	1.25	N	7.5	11.14	1634	-251.4	7.01	0.0	Raised well
CBM-2	13:05	2	PVC	30.20	NA	21.50	8.70	1.42	1.25	N	6.5	10.85	1287	88.4	5.55	0.0	Raised well
CBM-3	12:25	2	PVC	34.20	NA	28.50	5.70	0.93	1.5	N	7.5	9.94	569	-274.8	4.29	0.0	Raised well
CBM-4	11:43	2	PVC	33.70	NA	23.20	10.50	1.71	1.25	N	5.0	10.47	533	34.3	6.22	0.0	Raised well
CBM-5	11:20	2	PVC	34.53	NA	26.10	8.43	1.37	1.2	N	7.72	10.8	3.14	264.6	6.12	0.0	Raised well
						(FORMULA)	(FORMULA)										

Field Instrumentation	I.D. Number	Calibration	Notes
Solinst groundwater level indicator			
Hanna Handheld PH and Temp Meter			

NOTES:

CBM-4 Could not remove cover  
GAI-1S PVC riser below grade  
GAI-2S Broken cover

Standing Volume (liters) =  $\pi r^2(H)(7.48/144)(3.785) = r^2(H)(0.617)$   
Standing Volume (gallons) =  $r^2(H)(0.163)$   
Where: r = inside radius of well (inches)  
H = standing height of water (feet)



Depot Avenue Windsor, Vermont 04-224488		Table 1 Summary of Volatile Organic Compound in Groundwater																						
WELL ID		n-Butylbenzene	tert-Butyl Benzene	4-Chlorotoluene	Isopropylbenzene	1,2-Dibromo-3-chloropropane	1,1-Dichloroethene	cis-1,2-Dichloroethene (DCE)	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Ethylbenzene	4-Isopropyltoluene	Naphthalene	n-Propylbenzene	Tetrachloroethene (PCE)	Toluene	Trichloroethene (TCE)	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl Chloride (VC)	m,p-Xylene	o-Xylene	
Sampling Date		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
	Enforcement Standard	NS	NS	100	NS	0.2	7	70	100	0.5	700	NS	20	NS	5	1,000	5	5	350	2	10,000			
	Preventive Action Level	NS	NS	50	NS	0.2	0.7	35	50	0.5	350	NS	10	NS	0.5	500	0.5	0.5	2.5	2	0.5	5,000		
CBM-1																								
7/11/1996		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	ND	NS	ND	NS	NS	NS	NS	NS	NS	
2/1/2016		<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	
CBM-2																								
7/11/1996		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	6	NS	ND	NS	NS	NS	NS	NS	NS	
2/1/2016		<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<0.5	<1.0	<1.0	<1.0	<1.0	4.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	
CBM-3																								
7/11/1996		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2	NS	ND	NS	NS	NS	NS	NS	NS	
2/3/2016		<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<0.5	<1.0	<1.0	<1.0	<1.0	2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	
CBM-4																								
7/11/1996		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2	NS	ND	NS	NS	NS	NS	NS	NS	
2/1/2016		<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	
CBM-5																								
7/11/1996		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.8	NS	ND	NS	NS	NS	NS	NS	NS	
2/1/2016		<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	
GAI-1S																								
6/18/2007		6.4	<5.0	<5.0	<5.0	<5.0	5	41,000	<2,000	7.7	<5.0	<5.0	9.8	<5.0	9,700	48	10,000	<5.0	29	5.7	870	5.6	9.6	
2/1/2016		<25.0	<25.0	<25.0	<25.0	<50.0	<25.0	6,280	56.5	<12.5	<25.0	<25.0	<25.0	<25.0	250	<25.0	912	<25.0	<25.0	<25.0	74.8	<50.0	<25.0	
GAI-1D																								
6/18/2007		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	41	<5.0	7.7	<5.0	<5.0	<5.0	<5.0	9.6	<5.0	18	<5.0	<5.0	<5.0	<2.0	<5.0	<5.0	
2/1/2016		<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<0.5	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	
GAI-2S																								
6/19/2007		<5.0	5.3	<5.0	<5.0	<5.0	<5.0	7,800	120	<5.0	<5.0	<5.0	<5.0	<5.0	1,100	<5.0	960	<5.0	<5.0	<5.0	160	<5.0	<5.0	
2/1/2016		<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	
GAI-2D																								
6/19/2007		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<5.0	<5.0	
GAI-3S																								
6/20/2007		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	160	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	140	<5.0	41	<5.0	<5.0	<5.0	<2.0	<5.0	<5.0	
2/1/2016		<200	<200	<200	<200	<400	<200	3,050	<200	<100	<200	<200	<200	<200	9,240	<200	1,460	<200	<200	<200	<200	<400	<200	
GAI-3D																								
6/20/2007		<5.0	5.3	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<5.0	<5.0	
2/1/2016		<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<0.5	<1.0	<1.0	<1.0	<1.0	3.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	
DUPLICATE (GAI-3D)																								
2/1/2016		<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<0.5	<1.0	<1.0	<1.0	<1.0	2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	
GAI-4																								
6/19/2007		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<5.0	<5.0	
GAI-5																								
6/19/2007		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<5.0	<5.0	
GAI-6																								
6/19/2007		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	11	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	12	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<5.0	<5.0	
GAI-7																								
6/20/2007		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	17	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	40	<5.0	5.2	<5.0	<5.0	<5.0	<2.0	<5.0	<5.0	
GAI-8																								
6/20/2007		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<5.0	<5.0	
DUP-01 (GAI-8)																								
6/20/2007		<5.0	<5.0	<5.0	<5.0	7.9	<5.0	<5.0	<5.0	7.7	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<5.0	<5.0	
J-GW-APT1																								
11/9/2005		NS	NS	NS	NS	NS	NS	NS	NS	NS	ND	NS	NS	NS	5	ND	ND	NS	NS	NS	NS	ND	ND	
6/21/2007		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<5.0	<5.0	
J-GW-APT2																								
11/9/2005		NS	NS	NS	NS	NS	NS	NS	NS	NS	ND	NS	NS	NS	ND	ND	ND	NS	NS	NS	NS	ND	ND	
6/20/2007		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<5.0	<5.0	
2/1/2016		<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	
J-GW-APT3																								
11/9/2005		NS	NS	NS	NS	NS	NS	100	NS	NS	ND	NS	NS	NS	55	ND	26	NS	NS	NS	NS	ND	ND	
6/20/2007		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	120	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	65	<5.0	25	<5.0	<5.0	<5.0	<2.0	<5.0	<5.0	
2/1/2016		<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	4.3	<1.0	<0.5	<1.0	<1.0	<1.0	<1.0	8.8	<1.0	1.8	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	
J-GW-DEP8																								
9/2/2005		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1	NS	NS	NS	NS	NS	NS	NS	NS	
6/21/2007		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<5.0	<5.0	
2/3/2016		<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	4.3	<1.0	<0.5	<1.0	<1.0	<1.0	<1.0	9.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	
J-GW-DEP9																								
9/2/2005		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	56	NS	NS	NS	NS	NS	NS	NS	NS	
6/21/2007		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	8.6	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<5.0	<5.0	
2/1/2016		<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	21.2	<1.0	<0.5	<1.0	<1.0	<1.0</											



## **APPENDIX A**

---

ID	photo #
CC-MW-2	19
driving w/ former	20
GAI-4, J-GW-APT1, etc...	
interfering metal objects	21
found across site	
vicinity of MW-106	22
field w/ informal wells +	
sprint station in background	23

Call AF

Back @ office / chemob 4:30

04-224488.00 Windsor GWS 2/1/15

MoJo truck, drive to site.  
9:55 BC + SSA on-site

Set up @ CBM-5  
Cal YSI:

2-pt pH → pH 10 Buffer, geotech  
LOT # 2AK399, pH 7 Buffer, geotech  
LOT # 5AD829, Conductivity Std,  
geotech, LOT # 56H560, ORP Std,  
geotech LOT # 3AE309, DO, DI Ho.

$$34.53 - 26.1 = 8.43$$

$$8.43 / 2 = 4.215$$

$$4.215 + 8.43 = 12.64 \rightarrow \text{Set tube}$$

$$26.1 = 30.315$$

$$8.43 \times 0.163 = 1.37 \text{ gal}$$

$$1.37 \times 3 = 4.10 \text{ gal (3x well vol)}$$

★ see low flow field worksheets

used OD FEP Natural Unred LDPE  
tubing for sampling.  
(geotech LOT # 2156472)

Set up @ CMB-3 DTW: 26.7 } previous  
DTB: 34.2 } w/ clock

Set up @ CMB-1  
" " @ S-GW-DEP9  
" " @ S-GW-APT2

S-GW-APT2 PVC is pinched,  
cannot get 1-probe in  
used historic well construction  
data for GW level + DTB

Setup @ G41-3D + G41-3S

G41-3D began to recharge over  
initial GW level - needs re-design

★ Collected duplicate @ G41-3D  
once stabilized

Set up @ G41-1D

19:00 done sampling  
drop drum (1-slug drum) @ FD  
+ label

Drive back to office, denrob  
21:00 Done



Monitoring Well ID	Present	Absent	Destroyed	Not Located	TOVs	DTP	DTW	DTB	Comments / Condition
CBM-4	✓	-	-	-	-	-	26.1	34.92	Could not remove lid
CBM-5	✓	-	-	-	-	-	26.1	34.92	cannot Screen Heads race
CBM-3	✓	-	-	-	0.0	-	26.7	34.2	Raised well
CBM-2	✓	-	-	-	-	-	26.8	30.2	Could not Screen TOV
CBM-1	✓	-	-	-	0.0	-	29.1	55.65	Raised well
J-GW-DEPT	✓	-	-	-	0.0	-	25.5	29.4	1" well
J-GW-DEPT 9	✓	-	-	-	0.8	-	25.5	28.6	Along Depot rd
MW-203	✓	-	✓	-	-	-	-	-	Destroyed
J-GW-DEPT 3	✓	-	-	-	0.0	-	8.45	15.62	along sidewalk
J-GW-APT 2	✓	-	-	-	0.0	-	7.25	14.7	along sidewalk
Gai 35	✓	-	-	-	-	-	9.6	25.9	Eastern Well
Gai 3D	✓	-	-	-	-	-	6.6	13.45	Western Well
Gai-2S	✓	-	-	-	-	-	-	-	Broken cover
Gai-2D	✓	-	-	-	-	-	-	-	DNE
Kas-1	✓	-	-	-	-	-	7.5	8.5	located NW corner of Paradise
Gai-1D	✓	-	-	-	-	-	6.3	23.1	Bright orange Sediment ports Parking
Gai-1S	✓	-	-	-	-	-	7.53	14.7	PVC Riser Below grade, Bright orange facility
CC-MW-X	-	-	-	-	-	-	-	11.05	Dry well

Raised

Pinched pvc @ 0.5 feet, not Probed

corner of Paradise  
ports Parking  
grade, Bright orange facility  
Sediment.

Material usage: Depth of tubing  
in well

Approximately 8 ft of  
tubing above  
each well  
 $8 \times 14 = 112$  ft

2/1/2016

Total Teflon tubing:  $112 + 292.2 = 404.2$  ft

Total feet of  
Dedicated tubing

in well

Does not include 8' of tube above each well

28.4 ft  
30.3  
30.45  
28.5  
32.3  
27.45  
27.05  
14  
10.7  
17.75  
10.02  
26.28  
16.2  
11.1  
292.2 ft

CBM-4  
CBM-5  
CBM-3  
CBM-2  
CBM-1  
J-GW-DEPT 8  
J-GW-DEPT 9  
J-GW-APT 2  
"APT 3  
GAI 3D  
GAI-2S GAI-2S  
GAI-2D-1  
KAS-1  
GAI-1D  
GAI-1S

# LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Windsor GWS  
 Project No.: 04-224488.00  
 Date: 2/1/15  
 Weather: 38°F overcast

Well ID: CMB-5  
 Sample ID: CMB-5  
 Sampler: JSK, BC, [signature]

Well Condition Observations	
Protective Casing:	<u>metal</u>
Lock:	<u>Broken</u>
Label:	<u>under lid</u>
Surface Seal:	<u>NA</u>
PVC Well Casing:	<u>✓</u>

Well Volume Calculations	
Well Diameter:	<u>2"</u>
Depth to Water:	<u>26.1'</u>
Total Depth:	<u>34.53'</u>
Volume Purged:	<u>~4.25 gal</u>

~1.2 gal

Pump Start: 10:29

TIME	DEPTH TO WATER (feet)	pH (SU)	TEMP (C)	SPECIFIC CONDUCTANCE (uS/cm)	DISSOLVED OXYGEN (mg/l)	ORP (mv)	TURBIDITY (NTU)
10:32	26.1'	6.71	11.55	395	7.75	-240.3	2.1
10:37	26.21'	6.50	11.23	370	7.79	-225.6	2.0
10:42	26.20'	6.77	11.19	343	7.29	-236.9	4.6
10:47	26.16'	7.00	11.14	334	6.85	-246.4	5.1
10:52	26.14'	7.24	11.07	322	6.52	-253.8	4.2
10:57	26.15'	7.45	10.95	317	6.37	-259.4	3.4
11:02	26.16'	7.50	10.77	317	6.30	-254.1	2.1
11:02	26.15'	7.70	10.87	315	6.00	-261.9	2.4
11:12	26.15'	7.69	10.87	314	6.10	-262.2	1.0
11:17	26.16'	7.72	10.80	314	6.12	-264.6	1.1
Stabilization Criteria	Drawdown < 0.3'	± 0.1 units	3%	3%	10%	± 10 mv	10%

Sampling/Purging Equipment	
Water Level Meter:	<u>Geotech 1-probe #3687</u>
pH/S.C./Dissolved Oxygen/ORP:	<u>YSI 05E2243 AD</u>
Turbidity:	<u>HACH Turbiditymeter 2100P</u>
Pump:	<u>Spectra field pro</u> <u>Model 77200-52</u>

Laboratory Analyses/Containers		
Container	Preservative	Analysis
<u>3x VOA</u>	<u>HCl</u>	<u>VOC 8260</u>

Sample Time: 11:20

Comments: Clear purgewater, no odors, no sheen.



# LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Windsor Depot st  
 Project No.: 04-224488-00  
 Date: 2/1/2016  
 Weather: 50°F Cloudy/Windy

Well ID: CBM-4  
 Sample ID: CBM-4  
 Sampler: Bradley C.

Well Condition Observations	
Protective Casing:	4" Raiser, 2" well
Lock:	Broken
Label:	CBM-4, on cap
Surface Seal:	cap
PVC Well Casing:	2"

Well Volume Calculations	
Well Diameter:	2"
Depth to Water:	23.2
Total Depth:	33.7
Volume Purged:	1.25G

Pump Start: 11:11

TIME	DEPTH TO WATER (feet)	pH (SU)	TEMP (C)	SPECIFIC CONDUCTANCE (uS/cm)	DISSOLVED OXYGEN (mg/l)	ORP (mv)	TURBIDITY (NTU)
11:11	23.2	4.96	11.9	569	7.12	188.8	7.91
11:16	23.2	4.64	10.89	555	6.74	171.8	4.77
11:21	23.1	5.06	10.63	543	6.53	103.2	2.45
11:26	23.0	5.0	10.51	534	6.34	101.2	2.14
11:31	23.1	5.04	10.47	533	6.22	94.3	2.08
Stabilization Criteria	Drawdown < 0.3'	+/- 0.1 units	3%	3%	10%	+/- 10 mv	10%

Sampling/Purging Equipment	
Water Level Meter:	Heron Dipper T
pH/S.C./Dissolved Oxygen/ORP:	Geotech YSI 556 MPS
Turbidity:	Hach 2100P Turbidometer
Pump:	Spectra Field Pro 77200-52

Laboratory Analyses/Containers		
Container	Preservative	Analysis
3X VOA	HCl	VOC 8260

Sample Time: 11:43

Comments: ~~Windsor Depot st~~ clear purge, no sheen/odors

# LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Windsor GWS  
 Project No.: 04-224488.00  
 Date: 2/1/16  
 Weather: 33°F, overcast

Well ID: CMB-3  
 Sample ID: CMB-3  
 Sampler: JSK

Well Condition Observations	
Protective Casing:	<u>Metal</u>
Lock:	<u>Broken</u>
Label:	<u>CMB-3</u>
Surface Seal:	<u>NA</u>
PVC Well Casing:	<u>✓</u>

Well Volume Calculations	
Well Diameter:	<u>2</u>
Depth to Water:	<u>28.51</u>
Total Depth:	<u>34.2</u>
Volume Purged:	<u>~1.5 gal</u>

Pump Start: 11:52

TIME	DEPTH TO WATER (feet)	pH (SU)	TEMP (C)	SPECIFIC CONDUCTANCE (uS/cm)	DISSOLVED OXYGEN (mg/l)	ORP (mv)	TURBIDITY (NTU)
11:57	28.50	7.47	9.94	572	6.54	-262.3	39.4
12:02	28.50	7.63	9.78	573	5.45	-266.8	22.5
12:07	28.46	7.64	9.76	571	4.55	-272.4	18.1
12:12	28.48	7.54	9.81	570	4.38	-272.9	14.8
12:17	28.45	7.51	9.90	568	4.26	-273.0	11.4
12:22	28.46	7.48	9.94	569	4.29	-274.8	9.6
Stabilization Criteria	Drawdown < 0.3'	± 0.1 units	3%	3%	10%	± 10 mv	10%

Sampling/Purging Equipment	
Water Level Meter:	<u>Geotech 1 probe # 3689</u>
pH/S.C./Dissolved Oxygen/ORP:	<u>YSI 05B2343 AD</u>
Turbidity:	<u>HACH Turbiditymeter 2100P</u>
Pump:	<u>Spectra Field pro</u>

Model # 77200.52

Laboratory Analyses/Containers		
Container	Preservative	Analysis
<u>3x VOA</u>	<u>HCL</u>	<u>VOC 8260</u>

Sample Time: 12:25

Comments: Clear purge, no odors, no sheen  
turbidity not stable, however, below 10 NTU @  
sample time.

# LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Windsor VT, Depot St  
 Project No.: 04-224488  
 Date: \_\_\_\_\_  
 Weather: Cloudy, 45°F

Well ID: CBM-2  
 Sample ID: CBM-2  
 Sampler: Brud C.

Well Condition Observations	
Protective Casing:	<u>4" Raised Steel, 2" PVC</u>
Lock:	<u>Broken</u>
Label:	<u>CBM-2, on cap</u>
Surface Seal:	<u>PVC</u>
PVC Well Casing:	<u>2"</u>

Well Volume Calculations	
Well Diameter:	<u>2"</u>
Depth to Water:	<u>21.5</u>
Total Depth:	<u>30.2</u>
Volume Purged:	<u>1.25G</u>

Pump Start: 12:25

TIME	DEPTH TO WATER (feet)	pH (SU)	TEMP (C)	SPECIFIC CONDUCTANCE (uS/cm)	DISSOLVED OXYGEN (mg/l)	ORP (mv)	TURBIDITY (NTU)
12:30	<del>27.5</del> <u>27.5</u>	6.7	11.5	1232	6.62	98.9	106
12:35	27.5	6.6	11.03	1235	6.24	89.6	69.0
12:40	27.4	6.65	11.04	1239	6.28	87.9	65.1
12:45	27.4	6.61	10.97	1253	5.90	87.0	38.9
12:50	27.45	6.59	11.1	1262	5.73	87.4	27.2
12:55	27.5	6.54	10.88	1281	5.75	87.5	27.1
13:00	27.45	6.49	10.85	1287	5.55	88.4	26.0
Stabilization Criteria	Drawdown < 0.3'	+/- 0.1 units	3%	3%	10%	+/- 10 mv	10%

Sampling/Purging Equipment	
Water Level Meter:	<u>Heron Dipper-T</u>
pH/S.C./Dissolved Oxygen/ORP:	<u>Geotech YSI 556 MPS</u>
Turbidity:	<u>Hach 2100 P Turbidimeter</u>
Pump:	<u>Spectra field-pro # F7200-52</u>

Laboratory Analyses/Containers		
Container	Preservative	Analysis
<u>3x VOA</u>	<u>HCl</u>	<u>VOC 8260</u>

Sample Time: 13:05

Comments: ~~Initially~~ Turbidity was initially high, BOE  
~~Disturbed~~ Disturbed while setting probe

# LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Windsor GWS  
 Project No.: 09-224488.00  
 Date: 2/1/16  
 Weather: partly sunny, 49°F

Well ID: CMB-1  
 Sample ID: CMB-1  
 Sampler: JSH

Well Condition Observations	
Protective Casing:	<u>metal</u>
Lock:	<u>broken</u>
Label:	<u>under cap</u>
Surface Seal:	<u>NA</u>
PVC Well Casing:	<u>✓</u>

Well Volume Calculations	
Well Diameter:	<u>2"</u>
Depth to Water:	<u>29.1'</u>
Total Depth:	<u>35.65'</u>
Volume Purged:	<u>~1.25 gal</u>

Pump Start: 12:53

TIME	DEPTH TO WATER (feet)	pH (SU)	TEMP (C)	SPECIFIC CONDUCTANCE (uS/cm)	DISSOLVED OXYGEN (mg/l)	ORP (mv)	TURBIDITY (NTU)
13:00	29.0'	7.59	11.18	1611	7.34	-252.5	6.8
13:05	29.14'	7.50	11.15	1626	7.21	-252.5	3.8
13:10	29.08'	7.46	11.12	1629	7.00	-252.2	3.4
13:15	29.09'	7.47	11.14	1634	7.01	-251.4	3.8
Stabilization Criteria	Drawdown < 0.3'	± 0.1 units	3%	3%	10%	± 10 mv	10%

Sampling/Purging Equipment	
Water Level Meter:	<u>Geotech 1-probe # 3687</u>
pH/S.C./Dissolved Oxygen/ORP:	<u>YSI 05E2343 AD</u>
Turbidity:	<u>HACH Turbiditymeter 2100P</u>
Pump:	<u>Spectra field pro</u>

model # 7700.52

Laboratory Analyses/Containers		
Container	Preservative	Analysis
<u>3x VOC</u>	<u>HCl</u>	<u>VOC 8760</u>

Sample Time: 13:20

Comments: Clear purge, no odors, no sheen

# LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Windsor, VT Depot St  
 Project No.: 04-224488  
 Date: 2/1/2016  
 Weather: Cloudy, Windy 50°F

Well ID: J-GW-DEP 8  
 Sample ID: J-GW-DEP 8  
 Sampler: Brad C.

Well Condition Observations	
Protective Casing:	Steel, in-road
Lock:	N
Label:	On PVC cap
Surface Seal:	Well cap
PVC Well Casing:	1"

Well Volume Calculations	
Well Diameter:	1"
Depth to Water:	25.5
Total Depth:	29.4
Volume Purged:	1.25 G

Pump Start: 13:35

TIME	DEPTH TO WATER (feet)	pH (SU)	TEMP (C)	SPECIFIC CONDUCTANCE (uS/cm)	DISSOLVED OXYGEN (mg/l)	ORP (mv)	TURBIDITY (NTU)
13:40	25.5	6.42	11.24	1017	52.2	113.8	17.2
13:45	25.5	6.44	11.22	1026	52.7	93.4	7.82
13:50	25.9	6.45	11.07	1075	52.5	81.8	3.39
13:55	25.45	6.41	11.05	1076	5.64	76.9	2.23
14:00	25.45	6.36	10.97	1074	5.54	74.5	8.1
Stabilization Criteria	Drawdown < 0.3'	+/- 0.1 units	3%	3%	10%	+/- 10 mv	10%

Sampling/Purging Equipment	
Water Level Meter:	Heron Dipper-T
pH/S.C./Dissolved Oxygen/ORP:	Geotech Y32 556 mps
Turbidity:	Hach 2100P Turbidometer
Pump:	Spectra field-Pro #77200-52

Laboratory Analyses/Containers		
Container	Preservative	Analysis
3X VOA	HCl	Vol 8260

Sample Time: 14:05

Comments: Unable to stabilize turbidity, however, below 10 NTU @ Sample time

# LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Windsor GWS  
 Project No.: 04-224488.00  
 Date: 2/1/16  
 Weather: partly sunny, 48°F

Well ID: 5-GW-DEP9  
 Sample ID: 5-GW-DEP9  
 Sampler: JSR

Well Condition Observations	
Protective Casing:	<u>metal</u>
Lock:	<u>NA</u>
Label:	<u>tag in well</u>
Surface Seal:	<u>no rubber gasket</u>
PVC Well Casing:	<u>✓</u>

Well Volume Calculations	
Well Diameter:	<u>1"</u>
Depth to Water:	<u>26.0</u>
Total Depth:	<u>28.5</u>
Volume Purged:	<u>~ 1.2 gal</u>

Pump Start: 13:40

TIME	DEPTH TO WATER (feet)	pH (SU)	TEMP (C)	SPECIFIC CONDUCTANCE (uS/cm)	DISSOLVED OXYGEN (mg/l)	ORP (mv)	TURBIDITY (NTU)
13:45	26.0'	7.63	11.2	935	7.17	-261.4	51.4
13:50	26.0'	7.67	10.90	924	6.73	-260.5	35.0
13:55	26.0'	7.67	10.73	953	6.34	-258.7	22.8
14:00	26.0'	7.74	10.74	979	6.09	-250.2	7.1
14:05	26.0'	7.75	10.71	1002	6.00	-250.8	4.1
14:10	26.0'	7.82	10.66	1029	5.98	-252.0	2.7
Stabilization Criteria	Drawdown < 0.3'	± 0.1 units	3%	3%	10%	± 10 mv	10%

Sampling/Purging Equipment	
Water Level Meter:	<u>Geotech 1-probe # 8687</u>
pH/S.C./Dissolved Oxygen/ORP:	<u>YSI 05E2343 AD</u>
Turbidity:	<u>HACH Turbiditymeter 2100P</u>
Pump:	<u>Spectra Field pro model #7720652</u>

Laboratory Analyses/Containers		
Container	Preservative	Analysis
<u>3x VOA</u>	<u>HCl</u>	<u>VOC 8200</u>

Sample Time: 14:12

Comments: Initial silty purge then clear, no odors, no sheen  
Unable to stabilize turbidity; however, below 10 NTU @  
Sample time

# LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Windsor GWS  
 Project No.: 04-224488.00  
 Date: 2/1/16  
 Weather: partly Sunny, 48°F

Well ID: 5-GW-APT2  
 Sample ID: 5-GW-APT2  
 Sampler: JSK

Well Condition Observations	
Protective Casing:	<u>metal</u>
Lock:	<u>NA</u>
Label:	<u>Not present</u>
Surface Seal:	<u>yes</u>
PVC Well Casing:	<u>yes, pinched @ 6"</u>

Well Volume Calculations	
Well Diameter:	<u>1"</u>
Depth to Water:	<u>~13' est</u>
Total Depth:	<u>~15' est</u>
Volume Purged:	<u>~2.0</u>

Pump Start: 14:40

TIME	DEPTH TO WATER (feet)	pH (SU)	TEMP (C)	SPECIFIC CONDUCTANCE (uS/cm)	DISSOLVED OXYGEN (mg/l)	ORP (mv)	TURBIDITY (NTU)
14:45	NA	8.08	11.4	1457	3.88	-281.8	19.2
14:50	NA	8.19	11.48	1457	2.37	-295.1	79.6
14:55	NA	8.39	11.58	1458	1.25	-332.6	28.5
15:00	NA	8.37	11.66	1458	0.39	-323.0	17.7
15:05	NA	8.43	11.68	1456	0.62	-337.4	7.6
15:10	NA	8.44	11.67	1455	0.94	-331.0	3.9
15:15	NA	8.51	11.40	1455	0.50	-345.5	0.9
15:20	NA	8.47	11.49	1452	0.34	-328.8	0.5
15:25	NA	8.46	11.44	1452	0.39	-350.7	0.9
15:30	NA	8.48	11.38	1452	0.39	-343.9	0.8
Stabilization Criteria	Drawdown < 0.3'	± 0.1 units	3%	3%	10%	± 10 mv	10%

Sampling/Purging Equipment	
Water Level Meter:	<u>Geotech 1-probe #3689</u>
pH/S.C./Dissolved Oxygen/ORP:	<u>YSI 05E 2343 AD</u>
Turbidity:	<u>HACH turbidimeter 2100P</u>
Pump:	<u>Spectra field pro</u> <u>model #77200.52</u>

Laboratory Analyses/Containers		
Container	Preservative	Analysis
<u>3x VOA</u>	<u>HCl</u>	<u>VOG 8260</u>

Sample Time: 15:35

Comments: \* well casing pinched @ 6". Cannot achieve 1-probe, used. distance well construction data to set tubing.

Purge water generally clear, with small black particulates  
ORP still exhibited same levels outside  
stabilization parameters (last 3 sample readings) @ sample event

# LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: DePot St, Windsor VT  
 Project No.: 04-224488.00  
 Date: 2/1/2016  
 Weather: Cloudy, Windy 45°F

Well ID: J-GW-Apt 3  
 Sample ID: J-GW-APT 3  
 Sampler: Brad C

Well Condition Observations	
Protective Casing:	<u>in-road Steel</u>
Lock:	<u>N</u>
Label:	<u>On well cap</u>
Surface Seal:	<u>observation well cap</u>
PVC Well Casing:	<u>1"</u>

Well Volume Calculations	
Well Diameter:	<u>1"</u>
Depth to Water:	<u>8.45</u>
Total Depth:	<u>15.62</u>
Volume Purged:	<u>2.5</u> <b>G</b>

Pump Start: 14:45

TIME	DEPTH TO WATER (feet)	pH (SU)	TEMP (C)	SPECIFIC CONDUCTANCE (nS/cm)	DISSOLVED OXYGEN (mg/l)	ORP (mv)	TURBIDITY (NTU)
<u>14:50</u>	<u>8.45</u>	<u>6.75</u>	<u>11.25</u>	<u>2124</u>	<u>6.63</u>	<u>83.0</u>	<u>9.44</u>
<u>14:55</u>	<u>9.5</u>	<u>6.85</u>	<u>11.39</u>	<u>2078</u>	<u>6.17</u>	<u>45.5</u>	<u>27.7</u>
<u>15:00</u>	<u>9.65</u>	<u>6.87</u>	<u>11.30</u>	<u>2049</u>	<u>6.85</u>	<u>37.6</u>	<u>41.1</u>
<u>15:05</u>	<u>9.4</u>	<u>6.85</u>	<u>11.28</u>	<u>1998</u>	<u>3.52</u>	<u>33.7</u>	<u>26.3</u>
<u>15:10</u>	<u>9.4</u>	<u>6.82</u>	<u>11.3</u>	<u>1975</u>	<u>3.45</u>	<u>32.2</u>	<u>~400</u>
<u>15:15</u>	<u>9.3</u>	<u>6.85</u>	<u>11.15</u>	<u>1960</u>	<u>4.01</u>	<u>31.2</u>	<u>~700</u>
<u>15:20</u>	<u>9.3</u>	<u>6.85</u>	<u>10.98</u>	<u>1953</u>	<u>3.81</u>	<u>30.5</u>	<u>744</u>
<u>15:25</u>	<u>9.3</u>	<u>6.84</u>	<u>10.92</u>	<u>1945</u>	<u>3.45</u>	<u>29.3</u>	<u>763</u>
<u>15:30</u>	<u>9.3</u>	<u>6.86</u>	<u>10.9</u>	<u>1917</u>	<u>3.25</u>	<u>27.7</u>	<u>454</u>
<u>15:35</u>	<u>9.3</u>	<u>6.85</u>	<u>10.91</u>	<u>1912</u>	<u>3.20</u>	<u>27.2</u>	<u>367</u>
<u>15:40</u>	<u>9.3</u>	<u>6.85</u>	<u>10.88</u>	<u>1905</u>	<u>3.41</u>	<u>27.0</u>	<u>301</u>
<u>15:45</u>	<u>9.3</u>	<u>6.85</u>	<u>10.81</u>	<u>1901</u>	<u>3.24</u>	<u>26.8</u>	<u>321</u>
<u>15:50</u>	<u>9.3</u>	<u>6.86</u>	<u>10.58</u>	<u>1890</u>	<u>3.11</u>	<u>25.9</u>	<u>123</u>
Stabilization Criteria	Drawdown < 0.3'	± 0.1 units	3%	3%	10%	± 10 mv	10%

-lifted tubing  
~1 foot

could not  
Stabilize  
Turbidity

Sampling/Purging Equipment	
Water Level Meter:	<u>Heron Dipper T</u>
pH/S.C./Dissolved Oxygen/ORP:	<u>Geotech Y52 556 Mps</u>
Turbidity:	<u>Hach 2100 P Turbidity meter</u>
Pump:	<u>Spectra field-pro #77200-52</u>

Laboratory Analyses/Containers		
Container	Preservative	Analysis
<u>3X VOA</u>	<u>HCl</u>	<u>VOC8260</u>

Sample Time: 15:55

Comments: Turbidity not stabilized. I probe disturbed BOE at 15:10

$$\begin{aligned}
 &15.62 \\
 &- 8.45 \\
 &\hline
 &7.17/2 = 3.585 \\
 &\sim 3.6 + 8.45 = 12.05
 \end{aligned}$$



# LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Windsor GWS  
 Project No.: 04-224488.00  
 Date: 2/1/16  
 Weather: Partly Sunny, 45°F

Well ID: G41-35  
 Sample ID: G41-35  
 Sampler: JSK

Well Condition Observations	
Protective Casing:	metal
Lock:	NA
Label:	wrong label on cap based on site plan
Surface Seal:	yes
PVC Well Casing:	✓

Well Volume Calculations	
Well Diameter:	2
Depth to Water:	14.3
Total Depth:	14.3
Volume Purged:	~1.5 gal

Pump Start: 15:45

TIME	DEPTH TO WATER (feet)	pH (SU)	TEMP (C)	SPECIFIC CONDUCTANCE (nS/cm)	DISSOLVED OXYGEN (mg/l)	ORP (mv)	TURBIDITY (NTU)
15:50	8.08	8.25	11.11	1781	2.75	-318.7	13.7
15:55	8.32	8.32	11.11	1792	0.86	-307.3	1.3
16:06	8.25	8.33	11.09	1792	0.78	-310.4	9.4
16:05	8.30	8.34	11.10	1792	0.70	-323.4	12.0
16:10	8.31	8.35	11.13	1796	0.60	-323.8	8.84
16:15	8.32	8.37	11.11	1787	0.59	-331.8	6.08
16:20	8.32	8.40	11.13	1783	0.52	-329.6	5.04
Stabilization Criteria	Drawdown < 0.3'	± 0.1 units	3%	3%	10%	± 10 mv	10%

Sampling/Purging Equipment	
Water Level Meter:	Geotech 1-probe #3689
pH/S.C./Dissolved Oxygen/ORP:	YSI 05E2343 AD
Turbidity:	HACH turbidimeter 2100P
Pump:	Spectra Field Pro model #72200.52

Laboratory Analyses/Containers		
Container	Preservative	Analysis
3X 100A	HCl	VOC 8260

Sample Time: 16:25

Comments: Clear purge, no colors, no sheen  
 TOVs: 0.0  
 Unable to stabilize turbidity however, samples below 10 NTU  
 At sample time

# LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Windsor, VT. Depot St  
 Project No.: 04-224488.00  
 Date: 2/1/2016  
 Weather: Cloudy, Windy 40°F

Well ID: GAI-2S  
 Sample ID: GAI-2S  
 Sampler: Brad C.

Well Condition Observations	
Protective Casing:	Steel, in-ground
Lock:	N
Label:	N
Surface Seal:	Broken
PVC Well Casing:	2" Yes

Well Volume Calculations	
Well Diameter:	2"
Depth to Water:	6.6
Total Depth:	13.45
Volume Purged:	2.0

Pump Start: 16:25

TIME	DEPTH TO WATER (feet)	pH (SU)	TEMP (C)	SPECIFIC CONDUCTANCE (uS/cm)	DISSOLVED OXYGEN (mg/l)	ORP (mv)	TURBIDITY (NTU)
16:30	6.6	6.63	9.97	1219	.70	90.3	5.00
16:35	6.6	6.85	9.99	1220	.56	56.3	6.12
16:40	6.45	6.91	9.85	1221	.67	40.7	4.9
16:45	6.4	6.92	9.79	1221	.53	31.3	3.38
16:50	6.4	6.92	9.75	1221	.66	24.8	3.95
16:55	6.4	6.93	9.70	1222	.93	22.7	5.24
17:00	6.4	6.93	9.33	1233	1.18	17.9	3.66
17:05	6.4	6.92	9.09	1232	1.58	10.6	5.13
17:10	6.35	6.92	9.05	1235	1.76	10.8	4.20
17:15	6.35	6.93	9.06	1236	1.74	11.0	4.03
17:20	6.35	6.93	9.04	1236	1.83	10.7	4.14
Stabilization Criteria	Drawdown < 0.3'	± 0.1 units	3%	3%	10%	± 10 mv	10%

Sampling/Purging Equipment	
Water Level Meter:	Heron Dipper T
pH/S.C./Dissolved Oxygen/ORP:	Geotech YSR 556MPs
Turbidity:	Hach 2100 P Turbidity Meter
Pump:	Spectra Field-Pro #77200-5A

Laboratory Analyses/Containers		
Container	Preservative	Analysis
3X VOA	HCl	VOC 8260

Sample Time: 17:25

Comments: Clear purge, no odors, no stream

$$6.6 \quad 13.45 \\ \frac{6.6}{2} \pm 6.6 = 10.025$$

# LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Windsor GWS  
 Project No.: 04-224488.00  
 Date: 2/1/16  
 Weather: overcast, 41°F

Well ID: GAI-3D  
 Sample ID: GAI3D  
 Sampler: JSK

Well Condition Observations	
Protective Casing:	<u>metal</u>
Lock:	<u>NA</u>
Label:	<u>none</u>
Surface Seal:	<u>YES</u>
PVC Well Casing:	<u>yes</u>

Well Volume Calculations	
Well Diameter:	<u>2"</u>
Depth to Water:	<u>11.01</u>
Total Depth:	<u>25.9</u>
Volume Purged:	<u>~25</u>

Pump Start: 16:30

TIME	DEPTH TO WATER (feet)	pH (SU)	TEMP (C)	SPECIFIC CONDUCTANCE (uS/cm)	DISSOLVED OXYGEN (ug/l)	ORP (mv)	TURBIDITY (NTU)
16:35	11.09	8.33	12.04	1343	3.52	-255.2	46
16:40	11.12	8.38	11.99	1341	3.41	-256.5	39.5
16:45	11.20	8.44	11.93	1339	3.18	-258.6	26.7
16:50	11.03	8.5	11.65	1342	3.05	-266	3.6
16:55	11.02	8.56	11.55	1338	2.63	-265.4	34.7
17:00	10.90	8.60	11.52	1344	2.37	-268.1	25.5
17:05	10.82	8.63	11.44	1347	1.92	-291.3	25.2
17:10	10.69	8.59	11.36	1347	1.68	-291.0	26.1
17:15	10.68	8.59	11.3	1352	1.32	-265.6	27.4
17:20	10.7	8.7	11.33	1357	1.22	-277.2	23.1
17:25	10.7	8.71	11.27	1356	1.12	-285.5	22.7
17:30	10.7	8.73	11.20	1359	1.03	-295.3	23.1
Stabilization Criteria	Drawdown < 0.3'	+/- 0.1 units	3%	3%	10%	+/- 10 mv	10%

Sampling/Purging Equipment	
Water Level Meter:	<u>Geotech 1-probe #3687</u>
pH/S.C./Dissolved Oxygen/ORP:	<u>YSI 05E2343AD</u>
Turbidity:	<u>HACH turbidimeter 21007</u>
Pump:	<u>Spectra field pro</u>

model # 77200.52

Laboratory Analyses/Containers		
Container	Preservative	Analysis
<u>34 VOA</u>	<u>HCL</u>	<u>VOA 8260</u>

Sample Time: 17:35

Comments: Clear purge, no odors, no shoen  
TOVS: 0.0 0.1  
204

# LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site:

Project No.:

Date:

Weather:

Depot St. Windsor VT  
04-224488.00  
2/1/2016

Well ID:

Sample ID:

Sampler:

GAT 1D  
GAT 1D  
Jason SK

## Well Condition Observations

Protective Casing:	metal
Lock:	none
Label:	none
Surface Seal:	yes
PVC Well Casing:	✓

## Well Volume Calculations

Well Diameter:	2"
Depth to Water:	12.98'
Total Depth:	23.1'
Volume Purged:	2 Gal

Pump Start: 17:55

TIME	DEPTH TO WATER (feet)	pH (SU)	TEMP (C)	SPECIFIC CONDUCTANCE (uS/cm)	DISSOLVED OXYGEN (mg/l)	ORP (mv)	TURBIDITY (NTU)
18:00	12.40	8.86	11.25	941	7.05	-233.8	27.7
18:05	12.71	8.84	11.31	932	6.82	-237.9	24.9
18:10	12.84	8.87	11.24	939	6.65	-238.6	21.6
18:15	12.92	8.87	11.18	940	6.84	-238.0	19.5
18:20	13.10	8.86	11.27	938	6.42	-240.6	14.6
18:25	13.23	8.86	11.25	938	6.26	-240.9	4.2
18:30	13.46	8.85	11.34	938	5.99	-241.3	2.4
18:35	13.51	8.81	11.40	940	5.91	-246.0	2.0
Stabilization Criteria	Drawdown < 0.3'	+/- 0.1 units	3%	3%	10%	+/- 10 mv	10%

## Sampling/Purging Equipment

Water Level Meter:	Geotech I-Probe # 3689
pH/S.C./Dissolved Oxygen/ORP:	YSI OSE 2343 AD
Turbidity:	HACH Turbidimeter 2100-P
Pump:	Spectra field Pro Model # 77200.52

## Laboratory Analyses/Containers

Container	Preservative	Analysis
3x VOA	HCl	VOC 8260

Sample Time: 18:37

Comments:

Turbidity not stable, but below 10 NTU

# LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Depot St., Windsor, VT  
 Project No.: 04-224488.00  
 Date: 2/1/2016  
 Weather: Cloudy, 45°F

Well ID: GAI-15  
 Sample ID: GAI-15  
 Sampler: Bradley C

Well Condition Observations	
Protective Casing:	<u>2" PVC, Steel Rd Cap</u>
Lock:	<u>N</u>
Label:	<u>N</u>
Surface Seal:	<u>Y</u>
PVC Well Casing:	<u>2", yes</u>

Well Volume Calculations	
Well Diameter:	<u>2"</u>
Depth to Water:	<u>7.53</u>
Total Depth:	<u>14.7</u>
Volume Purged:	<u>2 Gal</u>

Pump Start: 17:50

TIME	DEPTH TO WATER (feet)	pH (SU)	TEMP (C)	SPECIFIC CONDUCTANCE (uS/cm)	DISSOLVED OXYGEN (mg/l)	ORP (mv)	TURBIDITY (NTU)
18:00	~7.5	7.2	10.36	1410	1.29	18.9	22.9
18:05	~7.5	7.17	10.2	1412	1.15	-7.6	14.8
18:10	~7.5	7.16	10.09	1411	1.66	-3.0	11
18:15	~7.5	7.15	10.04	1411	1.04	-6.2	91.9
18:20	<del>7.5</del> 7.5	7.14	9.75	1412	1.02	-8.6	59.5
18:25	~7.5	7.14	9.58	1407	1.01	-11.5	42.1
18:30	~7.5	7.14	9.65	1402	1.2	-10.7	22.7
18:35	~7.5	7.15	10.01	1389	1.62	+5.2	19.1
18:40	~7.5	7.16	10.24	1381	1.79	3.1	12.9
18:45	~7.5	7.17	10.29	1376	1.83	6.4	10.4
18:50	~7.5	7.18	10.2	1373	1.90	6.6	10.1
Stabilization Criteria	Drawdown < 0.3'	± 0.1 units	3%	3%	10%	± 10 mv	10%

Sampling/Purging Equipment	
Water Level Meter:	<u>Heron Dipper T</u>
pH/S.C./Dissolved Oxygen/ORP:	<u>Geotech YSZ 556 MPS</u>
Turbidity:	<u>Hach 2100P Turbidometer</u>
Pump:	<u>Spectra field-pro #77200-52</u>

Laboratory Analyses/Containers		
Container	Preservative	Analysis
<u>3X VOA</u>	<u>HCL</u>	<u>VOC 8260</u>

Sample Time: 18:55

Comments: PVC Riser below grade. Turbidity disturbed at 18:15 and stabilized at 18:40 for sampling.  
TOV's detected at 5.9 in headspace and 0.1 in purge water

TOV  
 5.9 - headspace  
 0.1 - purge water



Depot St Windsor

2/1/2016

VT DEC 04-224488.00

Mobilize 8:00 AM, leave 9:00 AM, ~~on site~~  
on site 10:00 AM

CBM-4- 26" Teflon poly, 6" flexi

CBM-2-  $3.4 \div 2 = 1.7 + 26.8 = \text{~~28.5~~}$

J-GW- DEP 8 - ~~25.5 + (24.4)~~ =  $29.4 - 25.5$   
=  $3.9 \div 2$   
 $\approx 27.45$  = 1.95

Iprobe that was used by Brad  
★ was worn and most depth  
readings were time-consuming to read

TOV Detected in Well GAF-15

TOV 5.9 in head space  
0.1 in purge-water.

Stopped for food in Windsor. 7:15pm

left 55 Gal drum  $\frac{1}{2}$  full at  
Windsor Fire Dept 7:45pm. labeled  
hazardous waste

Return to Shop 8:45pm, leave Shop 9:15 PM

Iprobe feet #s were worn off  
and illegible in many cases.

JSK calibrated YSI at 10:05 am  
in the field

★ See low-flow field worksheets  
for readings

Materials used:

~ 8 feet outside of Well X 14 wells  
~ 8" flexitube per well X 14 wells  
- 292.2 ft <sup>total</sup> in all wells  
calculations (see depth sheet in field  
notes, PDF)

- P-Pumps X2  
- Iprobe X2  
- field supplies  
- Turbidometer X2  
- YSI X2  
- 1 55 Gal Drum

BJL



Location Depot St Windsor VT Date 2/3/2016Project / Client Vermont DEC 04-224488.00Groundwater Sampling #2~~Leave~~ Mob 10:00AM, leave Shop 11:00AM  
on-site 12:00pm

Calibrate YSI	ORP - 215
RE	Conductivity - 1614
Sample Wells	DO m/L - 10.02
<del>CMB-3</del>	DO % - 102.4
J-GW-DEP-8	PH - 10.00 &
J-GW-APT3	7.00
GAI 35	

GAI-35 filled with  
water, not viable sample~~Calculations~~

Off-Site 7:15

Stopped at fire department. Transferred  
fluid to Barrel left at F. Dept 2/1/16

Return to Shop 8:45pm

Depart 9:15 pm

Rain Stopped at 5:00pm

GAI 25, The well with a broken cover  
is completely inundated with water.  
No water was seen entering pit

Location \_\_\_\_\_ Date \_\_\_\_\_

Project / Client \_\_\_\_\_

Materials:

P-Pumps x 2  
 I rope x 1  
 Turbidometer x 1  
 YSI x 1  
 109 ft 1/4" Teflon poly Tube  
 2 ft flexitube

BJC



Calibrated ORP @ 215  
 Conduct ~~1614~~ Calibrated @ 1614  
 Calibrate DO mg/L @ 10.02  
 DO % @ 102.4

Calculations:

CMB-3 -  $\frac{28.51}{34.2} - 5.69 = h_c$  hang @  $\boxed{31.35}$   
 $h_c/2 = 2.84$

J-GW-DEP-8

$\frac{25.5}{29.4} - 3.9 = h_c$  hang @  $h_c/2 = 1.95$   $\boxed{27.45}$

J-GW-APT3

$\frac{8.45}{15.62} - 7.17 = h_c$   $h_c/2 = 3.585$   
 $\boxed{12.03}$  hang @

GAI-35

$\frac{8.05}{14.3} - 6.25 = h_c$   $h_c/2 = 3.125$   
 $\boxed{11.175}$  hang @

$16.83 + 8 \times 4 =$

# LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Depot St, Windsor, VT  
 Project No.: 04-224488.00  
 Date: 2/3  
 Weather: Rainy 40°F

Well ID: CBM-3  
 Sample ID: CBM-3  
 Sampler: Brad C

Well Condition Observations	
Protective Casing:	<u>Metal</u>
Lock:	<u>Broken</u>
Label:	<u>CMB-3</u>
Surface Seal:	<u>NA</u>
PVC Well Casing:	<u>✓</u>

Well Volume Calculations	
Well Diameter:	<u>3.0 in</u>
Depth to Water:	<u>28.45 ft</u>
Total Depth:	<u>34.2 ft</u>
Volume Purged:	<u>3.0 Gallons</u>

Pump Start: 12:45

TIME	DEPTH TO WATER (feet)	pH (SU)	TEMP (C)	SPECIFIC CONDUCTANCE (uS/cm)	DISSOLVED OXYGEN (mg/l)	ORP (mv)	TURBIDITY (NTU)
13:00		5.95	7.82	499	4.92	-203.7	3.2
13:05		6.49	7.31	498	4.72	-206.5	3.7
13:10		6.98	7.43	495	4.57	-244.3	1.57
13:15		7.03	7.44	497	4.57	-230.1	1.63
13:20		7.06	7.40	496	4.59	-234.2	1.57
Stabilization Criteria	Drawdown < 0.3'	± 0.1 units	3%	3%	10%	± 10 mv	10%

Sampling/Purging Equipment	
Water Level Meter:	<u>GEOTECH Probe #3689</u>
pH/S.C./Dissolved Oxygen/ORP:	<u>YSI 052343 AD</u>
Turbidity:	<u>Hach Turbidimeter 2100P</u>
Pump:	<u>Spectra Field Pro Model # 77200:52</u>

Laboratory Analyses/Containers		
Container	Preservative	Analysis
<u>3x VOL</u>	<u>HCl</u>	<u>VOC 8260</u>

Sample Time: 13:25

Comments: let purge for 15 min before testing field parameters. Clear purge, no odors/sheen

# LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Depot St, Windsor, VT  
 Project No.: 04-224488.00  
 Date: 2/3/2018  
 Weather: Rainy 45°F

Well ID: J-GW-DEP8  
 Sample ID: J-GW-DEP8  
 Sampler: Brad C

Well Condition Observations	
Protective Casing:	<u>Steel, in Road</u>
Lock:	<u>N</u>
Label:	<u>on PVC Cap</u>
Surface Seal:	<u>Well cap</u>
PVC Well Casing:	<u>1"</u>

Well Volume Calculations	
Well Diameter:	<u>1"</u>
Depth to Water:	<u>25.5</u>
Total Depth:	<u>29.4</u>
Volume Purged:	<u>4 Gallons</u>

Pump Start: 12:50

TIME	DEPTH TO WATER (feet)	pH (SU)	TEMP (C)	SPECIFIC CONDUCTANCE (uS/cm)	DISSOLVED OXYGEN (ug/l)	ORP (mv)	TURBIDITY (NTU)
13:40	25.55	7.04	8.26	937	8.85	-245.6	1.29
13:45		7.51	8.19	952	6.97	-251.3	3.5
13:50		7.76	8.28	959	6.33	-250.6	
13:55	25.54	7.86	8.40	965	6.15	-250.1	1.08
<del>14:00</del>		7.89	8.46	967	6.05	-248.5	1.12
14:05		7.90	8.70	966	5.98	-247.7	.90
14:10	25.5	7.95	8.60	968	5.98	-246.5	1.07
Stabilization Criteria	Drawdown < 0.3'	± 0.1 units	3%	3%	10%	± 10 mv	10%

Sampling/Purging Equipment	
Water Level Meter:	<u>Geotech I probe #3689</u>
pH/S.C./Dissolved Oxygen/ORP:	<u>Geotech YSI 556MPS</u>
Turbidity:	<u>Hach 2100P Turbidometer</u>
Pump:	<u>Spectra field probe 77200-52</u>

Laboratory Analyses/Containers		
Container	Preservative	Analysis
<u>3X VOA</u>	<u>HCl</u>	<u>VOC &amp; 60</u>

Sample Time: 14:15

Comments: No odors / Sheen, Clear purge

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## LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Depot St, Windsor VT  
 Project No.: 04-224488.00  
 Date: 2/3/2016  
 Weather: Rainy, 45°

Well ID: J-GW-APT 3  
 Sample ID: J-GW-APT#3  
 Sampler: Brd C

Well Condition Observations	
Protective Casing:	<u>In-Road Steel</u>
Lock:	<u>N</u>
Label:	<u>on well cap</u>
Surface Seal:	<u>Observation Well Cap</u>
PVC Well Casing:	<u>1"</u>

Well Volume Calculations	
Well Diameter:	<u>1"</u>
Depth to Water:	<u>8.45</u>
Total Depth:	<u>15.62</u>
Volume Purged:	<u>~7 Gal</u>

Pump Start: 1500

TIME	DEPTH TO WATER (feet)	pH (SU)	TEMP (C)	SPECIFIC CONDUCTANCE (uS/cm)	DISSOLVED OXYGEN (mg/l)	ORP (mv)	TURBIDITY (NTU)
1600		8.35	9.03	1701	4.80	-269.7	>1000
1605		8.35	8.78	1693	3.63	-257	>1000
1610		8.42	8.51	1687	3.59	-262.3	>1000
1615		8.34	8.75	1662	3.20	-264.0	>1000
1620		8.30	8.83	1640	2.95	-268.0	>1000
1625		8.57	7.82	1641	2.71	-274.0	
1630		8.62	7.65	1635	2.79	-274.3	428
1635		8.63	6.87	1672	3.29	-244.2	
1640		8.63	7.14	1698	4.74	-239.2	697
1645		8.60	7.25	1692	4.86	-258.5	590
1650		8.55	7.25	1657	3.74	-266.1	800
1655		8.55	7.41	1662	3.03	-114.1	996
1700		8.57	7.08	1668	2.97	-262.8	212
1705							
Stabilization Criteria	Drawdown < 0.3'	± 0.1 units	3%	3%	10%	± 10 mv	10%

Sampling/Purging Equipment		Laboratory Analyses/Containers		
Water Level Meter:	<u>Geotech Cordex 3689</u>	Container	Preservative	Analysis
pH/S.C./Dissolved Oxygen/ORP:	<u>Geotech YSI 556MPS</u>	<u>3X VOA</u>	<u>HCl</u>	<u>VOCS260</u>
Turbidity:	<u>HACH Turbidimeter 2100P</u>			
Pump:	<u>Spectra Field Pro 77200-52</u>			

Sample Time: 1800

Comments: Turbidity Spikes intermitantly, Sediment entering.  
Did not measure Depth to Water out of concern  
disturbing Sediments

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## LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Depot St, Windsor  
 Project No.: 04-224488.00  
 Date: 2/3/2016  
 Weather: Rainy, 45°F

Well ID: J-GW-APT 3  
 Sample ID: J-GW-APT 3  
 Sampler: Brad C

Well Condition Observations	
Protective Casing:	<u>1h-road, steel</u>
Lock:	<u>N</u>
Label:	<u>on Well cap</u>
Surface Seal:	<u>observation well cap</u>
PVC Well Casing:	<u>1"</u>

Well Volume Calculations	
Well Diameter:	<u>1"</u>
Depth to Water:	<u>8.43</u>
Total Depth:	<u>15.62</u>
Volume Purged:	<u>~7 Gal</u>

Pump Start: 1500

TIME	DEPTH TO WATER (feet)	pH (SU)	TEMP (C)	SPECIFIC CONDUCTANCE (nS/cm)	DISSOLVED OXYGEN (mg/l)	ORP (mv)	TURBIDITY (NTU)
<u>17:05</u>		<u>8.6</u>	<u>9.05</u>	<u>1676</u>	<u>3.08</u>	<u>-265.0</u>	<u>569</u>
<u>17:10</u>		<u>8.41</u>	<u>9.05</u>	<u>1638</u>	<u>2.69</u>	<u>-266.4</u>	<u>&gt;1000</u>
<u>17:15</u>		<u>8.37</u>	<u>9.47</u>	<u>1647</u>	<u>2.70</u>	<u>-264</u>	<u>&gt;1000</u>
<u>17:20</u>		<u>8.39</u>	<u>9.37</u>	<u>1643</u>	<u>2.84</u>	<u>-264</u>	<u>&gt;1000</u>
<u>17:25</u>		<u>8.41</u>	<u>8.79</u>	<u>1644</u>	<u>3.19</u>	<u>-265.3</u>	<u>354</u>
<u>17:30</u>		<u>8.51</u>	<u>7.01</u>	<u>1703</u>	<u>3.40</u>	<u>-263.9</u>	<u>396</u>
<u>17:35</u>		<u>8.48</u>	<u>7.76</u>	<u>1667</u>	<u>3.0</u>	<u>-261.5</u>	<u>&gt;1000</u>
<u>17:40</u>		<u>8.51</u>	<u>7.25</u>	<u>1683</u>	<u>3.79</u>	<u>-243.6</u>	<u>&gt;1000</u>
<u>17:45</u>		<u>8.54</u>	<u>6.47</u>	<u>1693</u>	<u>4.75</u>	<u>-236.4</u>	<u>390</u>
<u>17:50</u>		<u>8.45</u>	<u>8.60</u>	<u>1611</u>	<u>4.13</u>	<u>-261.5</u>	<u>&gt;1000</u>
<u>17:55</u>		<u>8.40</u>	<u>8.23</u>	<u>1657</u>	<u>3.27</u>	<u>-267.8</u>	<u>&gt;1000</u>
<u>18:00</u>		<u>8.44</u>	<u>8.34</u>	<u>1630</u>	<u>2.77</u>	<u>-265.0</u>	<u>&gt;1000</u>
Stabilization Criteria	Drawdown < 0.3'	± 0.1 units	3%	3%	10%	± 10 mv	10%

Sampling/Purging Equipment	
Water Level Meter:	<u>Geotech I probe #3689</u>
pH/S.C./Dissolved Oxygen/ORP:	<u>Geotech YSE 556/MPs</u>
Turbidity:	<u>HACH 200P Turbidimeter</u>
Pump:	<u>Spectra Field Pro #77200-52</u>

Laboratory Analyses/Containers		
Container	Preservative	Analysis
<u>3x VOA</u>	<u>HCl</u>	<u>VOA 8260</u>

Sample Time: 18.00

Comments: Did not monitor Depth to water in effort to not stir up sediment from well-screen.

Turbidity spikes intermittently

# LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Depot St, Windsor  
 Project No.: 04-224488.00  
 Date: 2/3/2016  
 Weather: Rainy, 40°

Well ID: 9 KAS-1  
 Sample ID: ~~9 KAS-1~~ KAS-1  
 Sampler: Bruc C

Well Condition Observations	
Protective Casing:	<u>Metal</u>
Lock:	<u>None</u>
Label:	<u>None</u>
Surface Seal:	<u>metal cover, concrete</u>
PVC Well Casing:	<u>yes</u>

Well Volume Calculations	
Well Diameter:	<u>1"</u>
Depth to Water:	<u>4'</u>
Total Depth:	<u>8.5'</u>
Volume Purged:	<u>36</u>

Gauged  
2/3/2016

Pump Start: 16:30

TIME	DEPTH TO WATER (feet)	pH (SU)	TEMP (C)	SPECIFIC CONDUCTANCE (uS/cm)	DISSOLVED OXYGEN (mg/l)	ORP (mv)	TURBIDITY (NTU)
18:22		7.18	3.85	404	11.03	-186.1	14
18:27		7.74	3.86	405	10.87	-191.5	4.3
18:32		7.93	3.85	404	10.43	-198.0	4.85
18:37		7.98	3.84	405	10.47	-200.1	3.32
18:42		8.00	3.83	405	10.34	-202.2	4.58
Stabilization Criteria	Drawdown < 0.3'	+/- 0.1 units	3%	3%	10%	+/- 10 mv	10%

Sampling/Purging Equipment	
Water Level Meter:	<u>Geotech I probe #3689</u>
pH/S.C./Dissolved Oxygen/ORP:	<u>YSI 05 2343 AD</u>
Turbidity:	<u>HACH Turbidometer 2100P</u>
Pump:	<u>Spectra Field Pro Model # 77200.52</u>

Laboratory Analyses/Containers		
Container	Preservative	Analysis
<u>3x VOA</u>	<u>HCl</u>	<u>VOC 8260</u>

Sample Time: 18:47 2 gal

Comments: Allowed to purge slowly for ~2 hrs prior to monitoring of field parameters



## **APPENDIX B**

---



## Laboratory Report

Environmental Compliance Services  
70 Landmark Hill  
Brattleboro, VT 05301  
Attn: Alicia Flammia

Project: Windsor GWS-Depot St-Windsor, VT  
Project #: 04-224488.00

<u>Laboratory ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>Date Received</u>
SC17886-01	CBM-5	Ground Water	01-Feb-16 11:20	04-Feb-16 15:33
SC17886-02	CBM-4	Ground Water	01-Feb-16 11:43	04-Feb-16 15:33
SC17886-03	CBM-2	Ground Water	01-Feb-16 13:05	04-Feb-16 15:33
SC17886-04	CBM-1	Ground Water	01-Feb-16 13:20	04-Feb-16 15:33
SC17886-05	J-GW-DEP9	Ground Water	01-Feb-16 14:12	04-Feb-16 15:33
SC17886-06	J-GW-APT2	Ground Water	01-Feb-16 15:35	04-Feb-16 15:33
SC17886-07	J-GW-APT3	Ground Water	01-Feb-16 15:55	04-Feb-16 15:33
SC17886-08	GAI-3S	Ground Water	01-Feb-16 16:25	04-Feb-16 15:33
SC17886-09	GAI-2S	Ground Water	01-Feb-16 17:25	04-Feb-16 15:33
SC17886-10	GAI-3D	Ground Water	01-Feb-16 17:35	04-Feb-16 15:33
SC17886-11	GAI-1D	Ground Water	01-Feb-16 18:37	04-Feb-16 15:33
SC17886-12	GAI-1S	Ground Water	01-Feb-16 18:55	04-Feb-16 15:33
SC17886-13	Trip Blank	Deionized Water	01-Feb-16 08:00	04-Feb-16 15:33
SC17886-14	Duplicate	Ground Water	01-Feb-16 00:00	04-Feb-16 15:33
SC17886-15	Equipment Blank	Deionized Water	01-Feb-16 08:05	04-Feb-16 15:33
SC17886-16	Trip Blank	Deionized Water	03-Feb-16 09:00	04-Feb-16 15:33
SC17886-17	CMB-3	Ground Water	03-Feb-16 13:25	04-Feb-16 15:33
SC17886-18	J-GW-DEP8	Ground Water	03-Feb-16 14:15	04-Feb-16 15:33
SC17886-20	KAS-1	Ground Water	03-Feb-16 18:47	04-Feb-16 15:33

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.

All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110  
Connecticut # PH-0777  
Florida # E87936  
Maine # MA138  
New Hampshire # 2538  
New Jersey # MA011  
New York # 11393  
Pennsylvania # 68-04426/68-02924  
Rhode Island # LAO00098  
USDA # S-51435



Authorized by:

June O'Connor  
Laboratory Director

Eurofins Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Please note that this report contains 75 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Eurofins Spectrum Analytical, Inc.

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*Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.*

## CASE NARRATIVE:

Data has been reported to the RDL. This report excludes estimated concentrations detected below the RDL and above the MDL (J-Flag).

All non-detects and all results below the reporting limit are reported as "<" (less than) the reporting limit in this report.

The samples were received 2.6 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

**See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.**

## **SW846 8260C**

### **Calibration:**

1601034

---

Analyte quantified by quadratic equation type calibration.

1,1,2-Trichlorotrifluoroethane (Freon 113)  
1,2,4-Trichlorobenzene  
Carbon tetrachloride  
Naphthalene  
trans-1,3-Dichloropropene  
Trichlorofluoromethane (Freon 11)

This affected the following samples:

1602314-BLK1  
1602314-BS1  
1602314-BSD1  
1602363-BLK1  
1602363-BS1  
1602363-BSD1  
1602363-MS1  
1602363-MSD1  
CBM-1  
CBM-2  
CBM-4  
CBM-5  
Duplicate  
Equipment Blank  
GAI-1D  
GAI-1S  
GAI-2S  
GAI-3D  
GAI-3S  
J-GW-APT2  
J-GW-APT3  
S600574-ICV1  
S601007-CCV1  
S601047-CCV1  
Trip Blank

1602007

---

Analyte quantified by quadratic equation type calibration.

Naphthalene  
sec-Butylbenzene

## **SW846 8260C**

### **Calibration:**

1602007

---

This affected the following samples:

1602364-BLK1  
1602364-BS1  
1602364-BSD1  
CMB-3  
J-GW-DEP8  
KAS-1  
S600831-ICV1  
S601048-CCV1  
Trip Blank

1602027

---

Analyte quantified by quadratic equation type calibration.

1,1,2-Trichlorotrifluoroethane (Freon 113)  
1,1-Dichloropropene  
1,2,4-Trimethylbenzene  
1,2-Dibromo-3-chloropropane  
1,3,5-Trimethylbenzene  
4-Chlorotoluene  
4-Isopropyltoluene  
Bromoform  
Carbon tetrachloride  
cis-1,3-Dichloropropene  
Dibromochloromethane  
Dichlorodifluoromethane (Freon12)  
m,p-Xylene  
Naphthalene  
n-Butylbenzene  
n-Propylbenzene  
o-Xylene  
sec-Butylbenzene  
Styrene  
tert-Butylbenzene  
trans-1,3-Dichloropropene  
trans-1,4-Dichloro-2-butene  
Trichlorofluoromethane (Freon 11)

This affected the following samples:

1602521-BLK1  
1602521-BS1  
1602521-BSD1  
J-GW-DEP9  
S601125-CCV1  
S601145-ICV1

S600574-ICV1

---

Analyte percent recovery is outside individual acceptance criteria (80-120).

1,1-Dichloroethene (122%)  
Carbon disulfide (124%)

## **SW846 8260C**

### **Calibration:**

S600574-ICV1

---

This affected the following samples:

1602314-BLK1  
1602314-BS1  
1602314-BSD1  
1602363-BLK1  
1602363-BS1  
1602363-BSD1  
1602363-MS1  
1602363-MSD1  
CBM-1  
CBM-2  
CBM-4  
CBM-5  
Duplicate  
Equipment Blank  
GAI-1D  
GAI-1S  
GAI-2S  
GAI-3D  
GAI-3S  
J-GW-APT2  
J-GW-APT3  
S601007-CCV1  
S601047-CCV1  
Trip Blank

S600831-ICV1

---

Analyte percent recovery is outside individual acceptance criteria (80-120).

n-Butylbenzene (122%)  
trans-1,4-Dichloro-2-butene (124%)

This affected the following samples:

1602364-BLK1  
1602364-BS1  
1602364-BSD1  
CMB-3  
J-GW-DEP8  
KAS-1  
S601048-CCV1  
Trip Blank

S601145-ICV1

---

Analyte percent recovery is outside individual acceptance criteria (80-120).

1,1-Dichloroethene (130%)

This affected the following samples:

1602521-BLK1  
1602521-BS1  
1602521-BSD1  
J-GW-DEP9  
S601125-CCV1

### **Blanks:**

## **SW846 8260C**

### **Blanks:**

1602314-BLK1

---

The method blank contains analyte at a concentration above the MRL, however no reportable concentration is present in the sample.

1,4-Dioxane  
Carbon disulfide

### **Laboratory Control Samples:**

1602314 BS/BSD

---

1,2-Dibromo-3-chloropropane percent recoveries (138/126) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

CBM-1  
CBM-2  
CBM-4  
CBM-5

Bromoform percent recoveries (133/122) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

CBM-1  
CBM-2  
CBM-4  
CBM-5

1602314-BS1

---

Analyte is found in the associated blank as well as in the sample (CLP B-flag).

1,4-Dioxane  
Carbon disulfide

1602314-BSD1

---

Analyte is found in the associated blank as well as in the sample (CLP B-flag).

1,4-Dioxane  
Carbon disulfide

1602363 BS/BSD

---

Naphthalene percent recoveries (65/64) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

Duplicate  
Equipment Blank  
GAI-1D  
GAI-1S  
GAI-2S  
GAI-3D  
GAI-3S  
J-GW-APT2  
J-GW-APT3  
Trip Blank

1602364 BS/BSD

---

**Laboratory Control Samples:**

---

1602364 BS/BSD

---

1,2,4-Trimethylbenzene percent recoveries (131/125) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

CMB-3  
J-GW-DEP8  
KAS-1  
Trip Blank

1,3,5-Trimethylbenzene percent recoveries (134/128) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

CMB-3  
J-GW-DEP8  
KAS-1  
Trip Blank

tert-Butylbenzene percent recoveries (132/124) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

CMB-3  
J-GW-DEP8  
KAS-1  
Trip Blank

**Spikes:**

---

1602363-MS1      *Source: SC17886-05*

---

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

2,2-Dichloropropane  
Bromomethane  
Carbon disulfide  
Chloroethane  
Chloromethane  
Dichlorodifluoromethane (Freon12)

---

1602363-MSD1      *Source: SC17886-05*

---

RPD out of acceptance range.

Vinyl chloride

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

2,2-Dichloropropane  
Bromomethane  
Chloroethane  
Chloromethane  
Dichlorodifluoromethane (Freon12)  
Vinyl chloride

**Samples:**

---

S601007-CCV1

---

## **SW846 8260C**

### **Samples:**

#### S601007-CCV1

---

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

1,1,2,2-Tetrachloroethane (20.1%)  
1,2-Dibromo-3-chloropropane (24.6%)  
Bromoform (22.3%)  
Bromomethane (-30.8%)  
Carbon disulfide (20.2%)  
Ethyl ether (-20.9%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

Trichlorofluoromethane (Freon 11) (-20.1%)

This affected the following samples:

1602314-BLK1  
1602314-BS1  
1602314-BSD1  
CBM-1  
CBM-2  
CBM-4  
CBM-5

#### S601047-CCV1

---

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

1,1,2,2-Tetrachloroethane (20.5%)  
Bromoform (23.2%)  
Bromomethane (-25.5%)  
Carbon disulfide (26.9%)  
Ethyl ether (-20.7%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

Naphthalene (-34.6%)

This affected the following samples:

1602363-BLK1  
1602363-BS1  
1602363-BSD1  
1602363-MS1  
1602363-MSD1  
Duplicate  
Equipment Blank  
GAI-1D  
GAI-1S  
GAI-2S  
GAI-3D  
GAI-3S  
J-GW-APT2  
J-GW-APT3  
Trip Blank

#### S601048-CCV1

---

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

1,2,4-Trimethylbenzene (24.8%)  
1,3,5-Trimethylbenzene (27.7%)  
tert-Butylbenzene (23.7%)



## **SW846 8260C**

### **Samples:**

S601048-CCV1

---

This affected the following samples:

1602364-BLK1  
1602364-BS1  
1602364-BSD1  
CMB-3  
J-GW-DEP8  
KAS-1  
Trip Blank

S601125-CCV1

---

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

1,1-Dichloroethene (21.6%)

This affected the following samples:

1602521-BLK1  
1602521-BS1  
1602521-BSD1  
J-GW-DEP9

SC17886-08                      *GAI-3S*

---

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SC17886-12                      *GAI-IS*

---

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SC17886-12RE1                      *GAI-IS*

---

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

## Sample Acceptance Check Form

Client: Environmental Compliance Services -Brattleboro, VT  
Project: Windsor GWS-Depot St-Windsor, VT / 04-224488.00  
Work Order: SC17886  
Sample(s) received on: 2/4/2016

*The following outlines the condition of samples for the attached Chain of Custody upon receipt.*

	<u>Yes</u>	<u>No</u>	<u>N/A</u>
Were custody seals present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Were custody seals intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Were samples received at a temperature of $\leq 6^{\circ}\text{C}$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were samples refrigerated upon transfer to laboratory representative?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were sample containers received intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were samples accompanied by a Chain of Custody document?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did sample container labels agree with Chain of Custody document?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were samples received within method-specific holding times?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Summary of Hits

**Lab ID:** SC17886-03

**Client ID:** CBM-2

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Tetrachloroethene	4.5		1.0	µg/l	SW846 8260C

**Lab ID:** SC17886-05RE1

**Client ID:** J-GW-DEP9

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
cis-1,2-Dichloroethene	21.2		1.0	µg/l	SW846 8260C
Tetrachloroethene	76.0		1.0	µg/l	SW846 8260C
Trichloroethene	7.0		1.0	µg/l	SW846 8260C

**Lab ID:** SC17886-07

**Client ID:** J-GW-APT3

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
cis-1,2-Dichloroethene	4.3		1.0	µg/l	SW846 8260C
Tetrachloroethene	8.8		1.0	µg/l	SW846 8260C
Trichloroethene	1.8		1.0	µg/l	SW846 8260C

**Lab ID:** SC17886-08

**Client ID:** GAI-3S

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
cis-1,2-Dichloroethene	3050	D	200	µg/l	SW846 8260C
Tetrachloroethene	9240	D	200	µg/l	SW846 8260C
Trichloroethene	1460	D	200	µg/l	SW846 8260C

**Lab ID:** SC17886-10

**Client ID:** GAI-3D

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Tetrachloroethene	3.2		1.0	µg/l	SW846 8260C

**Lab ID:** SC17886-11

**Client ID:** GAI-1D

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Tetrachloroethene	1.1		1.0	µg/l	SW846 8260C

**Lab ID:** SC17886-12

**Client ID:** GAI-1S

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
cis-1,2-Dichloroethene	5240	D, E	25.0	µg/l	SW846 8260C
Tetrachloroethene	250	D	25.0	µg/l	SW846 8260C
trans-1,2-Dichloroethene	56.5	D	25.0	µg/l	SW846 8260C
Trichloroethene	912	D	25.0	µg/l	SW846 8260C
Vinyl chloride	74.8	D	25.0	µg/l	SW846 8260C

**Lab ID:** SC17886-12RE1

**Client ID:** GAI-1S

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
cis-1,2-Dichloroethene	6280	D	100	µg/l	SW846 8260C

**Lab ID:** SC17886-14

**Client ID:** Duplicate

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Tetrachloroethene	2.5		1.0	µg/l	SW846 8260C

*This laboratory report is not valid without an authorized signature on the cover page.*

**Lab ID:** SC17886-17

**Client ID:** CMB-3

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Tetrachloroethene	2.0		1.0	µg/l	SW846 8260C

**Lab ID:** SC17886-18

**Client ID:** J-GW-DEP8

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Tetrachloroethene	9.2		1.0	µg/l	SW846 8260C

*Please note that because there are no reporting limits associated with hazardous waste characterizations or micro analyses, this summary does not include hits from these analyses if included in this work order.*

Sample Identification

CBM-5

SC17886-01

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

01-Feb-16 11:20

Received

04-Feb-16

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.5	1	SW846 8260C	08-Feb-16	08-Feb-16	GMA	1602314	X
67-64-1	Acetone	< 10.0		µg/l	10.0	2.5	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	X

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Sample Identification

CBM-5

SC17886-01

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

01-Feb-16 11:20

Received

04-Feb-16

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.2	1	SW846 8260C	08-Feb-16	08-Feb-16	GMA	1602314	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.7	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	7.5	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	1.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	22.7	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	97			70-130 %		"	"	"	"	"	"	
2037-26-5	Toluene-d8	99			70-130 %		"	"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	98			70-130 %		"	"	"	"	"	"	
1868-53-7	Dibromofluoromethane	101			70-130 %		"	"	"	"	"	"	

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Sample Identification

CBM-4

SC17886-02

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

01-Feb-16 11:43

Received

04-Feb-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.5	1	SW846 8260C	08-Feb-16	08-Feb-16	GMA	1602314	X
67-64-1	Acetone	< 10.0		µg/l	10.0	2.5	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	X

*This laboratory report is not valid without an authorized signature on the cover page.*

Sample Identification

CBM-4

SC17886-02

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

01-Feb-16 11:43

Received

04-Feb-16

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.2	1	SW846 8260C	08-Feb-16	08-Feb-16	GMA	1602314	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.7	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	7.5	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	1.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	22.7	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	96			70-130 %		"	"	"	"	"	"	
2037-26-5	Toluene-d8	100			70-130 %		"	"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	98			70-130 %		"	"	"	"	"	"	
1868-53-7	Dibromofluoromethane	101			70-130 %		"	"	"	"	"	"	

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Sample Identification

CBM-2

SC17886-03

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

01-Feb-16 13:05

Received

04-Feb-16

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.5	1	SW846 8260C	08-Feb-16	08-Feb-16	GMA	1602314	X
67-64-1	Acetone	< 10.0		µg/l	10.0	2.5	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	X

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Sample Identification

CBM-2

SC17886-03

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

01-Feb-16 13:05

Received

04-Feb-16

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.2	1	SW846 8260C	08-Feb-16	08-Feb-16	GMA	1602314	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.7	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	4.5		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	7.5	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	1.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	22.7	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	98			70-130 %		"	"	"	"	"	"	
2037-26-5	Toluene-d8	100			70-130 %		"	"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	99			70-130 %		"	"	"	"	"	"	
1868-53-7	Dibromofluoromethane	101			70-130 %		"	"	"	"	"	"	

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Sample Identification

CBM-1

SC17886-04

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

01-Feb-16 13:20

Received

04-Feb-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.5	1	SW846 8260C	08-Feb-16	08-Feb-16	GMA	1602314	X
67-64-1	Acetone	< 10.0		µg/l	10.0	2.5	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	X

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Sample Identification

CBM-1

SC17886-04

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

01-Feb-16 13:20

Received

04-Feb-16

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.2	1	SW846 8260C	08-Feb-16	08-Feb-16	GMA	1602314	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.7	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	7.5	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	1.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	22.7	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	97			70-130 %		"	"	"	"	"	"	
2037-26-5	Toluene-d8	99			70-130 %		"	"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	99			70-130 %		"	"	"	"	"	"	
1868-53-7	Dibromofluoromethane	102			70-130 %		"	"	"	"	"	"	

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## Sample Identification

J-GW-DEP9

SC17886-05

## Client Project #

04-224488.00

## Matrix

Ground Water

## Collection Date/Time

01-Feb-16 14:12

## Received

04-Feb-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
Re-analysis of Volatile Organic Compounds													
by SW846 8260													
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.5	1	SW846 8260C	11-Feb-16	12-Feb-16	GMA	1602521	X
67-64-1	Acetone	< 10.0		µg/l	10.0	2.5	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	21.2		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X

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## Sample Identification

J-GW-DEP9

SC17886-05

## Client Project #

04-224488.00

## Matrix

Ground Water

## Collection Date/Time

01-Feb-16 14:12

## Received

04-Feb-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
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## Volatile Organic Compounds

## Re-analysis of Volatile Organic Compounds

## by SW846 8260

## Prepared by method SW846 5030 Water MS

591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	SW846 8260C	11-Feb-16	12-Feb-16	GMA	1602521	X
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.7	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	76.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	7.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	7.5	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	1.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	22.7	1	"	"	"	"	"	X

## Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	91			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	100			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	103			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	104			70-130 %			"	"	"	"	"	

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

J-GW-APT2

SC17886-06

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

01-Feb-16 15:35

Received

04-Feb-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.5	1	SW846 8260C	09-Feb-16	09-Feb-16	GMA	1602363	X
67-64-1	Acetone	< 10.0		µg/l	10.0	2.5	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	X

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Sample Identification

J-GW-APT2

SC17886-06

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

01-Feb-16 15:35

Received

04-Feb-16

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.2	1	SW846 8260C	09-Feb-16	09-Feb-16	GMA	1602363	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.7	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	7.5	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	1.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	22.7	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	97			70-130 %		"	"	"	"	"	"	
2037-26-5	Toluene-d8	100			70-130 %		"	"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	96			70-130 %		"	"	"	"	"	"	
1868-53-7	Dibromofluoromethane	102			70-130 %		"	"	"	"	"	"	

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Sample Identification

J-GW-APT3

SC17886-07

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

01-Feb-16 15:55

Received

04-Feb-16

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.5	1	SW846 8260C	09-Feb-16	09-Feb-16	GMA	1602363	X
67-64-1	Acetone	< 10.0		µg/l	10.0	2.5	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	4.3		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	X

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Sample Identification

J-GW-APT3

SC17886-07

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

01-Feb-16 15:55

Received

04-Feb-16

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.2	1	SW846 8260C	09-Feb-16	09-Feb-16	GMA	1602363	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.7	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	8.8		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	1.8		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	7.5	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	1.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	22.7	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	98			70-130 %		"	"	"	"	"	"	
2037-26-5	Toluene-d8	99			70-130 %		"	"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	98			70-130 %		"	"	"	"	"	"	
1868-53-7	Dibromofluoromethane	100			70-130 %		"	"	"	"	"	"	

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Sample Identification

**GAI-3S**  
SC17886-08

Client Project #  
04-224488.00

Matrix  
Ground Water

Collection Date/Time  
01-Feb-16 16:25

Received  
04-Feb-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260			GS1										
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 200	D	µg/l	200	107	200	SW846 8260C	09-Feb-16	09-Feb-16	GMA	1602363	X
67-64-1	Acetone	< 2000	D	µg/l	2000	495	200	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 100	D	µg/l	100	94.0	200	"	"	"	"	"	X
71-43-2	Benzene	< 200	D	µg/l	200	34.8	200	"	"	"	"	"	X
108-86-1	Bromobenzene	< 200	D	µg/l	200	22.2	200	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 200	D	µg/l	200	53.6	200	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 100	D	µg/l	100	35.6	200	"	"	"	"	"	X
75-25-2	Bromoform	< 200	D	µg/l	200	58.6	200	"	"	"	"	"	X
74-83-9	Bromomethane	< 400	D	µg/l	400	100	200	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2000	D	µg/l	2000	249	200	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 200	D	µg/l	200	52.6	200	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 200	D	µg/l	200	33.0	200	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 200	D	µg/l	200	42.6	200	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 400	D	µg/l	400	50.2	200	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 200	D	µg/l	200	45.2	200	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 200	D	µg/l	200	39.4	200	"	"	"	"	"	X
75-00-3	Chloroethane	< 400	D	µg/l	400	77.2	200	"	"	"	"	"	X
67-66-3	Chloroform	< 200	D	µg/l	200	81.6	200	"	"	"	"	"	X
74-87-3	Chloromethane	< 400	D	µg/l	400	68.6	200	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 200	D	µg/l	200	60.4	200	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 200	D	µg/l	200	41.0	200	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 400	D	µg/l	400	173	200	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 100	D	µg/l	100	48.6	200	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 100	D	µg/l	100	52.0	200	"	"	"	"	"	X
74-95-3	Dibromomethane	< 200	D	µg/l	200	51.4	200	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 200	D	µg/l	200	31.6	200	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 200	D	µg/l	200	43.8	200	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 200	D	µg/l	200	49.4	200	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 400	D	µg/l	400	117	200	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 200	D	µg/l	200	33.6	200	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 200	D	µg/l	200	32.4	200	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 200	D	µg/l	200	55.6	200	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	3,050	D	µg/l	200	46.8	200	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 200	D	µg/l	200	41.6	200	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 200	D	µg/l	200	29.8	200	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 200	D	µg/l	200	43.0	200	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 200	D	µg/l	200	134	200	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 200	D	µg/l	200	56.0	200	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 100	D	µg/l	100	40.0	200	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 100	D	µg/l	100	53.8	200	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 200	D	µg/l	200	34.4	200	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 100	D	µg/l	100	80.4	200	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2000	D	µg/l	2000	107	200	"	"	"	"	"	X

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Sample Identification

GAI-3S

SC17886-08

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

01-Feb-16 16:25

Received

04-Feb-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260			GS1										
Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 200	D	µg/l	200	46.8	200	SW846 8260C	09-Feb-16	09-Feb-16	GMA	1602363	X
99-87-6	4-Isopropyltoluene	< 200	D	µg/l	200	75.0	200	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 200	D	µg/l	200	34.4	200	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2000	D	µg/l	2000	147	200	"	"	"	"	"	X
75-09-2	Methylene chloride	< 400	D	µg/l	400	57.6	200	"	"	"	"	"	X
91-20-3	Naphthalene	< 200	D	µg/l	200	80.0	200	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 200	D	µg/l	200	43.2	200	"	"	"	"	"	X
100-42-5	Styrene	< 200	D	µg/l	200	36.0	200	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 200	D	µg/l	200	47.6	200	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 100	D	µg/l	100	63.8	200	"	"	"	"	"	X
127-18-4	Tetrachloroethene	9,240	D	µg/l	200	114	200	"	"	"	"	"	X
108-88-3	Toluene	< 200	D	µg/l	200	65.2	200	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 200	D	µg/l	200	50.4	200	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 200	D	µg/l	200	75.6	200	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 200	D	µg/l	200	40.4	200	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 200	D	µg/l	200	41.2	200	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 200	D	µg/l	200	38.6	200	"	"	"	"	"	X
79-01-6	Trichloroethene	1,460	D	µg/l	200	76.0	200	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 200	D	µg/l	200	97.4	200	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 200	D	µg/l	200	40.8	200	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 200	D	µg/l	200	79.8	200	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 200	D	µg/l	200	178	200	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 200	D	µg/l	200	67.8	200	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 400	D	µg/l	400	76.0	200	"	"	"	"	"	X
95-47-6	o-Xylene	< 200	D	µg/l	200	94.2	200	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 400	D	µg/l	400	145	200	"	"	"	"	"	X
60-29-7	Ethyl ether	< 200	D	µg/l	200	39.2	200	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 200	D	µg/l	200	69.2	200	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 200	D	µg/l	200	29.2	200	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 200	D	µg/l	200	43.2	200	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 2000	D	µg/l	2000	1500	200	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 4000	D	µg/l	4000	2480	200	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 1000	D	µg/l	1000	223	200	"	"	"	"	"	X
64-17-5	Ethanol	< 80000	D	µg/l	80000	4550	200	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	99		70-130 %		"	"	"	"	"	"	"	
2037-26-5	Toluene-d8	98		70-130 %		"	"	"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	97		70-130 %		"	"	"	"	"	"	"	
1868-53-7	Dibromofluoromethane	101		70-130 %		"	"	"	"	"	"	"	

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Sample Identification

GAI-2S

SC17886-09

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

01-Feb-16 17:25

Received

04-Feb-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.5	1	SW846 8260C	09-Feb-16	09-Feb-16	GMA	1602363	X
67-64-1	Acetone	< 10.0		µg/l	10.0	2.5	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	X

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Sample Identification

GAI-2S

SC17886-09

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

01-Feb-16 17:25

Received

04-Feb-16

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.2	1	SW846 8260C	09-Feb-16	09-Feb-16	GMA	1602363	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.7	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	7.5	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	1.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	22.7	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	97			70-130 %		"	"	"	"	"	"	
2037-26-5	Toluene-d8	99			70-130 %		"	"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	97			70-130 %		"	"	"	"	"	"	
1868-53-7	Dibromofluoromethane	100			70-130 %		"	"	"	"	"	"	

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Sample Identification

GAI-3D

SC17886-10

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

01-Feb-16 17:35

Received

04-Feb-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.5	1	SW846 8260C	09-Feb-16	09-Feb-16	GMA	1602363	X
67-64-1	Acetone	< 10.0		µg/l	10.0	2.5	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	X

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Sample Identification

GAI-3D

SC17886-10

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

01-Feb-16 17:35

Received

04-Feb-16

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.2	1	SW846 8260C	09-Feb-16	09-Feb-16	GMA	1602363	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.7	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	3.2		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	7.5	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	1.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	22.7	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	97			70-130 %		"	"	"	"	"	"	
2037-26-5	Toluene-d8	100			70-130 %		"	"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	99			70-130 %		"	"	"	"	"	"	
1868-53-7	Dibromofluoromethane	102			70-130 %		"	"	"	"	"	"	

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Sample Identification

GAI-1D

SC17886-11

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

01-Feb-16 18:37

Received

04-Feb-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.5	1	SW846 8260C	09-Feb-16	09-Feb-16	GMA	1602363	X
67-64-1	Acetone	< 10.0		µg/l	10.0	2.5	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	X

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Sample Identification

GAI-1D

SC17886-11

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

01-Feb-16 18:37

Received

04-Feb-16

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.2	1	SW846 8260C	09-Feb-16	09-Feb-16	GMA	1602363	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.7	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	1.1		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	X
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	7.5	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	1.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	22.7	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	97			70-130 %		"	"	"	"	"	"	
2037-26-5	Toluene-d8	100			70-130 %		"	"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	98			70-130 %		"	"	"	"	"	"	
1868-53-7	Dibromofluoromethane	101			70-130 %		"	"	"	"	"	"	

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Sample IdentificationGAI-1S  
SC17886-12Client Project #  
04-224488.00Matrix  
Ground WaterCollection Date/Time  
01-Feb-16 18:55Received  
04-Feb-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260			GS1										
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 25.0	D	µg/l	25.0	13.3	25	SW846 8260C	09-Feb-16	09-Feb-16	GMA	1602363	X
67-64-1	Acetone	< 250	D	µg/l	250	61.9	25	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 12.5	D	µg/l	12.5	11.8	25	"	"	"	"	"	X
71-43-2	Benzene	< 25.0	D	µg/l	25.0	4.4	25	"	"	"	"	"	X
108-86-1	Bromobenzene	< 25.0	D	µg/l	25.0	2.8	25	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 25.0	D	µg/l	25.0	6.7	25	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 12.5	D	µg/l	12.5	4.4	25	"	"	"	"	"	X
75-25-2	Bromoform	< 25.0	D	µg/l	25.0	7.3	25	"	"	"	"	"	X
74-83-9	Bromomethane	< 50.0	D	µg/l	50.0	12.5	25	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 250	D	µg/l	250	31.1	25	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 25.0	D	µg/l	25.0	6.6	25	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 25.0	D	µg/l	25.0	4.1	25	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 25.0	D	µg/l	25.0	5.3	25	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 50.0	D	µg/l	50.0	6.3	25	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 25.0	D	µg/l	25.0	5.6	25	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 25.0	D	µg/l	25.0	4.9	25	"	"	"	"	"	X
75-00-3	Chloroethane	< 50.0	D	µg/l	50.0	9.6	25	"	"	"	"	"	X
67-66-3	Chloroform	< 25.0	D	µg/l	25.0	10.2	25	"	"	"	"	"	X
74-87-3	Chloromethane	< 50.0	D	µg/l	50.0	8.6	25	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 25.0	D	µg/l	25.0	7.6	25	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 25.0	D	µg/l	25.0	5.1	25	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 50.0	D	µg/l	50.0	21.6	25	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 12.5	D	µg/l	12.5	6.1	25	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 12.5	D	µg/l	12.5	6.5	25	"	"	"	"	"	X
74-95-3	Dibromomethane	< 25.0	D	µg/l	25.0	6.4	25	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 25.0	D	µg/l	25.0	4.0	25	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 25.0	D	µg/l	25.0	5.5	25	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 25.0	D	µg/l	25.0	6.2	25	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 50.0	D	µg/l	50.0	14.6	25	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 25.0	D	µg/l	25.0	4.2	25	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 25.0	D	µg/l	25.0	4.0	25	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 25.0	D	µg/l	25.0	7.0	25	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	5,240	D, E	µg/l	25.0	5.8	25	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	56.5	D	µg/l	25.0	5.2	25	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 25.0	D	µg/l	25.0	3.7	25	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 25.0	D	µg/l	25.0	5.4	25	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 25.0	D	µg/l	25.0	16.8	25	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 25.0	D	µg/l	25.0	7.0	25	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 12.5	D	µg/l	12.5	5.0	25	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 12.5	D	µg/l	12.5	6.7	25	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 25.0	D	µg/l	25.0	4.3	25	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 12.5	D	µg/l	12.5	10.0	25	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 250	D	µg/l	250	13.4	25	"	"	"	"	"	X

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Sample Identification

GAI-1S

SC17886-12

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

01-Feb-16 18:55

Received

04-Feb-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260			GS1										
Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 25.0	D	µg/l	25.0	5.8	25	SW846 8260C	09-Feb-16	09-Feb-16	GMA	1602363	X
99-87-6	4-Isopropyltoluene	< 25.0	D	µg/l	25.0	9.4	25	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 25.0	D	µg/l	25.0	4.3	25	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 250	D	µg/l	250	18.4	25	"	"	"	"	"	X
75-09-2	Methylene chloride	< 50.0	D	µg/l	50.0	7.2	25	"	"	"	"	"	X
91-20-3	Naphthalene	< 25.0	D	µg/l	25.0	10.0	25	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 25.0	D	µg/l	25.0	5.4	25	"	"	"	"	"	X
100-42-5	Styrene	< 25.0	D	µg/l	25.0	4.5	25	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 25.0	D	µg/l	25.0	6.0	25	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 12.5	D	µg/l	12.5	8.0	25	"	"	"	"	"	X
127-18-4	Tetrachloroethene	250	D	µg/l	25.0	14.3	25	"	"	"	"	"	X
108-88-3	Toluene	< 25.0	D	µg/l	25.0	8.2	25	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 25.0	D	µg/l	25.0	6.3	25	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 25.0	D	µg/l	25.0	9.4	25	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 25.0	D	µg/l	25.0	5.0	25	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 25.0	D	µg/l	25.0	5.2	25	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 25.0	D	µg/l	25.0	4.8	25	"	"	"	"	"	X
79-01-6	Trichloroethene	912	D	µg/l	25.0	9.5	25	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 25.0	D	µg/l	25.0	12.2	25	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 25.0	D	µg/l	25.0	5.1	25	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 25.0	D	µg/l	25.0	10.0	25	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 25.0	D	µg/l	25.0	22.2	25	"	"	"	"	"	X
75-01-4	Vinyl chloride	74.8	D	µg/l	25.0	8.5	25	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 50.0	D	µg/l	50.0	9.5	25	"	"	"	"	"	X
95-47-6	o-Xylene	< 25.0	D	µg/l	25.0	11.8	25	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 50.0	D	µg/l	50.0	18.1	25	"	"	"	"	"	
60-29-7	Ethyl ether	< 25.0	D	µg/l	25.0	4.9	25	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 25.0	D	µg/l	25.0	8.6	25	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 25.0	D	µg/l	25.0	3.6	25	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 25.0	D	µg/l	25.0	5.4	25	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 250	D	µg/l	250	187	25	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 500	D	µg/l	500	310	25	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 125	D	µg/l	125	27.8	25	"	"	"	"	"	X
64-17-5	Ethanol	< 10000	D	µg/l	10000	568	25	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	4-Bromofluorobenzene	97			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	99			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	98			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	102			70-130 %			"	"	"	"	"	
Re-analysis of Volatile Organic Compounds by SW846 8260			GS1										
Prepared by method SW846 5030 Water MS													
156-59-2	cis-1,2-Dichloroethene	6,280	D	µg/l	100	23.4	100	SW846 8260C	11-Feb-16	12-Feb-16	GMA	1602521	X

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Sample Identification

GAI-1S

SC17886-12

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

01-Feb-16 18:55

Received

04-Feb-16

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
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**Volatile Organic Compounds**Re-analysis of Volatile Organic Compounds  
by SW846 8260

GS1

Prepared by method SW846 5030 Water MSSurrogate recoveries:

460-00-4	4-Bromofluorobenzene	91			70-130 %			SW846 8260C	11-Feb-16	12-Feb-16	GMA	1602521
2037-26-5	Toluene-d8	99			70-130 %			"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	103			70-130 %			"	"	"	"	"
1868-53-7	Dibromofluoromethane	103			70-130 %			"	"	"	"	"

Sample Identification

Trip Blank

SC17886-13

Client Project #

04-224488.00

Matrix

Deionized Water

Collection Date/Time

01-Feb-16 08:00

Received

04-Feb-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.5	1	SW846 8260C	09-Feb-16	09-Feb-16	GMA	1602363	X
67-64-1	Acetone	< 10.0		µg/l	10.0	2.5	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	X

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Sample Identification

Trip Blank

SC17886-13

Client Project #

04-224488.00

Matrix

Deionized Water

Collection Date/Time

01-Feb-16 08:00

Received

04-Feb-16

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.2	1	SW846 8260C	09-Feb-16	09-Feb-16	GMA	1602363	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.7	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	7.5	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	1.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	22.7	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	96			70-130 %		"	"	"	"	"	"	
2037-26-5	Toluene-d8	100			70-130 %		"	"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	98			70-130 %		"	"	"	"	"	"	
1868-53-7	Dibromofluoromethane	102			70-130 %		"	"	"	"	"	"	

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification**Duplicate**

SC17886-14

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

01-Feb-16 00:00

Received

04-Feb-16

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.5	1	SW846 8260C	09-Feb-16	09-Feb-16	GMA	1602363	X
67-64-1	Acetone	< 10.0		µg/l	10.0	2.5	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	X

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Sample Identification

<b>Duplicate</b>	<u>Client Project #</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Received</u>
SC17886-14	04-224488.00	Ground Water	01-Feb-16 00:00	04-Feb-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
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**Volatile Organic Compounds**

Volatile Organic Compounds by SW846 8260

Prepared by method SW846 5030 Water MS

98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.2	1	SW846 8260C	09-Feb-16	09-Feb-16	GMA	1602363	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.7	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	2.5		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	7.5	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	1.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	22.7	1	"	"	"	"	"	X

**Surrogate recoveries:**

460-00-4	4-Bromofluorobenzene	97			70-130 %		"	"	"	"	"	"	
2037-26-5	Toluene-d8	101			70-130 %		"	"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	99			70-130 %		"	"	"	"	"	"	
1868-53-7	Dibromofluoromethane	102			70-130 %		"	"	"	"	"	"	

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Sample Identification**Equipment Blank**

SC17886-15

Client Project #

04-224488.00

Matrix

Deionized Water

Collection Date/Time

01-Feb-16 08:05

Received

04-Feb-16

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.5	1	SW846 8260C	09-Feb-16	09-Feb-16	GMA	1602363	X
67-64-1	Acetone	< 10.0		µg/l	10.0	2.5	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	X

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## Sample Identification

## Equipment Blank

SC17886-15

## Client Project #

04-224488.00

## Matrix

Deionized Water

## Collection Date/Time

01-Feb-16 08:05

## Received

04-Feb-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.2	1	SW846 8260C	09-Feb-16	09-Feb-16	GMA	1602363	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.7	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	7.5	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	1.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	22.7	1	"	"	"	"	"	X

## Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	96			70-130 %		"	"	"	"	"	"	
2037-26-5	Toluene-d8	100			70-130 %		"	"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	98			70-130 %		"	"	"	"	"	"	
1868-53-7	Dibromofluoromethane	101			70-130 %		"	"	"	"	"	"	

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Sample Identification

Trip Blank

SC17886-16

Client Project #

04-224488.00

Matrix

Deionized Water

Collection Date/Time

03-Feb-16 09:00

Received

04-Feb-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.5	1	SW846 8260C	09-Feb-16	09-Feb-16	GMA	1602364	X
67-64-1	Acetone	< 10.0		µg/l	10.0	2.5	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	X

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Sample Identification

Trip Blank

SC17886-16

Client Project #

04-224488.00

Matrix

Deionized Water

Collection Date/Time

03-Feb-16 09:00

Received

04-Feb-16

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.2	1	SW846 8260C	09-Feb-16	09-Feb-16	GMA	1602364	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.7	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	7.5	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	1.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	22.7	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	92			70-130 %		"	"	"	"	"	"	
2037-26-5	Toluene-d8	99			70-130 %		"	"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	107			70-130 %		"	"	"	"	"	"	
1868-53-7	Dibromofluoromethane	104			70-130 %		"	"	"	"	"	"	

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Sample Identification

CMB-3

SC17886-17

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

03-Feb-16 13:25

Received

04-Feb-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.5	1	SW846 8260C	09-Feb-16	09-Feb-16	GMA	1602364	X
67-64-1	Acetone	< 10.0		µg/l	10.0	2.5	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	X

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Sample Identification

CMB-3

SC17886-17

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

03-Feb-16 13:25

Received

04-Feb-16

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
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**Volatile Organic Compounds**

Volatile Organic Compounds by SW846 8260

Prepared by method SW846 5030 Water MS

98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.2	1	SW846 8260C	09-Feb-16	09-Feb-16	GMA	1602364	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.7	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	2.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	7.5	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	1.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	22.7	1	"	"	"	"	"	X

*Surrogate recoveries:*

460-00-4	4-Bromofluorobenzene	89			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	96			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	108			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	106			70-130 %			"	"	"	"	"	

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Sample Identification

J-GW-DEP8

SC17886-18

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

03-Feb-16 14:15

Received

04-Feb-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.5	1	SW846 8260C	09-Feb-16	10-Feb-16	GMA	1602364	X
67-64-1	Acetone	< 10.0		µg/l	10.0	2.5	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	X

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Sample Identification

J-GW-DEP8

SC17886-18

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

03-Feb-16 14:15

Received

04-Feb-16

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.2	1	SW846 8260C	09-Feb-16	10-Feb-16	GMA	1602364	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.7	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	9.2		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	7.5	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	1.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	22.7	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	90			70-130 %		"	"	"	"	"	"	
2037-26-5	Toluene-d8	96			70-130 %		"	"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	106			70-130 %		"	"	"	"	"	"	
1868-53-7	Dibromofluoromethane	106			70-130 %		"	"	"	"	"	"	

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Sample Identification

KAS-1

SC17886-20

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

03-Feb-16 18:47

Received

04-Feb-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.5	1	SW846 8260C	09-Feb-16	10-Feb-16	GMA	1602364	X
67-64-1	Acetone	< 10.0		µg/l	10.0	2.5	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	X

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Sample Identification

KAS-1

SC17886-20

Client Project #

04-224488.00

Matrix

Ground Water

Collection Date/Time

03-Feb-16 18:47

Received

04-Feb-16

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.2	1	SW846 8260C	09-Feb-16	10-Feb-16	GMA	1602364	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.7	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	7.5	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	1.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	22.7	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	92			70-130 %		"	"	"	"	"	"	
2037-26-5	Toluene-d8	97			70-130 %		"	"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	106			70-130 %		"	"	"	"	"	"	
1868-53-7	Dibromofluoromethane	106			70-130 %		"	"	"	"	"	"	

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# Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1602314 - SW846 5030 Water MS</b>										
<b>Blank (1602314-BLK1)</b>	<b>Prepared &amp; Analyzed: 08-Feb-16</b>									
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.5		µg/l	0.5						
Benzene	< 1.0		µg/l	1.0						
Bromobenzene	< 1.0		µg/l	1.0						
Bromochloromethane	< 1.0		µg/l	1.0						
Bromodichloromethane	< 0.5		µg/l	0.5						
Bromoform	< 1.0		µg/l	1.0						
Bromomethane	< 2.0		µg/l	2.0						
2-Butanone (MEK)	< 10.0		µg/l	10.0						
n-Butylbenzene	< 1.0		µg/l	1.0						
sec-Butylbenzene	< 1.0		µg/l	1.0						
tert-Butylbenzene	< 1.0		µg/l	1.0						
Carbon disulfide	<b>2.6</b>	QB2	µg/l	2.0						
Carbon tetrachloride	< 1.0		µg/l	1.0						
Chlorobenzene	< 1.0		µg/l	1.0						
Chloroethane	< 2.0		µg/l	2.0						
Chloroform	< 1.0		µg/l	1.0						
Chloromethane	< 2.0		µg/l	2.0						
2-Chlorotoluene	< 1.0		µg/l	1.0						
4-Chlorotoluene	< 1.0		µg/l	1.0						
1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0						
Dibromochloromethane	< 0.5		µg/l	0.5						
1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5						
Dibromomethane	< 1.0		µg/l	1.0						
1,2-Dichlorobenzene	< 1.0		µg/l	1.0						
1,3-Dichlorobenzene	< 1.0		µg/l	1.0						
1,4-Dichlorobenzene	< 1.0		µg/l	1.0						
Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0						
1,1-Dichloroethane	< 1.0		µg/l	1.0						
1,2-Dichloroethane	< 1.0		µg/l	1.0						
1,1-Dichloroethene	< 1.0		µg/l	1.0						
cis-1,2-Dichloroethene	< 1.0		µg/l	1.0						
trans-1,2-Dichloroethene	< 1.0		µg/l	1.0						
1,2-Dichloropropane	< 1.0		µg/l	1.0						
1,3-Dichloropropane	< 1.0		µg/l	1.0						
2,2-Dichloropropane	< 1.0		µg/l	1.0						
1,1-Dichloropropene	< 1.0		µg/l	1.0						
cis-1,3-Dichloropropene	< 0.5		µg/l	0.5						
trans-1,3-Dichloropropene	< 0.5		µg/l	0.5						
Ethylbenzene	< 1.0		µg/l	1.0						
Hexachlorobutadiene	< 0.5		µg/l	0.5						
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.0		µg/l	1.0						
4-Isopropyltoluene	< 1.0		µg/l	1.0						
Methyl tert-butyl ether	< 1.0		µg/l	1.0						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.0		µg/l	2.0						
Naphthalene	< 1.0		µg/l	1.0						
n-Propylbenzene	< 1.0		µg/l	1.0						
Styrene	< 1.0		µg/l	1.0						
1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0						

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# Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1602314 - SW846 5030 Water MS</b>										
<b>Blank (1602314-BLK1)</b>					<u>Prepared &amp; Analyzed: 08-Feb-16</u>					
1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5						
Tetrachloroethene	< 1.0		µg/l	1.0						
Toluene	< 1.0		µg/l	1.0						
1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0						
1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0						
1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0						
1,1,1-Trichloroethane	< 1.0		µg/l	1.0						
1,1,2-Trichloroethane	< 1.0		µg/l	1.0						
Trichloroethene	< 1.0		µg/l	1.0						
Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0						
1,2,3-Trichloropropane	< 1.0		µg/l	1.0						
1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0						
1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0						
Vinyl chloride	< 1.0		µg/l	1.0						
m,p-Xylene	< 2.0		µg/l	2.0						
o-Xylene	< 1.0		µg/l	1.0						
Tetrahydrofuran	< 2.0		µg/l	2.0						
Ethyl ether	< 1.0		µg/l	1.0						
Tert-amyl methyl ether	< 1.0		µg/l	1.0						
Ethyl tert-butyl ether	< 1.0		µg/l	1.0						
Di-isopropyl ether	< 1.0		µg/l	1.0						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	<b>30.0</b>	QB2	µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0						
Ethanol	< 400		µg/l	400						
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>51.0</i>		µg/l		<i>50.0</i>		<i>102</i>	<i>70-130</i>		
<i>Surrogate: Toluene-d8</i>	<i>50.0</i>		µg/l		<i>50.0</i>		<i>100</i>	<i>70-130</i>		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>48.5</i>		µg/l		<i>50.0</i>		<i>97</i>	<i>70-130</i>		
<i>Surrogate: Dibromofluoromethane</i>	<i>50.6</i>		µg/l		<i>50.0</i>		<i>101</i>	<i>70-130</i>		
<b>LCS (1602314-BS1)</b>					<u>Prepared &amp; Analyzed: 08-Feb-16</u>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	<b>20.2</b>		µg/l		20.0		101	70-130		
Acetone	<b>18.4</b>		µg/l		20.0		92	70-130		
Acrylonitrile	<b>18.8</b>		µg/l		20.0		94	70-130		
Benzene	<b>19.8</b>		µg/l		20.0		99	70-130		
Bromobenzene	<b>21.2</b>		µg/l		20.0		106	70-130		
Bromochloromethane	<b>20.6</b>		µg/l		20.0		103	70-130		
Bromodichloromethane	<b>21.2</b>		µg/l		20.0		106	70-130		
Bromoform	<b>26.7</b>	QM9	µg/l		20.0		133	70-130		
Bromomethane	<b>15.4</b>		µg/l		20.0		77	70-130		
2-Butanone (MEK)	<b>19.2</b>		µg/l		20.0		96	70-130		
n-Butylbenzene	<b>22.0</b>		µg/l		20.0		110	70-130		
sec-Butylbenzene	<b>22.0</b>		µg/l		20.0		110	70-130		
tert-Butylbenzene	<b>22.0</b>		µg/l		20.0		110	70-130		
Carbon disulfide	<b>25.7</b>	B	µg/l		20.0		128	70-130		
Carbon tetrachloride	<b>21.0</b>		µg/l		20.0		105	70-130		
Chlorobenzene	<b>20.4</b>		µg/l		20.0		102	70-130		
Chloroethane	<b>17.2</b>		µg/l		20.0		86	70-130		
Chloroform	<b>19.1</b>		µg/l		20.0		95	70-130		
Chloromethane	<b>17.7</b>		µg/l		20.0		88	70-130		
2-Chlorotoluene	<b>21.6</b>		µg/l		20.0		108	70-130		
4-Chlorotoluene	<b>21.3</b>		µg/l		20.0		106	70-130		

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# Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1602314 - SW846 5030 Water MS</b>										
<b><u>LCS (1602314-BS1)</u></b>	<b><u>Prepared &amp; Analyzed: 08-Feb-16</u></b>									
1,2-Dibromo-3-chloropropane	27.6	QM9	µg/l		20.0		138	70-130		
Dibromochloromethane	23.6		µg/l		20.0		118	70-130		
1,2-Dibromoethane (EDB)	20.5		µg/l		20.0		103	70-130		
Dibromomethane	20.0		µg/l		20.0		100	70-130		
1,2-Dichlorobenzene	20.6		µg/l		20.0		103	70-130		
1,3-Dichlorobenzene	21.9		µg/l		20.0		110	70-130		
1,4-Dichlorobenzene	20.0		µg/l		20.0		100	70-130		
Dichlorodifluoromethane (Freon12)	22.6		µg/l		20.0		113	70-130		
1,1-Dichloroethane	20.0		µg/l		20.0		100	70-130		
1,2-Dichloroethane	18.8		µg/l		20.0		94	70-130		
1,1-Dichloroethene	17.8		µg/l		20.0		89	70-130		
cis-1,2-Dichloroethene	19.8		µg/l		20.0		99	70-130		
trans-1,2-Dichloroethene	20.6		µg/l		20.0		103	70-130		
1,2-Dichloropropane	20.0		µg/l		20.0		100	70-130		
1,3-Dichloropropane	19.6		µg/l		20.0		98	70-130		
2,2-Dichloropropane	19.9		µg/l		20.0		100	70-130		
1,1-Dichloropropene	20.2		µg/l		20.0		101	70-130		
cis-1,3-Dichloropropene	22.7		µg/l		20.0		114	70-130		
trans-1,3-Dichloropropene	22.0		µg/l		20.0		110	70-130		
Ethylbenzene	21.1		µg/l		20.0		105	70-130		
Hexachlorobutadiene	21.2		µg/l		20.0		106	70-130		
2-Hexanone (MBK)	20.9		µg/l		20.0		105	70-130		
Isopropylbenzene	21.4		µg/l		20.0		107	70-130		
4-Isopropyltoluene	21.1		µg/l		20.0		105	70-130		
Methyl tert-butyl ether	20.1		µg/l		20.0		100	70-130		
4-Methyl-2-pentanone (MIBK)	20.8		µg/l		20.0		104	70-130		
Methylene chloride	22.4		µg/l		20.0		112	70-130		
Naphthalene	22.9		µg/l		20.0		114	70-130		
n-Propylbenzene	21.8		µg/l		20.0		109	70-130		
Styrene	21.9		µg/l		20.0		110	70-130		
1,1,1,2-Tetrachloroethane	24.1		µg/l		20.0		120	70-130		
1,1,2,2-Tetrachloroethane	25.6		µg/l		20.0		128	70-130		
Tetrachloroethene	20.3		µg/l		20.0		102	70-130		
Toluene	19.9		µg/l		20.0		100	70-130		
1,2,3-Trichlorobenzene	24.4		µg/l		20.0		122	70-130		
1,2,4-Trichlorobenzene	23.1		µg/l		20.0		116	70-130		
1,3,5-Trichlorobenzene	22.2		µg/l		20.0		111	70-130		
1,1,1-Trichloroethane	21.4		µg/l		20.0		107	70-130		
1,1,2-Trichloroethane	20.4		µg/l		20.0		102	70-130		
Trichloroethene	18.6		µg/l		20.0		93	70-130		
Trichlorofluoromethane (Freon 11)	16.9		µg/l		20.0		84	70-130		
1,2,3-Trichloropropane	21.4		µg/l		20.0		107	70-130		
1,2,4-Trimethylbenzene	22.6		µg/l		20.0		113	70-130		
1,3,5-Trimethylbenzene	22.0		µg/l		20.0		110	70-130		
Vinyl chloride	17.7		µg/l		20.0		89	70-130		
m,p-Xylene	21.5		µg/l		20.0		107	70-130		
o-Xylene	21.6		µg/l		20.0		108	70-130		
Tetrahydrofuran	19.8		µg/l		20.0		99	70-130		
Ethyl ether	16.9		µg/l		20.0		85	70-130		
Tert-amyl methyl ether	19.5		µg/l		20.0		98	70-130		
Ethyl tert-butyl ether	19.9		µg/l		20.0		100	70-130		
Di-isopropyl ether	19.8		µg/l		20.0		99	70-130		

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# Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1602314 - SW846 5030 Water MS</b>										
<b><u>LCS (1602314-BS1)</u></b>					<b><u>Prepared &amp; Analyzed: 08-Feb-16</u></b>					
Tert-Butanol / butyl alcohol	180		µg/l		200		90	70-130		
1,4-Dioxane	226	B	µg/l		200		113	70-130		
trans-1,4-Dichloro-2-butene	24.3		µg/l		20.0		122	70-130		
Ethanol	358		µg/l		400		90	70-130		
Surrogate: 4-Bromofluorobenzene	51.3		µg/l		50.0		103	70-130		
Surrogate: Toluene-d8	49.4		µg/l		50.0		99	70-130		
Surrogate: 1,2-Dichloroethane-d4	47.6		µg/l		50.0		95	70-130		
Surrogate: Dibromofluoromethane	51.0		µg/l		50.0		102	70-130		
<b><u>LCS Dup (1602314-BSD1)</u></b>					<b><u>Prepared &amp; Analyzed: 08-Feb-16</u></b>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	18.8		µg/l		20.0		94	70-130	7	20
Acetone	18.2		µg/l		20.0		91	70-130	1	20
Acrylonitrile	17.0		µg/l		20.0		85	70-130	10	20
Benzene	19.1		µg/l		20.0		96	70-130	4	20
Bromobenzene	20.4		µg/l		20.0		102	70-130	4	20
Bromochloromethane	20.4		µg/l		20.0		102	70-130	0.8	20
Bromodichloromethane	20.4		µg/l		20.0		102	70-130	4	20
Bromoform	24.4		µg/l		20.0		122	70-130	9	20
Bromomethane	15.2		µg/l		20.0		76	70-130	1	20
2-Butanone (MEK)	18.7		µg/l		20.0		94	70-130	2	20
n-Butylbenzene	20.6		µg/l		20.0		103	70-130	6	20
sec-Butylbenzene	20.5		µg/l		20.0		103	70-130	7	20
tert-Butylbenzene	20.4		µg/l		20.0		102	70-130	8	20
Carbon disulfide	24.1	B	µg/l		20.0		121	70-130	6	20
Carbon tetrachloride	19.4		µg/l		20.0		97	70-130	8	20
Chlorobenzene	19.7		µg/l		20.0		98	70-130	4	20
Chloroethane	16.6		µg/l		20.0		83	70-130	4	20
Chloroform	18.4		µg/l		20.0		92	70-130	4	20
Chloromethane	17.1		µg/l		20.0		85	70-130	4	20
2-Chlorotoluene	20.3		µg/l		20.0		101	70-130	6	20
4-Chlorotoluene	20.3		µg/l		20.0		101	70-130	5	20
1,2-Dibromo-3-chloropropane	25.2		µg/l		20.0		126	70-130	9	20
Dibromochloromethane	22.5		µg/l		20.0		113	70-130	4	20
1,2-Dibromoethane (EDB)	20.2		µg/l		20.0		101	70-130	2	20
Dibromomethane	19.0		µg/l		20.0		95	70-130	5	20
1,2-Dichlorobenzene	20.0		µg/l		20.0		100	70-130	3	20
1,3-Dichlorobenzene	20.7		µg/l		20.0		103	70-130	6	20
1,4-Dichlorobenzene	19.5		µg/l		20.0		98	70-130	2	20
Dichlorodifluoromethane (Freon12)	21.4		µg/l		20.0		107	70-130	5	20
1,1-Dichloroethane	19.3		µg/l		20.0		96	70-130	4	20
1,2-Dichloroethane	18.5		µg/l		20.0		92	70-130	2	20
1,1-Dichloroethene	17.0		µg/l		20.0		85	70-130	5	20
cis-1,2-Dichloroethene	19.2		µg/l		20.0		96	70-130	3	20
trans-1,2-Dichloroethene	19.3		µg/l		20.0		97	70-130	6	20
1,2-Dichloropropane	19.2		µg/l		20.0		96	70-130	4	20
1,3-Dichloropropane	19.0		µg/l		20.0		95	70-130	3	20
2,2-Dichloropropane	19.0		µg/l		20.0		95	70-130	5	20
1,1-Dichloropropene	18.9		µg/l		20.0		95	70-130	7	20
cis-1,3-Dichloropropene	21.4		µg/l		20.0		107	70-130	6	20
trans-1,3-Dichloropropene	21.4		µg/l		20.0		107	70-130	3	20
Ethylbenzene	19.7		µg/l		20.0		99	70-130	7	20
Hexachlorobutadiene	19.7		µg/l		20.0		98	70-130	7	20

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# Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1602314 - SW846 5030 Water MS</b>										
<b><u>LCS Dup (1602314-BSD1)</u></b>					<b><u>Prepared &amp; Analyzed: 08-Feb-16</u></b>					
2-Hexanone (MBK)	19.8		µg/l		20.0		99	70-130	5	20
Isopropylbenzene	20.0		µg/l		20.0		100	70-130	7	20
4-Isopropyltoluene	19.9		µg/l		20.0		100	70-130	6	20
Methyl tert-butyl ether	19.4		µg/l		20.0		97	70-130	3	20
4-Methyl-2-pentanone (MIBK)	19.9		µg/l		20.0		100	70-130	4	20
Methylene chloride	21.4		µg/l		20.0		107	70-130	4	20
Naphthalene	20.8		µg/l		20.0		104	70-130	10	20
n-Propylbenzene	20.3		µg/l		20.0		102	70-130	7	20
Styrene	20.8		µg/l		20.0		104	70-130	5	20
1,1,1,2-Tetrachloroethane	22.7		µg/l		20.0		113	70-130	6	20
1,1,2,2-Tetrachloroethane	24.4		µg/l		20.0		122	70-130	5	20
Tetrachloroethene	19.4		µg/l		20.0		97	70-130	5	20
Toluene	19.0		µg/l		20.0		95	70-130	5	20
1,2,3-Trichlorobenzene	23.1		µg/l		20.0		116	70-130	6	20
1,2,4-Trichlorobenzene	21.6		µg/l		20.0		108	70-130	7	20
1,3,5-Trichlorobenzene	21.3		µg/l		20.0		106	70-130	4	20
1,1,1-Trichloroethane	20.1		µg/l		20.0		101	70-130	6	20
1,1,2-Trichloroethane	19.5		µg/l		20.0		98	70-130	4	20
Trichloroethene	17.5		µg/l		20.0		88	70-130	6	20
Trichlorofluoromethane (Freon 11)	16.0		µg/l		20.0		80	70-130	5	20
1,2,3-Trichloropropane	20.9		µg/l		20.0		104	70-130	3	20
1,2,4-Trimethylbenzene	21.3		µg/l		20.0		106	70-130	6	20
1,3,5-Trimethylbenzene	20.6		µg/l		20.0		103	70-130	7	20
Vinyl chloride	17.8		µg/l		20.0		89	70-130	0.2	20
m,p-Xylene	20.1		µg/l		20.0		101	70-130	7	20
o-Xylene	20.4		µg/l		20.0		102	70-130	6	20
Tetrahydrofuran	18.7		µg/l		20.0		94	70-130	6	20
Ethyl ether	16.7		µg/l		20.0		83	70-130	1	20
Tert-amyl methyl ether	18.9		µg/l		20.0		95	70-130	3	20
Ethyl tert-butyl ether	19.2		µg/l		20.0		96	70-130	4	20
Di-isopropyl ether	19.1		µg/l		20.0		96	70-130	3	20
Tert-Butanol / butyl alcohol	175		µg/l		200		87	70-130	3	20
1,4-Dioxane	215	B	µg/l		200		107	70-130	5	20
trans-1,4-Dichloro-2-butene	22.4		µg/l		20.0		112	70-130	8	20
Ethanol	344		µg/l		400		86	70-130	4	20
Surrogate: 4-Bromofluorobenzene	51.4		µg/l		50.0		103	70-130		
Surrogate: Toluene-d8	49.8		µg/l		50.0		100	70-130		
Surrogate: 1,2-Dichloroethane-d4	48.0		µg/l		50.0		96	70-130		
Surrogate: Dibromofluoromethane	51.2		µg/l		50.0		102	70-130		

## Batch 1602363 - SW846 5030 Water MS

### **Blank (1602363-BLK1)**

**Prepared & Analyzed: 09-Feb-16**

1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0
Acetone	< 10.0		µg/l	10.0
Acrylonitrile	< 0.5		µg/l	0.5
Benzene	< 1.0		µg/l	1.0
Bromobenzene	< 1.0		µg/l	1.0
Bromochloromethane	< 1.0		µg/l	1.0
Bromodichloromethane	< 0.5		µg/l	0.5
Bromoform	< 1.0		µg/l	1.0
Bromomethane	< 2.0		µg/l	2.0
2-Butanone (MEK)	< 10.0		µg/l	10.0

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# Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1602363 - SW846 5030 Water MS</b>										
<b><u>Blank (1602363-BLK1)</u></b>	<b><u>Prepared &amp; Analyzed: 09-Feb-16</u></b>									
n-Butylbenzene	< 1.0		µg/l	1.0						
sec-Butylbenzene	< 1.0		µg/l	1.0						
tert-Butylbenzene	< 1.0		µg/l	1.0						
Carbon disulfide	< 2.0		µg/l	2.0						
Carbon tetrachloride	< 1.0		µg/l	1.0						
Chlorobenzene	< 1.0		µg/l	1.0						
Chloroethane	< 2.0		µg/l	2.0						
Chloroform	< 1.0		µg/l	1.0						
Chloromethane	< 2.0		µg/l	2.0						
2-Chlorotoluene	< 1.0		µg/l	1.0						
4-Chlorotoluene	< 1.0		µg/l	1.0						
1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0						
Dibromochloromethane	< 0.5		µg/l	0.5						
1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5						
Dibromomethane	< 1.0		µg/l	1.0						
1,2-Dichlorobenzene	< 1.0		µg/l	1.0						
1,3-Dichlorobenzene	< 1.0		µg/l	1.0						
1,4-Dichlorobenzene	< 1.0		µg/l	1.0						
Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0						
1,1-Dichloroethane	< 1.0		µg/l	1.0						
1,2-Dichloroethane	< 1.0		µg/l	1.0						
1,1-Dichloroethene	< 1.0		µg/l	1.0						
cis-1,2-Dichloroethene	< 1.0		µg/l	1.0						
trans-1,2-Dichloroethene	< 1.0		µg/l	1.0						
1,2-Dichloropropane	< 1.0		µg/l	1.0						
1,3-Dichloropropane	< 1.0		µg/l	1.0						
2,2-Dichloropropane	< 1.0		µg/l	1.0						
1,1-Dichloropropene	< 1.0		µg/l	1.0						
cis-1,3-Dichloropropene	< 0.5		µg/l	0.5						
trans-1,3-Dichloropropene	< 0.5		µg/l	0.5						
Ethylbenzene	< 1.0		µg/l	1.0						
Hexachlorobutadiene	< 0.5		µg/l	0.5						
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.0		µg/l	1.0						
4-Isopropyltoluene	< 1.0		µg/l	1.0						
Methyl tert-butyl ether	< 1.0		µg/l	1.0						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.0		µg/l	2.0						
Naphthalene	< 1.0		µg/l	1.0						
n-Propylbenzene	< 1.0		µg/l	1.0						
Styrene	< 1.0		µg/l	1.0						
1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0						
1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5						
Tetrachloroethene	< 1.0		µg/l	1.0						
Toluene	< 1.0		µg/l	1.0						
1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0						
1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0						
1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0						
1,1,1-Trichloroethane	< 1.0		µg/l	1.0						
1,1,2-Trichloroethane	< 1.0		µg/l	1.0						
Trichloroethene	< 1.0		µg/l	1.0						
Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0						

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# Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1602363 - SW846 5030 Water MS</b>										
<b>Blank (1602363-BLK1)</b>					<u>Prepared &amp; Analyzed: 09-Feb-16</u>					
1,2,3-Trichloropropane	< 1.0		µg/l	1.0						
1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0						
1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0						
Vinyl chloride	< 1.0		µg/l	1.0						
m,p-Xylene	< 2.0		µg/l	2.0						
o-Xylene	< 1.0		µg/l	1.0						
Tetrahydrofuran	< 2.0		µg/l	2.0						
Ethyl ether	< 1.0		µg/l	1.0						
Tert-amyl methyl ether	< 1.0		µg/l	1.0						
Ethyl tert-butyl ether	< 1.0		µg/l	1.0						
Di-isopropyl ether	< 1.0		µg/l	1.0						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0						
Ethanol	< 400		µg/l	400						
<i>Surrogate: 4-Bromofluorobenzene</i>	49.0		µg/l		50.0		98	70-130		
<i>Surrogate: Toluene-d8</i>	49.8		µg/l		50.0		100	70-130		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	49.3		µg/l		50.0		99	70-130		
<i>Surrogate: Dibromofluoromethane</i>	51.3		µg/l		50.0		103	70-130		
<b>LCS (1602363-BS1)</b>					<u>Prepared &amp; Analyzed: 09-Feb-16</u>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	21.7		µg/l		20.0		109	70-130		
Acetone	16.5		µg/l		20.0		82	70-130		
Acrylonitrile	15.4		µg/l		20.0		77	70-130		
Benzene	19.3		µg/l		20.0		96	70-130		
Bromobenzene	19.8		µg/l		20.0		99	70-130		
Bromochloromethane	20.4		µg/l		20.0		102	70-130		
Bromodichloromethane	20.3		µg/l		20.0		102	70-130		
Bromoform	24.3		µg/l		20.0		121	70-130		
Bromomethane	15.4		µg/l		20.0		77	70-130		
2-Butanone (MEK)	18.0		µg/l		20.0		90	70-130		
n-Butylbenzene	20.5		µg/l		20.0		102	70-130		
sec-Butylbenzene	21.4		µg/l		20.0		107	70-130		
tert-Butylbenzene	21.4		µg/l		20.0		107	70-130		
Carbon disulfide	25.1		µg/l		20.0		126	70-130		
Carbon tetrachloride	20.8		µg/l		20.0		104	70-130		
Chlorobenzene	19.4		µg/l		20.0		97	70-130		
Chloroethane	17.2		µg/l		20.0		86	70-130		
Chloroform	18.5		µg/l		20.0		92	70-130		
Chloromethane	16.4		µg/l		20.0		82	70-130		
2-Chlorotoluene	20.5		µg/l		20.0		102	70-130		
4-Chlorotoluene	20.0		µg/l		20.0		100	70-130		
1,2-Dibromo-3-chloropropane	23.0		µg/l		20.0		115	70-130		
Dibromochloromethane	22.0		µg/l		20.0		110	70-130		
1,2-Dibromoethane (EDB)	19.9		µg/l		20.0		100	70-130		
Dibromomethane	19.3		µg/l		20.0		97	70-130		
1,2-Dichlorobenzene	19.9		µg/l		20.0		100	70-130		
1,3-Dichlorobenzene	20.4		µg/l		20.0		102	70-130		
1,4-Dichlorobenzene	19.1		µg/l		20.0		96	70-130		
Dichlorodifluoromethane (Freon12)	17.0		µg/l		20.0		85	70-130		
1,1-Dichloroethane	19.4		µg/l		20.0		97	70-130		
1,2-Dichloroethane	18.4		µg/l		20.0		92	70-130		

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# Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1602363 - SW846 5030 Water MS</b>										
<b><u>LCS (1602363-BS1)</u></b>	<b><u>Prepared &amp; Analyzed: 09-Feb-16</u></b>									
1,1-Dichloroethene	17.7		µg/l		20.0		88	70-130		
cis-1,2-Dichloroethene	19.5		µg/l		20.0		98	70-130		
trans-1,2-Dichloroethene	20.0		µg/l		20.0		100	70-130		
1,2-Dichloropropane	19.1		µg/l		20.0		96	70-130		
1,3-Dichloropropane	18.9		µg/l		20.0		95	70-130		
2,2-Dichloropropane	19.2		µg/l		20.0		96	70-130		
1,1-Dichloropropene	20.7		µg/l		20.0		103	70-130		
cis-1,3-Dichloropropene	20.8		µg/l		20.0		104	70-130		
trans-1,3-Dichloropropene	20.1		µg/l		20.0		100	70-130		
Ethylbenzene	20.2		µg/l		20.0		101	70-130		
Hexachlorobutadiene	20.9		µg/l		20.0		105	70-130		
2-Hexanone (MBK)	18.6		µg/l		20.0		93	70-130		
Isopropylbenzene	20.8		µg/l		20.0		104	70-130		
4-Isopropyltoluene	20.6		µg/l		20.0		103	70-130		
Methyl tert-butyl ether	19.2		µg/l		20.0		96	70-130		
4-Methyl-2-pentanone (MIBK)	18.9		µg/l		20.0		95	70-130		
Methylene chloride	19.1		µg/l		20.0		96	70-130		
Naphthalene	13.1	QC2	µg/l		20.0		65	70-130		
n-Propylbenzene	20.7		µg/l		20.0		103	70-130		
Styrene	20.4		µg/l		20.0		102	70-130		
1,1,1,2-Tetrachloroethane	21.8		µg/l		20.0		109	70-130		
1,1,2,2-Tetrachloroethane	23.8		µg/l		20.0		119	70-130		
Tetrachloroethene	20.6		µg/l		20.0		103	70-130		
Toluene	19.3		µg/l		20.0		97	70-130		
1,2,3-Trichlorobenzene	17.0		µg/l		20.0		85	70-130		
1,2,4-Trichlorobenzene	16.2		µg/l		20.0		81	70-130		
1,3,5-Trichlorobenzene	20.0		µg/l		20.0		100	70-130		
1,1,1-Trichloroethane	21.1		µg/l		20.0		106	70-130		
1,1,2-Trichloroethane	19.8		µg/l		20.0		99	70-130		
Trichloroethene	18.0		µg/l		20.0		90	70-130		
Trichlorofluoromethane (Freon 11)	18.3		µg/l		20.0		91	70-130		
1,2,3-Trichloropropane	20.2		µg/l		20.0		101	70-130		
1,2,4-Trimethylbenzene	21.2		µg/l		20.0		106	70-130		
1,3,5-Trimethylbenzene	21.0		µg/l		20.0		105	70-130		
Vinyl chloride	16.2		µg/l		20.0		81	70-130		
m,p-Xylene	20.3		µg/l		20.0		102	70-130		
o-Xylene	20.5		µg/l		20.0		102	70-130		
Tetrahydrofuran	18.0		µg/l		20.0		90	70-130		
Ethyl ether	15.9		µg/l		20.0		80	70-130		
Tert-amyl methyl ether	17.6		µg/l		20.0		88	70-130		
Ethyl tert-butyl ether	18.5		µg/l		20.0		92	70-130		
Di-isopropyl ether	18.9		µg/l		20.0		94	70-130		
Tert-Butanol / butyl alcohol	169		µg/l		200		85	70-130		
1,4-Dioxane	205		µg/l		200		103	70-130		
trans-1,4-Dichloro-2-butene	20.4		µg/l		20.0		102	70-130		
Ethanol	321		µg/l		400		80	70-130		
Surrogate: 4-Bromofluorobenzene	50.7		µg/l		50.0		101	70-130		
Surrogate: Toluene-d8	50.0		µg/l		50.0		100	70-130		
Surrogate: 1,2-Dichloroethane-d4	48.1		µg/l		50.0		96	70-130		
Surrogate: Dibromofluoromethane	51.5		µg/l		50.0		103	70-130		
<b><u>LCS Dup (1602363-BSD1)</u></b>	<b><u>Prepared &amp; Analyzed: 09-Feb-16</u></b>									

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# Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1602363 - SW846 5030 Water MS</b>										
<b><u>LCS Dup (1602363-BSD1)</u></b>					<b><u>Prepared &amp; Analyzed: 09-Feb-16</u></b>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	19.7		µg/l		20.0		98	70-130	10	20
Acetone	15.6		µg/l		20.0		78	70-130	5	20
Acrylonitrile	15.4		µg/l		20.0		77	70-130	0.3	20
Benzene	18.2		µg/l		20.0		91	70-130	6	20
Bromobenzene	19.4		µg/l		20.0		97	70-130	2	20
Bromochloromethane	19.5		µg/l		20.0		98	70-130	4	20
Bromodichloromethane	19.2		µg/l		20.0		96	70-130	6	20
Bromoform	22.3		µg/l		20.0		112	70-130	8	20
Bromomethane	14.3		µg/l		20.0		72	70-130	7	20
2-Butanone (MEK)	17.9		µg/l		20.0		89	70-130	0.4	20
n-Butylbenzene	19.1		µg/l		20.0		95	70-130	7	20
sec-Butylbenzene	20.0		µg/l		20.0		100	70-130	7	20
tert-Butylbenzene	20.5		µg/l		20.0		102	70-130	5	20
Carbon disulfide	23.3		µg/l		20.0		117	70-130	7	20
Carbon tetrachloride	19.0		µg/l		20.0		95	70-130	9	20
Chlorobenzene	18.7		µg/l		20.0		94	70-130	4	20
Chloroethane	16.0		µg/l		20.0		80	70-130	7	20
Chloroform	17.6		µg/l		20.0		88	70-130	5	20
Chloromethane	15.6		µg/l		20.0		78	70-130	5	20
2-Chlorotoluene	19.3		µg/l		20.0		96	70-130	6	20
4-Chlorotoluene	19.0		µg/l		20.0		95	70-130	5	20
1,2-Dibromo-3-chloropropane	21.2		µg/l		20.0		106	70-130	8	20
Dibromochloromethane	20.9		µg/l		20.0		104	70-130	5	20
1,2-Dibromoethane (EDB)	19.0		µg/l		20.0		95	70-130	5	20
Dibromomethane	18.6		µg/l		20.0		93	70-130	4	20
1,2-Dichlorobenzene	18.6		µg/l		20.0		93	70-130	7	20
1,3-Dichlorobenzene	19.5		µg/l		20.0		97	70-130	5	20
1,4-Dichlorobenzene	17.9		µg/l		20.0		90	70-130	6	20
Dichlorodifluoromethane (Freon12)	17.9		µg/l		20.0		90	70-130	5	20
1,1-Dichloroethane	18.4		µg/l		20.0		92	70-130	5	20
1,2-Dichloroethane	17.6		µg/l		20.0		88	70-130	4	20
1,1-Dichloroethene	16.8		µg/l		20.0		84	70-130	5	20
cis-1,2-Dichloroethene	18.2		µg/l		20.0		91	70-130	7	20
trans-1,2-Dichloroethene	19.0		µg/l		20.0		95	70-130	5	20
1,2-Dichloropropane	18.3		µg/l		20.0		92	70-130	4	20
1,3-Dichloropropane	17.8		µg/l		20.0		89	70-130	6	20
2,2-Dichloropropane	17.4		µg/l		20.0		87	70-130	10	20
1,1-Dichloropropene	19.1		µg/l		20.0		96	70-130	8	20
cis-1,3-Dichloropropene	19.7		µg/l		20.0		98	70-130	5	20
trans-1,3-Dichloropropene	19.6		µg/l		20.0		98	70-130	2	20
Ethylbenzene	19.3		µg/l		20.0		96	70-130	5	20
Hexachlorobutadiene	19.2		µg/l		20.0		96	70-130	9	20
2-Hexanone (MBK)	18.8		µg/l		20.0		94	70-130	1	20
Isopropylbenzene	19.6		µg/l		20.0		98	70-130	6	20
4-Isopropyltoluene	19.0		µg/l		20.0		95	70-130	8	20
Methyl tert-butyl ether	18.3		µg/l		20.0		92	70-130	4	20
4-Methyl-2-pentanone (MIBK)	18.4		µg/l		20.0		92	70-130	3	20
Methylene chloride	15.9		µg/l		20.0		80	70-130	18	20
Naphthalene	12.7	QC2	µg/l		20.0		64	70-130	3	20
n-Propylbenzene	19.5		µg/l		20.0		98	70-130	6	20
Styrene	19.3		µg/l		20.0		97	70-130	5	20
1,1,1,2-Tetrachloroethane	20.7		µg/l		20.0		104	70-130	5	20

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# Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1602363 - SW846 5030 Water MS</b>										
<b><u>LCS Dup (1602363-BSD1)</u></b>					<b><u>Prepared &amp; Analyzed: 09-Feb-16</u></b>					
1,1,2,2-Tetrachloroethane	23.4		µg/l		20.0		117	70-130	2	20
Tetrachloroethene	19.5		µg/l		20.0		97	70-130	6	20
Toluene	18.1		µg/l		20.0		90	70-130	7	20
1,2,3-Trichlorobenzene	16.2		µg/l		20.0		81	70-130	5	20
1,2,4-Trichlorobenzene	15.7		µg/l		20.0		78	70-130	3	20
1,3,5-Trichlorobenzene	18.8		µg/l		20.0		94	70-130	6	20
1,1,1-Trichloroethane	19.9		µg/l		20.0		100	70-130	6	20
1,1,2-Trichloroethane	18.7		µg/l		20.0		93	70-130	6	20
Trichloroethene	17.1		µg/l		20.0		86	70-130	5	20
Trichlorofluoromethane (Freon 11)	17.1		µg/l		20.0		86	70-130	6	20
1,2,3-Trichloropropane	19.7		µg/l		20.0		98	70-130	3	20
1,2,4-Trimethylbenzene	20.2		µg/l		20.0		101	70-130	4	20
1,3,5-Trimethylbenzene	19.9		µg/l		20.0		99	70-130	6	20
Vinyl chloride	18.2		µg/l		20.0		91	70-130	11	20
m,p-Xylene	19.3		µg/l		20.0		97	70-130	5	20
o-Xylene	19.6		µg/l		20.0		98	70-130	4	20
Tetrahydrofuran	17.7		µg/l		20.0		89	70-130	1	20
Ethyl ether	15.5		µg/l		20.0		77	70-130	3	20
Tert-amyl methyl ether	17.1		µg/l		20.0		85	70-130	3	20
Ethyl tert-butyl ether	17.9		µg/l		20.0		89	70-130	3	20
Di-isopropyl ether	18.0		µg/l		20.0		90	70-130	5	20
Tert-Butanol / butyl alcohol	164		µg/l		200		82	70-130	3	20
1,4-Dioxane	196		µg/l		200		98	70-130	5	20
trans-1,4-Dichloro-2-butene	19.0		µg/l		20.0		95	70-130	7	20
Ethanol	319		µg/l		400		80	70-130	0.5	20
Surrogate: 4-Bromofluorobenzene	51.6		µg/l		50.0		103	70-130		
Surrogate: Toluene-d8	49.6		µg/l		50.0		99	70-130		
Surrogate: 1,2-Dichloroethane-d4	48.6		µg/l		50.0		97	70-130		
Surrogate: Dibromofluoromethane	51.5		µg/l		50.0		103	70-130		
<b><u>Matrix Spike (1602363-MS1)</u></b>					<b><u>Source: SC17886-05</u></b>		<b><u>Prepared &amp; Analyzed: 09-Feb-16</u></b>			
1,1,2-Trichlorotrifluoroethane (Freon 113)	18.5	D	µg/l		20.0	BRL	92	70-130		
Acetone	15.8	D	µg/l		20.0	BRL	79	70-130		
Acrylonitrile	16.0	D	µg/l		20.0	BRL	80	70-130		
Benzene	17.4	D	µg/l		20.0	BRL	87	70-130		
Bromobenzene	20.0	D	µg/l		20.0	BRL	100	70-130		
Bromochloromethane	18.9	D	µg/l		20.0	BRL	94	70-130		
Bromodichloromethane	17.8	D	µg/l		20.0	BRL	89	70-130		
Bromoform	19.9	D	µg/l		20.0	BRL	99	70-130		
Bromomethane	10.6	QM7, D	µg/l		20.0	BRL	53	70-130		
2-Butanone (MEK)	17.1	D	µg/l		20.0	BRL	85	70-130		
n-Butylbenzene	19.1	D	µg/l		20.0	BRL	96	70-130		
sec-Butylbenzene	21.0	D	µg/l		20.0	BRL	105	70-130		
tert-Butylbenzene	21.0	D	µg/l		20.0	BRL	105	70-130		
Carbon disulfide	14.5	QM7, D	µg/l		20.0	1.0	67	70-130		
Carbon tetrachloride	15.9	D	µg/l		20.0	BRL	79	70-130		
Chlorobenzene	19.0	D	µg/l		20.0	BRL	95	70-130		
Chloroethane	13.5	QM7, D	µg/l		20.0	BRL	68	70-130		
Chloroform	17.4	D	µg/l		20.0	BRL	87	70-130		
Chloromethane	11.2	QM7, D	µg/l		20.0	BRL	56	70-130		
2-Chlorotoluene	19.7	D	µg/l		20.0	BRL	99	70-130		
4-Chlorotoluene	19.8	D	µg/l		20.0	BRL	99	70-130		

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# Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1602363 - SW846 5030 Water MS</b>										
<b>Matrix Spike (1602363-MS1)</b>				<b>Source: SC17886-05</b>				<b>Prepared &amp; Analyzed: 09-Feb-16</b>		
1,2-Dibromo-3-chloropropane	18.8	D	µg/l		20.0	BRL	94	70-130		
Dibromochloromethane	19.1	D	µg/l		20.0	BRL	95	70-130		
1,2-Dibromoethane (EDB)	18.4	D	µg/l		20.0	BRL	92	70-130		
Dibromomethane	18.1	D	µg/l		20.0	BRL	91	70-130		
1,2-Dichlorobenzene	19.2	D	µg/l		20.0	BRL	96	70-130		
1,3-Dichlorobenzene	20.1	D	µg/l		20.0	BRL	100	70-130		
1,4-Dichlorobenzene	18.5	D	µg/l		20.0	BRL	93	70-130		
Dichlorodifluoromethane (Freon12)	11.7	QM7, D	µg/l		20.0	BRL	59	70-130		
1,1-Dichloroethane	18.0	D	µg/l		20.0	BRL	90	70-130		
1,2-Dichloroethane	17.6	D	µg/l		20.0	BRL	88	70-130		
1,1-Dichloroethene	14.7	D	µg/l		20.0	BRL	74	70-130		
cis-1,2-Dichloroethene	21.2	D	µg/l		20.0	3.4	89	70-130		
trans-1,2-Dichloroethene	16.9	D	µg/l		20.0	BRL	85	70-130		
1,2-Dichloropropane	18.0	D	µg/l		20.0	BRL	90	70-130		
1,3-Dichloropropane	18.2	D	µg/l		20.0	BRL	91	70-130		
2,2-Dichloropropane	13.3	QM7, D	µg/l		20.0	BRL	67	70-130		
1,1-Dichloropropene	17.4	D	µg/l		20.0	BRL	87	70-130		
cis-1,3-Dichloropropene	17.1	D	µg/l		20.0	BRL	86	70-130		
trans-1,3-Dichloropropene	16.2	D	µg/l		20.0	BRL	81	70-130		
Ethylbenzene	19.4	D	µg/l		20.0	BRL	97	70-130		
Hexachlorobutadiene	20.0	D	µg/l		20.0	BRL	100	70-130		
2-Hexanone (MBK)	18.5	D	µg/l		20.0	BRL	93	70-130		
Isopropylbenzene	20.0	D	µg/l		20.0	BRL	100	70-130		
4-Isopropyltoluene	19.6	D	µg/l		20.0	BRL	98	70-130		
Methyl tert-butyl ether	17.6	D	µg/l		20.0	BRL	88	70-130		
4-Methyl-2-pentanone (MIBK)	18.6	D	µg/l		20.0	BRL	93	70-130		
Methylene chloride	19.8	D	µg/l		20.0	BRL	99	70-130		
Naphthalene	11.2	QC2, D	µg/l		20.0	BRL	56	70-130		
n-Propylbenzene	19.9	D	µg/l		20.0	BRL	99	70-130		
Styrene	19.8	D	µg/l		20.0	BRL	99	70-130		
1,1,1,2-Tetrachloroethane	18.9	D	µg/l		20.0	BRL	95	70-130		
1,1,2,2-Tetrachloroethane	23.8	D	µg/l		20.0	BRL	119	70-130		
Tetrachloroethene	30.6	D	µg/l		20.0	13.1	88	70-130		
Toluene	18.0	D	µg/l		20.0	BRL	90	70-130		
1,2,3-Trichlorobenzene	14.6	D	µg/l		20.0	BRL	73	70-130		
1,2,4-Trichlorobenzene	14.2	D	µg/l		20.0	BRL	71	70-130		
1,3,5-Trichlorobenzene	18.7	D	µg/l		20.0	BRL	93	70-130		
1,1,1-Trichloroethane	17.8	D	µg/l		20.0	BRL	89	70-130		
1,1,2-Trichloroethane	19.4	D	µg/l		20.0	BRL	97	70-130		
Trichloroethene	17.8	D	µg/l		20.0	1.2	83	70-130		
Trichlorofluoromethane (Freon 11)	15.0	D	µg/l		20.0	BRL	75	70-130		
1,2,3-Trichloropropane	20.2	D	µg/l		20.0	BRL	101	70-130		
1,2,4-Trimethylbenzene	20.7	D	µg/l		20.0	BRL	104	70-130		
1,3,5-Trimethylbenzene	20.4	D	µg/l		20.0	BRL	102	70-130		
Vinyl chloride	13.9	D	µg/l		20.0	BRL	70	70-130		
m,p-Xylene	19.4	D	µg/l		20.0	BRL	97	70-130		
o-Xylene	20.1	D	µg/l		20.0	BRL	100	70-130		
Tetrahydrofuran	17.9	D	µg/l		20.0	BRL	89	70-130		
Ethyl ether	14.4	D	µg/l		20.0	BRL	72	70-130		
Tert-amyl methyl ether	16.1	D	µg/l		20.0	BRL	81	70-130		
Ethyl tert-butyl ether	17.0	D	µg/l		20.0	BRL	85	70-130		
Di-isopropyl ether	17.8	D	µg/l		20.0	BRL	89	70-130		

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# Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1602363 - SW846 5030 Water MS</b>										
<b><u>Matrix Spike (1602363-MS1)</u></b>	<b><u>Source: SC17886-05</u></b>				<b><u>Prepared &amp; Analyzed: 09-Feb-16</u></b>					
Tert-Butanol / butyl alcohol	158	D	µg/l		200	BRL	79	70-130		
1,4-Dioxane	202	D	µg/l		200	BRL	101	70-130		
trans-1,4-Dichloro-2-butene	18.0	D	µg/l		20.0	BRL	90	70-130		
Ethanol	344	D	µg/l		400	BRL	86	70-130		
Surrogate: 4-Bromofluorobenzene	51.7		µg/l		50.0		103	70-130		
Surrogate: Toluene-d8	49.5		µg/l		50.0		99	70-130		
Surrogate: 1,2-Dichloroethane-d4	47.6		µg/l		50.0		95	70-130		
Surrogate: Dibromofluoromethane	50.2		µg/l		50.0		100	70-130		
<b><u>Matrix Spike Dup (1602363-MSD1)</u></b>	<b><u>Source: SC17886-05</u></b>				<b><u>Prepared &amp; Analyzed: 09-Feb-16</u></b>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	18.7	D	µg/l		20.0	BRL	94	70-130	1	20
Acetone	16.8	D	µg/l		20.0	BRL	84	70-130	6	20
Acrylonitrile	15.8	D	µg/l		20.0	BRL	79	70-130	2	20
Benzene	18.0	D	µg/l		20.0	BRL	90	70-130	3	20
Bromobenzene	20.2	D	µg/l		20.0	BRL	101	70-130	1	20
Bromochloromethane	19.6	D	µg/l		20.0	BRL	98	70-130	4	20
Bromodichloromethane	18.6	D	µg/l		20.0	BRL	93	70-130	4	20
Bromoform	21.0	D	µg/l		20.0	BRL	105	70-130	5	20
Bromomethane	11.4	QM7, D	µg/l		20.0	BRL	57	70-130	8	20
2-Butanone (MEK)	18.6	D	µg/l		20.0	BRL	93	70-130	8	20
n-Butylbenzene	19.4	D	µg/l		20.0	BRL	97	70-130	1	20
sec-Butylbenzene	20.8	D	µg/l		20.0	BRL	104	70-130	0.5	20
tert-Butylbenzene	21.0	D	µg/l		20.0	BRL	105	70-130	0.4	20
Carbon disulfide	14.9	D	µg/l		20.0	1.0	70	70-130	3	20
Carbon tetrachloride	16.4	D	µg/l		20.0	BRL	82	70-130	4	20
Chlorobenzene	19.2	D	µg/l		20.0	BRL	96	70-130	0.8	20
Chloroethane	13.6	QM7, D	µg/l		20.0	BRL	68	70-130	0.2	20
Chloroform	18.2	D	µg/l		20.0	BRL	91	70-130	4	20
Chloromethane	11.3	QM7, D	µg/l		20.0	BRL	56	70-130	0.6	20
2-Chlorotoluene	20.0	D	µg/l		20.0	BRL	100	70-130	1	20
4-Chlorotoluene	19.5	D	µg/l		20.0	BRL	98	70-130	1	20
1,2-Dibromo-3-chloropropane	19.4	D	µg/l		20.0	BRL	97	70-130	3	20
Dibromochloromethane	20.0	D	µg/l		20.0	BRL	100	70-130	5	20
1,2-Dibromoethane (EDB)	19.2	D	µg/l		20.0	BRL	96	70-130	5	20
Dibromomethane	19.1	D	µg/l		20.0	BRL	95	70-130	5	20
1,2-Dichlorobenzene	19.9	D	µg/l		20.0	BRL	100	70-130	4	20
1,3-Dichlorobenzene	20.2	D	µg/l		20.0	BRL	101	70-130	0.8	20
1,4-Dichlorobenzene	18.8	D	µg/l		20.0	BRL	94	70-130	1	20
Dichlorodifluoromethane (Freon12)	12.3	QM7, D	µg/l		20.0	BRL	62	70-130	5	20
1,1-Dichloroethane	18.3	D	µg/l		20.0	BRL	91	70-130	2	20
1,2-Dichloroethane	18.1	D	µg/l		20.0	BRL	91	70-130	3	20
1,1-Dichloroethene	14.7	D	µg/l		20.0	BRL	73	70-130	0.2	20
cis-1,2-Dichloroethene	22.0	D	µg/l		20.0	3.4	93	70-130	4	20
trans-1,2-Dichloroethene	17.2	D	µg/l		20.0	BRL	86	70-130	2	20
1,2-Dichloropropane	18.5	D	µg/l		20.0	BRL	92	70-130	3	20
1,3-Dichloropropane	18.8	D	µg/l		20.0	BRL	94	70-130	3	20
2,2-Dichloropropane	13.9	QM7, D	µg/l		20.0	BRL	69	70-130	4	20
1,1-Dichloropropene	17.7	D	µg/l		20.0	BRL	88	70-130	2	20
cis-1,3-Dichloropropene	18.0	D	µg/l		20.0	BRL	90	70-130	5	20
trans-1,3-Dichloropropene	17.2	D	µg/l		20.0	BRL	86	70-130	6	20
Ethylbenzene	19.5	D	µg/l		20.0	BRL	98	70-130	0.6	20
Hexachlorobutadiene	20.0	D	µg/l		20.0	BRL	100	70-130	0.05	20

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# Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1602363 - SW846 5030 Water MS</b>										
<b><u>Matrix Spike Dup (1602363-MSD1)</u></b>	<b><u>Source: SC17886-05</u></b>				<b><u>Prepared &amp; Analyzed: 09-Feb-16</u></b>					
2-Hexanone (MBK)	18.8	D	µg/l		20.0	BRL	94	70-130	2	20
Isopropylbenzene	20.1	D	µg/l		20.0	BRL	101	70-130	0.5	20
4-Isopropyltoluene	20.0	D	µg/l		20.0	BRL	100	70-130	2	20
Methyl tert-butyl ether	18.3	D	µg/l		20.0	BRL	92	70-130	4	20
4-Methyl-2-pentanone (MIBK)	19.5	D	µg/l		20.0	BRL	97	70-130	4	20
Methylene chloride	19.9	D	µg/l		20.0	BRL	99	70-130	0.6	20
Naphthalene	11.8	QC2, D	µg/l		20.0	BRL	59	70-130	6	20
n-Propylbenzene	20.3	D	µg/l		20.0	BRL	101	70-130	2	20
Styrene	20.0	D	µg/l		20.0	BRL	100	70-130	1	20
1,1,1,2-Tetrachloroethane	19.2	D	µg/l		20.0	BRL	96	70-130	1	20
1,1,2,2-Tetrachloroethane	23.8	D	µg/l		20.0	BRL	119	70-130	0.3	20
Tetrachloroethene	30.9	D	µg/l		20.0	13.1	89	70-130	1	20
Toluene	18.4	D	µg/l		20.0	BRL	92	70-130	2	20
1,2,3-Trichlorobenzene	15.3	D	µg/l		20.0	BRL	77	70-130	5	20
1,2,4-Trichlorobenzene	14.4	D	µg/l		20.0	BRL	72	70-130	1	20
1,3,5-Trichlorobenzene	18.9	D	µg/l		20.0	BRL	95	70-130	1	20
1,1,1-Trichloroethane	18.1	D	µg/l		20.0	BRL	90	70-130	2	20
1,1,2-Trichloroethane	20.0	D	µg/l		20.0	BRL	100	70-130	3	20
Trichloroethene	18.0	D	µg/l		20.0	1.2	84	70-130	1	20
Trichlorofluoromethane (Freon 11)	15.2	D	µg/l		20.0	BRL	76	70-130	1	20
1,2,3-Trichloropropane	20.9	D	µg/l		20.0	BRL	104	70-130	3	20
1,2,4-Trimethylbenzene	20.8	D	µg/l		20.0	BRL	104	70-130	0.2	20
1,3,5-Trimethylbenzene	20.7	D	µg/l		20.0	BRL	104	70-130	1	20
Vinyl chloride	10.8	QM7, QR5, D	µg/l		20.0	BRL	54	70-130	25	20
m,p-Xylene	19.8	D	µg/l		20.0	BRL	99	70-130	2	20
o-Xylene	20.1	D	µg/l		20.0	BRL	101	70-130	0.1	20
Tetrahydrofuran	18.4	D	µg/l		20.0	BRL	92	70-130	3	20
Ethyl ether	14.6	D	µg/l		20.0	BRL	73	70-130	1	20
Tert-amyl methyl ether	16.6	D	µg/l		20.0	BRL	83	70-130	3	20
Ethyl tert-butyl ether	17.5	D	µg/l		20.0	BRL	87	70-130	3	20
Di-isopropyl ether	18.3	D	µg/l		20.0	BRL	91	70-130	2	20
Tert-Butanol / butyl alcohol	165	D	µg/l		200	BRL	83	70-130	4	20
1,4-Dioxane	208	D	µg/l		200	BRL	104	70-130	3	20
trans-1,4-Dichloro-2-butene	17.6	D	µg/l		20.0	BRL	88	70-130	2	20
Ethanol	364	D	µg/l		400	BRL	91	70-130	6	20
Surrogate: 4-Bromofluorobenzene	51.1		µg/l		50.0		102	70-130		
Surrogate: Toluene-d8	50.2		µg/l		50.0		100	70-130		
Surrogate: 1,2-Dichloroethane-d4	48.1		µg/l		50.0		96	70-130		
Surrogate: Dibromofluoromethane	50.9		µg/l		50.0		102	70-130		
<b>Batch 1602364 - SW846 5030 Water MS</b>										
<b><u>Blank (1602364-BLK1)</u></b>	<b><u>Prepared &amp; Analyzed: 09-Feb-16</u></b>									
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.5		µg/l	0.5						
Benzene	< 1.0		µg/l	1.0						
Bromobenzene	< 1.0		µg/l	1.0						
Bromochloromethane	< 1.0		µg/l	1.0						
Bromodichloromethane	< 0.5		µg/l	0.5						
Bromoform	< 1.0		µg/l	1.0						
Bromomethane	< 2.0		µg/l	2.0						
2-Butanone (MEK)	< 10.0		µg/l	10.0						

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# Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1602364 - SW846 5030 Water MS</b>										
<b><u>Blank (1602364-BLK1)</u></b>	<b><u>Prepared &amp; Analyzed: 09-Feb-16</u></b>									
n-Butylbenzene	< 1.0		µg/l	1.0						
sec-Butylbenzene	< 1.0		µg/l	1.0						
tert-Butylbenzene	< 1.0		µg/l	1.0						
Carbon disulfide	< 2.0		µg/l	2.0						
Carbon tetrachloride	< 1.0		µg/l	1.0						
Chlorobenzene	< 1.0		µg/l	1.0						
Chloroethane	< 2.0		µg/l	2.0						
Chloroform	< 1.0		µg/l	1.0						
Chloromethane	< 2.0		µg/l	2.0						
2-Chlorotoluene	< 1.0		µg/l	1.0						
4-Chlorotoluene	< 1.0		µg/l	1.0						
1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0						
Dibromochloromethane	< 0.5		µg/l	0.5						
1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5						
Dibromomethane	< 1.0		µg/l	1.0						
1,2-Dichlorobenzene	< 1.0		µg/l	1.0						
1,3-Dichlorobenzene	< 1.0		µg/l	1.0						
1,4-Dichlorobenzene	< 1.0		µg/l	1.0						
Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0						
1,1-Dichloroethane	< 1.0		µg/l	1.0						
1,2-Dichloroethane	< 1.0		µg/l	1.0						
1,1-Dichloroethene	< 1.0		µg/l	1.0						
cis-1,2-Dichloroethene	< 1.0		µg/l	1.0						
trans-1,2-Dichloroethene	< 1.0		µg/l	1.0						
1,2-Dichloropropane	< 1.0		µg/l	1.0						
1,3-Dichloropropane	< 1.0		µg/l	1.0						
2,2-Dichloropropane	< 1.0		µg/l	1.0						
1,1-Dichloropropene	< 1.0		µg/l	1.0						
cis-1,3-Dichloropropene	< 0.5		µg/l	0.5						
trans-1,3-Dichloropropene	< 0.5		µg/l	0.5						
Ethylbenzene	< 1.0		µg/l	1.0						
Hexachlorobutadiene	< 0.5		µg/l	0.5						
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.0		µg/l	1.0						
4-Isopropyltoluene	< 1.0		µg/l	1.0						
Methyl tert-butyl ether	< 1.0		µg/l	1.0						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.0		µg/l	2.0						
Naphthalene	< 1.0		µg/l	1.0						
n-Propylbenzene	< 1.0		µg/l	1.0						
Styrene	< 1.0		µg/l	1.0						
1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0						
1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5						
Tetrachloroethene	< 1.0		µg/l	1.0						
Toluene	< 1.0		µg/l	1.0						
1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0						
1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0						
1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0						
1,1,1-Trichloroethane	< 1.0		µg/l	1.0						
1,1,2-Trichloroethane	< 1.0		µg/l	1.0						
Trichloroethene	< 1.0		µg/l	1.0						
Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0						

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# Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1602364 - SW846 5030 Water MS</b>										
<b>Blank (1602364-BLK1)</b>					<u>Prepared &amp; Analyzed: 09-Feb-16</u>					
1,2,3-Trichloropropane	< 1.0		µg/l	1.0						
1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0						
1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0						
Vinyl chloride	< 1.0		µg/l	1.0						
m,p-Xylene	< 2.0		µg/l	2.0						
o-Xylene	< 1.0		µg/l	1.0						
Tetrahydrofuran	< 2.0		µg/l	2.0						
Ethyl ether	< 1.0		µg/l	1.0						
Tert-amyl methyl ether	< 1.0		µg/l	1.0						
Ethyl tert-butyl ether	< 1.0		µg/l	1.0						
Di-isopropyl ether	< 1.0		µg/l	1.0						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0						
Ethanol	< 400		µg/l	400						
<i>Surrogate: 4-Bromofluorobenzene</i>	45.4		µg/l		50.0		91	70-130		
<i>Surrogate: Toluene-d8</i>	48.9		µg/l		50.0		98	70-130		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	54.4		µg/l		50.0		109	70-130		
<i>Surrogate: Dibromofluoromethane</i>	52.8		µg/l		50.0		106	70-130		
<b>LCS (1602364-BS1)</b>					<u>Prepared &amp; Analyzed: 09-Feb-16</u>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	25.5		µg/l		20.0		128	70-130		
Acetone	23.3		µg/l		20.0		116	70-130		
Acrylonitrile	22.2		µg/l		20.0		111	70-130		
Benzene	22.1		µg/l		20.0		110	70-130		
Bromobenzene	21.8		µg/l		20.0		109	70-130		
Bromochloromethane	23.7		µg/l		20.0		119	70-130		
Bromodichloromethane	20.9		µg/l		20.0		105	70-130		
Bromoform	23.7		µg/l		20.0		119	70-130		
Bromomethane	20.4		µg/l		20.0		102	70-130		
2-Butanone (MEK)	20.9		µg/l		20.0		104	70-130		
n-Butylbenzene	25.2		µg/l		20.0		126	70-130		
sec-Butylbenzene	22.5		µg/l		20.0		112	70-130		
tert-Butylbenzene	26.5	QM9	µg/l		20.0		132	70-130		
Carbon disulfide	22.6		µg/l		20.0		113	70-130		
Carbon tetrachloride	25.3		µg/l		20.0		127	70-130		
Chlorobenzene	20.8		µg/l		20.0		104	70-130		
Chloroethane	21.1		µg/l		20.0		106	70-130		
Chloroform	21.4		µg/l		20.0		107	70-130		
Chloromethane	18.7		µg/l		20.0		94	70-130		
2-Chlorotoluene	23.7		µg/l		20.0		119	70-130		
4-Chlorotoluene	23.7		µg/l		20.0		118	70-130		
1,2-Dibromo-3-chloropropane	21.3		µg/l		20.0		106	70-130		
Dibromochloromethane	21.1		µg/l		20.0		106	70-130		
1,2-Dibromoethane (EDB)	21.6		µg/l		20.0		108	70-130		
Dibromomethane	22.2		µg/l		20.0		111	70-130		
1,2-Dichlorobenzene	21.8		µg/l		20.0		109	70-130		
1,3-Dichlorobenzene	22.6		µg/l		20.0		113	70-130		
1,4-Dichlorobenzene	19.9		µg/l		20.0		100	70-130		
Dichlorodifluoromethane (Freon12)	24.2		µg/l		20.0		121	70-130		
1,1-Dichloroethane	21.2		µg/l		20.0		106	70-130		
1,2-Dichloroethane	20.4		µg/l		20.0		102	70-130		

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# Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1602364 - SW846 5030 Water MS</b>										
<b><u>LCS (1602364-BS1)</u></b>	<b><u>Prepared &amp; Analyzed: 09-Feb-16</u></b>									
1,1-Dichloroethene	24.2		µg/l		20.0		121	70-130		
cis-1,2-Dichloroethene	22.0		µg/l		20.0		110	70-130		
trans-1,2-Dichloroethene	22.3		µg/l		20.0		111	70-130		
1,2-Dichloropropane	21.1		µg/l		20.0		105	70-130		
1,3-Dichloropropane	20.6		µg/l		20.0		103	70-130		
2,2-Dichloropropane	23.2		µg/l		20.0		116	70-130		
1,1-Dichloropropene	24.8		µg/l		20.0		124	70-130		
cis-1,3-Dichloropropene	22.0		µg/l		20.0		110	70-130		
trans-1,3-Dichloropropene	21.6		µg/l		20.0		108	70-130		
Ethylbenzene	23.1		µg/l		20.0		115	70-130		
Hexachlorobutadiene	24.2		µg/l		20.0		121	70-130		
2-Hexanone (MBK)	21.2		µg/l		20.0		106	70-130		
Isopropylbenzene	24.0		µg/l		20.0		120	70-130		
4-Isopropyltoluene	24.3		µg/l		20.0		121	70-130		
Methyl tert-butyl ether	21.4		µg/l		20.0		107	70-130		
4-Methyl-2-pentanone (MIBK)	23.3		µg/l		20.0		116	70-130		
Methylene chloride	20.9		µg/l		20.0		104	70-130		
Naphthalene	17.9		µg/l		20.0		89	70-130		
n-Propylbenzene	24.2		µg/l		20.0		121	70-130		
Styrene	23.4		µg/l		20.0		117	70-130		
1,1,1,2-Tetrachloroethane	21.8		µg/l		20.0		109	70-130		
1,1,2,2-Tetrachloroethane	21.6		µg/l		20.0		108	70-130		
Tetrachloroethene	23.7		µg/l		20.0		118	70-130		
Toluene	21.3		µg/l		20.0		107	70-130		
1,2,3-Trichlorobenzene	23.8		µg/l		20.0		119	70-130		
1,2,4-Trichlorobenzene	22.9		µg/l		20.0		114	70-130		
1,3,5-Trichlorobenzene	23.5		µg/l		20.0		117	70-130		
1,1,1-Trichloroethane	24.0		µg/l		20.0		120	70-130		
1,1,2-Trichloroethane	21.2		µg/l		20.0		106	70-130		
Trichloroethene	22.3		µg/l		20.0		111	70-130		
Trichlorofluoromethane (Freon 11)	25.9		µg/l		20.0		130	70-130		
1,2,3-Trichloropropane	21.3		µg/l		20.0		107	70-130		
1,2,4-Trimethylbenzene	26.1	QM9	µg/l		20.0		131	70-130		
1,3,5-Trimethylbenzene	26.8	QM9	µg/l		20.0		134	70-130		
Vinyl chloride	22.9		µg/l		20.0		115	70-130		
m,p-Xylene	24.9		µg/l		20.0		124	70-130		
o-Xylene	25.0		µg/l		20.0		125	70-130		
Tetrahydrofuran	20.4		µg/l		20.0		102	70-130		
Ethyl ether	21.4		µg/l		20.0		107	70-130		
Tert-amyl methyl ether	23.4		µg/l		20.0		117	70-130		
Ethyl tert-butyl ether	21.3		µg/l		20.0		106	70-130		
Di-isopropyl ether	21.6		µg/l		20.0		108	70-130		
Tert-Butanol / butyl alcohol	198		µg/l		200		99	70-130		
1,4-Dioxane	239		µg/l		200		120	70-130		
trans-1,4-Dichloro-2-butene	20.7		µg/l		20.0		103	70-130		
Ethanol	415		µg/l		400		104	70-130		
Surrogate: 4-Bromofluorobenzene	51.2		µg/l		50.0		102	70-130		
Surrogate: Toluene-d8	49.5		µg/l		50.0		99	70-130		
Surrogate: 1,2-Dichloroethane-d4	49.6		µg/l		50.0		99	70-130		
Surrogate: Dibromofluoromethane	50.5		µg/l		50.0		101	70-130		
<b><u>LCS Dup (1602364-BSD1)</u></b>	<b><u>Prepared &amp; Analyzed: 09-Feb-16</u></b>									

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# Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1602364 - SW846 5030 Water MS</b>										
<b><u>LCS Dup (1602364-BSD1)</u></b>					<b><u>Prepared &amp; Analyzed: 09-Feb-16</u></b>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	23.1		µg/l		20.0		115	70-130	10	20
Acetone	21.9		µg/l		20.0		110	70-130	6	20
Acrylonitrile	21.2		µg/l		20.0		106	70-130	5	20
Benzene	20.7		µg/l		20.0		104	70-130	7	20
Bromobenzene	20.7		µg/l		20.0		104	70-130	5	20
Bromochloromethane	22.6		µg/l		20.0		113	70-130	5	20
Bromodichloromethane	19.9		µg/l		20.0		100	70-130	5	20
Bromoform	22.8		µg/l		20.0		114	70-130	4	20
Bromomethane	19.4		µg/l		20.0		97	70-130	5	20
2-Butanone (MEK)	22.1		µg/l		20.0		111	70-130	6	20
n-Butylbenzene	22.4		µg/l		20.0		112	70-130	12	20
sec-Butylbenzene	21.4		µg/l		20.0		107	70-130	5	20
tert-Butylbenzene	24.7		µg/l		20.0		124	70-130	7	20
Carbon disulfide	20.8		µg/l		20.0		104	70-130	8	20
Carbon tetrachloride	23.4		µg/l		20.0		117	70-130	8	20
Chlorobenzene	19.8		µg/l		20.0		99	70-130	5	20
Chloroethane	19.4		µg/l		20.0		97	70-130	8	20
Chloroform	20.1		µg/l		20.0		100	70-130	6	20
Chloromethane	17.9		µg/l		20.0		90	70-130	4	20
2-Chlorotoluene	22.6		µg/l		20.0		113	70-130	5	20
4-Chlorotoluene	22.4		µg/l		20.0		112	70-130	6	20
1,2-Dibromo-3-chloropropane	20.1		µg/l		20.0		100	70-130	6	20
Dibromochloromethane	20.4		µg/l		20.0		102	70-130	3	20
1,2-Dibromoethane (EDB)	21.0		µg/l		20.0		105	70-130	3	20
Dibromomethane	21.4		µg/l		20.0		107	70-130	4	20
1,2-Dichlorobenzene	19.8		µg/l		20.0		99	70-130	9	20
1,3-Dichlorobenzene	21.7		µg/l		20.0		109	70-130	4	20
1,4-Dichlorobenzene	18.1		µg/l		20.0		91	70-130	9	20
Dichlorodifluoromethane (Freon12)	22.8		µg/l		20.0		114	70-130	6	20
1,1-Dichloroethane	20.0		µg/l		20.0		100	70-130	6	20
1,2-Dichloroethane	19.6		µg/l		20.0		98	70-130	4	20
1,1-Dichloroethene	22.3		µg/l		20.0		112	70-130	8	20
cis-1,2-Dichloroethene	21.0		µg/l		20.0		105	70-130	5	20
trans-1,2-Dichloroethene	20.9		µg/l		20.0		105	70-130	6	20
1,2-Dichloropropane	19.8		µg/l		20.0		99	70-130	6	20
1,3-Dichloropropane	19.3		µg/l		20.0		97	70-130	6	20
2,2-Dichloropropane	21.2		µg/l		20.0		106	70-130	9	20
1,1-Dichloropropene	22.8		µg/l		20.0		114	70-130	8	20
cis-1,3-Dichloropropene	21.1		µg/l		20.0		105	70-130	5	20
trans-1,3-Dichloropropene	21.1		µg/l		20.0		106	70-130	2	20
Ethylbenzene	21.7		µg/l		20.0		108	70-130	6	20
Hexachlorobutadiene	22.0		µg/l		20.0		110	70-130	10	20
2-Hexanone (MBK)	21.0		µg/l		20.0		105	70-130	1	20
Isopropylbenzene	22.6		µg/l		20.0		113	70-130	6	20
4-Isopropyltoluene	21.9		µg/l		20.0		110	70-130	10	20
Methyl tert-butyl ether	20.8		µg/l		20.0		104	70-130	3	20
4-Methyl-2-pentanone (MIBK)	22.6		µg/l		20.0		113	70-130	3	20
Methylene chloride	19.9		µg/l		20.0		100	70-130	5	20
Naphthalene	16.6		µg/l		20.0		83	70-130	7	20
n-Propylbenzene	22.8		µg/l		20.0		114	70-130	6	20
Styrene	22.2		µg/l		20.0		111	70-130	5	20
1,1,1,2-Tetrachloroethane	21.0		µg/l		20.0		105	70-130	4	20

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# Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1602364 - SW846 5030 Water MS</b>										
<b><u>LCS Dup (1602364-BSD1)</u></b>					<b><u>Prepared &amp; Analyzed: 09-Feb-16</u></b>					
1,1,2,2-Tetrachloroethane	20.8		µg/l		20.0		104	70-130	3	20
Tetrachloroethene	22.0		µg/l		20.0		110	70-130	7	20
Toluene	20.2		µg/l		20.0		101	70-130	5	20
1,2,3-Trichlorobenzene	21.7		µg/l		20.0		108	70-130	9	20
1,2,4-Trichlorobenzene	21.1		µg/l		20.0		105	70-130	8	20
1,3,5-Trichlorobenzene	21.2		µg/l		20.0		106	70-130	10	20
1,1,1-Trichloroethane	22.5		µg/l		20.0		112	70-130	7	20
1,1,2-Trichloroethane	20.4		µg/l		20.0		102	70-130	4	20
Trichloroethene	20.9		µg/l		20.0		105	70-130	6	20
Trichlorofluoromethane (Freon 11)	23.7		µg/l		20.0		118	70-130	9	20
1,2,3-Trichloropropane	20.5		µg/l		20.0		103	70-130	4	20
1,2,4-Trimethylbenzene	25.0		µg/l		20.0		125	70-130	5	20
1,3,5-Trimethylbenzene	25.5		µg/l		20.0		128	70-130	5	20
Vinyl chloride	21.3		µg/l		20.0		107	70-130	7	20
m,p-Xylene	23.4		µg/l		20.0		117	70-130	6	20
o-Xylene	24.0		µg/l		20.0		120	70-130	4	20
Tetrahydrofuran	20.6		µg/l		20.0		103	70-130	1	20
Ethyl ether	20.6		µg/l		20.0		103	70-130	3	20
Tert-amyl methyl ether	22.7		µg/l		20.0		113	70-130	3	20
Ethyl tert-butyl ether	20.6		µg/l		20.0		103	70-130	3	20
Di-isopropyl ether	20.8		µg/l		20.0		104	70-130	4	20
Tert-Butanol / butyl alcohol	195		µg/l		200		98	70-130	1	20
1,4-Dioxane	229		µg/l		200		114	70-130	4	20
trans-1,4-Dichloro-2-butene	20.3		µg/l		20.0		102	70-130	2	20
Ethanol	393		µg/l		400		98	70-130	6	20
Surrogate: 4-Bromofluorobenzene	52.2		µg/l		50.0		104	70-130		
Surrogate: Toluene-d8	49.9		µg/l		50.0		100	70-130		
Surrogate: 1,2-Dichloroethane-d4	48.2		µg/l		50.0		96	70-130		
Surrogate: Dibromofluoromethane	49.8		µg/l		50.0		100	70-130		
<b>Batch 1602521 - SW846 5030 Water MS</b>										
<b><u>Blank (1602521-BLK1)</u></b>					<b><u>Prepared &amp; Analyzed: 11-Feb-16</u></b>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.5		µg/l	0.5						
Benzene	< 1.0		µg/l	1.0						
Bromobenzene	< 1.0		µg/l	1.0						
Bromochloromethane	< 1.0		µg/l	1.0						
Bromodichloromethane	< 0.5		µg/l	0.5						
Bromoform	< 1.0		µg/l	1.0						
Bromomethane	< 2.0		µg/l	2.0						
2-Butanone (MEK)	< 10.0		µg/l	10.0						
n-Butylbenzene	< 1.0		µg/l	1.0						
sec-Butylbenzene	< 1.0		µg/l	1.0						
tert-Butylbenzene	< 1.0		µg/l	1.0						
Carbon disulfide	< 2.0		µg/l	2.0						
Carbon tetrachloride	< 1.0		µg/l	1.0						
Chlorobenzene	< 1.0		µg/l	1.0						
Chloroethane	< 2.0		µg/l	2.0						
Chloroform	< 1.0		µg/l	1.0						
Chloromethane	< 2.0		µg/l	2.0						
2-Chlorotoluene	< 1.0		µg/l	1.0						

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# Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1602521 - SW846 5030 Water MS</b>										
<b><u>Blank (1602521-BLK1)</u></b>	<b><u>Prepared &amp; Analyzed: 11-Feb-16</u></b>									
4-Chlorotoluene	< 1.0		µg/l	1.0						
1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0						
Dibromochloromethane	< 0.5		µg/l	0.5						
1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5						
Dibromomethane	< 1.0		µg/l	1.0						
1,2-Dichlorobenzene	< 1.0		µg/l	1.0						
1,3-Dichlorobenzene	< 1.0		µg/l	1.0						
1,4-Dichlorobenzene	< 1.0		µg/l	1.0						
Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0						
1,1-Dichloroethane	< 1.0		µg/l	1.0						
1,2-Dichloroethane	< 1.0		µg/l	1.0						
1,1-Dichloroethene	< 1.0		µg/l	1.0						
cis-1,2-Dichloroethene	< 1.0		µg/l	1.0						
trans-1,2-Dichloroethene	< 1.0		µg/l	1.0						
1,2-Dichloropropane	< 1.0		µg/l	1.0						
1,3-Dichloropropane	< 1.0		µg/l	1.0						
2,2-Dichloropropane	< 1.0		µg/l	1.0						
1,1-Dichloropropene	< 1.0		µg/l	1.0						
cis-1,3-Dichloropropene	< 0.5		µg/l	0.5						
trans-1,3-Dichloropropene	< 0.5		µg/l	0.5						
Ethylbenzene	< 1.0		µg/l	1.0						
Hexachlorobutadiene	< 0.5		µg/l	0.5						
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.0		µg/l	1.0						
4-Isopropyltoluene	< 1.0		µg/l	1.0						
Methyl tert-butyl ether	< 1.0		µg/l	1.0						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.0		µg/l	2.0						
Naphthalene	< 1.0		µg/l	1.0						
n-Propylbenzene	< 1.0		µg/l	1.0						
Styrene	< 1.0		µg/l	1.0						
1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0						
1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5						
Tetrachloroethene	< 1.0		µg/l	1.0						
Toluene	< 1.0		µg/l	1.0						
1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0						
1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0						
1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0						
1,1,1-Trichloroethane	< 1.0		µg/l	1.0						
1,1,2-Trichloroethane	< 1.0		µg/l	1.0						
Trichloroethene	< 1.0		µg/l	1.0						
Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0						
1,2,3-Trichloropropane	< 1.0		µg/l	1.0						
1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0						
1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0						
Vinyl chloride	< 1.0		µg/l	1.0						
m,p-Xylene	< 2.0		µg/l	2.0						
o-Xylene	< 1.0		µg/l	1.0						
Tetrahydrofuran	< 2.0		µg/l	2.0						
Ethyl ether	< 1.0		µg/l	1.0						
Tert-amyl methyl ether	< 1.0		µg/l	1.0						
Ethyl tert-butyl ether	< 1.0		µg/l	1.0						

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# Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1602521 - SW846 5030 Water MS</b>										
<b><u>Blank (1602521-BLK1)</u></b>					<b><u>Prepared &amp; Analyzed: 11-Feb-16</u></b>					
Di-isopropyl ether	< 1.0		µg/l	1.0						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0						
Ethanol	< 400		µg/l	400						
<i>Surrogate: 4-Bromofluorobenzene</i>	46.5		µg/l		50.0		93	70-130		
<i>Surrogate: Toluene-d8</i>	50.4		µg/l		50.0		101	70-130		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	52.2		µg/l		50.0		104	70-130		
<i>Surrogate: Dibromofluoromethane</i>	52.0		µg/l		50.0		104	70-130		
<b><u>LCS (1602521-BS1)</u></b>					<b><u>Prepared &amp; Analyzed: 11-Feb-16</u></b>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	20.1		µg/l		20.0		101	70-130		
Acetone	20.4		µg/l		20.0		102	70-130		
Acrylonitrile	21.0		µg/l		20.0		105	70-130		
Benzene	22.1		µg/l		20.0		110	70-130		
Bromobenzene	21.3		µg/l		20.0		106	70-130		
Bromochloromethane	21.5		µg/l		20.0		108	70-130		
Bromodichloromethane	22.0		µg/l		20.0		110	70-130		
Bromoform	20.4		µg/l		20.0		102	70-130		
Bromomethane	20.4		µg/l		20.0		102	70-130		
2-Butanone (MEK)	21.0		µg/l		20.0		105	70-130		
n-Butylbenzene	18.6		µg/l		20.0		93	70-130		
sec-Butylbenzene	19.5		µg/l		20.0		98	70-130		
tert-Butylbenzene	19.8		µg/l		20.0		99	70-130		
Carbon disulfide	20.3		µg/l		20.0		102	70-130		
Carbon tetrachloride	20.2		µg/l		20.0		101	70-130		
Chlorobenzene	20.1		µg/l		20.0		100	70-130		
Chloroethane	21.1		µg/l		20.0		106	70-130		
Chloroform	20.6		µg/l		20.0		103	70-130		
Chloromethane	19.7		µg/l		20.0		99	70-130		
2-Chlorotoluene	22.0		µg/l		20.0		110	70-130		
4-Chlorotoluene	19.9		µg/l		20.0		99	70-130		
1,2-Dibromo-3-chloropropane	20.4		µg/l		20.0		102	70-130		
Dibromochloromethane	20.7		µg/l		20.0		104	70-130		
1,2-Dibromoethane (EDB)	22.2		µg/l		20.0		111	70-130		
Dibromomethane	21.3		µg/l		20.0		107	70-130		
1,2-Dichlorobenzene	21.1		µg/l		20.0		105	70-130		
1,3-Dichlorobenzene	21.8		µg/l		20.0		109	70-130		
1,4-Dichlorobenzene	19.2		µg/l		20.0		96	70-130		
Dichlorodifluoromethane (Freon12)	21.0		µg/l		20.0		105	70-130		
1,1-Dichloroethane	21.0		µg/l		20.0		105	70-130		
1,2-Dichloroethane	20.8		µg/l		20.0		104	70-130		
1,1-Dichloroethene	22.6		µg/l		20.0		113	70-130		
cis-1,2-Dichloroethene	21.0		µg/l		20.0		105	70-130		
trans-1,2-Dichloroethene	21.1		µg/l		20.0		106	70-130		
1,2-Dichloropropane	21.7		µg/l		20.0		109	70-130		
1,3-Dichloropropane	21.5		µg/l		20.0		107	70-130		
2,2-Dichloropropane	17.9		µg/l		20.0		90	70-130		
1,1-Dichloropropene	20.2		µg/l		20.0		101	70-130		
cis-1,3-Dichloropropene	20.0		µg/l		20.0		100	70-130		
trans-1,3-Dichloropropene	20.4		µg/l		20.0		102	70-130		
Ethylbenzene	21.9		µg/l		20.0		110	70-130		

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# Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1602521 - SW846 5030 Water MS</b>										
<b><u>LCS (1602521-BS1)</u></b>					<b><u>Prepared &amp; Analyzed: 11-Feb-16</u></b>					
Hexachlorobutadiene	20.5		µg/l		20.0		103	70-130		
2-Hexanone (MBK)	21.6		µg/l		20.0		108	70-130		
Isopropylbenzene	21.1		µg/l		20.0		106	70-130		
4-Isopropyltoluene	19.5		µg/l		20.0		97	70-130		
Methyl tert-butyl ether	18.7		µg/l		20.0		93	70-130		
4-Methyl-2-pentanone (MIBK)	22.8		µg/l		20.0		114	70-130		
Methylene chloride	20.2		µg/l		20.0		101	70-130		
Naphthalene	21.9		µg/l		20.0		110	70-130		
n-Propylbenzene	19.5		µg/l		20.0		98	70-130		
Styrene	20.1		µg/l		20.0		101	70-130		
1,1,1,2-Tetrachloroethane	21.3		µg/l		20.0		107	70-130		
1,1,2,2-Tetrachloroethane	21.1		µg/l		20.0		105	70-130		
Tetrachloroethene	20.9		µg/l		20.0		104	70-130		
Toluene	21.6		µg/l		20.0		108	70-130		
1,2,3-Trichlorobenzene	22.1		µg/l		20.0		110	70-130		
1,2,4-Trichlorobenzene	21.0		µg/l		20.0		105	70-130		
1,3,5-Trichlorobenzene	19.6		µg/l		20.0		98	70-130		
1,1,1-Trichloroethane	21.7		µg/l		20.0		109	70-130		
1,1,2-Trichloroethane	21.2		µg/l		20.0		106	70-130		
Trichloroethene	21.5		µg/l		20.0		107	70-130		
Trichlorofluoromethane (Freon 11)	20.8		µg/l		20.0		104	70-130		
1,2,3-Trichloropropane	21.6		µg/l		20.0		108	70-130		
1,2,4-Trimethylbenzene	19.6		µg/l		20.0		98	70-130		
1,3,5-Trimethylbenzene	19.8		µg/l		20.0		99	70-130		
Vinyl chloride	20.6		µg/l		20.0		103	70-130		
m,p-Xylene	20.0		µg/l		20.0		100	70-130		
o-Xylene	20.6		µg/l		20.0		103	70-130		
Tetrahydrofuran	19.0		µg/l		20.0		95	70-130		
Ethyl ether	21.5		µg/l		20.0		108	70-130		
Tert-amyl methyl ether	22.1		µg/l		20.0		110	70-130		
Ethyl tert-butyl ether	18.5		µg/l		20.0		92	70-130		
Di-isopropyl ether	20.5		µg/l		20.0		103	70-130		
Tert-Butanol / butyl alcohol	186		µg/l		200		93	70-130		
1,4-Dioxane	210		µg/l		200		105	70-130		
trans-1,4-Dichloro-2-butene	20.4		µg/l		20.0		102	70-130		
Ethanol	466		µg/l		400		117	70-130		
Surrogate: 4-Bromofluorobenzene	51.1		µg/l		50.0		102	70-130		
Surrogate: Toluene-d8	50.8		µg/l		50.0		102	70-130		
Surrogate: 1,2-Dichloroethane-d4	48.9		µg/l		50.0		98	70-130		
Surrogate: Dibromofluoromethane	50.2		µg/l		50.0		100	70-130		
<b><u>LCS Dup (1602521-BS1)</u></b>					<b><u>Prepared &amp; Analyzed: 11-Feb-16</u></b>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	21.4		µg/l		20.0		107	70-130	6	20
Acetone	21.5		µg/l		20.0		108	70-130	6	20
Acrylonitrile	21.4		µg/l		20.0		107	70-130	1	20
Benzene	22.9		µg/l		20.0		114	70-130	4	20
Bromobenzene	21.7		µg/l		20.0		109	70-130	2	20
Bromochloromethane	22.0		µg/l		20.0		110	70-130	2	20
Bromodichloromethane	22.9		µg/l		20.0		114	70-130	4	20
Bromoform	21.0		µg/l		20.0		105	70-130	3	20
Bromomethane	20.7		µg/l		20.0		103	70-130	1	20
2-Butanone (MEK)	22.0		µg/l		20.0		110	70-130	5	20

*This laboratory report is not valid without an authorized signature on the cover page.*



# Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1602521 - SW846 5030 Water MS</b>										
<b><u>LCS Dup (1602521-BSD1)</u></b>	<b><u>Prepared &amp; Analyzed: 11-Feb-16</u></b>									
n-Butylbenzene	20.2		µg/l		20.0		101	70-130	9	20
sec-Butylbenzene	21.0		µg/l		20.0		105	70-130	7	20
tert-Butylbenzene	21.2		µg/l		20.0		106	70-130	6	20
Carbon disulfide	21.6		µg/l		20.0		108	70-130	6	20
Carbon tetrachloride	21.6		µg/l		20.0		108	70-130	7	20
Chlorobenzene	20.9		µg/l		20.0		104	70-130	4	20
Chloroethane	21.7		µg/l		20.0		108	70-130	2	20
Chloroform	21.2		µg/l		20.0		106	70-130	3	20
Chloromethane	21.1		µg/l		20.0		106	70-130	7	20
2-Chlorotoluene	22.9		µg/l		20.0		115	70-130	4	20
4-Chlorotoluene	21.0		µg/l		20.0		105	70-130	5	20
1,2-Dibromo-3-chloropropane	20.1		µg/l		20.0		100	70-130	1	20
Dibromochloromethane	21.0		µg/l		20.0		105	70-130	2	20
1,2-Dibromoethane (EDB)	22.7		µg/l		20.0		114	70-130	2	20
Dibromomethane	22.2		µg/l		20.0		111	70-130	4	20
1,2-Dichlorobenzene	21.8		µg/l		20.0		109	70-130	3	20
1,3-Dichlorobenzene	22.6		µg/l		20.0		113	70-130	4	20
1,4-Dichlorobenzene	20.2		µg/l		20.0		101	70-130	5	20
Dichlorodifluoromethane (Freon12)	21.9		µg/l		20.0		110	70-130	4	20
1,1-Dichloroethane	21.8		µg/l		20.0		109	70-130	4	20
1,2-Dichloroethane	21.2		µg/l		20.0		106	70-130	2	20
1,1-Dichloroethene	24.3		µg/l		20.0		122	70-130	7	20
cis-1,2-Dichloroethene	21.6		µg/l		20.0		108	70-130	2	20
trans-1,2-Dichloroethene	22.1		µg/l		20.0		110	70-130	4	20
1,2-Dichloropropane	21.8		µg/l		20.0		109	70-130	0.6	20
1,3-Dichloropropane	21.7		µg/l		20.0		109	70-130	1	20
2,2-Dichloropropane	18.8		µg/l		20.0		94	70-130	5	20
1,1-Dichloropropene	21.6		µg/l		20.0		108	70-130	7	20
cis-1,3-Dichloropropene	20.6		µg/l		20.0		103	70-130	3	20
trans-1,3-Dichloropropene	20.7		µg/l		20.0		104	70-130	2	20
Ethylbenzene	23.4		µg/l		20.0		117	70-130	6	20
Hexachlorobutadiene	22.1		µg/l		20.0		110	70-130	7	20
2-Hexanone (MBK)	22.5		µg/l		20.0		112	70-130	4	20
Isopropylbenzene	22.3		µg/l		20.0		111	70-130	5	20
4-Isopropyltoluene	20.5		µg/l		20.0		103	70-130	5	20
Methyl tert-butyl ether	19.3		µg/l		20.0		97	70-130	3	20
4-Methyl-2-pentanone (MIBK)	23.2		µg/l		20.0		116	70-130	2	20
Methylene chloride	20.5		µg/l		20.0		103	70-130	2	20
Naphthalene	23.3		µg/l		20.0		116	70-130	6	20
n-Propylbenzene	21.2		µg/l		20.0		106	70-130	8	20
Styrene	21.0		µg/l		20.0		105	70-130	4	20
1,1,1,2-Tetrachloroethane	22.4		µg/l		20.0		112	70-130	5	20
1,1,2,2-Tetrachloroethane	21.9		µg/l		20.0		110	70-130	4	20
Tetrachloroethene	22.0		µg/l		20.0		110	70-130	5	20
Toluene	22.3		µg/l		20.0		111	70-130	3	20
1,2,3-Trichlorobenzene	23.2		µg/l		20.0		116	70-130	5	20
1,2,4-Trichlorobenzene	21.4		µg/l		20.0		107	70-130	2	20
1,3,5-Trichlorobenzene	21.1		µg/l		20.0		106	70-130	7	20
1,1,1-Trichloroethane	23.1		µg/l		20.0		115	70-130	6	20
1,1,2-Trichloroethane	21.8		µg/l		20.0		109	70-130	3	20
Trichloroethene	23.0		µg/l		20.0		115	70-130	7	20
Trichlorofluoromethane (Freon 11)	22.1		µg/l		20.0		110	70-130	6	20

*This laboratory report is not valid without an authorized signature on the cover page.*

# Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1602521 - SW846 5030 Water MS</b>										
<b><u>LCS Dup (1602521-BSD1)</u></b>					<b><u>Prepared &amp; Analyzed: 11-Feb-16</u></b>					
1,2,3-Trichloropropane	22.1		µg/l		20.0		111	70-130	2	20
1,2,4-Trimethylbenzene	20.6		µg/l		20.0		103	70-130	5	20
1,3,5-Trimethylbenzene	20.8		µg/l		20.0		104	70-130	5	20
Vinyl chloride	21.1		µg/l		20.0		106	70-130	2	20
m,p-Xylene	21.1		µg/l		20.0		105	70-130	5	20
o-Xylene	21.3		µg/l		20.0		107	70-130	3	20
Tetrahydrofuran	21.5		µg/l		20.0		108	70-130	12	20
Ethyl ether	22.0		µg/l		20.0		110	70-130	2	20
Tert-amyl methyl ether	22.6		µg/l		20.0		113	70-130	3	20
Ethyl tert-butyl ether	18.9		µg/l		20.0		94	70-130	2	20
Di-isopropyl ether	21.2		µg/l		20.0		106	70-130	3	20
Tert-Butanol / butyl alcohol	191		µg/l		200		96	70-130	3	20
1,4-Dioxane	229		µg/l		200		114	70-130	9	20
trans-1,4-Dichloro-2-butene	20.8		µg/l		20.0		104	70-130	2	20
Ethanol	495		µg/l		400		124	70-130	6	20
Surrogate: 4-Bromofluorobenzene	52.1		µg/l		50.0		104	70-130		
Surrogate: Toluene-d8	50.6		µg/l		50.0		101	70-130		
Surrogate: 1,2-Dichloroethane-d4	49.2		µg/l		50.0		98	70-130		
Surrogate: Dibromofluoromethane	49.6		µg/l		50.0		99	70-130		

*This laboratory report is not valid without an authorized signature on the cover page.*

## Notes and Definitions

B	Analyte is found in the associated blank as well as in the sample (CLP B-flag).
D	Data reported from a dilution
E	This flag indicates the concentration for this analyte is an estimated value due to exceeding the calibration range or interferences resulting in a biased final concentration.
GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
QB2	The method blank contains analyte at a concentration above the MRL, however no reportable concentration is present in the sample.
QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
QM7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM9	The spike recovery for this QC sample is outside the established control limits. The sample results for the QC batch were accepted based on LCS/LCSD or SRM recoveries within the control limits.
QR5	RPD out of acceptance range.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by:  
Kimberly LaPlante



# CHAIN OF CUSTODY RECORD

Page 1 of 23 *BC*

## Special Handling:

☒ Standard TAT - 7 to 10 business days

☐ Rush TAT - Date Needed: \_\_\_\_\_

All TATs subject to laboratory approval

Min. 24-hr notification needed for rushes

Samples disposed after 60 days unless otherwise instructed.

Report To: ECS Brattleboro  
70 Landmark Hill Rd  
Brattleboro, VT, 05301

Invoice To: ECS AGAWAM

Project No: 04-224488.00

Site Name: BJC Depot St., Windsor GWS

Location: Windsor, VT. Depot St. State: VT

Sampler(s): Bradley Conway, Jason S.K.

Telephone #: 802-257-1195  
Project Mgr: Alicia Flammia

P.O. No.: \_\_\_\_\_ Quote/RQN: Extreme

F=Field Filtered 1=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> 2=HCl 3=H<sub>2</sub>SO<sub>4</sub> 4=HNO<sub>3</sub> 5=NaOH 6=Ascorbic Acid  
7=CH<sub>3</sub>OH 8=NaHSO<sub>4</sub> 9=Deionized Water 10=H<sub>3</sub>PO<sub>4</sub> 11= Ice 12= \_\_\_\_\_

## List Preservative Code below:

211 \_\_\_\_\_

DW=Dinking Water GW=Groundwater SW=Surface Water WW=Waste Water

O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas

X1= \_\_\_\_\_ X2= \_\_\_\_\_ X3= \_\_\_\_\_

## Containers

## Analysis

## QA/QC Reporting Notes:

\* additional charges may apply

MA DEP MCP CAM Report? ☐ Yes ☒ No  
CT DPH RCP Report? ☐ Yes ☒ No

☒ Standard ☐ No QC

☐ DQA\*

☐ ASP A\*

☐ ASP B\*

☐ NJ Reduced\*

☐ NJ Full\*

☐ Tier II\*

☐ Tier IV\*

☒ Other: VT DEC

State-specific reporting standards:

G= Grab				C=Compsite				Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	VOC	SVOC	PCB	Pesticides	Metals	Other	Check if chlorinated
Lab ID:	Sample ID:	Date:	Time:																	
17886-01	CBM-5	2/1/2016	11:20	G	GW	3								X						
-02	CBM-4		11:43			3								X						
	<del>CBM-3</del>		12:25			3								X						
-03	CBM-2		13:05			3								X						
-04	CBM-1		13:20			3								X						
	<del>J-GW-DEP 8</del>		14:05			3								X						
-05	J-GW-DEP 9		14:12			3								X						
-06	J-GW-APT 2		15:35			3								X						
-07	J-GW-APT 3		15:55			3								X						
-08	GAI-35		16:25			3								X						

Relinquished by:

Received by:

Date:

Time:

Temp °C

☐ EDJ format:

☒ E-mail to:

AFLAMMIA@ECSCONSULT.COM

JKARABAKAKIS@ECSCONSULT.COM

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken

☐ Ambient ☐ Iced ☒ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen



# CHAIN OF CUSTODY RECORD

Page 2 of 3

## Special Handling:

☒ Standard TAT - 7 to 10 business days

☐ Rush TAT - Date Needed: \_\_\_\_\_

All TATs subject to laboratory approval

Min. 24-hr notification needed for rushes

Samples disposed after 60 days unless otherwise instructed.

Report To: ECS Brattleboro  
70 Landmark Hill Rd.  
Brattleboro, VT, 05301

Invoice To: ECS AGAWAM

Project No: 04-224488.00

Site Name: Depot St., Windsor, GWS

Location: Windsor, VT, Depot St. State: VT

Sampler(s): Bradley Conway, JASON SK

Telephone #: 802-257-1195

Project Mgr: Alicia Flammia

P.O No.: \_\_\_\_\_ Quote/RQN: Extreme

F=Field Filtered 1=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> 2=HCl 3=H<sub>2</sub>SO<sub>4</sub> 4=HNO<sub>3</sub> 5=NaOH 6=Ascorbic Acid  
7=CH<sub>3</sub>OH 8=NaHSO<sub>4</sub> 9=Deionized Water 10=H<sub>3</sub>PO<sub>4</sub> 11= ICE 12= \_\_\_\_\_

## List Preservative Code below:

2, 11

DW=Dinking Water GW=Groundwater SW=Surface Water WW=Waste Water

O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas

X1= DI H<sub>2</sub>O / HCl X2= \_\_\_\_\_ X3= \_\_\_\_\_

## Containers

## Analysis

## QA/QC Reporting Notes:

\* additional charges may apply

MA DEP MCP CAM Report? ☐ Yes ☒ No  
CT DPH RCP Report? ☐ Yes ☒ No

☒ Standard ☐ No QC

☐ DQA\*

☐ ASP A\*

☐ ASP B\*

☐ NJ Reduced\*

☐ NJ Full\*

☐ Tier II\*

☐ Tier IV\*

☒ Other: VTDEC  
State-specific reporting standards:

G= Grab				C=Compsite				Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic										
Lab ID:	Sample ID:	Date:	Time:																				
1788-09	GAI-2S	2/1/2016	17:25	G	GW	3																	
10	GAI-3D		17:35			3																	
11	GAI-1D		18:37			3																	
12	GAI-1S		18:55			3																	
13	Trip Blank		8:00		X1	1																	
14	Duplicate		8:05		GW	3																	
15	Equipment Blank		8:05		X1	1																	
16	Trip Blank	2/3/2016	9:00	G	X1	1																	
17	CMB-3		13:25		GW	3																	
18	J-GW-DEP 8		14:15			3																	

Relinquished by:

Received by:

Date:

Time:

Temp °C

☐ EDD format:

☒ E-mail to:

AFLAMMIA@ECSCONSULT.COM

JKARABAKAKIS@ECSCONSULT.COM

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken

☐ Ambient ☐ Iced ☒ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen







# CHAIN OF CUSTODY RECORD

Page

1

of

23 BC

## Special Handling:

☒ Standard TAT - 7 to 10 business days☐ Rush TAT - Date Needed: \_\_\_\_\_

All TATs subject to laboratory approval

Min. 24-hr notification needed for rushes

Samples disposed after 60 days unless otherwise instructed.

Report To: ECS Brattleboro  
70 Landmark Hill Rd  
Brattleboro, VT, 05301Invoice To: ECS AGAWAMProject No: 04-224488.00Site Name: BJC Depot St., Windsor GWSLocation: Windsor, VT. Depot St. State: VTSampler(s): Bradley Conway, Jason SKTelephone #: 802-257-1195  
Project Mgr: Alicia FlammiaP.O No.: \_\_\_\_\_ Quote/RQN: ExtremeF=Field Filtered 1=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> 2=HCl 3=H<sub>2</sub>SO<sub>4</sub> 4=HNO<sub>3</sub> 5=NaOH 6=Ascorbic Acid  
7=CH<sub>3</sub>OH 8=NaHSO<sub>4</sub> 9=Deionized Water 10=H<sub>3</sub>PO<sub>4</sub> 11= Ice 12= \_\_\_\_\_

### List Preservative Code below:

### QA/QC Reporting Notes:

\* additional charges may apply

DW=Dinking Water GW=Groundwater SW=Surface Water WW=Waste Water

O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas

X1= \_\_\_\_\_ X2= \_\_\_\_\_ X3= \_\_\_\_\_

G= Grab

C=Compsite

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analysis	Check if chlorinated
17886-01	CBM-5	2/1/2016	11:20	G	GW	3				X	
-02	CBM-4		11:43			3				X	
	<del>CBM-3</del>		<del>12:25</del>			3				X	BC
-03	CBM-2		13:05			3				X	
-04	CBM-1		13:20			3				X	
	J-GW-DEP 8		14:05			3				X	BC
-05	J-GW-DEP 9		14:12			3				X	
-06	J-GW-APT 2		15:35			3				X	
-07	J-GW-APT 3		15:55			3				X	
-08	GAI-35		16:25			3				X	

Relinquished by:	Received by:	Date:	Time:	Temp °C	EDQ format:
<u>Bradley Conway</u>	<u>Alicia Flammia</u>	<u>2-4-16</u>	<u>1100</u>	<u>2.6</u>	<input checked="" type="checkbox"/> E-mail to:
	<u>Orlando</u>	<u>2/4/16</u>	<u>1533</u>	<u>0</u>	<u>AFLAMMIA@ECSCONSULT.COM</u>
				<u>2.6</u>	<u>JKARABAKAKIS@ECSCONSULT.COM</u>
				<u>02</u>	Condition upon receipt: Custody Seals: <input type="checkbox"/> Present <input type="checkbox"/> Intact <input type="checkbox"/> Broken
					<input type="checkbox"/> Ambient <input type="checkbox"/> Iced <input checked="" type="checkbox"/> Refrigerated <input type="checkbox"/> DI VOA Frozen <input type="checkbox"/> Soil Jar Frozen