

March 28, 2022  
File No. 25216186.00

Mr. Paul Grittner  
Wisconsin Department of Natural Resources  
141 NW Barstow Street, Room 180  
Waukesha, WI 53188

Subject: Site Investigation Report and Request to Submit for Case Closure  
Arctic Laundry & Cleaners (former)  
5619 22<sup>nd</sup> Avenue, Kenosha, Wisconsin  
BRRTS #02-30-245843

Dear Mr. Grittner:

SCS Engineers (SCS) prepared the enclosed Site Investigation Report for the Arctic Laundry & Cleaners site located at 5619 22<sup>nd</sup> Avenue in Kenosha, Wisconsin (**Figure 1**). The purpose of the investigation was to evaluate the degree and extent of chlorinated volatile organic compounds in soil, groundwater, sub-slab vapor, and indoor air related to a release of dry cleaning solvent.

Based on site investigation findings and limited access to the source area, we are requesting that the Wisconsin Department of Natural Resources (WDNR) approve the site investigation as complete and provide approval to move forward with submittal of a case closure request with vapor mitigation and cap maintenance plans to address residual soil and vapor contamination. We have enclosed a check for payment of the WDNR's \$1,050 Site Investigation Report (SIR) review fee.

If you have any questions regarding this SIR, please contact Robert Langdon at 608-212-3995.

Sincerely,



Robert Langdon  
Senior Project Manager  
SCS Engineers



Jacob Krause, PG  
Project Hydrogeologist  
SCS Engineers

JJK/REL/AJR\_jsn/RT

cc: Vanessa Wishart – Stafford Rosenbaum, LLP

Encl. Check for SIR Review Fee  
Site Investigation Report

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# Site Investigation Report

Arctic Laundry & Cleaners (former)  
5619 22<sup>nd</sup> Avenue  
Kenosha, Wisconsin 53140

Prepared for:

Roy Baietto  
1850 19<sup>th</sup> Avenue  
Kenosha, Wisconsin 53140

**SCS ENGINEERS**

25216186.00 | March 28, 2022

2830 Dairy Drive  
Madison, WI 53718-6751  
608-224-2830

## EXECUTIVE SUMMARY

SCS Engineers (SCS), on behalf of Mr. Roy Baietto, performed a site investigation to evaluate the degree and extent of impacts resulting from a dry cleaning solvent release at the former Arctic Laundry & Cleaners located at 5619 22<sup>nd</sup> Avenue in Kenosha, Wisconsin (the site or source property). The site was operated as a dry cleaning facility until approximately 1996. Wisconsin Department of Natural Resources (WDNR) records indicate that spent dry cleaning solvent may have been discharged to the ground surface behind (east of) the facility until sometime in 1984 and a dry cleaning solvent spill, which reached a basement floor sump, had occurred inside the facility in February 1994. The WDNR sent a letter on May 4, 1994, to Mr. Baietto, the site operator at the time, identifying him as the “responsible party” and requiring investigation and cleanup of the spent solvent.

To evaluate impacts resulting from spent solvent releases at the site, a total of 14 soil borings (GP-1 through GP-11 and MW-1 through MW-3) were advanced at the source and nearby properties, with one to two soil samples submitted for laboratory analysis of volatile organic compounds (VOCs) from each boring location (**Figure 2**). Grab groundwater samples for analysis of VOCs were collected from soil borings GP-1 through GP-11. Borings MW-1 through MW-3 were converted to NR 141-compliant groundwater monitoring wells, and three rounds of groundwater samples for VOCs were collected.

The results of soil and groundwater sampling indicated that chlorinated VOCs (CVOCs) were present at concentrations exceeding NR 720 Residual Contaminant Levels (RCLs) for soil and NR 140 Preventative Action Limits (PALs) and Enforcement Standards (ESs) for groundwater. The CVOc impacts have been delineated to the extent practicable within soil and groundwater (**Figures 5 and 6**), with the most elevated concentrations in both soil and groundwater identified east and north of the source property building and concentrations decreasing with distance from this area. Groundwater flow is to the northwest at the site, and the extent of the groundwater plume appears stable.

Based on the lack of direct contact RCL exceedances and the lack of nearby receptors for human exposure to groundwater (i.e., drinking water wells), the risk posed by residual impacts in soil and groundwater is minimal. However, due to the presence of CVOcs in soil and groundwater near existing buildings on and off site, a vapor intrusion assessment was warranted to evaluate potential risk to those structures.

A total of nine sub-slab vapor sampling ports were installed within the source property building, the Midnight Liquor and Bar property to the north and the Pa’s Pizzeria building to the south, to evaluate potential vapor intrusion. Sub-slab vapor samples collected from these ports indicated that concentrations of CVOcs were present in excess of WDNR’s Vapor Risk Screening Levels (VRLs) beneath the source property building only. Indoor air sampling also indicated minimal risk to the off-site buildings, with limited detections at concentrations below WDNR’s Vapor Action Levels (VALs). One sample within the source property building contained trichloroethene (TCE) at a concentration greater than its VAL for residential buildings, but it is possible that a secondary source such as chemicals or other products stored nearby could be the cause of the exceedance. Regardless, a sub-slab vapor mitigation system (VMS) was installed within the source property building to interrupt potential migration of CVOc vapors from below the slab. Post-installation indoor air sampling showed decreased CVOc vapor concentrations, with no VAL exceedances reported.

In summary, soil, groundwater, vapor, and air testing at the former Arctic Laundry and Cleaners site has delineated the degree and extent of CVOcs in the environment and allowed an evaluation of risk posed by the identified impacts. Risks associated with residual soil and groundwater impacts at the

site is deemed low due to the lack of direct contact RCL exceedances in soil, the stable character of the groundwater plume, and the lack of nearby groundwater receptors. The risk of vapor intrusion to the source property building, which was identified through sub-slab vapor and indoor air sampling, has been addressed with the construction and continued operation of a VMS. Other nearby buildings were not found to be at risk of vapor intrusion associated with the CVOC release at the site.

We request written concurrence with our recommendation that the site investigation be approved as complete, and that the proposed plan to move forward with a case closure request submittal is appropriate.



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## CERTIFICATIONS

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



\_\_\_\_\_  
Signature

\_\_\_\_\_  
Project Hydrogeologist

Title

\_\_\_\_\_  
March 28, 2022

Date



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## 1.0 INTRODUCTION

### 1.1 PURPOSE

The purpose of the investigation was to evaluate the degree and extent of chlorinated volatile organic compounds (CVOCs) in soil, groundwater, and air related to a release of dry cleaning solvent.

### 1.2 LOCATION AND PROJECT INFORMATION

1. Site Owner: John C. Ekornaas Revocable Trust
2. Responsible Party: Mr. Roy Baietto (former site owner and operator)
3. Site Address: 5619 22<sup>nd</sup> Avenue  
Kenosha, WI
4. Site Location (**Figure 1**): SW $\frac{1}{4}$  of SW $\frac{1}{4}$ , Section 31, T.2N, R.23E.  
Kenosha County
5. Environmental Consultant: SCS Engineers  
2830 Dairy Drive  
Madison, WI 53718-6751  
Phone: 608-224-2830  
Fax: 608-224-2839
6. Project Hydrogeologist: Jacob Krause, PG, SCS Engineers
7. Project Manager: Robert Langdon, SCS Engineers
8. Project Director: Tom Karwoski, PG, SCS Engineers
9. BRRTS #: 02-30-245843
10. WDNR Contact: Paul Grittner  
Phone: 414-405-0764

## 2.0 SITE BACKGROUND

The property is located along the east side of 22<sup>nd</sup> Avenue between 56<sup>th</sup> Street and 57<sup>th</sup> Street, approximately 6,000 feet west of Lake Michigan (**Figure 1**) and is currently owned by the John C. Ekornaas Revocable Trust. Property deeds are included in **Appendix A**. The subject property was formerly operated as a dry cleaning business and is located in an area of mixed commercial and residential properties. The property is improved by a two-story building with a basement, first floor commercial spaces, and second floor residential apartment spaces.

According to the Wisconsin Department of Natural Resources (WDNR), spent dry cleaning solvent may have been discharged to the ground surface behind (east of) the facility up until sometime in 1984, and a dry cleaning solvent spill, which reached a basement floor sump, had occurred inside the facility in February 1994. On May 4, 1994, the WDNR sent a “responsible party” (RP) letter to Mr. Roy Baietto, the site operator at the time, requiring investigation and cleanup of the spent

solvent. Soil and groundwater contamination, consistent with a dry cleaning solvent release, was identified during investigation activities performed by Sigma Environmental Services, Inc. (Sigma) in August 1994. Between 1994 and 1995, work on the project included a limited soil and groundwater investigation completed by Sigma.

Initial investigation findings were summarized in Sigma's reports dated October 26, 1994, and December 14, 1995. Sigma reported that CVOCs were detected in soil and groundwater to the east and north of the subject property building.

CVOCs including tetrachlorethylene (PCE) and cis-1,2-dichloroethylene (cis-1,2-DCE) were detected in soil at concentrations up to 2,700 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ). Only PCE exceeded an NR 720 residual contaminant level (RCL) for the groundwater pathway. CVOC soil concentrations did not exceed direct contact RCLs.

CVOCs including PCE, trichloroethylene (TCE), and cis-1,2-DCE were detected in groundwater at concentrations up to 50 micrograms per liter ( $\mu\text{g}/\text{l}$ ). Only PCE was detected in excess of an NR 140 groundwater enforcement standard (ES).

Shortly after these initial phases of work were completed, the Responsible Party ceased work on the project, stating financial hardship. According to a letter sent to WDNR by Mr. Baietto on March 29, 2013, Mr. Baietto sold the property in 1996 or 1997. It is assumed that dry cleaning operations ceased around this time and the property was converted to different commercial use by the new owner.

After WDNR requested updates on the investigation status, Mr. Baietto and insurance counsel contracted SCS Engineers in 2016 to continue work on the project. Work performed since 2016 has focused primarily on determining the extent of groundwater impacts and completion of a vapor intrusion assessment of multiple properties, including the source property and properties to the north and south of the source property that were considered most at-risk for vapor migration due to their proximity to the source.

## 3.0 SITE INVESTIGATION

### 3.1 METHODS

Methods for site investigation activities have been described in detail in the previously submitted site investigation work plan and subsequent site investigation updates. The only sampling completed since the last site investigation update was a second round of indoor air sampling at the source property building, which utilized the same methodology as the previous indoor air sampling.

### 3.2 SCOPE OF WORK

The following site investigation and interim action activities have been performed by SCS since taking over as the consultant for the project in 2016:

- **Advancement and sampling of eight additional direct push technology (DPT) borings to a maximum depth of 15 feet below ground surface (bgs).** Previous borings GP-1 through GP-6 were completed by Sigma in the 1990's. Additional borings GP-7 through GP-11 and MW-1 through MW-3 were completed by SCS in 2017. The borings were properly abandoned in accordance with NR 141, with the exception of borings MW-1 through

MW-3, which were immediately converted to NR 141-compliant groundwater monitoring wells. Soil samples were analyzed for volatile organic compounds (VOCs).

- **Installation and sampling of three monitoring wells (MW-1 through MW-3).** The wells were constructed to a maximum depth of 15 feet bgs and developed according to NR 141 standards. Groundwater samples were analyzed for VOCs.
- **Requesting access for vapor intrusion assessment sampling at the following off-source properties** (access response and vapor intrusion status shown in parenthesis):
  - 5621/5625 22<sup>nd</sup> Avenue, Pa's Pizzeria (Approved, sampled, determined not at risk).
  - 5605 22<sup>nd</sup> Avenue, Midnight Liquor and Bar (Approved, sampled, determined not at risk).
- **Installation and sampling of building sub-slab vapor probes at the source property and at adjacent off-source properties.** One to two rounds of sub-slab samples collected from sub-slab vapor probes SS-1 through SS-9 were submitted for laboratory analysis of PCE, TCE, cis-1,2-DCE, trans-1,2-dichloroethene (trans-1,2-DCE), and vinyl chloride.
- **Indoor air sampling at the source property and adjacent off-source properties.** Two rounds of indoor air samples were submitted for laboratory analysis of PCE, TCE, cis-1,2-DCE, trans-1,2-DCE, and vinyl chloride.
- **Vapor mitigation.** Installation of a sub-slab vapor mitigation system (VMS) within the source property building to address the risk of vapor intrusion.
- **Management of investigation-derived waste (IDW).** Monitoring well water was discharged to the Madison Metropolitan Sewerage District (MMSD). Soil was transported to licensed facilities for disposal. Available disposal documentation is included in **Appendix B**.
- **Preparation and submittal of site investigation updates.** As phases of work were completed, project updates were submitted via email and in letter reports to WDNR:
  - Initial phases of work completed by Sigma were documented in reports dated October 26, 1994, and December 14, 1995, which were submitted by Sigma to WDNR.
  - Email summaries were provided by SCS on February 24 and March 10, 2017, documenting the results of soil and groundwater sampling at the site.
  - A letter report dated March 24, 2017, was submitted by SCS to provide additional details of the soil, groundwater, and vapor investigation activities completed by SCS since taking over as the consultant for the site.
  - An email update was provided on January 23, 2018, regarding access agreements and schedule for on- and off-site vapor sampling activities.
  - Copies of sub-slab vapor and indoor air sampling results sent to owners and occupants of the source property building and adjacent off-source properties were provided to WDNR in November 2019.

- A letter report dated November 18, 2019, was submitted to provide a summary of additional groundwater monitoring, vapor evaluation, and vapor mitigation activities.
- Project updates were provided via email on September 18 and October 2, 2020.
- Preparation and submittal of this report to summarize site investigation activities and interim actions completed to date and to request WDNR concurrence that the site investigation is complete.

### 3.3 FINDINGS

Sample locations are shown on **Figure 2**. Soil boring logs, borehole abandonment forms, and well construction documentation forms are included in **Appendix C**. Geologic cross-section details are provided in **Figures 3** and **4**.

Laboratory analytical reports are included in **Appendix D**. Laboratory analytical results, applicable WDNR standards, and water level measurements are summarized in **Tables 1** through **5**.

The estimated extents of soil and groundwater concentrations greater than WDNR standards are shown on **Figures 4** through **6**. A water table map based on August 2020 water levels is included as **Figure 7**. Sub-slab vapor and indoor air results are shown on **Figure 8**.

#### 3.3.1 Soils, Geology, and Hydrogeology

Site soils include up to 5 feet of sandy fill underlain by clay or silt to a maximum investigation depth of 15 feet bgs. Groundwater was observed within the silt layer at a depth of approximately 9 feet bgs.

Bedrock was not encountered during the investigation. The depth to dolomite bedrock in the vicinity of the site is anticipated to be approximately 125 to 170 feet bgs, based on historic well construction logs available on the Wisconsin Geologic and Natural History Survey website.

Groundwater flow is to the northwest as shown on **Figure 7** at a gradient of approximately 0.02 feet per foot (ft/ft).

Site-specific hydraulic conductivity testing was not performed due to the relatively limited and stable CVOC groundwater impacts with a defined downgradient extent. The estimated range of hydraulic conductivity based on the silt soil observed at or below the water table is  $1 \times 10^{-5}$  to  $1 \times 10^{-3}$  centimeters per second (cm/sec) (Freeze and Cherry, 1979). The estimated groundwater flow rate at the water table is approximately 8 feet per year based on the estimated mean hydraulic conductivity ( $1 \times 10^{-4}$ ), 0.02 ft/ft gradient, and assumed effective porosity for the silt unit of 0.25.

There are no municipal wells within 1,200 feet of the site. Drinking water in the City of Kenosha is supplied from Lake Michigan, which is located approximately 1 mile to the east of the site.

#### 3.3.2 Soil Results

Soil analytical results are summarized in **Table 1**. The estimated horizontal and vertical extent of soil exceeding NR 720 RCLs is shown on **Figures 4** and **5**. CVOCs are present in soil at concentrations in excess of NR 720 groundwater pathway RCLs. Additional details are provided below:



- PCE and TCE were the only CVOCs detected in excess of NR 720 groundwater pathway RCLs. Direct contact RCL exceedances were not reported. PCE was detected across much of the site. TCE was only detected at soil boring GP-4.
- The maximum detected concentrations of PCE are found at soil borings GP-11 (17,000 µg/kg), MW-3 (3,200 µg/kg), and GP-10 (3,200 µg/kg), which are located east and north of the site building. The area near MW-3 is where historic releases of dry cleaning solvent were suspected by WDNR. GP-11 is located near an exterior door on the north side of the site building where additional solvent may have been released historically. GP-10 is located west of GP-11 along the site building's northern exterior wall.
- Groundwater pathway RCL exceedances are generally defined in extent as follows:
  - To the south and southeast by soil borings GP-7, GP-9, and MW-1.
  - To the east and northeast by soil borings GP-6 and GP-5.
  - To the north by considering the non-detection of PCE at soil boring GP-4. Based on the detection of PCE degradation products TCE and cis-1,2-dichloroethene but not PCE in this sample, GP-4 is likely at or near the outer edge of the CVOC soil impacts. The very low sub-slab vapor concentrations detected within the 5605 22<sup>nd</sup> Avenue property building suggest that minimal soil and groundwater impacts are present in the vicinity of the building.
  - To the west by considering the decrease in concentration from the site maximum near soil boring GP-11 to much lower concentrations at MW-2 and GP-10.
  - The impacts to unsaturated soil are defined vertically by the water table, which is present at approximately 9 feet bgs at the site.

### 3.3.3 Groundwater Results

Groundwater analytical results are summarized in **Table 2**. The estimated horizontal and vertical extent of groundwater exceeding NR 140 standards is shown on **Figure 6** and geologic cross section **Figure 4**. Additional details are provided below;

- PCE, TCE, and chloroform were the only CVOCs detected in groundwater at concentrations in excess of NR 140 standards; however, TCE has only been detected in grab groundwater samples from soil borings and not within the NR 141-compliant monitoring wells.
- The highest CVOC concentration detected in groundwater was PCE at 50 µg/l as measured in a groundwater sample collected from soil boring GP-3 near the suspected source area in October 1995.
- During the most recent sampling event (August 2020), PCE was the only CVOC detected in groundwater in excess of an ES, and the highest PCE concentration detected was 39 µg/l at source area monitoring well MW-3.
- The groundwater plume has been delineated to the extent shown on **Figure 6**. Groundwater samples collected southeast (GP-9 and MW-1), south (GP-7), east (GP-6),

and northeast (GP-5) were not reported to contain CVOCs at concentrations greater than the laboratory detection limit. The groundwater plume extends off site to the northwest, with concentrations diminishing rapidly with distance from the most elevated sample locations (GP-1, GP-3, and MW-3) near and downgradient of the suspected release area. The impacts were identified to a depth of approximately 15 feet bgs, the maximum depth sampled, as shown on **Figure 4**.

### 3.3.4 Vapor Intrusion Assessment Sample Results

Sub-slab and indoor air vapor intrusion assessment sampling results are summarized in **Tables 4** and **5**. Sub-slab vapor sampling results for PCE are shown on **Figure 8**. Indoor air and sub-slab analytical reports are included in **Appendix D**.

PCE and TCE were detected at concentrations in excess of the WDNR's residential and commercial sub-slab vapor risk screening levels (VRSLs) at each of the sample locations (SS-1 through SS-3) within the source property building. Sub-slab vapor samples collected from adjacent off-source property buildings were not reported to contain CVOCs at concentrations approaching or greater than VRSLs.

Indoor air samples collected from within the source property building on February 7, 2017, were not found to contain CVOCs at concentrations exceeding Vapor Action Limits (VALs), with the exception of TCE in the basement sample at a concentration greater than the residential VAL, but less than the commercial VAL.

The basement and first floor of the source property building are utilized for commercial purposes while the second floor contains residential units. Also, the basement is unoccupied and used for storage of restaurant equipment and various chemicals with a potential to produce indoor air contaminants unrelated to the PCE release.

For the purposes of comparison to VALs, the basement and first floor are considered commercial spaces. Subsequent indoor air sampling completed after the installation of a vapor mitigation system showed that TCE was not present in the basement, first floor, or second floor.

Consistent with the results of off-site sub-slab vapor sampling, indoor air samples collected at adjacent off-source properties were not reported to contain CVOCs at concentrations approaching or exceeding VALs for residential or commercial spaces, further indicating that the risk of vapor intrusion to those off-site structures is minimal.

Using the vapor sampling information collected from the source property and nearby off-source properties, SCS evaluated the potential for significant migration of vapors within or along sanitary sewers and/or other similar utilities, which could potentially impact off-source properties. A sanitary sewer lateral from the source property flows west to 22<sup>nd</sup> Avenue where it joins a municipal sewer line flowing north beneath the street (**Figure 2**). The off-source properties north and south of the site have similar sanitary laterals connecting to the same sewer line.

Results of sub-slab vapor and indoor air sampling from the off-source properties in both up- and downstream sewer directions (north and south of the source property) indicate that preferential migration along conduits such as sewers is not significantly impacting the closest off-source properties. The adjacent off-source properties are theoretically most likely to be impacted via preferential flow of vapors due to their proximity to the source and connections to a common sewer line. Due to the lack of significant impacts at these adjacent properties, it is reasonable to conclude

that sewer lines are not acting as significant migration pathways for volatile contaminants. Additional evaluation, including expanding the area of sampling beyond the properties already sampled or the direct sampling of sewer gas, is therefore not warranted.

Although indoor air sampling at the source property building indicated that vapor intrusion risk was minimal considering the commercial use of the basement and first floors, elevated sub-slab vapor concentrations warranted the installation of a vapor mitigation system to prevent intrusion of vapors into the source property building.

## **4.0 INTERIM ACTION**

A sub-slab depressurization VMS was installed in the site building based on elevated sub-slab sampling results. The VMS was constructed with two sub-slab pickup points connected to a fan mounted on the building's north exterior wall. The fan exhaust line was extended above the building roof line. Construction documentation, post-construction commissioning, and routine inspection and maintenance details were included within the site investigation update dated November 18, 2019. Pressure field extension (PFE) measurements and post-construction indoor air sample results indicate that the system is operating as intended to interrupt the vapor intrusion pathway. A copy of the maintenance plan provided to Mr. Ekornaas for the VMS will be submitted to WDNR with the case closure request following approval of the site investigation.

## **5.0 EMERGING CONTAMINANTS**

On August 17, 2020, the WDNR sent a letter to all responsible parties with open BRRS cases reminding them to assess emerging contaminants, such as perfluoroalkyl and polyfluoroalkyl substances (PFAS), in the cleanup process. The Interstate Technology Regulatory Council (ITRC) April 2020 Technical Regulatory Guidance identifies industrial sites, fire training and response sites, landfills, and waste-water treatment plants as primary sources of PFAS, and refers to dry cleaning only once, indicating that losses of PFAS to the environment may be associated with laundering textiles or clothing previously treated with PFAS. The document does not list dry cleaning solvent, which is the source of contaminants at the site, as a source of PFAS. In addition, we are not aware of any site-specific documentation confirming the use of emerging contaminants at the facility or have other reason to believe these would have been released to the environment.

## **6.0 SUMMARY AND RECOMMENDATIONS**

### **6.1 SUMMARY**

A review of soil analytical results indicates that soil impacted by CVOCs at concentrations exceeding RCLs for the groundwater pathway is present at the site, but soil impacts exceeding direct contact RCLs have not been identified.

Repeated groundwater monitoring has shown consistent flow direction and the presence of PCE in groundwater at concentrations in excess of the ES; however, PCE appears to be stable and limited to the 5611 and 5619 22nd Avenue properties. The most elevated PCE concentrations have been consistently detected at monitoring well MW-3, near a suspected source area.

Repeated vapor intrusion assessment sampling for the neighboring Midnight Liquor & Bar and Pa's Pizzeria buildings has shown that CVOCs are not present in the sub-slab, indoor air, or outdoor air at concentrations in excess of VRSLs or VALs at either of the nearby buildings.

Other than the source property building which has a vapor mitigation system, there do not appear to be any other buildings located within 100 feet north, south, or west of CVOC-contaminated soil or overlying groundwater with CVOCs in excess of ESs.

There are buildings located within approximately 100 feet east of the CVOC contaminated soil. Given the vapor assessment findings for the above noted nearby buildings, the groundwater flow direction (west/northwest), and the sanitary sewer flow direction (north along 22nd Avenue), it appears unlikely that buildings to the east would be affected by vapor intrusion. Given the lack of significant vapor impacts at adjacent off-source properties that are connected to a common sanitary sewer, it also appears unlikely that significant migration of vapors along sewer lines is occurring. Therefore, no additional vapor assessment sampling is proposed.

A VMS was installed at the source property building (5619 22nd Avenue) in November 2018 and appears to be operating as intended. Given the PFE measured during VMS commissioning, it does not appear that modifications to the VMS are necessary.

The degree and extent of contamination (soil, groundwater, vapor, and air) appears to have been adequately defined to allow for an evaluation of risk to human health and the environment. The only significant risk identified as a result of the site investigation, vapor intrusion at the source property building, will be addressed through continued operation and maintenance of the VMS.

Based on the degree and extent of identified impacts and the stable nature of the identified groundwater plume, appropriate remedial actions to address residual impacts would be natural attenuation of groundwater and maintaining the existing pavement and building foundation to prevent leaching of residual soil contamination. The VMS would also be maintained to prevent the potential for vapor intrusion into the source property building.

## **6.2 RECOMMENDATIONS**

### **6.2.1 Vapor**

The potential for vapor intrusion has been addressed by vapor assessment sampling and construction of a source property building VMS. The VMS should serve to limit the potential for vapor intrusion of CVOCs into the building which exhibited sub-slab vapor concentrations in excess of WDNR's sub-slab VRSLs. While the WDNR's RR-800 guidance document recommends three rounds of post-mitigation PFE and indoor air testing, it notes that these are only recommendations, and that there is flexibility in the parameters and criteria selected for commissioning. While we recognize that three rounds would be ideal, due to site-specific limitations and findings, we propose that no further testing be performed for the following reasons:

- Repeated testing both prior to and following construction of the VMS has shown no indoor air exceedances relative to commercial or residential spaces over non-heating and heating seasons.
- TCE was detected in the basement indoor air during a single sampling event at a concentration between the commercial and residential VAL; however, the basement is considered commercial space and is unoccupied. The most recent sampling conducted after the VMS was in operation showed no VAL exceedances.
- The one TCE detection may have been related to chemical use/storage in the basement. The basement is cluttered with old restaurant equipment, miscellaneous debris, and

various chemicals such as paint, starter fluid, carburetor cleaner, herbicides, glue, soaps, and other chemicals which are extensive, not practical to remove, and are a potential source of indoor air contamination.

- The VMS has been in operation since installation in 2018, and two rounds of testing has shown there to be adequate sub-slab vacuum to prevent migration of vapor into the building.

### **6.2.2 Groundwater**

Active groundwater treatment does not appear to be necessary based on the limited defined extent of impacts, relatively low (less than 10x the ES for PCE) and stable concentrations, and absence of nearby receptors such as drinking water wells, surface water bodies, wetlands, or other sensitive aquatic habitats. Drinking water in the area is supplied from Lake Michigan, which is located a mile or more from the site. Although soil remains in excess of groundwater pathway RCLs, the groundwater quality appears to be stable or improving over time naturally.

### **6.2.3 Soil**

Excavation or other remediation of contaminated soil for the purpose of preventing human direct contact is not warranted as concentrations of CVOCs exceeding direct contact RCLs were not identified during the site investigation. We propose that residual soil contamination be addressed by maintaining site pavement and building foundation as a cap at the source property. The cap would serve to limit human direct contact with and leaching of the underlying soil contamination.

Based on investigation findings and interim action activities, we are requesting written concurrence that the site investigation can be considered complete. We are also requesting permission to submit an NR 726 Case Closure Request with Cap Maintenance Plan and VMS Maintenance Plan.

## **7.0 REFERENCES**

Freeze, R.A. and Cherry, J.A., 1979, Groundwater. Prentice-Hall, Inc., Englewood Cliffs, New Jersey.

Interstate Technology Regulatory Council (ITRC), Technical/Regulatory Guidance, Per- and Polyfluoroalkyl Substances (PFAS), April 2020. <https://pfas-1.itrcweb.org/>

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## Tables

- 1 Soil Analytical Results Summary
- 2 Groundwater Analytical Results Summary
- 3 Water Level Summary
- 4 Sub-Slab Vapor Analytical Results Summary
- 5 Indoor Air Analytical Results Summary

**Table 1. Soil Analytical Results Summary**  
**Former Arctic Laundry & Cleaners - 5619 22nd Avenue, Kenosha, Wisconsin / SCS Engineers Project #25216186.00**  
 (Results are in µg/kg)

Sample	Date	Depth (feet)	PID (ppm)	Lab Notes	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	VC	Other VOCs
GP-1	8/23/1994	1-3	0.0	--	<u>79</u>	<1	<1	<1	<3	o-Xylene 1.4
GP-1	8/23/1994	5-7	44.5	--	<u>2,700</u>	<1	<1	<1	<3	ND
GP-2	10/20/1995	7-9	0.8	--	<1	<1	<1	<1	<3	ND
GP-3	10/20/1995	7-9	0.0	--	<1	<1	<1	<1	<3	n-Butylbenzene 1.3
GP-4*	10/20/1995	9-11	0.0	--	<1	<u>7.9</u>	24 B1, F1	<1	<3	ND
GP-5*	10/20/1995	11-13	0.0	--	<1	<1	<1	<1	<3	ND
GP-6*	10/20/1995	13-15	0.0	--	<1	<1	<1	<1	<3	ND
GP-7	2/6/2017	0-2	0.5	(1)	<45	<20	<49	<42	<32	ND
GP-7	2/6/2017	5-7.5	0.7	(1)	<34	<15	<37	<32	<24	ND
GP-8	2/6/2017	2.5-5	0.4	(1)	<u>170</u>	<17	<43	<37	<27	ND
GP-8	2/6/2017	5-7.5	0.5	(1)	<u>1,100</u>	<19	<48	<41	<31	ND
GP-9	2/6/2017	2.5-5	0.5	(1)	<37	<16	<41	<35	<26	ND
GP-9	2/6/2017	5-7.5	0.5	(1)	<43	<19	<47	<40	<30	ND
GP-10	2/6/2017	2.5-5	1.2	(1)	<u>850</u>	<15	<36	<31	<23	ND
GP-10	2/6/2017	5-7.5	1.1	(1)	<u>3,200</u>	<16	<40	<35	<26	ND
GP-11	2/6/2017	0-2.5	1.5	(1)	<u>15,000</u>	<15	<37	<32	<24	ND
GP-11	2/6/2017	5-7.5	2.1	(1)	<u>17,000</u>	<14	<34	<30	<22	ND
MW-1	2/6/2017	2.5-5	0.5	(1)	<34	<15	<37	<32	<24	ND
MW-1	2/6/2017	5-7.5	0.4	(1)	<61	<27	<67	<57	<43	ND
MW-2	2/6/2017	2.5-5	1.5	(1)	<u>510</u>	<15	<37	<32	<24	ND
MW-2	2/6/2017	5-7.5	1.5	(1)	<u>130</u>	<16	<41	<35	<26	ND



**Table 1. Soil Analytical Results Summary**  
**Former Arctic Laundry & Cleaners - 5619 22nd Avenue, Kenosha, Wisconsin / SCS Engineers Project #25216186.00**  
 (Results are in µg/kg)

Sample	Date	Depth (feet)	PID (ppm)	Lab Notes	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	VC	Other VOCs
MW-3	2/6/2017	0-2.5	1.6	(1)	<b><u>3,200</u></b>	<60	<150	<130	<95	ND
MW-3	2/6/2017	5-7.5	2.9	(1)	<b><u>3,000</u></b>	<14	<36	<31	<23	ND
NR 720 Groundwater Pathway RCLs with a Wisconsin-Default Dilution Factor of 2					4.5	3.6	41.2	62.6	0.1	n-Butylbenzene NE Xylenes (m-, o-, p- combined) 3,960
NR 720 Non-Industrial Direct Contact RCLs					33,000	1,300	156,000	1,560,000	67	n-Butylbenzene 108,000 Xylenes (m-, o-, p- combined) 260,000
NR 720 Industrial Direct Contact RCLs					145,000	8,410	2,340,000	1,850,000	2,080	n-Butylbenzene 108,000 Xylenes (m-, o-, p- combined) 260,000
CAS No.					127-18-4	79-01-6	156-59-2	156-60-5	75-01-4	n-Butylbenzene: 104-51-8 Xylenes: 1330-20-7

Abbreviations:

µg/kg = micrograms per kilogram or parts per billion (ppb)  
 ppm = PID measured in ppm as isobutylene  
 PCE = Tetrachloroethene  
 NA = Not Analyzed

TCE = Trichloroethene  
 DCE = Dichloroethene  
 NE = Not Established  
 -- = Not Applicable

VOCs = Volatile Organic Compounds  
 VC = Vinyl Chloride  
 CAS No. = Chemical Abstracts Service Number

Notes:

**Bold+underlined** values exceed December 2018 NR 720 RCLs.

\* = Sample collected at or below estimated low groundwater level.

8/23/1994 and 10/20/1995 samples collected by Sigma Environmental Services, Inc., of Oak Creek, WI  
 2/6/2017 samples collected by SCS Engineers of Madison, WI

Laboratory Notes/Qualifiers:

B1 = SW 8021 quality control criteria not met. Initial calibration check standard recovery 121%. Acceptable range is 85%-115%. Sample result may be correspondingly high.  
 F1 = SW 8021 quality control criteria not met. Final calibration check standard recovery 117%. Acceptable range is 85%-115%. Sample result may be correspondingly high.  
 (1) Dichlorodifluoromethane = LCS or LCSD is outside acceptance limits.

Created by: LMH Date: 2/20/2017  
 Last revision by: JJK Date: 3/2/2022  
 Checked by: REL Date: 3/2/2022  
 Proj Mgr QA/QC: REL Date: 3/2/2022

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**Table 2. Groundwater Analytical Results Summary**  
**Former Arctic Laundry & Cleaners - 5619 22nd Avenue, Kenosha, Wisconsin / SCS Engineers Project #25216186.00**  
 (Results are in µg/L)

Sample	Date	Lab Notes	PCE	TCE	VC	cis-1,2-DCE	trans-1,2-DCE	Other VOCs
GP-1	8/25/1994	--	<u>42.0</u>	<u>1.0</u>	<3	<1	<1	Toluene 7.2
GP-2	10/20/1995	--	<u>13</u>	<1.0	<3.0	<1.0	<1.0	ND
GP-3	10/20/1995	--	<u>50</u>	<1.0	<3.0	<1.0	<1.0	ND
GP-4	10/20/1995	--	<u>14</u>	<u>2.2</u>	<3.0	6.2	<1.0	ND
GP-5	10/26/1995	--	<1.0	<1.0	<3.0	<1.0	<1.0	ND
GP-6	10/26/1995	--	<1.0	<1.0	<3.0	<1.0	<1.0	ND
GP-7	2/6/2017	--	<0.37	<0.16	<0.20	<0.41	<0.35	ND
GP-8	2/6/2017	--	<0.37	<0.16	<0.20	<0.41	<0.35	ND
GP-9	2/6/2017	--	<0.37	<0.16	<0.20	<0.41	<0.35	ND
GP-10	2/6/2017	--	<0.37	<0.16	<0.20	<0.41	<0.35	ND
GP-11	2/6/2017	--	<0.37	<0.16	<0.20	<0.41	<0.35	ND
MW-1	2/21/2017	--	<0.37	<0.16	<0.20	<0.41	<0.35	ND
	10/3/2018	--	<0.37	<0.16	<0.20	<0.41	<0.35	ND
	10/1/2019	--	<0.37	<0.16	<0.20	<0.41	<0.35	Toluene 0.22 J
	8/26/2020	--	<0.37	<0.16	<0.20	<0.41	<0.35	ND
MW-2	2/21/2017	--	<0.37	<0.16	<0.20	<0.41	<0.35	1,2-Dichloropropane <u>1.3</u>
	2/21/2017 (DUP)	--	<0.37	<0.16	<0.20	<0.41	<0.35	1,2-Dichloropropane <u>1.2</u>
	10/3/2018	--	0.39 J	<0.16	<0.20	<0.41	<0.35	1,2-Dichloropropane <u>2.6</u> Dichlorodifluoromethane 0.85 J,B
	10/1/2019	--	<0.37	<0.16	<0.20	<0.41	<0.35	1,2-Dichloropropane <u>1.7</u> Toluene 0.18 J
	8/26/2020	--	<u>0.63</u> J	<0.16	<0.20	<0.41	<0.35	1,2-Dichloropropane <u>1.7</u>

**Table 2. Groundwater Analytical Results Summary**  
**Former Arctic Laundry & Cleaners - 5619 22nd Avenue, Kenosha, Wisconsin / SCS Engineers Project #25216186.00**  
 (Results are in µg/L)

Sample	Date	Lab Notes	PCE	TCE	VC	cis-1,2-DCE	trans-1,2-DCE	Other VOCs
MW-3	2/21/2017	--	<u>1.5</u>	<0.16	<0.20	<0.41	<0.35	ND
	10/3/2018	--	<u>41</u>	<0.16	<0.20	<0.41	<0.35	Dichlorodifluoromethane 0.81 J,B
	10/3/2018 (DUP)	--	<u>41</u>	<0.16	<0.20	<0.41	<0.35	ND
	10/1/2019	--	<u>37</u>	<0.16	<0.20	<0.41	<0.35	Toluene 0.22 J
	10/1/2019 (DUP)	--	<u>41</u>	<0.16	<0.20	<0.41	<0.35	Toluene 0.19 J
	8/26/2020	--	<u>39</u>	<0.16	<0.20	<0.41	<0.35	ND
Trip Blank	2/6/2017	--	<0.37	<0.16	<0.20	<0.41	<0.35	ND
	2/21/2017	--	<0.37	<0.16	<0.20	<0.41	<0.35	ND
	10/3/2018	--	<0.37	<0.16	<0.20	<0.41	<0.35	ND
	10/1/2019	--	<0.37	<0.16	<0.20	<0.41	<0.35	Toluene 0.21 J
	8/26/2020	--	<0.37	<0.16	<0.20	<0.41	<0.35	ND
NR 140 Enforcement Standards (ESs)			5	5	0.2	70	100	Toluene 800 1,2-Dichloropropane 5 Dichlorodifluoromethane 1,000
NR 140 Preventive Action Limits (PALs)			0.5	0.5	0.02	7	20	Toluene 160 1,2-Dichloropropane 0.5 Dichlorodifluoromethane 200

Abbreviations:

µg/L = micrograms per liter or parts per billion (ppb)

VC = Vinyl Chloride

NA = Not Analyzed

DCE = Dichloroethene

TCE = Trichloroethene

ND = Not Detected

PCE = Tetrachloroethene

VOCs = Volatile Organic Compounds

-- = Not Applicable

**Table 2. Groundwater Analytical Results Summary**  
**Former Arctic Laundry & Cleaners - 5619 22nd Avenue, Kenosha, Wisconsin / SCS Engineers Project #25216186.00**

Notes:  
NR 140 ESs - Wisconsin Administrative Code (WAC), Chapter NR 140.10 Table 1 - Public Health Groundwater Quality Standards from June 2021.  
NR 140 PALs - WAC, Chapter NR 140.10 Table 1 - Public Health Groundwater Quality Standards from June 2021.  
**Bold+underlined** values meet or exceed NR 140 ESs.  
*Italic+underlined* values meet or exceed NR 140 PALs.

8/23/1994, 10/20/1995, and 10/26/1995 samples collected by Sigma Environmental Services, Inc., of Oak Creek, WI  
2/6/2017, 2/21/2017, 10/3/2018, and 10/1/2019 samples collected by SCS Engineers of Madison, WI

Laboratory Notes/Qualifiers:

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

Created by:	<u>LMH</u>	Date:	<u>2/21/2017</u>
Last revision by:	<u>LMH</u>	Date:	<u>9/3/2020</u>
Checked by:	<u>JSN</u>	Date:	<u>9/3/2020</u>
Proj Mgr QA/QC:	<u>REL</u>	Date:	<u>9/3/2020</u>

**Table 3. Water Level Summary**  
**Former Arctic Laundry & Cleaners / SCS Engineers Project #25216186.00**

<b>Raw Data</b>	<b>Depth to Water in feet below top of well casing</b>		
	<b>MW1</b>	<b>MW2</b>	<b>MW3</b>
<b>Measurement Date</b>			
February 21, 2017	8.53	9.67	8.04
October 3, 2018	7.70	8.65	5.99
October 1, 2019	7.64	8.44	6.18
August 26, 2020	8.17	9.07	7.48
<b>Well Number</b>	<b>Ground Water Elevation in feet above mean sea level (amsl)</b>		
	<b>MW1</b>	<b>MW2</b>	<b>MW3</b>
<b>Top of Casing Elevation (feet amsl)</b>	623.65	623.68	623.29
<b>Screen Length (ft)</b>	10.00	10.00	10.00
<b>Total Depth (ft from top of casing)</b>	13.85	14.00	13.85
<b>Top of Well Screen Elevation (ft)</b>	619.80	619.68	619.44
<b>Measurement Date</b>			
February 21, 2017	615.12	614.01	615.25
October 3, 2018	615.95	615.03	617.30
October 1, 2019	616.01	615.24	617.11
August 26, 2020	615.48	614.61	615.81
<b>Bottom of Well Elevation (ft)</b>	609.80	609.68	609.44

Notes:

NM = not measured

Benchmark of 625.93 feet above mean sea level marked by "X" on the top side of the hose outlet of the fire hydrant located at the northeast corner of 22nd Avenue and 57th Street.

Created by:	REL	Date:	2/21/2017
Last revision by:	REL	Date:	8/27/2020
Checked by:	JSN	Date:	8/27/2020
Proj Mgr QA/QC:	REL	Date:	3/2/2022

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**Table 4. Sub-Slab Vapor Analytical Results Summary**  
**22nd Avenue, Kenosha, Wisconsin / SCS Engineers Project #25216186.00**  
 (Results are in ppbV)

Sample/Location	Date	Lab Notes	Tetrachloroethene (PCE)	Trichloroethene (TCE)	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
<b>5605 Midnight Liquor and Bar</b>							
SS-7	1/25/2018	--	<0.074	<0.088	<0.15	<0.13	<0.089
	10/2/2019	--	4.3	<0.081	<0.094	<0.12	<0.085
SS-8	1/25/2018	--	5.2	0.22	<0.15	<0.13	<0.089
	10/2/2019	--	11	0.81	<0.087	<0.11	<0.077
SS-9	1/25/2018	--	1.9	<0.099	<0.17	<0.15	<0.096
	10/2/2019	--	3.6	<0.075	<0.087	<0.11	<0.077
<b>5619 Former Arctic Laundry &amp; Cleaners</b>							
SS-1	2/7/2017	--	<b><u>418,000</u></b> A3, E	<b><u>1,290</u></b> A3	5.7	5.8	<0.14
SS-2	2/7/2017	--	<b><u>973</u></b>	<b><u>66.5</u></b>	1.7	11.8	<0.13
SS-3	2/7/2017	--	<b><u>26,100</u></b> A3	<b><u>86.4</u></b> A3	1.4	0.5	<0.14
<b>5621/5625 Pa's Pizzeria</b>							
SS-4	1/24/2018	--	<0.074	<0.088	<0.15	<0.13	<0.089
SS-5	1/24/2018	--	0.78	<0.1	<0.17	<0.15	<0.1
SS-6	1/24/2018	--	0.2	<0.092	<0.16	<0.14	<0.092
	10/2/2019	--	0.93	<0.1	<0.12	<0.16	<0.11
Vapor Risk Screening Level (Residential Building)			200	13	NE	350	22
Vapor Risk Screening Level (Small Commercial Building)			840	53	NE	1,400	360

**Table 4. Sub-Slab Vapor Analytical Results Summary**  
**22nd Avenue, Kenosha, Wisconsin / SCS Engineers Project #25216186.00**

Abbreviations:

ppbV = parts per billion by volume  
trans-1,2-DCE = trans-1,2-dichloroethylene

cis-1,2-DCE = cis-1,2-dichloroethylene      -- = not applicable  
NE = not established

Notes:

1. Samples were collected in 6-liter summa canisters over a 30-minute period and analyzed using the USEPA TO-15 analytical method.
2. Vapor Risk Screening Levels are from Wisconsin Department of Natural Resources' WI Vapor Quick Look-Up Table, which is based on November 2021 USEPA Regional Screening Level Tables.
3. **Bold+underlined** values meet or exceed Vapor Risk Screening Levels.

Lab Notes:

A3 = The sample was analyzed by serial dilution.

E = Analyte concentration exceeded the calibration range. The reported result is estimated.

Created by:	<u>LMH</u>	Date:	<u>2/24/2017</u>
Last revision by:	<u>JJK</u>	Date:	<u>1/17/2021</u>
Checked by:	<u>LMH</u>	Date:	<u>3/2/2022</u>
Proj Mgr QA/QC:	<u>REL</u>	Date:	<u>3/2/2022</u>

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**Table 5. Indoor Air Analytical Results Summary**  
**22nd Avenue, Kenosha, Wisconsin / SCS Engineers Project #25216186.00**  
 (Results are in ppbV)

Sample/Location	Date	Lab Notes	Tetrachloroethene (PCE)	Trichloroethene (TCE)	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
<b>5605 Midnight Liquor and Bar</b>							
5605 Basement	1/25/2018	--	<0.064	<0.077	<0.13	<0.11	<0.077
	10/2/2019	--	0.46	0.16	<0.082	<0.1	<0.073
5605 2nd Floor	1/25/2018	--	<0.064	<0.077	<0.13	<0.11	<0.077
	10/2/2019	--	0.12 J	<0.07	<0.082	<0.1	<0.073
5605 Outdoor	1/25/2018	--	<0.059	<0.071	<0.12	<0.1	<0.069
	10/2/2019	--	<0.059	<0.06	<0.069	<0.092	<0.062
5605 Bar	1/25/2018	--	<0.064	<0.077	<0.13	<0.11	<0.077
	10/2/2019	--	0.13 J	<0.07	<0.082	<0.1	<0.073
5605 Liquor Store	1/25/2018	--	<0.067	<0.079	<0.14	<0.12	<0.077
	10/2/2019	--	0.11 J	<0.07	<0.082	<0.1	<0.073
<b>5619 Former Arctic Laundry &amp; Cleaners</b>							
5619 Basement	2/7/2017	--	5.6	<u>1.0</u>	5	<0.15	<0.12
	4/23/2021	(1)	0.75	<0.055	<0.074	<0.065	<0.05
5619 1st Floor	2/7/2017	--	1.3	0.31	1.2	<0.15	<0.12
	4/23/2021	(1)	0.58	<0.057	<0.077	<0.067	<0.054
	4/23/2021 Dup	(1)	0.54	<0.059	<0.077	<0.067	<0.054
5619 2nd Floor	2/7/2017	--	1.1	0.22	0.84	<0.16	<0.13
	4/23/2021	(1)	0.16	<0.055	<0.074	<0.065	<0.05
5619 Outdoor	2/7/2017	--	1.8	<0.075	<0.092	<0.14	<0.11
<b>5621/5625 Pa's Pizzeria</b>							
5621 Basement	1/24/2018	--	<0.064	<0.075	<0.13	<0.11	<0.073
	10/2/2019	--	<0.068	<0.07	<0.082	<0.1	<0.073
5621 1st Floor	1/24/2018	--	<0.061	<0.071	<0.12	<0.11	<0.069
	10/2/2019	--	<0.068	<0.07	<0.082	<0.1	<0.073
5621 Outdoor	1/24/2018	--	<0.062	<0.073	<0.13	<0.11	<0.073
	10/2/2019	--	<0.064	<0.066	<0.077	<0.099	<0.069
5625 Storage	1/24/2018	--	<0.064	<0.077	<0.13	<0.11	<0.077
	10/2/2019	--	<0.17	<0.18	<0.21	<0.27	<0.19
Indoor Air Vapor Action Level (Residential Space)			6.1	0.38	NE	10	0.65
Indoor Air Vapor Action Level (Small Commercial Space)			26	1.6	NE	45	11



**Table 5. Indoor Air Analytical Results Summary**  
**22nd Avenue, Kenosha, Wisconsin / SCS Engineers Project #25216186.00**

Abbreviations:

ppbV = parts per billion by volume  
cis-1,2-DCE = cis-1,2-dichloroethylene

trans-1,2-DCE = trans-1,2-dichloroethylene  
Dup = Duplicate Sample

NE = not established

Notes:

1. Samples were collected in 6-liter summa canisters over a 24-hour period and analyzed using the USEPA TO-15 analytical method.
2. Vapor Action Levels are from Wisconsin Department of Natural Resources' WI Vapor Quick Look-Up Table, which is based on November 2021 USEPA Regional Screening Level Tables.
3. **Bold & underlined** values exceed Indoor Air Vapor Action Levels.

Lab Notes:

J = Estimated concentration at or above the LOD and below the LOQ.

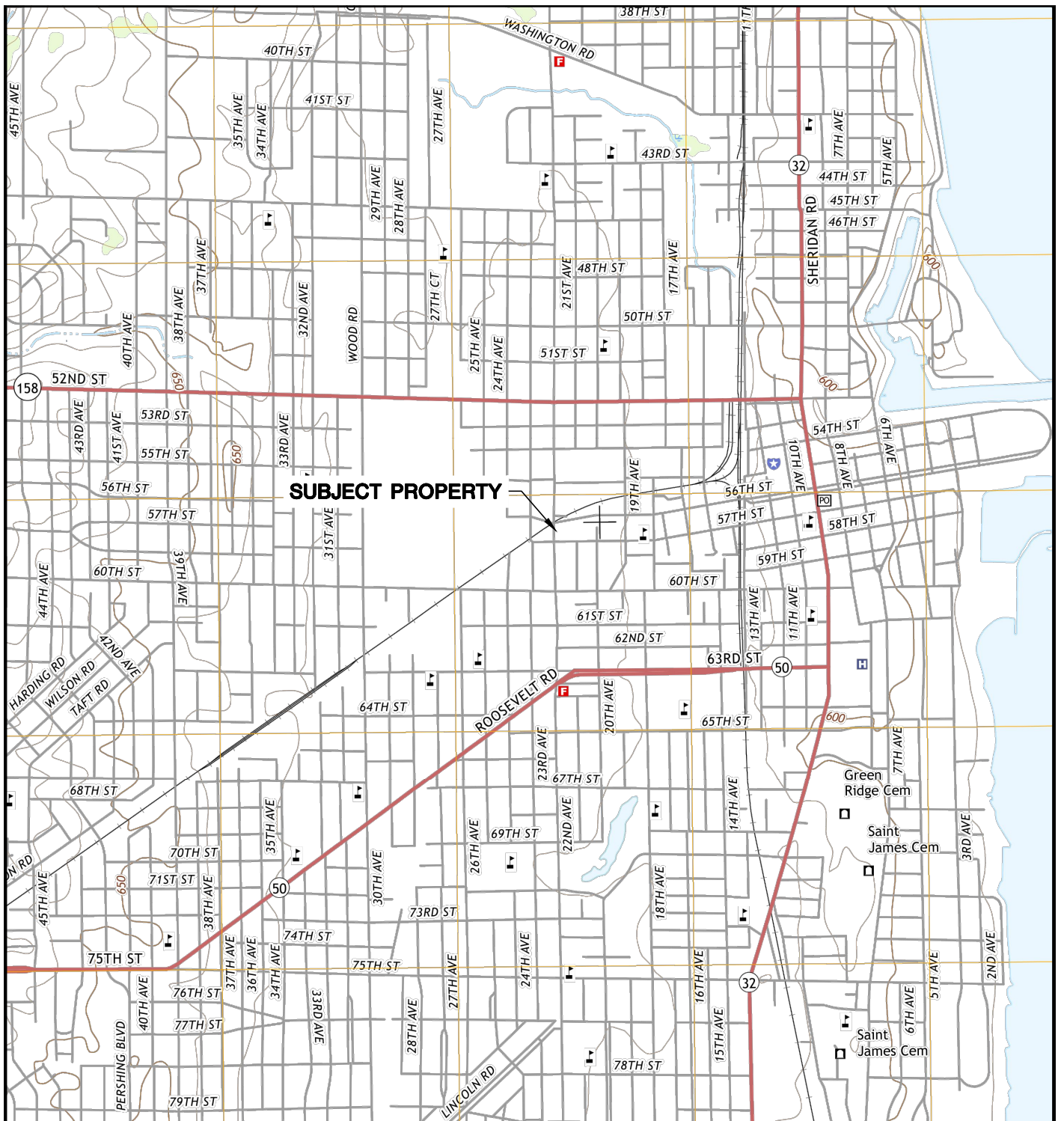
(1) These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

Created by:	<u>LMH</u>	Date:	<u>2/24/2017</u>
Last revision by:	<u>JJK</u>	Date:	<u>1/17/2022</u>
Checked by:	<u>LMH</u>	Date:	<u>3/2/2022</u>
Proj Mgr QA/QC:	<u>REL</u>	Date:	<u>3/2/2022</u>

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## Figures

- 1 Location Map
- 2 Detailed Site Plan
- 3 Geologic Cross-Section Location Map
- 4 Geologic Cross-Section A-A'
- 5 Soil Isoconcentration Map
- 6 Groundwater Isoconcentration Map
- 7 Water Table Map
- 8 Vapor Results Map



**SUBJECT PROPERTY**

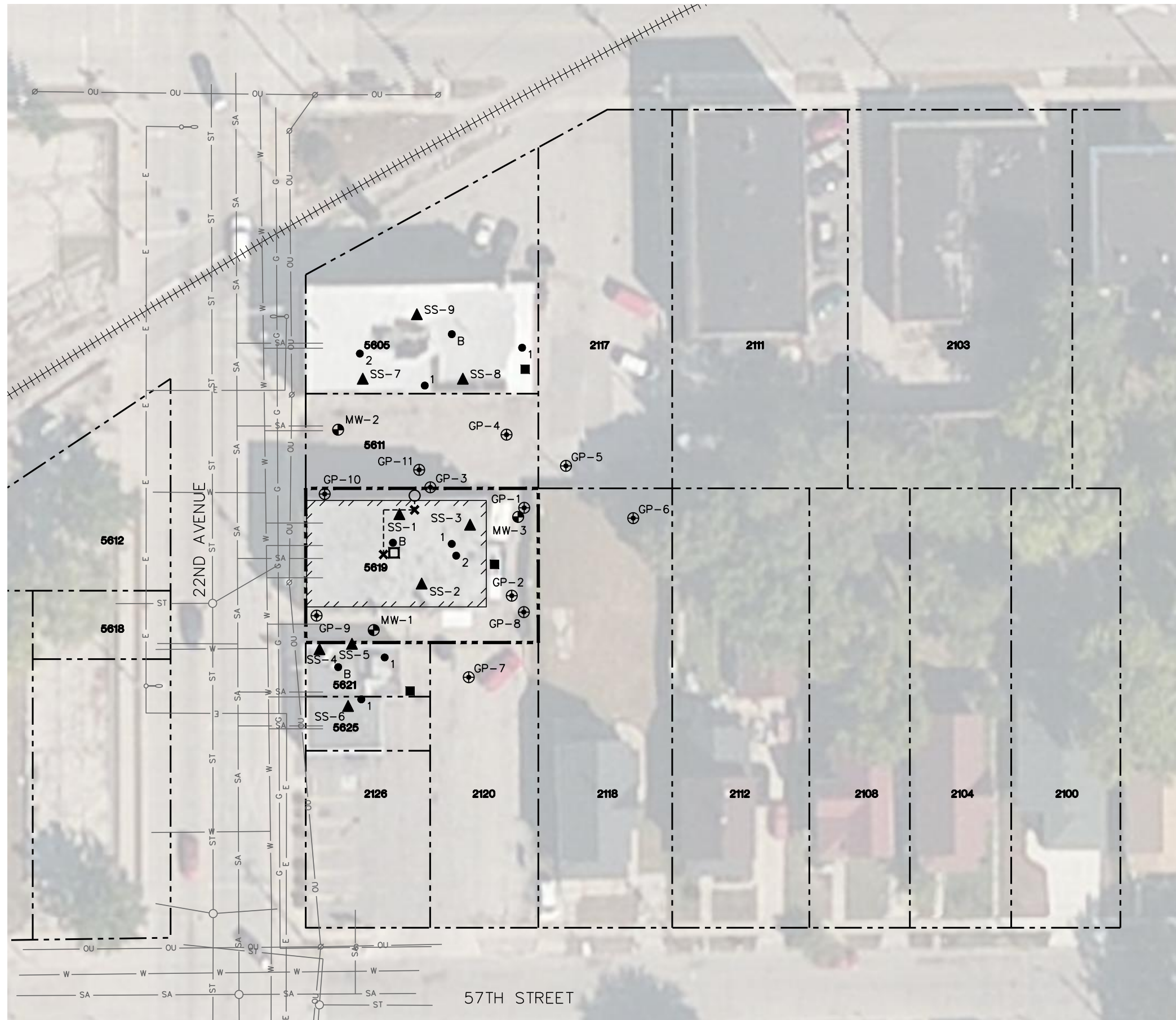


KENOSHA QUADRANGLE  
 WISCONSIN-KENOSHA CO.  
 7.5 MINUTE SERIES (TOPOGRAPHIC)  
 7.5' QUADRANGLE  
 2016  
 SCALE: 1" = 2,000'



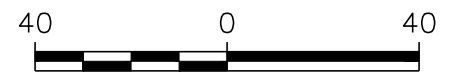
CLIENT	STAFFORD ROSENBAUM, LLP. 222 WEST WASHINGTON AVENUE MADISON, WI 53701	SITE	ARCTIC LAUNDRY AND CLEANERS 5619 22ND AVENUE KENOSHA, WISCONSIN	ENGINEER	SCS ENGINEERS 2830 DAIRY DRIVE MADISON, WI 53718-6751 PHONE: (608) 224-2830	SITE LOCATION MAP	FIGURE 1
	PROJECT NO. 25216186.00		DRAWN BY: KP				
	DRAWN: 10/21/16						
	REVISED: 10/21/16						

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- LEGEND
- APPROXIMATE PROPERTY LINE (5619 22ND AVENUE)
  - APPROXIMATE PROPERTY LINE
  - 5619** PROPERTY ADDRESS NUMBER
  - RAILROAD TRACKS
  - ELECTRIC (BURIED)
  - ELECTRIC (OVERHEAD)
  - GAS MAIN
  - SANITARY SEWER
  - STORM SEWER
  - WATER MAIN
  - UTILITY POLE
  - STREET LIGHT
  - SUMP
  - GEOPROBE BORING
  - MONITORING WELL
  - SUB-SLAB VAPOR SAMPLE
  - INDOOR AIR SAMPLE [BASEMENT (B), FIRST FLOOR (1), SECOND FLOOR (2)]
  - OUTDOOR AIR SAMPLE
  - VAPOR MITIGATION SYSTEM PIPING
  - VAPOR MITIGATION SYSTEM PICK-UP POINT
  - VAPOR MITIGATION SYSTEM FAN

- NOTES:
1. AERIAL PHOTOGRAPH IMPORTED FROM BING MAPS USING AUTOCAD 2016 GEOLOCATION MAP TOOL.
  2. UTILITY LOCATIONS ARE APPROXIMATE, BASED ON 22ND AVENUE STORM SEWER AND LIGHTING DRAWING PROVIDED BY THE CITY OF KENOSHA (STATE PROJECT NO. 3994-03-70, SHEET 2.5).
  3. SAMPLE LOCATIONS ARE APPROXIMATE.

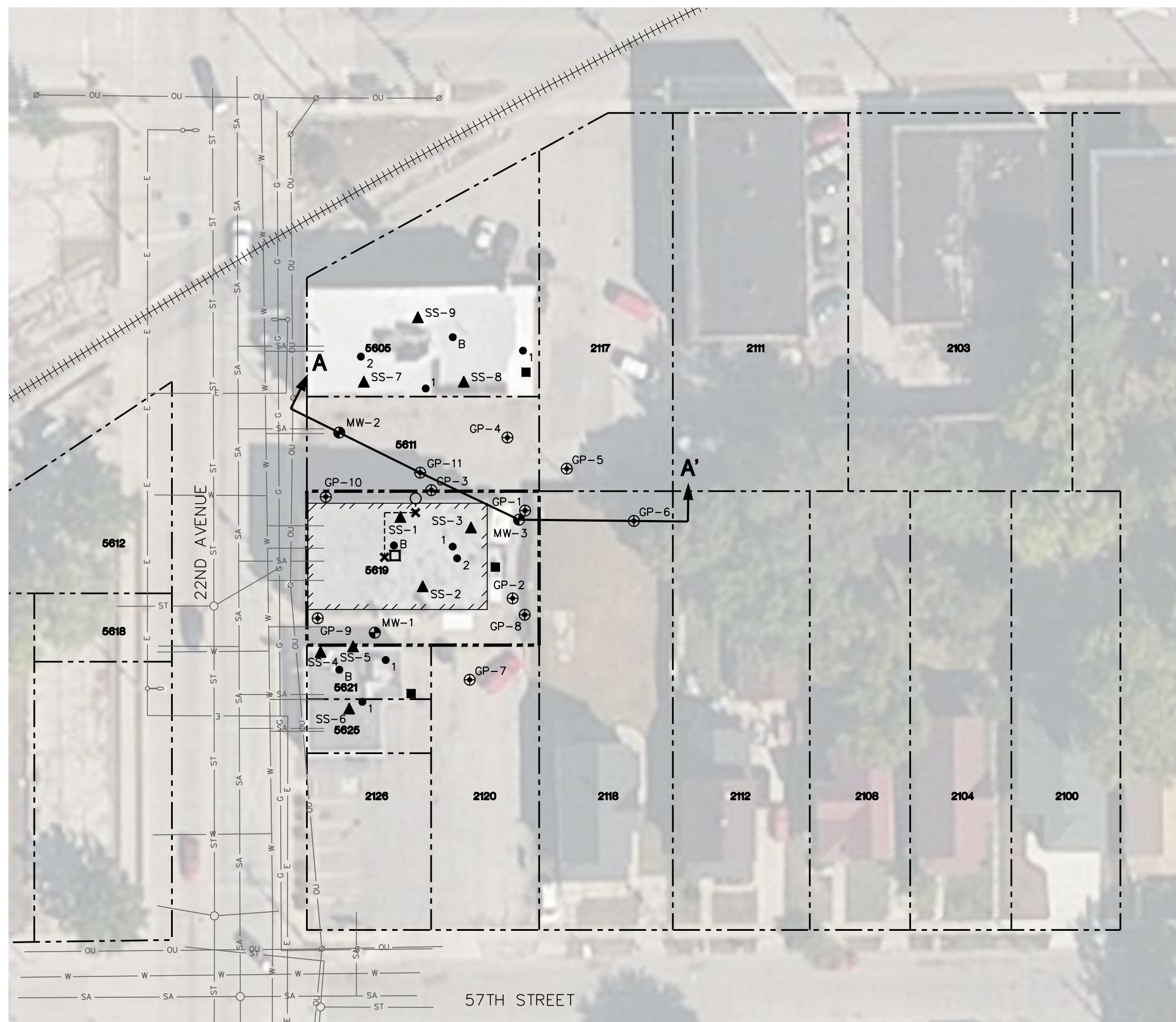


SCALE: 1" = 40'

CLIENT	STAFFORD ROSENBAUM, LLP. 222 WEST WASHINGTON AVENUE MADISON, WI 53701		
	PROJECT NO.	25216186.00	ENGINEER
DRAWN:	10/20/2016	CHECKED BY:	JD
REVISED:	03/01/2022	APPROVED BY:	REL 03/17/2022
ARCTIC LAUNDRY AND CLEANERS 5619 22ND AVENUE KENOSHA, WISCONSIN			
SITE			
DRAWN BY: KP			
CHECKED BY: JD			
APPROVED BY: REL 03/17/2022			
SITE FEATURES MAP			FIGURE
			2
<b>SCS ENGINEERS</b>			
2830 DAIRY DRIVE, MADISON, WI 53718-6751 PHONE: (608) 224-2830			



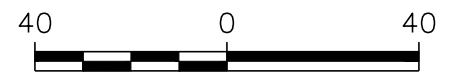
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**LEGEND**

- APPROXIMATE PROPERTY LINE (5619 22ND AVENUE)
- APPROXIMATE PROPERTY LINE
- 5619** PROPERTY ADDRESS NUMBER
- RAILROAD TRACKS
- ELECTRIC (BURIED)
- ELECTRIC (OVERHEAD)
- GAS MAIN
- SANITARY SEWER
- STORM SEWER
- WATER MAIN
- UTILITY POLE
- STREET LIGHT
- SUMP
- GEOPROBE BORING
- MONITORING WELL
- SUB-SLAB VAPOR SAMPLE
- INDOOR AIR SAMPLE [BASEMENT (B), FIRST FLOOR (1), SECOND FLOOR (2)]
- OUTDOOR AIR SAMPLE
- VAPOR MITIGATION SYSTEM PIPING
- VAPOR MITIGATION SYSTEM PICK-UP POINT
- VAPOR MITIGATION SYSTEM FAN
- GEOLOGIC CROSS SECTION LOCATION

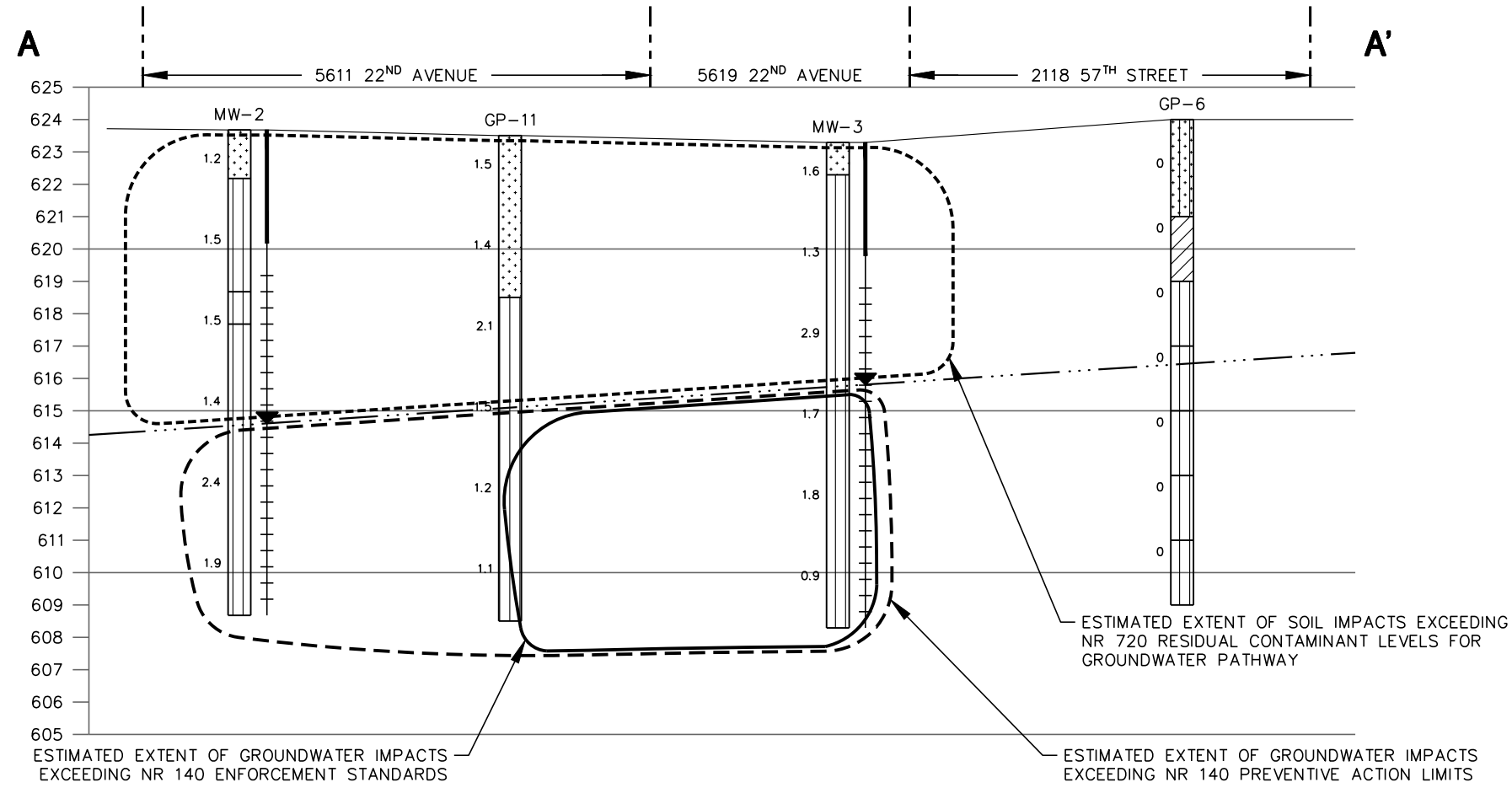
**NOTES:**  
 1. SEE FIGURE 2 FOR BASE MAP NOTES.



SCALE: 1" = 40'

CLIENT STAFFORD ROSENBAUM, LLP. 222 WEST WASHINGTON AVENUE MADISON, WI 53701	ARCTIC LAUNDRY AND CLEANERS 5619 22ND AVENUE KENOSHA, WISCONSIN			GEOLOGIC CROSS SECTION LOCATION MAP	
	PROJECT NO. 25216186.00	DRAWN BY: KP	CHECKED BY: JK	ENGINEER	FIGURE 3
DRAWN: 03/01/2022	APPROVED BY: 03/01/2022	REL 03/17/2022	SCS ENGINEERS 2830 DAIRY DRIVE, MADISON, WI 53718-6751 PHONE: (608) 224-2830		

I:\25216186.00\Drawings\Section.dwg, 01/17/2022 4:01:00 PM



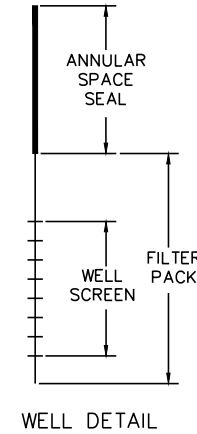
ESTIMATED EXTENT OF GROUNDWATER IMPACTS EXCEEDING NR 140 ENFORCEMENT STANDARDS

ESTIMATED EXTENT OF SOIL IMPACTS EXCEEDING NR 720 RESIDUAL CONTAMINANT LEVELS FOR GROUNDWATER PATHWAY

ESTIMATED EXTENT OF GROUNDWATER IMPACTS EXCEEDING NR 140 PREVENTIVE ACTION LIMITS

**LEGEND**

	SAND, POORLY GRADED, LITTLE OR NO FINES (SP)
	SILT (ML)
	LEAN CLAY (CL)
	SILTY SAND (SM)
25	PHOTOIONIZATION DETECTOR READING
	WATER TABLE MEASURED ON 08/26/2020



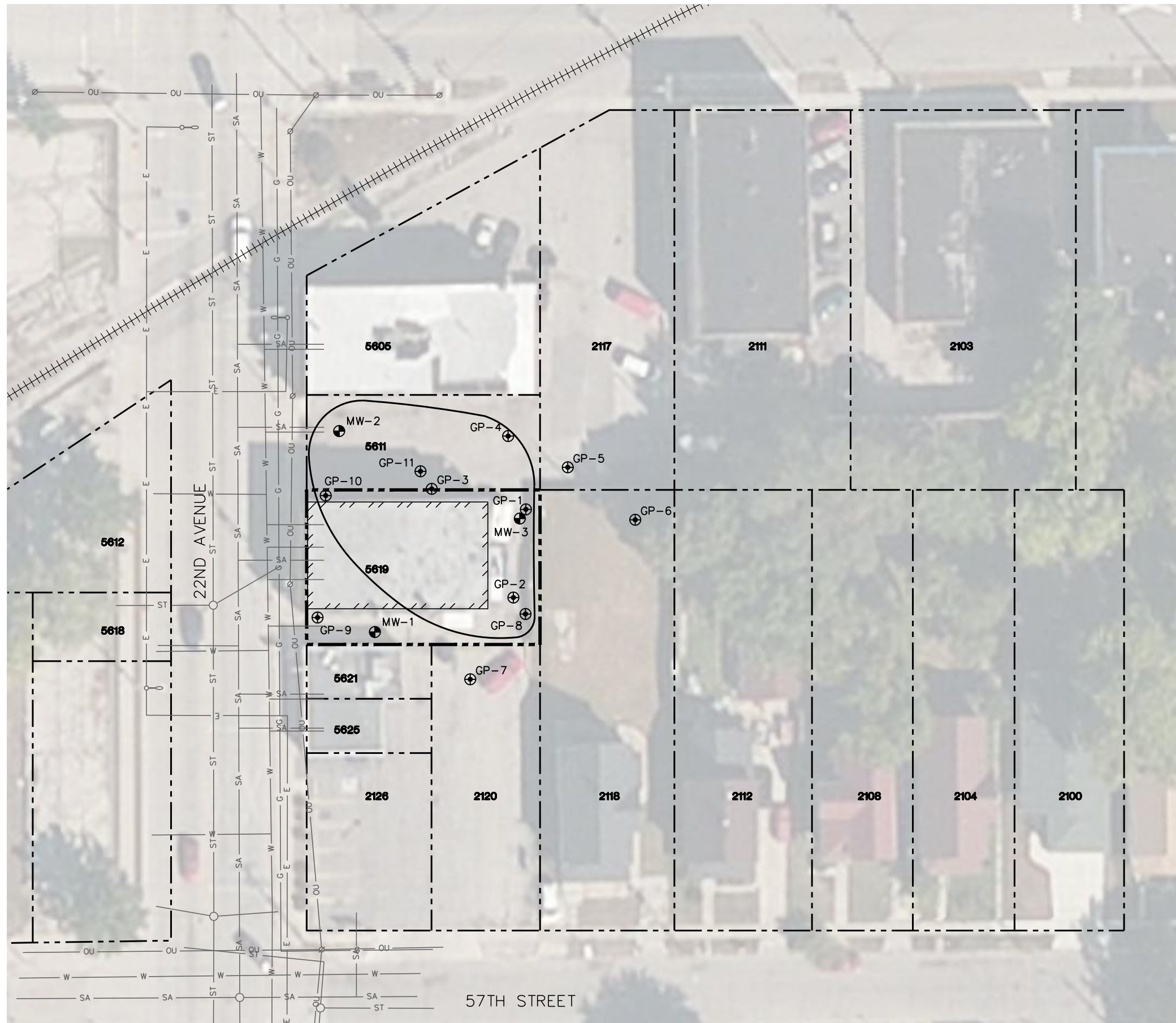
0 20  
 HORIZONTAL SCALE: 1" = 20'  
 VERTICAL SCALE: 1" = 5'  
 VERTICAL EXAGGERATION = 4X

CLIENT	STAFFORD ROSENBAUM, LLP. 222 WEST WASHINGTON AVENUE MADISON, WI 53701	SITE	ARCTIC LAUNDRY AND CLEANERS 5619 22ND AVENUE KENOSHA, WISCONSIN	ENGINEER	KP	FIGURE	4
	PROJECT NO.		25216186.00		DRAWN BY:		JK
DRAWN:	03/01/2022	CHECKED BY:	REL	03/17/2022	PHONE: (608) 224-2830		
REVISED:	03/01/2022	APPROVED BY:					

GEOLOGIC CROSS SECTION A-A'

**SCS ENGINEERS**  
 2830 DAIRY DRIVE, MADISON, WI 53718-6751  
 PHONE: (608) 224-2830

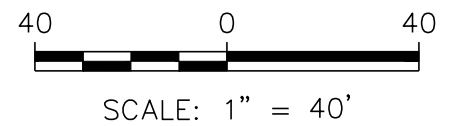
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LEGEND

	APPROXIMATE PROPERTY LINE (5619 22ND AVENUE)
	APPROXIMATE PROPERTY LINE
<b>5619</b>	PROPERTY ADDRESS NUMBER
	RAILROAD TRACKS
	ELECTRIC (BURIED)
	ELECTRIC (OVERHEAD)
	GAS MAIN
	SANITARY SEWER
	STORM SEWER
	WATER MAIN
	UTILITY POLE
	STREET LIGHT
	GEOPROBE BORING
	MONITORING WELL
	ESTIMATED EXTENT OF NR720 GROUNDWATER PATHWAY RCLs

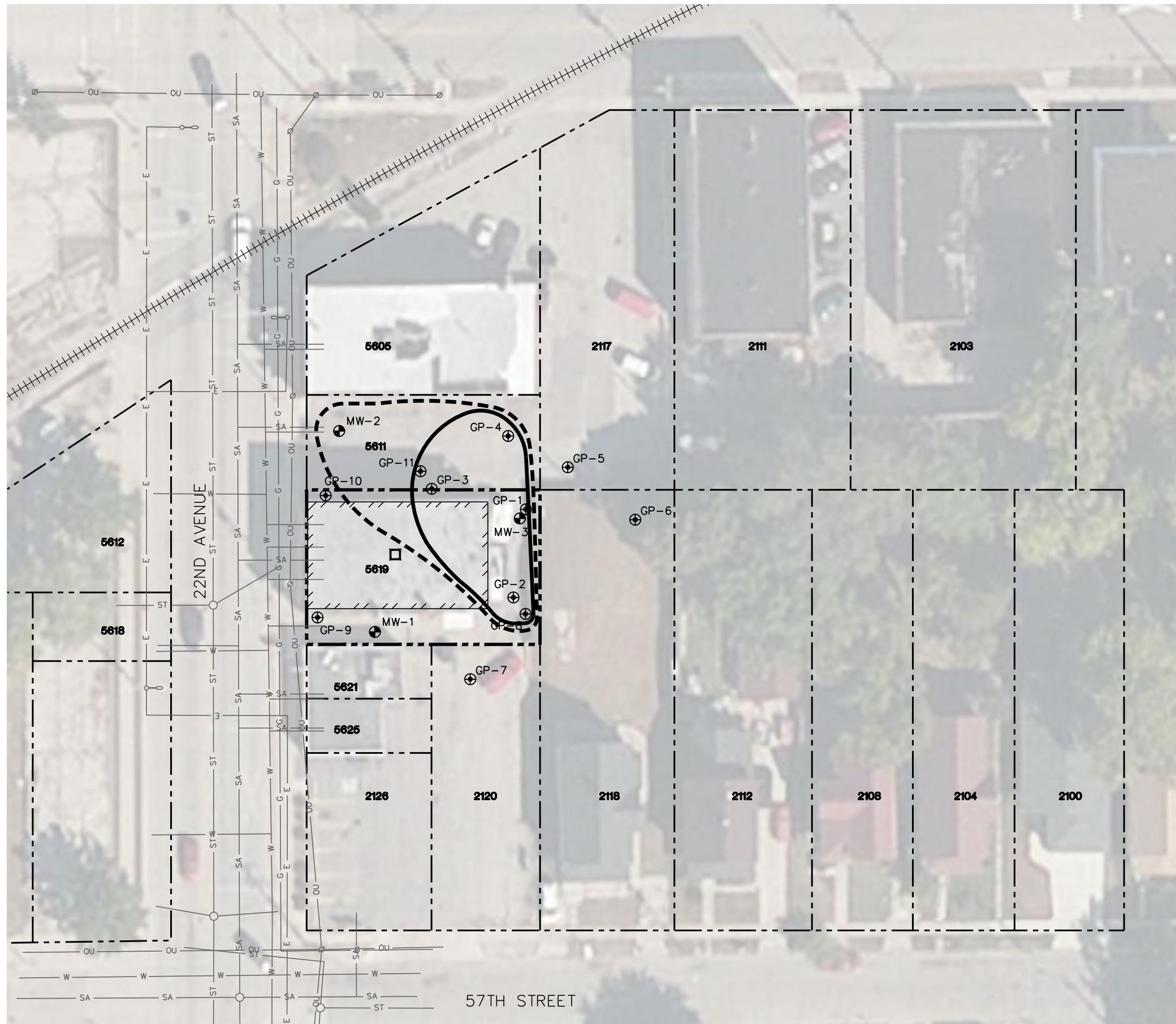
- NOTES:
1. AERIAL PHOTOGRAPH IMPORTED FROM BING MAPS USING AUTOCAD 2016 GEOLOCATION MAP TOOL.
  2. UTILITY LOCATIONS ARE APPROXIMATE, BASED ON 22ND AVENUE STORM SEWER AND LIGHTING DRAWING PROVIDED BY THE CITY OF KENOSHA (STATE PROJECT NO. 3994-03-70, SHEET 2.5).
  3. SAMPLE LOCATIONS ARE APPROXIMATE.



CLIENT STAFFORD ROSENBAUM, LLP. 222 WEST WASHINGTON AVENUE MADISON, WI 53701	SITE ARCTIC LAUNDRY AND CLEANERS 5619 22ND AVENUE KENOSHA, WISCONSIN	PROJECT NO. 25216186.00	DRAWN BY: KP	ENGINEER	FIGURE
				CHECKED BY: JD	5
		REVISED: 03/017/2022	APPROVED BY:	2830 DAIRY DRIVE, MADISON, WI 53718-6751 PHONE: (608) 224-2830	

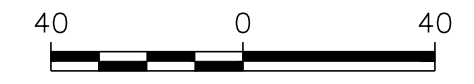


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- LEGEND
- APPROXIMATE PROPERTY LINE (5619 22ND AVENUE)
  - APPROXIMATE PROPERTY LINE
  - 5619** PROPERTY ADDRESS NUMBER
  - RAILROAD TRACKS
  - ELECTRIC (BURIED)
  - ELECTRIC (OVERHEAD)
  - GAS MAIN
  - SANITARY SEWER
  - STORM SEWER
  - WATER MAIN
  - UTILITY POLE
  - STREET LIGHT
  - SUMP
  - GEOPROBE BORING (GRAB GROUNDWATER SAMPLE COLLECTED)
  - MONITORING WELL
  - ESTIMATED EXTENT OF GROUNDWATER CONCENTRATIONS EXCEEDING NR 140 PREVENTIVE ACTION LIMITS
  - ESTIMATED EXTENT OF GROUNDWATER CONCENTRATIONS EXCEEDING NR 140 ENFORCEMENT STANDARDS

NOTES:  
1. SEE FIGURE 2 FOR BASE MAP NOTES.

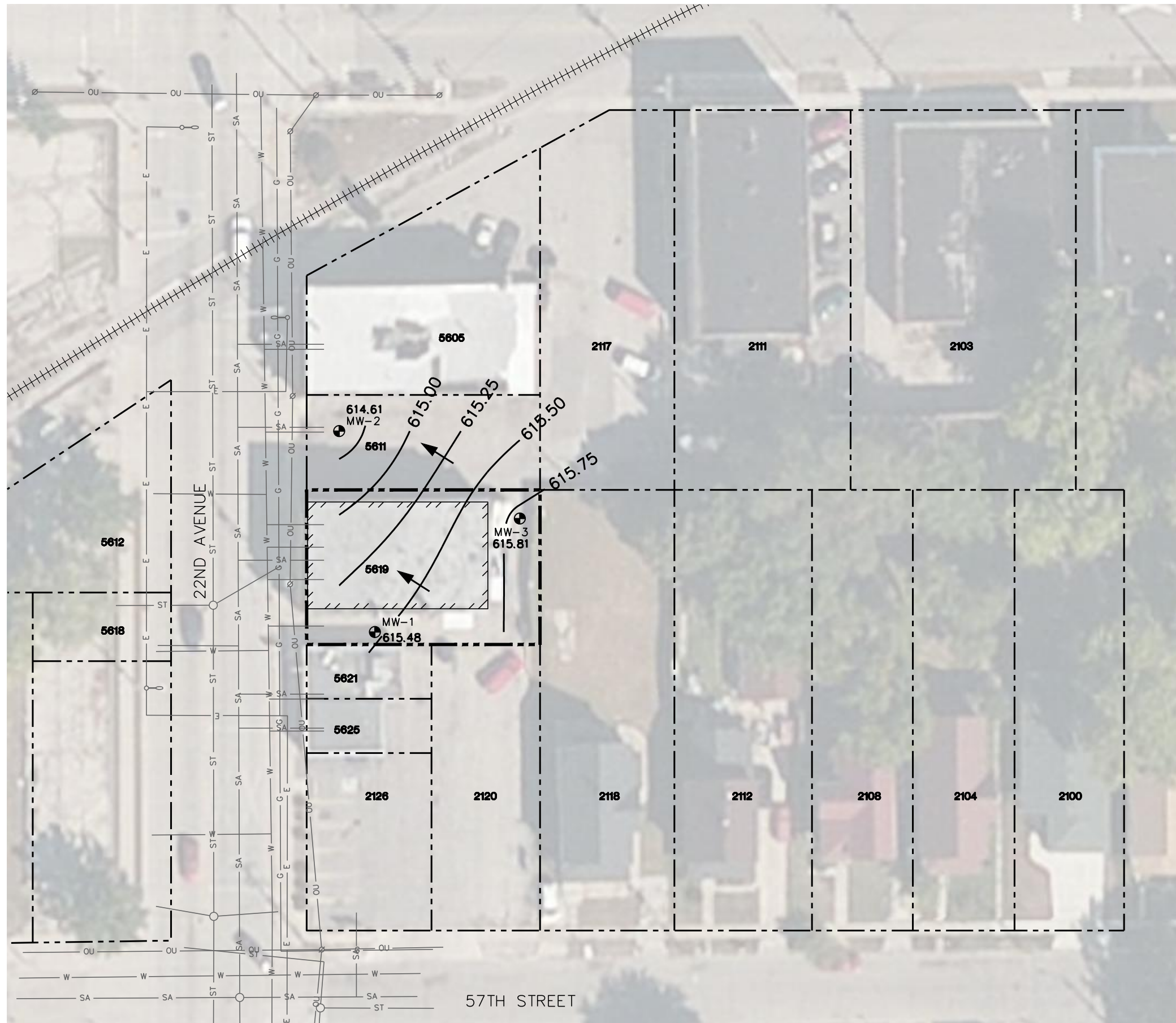


SCALE: 1" = 40'

CLIENT	STAFFORD ROSENBAUM, LLP. 222 WEST WASHINGTON AVENUE MADISON, WI 53701		SITE	ARCTIC LAUNDRY AND CLEANERS 5619 22ND AVENUE KENOSHA, WISCONSIN		ENGINEER	SCS ENGINEERS 2830 DAIRY DRIVE, MADISON, WI 53718-6751 PHONE: (608) 224-2830		FIGURE	6
	PROJECT NO.	25216186.00		DRAWN BY:	KP		APPROVED BY:	REL 03/17/2022		
DRAWN:	03/01/2022	CHECKED BY:	JK							
REVISED:	03/01/2022									

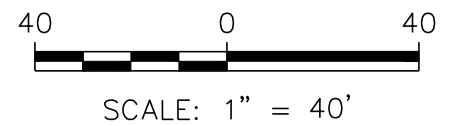


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- LEGEND
- APPROXIMATE PROPERTY LINE (5619 22ND AVENUE)
  - APPROXIMATE PROPERTY LINE
  - 5619** PROPERTY ADDRESS NUMBER
  - RAILROAD TRACKS
  - ELECTRIC (BURIED)
  - ELECTRIC (OVERHEAD)
  - GAS MAIN
  - SANITARY SEWER
  - STORM SEWER
  - WATER MAIN
  - UTILITY POLE
  - STREET LIGHT
  - MONITORING WELL
  - WATER TABLE CONTOUR
  - 615.48** WATER TABLE ELEVATION MEASURED 08.26.2020
  - APPROXIMATE GROUNDWATER FLOW DIRECTION

- NOTES:
1. AERIAL PHOTOGRAPH IMPORTED FROM BING MAPS USING AUTOCAD 2016 GEOLOCATION MAP TOOL.
  2. UTILITY LOCATIONS ARE APPROXIMATE, BASED ON 22ND AVENUE STORM SEWER AND LIGHTING DRAWING PROVIDED BY THE CITY OF KENOSHA (STATE PROJECT NO. 3994-03-70, SHEET 2.5).
  3. SAMPLE LOCATIONS ARE APPROXIMATE.



CLIENT	STAFFORD ROSENBAUM, LLP. 222 WEST WASHINGTON AVENUE MADISON, WI 53701		PROJECT NO. 25216186.00	DRAWN BY: KP	CHECKED BY: REL	APPROVED BY: REL	DATE: 08/28/2020	ENGINEER	ARCTIC LAUNDRY AND CLEANERS 5619 22ND AVENUE KENOSHA, WISCONSIN	WATER TABLE MAP AUGUST 26, 2020		FIGURE
	SCS ENGINEERS 2830 DAIRY DRIVE MADISON, WI 53718-6751 PHONE: (608) 224-2830									7		

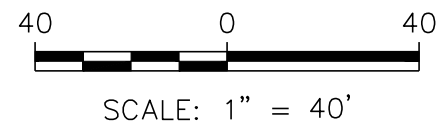
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LEGEND

- APPROXIMATE PROPERTY LINE (5619 22ND AVENUE)
- APPROXIMATE PROPERTY LINE
- 5619** PROPERTY ADDRESS NUMBER
- RAILROAD TRACKS
- ELECTRIC (BURIED)
- ELECTRIC (OVERHEAD)
- GAS MAIN
- SANITARY SEWER
- STORM SEWER
- WATER MAIN
- UTILITY POLE
- STREET LIGHT
- SUMP
- SUB-SLAB VAPOR SAMPLE
- INDOOR AIR SAMPLE [BASEMENT (B), FIRST FLOOR (1), SECOND FLOOR (2)]
- OUTDOOR AIR SAMPLE
- 973** VAPOR TETRACHLOROETHENE (PCE) SAMPLE RESULTS (ppbV)
- ESTIMATED EXTENT OF SUB-SLAB VAPOR CONCENTRATIONS GREATER THAN VAPOR RISK SCREENING LEVELS

NOTES:  
1. SEE FIGURE 2 FOR BASE MAP NOTES.



STAFFORD ROSENBAUM, LLP. 222 WEST WASHINGTON AVENUE MADISON, WI 53701	PROJECT NO.	25216186.00	DRAWN BY:	KP	CLIENT
	DRAWN:	03/01/2022	CHECKED BY:	JK	
		REVISD:	03/01/2022	APPROVED BY:	REL 03/17/2022
ARCTIC LAUNDRY AND CLEANERS 5619 22ND AVENUE KENOSHA, WISCONSIN		ENGINEER		ENGINEER	
VAPOR RESULTS					FIGURE
					8
<b>SCS ENGINEERS</b>					
2830 DAIRY DRIVE MADISON, WI 53718-6751					
PHONE: (608) 224-2830					



Appendix A  
Property Deeds

State Bar of Wisconsin Form 3-2003  
**QUIT CLAIM DEED**

Document Number

Document Name

**THIS DEED**, made between John C. Ekornaas

("Grantor," whether one or more), and The John C. Ekornaas Revocable Trust,  
dated **February 29, 2012**, John C. Ekornaas, Trustee

("Grantee," whether one or more).  
Grantor quit claims to Grantee the following described real estate, together with the  
rents, profits, fixtures and other appurtenant interests, in **Kenosha**  
County, State of Wisconsin ("Property") (if more space is needed, please attach addendum):

**See attached legal descriptions.**  
Property addresses: **5611 - 22nd Avenue**  
**5605 - 22nd Avenue**  
**2117 - 57th Street**



DOCUMENT

1668824

RECORDED  
At Kenosha County, Kenosha, WI 53140  
Louise I. Principe, Register of Deeds  
on 3/29/2012 at 2:18PM \$30.00  
120011296

VICM

REGDEED3

Recording Area

Name and Return Address

**Joseph F. Madrigrano, Jr.**  
**1108 56th Street**  
**Kenosha, WI 53140**

1-3

12-223-31-354-010

**12-223-31-354-011 & 12-223-31-354-012**

Parcel Identification Number (PIN)

This **is not** homestead property  
(is) (is not)

**FEE EXEMPT**

# 116

Dated **February 29, 2012**

\_\_\_\_\_  
(SEAL) *John C. Ekornaas* (SEAL)  
\* John C. Ekornaas  
\_\_\_\_\_  
(SEAL) \_\_\_\_\_ (SEAL)  
\* \_\_\_\_\_

**AUTHENTICATION**

Signature(s) \_\_\_\_\_  
authenticated on \_\_\_\_\_

**ACKNOWLEDGMENT**

STATE OF Wisconsin )  
 ) ss.  
Kenosha COUNTY )

Personally came before me on **February 29, 2012**,  
the above-named John C. Ekornaas

to me known to be the person(s) who executed the foregoing  
instrument and acknowledged the same.

*Louise A. Ward*  
\* Louise A. Ward  
Notary Public, State of Wisconsin

My commission (is permanent) (expires: **8-10-14**)

TITLE: MEMBER STATE BAR OF WISCONSIN  
(If not, \_\_\_\_\_  
authorized by Wis. Stat. § 706.06 )

THIS INSTRUMENT DRAFTED BY:  
**Attorney Joseph F. Madrigrano, Jr.**  
**1108 56th Street Kenosha, WI**

(Signatures may be authenticated or acknowledged. Both are not necessary.)

NOTE: THIS IS A STANDARD FORM. ANY MODIFICATION TO THIS FORM SHOULD BE CLEARLY IDENTIFIED.

QUIT CLAIM DEED

©2003 STATE BAR OF WISCONSIN

FORM NO. 3-2003

\*Type name below signatures

INFO-PRO™ Legal Forms • (800)655-2021 • infoforms.com

DOCUMENT NO. 631621	TRANSFER 630 FEE	VOL 1034 PAGE 16	STATE BAR OF WISCONSIN - FORM 1 WARRANTY DEED THIS SPACE RESERVED FOR RECORDING DATA REGISTER'S OFFICE ) S.S. Kenosha County, Wis.) RECORDED AT 10:24 A.M.  ON NOV 13 1978 RECORDS VOL 1034 P 16  <i>Rose Bloom</i> 2.00 REGISTER OF DEEDS RETURN TO Cockwell Grace & Mason 6923 - 39 Ave Kenosha WI 53142
------------------------	------------------------	------------------	---

THIS DEED, made between ROSE M. EKORNAAS  
 \_\_\_\_\_ Grantor  
 and JOHN C. EKORNAAS  
 \_\_\_\_\_ Grantee,

Witnesseth, That the said Grantor, for a valuable consideration \$1.00 and other good and valuable consideration conveys to Grantee the following described real estate in Kenosha County, State of Wisconsin

Lot Sixteen (16) of Adamson's Subdivision of Part of the southwest quarter (1/4) of the southwest quarter (1/4) of section thirty-one (31) in town two (2) north of range twenty-three (23) east of the fourth (4) principal meridian and lying and being in the city of Kenosha, county of Kenosha and state of Wisconsin.

12 223-31-354-D10

This is NOT homestead property (is) (is not)  
 Together with all and singular the hereditaments and appurtenances thereunto belonging, And ROSE M. EKORNAAS warrants that the title is good, indefeasible in fee simple and free and clear of encumbrances except for municipal and zoning ordinances, recorded easements for public utilities and recorded building restrictions, if any, and will warrant and defend the same  
 Dated this 10th day of November, 19 78

\_\_\_\_\_  
 (SEAL) Rose M Ekornaas (SEAL)  
 \* Rose M. Ekornaas  
 \_\_\_\_\_ (SEAL)  
 \* \_\_\_\_\_ (SEAL)

**AUTHENTICATION**  
 Signatures authenticated this \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_

**ACKNOWLEDGMENT**  
 STATE OF WISCONSIN  
Kenosha County  
 Person ly came before me, this \_\_\_\_\_ day of November, 1978, the above named ROSE M EKORNAAS

TITLE NUMBER STATE BAR OF WISCONSIN (If not, authorized by § 706.06, Wis. Stats.)  
 This instrument was drafted by  
Carl M. Greco  
Attorney-at-Law

to me known to be the person who executed the foregoing instrument and acknowledged the same  
Carl M. Greco  
 Notary Public Kenosha County, Wis.  
 My Commission is permanent (If not, state expiration date \_\_\_\_\_, 19 \_\_\_\_.)

(Signatures may be authenticated or acknowledged Both are not necessary)  
 \*Names of persons signing in any capacity must be typed or printed below their signatures

2117-56<sup>th</sup> Street

12-223-31-354-D10



DOCUMENT NO  
111920

FR  
20.80 VOL 1034 PAGE 15  
FEE

STATE BAR OF WISCONSIN - FORM 1  
WARRANTY DEED  
THIS DEED IS SUBJECT TO RECORDING DATA  
Kenosha County, Wis.  
RECORDED AT 10 22 A M

THIS DEED made between ROSE M. EKORNAAS

Grantor

and JOHN C. EKORNAAS

Grantee,  
\$1.00

ON NOV 13 1978 IN  
RECORDS VOL. 1034 P 15

*Rose Bloom*  
REGISTER OF DEEDS

Witnesseth, That the said Grantor, for a valuable consideration and other good and valuable consideration

conveys to Grantee the following described real estate in Kenosha County, State of Wisconsin Part of the Southwest One-Quarter of Section Thirty-one (31), Township Two (2) North, Range Twenty-three (23) East, more particularly described as follows: Commencing at a point on the East line of 22nd Avenue, extended North, at the intersection of the South line of lands of the Kenosha and Rockford Division of the Chicago and Northwestern Railway Company; thence South on the East line of 22nd Avenue, Forty-four (44) feet; thence East Eighty-five and Eight Tenths (85.8) feet; thence North Seventy-five and Twenty-four Hundredths (75.24) feet to the South line of the said railway lands; thence Southwesterly along the South line of said railway lands to the place of beginning, and lying and being in the City of Kenosha, County of Kenosha and State of Wisconsin.

200  
RETURN TO  
Cook & Greco & Marsh  
6433-37th Ave  
Kenosha, WI 53142

Tax Key No \_\_\_\_\_

12-223-31-354-011

This IS NOT homestead property  
(.s) (is not)

Together with all and singular the hereditaments and appurtenances thereunto belonging,

And ROSE M. EKORNAAS

warrants that the title is good, indefeasible in fee simple and free and clear of encumbrances except

for municipal and zoning ordinances, recorded easements for public utilities and recorded building restrictions, if any,

and will warrant and defend the same

Dated this 10th day of November, 1978

(SEAL)

Rose M. Ekornaas (SEAL)

Rose M. Ekornaas

(SEAL)

(SEAL)

AUTHENTICATION

Signatures authenticated this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_

ACKNOWLEDGMENT

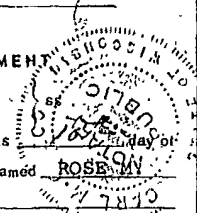
STATE OF WISCONSIN

Kenosha County

Personally came before me, this 10th day of November

the above named ROSE M. EKORNAAS

EKORNAAS



TITLE MEMBER STATE BAR OF WISCONSIN

(If not authorized by 706.06, Wis. Stats.)

his instrument was drafted by

Carl M. Greco

Attorney-at-Law

to me known to be the person who executed the foregoing instrument and acknowledged the same

Carl M. Greco

Notary Public Kenosha County, Wis.

My Commission is permanent (if not, state expiration date \_\_\_\_\_, 19\_\_ )

(Signatures may be authenticated or acknowledged Both are not necessary)

\*Names of persons signing in any capacity must be typed or printed below their signatures

5605-22nd AVE

12-223-31-354-011

DOCUMENT NO  
666791

TRANSFER  
\$ 9.00  
FEE

VOL 1072 PAGE 865

STATE BAR OF WISCONSIN - FORM 1  
WARRANTY DEED  
THIS DEED IS FILED FOR RECORDING DATA  
REGISTER'S OFFICE  
Kenosha County, Wis.

RECORDED AT 9:30 A.M.

ON MAY 19 1980 IN

RECORDS VOL. 1072 p. 865

Rose Bloom

REGISTER OF DEEDS

2.00  
RETURN TO

6 SUMNER  
5707 - 75 ST  
KENOSHA WIS  
S.M.L.

Tax Key No

THIS DEED, made between IDA PACETTI, NELLO PACETTI  
and AMEDIO PACETTI

Grantor  
and JOHN C. EKORNAAS

Grantee.  
Witnesseth, That the said Grantor, for a valuable consideration of  
\$1.00 and other good and valuable consideration  
conveys to Grantee the following described real estate in Kenosha  
County, State of Wisconsin

Part of the Southwest Quarter of Section 31,  
Township 2 North of Range 23 East of the Fourth  
Principal Meridian, more particularly described  
as follows: The North 35 feet of a parcel of  
land bounded as follows: Commencing at the  
Northeast corner of 57th Street and 22nd Avenue; running thence North on  
22nd Avenue 198 feet to land formerly owned by Louis Nelson; thence East  
along Nelson's land 86 feet; thence South parallel to 22nd Avenue 198 feet  
to the North line of 57th Street; thence West to the place of beginning;  
said premises lying and being in the City of Kenosha, in the County of  
Kenosha and State of Wisconsin.

This deed is given in fulfillment of a land contract dated  
February 15, 1980 and recorded in the Office of the Register of  
Deeds for Kenosha County on February 20, 1980 in Volume 1068  
pages 151-52, as Document No. 664126.

This is not homestead property  
(is) (is not)

Together with all and singular the hereditaments and appurtenances thereto belonging  
And IDA PACETTI, NELLO PACETTI and AMEDIO PACETTI

warrants that the title is good, indefeasible in fee simple and free and clear of encumbrances except  
municipal and zoning ordinances, easements and restrictions of record,  
if any, any liens or encumbrances created or suffered to be created by  
the acts or defaults of the grantee,  
and will warrant and defend the same.

Dated this 16 day of May 1980

Ida Pacetti (SEAL)

Nello Pacetti (SEAL)

Ida Pacetti (SEAL)

Amedio Pacetti (SEAL)

AUTHENTICATION  
Signature authenticated this 15 day of

ACKNOWLEDGMENT  
STATE OF WISCONSIN  
KENOSHA County

Personally came before me this 16 day of  
May, 1980 the above named IDA  
PACETTI, NELLO PACETTI and AMEDIO  
PACETTI

TITLE MEMBER STATE BAR OF WISCONSIN  
(If not,  
authorized by § 706.06, Wis. Stats.)

This instrument was drafted by  
PAUL F. WOKWICZ  
Attorney at Law

I, the undersigned, do hereby certify that I am the person who executed the foregoing and acknowledged the same.

Rose Bloom  
Kenosha County, Wis.

(Signatures may be authenticated or acknowledged  
are not necessary.)

Commission is permanent (If not, state expiration  
1982)

\*Names of persons signing in any capacity must be typed or printed on their signatures.

5611-22ml AE 12-223-31-354-012

State Bar of Wisconsin Form 3-2003  
**QUIT CLAIM DEED**

Document Number

Document Name

**THIS DEED**, made between John C. Ekornaas

("Grantor," whether one or more), and The John C. Ekornaas Revocable Trust,  
dated **February 29, 2012**, John C. Ekornaas, Trustee

("Grantee," whether one or more).  
Grantor quit claims to Grantee the following described real estate, together with the  
rents, profits, fixtures and other appurtenant interests, in **Kenosha**  
County, State of Wisconsin ("Property") (if more space is needed, please attach addendum):

**See attached legal descriptions.**  
**Property addresses: 5619 - 22nd Avenue**  
**2120 - 57th Street**



DOCUMENT

1668825

RECORDED

At Kenosha County, Kenosha, WI 53140  
Louise J. Principe, Register of Deeds  
on 3/29/2012 at 2:19PM  
120011296 \$30.00

VIC#

REGDEED3

Recording Area

Name and Return Address

**Joseph F. Madrigrano, Jr.**  
**1108 56th Street**  
**Kenosha, WI 53140**

**FEE EXEMPT**

# 16

**12-223-31-354-013 & 12-223-31-354-017**

Parcel Identification Number (PIN)

This **is not** homestead property.  
(is) (is not)

Dated **February 29, 2012**

\_\_\_\_\_(SEAL) \_\_\_\_\_(SEAL)  
\* \_\_\_\_\_ \* John C. Ekornaas

\_\_\_\_\_(SEAL) \_\_\_\_\_(SEAL)  
\* \_\_\_\_\_ \*

**AUTHENTICATION**

Signature(s) \_\_\_\_\_  
authenticated on \_\_\_\_\_

\* \_\_\_\_\_  
TITLE: MEMBER STATE BAR OF WISCONSIN  
(If not, \_\_\_\_\_  
authorized by Wis. Stat. § 706.06 )

THIS INSTRUMENT DRAFTED BY:  
**Attorney Joseph F. Madrigrano, Jr.**  
**1108 56th Street Kenosha, WI**

**ACKNOWLEDGMENT**

STATE OF Wisconsin )  
 ) ss.  
**Kenosha** COUNTY )

Personally came before me on **February 29, 2012**,  
the above-named **John C. Ekornaas**

to me known to be the person(s) who executed the foregoing  
instrument and acknowledged the same.

Louise A. Wood  
\* \_\_\_\_\_  
Notary Public, State of **Wisconsin**  
My commission (is permanent) (expires: **8-10-14**)

(Signatures may be authenticated or acknowledged. Both are not necessary.)

NOTE: THIS IS A STANDARD FORM. ANY MODIFICATION TO THIS FORM SHOULD BE CLEARLY IDENTIFIED.

QUIT CLAIM DEED

©2003 STATE BAR OF WISCONSIN

FORM NO. 3-2003

\*Type name below signatures

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### Legal Description

Part of the Southwest 1/4 of Section 31, Township 2 North, Range 23 East, more particularly described as follows: Commencing on the North line of 57th Street as a point which is 46 feet East of the Northeast corner of the intersection of 57th Street and 22nd Avenue; thence North 105.43 feet; thence East 40 feet; thence South 105.43 feet; thence West 40 feet and to the place of beginning. Said land being in the City of Kenosha, Kenosha County, Wisconsin. PIN: 12-223-31-354-017  
Address: 2120 – 57<sup>th</sup> Street

Part of the Southwest 1/4 of Section 31, Township 2 North, Range 23 East, more particularly described as: Beginning on the East line of 22nd Avenue, at a point which is 105.43 feet North from the North line of 57th Street, and running thence East parallel with the North line of 57th Street, 86 feet; thence running North parallel with the East line of 22nd Avenue, 57 feet, to the Southeast corner of a parcel of land now or formerly owned by one LaMacchia; thence running West parallel with the North line of 57th Street, 86 feet, to the East line of 22nd Avenue; thence running South along and upon the East line of 22nd Avenue 57 feet, to the point of beginning. Said land being in the City of Kenosha, Kenosha County, Wisconsin. PIN: 12-223-31-354-013  
Address: 5619 22<sup>nd</sup> Avenue

## Appendix B

### Investigation-Derived Waste Disposal Documentation



Leaders In Resource Recovery

Corporate Office: W130 N10500 Washington Dr. Germantown, WI 53022

NON-HAZARDOUS WASTE MANIFEST		1. Generator ID Number <b>WD981782154</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>(800) 424-9300</b>	4. Waste Tracking Number <b>ESRR D4738</b>			
5. Generator's Name and Mailing Address <b>Artic Laundry &amp; Cleaners 5619 22nd Avenue Kenosha, WI 53140</b> Generator's Phone: <b>262-551-9239</b>			Generator's Site Address (if different than mailing address) <b>Artic Laundry &amp; Cleaners 5619 22nd Avenue Kenosha, WI 53140</b>					
6. Transporter 1 Company Name <b>Enviro-Safe Transportation, LLC. (262) 790-2500</b>				U.S. EPA ID Number <b>WIR000142877</b>				
7. Transporter 2 Company Name				U.S. EPA ID Number				
8. Designated Facility Name and Site Address <b>Enviro-Safe Resource Recovery W130 N10500 Washington Drive Germantown, WI 53022</b> Facility's Phone: <b>(262) 790-2500</b>				U.S. EPA ID Number <b>WIR000142877</b>				
9. Waste Shipping Name and Description		10. Containers		11. Total Quantity	12. Unit Wt./Vol.			
		No.	Type					
1. <b>Non-Regulated Material</b>		<b>4</b>	<b>DM</b>	<b>2500</b>	<b>P</b>			
2.								
3.								
4.								
13. Special Handling Instructions and Additional Information <b>Document D4738 Sales Order 3813 Chem Trac (CNN677208)</b> <b>1) Soil Cuttings PRO# 5619 APP# 0520181019BIS</b>								
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.								
Generator's/Offoror's Printed/Typed Name <b>Robert Langdon</b>				Signature <i>Robert Langdon</i>	Month <b>11</b>	Day <b>7</b>	Year <b>18</b>	
15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:								
16. Transporter Acknowledgment of Receipt of Materials								
Transporter 1 Printed/Typed Name <b>Ben Cody</b>				Signature <i>Ben Cody</i>	Month <b>11</b>	Day <b>16</b>	Year <b>18</b>	
Transporter 2 Printed/Typed Name				Signature	Month	Day	Year	
17. Discrepancy								
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection								
17b. Alternate Facility (or Generator)				Manifest Reference Number:			U.S. EPA ID Number	
Facility's Phone:								
17c. Signature of Alternate Facility (or Generator)				Month			Day	Year
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a								
Printed/Typed Name <b>Dawn Zellmer</b>				Signature <i>Dawn Zellmer</i>	Month <b>11</b>	Day <b>16</b>	Year <b>18</b>	

GENERATOR  
INT'L  
TRANSPORTER  
DESIGNATED FACILITY



Madison Prairie Landfill  
 6002 NELSON ROAD  
 SUN PRAIRIE, WI, 53590  
 Ph: 608-837-9031

17117384

Original  
 Ticket# 367455

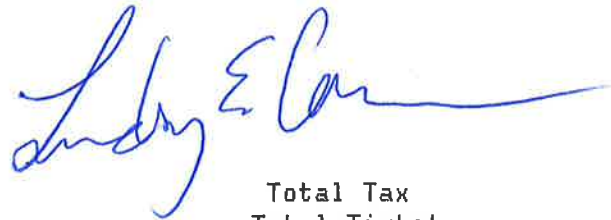
REC'D JAN 18 2019

Customer Name	SCSENGINEERS SCS ENGINEERS	Carrier	SCS RED PICKUP	Volume
Ticket Date	01/09/2019	Vehicle#	WHITE	
Payment Type	Credit Account	Container		
Manual Ticket#		Driver		
Hauling Ticket#		Check#		
Route		Billing #	0001588	
State Waste Code	A-24-06	Gen EPA ID		
Manifest	wmna			
Destination		Grid		
PO				
Profile	V130740WI (SUB SLAB POST HOLE CUTTINGS WM012A)			
Generator	136-ROYBAIETTO ROY BAIETTO			

	Time	Scale	Operator	Inbound	Gross	
In	01/09/2019 10:00:07	scale	lstern		Tare	6280 lb 5920 lb
Out	01/09/2019 10:11:24	scale	lstern		Net	360 lb
					Tons	0.18

Comments

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Spwaste VOC-Each-S	100	1	Each				
2 EVF-L-Standard Env	100	1	Load				
3 FUEL-Fuel Surcharg	100		%				
4 WWM-P-Waste Water	100		%				



Total Tax  
 Total Ticket

DriveWMSignature





# NON-HAZARDOUS MANIFEST

<b>NON-HAZARDOUS MANIFEST</b>	1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of
3. Generator's Mailing Address: <b>SCS Engineers 2830 Dairy Dr Madison, WI 53718</b>		Generator's Site Address (if different than mailing): <b>Roy Baietto 5619 22<sup>nd</sup> Ave Kenosha, WI 53140</b>	
4. Generator's Phone (262) 551-9239		A. Manifest Number <b>WMNA</b>	
5. Transporter 1 Company Name		B. State Generator's ID	
6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name		D. Transporter's Phone	
8. US EPA ID Number		E. State Transporter's ID	
9. Designated Facility Name and Site Address Madison Prairie Landfill 6002 Nelson Rd. Sun Prairie, WI 53590		F. Transporter's Phone	
10. US EPA ID Number		G. State Facility ID	
		H. State Facility Phone 608-837-9031	
GENERATOR	11. Description of Waste Materials		12. Containers
	a. Sub-slab and post hole cuttings		No. Type
	WM Profile # V130740WI		13. Total Quantity
	b.		14. Unit Wt./Vol.
	WM Profile #		I. Misc. Comments
	c.		
WM Profile #			
d.			
WM Profile #			
J. Additional Descriptions for Materials Listed Above		K. Disposal Location	
BILL TO:		Cell	Level
15. Special Handling Instructions and Additional Information		Grid	
Purchase Order #		EMERGENCY CONTACT / PHONE NO.: (262) 551-9239	
16. GENERATOR'S CERTIFICATE: I hereby certify that the above-described materials are not hazardous wastes as defined by CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.			
Printed Name <i>Robert Langdon</i>		Signature "On behalf of" <i>[Signature]</i>	
		Month	Day Year
		1	8 2019
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials		
	Printed Name <i>Lindsey Carlson</i>		Signature <i>Lindsey E. Carlson</i>
			Month Day Year
		1	9 2019
18. Transporter 2 Acknowledgement of Receipt of Materials			
Printed Name		Signature	
		Month Day Year	
FACILITY	19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.		
	20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.		
	Printed Name <i>Luke Streen</i>		Signature <i>[Signature]</i>
		Month	Day Year
		1	9 2019

White- TREATMENT, STORAGE, DISPOSAL FACILITY COPY

Blue- GENERATOR #2 COPY

Yellow- GENERATOR #1 COPY

Pink- FACILITY USE ONLY


Gold- TRANSPORTER #1 COPY

# Madison Metropolitan Sewerage District

Firm: SCS Engineers  
Driver: BT2 BT2  
Truck: (c) JG 7813  
Comments: monitoring well development water

Ticket No: 210869  
Date/Time: 2/8/2017 11:09:57AM  
Total Cost: \$0.12

<u>Type</u>	<u>Volume</u>
Grease Trap	0
Holding Tank	0
LUST	30
Portable Toilet	0
Septic Tank	0
SettlingCatchBasin	0




Attachment C  
Soil Boring and Monitoring Well Documentation



Facility/Project Name Arctic Laundry and Cleaners		SCS # 25216186.00	License/Permit/Monitoring Number	Boring Number 60-7
Boring Drilled By (Firm name and name of crew chief) On-site Environmental Services, Inc. Tony Kapugi			Drilling Started 2-6-17	Drilling Completed 2-6-17
DNR Facility Well No. WI Unique Well No. Common Well Name			Static Water Level	Surface Elevation Borehole Diam.
Boring Location State Plane SW 1/4 of SW 1/4 of Section 31, T. 2 N, R. 23			Lat. Long.	Local Grid Location (If applicable) N, E.
County Kenosha		DNR County Code 30	Civil Town/City/or Village Kenosha	

Sample Number	Length Recovered	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	Soil Properties			RQD/Comments	
								Max. PID/FID	Standard Penetration	Moisture Content		
S1	X			base course, poorly sorted sand & gravel	SP			0.5		D		
S2	49"			silt, slight plasticity, dk brown lighter brown/tan	ML			0.4		M		
S3	X		5	SANDY SILT, fine sand, some gravel, light tan	ML			0.7		M	7-7'	
S4				silt, gray, not plastic	ML			0.6		W		
S5	57"		10	silt, tan, not plastic				0.3		W		
S6				more gray				0.0		W		
				EOB @ 15'								

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature  Firm SCS ENGINEERS 2830 Dairy Drive Madison, WI 53718

This form is authorized by Chapters 281, 283, 289, 291, 292, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture between \$10 and \$25,000, or imprisonment for up to one year, depending on program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information.

*Handwritten notes and signatures at the bottom of the page.*



Facility/Project Name Arctic Laundry and Cleaners		SCS # 25216186.00	License/Permit/Monitoring Number	Boring Number 6P-8
Boring Drilled By (Firm name and name of crew chief) On-site Environmental Services, Inc. Tony Kapugi		Drilling Started 2-6-17	Drilling Completed 2-6-17	Drilling Method geoprobe
DNR Facility Well No.	WI Unique Well No.	Common Well Name	Static Water Level	Surface Elevation
Boring Location State Plane SW 1/4 of SW 1/4 of Section 31, T. 2 N, R.23		Lat. Long.	Local Grid Location (If applicable) N, E.	
County Kenosha	DNR County Code 30	Civil Town/City/or Village Kenosha		

Sample Number	Length Recovered	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	Max. PID/FID	Soil Properties			RQD/ Comments
									Standard Penetration	Moisture Content	P200	
S1	29"	X		partly sorted sand & gravel (fin) <del>lean clay, black</del> silt, tan, not plastic	SP <del>CL</del> ML			0.4		M		
S2		X						0.4		M		
S3	41"	X	5	<del>sandy silt, fine sand, tan</del> silt, tan, not plastic	ML			0.5		M/W		~27"
S4				same, more gray/tan				0.4		W		
S5	60"		10	same, more light gray				0.7		W		
S6								0.5		W		
				EOB @ 15'								

I hereby certify that the information on this form is true and correct to the best of my knowledge.

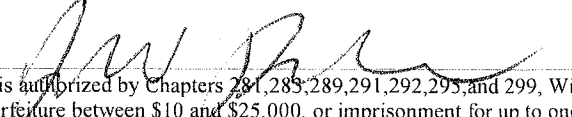
Signature  Firm SCS ENGINEERS 2830 Dairy Drive Madison, WI 53718

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Facility/Project Name Arctic Laundry and Cleaners		SCS # 25216186.00	License/Permit/Monitoring Number	Boring Number GP-9
Boring Drilled By (Firm name and name of crew chief) On-site Environmental Services, Inc. Tony Kapugi		Drilling Started 2-6-17	Drilling Completed 2-6-17	Drilling Method geoprobe
DNR Facility Well No.	WI Unique Well No.	Common Well Name	Static Water Level	Surface Elevation
Boring Location State Plane SW 1/4 of SW 1/4 of Section 31, T. 2 N, R.23		Lat. Long.	Local Grid Location (If applicable) N., E.	
County Kenosha	DNR County Code 30	Civil Town/City/or Village Kenosha		

Sample Number	Length Recovered	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	Max. PID/FID	Soil Properties			RQD/ Comments
									Standard Penetration	Moisture Content	P200	
S1				poorly graded sand & gravel (fine)	SP			0.4				
S2	B74 X			lean clay, stiff, black	CL							
S3	X		5	tan/grey color				0.5				
	40'			Silt, tan, not plastic	ML			0.5				
S4												
S5			10	Same, more light gray				0.5				
	60'							0.4				
S6				sandy silt, not plastic	ML			0.4				
			15	EOB @ 15'								

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature  Firm SCS ENGINEERS 2830 Dairy Drive Madison, WI 53718

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Facility/Project Name Arctic Laundry and Cleaners		SCS # 25216186.00	License/Permit/Monitoring Number		Boring Number GP-10
Boring Drilled By (Firm name and name of crew chief) On-site Environmental Services, Inc. Tony Kapugi			Drilling Started 2-16-17	Drilling Completed 2-16-17	Drilling Method geoprobe
DNR Facility Well No.	WI Unique Well No.	Common Well Name	Static Water Level	Surface Elevation	Borehole Diam. 2.0
Boring Location State Plane SW 1/4 of SW 1/4 of Section 31, T. 2 N, R. 23			Lat. Long.	Local Grid Location (If applicable) N., E.	
County Kenosha		DNR County Code 30	Civil Town/City/or Village Kenosha		

Sample Number	Length Recovered	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	Max. PID/FID	Soil Properties			RQD/ Comments
									Standard Penetration	Moisture Content	P200	
S1				poorly graded sand/gravel (fine)	SP			1.0		D		
S2	43"	X		Silt, black, not plastic	ML			1.2		M		
S3		X	5	same, more tan				1.1		m		
S4				same, gray				0.9		m		
S5			10							w		▽ ~10'
S6	45"			same, gray				2.2		w		
			15	EOB @ 15'				0.8				

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature  Firm SCS ENGINEERS 2830 Dairy Drive Madison, WI 53718

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Facility/Project Name Arctic Laundry and Cleaners		SCS # 25216186.00	License/Permit/Monitoring Number		Boring Number EP-11
Boring Drilled By (Firm name and name of crew chief) On-site Environmental Services, Inc. Tony Kapugi			Drilling Started 2-6-17	Drilling Completed 2-6-17	Drilling Method geoprobe
DNR Facility Well No.	WI Unique Well No.	Common Well Name	Static Water Level	Surface Elevation	Borehole Diam. 2.0
Boring Location State Plane SW 1/4 of SW 1/4 of Section 31, T. 2 N, R.23			Lat. Long.	Local Grid Location (If applicable) N, E.	
County Kenosha		DNR County Code 30	Civil Town/City/or Village Kenosha		

Sample Number	Length Recovered	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	Max. PID/FID	Soil Properties			RQD/Comments
									Standard Penetration	Moisture Content	P200	
S1	X 21"			poorly graded sand + gravel (fill) black/brown, some cinders + wood.	SP			1.5		D		
S2								1.4				
S3	X 34"		5	Silt, gray/tan, not plastic	ML			2.1		M		
S4								1.5				
S5			10							W		▽ ~ 8.5'
S6	00"			Same, more gray, not tan				1.2		W		
			15	EOB @ 15'				1.1		W		

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature  Firm SCS ENGINEERS 2830 Dairy Drive Madison, WI 53718

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Facility/Project Name Arctic Laundry and Cleaners		SCS # 25216186.00	License/Permit/Monitoring Number		Boring Number MW-1
Boring Drilled By (Firm name and name of crew chief) On-site Environmental Services, Inc. Tony Kapugi			Drilling Started 2-6-17	Drilling Completed 2-6-17	Drilling Method geoprobe
DNR Facility Well No.	WI Unique Well No.	Common Well Name	Static Water Level 8.10	Surface Elevation 623.65	Borehole Diam. 2.0
Boring Location State Plane SW 1/4 of SW 1/4 of Section 31, T. 2 N, R. 23			Lat. Long.	Local Grid Location (If applicable) N, E.	
County Kenosha		DNR County Code 30	Civil Town/City/or Village Kenosha		

Sample Number	Length Recovered	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	Max. PID/FID	Soil Properties			RQD/ Comments
									Standard Penetration	Moisture Content	P200	
S1				<del>poorly sorted sand &amp; gravel</del> silt, tan, not plastic	SP ML			0.4		D M		
S2	28"							0.5				
S3	34"		5	<del>Sandy silt, tan, not plastic</del> silt, tan, not plastic	ML ML			0.4		M		
S4			10	more gray/tan				0.5		W M		7-7'
S5	51"			same, gray				0.5		W		
S6			15	EOB @ 15'				0.4		W		

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature  Firm SCS ENGINEERS 2830 Dairy Drive Madison, WI 53718

This form is authorized by Chapters 281, 283, 289, 291, 292, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture between \$10 and \$25,000, or imprisonment for up to one year, depending on program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information.

Facility/Project Name Arctic Laundry and Cleaners		SCS # 25216186.00	License/Permit/Monitoring Number	Boring Number MW-2
Boring Drilled By (Firm name and name of crew chief) On-site Environmental Services, Inc. Tony Kapugi		Drilling Started 2-6-17	Drilling Completed 2-6-17	Drilling Method geoprobe
DNR Facility Well No.	WI Unique Well No.	Common Well Name	Static Water Level 9.50	Surface Elevation 1023.08
Boring Location State Plane SW 1/4 of SW 1/4 of Section 31, T. 2 N, R.23		Lat. Long.	Local Grid Location (If applicable) N., E.	
County Kenosha		DNR County Code 30	Civil Town/City/or Village Kenosha	

Sample Number	Length Recovered	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	Max. PID/FID	Soil Properties			RQD/ Comments
									Standard Penetration	Moisture Content	P200	
S1				partly graded sand & gravel (fill) tan/brown	SP			1.2		D		
S2	34"	X		Silt, tan, not plastic	ML			1.5		M		
S3	43"	X	5	sandy silt, tan, fine sand Silt, more gray tan, not plastic	ML ML			1.5		M		
S4								1.4		W		▽ ~ 8.5'
S5	47"		10	same as above but gray				2.4		W		
S6			15	EOB @ 15'				1.9		W		

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature  Firm SCS ENGINEERS 2830 Dairy Drive Madison, WI 53718

This form is authorized by Chapters 281, 283, 289, 291, 292, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture between \$10 and \$25,000, or imprisonment for up to one year, depending on program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information.

Facility/Project Name Arctic Laundry and Cleaners		SCS # 25216186.00	License/Permit/Monitoring Number	Boring Number MW-3
Boring Drilled By (Firm name and name of crew chief) On-site Environmental Services, Inc. Tony Kapugi			Drilling Started 2-16-17	Drilling Completed 2-16-17
DNR Facility Well No.	WI Unique Well No.	Common Well Name	Static Water Level 7.54	Surface Elevation 623.29
Boring Location State Plane SW 1/4 of SW 1/4 of Section 31, T. 2 N, R.23			Lat. Long.	Borehole Diam. Local Grid Location (If applicable) N., E.
County Kenosha		DNR County Code 30	Civil Town/City/or Village Kenosha	

Sample Number	Length Recovered	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	Max. PID/FID	Soil Properties			RQD/ Comments
									Standard Penetration	Moisture Content	P200	
S1	X 40"			poorly graded sand + gravel (fill) Silt, tan, non plastic, few ML e gravel, some clay	SP			1.6		D		
S2				Silt, not plastic, tan				1.3		M		
S3	X 48"		5					2.9		M		
S4				same, gray				1.7		W		▽ ~ 8.5'
S5	40"		10	same, silt				1.8		W		
S6			15					0.9		W		
				EOB @ 15'								

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: *[Handwritten Signature]* Firm: SCS ENGINEERS 2830 Dairy Drive Madison, WI 53718

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**Verification Only of Fill and Seal**

**Route to DNR Bureau:**

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County <b>Kenosha</b>		WI Unique Well # of Removed Well		Hicap # <b>GP-7</b>		Facility Name <b>Arctic Laundry and Cleaners</b>	
Latitude / Longitude (see instructions) N _____ W _____		Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM		Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001		Facility ID (FID or PWS)	
1/4 1/4 SW      1/4 SW or Gov't Lot #		Section <b>31</b>		Township <b>2 N</b>		Range <input checked="" type="checkbox"/> E <input type="checkbox"/> W	
Well Street Address <b>5619 22nd Ave</b>				Original Well Owner <b>Ray Baietto</b>			
Well City, Village or Town <b>Kenosha</b>				Well ZIP Code <b>53140</b>			
Subdivision Name				Lot #		Present Well Owner <b>Ray Baietto</b>	
Reason for Removal from Service <b>Temporary Borehole</b>				WI Unique Well # of Replacement Well			
Mailing Address of Present Owner <b>1850 19th Avenue</b>				City of Present Owner <b>Kenosha</b>		State <b>WI</b>	
						ZIP Code <b>53140</b>	

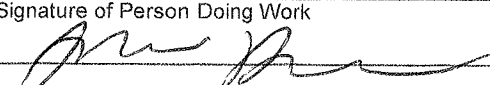
**3. Filled & Sealed Well / Drillhole / Borehole Information**      **4. Pump, Liner, Screen, Casing & Sealing Material**

<input type="checkbox"/> Monitoring Well		Original Construction Date (mm/dd/yyyy) <b>2-6-17</b>		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input type="checkbox"/> Water Well		If a Well Construction Report is available, please attach.		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input checked="" type="checkbox"/> Borehole / Drillhole				<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Construction Type:				<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
<input checked="" type="checkbox"/> Other (specify): <b>geoprobe</b>				<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Formation Type:				<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock				Required Method of Placing Sealing Material	
Total Well Depth From Ground Surface (ft.) <b>15.0</b>		Casing Diameter (in.)		<input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped	
Lower Drillhole Diameter (in.) <b>2.0"</b>		Casing Depth (ft.)		<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____	
Was well annular space grouted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown		Depth to Water (feet) <b>~7.0</b>		Sealing Materials	
				<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Concrete	
				<input type="checkbox"/> Sand-Cement (Concrete) Grout <input checked="" type="checkbox"/> Bentonite Chips	
				For Monitoring Wells and Monitoring Well Boreholes Only:	
				<input checked="" type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout	
				<input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry	

5. Material Used to Fill Well / Drillhole			
From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Surface	15.0	0.48 bags	—

**6. Comments**

**7. Supervision of Work**

Name of Person or Firm Doing Filling & Sealing <b>SCS Engineers</b>			License #		Date of Filling & Sealing or Verification (mm/dd/yyyy) <b>2-6-17</b>		DNR Use Only	
Street or Route <b>2830 Dairy Drive</b>			Telephone Number <b>(608 ) 224-2830</b>		Date Received		Noted By	
City <b>Madison</b>			State <b>WI</b>		ZIP Code <b>53718</b>		Signature of Person Doing Work 	
							Date Signed <b>2-7-17</b>	



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**Route to DNR Bureau:**

**Verification Only of Fill and Seal**

- Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**

County <b>Kenosha</b>		WI Unique Well # of Removed Well	Hicap # <b>GP-8</b>	
Latitude / Longitude (see instructions)		Format Code	Method Code	
_____ N		<input type="checkbox"/> DD	<input type="checkbox"/> GPS008	
_____ W		<input type="checkbox"/> DDM	<input type="checkbox"/> SCR002	
_____		<input type="checkbox"/> OTH001		
1/4 1/4 SW	1/4 SW	Section	Township	Range <input checked="" type="checkbox"/> E
or Gov't Lot #		31	2 N	23 <input type="checkbox"/> W
Well Street Address <b>5619 22nd Ave</b>				
Well City, Village or Town <b>Kenosha</b>			Well ZIP Code <b>53140</b>	
Subdivision Name			Lot #	
Reason for Removal from Service <b>Temporary Borehole</b>		WI Unique Well # of Replacement Well		

**2. Facility / Owner Information**

Facility Name <b>Arctic Laundry and Cleaners</b>		
Facility ID (FID or PWS)		
License/Permit/Monitoring #		
Original Well Owner <b>Boy Baietto</b>		
Present Well Owner <b>Boy Baietto</b>		
Mailing Address of Present Owner <b>1850 19th Avenue</b>		
City of Present Owner <b>Kenosha</b>	State <b>WI</b>	ZIP Code <b>53140</b>

**3. Filled & Sealed Well / Drillhole / Borehole Information**

<input type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy) <b>2-16-17</b>
<input type="checkbox"/> Water Well	
<input checked="" type="checkbox"/> Borehole / Drillhole	If a Well Construction Report is available, please attach.
Construction Type:	
<input type="checkbox"/> Drilled	<input type="checkbox"/> Driven (Sandpoint)
<input checked="" type="checkbox"/> Other (specify): <b>geoprobe</b>	<input type="checkbox"/> Dug
Formation Type:	
<input checked="" type="checkbox"/> Unconsolidated Formation	<input type="checkbox"/> Bedrock
Total Well Depth From Ground Surface (ft.) <b>15.0</b>	Casing Diameter (in.)
Lower Drillhole Diameter (in.) <b>2.0</b>	Casing Depth (ft.)
Was well annular space grouted?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
If yes, to what depth (feet)?	Depth to Water (feet) <b>~7.0</b>

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Liner(s) removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Liner(s) perforated?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Screen removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Casing left in place?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Was casing cut off below surface?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Did sealing material rise to surface?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Did material settle after 24 hours?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
If yes, was hole retopped?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Required Method of Placing Sealing Material	
<input type="checkbox"/> Conductor Pipe-Gravity	<input type="checkbox"/> Conductor Pipe-Pumped
<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips)	<input type="checkbox"/> Other (Explain): _____
Sealing Materials	
<input type="checkbox"/> Neat Cement Grout	<input type="checkbox"/> Concrete
<input type="checkbox"/> Sand-Cement (Concrete) Grout	<input checked="" type="checkbox"/> Bentonite Chips
For Monitoring Wells and Monitoring Well Boreholes Only:	
<input checked="" type="checkbox"/> Bentonite Chips	<input type="checkbox"/> Bentonite - Cement Grout
<input type="checkbox"/> Granular Bentonite	<input type="checkbox"/> Bentonite - Sand Slurry

**5. Material Used to Fill Well / Drillhole**

Material	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
<b>3/8" bentonite</b>	Surface	<b>15</b>	<b>0.48 bags</b>	<b>-</b>

**6. Comments**

**7. Supervision of Work**

Name of Person or Firm Doing Filling & Sealing <b>SCS Engineers</b>		License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) <b>2-16-17</b>	DNR Use Only	
Street or Route <b>2830 Dairy Drive</b>		Telephone Number <b>(608) 224-2830</b>	Comments	Date Received	Noted By
City <b>Madison</b>	State <b>WI</b>	ZIP Code <b>53718</b>	Signature of Person Doing Work <i>[Signature]</i>	Date Signed <b>2-7-17</b>	

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**Verification Only of Fill and Seal**

**Route to DNR Bureau:**

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County <b>Kenosha</b>		WI Unique Well # of Removed Well	Hicap # <b>GP-9</b>	Facility Name <b>Arctic Laundry and Cleaners</b>
Latitude / Longitude (see instructions) N _____ W _____		Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM	Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001	Facility ID (FID or PWS)
1/4 / 1/4 SW	1/4 SW	Section <b>31</b>	Township <b>2 N</b>	Range <input checked="" type="checkbox"/> E <input type="checkbox"/> W
or Gov't Lot #		License/Permit/Monitoring #		
Well Street Address <b>5619 22nd Ave</b>		Original Well Owner <b>Boy Baietto</b>		
Well City, Village or Town <b>Kenosha</b>		Present Well Owner <b>Boy Baietto</b>		
Subdivision Name		Mailing Address of Present Owner <b>1850 19th Avenue</b>		
Well ZIP Code <b>53140</b>		City of Present Owner <b>Kenosha</b>		
Lot #		State <b>WI</b>		
Reason for Removal from Service <b>Temporary Borehole</b>		ZIP Code <b>53140</b>		
WI Unique Well # of Replacement Well		<b>4. Pump, Liner, Screen, Casing &amp; Sealing Material</b>		

<b>3. Filled &amp; Sealed Well / Drillhole / Borehole Information</b>		<input type="checkbox"/> Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Liner(s) perforated? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Screen removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Casing left in place? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Was casing cut off below surface? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> Did sealing material rise to surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Did material settle after 24 hours? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/> If bentonite chips were used, were they hydrated with water from a known safe source? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy)	Required Method of Placing Sealing Material	
<input type="checkbox"/> Water Well	If a Well Construction Report is available, please attach.	<input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped	
<input checked="" type="checkbox"/> Borehole / Drillhole		<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____	
Construction Type:		Sealing Materials	
<input type="checkbox"/> Drilled	<input type="checkbox"/> Driven (Sandpoint)	<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Concrete	
<input checked="" type="checkbox"/> Other (specify): <b>geoprobe</b>	<input type="checkbox"/> Dug	<input type="checkbox"/> Sand-Cement (Concrete) Grout <input checked="" type="checkbox"/> Bentonite Chips	
Formation Type:		For Monitoring Wells and Monitoring Well Boreholes Only:	
<input checked="" type="checkbox"/> Unconsolidated Formation	<input type="checkbox"/> Bedrock	<input checked="" type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout	
Total Well Depth From Ground Surface (ft.) <b>15.0</b>	Casing Diameter (in.)	<input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry	
Lower Drillhole Diameter (in.) <b>2.0</b>	Casing Depth (ft.)		
Was well annular space grouted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	Depth to Water (feet) <b>~7.5'</b>		

5. Material Used to Fill Well / Drillhole		From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
<b>3/8" bentonite chips</b>		Surface	<b>15.0</b>	<b>0.48 bags</b>	<b>-</b>

**6. Comments**

**7. Supervision of Work**

Name of Person or Firm Doing Filling & Sealing <b>SCS Engineers</b>			License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) <b>2-6-17</b>	<b>DNR Use Only</b>	
Street or Route <b>2830 Dairy Drive</b>			Telephone Number <b>(608 ) 224-2830</b>	Date Received	Noted By	
City <b>Madison</b>	State <b>WI</b>	ZIP Code <b>53718</b>	Signature of Person Doing Work 		Date Signed <b>2-7-17</b>	

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**Route to DNR Bureau:**

**Verification Only of Fill and Seal**

- Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**

County <b>Kenosha</b>	WI Unique Well # of Removed Well _____	Hicap # <b>GP-10</b>
Latitude / Longitude (see instructions) _____ N _____ W	Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM	Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001
1/4 / 1/4 SW or Gov't Lot #	Section <b>31</b>	Township <b>2 N</b>
Well Street Address <b>5619 22nd Ave</b>	Range <b>23</b>	Original Well Owner <b>Boy Baietto</b>
Well City, Village or Town <b>Kenosha</b>	Well ZIP Code <b>53140</b>	Present Well Owner <b>Boy Baietto</b>
Subdivision Name	Lot #	Mailing Address of Present Owner <b>1850 19th Avenue</b>
Reason for Removal from Service <b>Temporary Borehole</b>	WI Unique Well # of Replacement Well _____	City of Present Owner <b>Kenosha</b>
		State <b>WI</b>
		ZIP Code <b>53140</b>

**2. Facility / Owner Information**

Facility Name <b>Arctic Laundry and Cleaners</b>
Facility ID (FID or PWS) _____
License/Permit/Monitoring # _____
Original Well Owner <b>Boy Baietto</b>
Present Well Owner <b>Boy Baietto</b>
Mailing Address of Present Owner <b>1850 19th Avenue</b>
City of Present Owner <b>Kenosha</b>
State <b>WI</b>
ZIP Code <b>53140</b>

**3. Filled & Sealed Well / Drillhole / Borehole Information**

<input type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy) <b>2-6-17</b>
<input type="checkbox"/> Water Well	
<input checked="" type="checkbox"/> Borehole / Drillhole	If a Well Construction Report is available, please attach. _____
Construction Type:	
<input type="checkbox"/> Drilled	<input type="checkbox"/> Driven (Sandpoint)
<input checked="" type="checkbox"/> Other (specify): <b>geoprobe</b>	<input type="checkbox"/> Dug
Formation Type:	
<input checked="" type="checkbox"/> Unconsolidated Formation	<input type="checkbox"/> Bedrock
Total Well Depth From Ground Surface (ft.) <b>15.0</b>	Casing Diameter (in.) _____
Lower Drillhole Diameter (in.) <b>2.0</b>	Casing Depth (ft.) _____
Was well annular space grouted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	
If yes, to what depth (feet)? _____	Depth to Water (feet) <b>~10.0</b>

**4. Pump, Liner, Screen, Casing & Sealing Material**

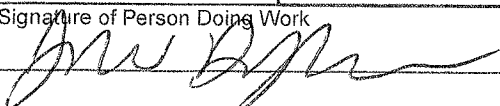
Pump and piping removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Liner(s) removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Liner(s) perforated?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Screen removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Casing left in place?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Was casing cut off below surface?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Did sealing material rise to surface?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Did material settle after 24 hours?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
If yes, was hole retopped?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Required Method of Placing Sealing Material			
<input type="checkbox"/> Conductor Pipe-Gravity	<input type="checkbox"/> Conductor Pipe-Pumped		
<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips)	<input type="checkbox"/> Other (Explain): _____		
Sealing Materials			
<input type="checkbox"/> Neat Cement Grout	<input type="checkbox"/> Concrete		
<input type="checkbox"/> Sand-Cement (Concrete) Grout	<input checked="" type="checkbox"/> Bentonite Chips		
For Monitoring Wells and Monitoring Well Boreholes Only:			
<input checked="" type="checkbox"/> Bentonite Chips	<input type="checkbox"/> Bentonite - Cement Grout		
<input type="checkbox"/> Granular Bentonite	<input type="checkbox"/> Bentonite - Sand Slurry		

**5. Material Used to Fill Well / Drillhole**

From (ft)	To (ft)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Surface	15.0	0.48 bags	_____

**6. Comments**

**7. Supervision of Work**

Name of Person or Firm Doing Filling & Sealing <b>SCS Engineers</b>	License # _____	Date of Filling & Sealing or Verification (mm/dd/yyyy) <b>2-6-17</b>	DNR Use Only	
Street or Route <b>2830 Dairy Drive</b>		Telephone Number <b>(608) 224-2830</b>	Date Received _____	Noted By _____
City <b>Madison</b>	State <b>WI</b>	ZIP Code <b>53718</b>	Signature of Person Doing Work 	
			Date Signed <b>2-7-17</b>	

**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

**Verification Only of Fill and Seal**

**Route to DNR Bureau:**

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**

County: Kenosha      WI Unique Well # of Removed Well: \_\_\_\_\_      Hicap #: GP-11

Latitude / Longitude (see instructions): \_\_\_\_\_ N      Format Code:  DD      Method Code:  GPS008

\_\_\_\_\_ W       DDM       SCR002       OTH001

1/4 SW      1/4 SW      Section: 31      Township: 2 N      Range:  E       W

or Gov't Lot #

Well Street Address: 5619 22nd Ave

Well City, Village or Town: Kenosha      Well ZIP Code: 53140

Subdivision Name: \_\_\_\_\_      Lot #: \_\_\_\_\_

**2. Facility / Owner Information**

Facility Name: Arctic Laundry and Cleaners

Facility ID (FID or PWS): \_\_\_\_\_

License/Permit/Monitoring #: \_\_\_\_\_

Original Well Owner: Boy Baietto

Present Well Owner: Boy Baietto

Mailing Address of Present Owner: 1850 19th Avenue

City of Present Owner: Kenosha      State: WI      ZIP Code: 53140

Reason for Removal from Service: Temporary Borehole      WI Unique Well # of Replacement Well: \_\_\_\_\_

**3. Filled & Sealed Well / Drillhole / Borehole Information**

Monitoring Well      Original Construction Date (mm/dd/yyyy): 2-6-17

Water Well

Borehole / Drillhole      If a Well Construction Report is available, please attach.

Construction Type:

Drilled       Driven (Sandpoint)       Dug

Other (specify): \_\_\_\_\_

Formation Type:

Unconsolidated Formation       Bedrock

Total Well Depth From Ground Surface (ft.): 15.0      Casing Diameter (in.): \_\_\_\_\_

Lower Drillhole Diameter (in.): 2.0      Casing Depth (ft.): \_\_\_\_\_

Was well annular space grouted?       Yes       No       Unknown

If yes, to what depth (feet)?      Depth to Water (feet): ~ 8.5

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?       Yes       No       N/A

Liner(s) removed?       Yes       No       N/A

Liner(s) perforated?       Yes       No       N/A

Screen removed?       Yes       No       N/A

Casing left in place?       Yes       No       N/A

Was casing cut off below surface?       Yes       No       N/A

Did sealing material rise to surface?       Yes       No       N/A

Did material settle after 24 hours?       Yes       No       N/A

If yes, was hole retopped?       Yes       No       N/A

If bentonite chips were used, were they hydrated with water from a known safe source?       Yes       No       N/A

Required Method of Placing Sealing Material

Conductor Pipe-Gravity       Conductor Pipe-Pumped

Screened & Poured (Bentonite Chips)       Other (Explain): \_\_\_\_\_

Sealing Materials

Neat Cement Grout       Concrete

Sand-Cement (Concrete) Grout       Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

Bentonite Chips       Bentonite - Cement Grout

Granular Bentonite       Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole			
From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Surface	15.0	0.48 bags	—

**6. Comments**

**7. Supervision of Work**

Supervision of Work			DNR Use Only	
Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)	Date Received	Noted By
SCS Engineers		2-6-17		
Street or Route	Telephone Number		Comments	
2830 Dairy Drive	(608 ) 224-2830			
City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Madison	WI	53718	<i>[Signature]</i>	2-7-17

Facility/Project Name Arctic Laundry and Cleaners	Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> S. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name MW-1
Facility License, Permit or Monitoring No.	Local Grid Origin (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/> Lat. " Long. " or	Wis. Unique Well No. DNR Well ID No. NW 581
Facility ID	St. Plane ft. N. ft. E. S/C/N	Date Well Installed 02/06/2017 m m d d y y y y
Type of Well Well Code /	Section Location of Waste/Source SW 1/4 of SW 1/4 of Sec. 31, T. 2 N, R. 23 <input checked="" type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: Name (first, last) and Firm Tony Kapugi On-site Environmental Services, Inc.
Distance from Waste/Source ft.	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	
Enf. Stds. Apply <input checked="" type="checkbox"/>	Gov. Lot Number	

- A. Protective pipe, top elevation ----- ft. MSL
- B. Well casing, top elevation 623.65 ft. MSL
- C. Land surface elevation ----- ft. MSL
- D. Surface seal, bottom ----- ft. MSL or ----- ft.

12. USCS classification of soil near screen:  
 GP  GM  GC  GW  SW  SP   
 SM  SC  ML  MH  CL  CH   
 Bedrock

13. Sieve analysis performed?  Yes  No

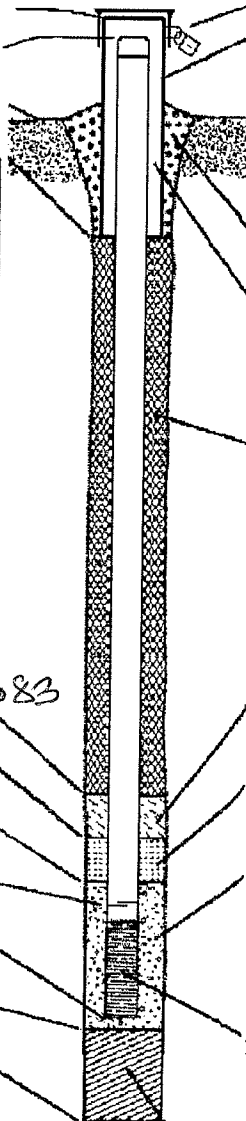
14. Drilling method used:  
 Rotary  5 0  
 Hollow Stem Auger  4 1  
 Other

15. Drilling fluid used: Water  0 2 Air  0 1  
 Drilling Mud  0 3 None  9 9

16. Drilling additives used?  Yes  No

Describe \_\_\_\_\_

17. Source of water (attach analysis, if required):  
 \_\_\_\_\_



- 1. Cap and lock?  Yes  No
- 2. Protective cover pipe:
  - a. Inside diameter: 8 in.
  - b. Length: 1 ft.
  - c. Material: Steel  0 4  
Other
  - d. Additional protection?  Yes  No  
If yes, describe: \_\_\_\_\_
- 3. Surface seal:
  - Bentonite  3 0
  - Concrete  0 1
  - Other
- 4. Material between well casing and protective pipe:
  - Bentonite  3 0
  - Other
- 5. Annular space seal:
  - a. Granular/Chipped Bentonite  3 3
  - b. \_\_\_\_\_ Lbs/gal mud weight . . . Bentonite-sand slurry  3 5
  - c. \_\_\_\_\_ Lbs/gal mud weight . . . . . Bentonite slurry  3 1
  - d. \_\_\_\_\_ % Bentonite . . . . . Bentonite-cement grout  5 0
  - e. 1.25 Ft<sup>3</sup> volume added for any of the above
  - f. How installed:
    - Tremie  0 1
    - Tremie pumped  0 2
    - Gravity  0 8
- 6. Bentonite seal:
  - a. Bentonite granules  3 3
  - b.  1/4 in.  3/8 in.  1/2 in. Bentonite chips  3 2
  - c. Other
- 7. Fine sand material: Manufacturer, product name & mesh size
  - a. 30/100 BWSidley
  - b. Volume added 0.25 ft<sup>3</sup>
- 8. Filter pack material: Manufacturer, product name & mesh size
  - a. BW Sidley #5
  - b. Volume added 2.75 ft<sup>3</sup>
- 9. Well casing:
  - Flush threaded PVC schedule 40  2 3
  - Flush threaded PVC schedule 80  2 4
  - Other
- 10. Screen material: PVC
  - a. Screen type:
    - Factory cut  1 1
    - Continuous slot  0 1
    - Other
  - b. Manufacturer monoflex
  - c. Slot size: 0.010 in.
  - d. Slotted length: 10 ft.
- 11. Backfill material (below filter pack):
  - None  1 4
  - Other

- E. Bentonite seal, top 622.82 ft. MSL or 8.5 ft. <sup>0.83</sup>
- F. Fine sand, top 620.15 ft. MSL or 3.5 ft.
- G. Filter pack, top 619.65 ft. MSL or 4.0 ft.
- H. Screen joint, top 619.15 ft. MSL or 4.5 ft.
- I. Well bottom 609.15 ft. MSL or 14.5 ft.
- J. Filter pack, bottom 609.15 ft. MSL or 14.5 ft.
- K. Borehole, bottom 608.65 ft. MSL or 15.0 ft.
- L. Borehole, diameter 8.25 in.
- M. O.D. well casing 2.03 in. 2.38
- N. I.D. well casing 2.08 in. 2.01

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Handwritten Signature] Firm SCS ENGINEERS, 2830 Dairy Drive, Madison, WI 53718

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

Route to: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name Arctic Laundry and Cleaners	Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> S. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name MW-2
Facility License, Permit or Monitoring No.	Local Grid Origin (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/> Lat. " Long. " or " or "	Wis. Unique Well No. DNR Well ID No. VW582
Facility ID	St. Plane ft. N. ft. E. S/C/N	Date Well Installed 021 Oct 2017 m m d d y y y y
Type of Well Well Code /	Section Location of Waste/Source SW 1/4 of SW 1/4 of Sec. 31, T. 2 N, R. 23 <input checked="" type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: Name (first, last) and Firm Tony Kapugi
Distance from Waste/Source ft.	Enf. Stds. Apply <input checked="" type="checkbox"/> Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	Gov. Lot Number On-site Environmental Services, Inc.

- A. Protective pipe, top elevation ----- ft. MSL
- B. Well casing, top elevation 623.68 ft. MSL
- C. Land surface elevation ----- ft. MSL
- D. Surface seal, bottom ----- ft. MSL or ----- ft.

12. USCS classification of soil near screen:  
 GP  GM  GC  GW  SW  SP   
 SM  SC  ML  MH  CL  CH   
 Bedrock

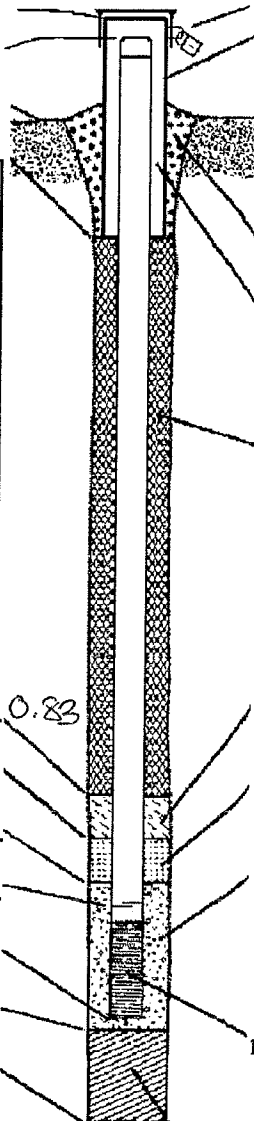
13. Sieve analysis performed?  Yes  No

14. Drilling method used: Rotary  50  
 Hollow Stem Auger  41  
 Other

15. Drilling fluid used: Water  02 Air  01  
 Drilling Mud  03 None  99

16. Drilling additives used?  Yes  No  
 Describe -----

17. Source of water (attach analysis, if required):  
 -----



- 1. Cap and lock?  Yes  No
- 2. Protective cover pipe:
  - a. Inside diameter: 3.6 in.
  - b. Length: 1 ft.
  - c. Material: Steel  04  
Other
  - d. Additional protection?  Yes  No  
If yes, describe: -----
- 3. Surface seal:
  - Bentonite  30
  - Concrete  01
  - Other
- 4. Material between well casing and protective pipe:
  - Bentonite  30
  - Other
- 5. Annular space seal:
  - a. Granular/Chipped Bentonite  33
  - b. \_\_\_ Lbs/gal mud weight ... Bentonite-sand slurry  35
  - c. \_\_\_ Lbs/gal mud weight ... Bentonite slurry  31
  - d. \_\_\_ % Bentonite ... Bentonite-cement grout  50
  - e. 1.25 Ft<sup>3</sup> volume added for any of the above
  - f. How installed: Tremie  01  
Tremie pumped  02  
Gravity  08
- 6. Bentonite seal:
  - a. Bentonite granules  33
  - b.  1/4 in.  3/8 in.  1/2 in. Bentonite chips  32
  - c. Other
- 7. Fine sand material: Manufacturer, product name & mesh size
  - a. 30/100 30/100 BWSidley
  - b. Volume added 0.25 ft<sup>3</sup>
- 8. Filter pack material: Manufacturer, product name & mesh size
  - a. BWSidley #5
  - b. Volume added 2.75 ft<sup>3</sup>
- 9. Well casing:
  - Flush threaded PVC schedule 40  23
  - Flush threaded PVC schedule 80  24
  - Other
- 10. Screen material: PVC
  - a. Screen type: Factory cut  11  
Continuous slot  01  
Other
  - b. Manufacturer Martoflex
  - c. Slot size: 0.010 in.
  - d. Slotted length: 10 ft.
- 11. Backfill material (below filter pack):
  - None  14
  - Other

- E. Bentonite seal, top 622.85 ft. MSL or 3.5 ft. 0.83
- F. Fine sand, top 620.18 ft. MSL or 3.5 ft.
- G. Filter pack, top 619.68 ft. MSL or 4.0 ft.
- H. Screen joint, top 619.18 ft. MSL or 4.5 ft.
- I. Well bottom 609.18 ft. MSL or 14.5 ft.
- J. Filter pack, bottom 609.18 ft. MSL or 14.5 ft.
- K. Borehole, bottom 608.68 ft. MSL or 15.0 ft.
- L. Borehole, diameter 3.25 in.
- M. O.D. well casing 2.85 in. 2.38
- N. I.D. well casing 2.38 in. 2.01

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature] Firm SCS ENGINEERS, 2830 Dairy Drive, Madison, WI 53718

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

Facility/Project Name Arctic Laundry and Cleaners		Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> E. ft. <input type="checkbox"/> S. <input type="checkbox"/> W.		Well Name MW-3	
Facility License, Permit or Monitoring No.		Local Grid Origin (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/>		Wis. Unique Well No. DNR Well ID No.	
Facility ID		St. Plane ft. N. ft. E. S/C/N		Date Well Installed 02/06/2017	
Type of Well Well Code /		Section Location of Waste/Source SW <sub>1/4</sub> of SW <sub>1/4</sub> of Sec. 31, T. 2 N, R. 23 <input checked="" type="checkbox"/> E <input type="checkbox"/> W		Well Installed By: Name (first, last) and Firm Tony Kapugi	
Distance from Waste/Source ft.		Enf. Stds. Apply <input checked="" type="checkbox"/>		Gov. Lot Number	
		Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known		On-site Environmental Services, Inc.	

- A. Protective pipe, top elevation \_\_\_\_\_ ft. MSL
- B. Well casing, top elevation 623.29 ft. MSL
- C. Land surface elevation \_\_\_\_\_ ft. MSL
- D. Surface seal, bottom \_\_\_\_\_ ft. MSL or \_\_\_\_\_ ft.

12. USCS classification of soil near screen:  
 GP  GM  GC  GW  SW  SP   
 SM  SC  ML  MH  CL  CH   
 Bedrock

13. Sieve analysis performed?  Yes  No

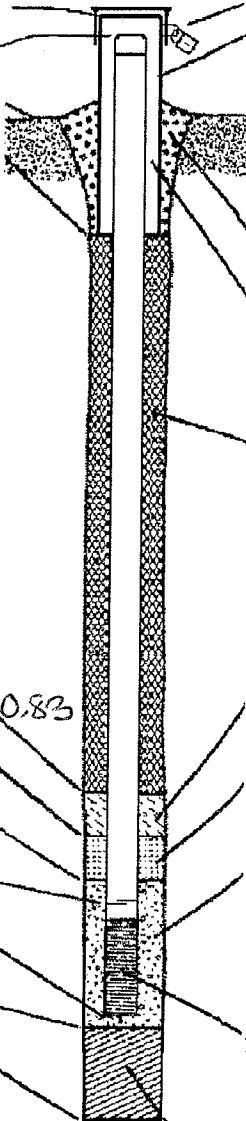
14. Drilling method used: Rotary  50  
 Hollow Stem Auger  41  
 Other

15. Drilling fluid used: Water  02 Air  01  
 Drilling Mud  03 None  99

16. Drilling additives used?  Yes  No

Describe \_\_\_\_\_

17. Source of water (attach analysis, if required):  
 \_\_\_\_\_



- 1. Cap and lock?  Yes  No
- 2. Protective cover pipe:
  - a. Inside diameter: \_\_\_\_\_ in.
  - b. Length: \_\_\_\_\_ ft.
  - c. Material: Steel  04  
Other
  - d. Additional protection?  Yes  No  
If yes, describe: \_\_\_\_\_
- 3. Surface seal:
  - Bentonite  30
  - Concrete  01
  - Other
- 4. Material between well casing and protective pipe:
  - Bentonite  30
  - Other
- 5. Annular space seal:
  - a. Granular/Chipped Bentonite  33
  - b. \_\_\_\_\_ Lbs/gal mud weight . . . Bentonite-sand slurry  35
  - c. \_\_\_\_\_ Lbs/gal mud weight . . . . . Bentonite slurry  31
  - d. \_\_\_\_\_ % Bentonite . . . . . Bentonite-cement grout  50
  - e. 1.25 Ft<sup>3</sup> volume added for any of the above
  - f. How installed:
    - Tremie  01
    - Tremie pumped  02
    - Gravity  08
- 6. Bentonite seal:
  - a. Bentonite granules  33
  - b.  1/4 in.  3/8 in.  1/2 in. Bentonite chips  32
  - c. \_\_\_\_\_ Other
- 7. Fine sand material: Manufacturer, product name & mesh size
  - a. 30/100 BWSidley
  - b. Volume added 0.25 ft<sup>3</sup>
- 8. Filter pack material: Manufacturer, product name & mesh size
  - a. BW Sidley #5
  - b. Volume added 2.75 ft<sup>3</sup>
- 9. Well casing:
  - Flush threaded PVC schedule 40  23
  - Flush threaded PVC schedule 80  24
  - Other
- 10. Screen material: PVC
  - a. Screen type:
    - Factory cut  11
    - Continuous slot  01
    - Other
  - b. Manufacturer MOOREX
  - c. Slot size: 0.010 in.
  - d. Slotted length: 10 ft.
- 11. Backfill material (below filter pack):
  - None  14
  - Other

- E. Bentonite seal, top 622.46 ft. MSL or 3.5 ft. 0.83
- F. Fine sand, top 619.79 ft. MSL or 3.5 ft.
- G. Filter pack, top 619.29 ft. MSL or 4.0 ft.
- H. Screen joint, top 618.79 ft. MSL or 4.5 ft.
- I. Well bottom 608.79 ft. MSL or 14.5 ft.
- J. Filter pack, bottom 608.79 ft. MSL or 14.5 ft.
- K. Borehole, bottom 608.29 ft. MSL or 15.0 ft.
- L. Borehole, diameter 8.25 in.
- M. O.D. well casing 2.03 in. 2.38
- N. I.D. well casing 2.38 in. 2.01

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Handwritten Signature] Firm SCS ENGINEERS, 2830 Dairy Drive, Madison, WI 53718

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

Route to: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name Arctic Laundry and Cleaners	County Name Kenosha	Well Name mw-1
Facility License, Permit or Monitoring Number	County Code 30	Wis. Unique Well Number VW581
		DNR Well ID Number ---

1. Can this well be purged dry?  Yes  No
2. Well development method
- surged with bailer and bailed  41
  - surged with bailer and pumped  61
  - surged with block and bailed  42
  - surged with block and pumped  62
  - surged with block, bailed and pumped  70
  - compressed air  20
  - bailed only  10
  - pumped only  51
  - pumped slowly  50
  - Other
3. Time spent developing well 118 min.
4. Depth of well (from top of well casing) 14.5 ft.
5. Inside diameter of well 2.03 in.
6. Volume of water in filter pack and well casing 5.9 gal.
7. Volume of water removed from well 21.5 gal.
8. Volume of water added (if any) --- gal.
9. Source of water added ---
10. Analysis performed on water added?  Yes  No  
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. <u>8.10</u> ft.	<u>9.55</u> ft.
Date	b. <u>07/07/2017</u> m m d d y y y y	<u>02/07/2017</u> m m d d y y y y
Time	c. <u>9:07</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>11:05</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.
12. Sediment in well bottom	<u>1.5</u> inches	<u>0</u> inches
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>very silty, dark gray</u>	Clear <input type="checkbox"/> 20 Turbid <input checked="" type="checkbox"/> 25 (Describe) <u>silty, dark gray/cloudy</u>

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids --- mg/l --- mg/l

15. COD --- mg/l --- mg/l

16. Well developed by: Name (first, last) and Firm

First Name: Jaclyn Last Name: DeBruyne

Firm: SCS ENGINEERS, 2830 Dairy Drive, Madison, WI 53718

17. Additional comments on development:  
bailed ~4g, well went dry  
bailed ~2g, well went dry, does not recharge quick

Name and Address of Facility Contact/Owner/Responsible Party

First Name: Boy Last Name: Baietto

Facility/Firm: \_\_\_\_\_

Street: 1850 19th Avenue

City/State/Zip: Kenosha, WI 53140

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: [Signature]

Print Name: Jaclyn DeBruyne

Firm: SCS ENGINEERS, 2830 Dairy Drive, Madison, WI 53718

NOTE: See instructions for more information including a list of county codes and well type codes.



Route to: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name Arctic Laundry and Cleaners	County Name Kenosha	Well Name mw-2
Facility License, Permit or Monitoring Number	County Code 30	Wis. Unique Well Number VW582
		DNR Well ID Number ---

1. Can this well be purged dry?  Yes  No

2. Well development method

surged with bailer and bailed	<input checked="" type="checkbox"/>	4 1
surged with bailer and pumped	<input type="checkbox"/>	6 1
surged with block and bailed	<input type="checkbox"/>	4 2
surged with block and pumped	<input type="checkbox"/>	6 2
surged with block, bailed and pumped	<input type="checkbox"/>	7 0
compressed air	<input type="checkbox"/>	2 0
bailed only	<input type="checkbox"/>	1 0
pumped only	<input type="checkbox"/>	5 1
pumped slowly	<input type="checkbox"/>	5 0
Other _____	<input type="checkbox"/>	

3. Time spent developing well 18 min.

4. Depth of well (from top of well casing) 14.5 ft.

5. Inside diameter of well 2.03 in.

6. Volume of water in filter pack and well casing 4.6 gal.

7. Volume of water removed from well 6.0 gal.

8. Volume of water added (if any) \_\_\_\_\_ gal.

9. Source of water added \_\_\_\_\_

10. Analysis performed on water added?  Yes  No  
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. <u>9.50</u> ft.	<u>12.20</u> ft.
Date	b. <u>02/07/2017</u> m m d d y y y y	<u>02/07/2017</u> m m d d y y y y
Time	c. <u>8:23</u> <input checked="" type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>8:57</u> <input checked="" type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
12. Sediment in well bottom	<u>0.5</u> inches	<u>5</u> inches
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>Very silty</u>	Clear <input type="checkbox"/> 20 Turbid <input checked="" type="checkbox"/> 25 (Describe) <u>Very silty</u>
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	_____ mg/l	_____ mg/l
15. COD	_____ mg/l	_____ mg/l

17. Additional comments on development:  
 bailed ~ 4g, well went dry - let recharge a bit  
 purged ~ 3/4g, well went dry, not recharging quick  
 purged ~ 1g, well went dry

Name and Address of Facility Contact /Owner/Responsible Party

First Name: Boy Last Name: Baietto

Facility/Firm: \_\_\_\_\_

Street: 1850 19th Avenue

City/State/Zip: Kenosha, WI 53140

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: [Signature]

Print Name: Jacklyn DeBruyne

Firm: SCS ENGINEERS, 2830 Dairy Drive, Madison, WI 53718

NOTE: See instructions for more information including a list of county codes and well type codes.

Route to: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name Arctic Laundry and Cleaners	County Name Kenosha	Well Name mw-3
Facility License, Permit or Monitoring Number	County Code 30	Wis. Unique Well Number VW 583
		DNR Well ID Number ---

1. Can this well be purged dry?  Yes  No

2. Well development method
- surged with bailer and bailed  4 1
  - surged with bailer and pumped  6 1
  - surged with block and bailed  4 2
  - surged with block and pumped  6 2
  - surged with block, bailed and pumped  7 0
  - compressed air  2 0
  - bailed only  1 0
  - pumped only  5 1
  - pumped slowly  5 0
  - Other

3. Time spent developing well 80 min.

4. Depth of well (from top of well casing) 14.5 ft.

5. Inside diameter of well 2.03 in.

6. Volume of water in filter pack and well casing 6.4 gal.

7. Volume of water removed from well 6.5 gal.

8. Volume of water added (if any) --- gal.

9. Source of water added ---

10. Analysis performed on water added?  Yes  No  
(If yes, attach results)

17. Additional comments on development:

bailed 3.5 gal well went dry  
bailed 1 gal well went dry  
Very slow recharge

11. Depth to Water Before Development After Development

(from top of well casing) a. 7.54 ft. 10.40 ft.

Date b. 02/07/2017 02/07/2017  
m m d d y y y y m m d d y y y y

Time c. 9:45  a.m.  p.m. 11:05  a.m.  p.m.

12. Sediment in well bottom 0.65 inches 0.65 inches

13. Water clarity Clear  1 0 Clear  2 0  
Turbid  1 5 Turbid  2 5  
(Describe) turbid, Turbid, brown  
brown color, color  
not as  
silty

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids --- mg/l --- mg/l

15. COD --- mg/l --- mg/l

16. Well developed by: Name (first, last) and Firm

First Name: Jaelyn Last Name: DeBruyne  
Firm: SCS ENGINEERS, 2830 Dairy Drive, Madison, WI 53718

Name and Address of Facility Contact/Owner/Responsible Party

First Name: Boy Last Name: Baietto

Facility/Firm: \_\_\_\_\_

Street: 1850 19th Avenue


City/State/Zip: Kenosha, WI 53140

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: [Signature]

Print Name: Jaelyn DeBruyne

Firm: SCS ENGINEERS, 2830 Dairy Drive, Madison, WI 53718



Appendix D  
Laboratory Analytical Reports

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago

2417 Bond Street

University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-123596-1

Client Project/Site: Arctic Laundry & Cleaners - 25216186

For:

SCS Engineers

2830 Dairy Dr

Madison, Wisconsin 53718

Attn: Mr. Robert Langdon



Authorized for release by:

2/16/2017 1:57:53 PM

Sandie Fredrick, Project Manager II

(920)261-1660

[sandie.fredrick@testamericainc.com](mailto:sandie.fredrick@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

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

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

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# Case Narrative

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Job ID: 500-123596-1**

**Laboratory: TestAmerica Chicago**

## Narrative

### Job Narrative 500-123596-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 2/8/2017 10:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.8° C.

#### Receipt Exceptions

Received all 3 vials for sample 18 with larger than pea size bubbles. Received 1 vial broken for sample 21.

#### GC/MS VOA

Method(s) 5035: methanol vial has < 8 grams of sample in 10 ml of methanol. GP-7 (0-2') (500-123596-1), GP-7 (5-7.5') (500-123596-2), GP-8 (2.5-5') (500-123596-3), GP-8 (5-7.5') (500-123596-4), GP-9 (2.5-5') (500-123596-5), GP-9 (5-7.5') (500-123596-6), GP-10 (2.5-5') (500-123596-7), GP-10 (5-7.5') (500-123596-8), GP-11 (0-2.5') (500-123596-9), GP-11 (5-7.5') (500-123596-10), MW-1 (2.5-5') (500-123596-11), MW-1 (5-7.5') (500-123596-12), MW-2 (2.5-5') (500-123596-13), MW-2 (5-7.5') (500-123596-14), MW-3 (0-2.5') (500-123596-15) and MW-3 (5-7.5') (500-123596-16)

Method(s) 8260B: The following samples were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH was outside the required criteria when verified by the laboratory, and corrective action was not possible: GP-7 (500-123596-18), GP-8 (500-123596-19), GP-9 (500-123596-20), GP-10 (500-123596-21) and GP-11 (500-123596-22).

Method(s) 8260B: The extraction LCS associated with preparation batch 371336 had analyte recovery for Dichlorodifluoromethane outside control limits. The instrument LCS associated with analytical batch 371372 had all analytes within control limits; therefore re-analysis was not performed. The data have been reported and qualified. GP-7 (0-2') (500-123596-1), GP-7 (5-7.5') (500-123596-2), GP-8 (2.5-5') (500-123596-3), GP-8 (5-7.5') (500-123596-4), GP-9 (2.5-5') (500-123596-5), GP-9 (5-7.5') (500-123596-6), GP-10 (2.5-5') (500-123596-7), GP-10 (5-7.5') (500-123596-8), GP-11 (0-2.5') (500-123596-9), GP-11 (5-7.5') (500-123596-10), MW-1 (2.5-5') (500-123596-11), MW-1 (5-7.5') (500-123596-12), MW-2 (2.5-5') (500-123596-13), MW-2 (5-7.5') (500-123596-14) and MW-3 (0-2.5') (500-123596-15)

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

#### Metals

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

# Detection Summary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

## Client Sample ID: GP-7 (0-2')

Lab Sample ID: 500-123596-1

No Detections.

## Client Sample ID: GP-7 (5-7.5')

Lab Sample ID: 500-123596-2

No Detections.

## Client Sample ID: GP-8 (2.5-5')

Lab Sample ID: 500-123596-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	170		100	39	ug/Kg	50	☒	8260B	Total/NA

## Client Sample ID: GP-8 (5-7.5')

Lab Sample ID: 500-123596-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1100		120	43	ug/Kg	50	☒	8260B	Total/NA

## Client Sample ID: GP-9 (2.5-5')

Lab Sample ID: 500-123596-5

No Detections.

## Client Sample ID: GP-9 (5-7.5')

Lab Sample ID: 500-123596-6

No Detections.

## Client Sample ID: GP-10 (2.5-5')

Lab Sample ID: 500-123596-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	850		89	33	ug/Kg	50	☒	8260B	Total/NA

## Client Sample ID: GP-10 (5-7.5')

Lab Sample ID: 500-123596-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	3200		99	37	ug/Kg	50	☒	8260B	Total/NA

## Client Sample ID: GP-11 (0-2.5')

Lab Sample ID: 500-123596-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	15000		91	34	ug/Kg	50	☒	8260B	Total/NA

## Client Sample ID: GP-11 (5-7.5')

Lab Sample ID: 500-123596-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	17000		84	31	ug/Kg	50	☒	8260B	Total/NA

## Client Sample ID: MW-1 (2.5-5')

Lab Sample ID: 500-123596-11

No Detections.

## Client Sample ID: MW-1 (5-7.5')

Lab Sample ID: 500-123596-12

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

# Detection Summary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

## Client Sample ID: MW-2 (2.5-5')

Lab Sample ID: 500-123596-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	510		92	34	ug/Kg	50	☼	8260B	Total/NA

## Client Sample ID: MW-2 (5-7.5')

Lab Sample ID: 500-123596-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	130		100	37	ug/Kg	50	☼	8260B	Total/NA

## Client Sample ID: MW-3 (0-2.5')

Lab Sample ID: 500-123596-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	3200		360	130	ug/Kg	50	☼	8260B	Total/NA

## Client Sample ID: MW-3 (5-7.5')

Lab Sample ID: 500-123596-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	3000		88	32	ug/Kg	50	☼	8260B	Total/NA

## Client Sample ID: Trip Blank

Lab Sample ID: 500-123596-17

No Detections.

## Client Sample ID: GP-7

Lab Sample ID: 500-123596-18

No Detections.

## Client Sample ID: GP-8

Lab Sample ID: 500-123596-19

No Detections.

## Client Sample ID: GP-9

Lab Sample ID: 500-123596-20

No Detections.

## Client Sample ID: GP-10

Lab Sample ID: 500-123596-21

No Detections.

## Client Sample ID: GP-11

Lab Sample ID: 500-123596-22

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago



# Method Summary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI

**Protocol References:**

EPA = US Environmental Protection Agency

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

**Laboratory References:**

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

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# Sample Summary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-123596-1	GP-7 (0-2')	Solid	02/06/17 08:50	02/08/17 10:30
500-123596-2	GP-7 (5-7.5')	Solid	02/06/17 08:55	02/08/17 10:30
500-123596-3	GP-8 (2.5-5')	Solid	02/06/17 09:40	02/08/17 10:30
500-123596-4	GP-8 (5-7.5')	Solid	02/06/17 09:45	02/08/17 10:30
500-123596-5	GP-9 (2.5-5')	Solid	02/06/17 10:35	02/08/17 10:30
500-123596-6	GP-9 (5-7.5')	Solid	02/06/17 10:40	02/08/17 10:30
500-123596-7	GP-10 (2.5-5')	Solid	02/06/17 11:05	02/08/17 10:30
500-123596-8	GP-10 (5-7.5')	Solid	02/06/17 11:10	02/08/17 10:30
500-123596-9	GP-11 (0-2.5')	Solid	02/06/17 11:25	02/08/17 10:30
500-123596-10	GP-11 (5-7.5')	Solid	02/06/17 11:30	02/08/17 10:30
500-123596-11	MW-1 (2.5-5')	Solid	02/06/17 10:00	02/08/17 10:30
500-123596-12	MW-1 (5-7.5')	Solid	02/06/17 10:05	02/08/17 10:30
500-123596-13	MW-2 (2.5-5')	Solid	02/06/17 11:55	02/08/17 10:30
500-123596-14	MW-2 (5-7.5')	Solid	02/06/17 12:00	02/08/17 10:30
500-123596-15	MW-3 (0-2.5')	Solid	02/06/17 13:50	02/08/17 10:30
500-123596-16	MW-3 (5-7.5')	Solid	02/06/17 13:55	02/08/17 10:30
500-123596-17	Trip Blank	Water	02/06/17 00:00	02/08/17 10:30
500-123596-18	GP-7	Water	02/06/17 10:10	02/08/17 10:30
500-123596-19	GP-8	Water	02/06/17 10:15	02/08/17 10:30
500-123596-20	GP-9	Water	02/06/17 12:55	02/08/17 10:30
500-123596-21	GP-10	Water	02/06/17 12:40	02/08/17 10:30
500-123596-22	GP-11	Water	02/06/17 12:45	02/08/17 10:30

# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: GP-7 (0-2')**

**Lab Sample ID: 500-123596-1**

**Date Collected: 02/06/17 08:50**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 80.7**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<18		30	18	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
Bromobenzene	<43		120	43	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
Bromochloromethane	<52		120	52	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
Bromodichloromethane	<45		120	45	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
Bromoform	<59		120	59	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
Bromomethane	<96		240	96	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
Carbon tetrachloride	<47		120	47	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
Chlorobenzene	<47		120	47	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
Chloroethane	<61		120	61	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
Chloroform	<45		240	45	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
Chloromethane	<39		120	39	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
2-Chlorotoluene	<38		120	38	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
4-Chlorotoluene	<42		120	42	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
cis-1,2-Dichloroethene	<49		120	49	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
cis-1,3-Dichloropropene	<50		120	50	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
Dibromochloromethane	<59		120	59	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
1,2-Dibromo-3-Chloropropane	<240		610	240	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
1,2-Dibromoethane	<47		120	47	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
Dibromomethane	<33		120	33	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
1,2-Dichlorobenzene	<40		120	40	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
1,3-Dichlorobenzene	<48		120	48	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
1,4-Dichlorobenzene	<44		120	44	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
Dichlorodifluoromethane	<82 *		240	82	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
1,1-Dichloroethane	<50		120	50	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
1,2-Dichloroethane	<48		120	48	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
1,1-Dichloroethene	<47		120	47	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
1,2-Dichloropropane	<52		120	52	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
1,3-Dichloropropane	<44		120	44	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
2,2-Dichloropropane	<54		120	54	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
1,1-Dichloropropene	<36		120	36	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
Ethylbenzene	<22		30	22	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
Hexachlorobutadiene	<54		120	54	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
Isopropylbenzene	<47		120	47	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
Isopropyl ether	<33		120	33	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
Methylene Chloride	<200		610	200	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
Methyl tert-butyl ether	<48		120	48	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
Naphthalene	<40		120	40	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
n-Butylbenzene	<47		120	47	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
N-Propylbenzene	<50		120	50	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
p-Isopropyltoluene	<44		120	44	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
sec-Butylbenzene	<48		120	48	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
Styrene	<47		120	47	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
tert-Butylbenzene	<48		120	48	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
1,1,1,2-Tetrachloroethane	<56		120	56	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
1,1,2,2-Tetrachloroethane	<48		120	48	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
Tetrachloroethene	<45		120	45	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
Toluene	<18		30	18	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
trans-1,2-Dichloroethene	<42		120	42	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
trans-1,3-Dichloropropene	<44		120	44	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: GP-7 (0-2')**

**Date Collected: 02/06/17 08:50**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-1**

**Matrix: Solid**

**Percent Solids: 80.7**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<56		120	56	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
1,2,4-Trichlorobenzene	<41		120	41	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
1,1,1-Trichloroethane	<46		120	46	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
1,1,2-Trichloroethane	<43		120	43	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
Trichloroethene	<20		61	20	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
Trichlorofluoromethane	<52		120	52	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
1,2,3-Trichloropropane	<50		120	50	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
1,2,4-Trimethylbenzene	<43		120	43	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
1,3,5-Trimethylbenzene	<46		120	46	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
Vinyl chloride	<32		61	32	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
Xylenes, Total	<27		61	27	ug/Kg	☼	02/06/17 08:50	02/09/17 12:40	50
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	94		71 - 120				02/06/17 08:50	02/09/17 12:40	50
Dibromofluoromethane	105		70 - 120				02/06/17 08:50	02/09/17 12:40	50
1,2-Dichloroethane-d4 (Surr)	104		71 - 127				02/06/17 08:50	02/09/17 12:40	50
Toluene-d8 (Surr)	96		75 - 120				02/06/17 08:50	02/09/17 12:40	50

**Client Sample ID: GP-7 (5-7.5')**

**Date Collected: 02/06/17 08:55**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-2**

**Matrix: Solid**

**Percent Solids: 85.9**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<13		23	13	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
Bromobenzene	<33		92	33	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
Bromochloromethane	<39		92	39	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
Bromodichloromethane	<34		92	34	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
Bromoform	<44		92	44	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
Bromomethane	<73		180	73	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
Carbon tetrachloride	<35		92	35	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
Chlorobenzene	<35		92	35	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
Chloroethane	<46		92	46	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
Chloroform	<34		180	34	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
Chloromethane	<29		92	29	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
2-Chlorotoluene	<29		92	29	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
4-Chlorotoluene	<32		92	32	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
cis-1,2-Dichloroethene	<37		92	37	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
cis-1,3-Dichloropropene	<38		92	38	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
Dibromochloromethane	<45		92	45	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
1,2-Dibromo-3-Chloropropane	<180		460	180	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
1,2-Dibromoethane	<35		92	35	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
Dibromomethane	<25		92	25	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
1,2-Dichlorobenzene	<31		92	31	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
1,3-Dichlorobenzene	<37		92	37	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
1,4-Dichlorobenzene	<33		92	33	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
Dichlorodifluoromethane	<62 *		180	62	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
1,1-Dichloroethane	<38		92	38	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
1,2-Dichloroethane	<36		92	36	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
1,1-Dichloroethene	<36		92	36	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: GP-7 (5-7.5')**

**Lab Sample ID: 500-123596-2**

**Date Collected: 02/06/17 08:55**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 85.9**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	<39		92	39	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
1,3-Dichloropropane	<33		92	33	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
2,2-Dichloropropane	<41		92	41	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
1,1-Dichloropropene	<27		92	27	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
Ethylbenzene	<17		23	17	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
Hexachlorobutadiene	<41		92	41	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
Isopropylbenzene	<35		92	35	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
Isopropyl ether	<25		92	25	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
Methylene Chloride	<150		460	150	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
Methyl tert-butyl ether	<36		92	36	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
Naphthalene	<31		92	31	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
n-Butylbenzene	<36		92	36	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
N-Propylbenzene	<38		92	38	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
p-Isopropyltoluene	<33		92	33	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
sec-Butylbenzene	<36		92	36	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
Styrene	<35		92	35	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
tert-Butylbenzene	<36		92	36	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
1,1,1,2-Tetrachloroethane	<42		92	42	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
1,1,2,2-Tetrachloroethane	<36		92	36	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
Tetrachloroethene	<34		92	34	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
Toluene	<13		23	13	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
trans-1,2-Dichloroethene	<32		92	32	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
trans-1,3-Dichloropropene	<33		92	33	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
1,2,3-Trichlorobenzene	<42		92	42	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
1,2,4-Trichlorobenzene	<31		92	31	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
1,1,1-Trichloroethane	<35		92	35	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
1,1,2-Trichloroethane	<32		92	32	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
Trichloroethene	<15		46	15	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
Trichlorofluoromethane	<39		92	39	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
1,2,3-Trichloropropane	<38		92	38	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
1,2,4-Trimethylbenzene	<33		92	33	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
1,3,5-Trimethylbenzene	<35		92	35	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
Vinyl chloride	<24		46	24	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50
Xylenes, Total	<20		46	20	ug/Kg	☼	02/06/17 08:55	02/09/17 13:08	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		71 - 120	02/06/17 08:55	02/09/17 13:08	50
Dibromofluoromethane	102		70 - 120	02/06/17 08:55	02/09/17 13:08	50
1,2-Dichloroethane-d4 (Surr)	100		71 - 127	02/06/17 08:55	02/09/17 13:08	50
Toluene-d8 (Surr)	97		75 - 120	02/06/17 08:55	02/09/17 13:08	50

**Client Sample ID: GP-8 (2.5-5')**

**Lab Sample ID: 500-123596-3**

**Date Collected: 02/06/17 09:40**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 86.4**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<15		26	15	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
Bromobenzene	<37		100	37	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
Bromochloromethane	<45		100	45	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: GP-8 (2.5-5')**

**Lab Sample ID: 500-123596-3**

**Date Collected: 02/06/17 09:40**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 86.4**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	<39		100	39	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
Bromoform	<51		100	51	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
Bromomethane	<83		210	83	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
Carbon tetrachloride	<40		100	40	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
Chlorobenzene	<40		100	40	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
Chloroethane	<53		100	53	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
Chloroform	<39		210	39	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
Chloromethane	<34		100	34	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
2-Chlorotoluene	<33		100	33	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
4-Chlorotoluene	<37		100	37	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
cis-1,2-Dichloroethene	<43		100	43	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
cis-1,3-Dichloropropene	<44		100	44	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
Dibromochloromethane	<51		100	51	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
1,2-Dibromo-3-Chloropropane	<210		520	210	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
1,2-Dibromoethane	<40		100	40	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
Dibromomethane	<28		100	28	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
1,2-Dichlorobenzene	<35		100	35	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
1,3-Dichlorobenzene	<42		100	42	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
1,4-Dichlorobenzene	<38		100	38	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
Dichlorodifluoromethane	<71 *		210	71	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
1,1-Dichloroethane	<43		100	43	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
1,2-Dichloroethane	<41		100	41	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
1,1-Dichloroethene	<41		100	41	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
1,2-Dichloropropane	<45		100	45	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
1,3-Dichloropropane	<38		100	38	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
2,2-Dichloropropane	<47		100	47	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
1,1-Dichloropropene	<31		100	31	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
Ethylbenzene	<19		26	19	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
Hexachlorobutadiene	<47		100	47	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
Isopropylbenzene	<40		100	40	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
Isopropyl ether	<29		100	29	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
Methylene Chloride	<170		520	170	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
Methyl tert-butyl ether	<41		100	41	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
Naphthalene	<35		100	35	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
n-Butylbenzene	<41		100	41	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
N-Propylbenzene	<43		100	43	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
p-Isopropyltoluene	<38		100	38	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
sec-Butylbenzene	<42		100	42	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
Styrene	<40		100	40	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
tert-Butylbenzene	<42		100	42	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
1,1,1,2-Tetrachloroethane	<48		100	48	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
1,1,2,2-Tetrachloroethane	<42		100	42	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
<b>Tetrachloroethene</b>	<b>170</b>		100	39	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
Toluene	<15		26	15	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
trans-1,2-Dichloroethene	<37		100	37	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
trans-1,3-Dichloropropene	<38		100	38	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
1,2,3-Trichlorobenzene	<48		100	48	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
1,2,4-Trichlorobenzene	<36		100	36	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
1,1,1-Trichloroethane	<40		100	40	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50

TestAmerica Chicago



# Client Sample Results

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: GP-8 (2.5-5')**

**Date Collected: 02/06/17 09:40**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-3**

**Matrix: Solid**

**Percent Solids: 86.4**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<37		100	37	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
Trichloroethene	<17		52	17	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
Trichlorofluoromethane	<45		100	45	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
1,2,3-Trichloropropane	<43		100	43	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
1,2,4-Trimethylbenzene	<38		100	38	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
1,3,5-Trimethylbenzene	<40		100	40	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
Vinyl chloride	<27		52	27	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
Xylenes, Total	<23		52	23	ug/Kg	☼	02/06/17 09:40	02/09/17 13:36	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		71 - 120				02/06/17 09:40	02/09/17 13:36	50
Dibromofluoromethane	104		70 - 120				02/06/17 09:40	02/09/17 13:36	50
1,2-Dichloroethane-d4 (Surr)	103		71 - 127				02/06/17 09:40	02/09/17 13:36	50
Toluene-d8 (Surr)	96		75 - 120				02/06/17 09:40	02/09/17 13:36	50

**Client Sample ID: GP-8 (5-7.5')**

**Date Collected: 02/06/17 09:45**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-4**

**Matrix: Solid**

**Percent Solids: 84.3**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<17		29	17	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
Bromobenzene	<42		120	42	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
Bromochloromethane	<50		120	50	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
Bromodichloromethane	<44		120	44	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
Bromoform	<57		120	57	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
Bromomethane	<93		230	93	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
Carbon tetrachloride	<45		120	45	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
Chlorobenzene	<45		120	45	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
Chloroethane	<59		120	59	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
Chloroform	<43		230	43	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
Chloromethane	<38		120	38	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
2-Chlorotoluene	<37		120	37	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
4-Chlorotoluene	<41		120	41	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
cis-1,2-Dichloroethene	<48		120	48	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
cis-1,3-Dichloropropene	<49		120	49	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
Dibromochloromethane	<57		120	57	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
1,2-Dibromo-3-Chloropropane	<230		590	230	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
1,2-Dibromoethane	<45		120	45	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
Dibromomethane	<32		120	32	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
1,2-Dichlorobenzene	<39		120	39	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
1,3-Dichlorobenzene	<47		120	47	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
1,4-Dichlorobenzene	<43		120	43	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
Dichlorodifluoromethane	<79 *		230	79	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
1,1-Dichloroethane	<48		120	48	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
1,2-Dichloroethane	<46		120	46	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
1,1-Dichloroethene	<46		120	46	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
1,2-Dichloropropane	<50		120	50	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
1,3-Dichloropropane	<42		120	42	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
2,2-Dichloropropane	<52		120	52	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: GP-8 (5-7.5')**

**Lab Sample ID: 500-123596-4**

**Date Collected: 02/06/17 09:45**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 84.3**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	<35		120	35	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
Ethylbenzene	<21		29	21	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
Hexachlorobutadiene	<52		120	52	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
Isopropylbenzene	<45		120	45	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
Isopropyl ether	<32		120	32	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
Methylene Chloride	<190		590	190	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
Methyl tert-butyl ether	<46		120	46	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
Naphthalene	<39		120	39	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
n-Butylbenzene	<45		120	45	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
N-Propylbenzene	<49		120	49	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
p-Isopropyltoluene	<42		120	42	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
sec-Butylbenzene	<47		120	47	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
Styrene	<45		120	45	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
tert-Butylbenzene	<47		120	47	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
1,1,1,2-Tetrachloroethane	<54		120	54	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
1,1,2,2-Tetrachloroethane	<47		120	47	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
<b>Tetrachloroethene</b>	<b>1100</b>		120	43	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
Toluene	<17		29	17	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
trans-1,2-Dichloroethene	<41		120	41	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
trans-1,3-Dichloropropene	<42		120	42	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
1,2,3-Trichlorobenzene	<54		120	54	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
1,2,4-Trichlorobenzene	<40		120	40	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
1,1,1-Trichloroethane	<45		120	45	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
1,1,2-Trichloroethane	<41		120	41	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
Trichloroethene	<19		59	19	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
Trichlorofluoromethane	<50		120	50	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
1,2,3-Trichloropropane	<49		120	49	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
1,2,4-Trimethylbenzene	<42		120	42	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
1,3,5-Trimethylbenzene	<45		120	45	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
Vinyl chloride	<31		59	31	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50
Xylenes, Total	<26		59	26	ug/Kg	☼	02/06/17 09:45	02/09/17 14:03	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		71 - 120	02/06/17 09:45	02/09/17 14:03	50
Dibromofluoromethane	104		70 - 120	02/06/17 09:45	02/09/17 14:03	50
1,2-Dichloroethane-d4 (Surr)	102		71 - 127	02/06/17 09:45	02/09/17 14:03	50
Toluene-d8 (Surr)	97		75 - 120	02/06/17 09:45	02/09/17 14:03	50

**Client Sample ID: GP-9 (2.5-5')**

**Lab Sample ID: 500-123596-5**

**Date Collected: 02/06/17 10:35**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 82.2**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<15		25	15	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
Bromobenzene	<36		100	36	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
Bromochloromethane	<43		100	43	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
Bromodichloromethane	<37		100	37	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
Bromoform	<49		100	49	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
Bromomethane	<80		200	80	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50

TestAmerica Chicago



# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: GP-9 (2.5-5')**

**Lab Sample ID: 500-123596-5**

**Date Collected: 02/06/17 10:35**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 82.2**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	<39		100	39	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
Chlorobenzene	<39		100	39	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
Chloroethane	<51		100	51	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
Chloroform	<37		200	37	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
Chloromethane	<32		100	32	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
2-Chlorotoluene	<32		100	32	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
4-Chlorotoluene	<35		100	35	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
cis-1,2-Dichloroethene	<41		100	41	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
cis-1,3-Dichloropropene	<42		100	42	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
Dibromochloromethane	<49		100	49	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
1,2-Dibromo-3-Chloropropane	<200		500	200	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
1,2-Dibromoethane	<39		100	39	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
Dibromomethane	<27		100	27	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
1,2-Dichlorobenzene	<34		100	34	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
1,3-Dichlorobenzene	<40		100	40	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
1,4-Dichlorobenzene	<37		100	37	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
Dichlorodifluoromethane	<68 *		200	68	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
1,1-Dichloroethane	<41		100	41	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
1,2-Dichloroethane	<39		100	39	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
1,1-Dichloroethene	<39		100	39	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
1,2-Dichloropropane	<43		100	43	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
1,3-Dichloropropane	<36		100	36	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
2,2-Dichloropropane	<45		100	45	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
1,1-Dichloropropene	<30		100	30	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
Ethylbenzene	<18		25	18	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
Hexachlorobutadiene	<45		100	45	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
Isopropylbenzene	<39		100	39	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
Isopropyl ether	<28		100	28	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
Methylene Chloride	<160		500	160	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
Methyl tert-butyl ether	<40		100	40	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
Naphthalene	<34		100	34	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
n-Butylbenzene	<39		100	39	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
N-Propylbenzene	<42		100	42	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
p-Isopropyltoluene	<36		100	36	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
sec-Butylbenzene	<40		100	40	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
Styrene	<39		100	39	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
tert-Butylbenzene	<40		100	40	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
1,1,1,2-Tetrachloroethane	<46		100	46	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
1,1,2,2-Tetrachloroethane	<40		100	40	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
Tetrachloroethene	<37		100	37	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
Toluene	<15		25	15	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
trans-1,2-Dichloroethene	<35		100	35	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
trans-1,3-Dichloropropene	<36		100	36	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
1,2,3-Trichlorobenzene	<46		100	46	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
1,2,4-Trichlorobenzene	<34		100	34	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
1,1,1-Trichloroethane	<38		100	38	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
1,1,2-Trichloroethane	<35		100	35	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
Trichloroethene	<16		50	16	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
Trichlorofluoromethane	<43		100	43	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: GP-9 (2.5-5')**

**Date Collected: 02/06/17 10:35**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-5**

**Matrix: Solid**

**Percent Solids: 82.2**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<42		100	42	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
1,2,4-Trimethylbenzene	<36		100	36	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
1,3,5-Trimethylbenzene	<38		100	38	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
Vinyl chloride	<26		50	26	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50
Xylenes, Total	<22		50	22	ug/Kg	☼	02/06/17 10:35	02/09/17 14:31	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		71 - 120	02/06/17 10:35	02/09/17 14:31	50
Dibromofluoromethane	105		70 - 120	02/06/17 10:35	02/09/17 14:31	50
1,2-Dichloroethane-d4 (Surr)	103		71 - 127	02/06/17 10:35	02/09/17 14:31	50
Toluene-d8 (Surr)	96		75 - 120	02/06/17 10:35	02/09/17 14:31	50

**Client Sample ID: GP-9 (5-7.5')**

**Date Collected: 02/06/17 10:40**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-6**

**Matrix: Solid**

**Percent Solids: 79.6**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<17		29	17	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
Bromobenzene	<41		120	41	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
Bromochloromethane	<49		120	49	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
Bromodichloromethane	<43		120	43	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
Bromoform	<56		120	56	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
Bromomethane	<92		230	92	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
Carbon tetrachloride	<44		120	44	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
Chlorobenzene	<45		120	45	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
Chloroethane	<58		120	58	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
Chloroform	<43		230	43	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
Chloromethane	<37		120	37	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
2-Chlorotoluene	<36		120	36	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
4-Chlorotoluene	<40		120	40	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
cis-1,2-Dichloroethene	<47		120	47	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
cis-1,3-Dichloropropene	<48		120	48	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
Dibromochloromethane	<56		120	56	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
1,2-Dibromo-3-Chloropropane	<230		580	230	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
1,2-Dibromoethane	<45		120	45	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
Dibromomethane	<31		120	31	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
1,2-Dichlorobenzene	<39		120	39	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
1,3-Dichlorobenzene	<46		120	46	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
1,4-Dichlorobenzene	<42		120	42	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
Dichlorodifluoromethane	<78 *		230	78	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
1,1-Dichloroethane	<47		120	47	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
1,2-Dichloroethane	<45		120	45	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
1,1-Dichloroethene	<45		120	45	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
1,2-Dichloropropane	<49		120	49	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
1,3-Dichloropropane	<42		120	42	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
2,2-Dichloropropane	<51		120	51	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
1,1-Dichloropropene	<34		120	34	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
Ethylbenzene	<21		29	21	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
Hexachlorobutadiene	<51		120	51	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: GP-9 (5-7.5')**

**Date Collected: 02/06/17 10:40**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-6**

**Matrix: Solid**

**Percent Solids: 79.6**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	<44		120	44	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
Isopropyl ether	<32		120	32	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
Methylene Chloride	<190		580	190	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
Methyl tert-butyl ether	<45		120	45	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
Naphthalene	<39		120	39	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
n-Butylbenzene	<45		120	45	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
N-Propylbenzene	<48		120	48	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
p-Isopropyltoluene	<42		120	42	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
sec-Butylbenzene	<46		120	46	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
Styrene	<45		120	45	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
tert-Butylbenzene	<46		120	46	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
1,1,1,2-Tetrachloroethane	<53		120	53	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
1,1,2,2-Tetrachloroethane	<46		120	46	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
Tetrachloroethene	<43		120	43	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
Toluene	<17		29	17	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
trans-1,2-Dichloroethene	<40		120	40	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
trans-1,3-Dichloropropene	<42		120	42	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
1,2,3-Trichlorobenzene	<53		120	53	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
1,2,4-Trichlorobenzene	<39		120	39	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
1,1,1-Trichloroethane	<44		120	44	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
1,1,2-Trichloroethane	<41		120	41	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
Trichloroethene	<19		58	19	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
Trichlorofluoromethane	<49		120	49	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
1,2,3-Trichloropropane	<48		120	48	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
1,2,4-Trimethylbenzene	<41		120	41	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
1,3,5-Trimethylbenzene	<44		120	44	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
Vinyl chloride	<30		58	30	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
Xylenes, Total	<25		58	25	ug/Kg	☼	02/06/17 10:40	02/09/17 14:59	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		71 - 120				02/06/17 10:40	02/09/17 14:59	50
Dibromofluoromethane	104		70 - 120				02/06/17 10:40	02/09/17 14:59	50
1,2-Dichloroethane-d4 (Surr)	105		71 - 127				02/06/17 10:40	02/09/17 14:59	50
Toluene-d8 (Surr)	96		75 - 120				02/06/17 10:40	02/09/17 14:59	50

**Client Sample ID: GP-10 (2.5-5')**

**Date Collected: 02/06/17 11:05**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-7**

**Matrix: Solid**

**Percent Solids: 88.1**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<13		22	13	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
Bromobenzene	<32		89	32	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
Bromochloromethane	<38		89	38	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
Bromodichloromethane	<33		89	33	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
Bromoform	<43		89	43	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
Bromomethane	<71		180	71	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
Carbon tetrachloride	<34		89	34	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
Chlorobenzene	<34		89	34	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
Chloroethane	<45		89	45	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: GP-10 (2.5-5')**

**Lab Sample ID: 500-123596-7**

**Date Collected: 02/06/17 11:05**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 88.1**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	<33		180	33	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
Chloromethane	<28		89	28	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
2-Chlorotoluene	<28		89	28	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
4-Chlorotoluene	<31		89	31	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
cis-1,2-Dichloroethene	<36		89	36	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
cis-1,3-Dichloropropene	<37		89	37	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
Dibromochloromethane	<43		89	43	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
1,2-Dibromo-3-Chloropropane	<180		440	180	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
1,2-Dibromoethane	<34		89	34	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
Dibromomethane	<24		89	24	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
1,2-Dichlorobenzene	<30		89	30	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
1,3-Dichlorobenzene	<36		89	36	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
1,4-Dichlorobenzene	<32		89	32	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
Dichlorodifluoromethane	<60 *		180	60	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
1,1-Dichloroethane	<36		89	36	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
1,2-Dichloroethane	<35		89	35	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
1,1-Dichloroethene	<35		89	35	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
1,2-Dichloropropane	<38		89	38	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
1,3-Dichloropropane	<32		89	32	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
2,2-Dichloropropane	<39		89	39	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
1,1-Dichloropropene	<26		89	26	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
Ethylbenzene	<16		22	16	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
Hexachlorobutadiene	<40		89	40	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
Isopropylbenzene	<34		89	34	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
Isopropyl ether	<25		89	25	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
Methylene Chloride	<140		440	140	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
Methyl tert-butyl ether	<35		89	35	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
Naphthalene	<30		89	30	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
n-Butylbenzene	<34		89	34	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
N-Propylbenzene	<37		89	37	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
p-Isopropyltoluene	<32		89	32	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
sec-Butylbenzene	<35		89	35	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
Styrene	<34		89	34	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
tert-Butylbenzene	<35		89	35	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
1,1,1,2-Tetrachloroethane	<41		89	41	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
1,1,2,2-Tetrachloroethane	<35		89	35	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
<b>Tetrachloroethene</b>	<b>850</b>		89	33	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
Toluene	<13		22	13	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
trans-1,2-Dichloroethene	<31		89	31	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
trans-1,3-Dichloropropene	<32		89	32	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
1,2,3-Trichlorobenzene	<41		89	41	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
1,2,4-Trichlorobenzene	<30		89	30	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
1,1,1-Trichloroethane	<34		89	34	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
1,1,2-Trichloroethane	<31		89	31	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
Trichloroethene	<15		44	15	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
Trichlorofluoromethane	<38		89	38	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
1,2,3-Trichloropropane	<37		89	37	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
1,2,4-Trimethylbenzene	<32		89	32	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
1,3,5-Trimethylbenzene	<34		89	34	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: GP-10 (2.5-5')**

**Date Collected: 02/06/17 11:05**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-7**

**Matrix: Solid**

**Percent Solids: 88.1**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	<23		44	23	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
Xylenes, Total	<20		44	20	ug/Kg	☼	02/06/17 11:05	02/09/17 15:27	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		71 - 120				02/06/17 11:05	02/09/17 15:27	50
Dibromofluoromethane	103		70 - 120				02/06/17 11:05	02/09/17 15:27	50
1,2-Dichloroethane-d4 (Surr)	102		71 - 127				02/06/17 11:05	02/09/17 15:27	50
Toluene-d8 (Surr)	96		75 - 120				02/06/17 11:05	02/09/17 15:27	50

**Client Sample ID: GP-10 (5-7.5')**

**Date Collected: 02/06/17 11:10**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-8**

**Matrix: Solid**

**Percent Solids: 89.2**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<14		25	14	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
Bromobenzene	<35		99	35	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
Bromochloromethane	<42		99	42	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
Bromodichloromethane	<37		99	37	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
Bromoform	<48		99	48	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
Bromomethane	<79		200	79	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
Carbon tetrachloride	<38		99	38	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
Chlorobenzene	<38		99	38	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
Chloroethane	<50		99	50	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
Chloroform	<37		200	37	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
Chloromethane	<32		99	32	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
2-Chlorotoluene	<31		99	31	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
4-Chlorotoluene	<35		99	35	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
cis-1,2-Dichloroethene	<40		99	40	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
cis-1,3-Dichloropropene	<41		99	41	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
Dibromochloromethane	<48		99	48	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
1,2-Dibromo-3-Chloropropane	<200		490	200	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
1,2-Dibromoethane	<38		99	38	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
Dibromomethane	<27		99	27	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
1,2-Dichlorobenzene	<33		99	33	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
1,3-Dichlorobenzene	<40		99	40	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
1,4-Dichlorobenzene	<36		99	36	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
Dichlorodifluoromethane	<67 *		200	67	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
1,1-Dichloroethane	<41		99	41	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
1,2-Dichloroethane	<39		99	39	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
1,1-Dichloroethene	<39		99	39	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
1,2-Dichloropropane	<42		99	42	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
1,3-Dichloropropane	<36		99	36	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
2,2-Dichloropropane	<44		99	44	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
1,1-Dichloropropene	<29		99	29	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
Ethylbenzene	<18		25	18	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
Hexachlorobutadiene	<44		99	44	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
Isopropylbenzene	<38		99	38	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
Isopropyl ether	<27		99	27	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
Methylene Chloride	<160		490	160	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: GP-10 (5-7.5')**

**Lab Sample ID: 500-123596-8**

**Date Collected: 02/06/17 11:10**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 89.2**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	<39		99	39	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
Naphthalene	<33		99	33	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
n-Butylbenzene	<38		99	38	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
N-Propylbenzene	<41		99	41	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
p-Isopropyltoluene	<36		99	36	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
sec-Butylbenzene	<39		99	39	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
Styrene	<38		99	38	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
tert-Butylbenzene	<39		99	39	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
1,1,1,2-Tetrachloroethane	<46		99	46	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
1,1,2,2-Tetrachloroethane	<39		99	39	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
<b>Tetrachloroethene</b>	<b>3200</b>		99	37	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
Toluene	<15		25	15	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
trans-1,2-Dichloroethene	<35		99	35	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
trans-1,3-Dichloropropene	<36		99	36	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
1,2,3-Trichlorobenzene	<45		99	45	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
1,2,4-Trichlorobenzene	<34		99	34	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
1,1,1-Trichloroethane	<38		99	38	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
1,1,2-Trichloroethane	<35		99	35	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
Trichloroethene	<16		49	16	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
Trichlorofluoromethane	<42		99	42	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
1,2,3-Trichloropropane	<41		99	41	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
1,2,4-Trimethylbenzene	<35		99	35	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
1,3,5-Trimethylbenzene	<38		99	38	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
Vinyl chloride	<26		49	26	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50
Xylenes, Total	<22		49	22	ug/Kg	☼	02/06/17 11:10	02/09/17 15:55	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		71 - 120	02/06/17 11:10	02/09/17 15:55	50
Dibromofluoromethane	103		70 - 120	02/06/17 11:10	02/09/17 15:55	50
1,2-Dichloroethane-d4 (Surr)	103		71 - 127	02/06/17 11:10	02/09/17 15:55	50
Toluene-d8 (Surr)	96		75 - 120	02/06/17 11:10	02/09/17 15:55	50

**Client Sample ID: GP-11 (0-2.5')**

**Lab Sample ID: 500-123596-9**

**Date Collected: 02/06/17 11:25**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 86.3**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<13		23	13	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
Bromobenzene	<33		91	33	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
Bromochloromethane	<39		91	39	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
Bromodichloromethane	<34		91	34	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
Bromoform	<44		91	44	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
Bromomethane	<73		180	73	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
Carbon tetrachloride	<35		91	35	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
Chlorobenzene	<35		91	35	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
Chloroethane	<46		91	46	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
Chloroform	<34		180	34	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
Chloromethane	<29		91	29	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
2-Chlorotoluene	<29		91	29	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: GP-11 (0-2.5')**

**Lab Sample ID: 500-123596-9**

**Date Collected: 02/06/17 11:25**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 86.3**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	<32		91	32	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
cis-1,2-Dichloroethene	<37		91	37	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
cis-1,3-Dichloropropene	<38		91	38	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
Dibromochloromethane	<45		91	45	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
1,2-Dibromo-3-Chloropropane	<180		460	180	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
1,2-Dibromoethane	<35		91	35	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
Dibromomethane	<25		91	25	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
1,2-Dichlorobenzene	<31		91	31	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
1,3-Dichlorobenzene	<37		91	37	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
1,4-Dichlorobenzene	<33		91	33	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
Dichlorodifluoromethane	<62 *		180	62	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
1,1-Dichloroethane	<37		91	37	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
1,2-Dichloroethane	<36		91	36	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
1,1-Dichloroethene	<36		91	36	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
1,2-Dichloropropane	<39		91	39	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
1,3-Dichloropropane	<33		91	33	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
2,2-Dichloropropane	<41		91	41	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
1,1-Dichloropropene	<27		91	27	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
Ethylbenzene	<17		23	17	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
Hexachlorobutadiene	<41		91	41	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
Isopropylbenzene	<35		91	35	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
Isopropyl ether	<25		91	25	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
Methylene Chloride	<150		460	150	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
Methyl tert-butyl ether	<36		91	36	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
Naphthalene	<31		91	31	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
n-Butylbenzene	<35		91	35	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
N-Propylbenzene	<38		91	38	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
p-Isopropyltoluene	<33		91	33	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
sec-Butylbenzene	<36		91	36	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
Styrene	<35		91	35	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
tert-Butylbenzene	<36		91	36	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
1,1,1,2-Tetrachloroethane	<42		91	42	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
1,1,2,2-Tetrachloroethane	<36		91	36	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
<b>Tetrachloroethene</b>	<b>15000</b>		91	34	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
Toluene	<13		23	13	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
trans-1,2-Dichloroethene	<32		91	32	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
trans-1,3-Dichloropropene	<33		91	33	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
1,2,3-Trichlorobenzene	<42		91	42	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
1,2,4-Trichlorobenzene	<31		91	31	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
1,1,1-Trichloroethane	<35		91	35	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
1,1,2-Trichloroethane	<32		91	32	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
Trichloroethene	<15		46	15	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
Trichlorofluoromethane	<39		91	39	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
1,2,3-Trichloropropane	<38		91	38	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
1,2,4-Trimethylbenzene	<33		91	33	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
1,3,5-Trimethylbenzene	<35		91	35	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
Vinyl chloride	<24		46	24	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50
Xylenes, Total	<20		46	20	ug/Kg	☼	02/06/17 11:25	02/09/17 16:23	50

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

## Client Sample ID: GP-11 (0-2.5')

Date Collected: 02/06/17 11:25

Date Received: 02/08/17 10:30

## Lab Sample ID: 500-123596-9

Matrix: Solid

Percent Solids: 86.3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		71 - 120	02/06/17 11:25	02/09/17 16:23	50
Dibromofluoromethane	102		70 - 120	02/06/17 11:25	02/09/17 16:23	50
1,2-Dichloroethane-d4 (Surr)	102		71 - 127	02/06/17 11:25	02/09/17 16:23	50
Toluene-d8 (Surr)	96		75 - 120	02/06/17 11:25	02/09/17 16:23	50

## Client Sample ID: GP-11 (5-7.5')

Date Collected: 02/06/17 11:30

Date Received: 02/08/17 10:30

## Lab Sample ID: 500-123596-10

Matrix: Solid

Percent Solids: 88.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<12		21	12	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
Bromobenzene	<30		84	30	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
Bromochloromethane	<36		84	36	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
Bromodichloromethane	<31		84	31	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
Bromoform	<41		84	41	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
Bromomethane	<67		170	67	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
Carbon tetrachloride	<32		84	32	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
Chlorobenzene	<33		84	33	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
Chloroethane	<43		84	43	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
Chloroform	<31		170	31	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
Chloromethane	<27		84	27	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
2-Chlorotoluene	<27		84	27	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
4-Chlorotoluene	<30		84	30	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
cis-1,2-Dichloroethene	<34		84	34	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
cis-1,3-Dichloropropene	<35		84	35	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
Dibromochloromethane	<41		84	41	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
1,2-Dibromo-3-Chloropropane	<170		420	170	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
1,2-Dibromoethane	<33		84	33	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
Dibromomethane	<23		84	23	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
1,2-Dichlorobenzene	<28		84	28	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
1,3-Dichlorobenzene	<34		84	34	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
1,4-Dichlorobenzene	<31		84	31	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
Dichlorodifluoromethane	<57 *		170	57	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
1,1-Dichloroethane	<35		84	35	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
1,2-Dichloroethane	<33		84	33	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
1,1-Dichloroethene	<33		84	33	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
1,2-Dichloropropane	<36		84	36	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
1,3-Dichloropropane	<31		84	31	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
2,2-Dichloropropane	<37		84	37	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
1,1-Dichloropropene	<25		84	25	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
Ethylbenzene	<15		21	15	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
Hexachlorobutadiene	<38		84	38	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
Isopropylbenzene	<32		84	32	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
Isopropyl ether	<23		84	23	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
Methylene Chloride	<140		420	140	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
Methyl tert-butyl ether	<33		84	33	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
Naphthalene	<28		84	28	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
n-Butylbenzene	<33		84	33	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
N-Propylbenzene	<35		84	35	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50

TestAmerica Chicago



# Client Sample Results

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: GP-11 (5-7.5')**

**Lab Sample ID: 500-123596-10**

**Date Collected: 02/06/17 11:30**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 88.5**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	<31		84	31	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
sec-Butylbenzene	<34		84	34	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
Styrene	<33		84	33	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
tert-Butylbenzene	<34		84	34	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
1,1,1,2-Tetrachloroethane	<39		84	39	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
1,1,2,2-Tetrachloroethane	<34		84	34	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
<b>Tetrachloroethene</b>	<b>17000</b>		84	31	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
Toluene	<12		21	12	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
trans-1,2-Dichloroethene	<30		84	30	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
trans-1,3-Dichloropropene	<31		84	31	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
1,2,3-Trichlorobenzene	<39		84	39	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
1,2,4-Trichlorobenzene	<29		84	29	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
1,1,1-Trichloroethane	<32		84	32	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
1,1,2-Trichloroethane	<30		84	30	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
Trichloroethene	<14		42	14	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
Trichlorofluoromethane	<36		84	36	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
1,2,3-Trichloropropane	<35		84	35	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
1,2,4-Trimethylbenzene	<30		84	30	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
1,3,5-Trimethylbenzene	<32		84	32	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
Vinyl chloride	<22		42	22	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50
Xylenes, Total	<19		42	19	ug/Kg	☼	02/06/17 11:30	02/09/17 16:50	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		71 - 120	02/06/17 11:30	02/09/17 16:50	50
Dibromofluoromethane	103		70 - 120	02/06/17 11:30	02/09/17 16:50	50
1,2-Dichloroethane-d4 (Surr)	102		71 - 127	02/06/17 11:30	02/09/17 16:50	50
Toluene-d8 (Surr)	97		75 - 120	02/06/17 11:30	02/09/17 16:50	50

**Client Sample ID: MW-1 (2.5-5')**

**Lab Sample ID: 500-123596-11**

**Date Collected: 02/06/17 10:00**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 90.7**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<13		23	13	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
Bromobenzene	<33		92	33	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
Bromochloromethane	<39		92	39	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
Bromodichloromethane	<34		92	34	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
Bromoform	<44		92	44	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
Bromomethane	<73		180	73	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
Carbon tetrachloride	<35		92	35	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
Chlorobenzene	<35		92	35	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
Chloroethane	<46		92	46	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
Chloroform	<34		180	34	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
Chloromethane	<29		92	29	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
2-Chlorotoluene	<29		92	29	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
4-Chlorotoluene	<32		92	32	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
cis-1,2-Dichloroethene	<37		92	37	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
cis-1,3-Dichloropropene	<38		92	38	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
Dibromochloromethane	<45		92	45	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: MW-1 (2.5-5')**

**Lab Sample ID: 500-123596-11**

**Date Collected: 02/06/17 10:00**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 90.7**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	<180		460	180	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
1,2-Dibromoethane	<35		92	35	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
Dibromomethane	<25		92	25	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
1,2-Dichlorobenzene	<31		92	31	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
1,3-Dichlorobenzene	<37		92	37	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
1,4-Dichlorobenzene	<33		92	33	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
Dichlorodifluoromethane	<62 *		180	62	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
1,1-Dichloroethane	<38		92	38	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
1,2-Dichloroethane	<36		92	36	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
1,1-Dichloroethene	<36		92	36	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
1,2-Dichloropropane	<39		92	39	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
1,3-Dichloropropane	<33		92	33	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
2,2-Dichloropropane	<41		92	41	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
1,1-Dichloropropene	<27		92	27	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
Ethylbenzene	<17		23	17	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
Hexachlorobutadiene	<41		92	41	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
Isopropylbenzene	<35		92	35	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
Isopropyl ether	<25		92	25	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
Methylene Chloride	<150		460	150	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
Methyl tert-butyl ether	<36		92	36	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
Naphthalene	<31		92	31	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
n-Butylbenzene	<36		92	36	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
N-Propylbenzene	<38		92	38	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
p-Isopropyltoluene	<33		92	33	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
sec-Butylbenzene	<37		92	37	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
Styrene	<35		92	35	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
tert-Butylbenzene	<37		92	37	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
1,1,1,2-Tetrachloroethane	<42		92	42	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
1,1,2,2-Tetrachloroethane	<37		92	37	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
Tetrachloroethene	<34		92	34	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
Toluene	<13		23	13	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
trans-1,2-Dichloroethene	<32		92	32	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
trans-1,3-Dichloropropene	<33		92	33	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
1,2,3-Trichlorobenzene	<42		92	42	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
1,2,4-Trichlorobenzene	<31		92	31	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
1,1,1-Trichloroethane	<35		92	35	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
1,1,2-Trichloroethane	<32		92	32	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
Trichloroethene	<15		46	15	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
Trichlorofluoromethane	<39		92	39	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
1,2,3-Trichloropropane	<38		92	38	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
1,2,4-Trimethylbenzene	<33		92	33	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
1,3,5-Trimethylbenzene	<35		92	35	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
Vinyl chloride	<24		46	24	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50
Xylenes, Total	<20		46	20	ug/Kg	☼	02/06/17 10:00	02/09/17 17:18	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		71 - 120	02/06/17 10:00	02/09/17 17:18	50
Dibromofluoromethane	104		70 - 120	02/06/17 10:00	02/09/17 17:18	50
1,2-Dichloroethane-d4 (Surr)	102		71 - 127	02/06/17 10:00	02/09/17 17:18	50
Toluene-d8 (Surr)	97		75 - 120	02/06/17 10:00	02/09/17 17:18	50

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: MW-1 (5-7.5')**

**Lab Sample ID: 500-123596-12**

**Date Collected: 02/06/17 10:05**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 85.9**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<24		41	24	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
Bromobenzene	<58		160	58	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
Bromochloromethane	<70		160	70	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
Bromodichloromethane	<61		160	61	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
Bromoform	<79		160	79	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
Bromomethane	<130		330	130	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
Carbon tetrachloride	<63		160	63	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
Chlorobenzene	<63		160	63	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
Chloroethane	<82		160	82	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
Chloroform	<61		330	61	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
Chloromethane	<52		160	52	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
2-Chlorotoluene	<51		160	51	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
4-Chlorotoluene	<57		160	57	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
cis-1,2-Dichloroethene	<67		160	67	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
cis-1,3-Dichloropropene	<68		160	68	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
Dibromochloromethane	<80		160	80	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
1,2-Dibromo-3-Chloropropane	<330		820	330	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
1,2-Dibromoethane	<63		160	63	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
Dibromomethane	<44		160	44	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
1,2-Dichlorobenzene	<55		160	55	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
1,3-Dichlorobenzene	<65		160	65	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
1,4-Dichlorobenzene	<60		160	60	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
Dichlorodifluoromethane	<110 *		330	110	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
1,1-Dichloroethane	<67		160	67	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
1,2-Dichloroethane	<64		160	64	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
1,1-Dichloroethene	<64		160	64	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
1,2-Dichloropropane	<70		160	70	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
1,3-Dichloropropane	<59		160	59	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
2,2-Dichloropropane	<73		160	73	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
1,1-Dichloropropene	<49		160	49	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
Ethylbenzene	<30		41	30	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
Hexachlorobutadiene	<73		160	73	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
Isopropylbenzene	<63		160	63	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
Isopropyl ether	<45		160	45	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
Methylene Chloride	<270		820	270	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
Methyl tert-butyl ether	<64		160	64	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
Naphthalene	<55		160	55	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
n-Butylbenzene	<63		160	63	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
N-Propylbenzene	<68		160	68	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
p-Isopropyltoluene	<59		160	59	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
sec-Butylbenzene	<65		160	65	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
Styrene	<63		160	63	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
tert-Butylbenzene	<65		160	65	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
1,1,1,2-Tetrachloroethane	<76		160	76	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
1,1,2,2-Tetrachloroethane	<65		160	65	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
Tetrachloroethene	<61		160	61	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
Toluene	<24		41	24	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
trans-1,2-Dichloroethene	<57		160	57	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
trans-1,3-Dichloropropene	<59		160	59	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: MW-1 (5-7.5')**

**Lab Sample ID: 500-123596-12**

**Date Collected: 02/06/17 10:05**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 85.9**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<75		160	75	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
1,2,4-Trichlorobenzene	<56		160	56	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
1,1,1-Trichloroethane	<62		160	62	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
1,1,2-Trichloroethane	<58		160	58	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
Trichloroethene	<27		82	27	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
Trichlorofluoromethane	<70		160	70	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
1,2,3-Trichloropropane	<68		160	68	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
1,2,4-Trimethylbenzene	<59		160	59	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
1,3,5-Trimethylbenzene	<62		160	62	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
Vinyl chloride	<43		82	43	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
Xylenes, Total	<36		82	36	ug/Kg	☼	02/06/17 10:05	02/09/17 17:46	50
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	94		71 - 120				02/06/17 10:05	02/09/17 17:46	50
Dibromofluoromethane	103		70 - 120				02/06/17 10:05	02/09/17 17:46	50
1,2-Dichloroethane-d4 (Surr)	100		71 - 127				02/06/17 10:05	02/09/17 17:46	50
Toluene-d8 (Surr)	96		75 - 120				02/06/17 10:05	02/09/17 17:46	50

**Client Sample ID: MW-2 (2.5-5')**

**Lab Sample ID: 500-123596-13**

**Date Collected: 02/06/17 11:55**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 88.2**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<13		23	13	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
Bromobenzene	<33		92	33	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
Bromochloromethane	<39		92	39	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
Bromodichloromethane	<34		92	34	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
Bromoform	<44		92	44	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
Bromomethane	<73		180	73	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
Carbon tetrachloride	<35		92	35	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
Chlorobenzene	<35		92	35	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
Chloroethane	<46		92	46	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
Chloroform	<34		180	34	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
Chloromethane	<29		92	29	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
2-Chlorotoluene	<29		92	29	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
4-Chlorotoluene	<32		92	32	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
cis-1,2-Dichloroethene	<37		92	37	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
cis-1,3-Dichloropropene	<38		92	38	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
Dibromochloromethane	<45		92	45	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
1,2-Dibromo-3-Chloropropane	<180		460	180	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
1,2-Dibromoethane	<35		92	35	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
Dibromomethane	<25		92	25	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
1,2-Dichlorobenzene	<31		92	31	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
1,3-Dichlorobenzene	<37		92	37	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
1,4-Dichlorobenzene	<33		92	33	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
Dichlorodifluoromethane	<62 *		180	62	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
1,1-Dichloroethane	<38		92	38	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
1,2-Dichloroethane	<36		92	36	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
1,1-Dichloroethene	<36		92	36	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: MW-2 (2.5-5')**

**Lab Sample ID: 500-123596-13**

**Date Collected: 02/06/17 11:55**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 88.2**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	<39		92	39	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
1,3-Dichloropropane	<33		92	33	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
2,2-Dichloropropane	<41		92	41	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
1,1-Dichloropropene	<27		92	27	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
Ethylbenzene	<17		23	17	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
Hexachlorobutadiene	<41		92	41	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
Isopropylbenzene	<35		92	35	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
Isopropyl ether	<25		92	25	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
Methylene Chloride	<150		460	150	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
Methyl tert-butyl ether	<36		92	36	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
Naphthalene	<31		92	31	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
n-Butylbenzene	<36		92	36	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
N-Propylbenzene	<38		92	38	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
p-Isopropyltoluene	<33		92	33	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
sec-Butylbenzene	<36		92	36	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
Styrene	<35		92	35	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
tert-Butylbenzene	<36		92	36	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
1,1,1,2-Tetrachloroethane	<42		92	42	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
1,1,2,2-Tetrachloroethane	<36		92	36	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
<b>Tetrachloroethene</b>	<b>510</b>		92	34	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
Toluene	<13		23	13	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
trans-1,2-Dichloroethene	<32		92	32	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
trans-1,3-Dichloropropene	<33		92	33	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
1,2,3-Trichlorobenzene	<42		92	42	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
1,2,4-Trichlorobenzene	<31		92	31	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
1,1,1-Trichloroethane	<35		92	35	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
1,1,2-Trichloroethane	<32		92	32	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
Trichloroethene	<15		46	15	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
Trichlorofluoromethane	<39		92	39	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
1,2,3-Trichloropropane	<38		92	38	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
1,2,4-Trimethylbenzene	<33		92	33	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
1,3,5-Trimethylbenzene	<35		92	35	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
Vinyl chloride	<24		46	24	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50
Xylenes, Total	<20		46	20	ug/Kg	☼	02/06/17 11:55	02/09/17 18:14	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		71 - 120	02/06/17 11:55	02/09/17 18:14	50
Dibromofluoromethane	102		70 - 120	02/06/17 11:55	02/09/17 18:14	50
1,2-Dichloroethane-d4 (Surr)	100		71 - 127	02/06/17 11:55	02/09/17 18:14	50
Toluene-d8 (Surr)	98		75 - 120	02/06/17 11:55	02/09/17 18:14	50

**Client Sample ID: MW-2 (5-7.5')**

**Lab Sample ID: 500-123596-14**

**Date Collected: 02/06/17 12:00**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 86.0**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<15		25	15	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
Bromobenzene	<36		100	36	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
Bromochloromethane	<43		100	43	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50

TestAmerica Chicago



# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: MW-2 (5-7.5')**

**Lab Sample ID: 500-123596-14**

**Date Collected: 02/06/17 12:00**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 86.0**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	<37		100	37	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
Bromoform	<49		100	49	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
Bromomethane	<80		200	80	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
Carbon tetrachloride	<39		100	39	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
Chlorobenzene	<39		100	39	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
Chloroethane	<51		100	51	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
Chloroform	<37		200	37	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
Chloromethane	<32		100	32	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
2-Chlorotoluene	<32		100	32	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
4-Chlorotoluene	<35		100	35	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
cis-1,2-Dichloroethene	<41		100	41	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
cis-1,3-Dichloropropene	<42		100	42	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
Dibromochloromethane	<49		100	49	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
1,2-Dibromo-3-Chloropropane	<200		500	200	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
1,2-Dibromoethane	<39		100	39	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
Dibromomethane	<27		100	27	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
1,2-Dichlorobenzene	<34		100	34	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
1,3-Dichlorobenzene	<40		100	40	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
1,4-Dichlorobenzene	<37		100	37	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
Dichlorodifluoromethane	<68 *		200	68	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
1,1-Dichloroethane	<41		100	41	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
1,2-Dichloroethane	<39		100	39	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
1,1-Dichloroethene	<39		100	39	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
1,2-Dichloropropane	<43		100	43	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
1,3-Dichloropropane	<36		100	36	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
2,2-Dichloropropane	<45		100	45	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
1,1-Dichloropropene	<30		100	30	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
Ethylbenzene	<18		25	18	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
Hexachlorobutadiene	<45		100	45	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
Isopropylbenzene	<39		100	39	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
Isopropyl ether	<28		100	28	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
Methylene Chloride	<160		500	160	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
Methyl tert-butyl ether	<40		100	40	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
Naphthalene	<34		100	34	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
n-Butylbenzene	<39		100	39	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
N-Propylbenzene	<42		100	42	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
p-Isopropyltoluene	<36		100	36	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
sec-Butylbenzene	<40		100	40	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
Styrene	<39		100	39	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
tert-Butylbenzene	<40		100	40	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
1,1,1,2-Tetrachloroethane	<46		100	46	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
1,1,2,2-Tetrachloroethane	<40		100	40	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
<b>Tetrachloroethene</b>	<b>130</b>		100	37	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
Toluene	<15		25	15	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
trans-1,2-Dichloroethene	<35		100	35	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
trans-1,3-Dichloropropene	<36		100	36	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
1,2,3-Trichlorobenzene	<46		100	46	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
1,2,4-Trichlorobenzene	<34		100	34	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
1,1,1-Trichloroethane	<38		100	38	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: MW-2 (5-7.5')**

**Lab Sample ID: 500-123596-14**

**Date Collected: 02/06/17 12:00**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 86.0**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<35		100	35	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
Trichloroethene	<16		50	16	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
Trichlorofluoromethane	<43		100	43	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
1,2,3-Trichloropropane	<42		100	42	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
1,2,4-Trimethylbenzene	<36		100	36	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
1,3,5-Trimethylbenzene	<38		100	38	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
Vinyl chloride	<26		50	26	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
Xylenes, Total	<22		50	22	ug/Kg	☼	02/06/17 12:00	02/09/17 18:42	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		71 - 120				02/06/17 12:00	02/09/17 18:42	50
Dibromofluoromethane	101		70 - 120				02/06/17 12:00	02/09/17 18:42	50
1,2-Dichloroethane-d4 (Surr)	96		71 - 127				02/06/17 12:00	02/09/17 18:42	50
Toluene-d8 (Surr)	98		75 - 120				02/06/17 12:00	02/09/17 18:42	50

**Client Sample ID: MW-3 (0-2.5')**

**Lab Sample ID: 500-123596-15**

**Date Collected: 02/06/17 13:50**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 79.3**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<53		91	53	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
Bromobenzene	<130		360	130	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
Bromochloromethane	<160		360	160	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
Bromodichloromethane	<140		360	140	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
Bromoform	<180		360	180	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
Bromomethane	<290		730	290	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
Carbon tetrachloride	<140		360	140	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
Chlorobenzene	<140		360	140	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
Chloroethane	<180		360	180	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
Chloroform	<130		730	130	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
Chloromethane	<120		360	120	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
2-Chlorotoluene	<110		360	110	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
4-Chlorotoluene	<130		360	130	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
cis-1,2-Dichloroethene	<150		360	150	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
cis-1,3-Dichloropropene	<150		360	150	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
Dibromochloromethane	<180		360	180	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
1,2-Dibromo-3-Chloropropane	<720		1800	720	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
1,2-Dibromoethane	<140		360	140	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
Dibromomethane	<98		360	98	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
1,2-Dichlorobenzene	<120		360	120	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
1,3-Dichlorobenzene	<150		360	150	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
1,4-Dichlorobenzene	<130		360	130	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
Dichlorodifluoromethane	<250 *		730	250	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
1,1-Dichloroethane	<150		360	150	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
1,2-Dichloroethane	<140		360	140	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
1,1-Dichloroethene	<140		360	140	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
1,2-Dichloropropane	<160		360	160	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
1,3-Dichloropropane	<130		360	130	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
2,2-Dichloropropane	<160		360	160	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: MW-3 (0-2.5')**

**Lab Sample ID: 500-123596-15**

**Date Collected: 02/06/17 13:50**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 79.3**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	<110		360	110	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
Ethylbenzene	<67		91	67	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
Hexachlorobutadiene	<160		360	160	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
Isopropylbenzene	<140		360	140	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
Isopropyl ether	<100		360	100	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
Methylene Chloride	<590		1800	590	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
Methyl tert-butyl ether	<140		360	140	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
Naphthalene	<120		360	120	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
n-Butylbenzene	<140		360	140	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
N-Propylbenzene	<150		360	150	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
p-Isopropyltoluene	<130		360	130	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
sec-Butylbenzene	<140		360	140	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
Styrene	<140		360	140	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
tert-Butylbenzene	<140		360	140	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
1,1,1,2-Tetrachloroethane	<170		360	170	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
1,1,2,2-Tetrachloroethane	<140		360	140	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
<b>Tetrachloroethene</b>	<b>3200</b>		360	130	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
Toluene	<54		91	54	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
trans-1,2-Dichloroethene	<130		360	130	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
trans-1,3-Dichloropropene	<130		360	130	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
1,2,3-Trichlorobenzene	<170		360	170	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
1,2,4-Trichlorobenzene	<120		360	120	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
1,1,1-Trichloroethane	<140		360	140	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
1,1,2-Trichloroethane	<130		360	130	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
Trichloroethene	<60		180	60	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
Trichlorofluoromethane	<160		360	160	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
1,2,3-Trichloropropane	<150		360	150	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
1,2,4-Trimethylbenzene	<130		360	130	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
1,3,5-Trimethylbenzene	<140		360	140	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
Vinyl chloride	<95		180	95	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50
Xylenes, Total	<80		180	80	ug/Kg	☼	02/06/17 13:50	02/09/17 19:10	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		71 - 120	02/06/17 13:50	02/09/17 19:10	50
Dibromofluoromethane	102		70 - 120	02/06/17 13:50	02/09/17 19:10	50
1,2-Dichloroethane-d4 (Surr)	100		71 - 127	02/06/17 13:50	02/09/17 19:10	50
Toluene-d8 (Surr)	98		75 - 120	02/06/17 13:50	02/09/17 19:10	50

**Client Sample ID: MW-3 (5-7.5')**

**Lab Sample ID: 500-123596-16**

**Date Collected: 02/06/17 13:55**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 89.2**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<13		22	13	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
Bromobenzene	<31		88	31	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
Bromochloromethane	<38		88	38	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
Bromodichloromethane	<33		88	33	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
Bromoform	<42		88	42	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
Bromomethane	<70		180	70	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50

TestAmerica Chicago



# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: MW-3 (5-7.5')**

**Lab Sample ID: 500-123596-16**

**Date Collected: 02/06/17 13:55**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 89.2**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	<34		88	34	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
Chlorobenzene	<34		88	34	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
Chloroethane	<44		88	44	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
Chloroform	<32		180	32	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
Chloromethane	<28		88	28	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
2-Chlorotoluene	<28		88	28	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
4-Chlorotoluene	<31		88	31	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
cis-1,2-Dichloroethene	<36		88	36	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
cis-1,3-Dichloropropene	<37		88	37	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
Dibromochloromethane	<43		88	43	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
1,2-Dibromo-3-Chloropropane	<170		440	170	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
1,2-Dibromoethane	<34		88	34	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
Dibromomethane	<24		88	24	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
1,2-Dichlorobenzene	<29		88	29	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
1,3-Dichlorobenzene	<35		88	35	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
1,4-Dichlorobenzene	<32		88	32	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
Dichlorodifluoromethane	<59 *		180	59	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
1,1-Dichloroethane	<36		88	36	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
1,2-Dichloroethane	<34		88	34	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
1,1-Dichloroethene	<34		88	34	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
1,2-Dichloropropane	<38		88	38	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
1,3-Dichloropropane	<32		88	32	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
2,2-Dichloropropane	<39		88	39	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
1,1-Dichloropropene	<26		88	26	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
Ethylbenzene	<16		22	16	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
Hexachlorobutadiene	<39		88	39	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
Isopropylbenzene	<34		88	34	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
Isopropyl ether	<24		88	24	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
Methylene Chloride	<140		440	140	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
Methyl tert-butyl ether	<35		88	35	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
Naphthalene	<29		88	29	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
n-Butylbenzene	<34		88	34	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
N-Propylbenzene	<36		88	36	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
p-Isopropyltoluene	<32		88	32	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
sec-Butylbenzene	<35		88	35	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
Styrene	<34		88	34	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
tert-Butylbenzene	<35		88	35	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
1,1,1,2-Tetrachloroethane	<41		88	41	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
1,1,2,2-Tetrachloroethane	<35		88	35	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
<b>Tetrachloroethene</b>	<b>3000</b>		88	32	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
Toluene	<13		22	13	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
trans-1,2-Dichloroethene	<31		88	31	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
trans-1,3-Dichloropropene	<32		88	32	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
1,2,3-Trichlorobenzene	<40		88	40	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
1,2,4-Trichlorobenzene	<30		88	30	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
1,1,1-Trichloroethane	<33		88	33	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
1,1,2-Trichloroethane	<31		88	31	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
Trichloroethene	<14		44	14	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
Trichlorofluoromethane	<38		88	38	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: MW-3 (5-7.5')**

**Lab Sample ID: 500-123596-16**

**Date Collected: 02/06/17 13:55**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 89.2**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<36		88	36	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
1,2,4-Trimethylbenzene	<31		88	31	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
1,3,5-Trimethylbenzene	<33		88	33	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
Vinyl chloride	<23		44	23	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50
Xylenes, Total	<19		44	19	ug/Kg	☼	02/06/17 13:55	02/10/17 16:06	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		71 - 120	02/06/17 13:55	02/10/17 16:06	50
Dibromofluoromethane	101		70 - 120	02/06/17 13:55	02/10/17 16:06	50
1,2-Dichloroethane-d4 (Surr)	95		71 - 127	02/06/17 13:55	02/10/17 16:06	50
Toluene-d8 (Surr)	98		75 - 120	02/06/17 13:55	02/10/17 16:06	50

**Client Sample ID: Trip Blank**

**Lab Sample ID: 500-123596-17**

**Date Collected: 02/06/17 00:00**

**Matrix: Water**

**Date Received: 02/08/17 10:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			02/10/17 16:34	1
Bromobenzene	<0.36		1.0	0.36	ug/L			02/10/17 16:34	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			02/10/17 16:34	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			02/10/17 16:34	1
Bromoform	<0.48		1.0	0.48	ug/L			02/10/17 16:34	1
Bromomethane	<0.80		2.0	0.80	ug/L			02/10/17 16:34	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			02/10/17 16:34	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			02/10/17 16:34	1
Chloroethane	<0.51		1.0	0.51	ug/L			02/10/17 16:34	1
Chloroform	<0.37		2.0	0.37	ug/L			02/10/17 16:34	1
Chloromethane	<0.32		1.0	0.32	ug/L			02/10/17 16:34	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			02/10/17 16:34	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			02/10/17 16:34	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			02/10/17 16:34	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			02/10/17 16:34	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			02/10/17 16:34	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			02/10/17 16:34	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			02/10/17 16:34	1
Dibromomethane	<0.27		1.0	0.27	ug/L			02/10/17 16:34	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			02/10/17 16:34	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			02/10/17 16:34	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			02/10/17 16:34	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			02/10/17 16:34	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			02/10/17 16:34	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			02/10/17 16:34	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			02/10/17 16:34	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			02/10/17 16:34	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			02/10/17 16:34	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			02/10/17 16:34	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			02/10/17 16:34	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			02/10/17 16:34	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			02/10/17 16:34	1

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: Trip Blank**

**Lab Sample ID: 500-123596-17**

**Date Collected: 02/06/17 00:00**

**Matrix: Water**

**Date Received: 02/08/17 10:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	<0.39		1.0	0.39	ug/L			02/10/17 16:34	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			02/10/17 16:34	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			02/10/17 16:34	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			02/10/17 16:34	1
Naphthalene	<0.34		1.0	0.34	ug/L			02/10/17 16:34	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			02/10/17 16:34	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			02/10/17 16:34	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			02/10/17 16:34	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			02/10/17 16:34	1
Styrene	<0.39		1.0	0.39	ug/L			02/10/17 16:34	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			02/10/17 16:34	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			02/10/17 16:34	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			02/10/17 16:34	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			02/10/17 16:34	1
Toluene	<0.15		0.50	0.15	ug/L			02/10/17 16:34	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			02/10/17 16:34	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			02/10/17 16:34	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			02/10/17 16:34	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			02/10/17 16:34	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			02/10/17 16:34	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			02/10/17 16:34	1
Trichloroethene	<0.16		0.50	0.16	ug/L			02/10/17 16:34	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			02/10/17 16:34	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			02/10/17 16:34	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			02/10/17 16:34	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			02/10/17 16:34	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			02/10/17 16:34	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			02/10/17 16:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		71 - 127		02/10/17 16:34	1
Toluene-d8 (Surr)	98		75 - 120		02/10/17 16:34	1
4-Bromofluorobenzene (Surr)	95		71 - 120		02/10/17 16:34	1
Dibromofluoromethane	102		70 - 120		02/10/17 16:34	1

**Client Sample ID: GP-7**

**Lab Sample ID: 500-123596-18**

**Date Collected: 02/06/17 10:10**

**Matrix: Water**

**Date Received: 02/08/17 10:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			02/10/17 17:02	1
Bromobenzene	<0.36		1.0	0.36	ug/L			02/10/17 17:02	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			02/10/17 17:02	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			02/10/17 17:02	1
Bromoform	<0.48		1.0	0.48	ug/L			02/10/17 17:02	1
Bromomethane	<0.80		2.0	0.80	ug/L			02/10/17 17:02	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			02/10/17 17:02	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			02/10/17 17:02	1
Chloroethane	<0.51		1.0	0.51	ug/L			02/10/17 17:02	1

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# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: GP-7**  
**Date Collected: 02/06/17 10:10**  
**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-18**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	<0.37		2.0	0.37	ug/L			02/10/17 17:02	1
Chloromethane	<0.32		1.0	0.32	ug/L			02/10/17 17:02	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			02/10/17 17:02	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			02/10/17 17:02	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			02/10/17 17:02	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			02/10/17 17:02	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			02/10/17 17:02	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			02/10/17 17:02	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			02/10/17 17:02	1
Dibromomethane	<0.27		1.0	0.27	ug/L			02/10/17 17:02	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			02/10/17 17:02	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			02/10/17 17:02	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			02/10/17 17:02	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			02/10/17 17:02	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			02/10/17 17:02	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			02/10/17 17:02	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			02/10/17 17:02	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			02/10/17 17:02	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			02/10/17 17:02	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			02/10/17 17:02	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			02/10/17 17:02	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			02/10/17 17:02	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			02/10/17 17:02	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			02/10/17 17:02	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			02/10/17 17:02	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			02/10/17 17:02	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			02/10/17 17:02	1
Naphthalene	<0.34		1.0	0.34	ug/L			02/10/17 17:02	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			02/10/17 17:02	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			02/10/17 17:02	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			02/10/17 17:02	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			02/10/17 17:02	1
Styrene	<0.39		1.0	0.39	ug/L			02/10/17 17:02	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			02/10/17 17:02	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			02/10/17 17:02	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			02/10/17 17:02	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			02/10/17 17:02	1
Toluene	<0.15		0.50	0.15	ug/L			02/10/17 17:02	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			02/10/17 17:02	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			02/10/17 17:02	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			02/10/17 17:02	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			02/10/17 17:02	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			02/10/17 17:02	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			02/10/17 17:02	1
Trichloroethene	<0.16		0.50	0.16	ug/L			02/10/17 17:02	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			02/10/17 17:02	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			02/10/17 17:02	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			02/10/17 17:02	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			02/10/17 17:02	1

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: GP-7**  
**Date Collected: 02/06/17 10:10**  
**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-18**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	<0.20		0.50	0.20	ug/L			02/10/17 17:02	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			02/10/17 17:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		71 - 127					02/10/17 17:02	1
Toluene-d8 (Surr)	99		75 - 120					02/10/17 17:02	1
4-Bromofluorobenzene (Surr)	95		71 - 120					02/10/17 17:02	1
Dibromofluoromethane	103		70 - 120					02/10/17 17:02	1

**Client Sample ID: GP-8**  
**Date Collected: 02/06/17 10:15**  
**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-19**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			02/10/17 17:30	1
Bromobenzene	<0.36		1.0	0.36	ug/L			02/10/17 17:30	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			02/10/17 17:30	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			02/10/17 17:30	1
Bromoform	<0.48		1.0	0.48	ug/L			02/10/17 17:30	1
Bromomethane	<0.80		2.0	0.80	ug/L			02/10/17 17:30	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			02/10/17 17:30	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			02/10/17 17:30	1
Chloroethane	<0.51		1.0	0.51	ug/L			02/10/17 17:30	1
Chloroform	<0.37		2.0	0.37	ug/L			02/10/17 17:30	1
Chloromethane	<0.32		1.0	0.32	ug/L			02/10/17 17:30	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			02/10/17 17:30	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			02/10/17 17:30	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			02/10/17 17:30	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			02/10/17 17:30	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			02/10/17 17:30	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			02/10/17 17:30	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			02/10/17 17:30	1
Dibromomethane	<0.27		1.0	0.27	ug/L			02/10/17 17:30	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			02/10/17 17:30	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			02/10/17 17:30	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			02/10/17 17:30	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			02/10/17 17:30	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			02/10/17 17:30	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			02/10/17 17:30	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			02/10/17 17:30	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			02/10/17 17:30	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			02/10/17 17:30	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			02/10/17 17:30	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			02/10/17 17:30	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			02/10/17 17:30	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			02/10/17 17:30	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			02/10/17 17:30	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			02/10/17 17:30	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			02/10/17 17:30	1

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: GP-8**

**Lab Sample ID: 500-123596-19**

**Date Collected: 02/06/17 10:15**

**Matrix: Water**

**Date Received: 02/08/17 10:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			02/10/17 17:30	1
Naphthalene	<0.34		1.0	0.34	ug/L			02/10/17 17:30	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			02/10/17 17:30	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			02/10/17 17:30	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			02/10/17 17:30	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			02/10/17 17:30	1
Styrene	<0.39		1.0	0.39	ug/L			02/10/17 17:30	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			02/10/17 17:30	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			02/10/17 17:30	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			02/10/17 17:30	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			02/10/17 17:30	1
Toluene	<0.15		0.50	0.15	ug/L			02/10/17 17:30	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			02/10/17 17:30	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			02/10/17 17:30	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			02/10/17 17:30	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			02/10/17 17:30	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			02/10/17 17:30	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			02/10/17 17:30	1
Trichloroethene	<0.16		0.50	0.16	ug/L			02/10/17 17:30	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			02/10/17 17:30	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			02/10/17 17:30	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			02/10/17 17:30	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			02/10/17 17:30	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			02/10/17 17:30	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			02/10/17 17:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		71 - 127		02/10/17 17:30	1
Toluene-d8 (Surr)	99		75 - 120		02/10/17 17:30	1
4-Bromofluorobenzene (Surr)	97		71 - 120		02/10/17 17:30	1
Dibromofluoromethane	102		70 - 120		02/10/17 17:30	1

**Client Sample ID: GP-9**

**Lab Sample ID: 500-123596-20**

**Date Collected: 02/06/17 12:55**

**Matrix: Water**

**Date Received: 02/08/17 10:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			02/10/17 17:58	1
Bromobenzene	<0.36		1.0	0.36	ug/L			02/10/17 17:58	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			02/10/17 17:58	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			02/10/17 17:58	1
Bromoform	<0.48		1.0	0.48	ug/L			02/10/17 17:58	1
Bromomethane	<0.80		2.0	0.80	ug/L			02/10/17 17:58	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			02/10/17 17:58	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			02/10/17 17:58	1
Chloroethane	<0.51		1.0	0.51	ug/L			02/10/17 17:58	1
Chloroform	<0.37		2.0	0.37	ug/L			02/10/17 17:58	1
Chloromethane	<0.32		1.0	0.32	ug/L			02/10/17 17:58	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			02/10/17 17:58	1

TestAmerica Chicago



# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: GP-9**  
**Date Collected: 02/06/17 12:55**  
**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-20**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			02/10/17 17:58	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			02/10/17 17:58	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			02/10/17 17:58	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			02/10/17 17:58	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			02/10/17 17:58	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			02/10/17 17:58	1
Dibromomethane	<0.27		1.0	0.27	ug/L			02/10/17 17:58	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			02/10/17 17:58	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			02/10/17 17:58	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			02/10/17 17:58	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			02/10/17 17:58	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			02/10/17 17:58	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			02/10/17 17:58	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			02/10/17 17:58	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			02/10/17 17:58	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			02/10/17 17:58	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			02/10/17 17:58	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			02/10/17 17:58	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			02/10/17 17:58	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			02/10/17 17:58	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			02/10/17 17:58	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			02/10/17 17:58	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			02/10/17 17:58	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			02/10/17 17:58	1
Naphthalene	<0.34		1.0	0.34	ug/L			02/10/17 17:58	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			02/10/17 17:58	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			02/10/17 17:58	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			02/10/17 17:58	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			02/10/17 17:58	1
Styrene	<0.39		1.0	0.39	ug/L			02/10/17 17:58	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			02/10/17 17:58	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			02/10/17 17:58	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			02/10/17 17:58	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			02/10/17 17:58	1
Toluene	<0.15		0.50	0.15	ug/L			02/10/17 17:58	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			02/10/17 17:58	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			02/10/17 17:58	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			02/10/17 17:58	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			02/10/17 17:58	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			02/10/17 17:58	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			02/10/17 17:58	1
Trichloroethene	<0.16		0.50	0.16	ug/L			02/10/17 17:58	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			02/10/17 17:58	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			02/10/17 17:58	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			02/10/17 17:58	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			02/10/17 17:58	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			02/10/17 17:58	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			02/10/17 17:58	1

# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: GP-9**  
**Date Collected: 02/06/17 12:55**  
**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-20**  
**Matrix: Water**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		71 - 127		02/10/17 17:58	1
Toluene-d8 (Surr)	99		75 - 120		02/10/17 17:58	1
4-Bromofluorobenzene (Surr)	96		71 - 120		02/10/17 17:58	1
Dibromofluoromethane	101		70 - 120		02/10/17 17:58	1

**Client Sample ID: GP-10**  
**Date Collected: 02/06/17 12:40**  
**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-21**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			02/15/17 13:57	1
Bromobenzene	<0.36		1.0	0.36	ug/L			02/15/17 13:57	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			02/15/17 13:57	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			02/15/17 13:57	1
Bromoform	<0.48		1.0	0.48	ug/L			02/15/17 13:57	1
Bromomethane	<0.80		2.0	0.80	ug/L			02/15/17 13:57	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			02/15/17 13:57	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			02/15/17 13:57	1
Chloroethane	<0.51		1.0	0.51	ug/L			02/15/17 13:57	1
Chloroform	<0.37		2.0	0.37	ug/L			02/15/17 13:57	1
Chloromethane	<0.32		1.0	0.32	ug/L			02/15/17 13:57	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			02/15/17 13:57	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			02/15/17 13:57	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			02/15/17 13:57	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			02/15/17 13:57	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			02/15/17 13:57	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			02/15/17 13:57	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			02/15/17 13:57	1
Dibromomethane	<0.27		1.0	0.27	ug/L			02/15/17 13:57	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			02/15/17 13:57	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			02/15/17 13:57	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			02/15/17 13:57	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			02/15/17 13:57	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			02/15/17 13:57	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			02/15/17 13:57	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			02/15/17 13:57	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			02/15/17 13:57	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			02/15/17 13:57	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			02/15/17 13:57	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			02/15/17 13:57	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			02/15/17 13:57	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			02/15/17 13:57	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			02/15/17 13:57	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			02/15/17 13:57	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			02/15/17 13:57	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			02/15/17 13:57	1
Naphthalene	<0.34		1.0	0.34	ug/L			02/15/17 13:57	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			02/15/17 13:57	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			02/15/17 13:57	1

TestAmerica Chicago



# Client Sample Results

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: GP-10**  
**Date Collected: 02/06/17 12:40**  
**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-21**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			02/15/17 13:57	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			02/15/17 13:57	1
Styrene	<0.39		1.0	0.39	ug/L			02/15/17 13:57	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			02/15/17 13:57	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			02/15/17 13:57	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			02/15/17 13:57	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			02/15/17 13:57	1
Toluene	<0.15		0.50	0.15	ug/L			02/15/17 13:57	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			02/15/17 13:57	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			02/15/17 13:57	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			02/15/17 13:57	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			02/15/17 13:57	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			02/15/17 13:57	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			02/15/17 13:57	1
Trichloroethene	<0.16		0.50	0.16	ug/L			02/15/17 13:57	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			02/15/17 13:57	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			02/15/17 13:57	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			02/15/17 13:57	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			02/15/17 13:57	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			02/15/17 13:57	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			02/15/17 13:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		71 - 127		02/15/17 13:57	1
Toluene-d8 (Surr)	100		75 - 120		02/15/17 13:57	1
4-Bromofluorobenzene (Surr)	100		71 - 120		02/15/17 13:57	1
Dibromofluoromethane	95		70 - 120		02/15/17 13:57	1

**Client Sample ID: GP-11**  
**Date Collected: 02/06/17 12:45**  
**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-22**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			02/15/17 14:24	1
Bromobenzene	<0.36		1.0	0.36	ug/L			02/15/17 14:24	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			02/15/17 14:24	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			02/15/17 14:24	1
Bromoform	<0.48		1.0	0.48	ug/L			02/15/17 14:24	1
Bromomethane	<0.80		2.0	0.80	ug/L			02/15/17 14:24	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			02/15/17 14:24	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			02/15/17 14:24	1
Chloroethane	<0.51		1.0	0.51	ug/L			02/15/17 14:24	1
Chloroform	<0.37		2.0	0.37	ug/L			02/15/17 14:24	1
Chloromethane	<0.32		1.0	0.32	ug/L			02/15/17 14:24	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			02/15/17 14:24	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			02/15/17 14:24	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			02/15/17 14:24	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			02/15/17 14:24	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			02/15/17 14:24	1

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: GP-11**  
**Date Collected: 02/06/17 12:45**  
**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-22**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			02/15/17 14:24	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			02/15/17 14:24	1
Dibromomethane	<0.27		1.0	0.27	ug/L			02/15/17 14:24	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			02/15/17 14:24	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			02/15/17 14:24	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			02/15/17 14:24	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			02/15/17 14:24	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			02/15/17 14:24	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			02/15/17 14:24	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			02/15/17 14:24	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			02/15/17 14:24	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			02/15/17 14:24	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			02/15/17 14:24	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			02/15/17 14:24	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			02/15/17 14:24	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			02/15/17 14:24	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			02/15/17 14:24	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			02/15/17 14:24	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			02/15/17 14:24	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			02/15/17 14:24	1
Naphthalene	<0.34		1.0	0.34	ug/L			02/15/17 14:24	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			02/15/17 14:24	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			02/15/17 14:24	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			02/15/17 14:24	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			02/15/17 14:24	1
Styrene	<0.39		1.0	0.39	ug/L			02/15/17 14:24	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			02/15/17 14:24	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			02/15/17 14:24	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			02/15/17 14:24	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			02/15/17 14:24	1
Toluene	<0.15		0.50	0.15	ug/L			02/15/17 14:24	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			02/15/17 14:24	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			02/15/17 14:24	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			02/15/17 14:24	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			02/15/17 14:24	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			02/15/17 14:24	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			02/15/17 14:24	1
Trichloroethene	<0.16		0.50	0.16	ug/L			02/15/17 14:24	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			02/15/17 14:24	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			02/15/17 14:24	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			02/15/17 14:24	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			02/15/17 14:24	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			02/15/17 14:24	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			02/15/17 14:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		71 - 127		02/15/17 14:24	1
Toluene-d8 (Surr)	100		75 - 120		02/15/17 14:24	1
4-Bromofluorobenzene (Surr)	101		71 - 120		02/15/17 14:24	1
Dibromofluoromethane	95		70 - 120		02/15/17 14:24	1

TestAmerica Chicago

# Definitions/Glossary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

## Glossary

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

# QC Association Summary

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

## GC/MS VOA

### Prep Batch: 371336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123596-1	GP-7 (0-2')	Total/NA	Solid	5035	
500-123596-2	GP-7 (5-7.5')	Total/NA	Solid	5035	
500-123596-3	GP-8 (2.5-5')	Total/NA	Solid	5035	
500-123596-4	GP-8 (5-7.5')	Total/NA	Solid	5035	
500-123596-5	GP-9 (2.5-5')	Total/NA	Solid	5035	
500-123596-6	GP-9 (5-7.5')	Total/NA	Solid	5035	
500-123596-7	GP-10 (2.5-5')	Total/NA	Solid	5035	
500-123596-8	GP-10 (5-7.5')	Total/NA	Solid	5035	
500-123596-9	GP-11 (0-2.5')	Total/NA	Solid	5035	
500-123596-10	GP-11 (5-7.5')	Total/NA	Solid	5035	
500-123596-11	MW-1 (2.5-5')	Total/NA	Solid	5035	
500-123596-12	MW-1 (5-7.5')	Total/NA	Solid	5035	
500-123596-13	MW-2 (2.5-5')	Total/NA	Solid	5035	
500-123596-14	MW-2 (5-7.5')	Total/NA	Solid	5035	
500-123596-15	MW-3 (0-2.5')	Total/NA	Solid	5035	
500-123596-16	MW-3 (5-7.5')	Total/NA	Solid	5035	
LB3 500-371336/17-A	Method Blank	Total/NA	Solid	5035	
LCS 500-371336/18-A	Lab Control Sample	Total/NA	Solid	5035	
500-123596-15 MS	MW-3 (0-2.5')	Total/NA	Solid	5035	
500-123596-15 MSD	MW-3 (0-2.5')	Total/NA	Solid	5035	

### Analysis Batch: 371372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123596-1	GP-7 (0-2')	Total/NA	Solid	8260B	371336
500-123596-2	GP-7 (5-7.5')	Total/NA	Solid	8260B	371336
500-123596-3	GP-8 (2.5-5')	Total/NA	Solid	8260B	371336
500-123596-4	GP-8 (5-7.5')	Total/NA	Solid	8260B	371336
500-123596-5	GP-9 (2.5-5')	Total/NA	Solid	8260B	371336
500-123596-6	GP-9 (5-7.5')	Total/NA	Solid	8260B	371336
500-123596-7	GP-10 (2.5-5')	Total/NA	Solid	8260B	371336
500-123596-8	GP-10 (5-7.5')	Total/NA	Solid	8260B	371336
500-123596-9	GP-11 (0-2.5')	Total/NA	Solid	8260B	371336
500-123596-10	GP-11 (5-7.5')	Total/NA	Solid	8260B	371336
500-123596-11	MW-1 (2.5-5')	Total/NA	Solid	8260B	371336
500-123596-12	MW-1 (5-7.5')	Total/NA	Solid	8260B	371336
500-123596-13	MW-2 (2.5-5')	Total/NA	Solid	8260B	371336
500-123596-14	MW-2 (5-7.5')	Total/NA	Solid	8260B	371336
500-123596-15	MW-3 (0-2.5')	Total/NA	Solid	8260B	371336
LB3 500-371336/17-A	Method Blank	Total/NA	Solid	8260B	371336
MB 500-371372/6	Method Blank	Total/NA	Solid	8260B	
LCS 500-371336/18-A	Lab Control Sample	Total/NA	Solid	8260B	371336
LCS 500-371372/4	Lab Control Sample	Total/NA	Solid	8260B	
500-123596-15 MS	MW-3 (0-2.5')	Total/NA	Solid	8260B	371336
500-123596-15 MSD	MW-3 (0-2.5')	Total/NA	Solid	8260B	371336

### Analysis Batch: 371514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123596-17	Trip Blank	Total/NA	Water	8260B	
500-123596-18	GP-7	Total/NA	Water	8260B	
500-123596-19	GP-8	Total/NA	Water	8260B	
500-123596-20	GP-9	Total/NA	Water	8260B	

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# QC Association Summary

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

## GC/MS VOA (Continued)

### Analysis Batch: 371514 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-371514/6	Method Blank	Total/NA	Water	8260B	
LCS 500-371514/4	Lab Control Sample	Total/NA	Water	8260B	
500-123596-20 MS	GP-9	Total/NA	Water	8260B	
500-123596-20 MSD	GP-9	Total/NA	Water	8260B	

### Analysis Batch: 371515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123596-16	MW-3 (5-7.5')	Total/NA	Solid	8260B	371336
MB 500-371515/6	Method Blank	Total/NA	Solid	8260B	
LCS 500-371515/4	Lab Control Sample	Total/NA	Solid	8260B	

### Analysis Batch: 372077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123596-21	GP-10	Total/NA	Water	8260B	
500-123596-22	GP-11	Total/NA	Water	8260B	
MB 500-372077/6	Method Blank	Total/NA	Water	8260B	
LCS 500-372077/4	Lab Control Sample	Total/NA	Water	8260B	

## General Chemistry

### Analysis Batch: 371426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123596-1	GP-7 (0-2')	Total/NA	Solid	Moisture	
500-123596-2	GP-7 (5-7.5')	Total/NA	Solid	Moisture	
500-123596-3	GP-8 (2.5-5')	Total/NA	Solid	Moisture	
500-123596-4	GP-8 (5-7.5')	Total/NA	Solid	Moisture	
500-123596-5	GP-9 (2.5-5')	Total/NA	Solid	Moisture	
500-123596-6	GP-9 (5-7.5')	Total/NA	Solid	Moisture	
500-123596-7	GP-10 (2.5-5')	Total/NA	Solid	Moisture	
500-123596-8	GP-10 (5-7.5')	Total/NA	Solid	Moisture	
500-123596-9	GP-11 (0-2.5')	Total/NA	Solid	Moisture	
500-123596-10	GP-11 (5-7.5')	Total/NA	Solid	Moisture	
500-123596-11	MW-1 (2.5-5')	Total/NA	Solid	Moisture	
500-123596-12	MW-1 (5-7.5')	Total/NA	Solid	Moisture	
500-123596-13	MW-2 (2.5-5')	Total/NA	Solid	Moisture	
500-123596-14	MW-2 (5-7.5')	Total/NA	Solid	Moisture	
500-123596-15	MW-3 (0-2.5')	Total/NA	Solid	Moisture	
500-123596-16	MW-3 (5-7.5')	Total/NA	Solid	Moisture	

# Surrogate Summary

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (71-120)	DBFM (70-120)	12DCE (71-127)	TOL (75-120)
500-123596-1	GP-7 (0-2')	94	105	104	96
500-123596-2	GP-7 (5-7.5')	94	102	100	97
500-123596-3	GP-8 (2.5-5')	95	104	103	96
500-123596-4	GP-8 (5-7.5')	92	104	102	97
500-123596-5	GP-9 (2.5-5')	93	105	103	96
500-123596-6	GP-9 (5-7.5')	92	104	105	96
500-123596-7	GP-10 (2.5-5')	93	103	102	96
500-123596-8	GP-10 (5-7.5')	92	103	103	96
500-123596-9	GP-11 (0-2.5')	94	102	102	96
500-123596-10	GP-11 (5-7.5')	94	103	102	97
500-123596-11	MW-1 (2.5-5')	93	104	102	97
500-123596-12	MW-1 (5-7.5')	94	103	100	96
500-123596-13	MW-2 (2.5-5')	96	102	100	98
500-123596-14	MW-2 (5-7.5')	96	101	96	98
500-123596-15	MW-3 (0-2.5')	97	102	100	98
500-123596-15 MS	MW-3 (0-2.5')	97	98	96	99
500-123596-15 MSD	MW-3 (0-2.5')	98	98	97	98
500-123596-16	MW-3 (5-7.5')	93	101	95	98
LB3 500-371336/17-A	Method Blank	95	105	105	96
LCS 500-371336/18-A	Lab Control Sample	94	97	95	100
LCS 500-371372/4	Lab Control Sample	96	97	93	100
LCS 500-371515/4	Lab Control Sample	94	96	93	101
MB 500-371372/6	Method Blank	93	101	96	97
MB 500-371515/6	Method Blank	94	101	98	99

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (71-127)	TOL (75-120)	BFB (71-120)	DBFM (70-120)
500-123596-17	Trip Blank	96	98	95	102
500-123596-18	GP-7	98	99	95	103
500-123596-19	GP-8	95	99	97	102
500-123596-20	GP-9	96	99	96	101
500-123596-20 MS	GP-9	94	99	94	98
500-123596-20 MSD	GP-9	96	100	96	99
500-123596-21	GP-10	105	100	100	95
500-123596-22	GP-11	105	100	101	95
LCS 500-371514/4	Lab Control Sample	93	101	94	96
LCS 500-372077/4	Lab Control Sample	101	101	98	94
MB 500-371514/6	Method Blank	98	99	94	101
MB 500-372077/6	Method Blank	104	100	100	95

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# Surrogate Summary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

## Surrogate Legend

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12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane

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# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

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

**Lab Sample ID: LB3 500-371336/17-A**

**Matrix: Solid**

**Analysis Batch: 371372**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 371336**

Analyte	LB3 Result	LB3 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<7.3		13	7.3	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
Bromobenzene	<18		50	18	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
Bromochloromethane	<21		50	21	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
Bromodichloromethane	<19		50	19	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
Bromoform	<24		50	24	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
Bromomethane	<40		100	40	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
Carbon tetrachloride	<19		50	19	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
Chlorobenzene	<19		50	19	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
Chloroethane	<25		50	25	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
Chloroform	<19		100	19	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
Chloromethane	<16		50	16	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
2-Chlorotoluene	<16		50	16	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
4-Chlorotoluene	<18		50	18	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
cis-1,2-Dichloroethene	<20		50	20	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
cis-1,3-Dichloropropene	<21		50	21	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
Dibromochloromethane	<24		50	24	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
1,2-Dibromo-3-Chloropropane	<100		250	100	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
1,2-Dibromoethane	<19		50	19	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
Dibromomethane	<14		50	14	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
1,2-Dichlorobenzene	<17		50	17	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
1,3-Dichlorobenzene	<20		50	20	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
1,4-Dichlorobenzene	<18		50	18	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
Dichlorodifluoromethane	<34		100	34	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
1,1-Dichloroethane	<21		50	21	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
1,2-Dichloroethane	<20		50	20	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
1,1-Dichloroethene	<20		50	20	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
1,2-Dichloropropane	<21		50	21	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
1,3-Dichloropropane	<18		50	18	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
2,2-Dichloropropane	<22		50	22	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
1,1-Dichloropropene	<15		50	15	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
Ethylbenzene	<9.2		13	9.2	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
Hexachlorobutadiene	<22		50	22	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
Isopropylbenzene	<19		50	19	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
Isopropyl ether	<14		50	14	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
Methylene Chloride	<82		250	82	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
Methyl tert-butyl ether	<20		50	20	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
Naphthalene	<17		50	17	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
n-Butylbenzene	<19		50	19	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
N-Propylbenzene	<21		50	21	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
p-Isopropyltoluene	<18		50	18	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
sec-Butylbenzene	<20		50	20	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
Styrene	<19		50	19	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
tert-Butylbenzene	<20		50	20	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
1,1,1,2-Tetrachloroethane	<23		50	23	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
1,1,2,2-Tetrachloroethane	<20		50	20	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
Tetrachloroethene	<19		50	19	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
Toluene	<7.4		13	7.4	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
trans-1,2-Dichloroethene	<18		50	18	ug/Kg		02/08/17 21:40	02/09/17 11:44	50

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# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

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

**Lab Sample ID: LB3 500-371336/17-A**  
**Matrix: Solid**  
**Analysis Batch: 371372**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 371336**

Analyte	LB3 Result	LB3 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<18		50	18	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
1,2,3-Trichlorobenzene	<23		50	23	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
1,2,4-Trichlorobenzene	<17		50	17	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
1,1,1-Trichloroethane	<19		50	19	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
1,1,2-Trichloroethane	<18		50	18	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
Trichloroethene	<8.2		25	8.2	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
Trichlorofluoromethane	<21		50	21	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
1,2,3-Trichloropropane	<21		50	21	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
1,2,4-Trimethylbenzene	<18		50	18	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
1,3,5-Trimethylbenzene	<19		50	19	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
Vinyl chloride	<13		25	13	ug/Kg		02/08/17 21:40	02/09/17 11:44	50
Xylenes, Total	<11		25	11	ug/Kg		02/08/17 21:40	02/09/17 11:44	50

Surrogate	LB3 %Recovery	LB3 Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		71 - 127	02/08/17 21:40	02/09/17 11:44	50
4-Bromofluorobenzene (Surr)	95		71 - 120	02/08/17 21:40	02/09/17 11:44	50
Dibromofluoromethane	105		70 - 120	02/08/17 21:40	02/09/17 11:44	50
Toluene-d8 (Surr)	96		75 - 120	02/08/17 21:40	02/09/17 11:44	50

**Lab Sample ID: LCS 500-371336/18-A**  
**Matrix: Solid**  
**Analysis Batch: 371372**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 371336**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzene	2500	2380		ug/Kg		95	70 - 125
Bromobenzene	2500	2430		ug/Kg		97	70 - 125
Bromochloromethane	2500	2440		ug/Kg		98	70 - 125
Bromodichloromethane	2500	2290		ug/Kg		92	70 - 125
Bromoform	2500	2520		ug/Kg		101	54 - 128
Bromomethane	2500	2040		ug/Kg		82	40 - 150
Carbon tetrachloride	2500	2560		ug/Kg		102	70 - 125
Chlorobenzene	2500	2530		ug/Kg		101	70 - 125
Chloroethane	2500	2200		ug/Kg		88	60 - 139
Chloroform	2500	2360		ug/Kg		94	70 - 125
Chloromethane	2500	2120		ug/Kg		85	60 - 140
2-Chlorotoluene	2500	2460		ug/Kg		98	69 - 125
4-Chlorotoluene	2500	2420		ug/Kg		97	70 - 125
cis-1,2-Dichloroethene	2500	2430		ug/Kg		97	70 - 125
cis-1,3-Dichloropropene	2500	2300		ug/Kg		92	70 - 125
Dibromochloromethane	2500	2470		ug/Kg		99	66 - 125
1,2-Dibromo-3-Chloropropane	2500	1840		ug/Kg		74	51 - 125
1,2-Dibromoethane	2500	2380		ug/Kg		95	70 - 125
Dibromomethane	2500	2420		ug/Kg		97	70 - 125
1,2-Dichlorobenzene	2500	2400		ug/Kg		96	70 - 125
1,3-Dichlorobenzene	2500	2480		ug/Kg		99	70 - 125
1,4-Dichlorobenzene	2500	2450		ug/Kg		98	70 - 125
Dichlorodifluoromethane	2500	1080	*	ug/Kg		43	51 - 140
1,1-Dichloroethane	2500	2380		ug/Kg		95	70 - 125

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# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

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

**Lab Sample ID: LCS 500-371336/18-A**  
**Matrix: Solid**  
**Analysis Batch: 371372**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 371336**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	2500	2320		ug/Kg		93	70 - 125
1,1-Dichloroethene	2500	2420		ug/Kg		97	70 - 125
1,2-Dichloropropane	2500	2470		ug/Kg		99	70 - 125
1,3-Dichloropropane	2500	2440		ug/Kg		97	70 - 125
2,2-Dichloropropane	2500	2190		ug/Kg		87	62 - 125
1,1-Dichloropropene	2500	2440		ug/Kg		98	70 - 125
Ethylbenzene	2500	2560		ug/Kg		102	70 - 125
Hexachlorobutadiene	2500	2740		ug/Kg		110	57 - 140
Isopropylbenzene	2500	2560		ug/Kg		102	70 - 125
Methylene Chloride	2500	2320		ug/Kg		93	68 - 125
Methyl tert-butyl ether	2500	1920		ug/Kg		77	67 - 125
Naphthalene	2500	1780		ug/Kg		71	50 - 136
n-Butylbenzene	2500	2490		ug/Kg		100	70 - 125
N-Propylbenzene	2500	2560		ug/Kg		103	70 - 125
p-Isopropyltoluene	2500	2520		ug/Kg		101	70 - 125
sec-Butylbenzene	2500	2570		ug/Kg		103	70 - 125
Styrene	2500	2490		ug/Kg		100	70 - 125
tert-Butylbenzene	2500	2500		ug/Kg		100	70 - 125
1,1,1,2-Tetrachloroethane	2500	2490		ug/Kg		100	68 - 125
1,1,1,2,2-Tetrachloroethane	2500	2210		ug/Kg		88	68 - 125
Tetrachloroethene	2500	2630		ug/Kg		105	70 - 125
Toluene	2500	2450		ug/Kg		98	70 - 125
trans-1,2-Dichloroethene	2500	2470		ug/Kg		99	70 - 125
trans-1,3-Dichloropropene	2500	2270		ug/Kg		91	70 - 125
1,2,3-Trichlorobenzene	2500	2020		ug/Kg		81	58 - 135
1,2,4-Trichlorobenzene	2500	2130		ug/Kg		85	64 - 126
1,1,1-Trichloroethane	2500	2440		ug/Kg		98	70 - 125
1,1,2-Trichloroethane	2500	2390		ug/Kg		96	70 - 125
Trichloroethene	2500	2590		ug/Kg		103	70 - 125
Trichlorofluoromethane	2500	2290		ug/Kg		92	60 - 126
1,2,3-Trichloropropane	2500	2110		ug/Kg		84	63 - 125
1,2,4-Trimethylbenzene	2500	2490		ug/Kg		99	70 - 125
1,3,5-Trimethylbenzene	2500	2460		ug/Kg		99	70 - 125
Vinyl chloride	2500	2060		ug/Kg		82	70 - 126
Xylenes, Total	5000	4860		ug/Kg		97	70 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	95		71 - 127
4-Bromofluorobenzene (Surr)	94		71 - 120
Dibromofluoromethane	97		70 - 120
Toluene-d8 (Surr)	100		75 - 120

**Lab Sample ID: 500-123596-15 MS**  
**Matrix: Solid**  
**Analysis Batch: 371372**

**Client Sample ID: MW-3 (0-2.5')**  
**Prep Type: Total/NA**  
**Prep Batch: 371336**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
				Result	Qualifier				
Benzene	<53		18200	15500		ug/Kg	☒	85	70 - 125

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# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

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

**Lab Sample ID: 500-123596-15 MS**

**Matrix: Solid**

**Analysis Batch: 371372**

**Client Sample ID: MW-3 (0-2.5')**

**Prep Type: Total/NA**

**Prep Batch: 371336**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Bromobenzene	<130		18200	16800		ug/Kg	☼	92	70 - 125
Bromochloromethane	<160		18200	16400		ug/Kg	☼	90	70 - 125
Bromodichloromethane	<140		18200	15400		ug/Kg	☼	85	70 - 125
Bromoform	<180		18200	17700		ug/Kg	☼	97	54 - 128
Bromomethane	<290		18200	12900		ug/Kg	☼	71	40 - 150
Carbon tetrachloride	<140		18200	16200		ug/Kg	☼	89	70 - 125
Chlorobenzene	<140		18200	16500		ug/Kg	☼	90	70 - 125
Chloroethane	<180		18200	15800		ug/Kg	☼	87	60 - 139
Chloroform	<130		18200	15400		ug/Kg	☼	85	70 - 125
Chloromethane	<120		18200	16200		ug/Kg	☼	89	60 - 140
2-Chlorotoluene	<110		18200	16400		ug/Kg	☼	90	69 - 125
4-Chlorotoluene	<130		18200	15700		ug/Kg	☼	86	70 - 125
cis-1,2-Dichloroethene	<150		18200	15900		ug/Kg	☼	87	70 - 125
cis-1,3-Dichloropropene	<150		18200	15200		ug/Kg	☼	84	70 - 125
Dibromochloromethane	<180		18200	16800		ug/Kg	☼	92	66 - 125
1,2-Dibromo-3-Chloropropane	<720		18200	13200		ug/Kg	☼	72	51 - 125
1,2-Dibromoethane	<140		18200	16500		ug/Kg	☼	91	70 - 125
Dibromomethane	<98		18200	16600		ug/Kg	☼	91	70 - 125
1,2-Dichlorobenzene	<120		18200	16100		ug/Kg	☼	89	70 - 125
1,3-Dichlorobenzene	<150		18200	15800		ug/Kg	☼	87	70 - 125
1,4-Dichlorobenzene	<130		18200	15800		ug/Kg	☼	87	70 - 125
Dichlorodifluoromethane	<250	*	18200	10300		ug/Kg	☼	57	51 - 140
1,1-Dichloroethane	<150		18200	15500		ug/Kg	☼	85	70 - 125
1,2-Dichloroethane	<140		18200	15900		ug/Kg	☼	87	70 - 125
1,1-Dichloroethene	<140		18200	15600		ug/Kg	☼	85	70 - 125
1,2-Dichloropropane	<160		18200	16200		ug/Kg	☼	89	70 - 125
1,3-Dichloropropane	<130		18200	16600		ug/Kg	☼	91	70 - 125
2,2-Dichloropropane	<160		18200	13200		ug/Kg	☼	72	62 - 125
1,1-Dichloropropene	<110		18200	15500		ug/Kg	☼	85	70 - 125
Ethylbenzene	<67		18200	16200		ug/Kg	☼	89	70 - 125
Hexachlorobutadiene	<160		18200	16700		ug/Kg	☼	92	57 - 140
Isopropylbenzene	<140		18200	16800		ug/Kg	☼	93	70 - 125
Methylene Chloride	<590		18200	15700		ug/Kg	☼	86	68 - 125
Methyl tert-butyl ether	<140		18200	12900		ug/Kg	☼	71	67 - 125
Naphthalene	<120		18200	12000		ug/Kg	☼	66	50 - 136
n-Butylbenzene	<140		18200	14600		ug/Kg	☼	80	70 - 125
N-Propylbenzene	<150		18200	16400		ug/Kg	☼	90	70 - 125
p-Isopropyltoluene	<130		18200	16700		ug/Kg	☼	92	70 - 125
sec-Butylbenzene	<140		18200	16600		ug/Kg	☼	91	70 - 125
Styrene	<140		18200	16200		ug/Kg	☼	89	70 - 125
tert-Butylbenzene	<140		18200	15800		ug/Kg	☼	87	70 - 125
1,1,1,2-Tetrachloroethane	<170		18200	16700		ug/Kg	☼	91	68 - 125
1,1,2,2-Tetrachloroethane	<140		18200	15800		ug/Kg	☼	87	68 - 125
Tetrachloroethene	3200		18200	19600		ug/Kg	☼	90	70 - 125
Toluene	<54		18200	15800		ug/Kg	☼	87	70 - 125
trans-1,2-Dichloroethene	<130		18200	15700		ug/Kg	☼	87	70 - 125
trans-1,3-Dichloropropene	<130		18200	14800		ug/Kg	☼	81	70 - 125
1,2,3-Trichlorobenzene	<170		18200	12600		ug/Kg	☼	69	58 - 135

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# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

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

**Lab Sample ID: 500-123596-15 MS**

**Matrix: Solid**

**Analysis Batch: 371372**

**Client Sample ID: MW-3 (0-2.5')**

**Prep Type: Total/NA**

**Prep Batch: 371336**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
1,2,4-Trichlorobenzene	<120		18200	12000		ug/Kg	☼	66	64 - 126
1,1,1-Trichloroethane	<140		18200	15500		ug/Kg	☼	85	70 - 125
1,1,2-Trichloroethane	<130		18200	16900		ug/Kg	☼	93	70 - 125
Trichloroethene	<60		18200	16300		ug/Kg	☼	90	70 - 125
Trichlorofluoromethane	<160		18200	16200		ug/Kg	☼	89	60 - 126
1,2,3-Trichloropropane	<150		18200	15200		ug/Kg	☼	83	63 - 125
1,2,4-Trimethylbenzene	<130		18200	15800		ug/Kg	☼	87	70 - 125
1,3,5-Trimethylbenzene	<140		18200	16100		ug/Kg	☼	88	70 - 125
Vinyl chloride	<95		18200	15600		ug/Kg	☼	86	70 - 126
Xylenes, Total	<80		36400	31000		ug/Kg	☼	85	70 - 125
<b>MS MS</b>									
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
1,2-Dichloroethane-d4 (Surr)	96		71 - 127						
4-Bromofluorobenzene (Surr)	97		71 - 120						
Dibromofluoromethane	98		70 - 120						
Toluene-d8 (Surr)	99		75 - 120						

**Lab Sample ID: 500-123596-15 MSD**

**Matrix: Solid**

**Analysis Batch: 371372**

**Client Sample ID: MW-3 (0-2.5')**

**Prep Type: Total/NA**

**Prep Batch: 371336**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Benzene	<53		18200	15800		ug/Kg	☼	87	70 - 125	2	30
Bromobenzene	<130		18200	17500		ug/Kg	☼	96	70 - 125	4	30
Bromochloromethane	<160		18200	17200		ug/Kg	☼	95	70 - 125	5	30
Bromodichloromethane	<140		18200	15800		ug/Kg	☼	87	70 - 125	3	30
Bromoform	<180		18200	18300		ug/Kg	☼	100	54 - 128	3	30
Bromomethane	<290		18200	14600		ug/Kg	☼	80	40 - 150	12	30
Carbon tetrachloride	<140		18200	16200		ug/Kg	☼	89	70 - 125	0	30
Chlorobenzene	<140		18200	16800		ug/Kg	☼	92	70 - 125	2	30
Chloroethane	<180		18200	15700		ug/Kg	☼	86	60 - 139	1	30
Chloroform	<130		18200	15800		ug/Kg	☼	87	70 - 125	2	30
Chloromethane	<120		18200	16600		ug/Kg	☼	91	60 - 140	3	30
2-Chlorotoluene	<110		18200	16700		ug/Kg	☼	92	69 - 125	2	30
4-Chlorotoluene	<130		18200	16300		ug/Kg	☼	89	70 - 125	3	30
cis-1,2-Dichloroethene	<150		18200	16400		ug/Kg	☼	90	70 - 125	3	30
cis-1,3-Dichloropropene	<150		18200	15700		ug/Kg	☼	86	70 - 125	3	30
Dibromochloromethane	<180		18200	17600		ug/Kg	☼	97	66 - 125	5	30
1,2-Dibromo-3-Chloropropane	<720		18200	15000		ug/Kg	☼	82	51 - 125	13	30
1,2-Dibromoethane	<140		18200	17300		ug/Kg	☼	95	70 - 125	5	30
Dibromomethane	<98		18200	17500		ug/Kg	☼	96	70 - 125	5	30
1,2-Dichlorobenzene	<120		18200	17000		ug/Kg	☼	93	70 - 125	5	30
1,3-Dichlorobenzene	<150		18200	16700		ug/Kg	☼	92	70 - 125	5	30
1,4-Dichlorobenzene	<130		18200	16500		ug/Kg	☼	90	70 - 125	4	30
Dichlorodifluoromethane	<250 *		18200	10100		ug/Kg	☼	56	51 - 140	2	30
1,1-Dichloroethane	<150		18200	15900		ug/Kg	☼	87	70 - 125	3	30
1,2-Dichloroethane	<140		18200	16800		ug/Kg	☼	92	70 - 125	5	30
1,1-Dichloroethene	<140		18200	15800		ug/Kg	☼	87	70 - 125	1	30

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# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

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

**Lab Sample ID: 500-123596-15 MSD**

**Matrix: Solid**

**Analysis Batch: 371372**

**Client Sample ID: MW-3 (0-2.5')**

**Prep Type: Total/NA**

**Prep Batch: 371336**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
1,2-Dichloropropane	<160		18200	17000		ug/Kg	☼	93	70 - 125	5	30
1,3-Dichloropropane	<130		18200	17200		ug/Kg	☼	95	70 - 125	3	30
2,2-Dichloropropane	<160		18200	13600		ug/Kg	☼	75	62 - 125	3	30
1,1-Dichloropropene	<110		18200	15500		ug/Kg	☼	85	70 - 125	0	30
Ethylbenzene	<67		18200	16500		ug/Kg	☼	91	70 - 125	2	30
Hexachlorobutadiene	<160		18200	17300		ug/Kg	☼	95	57 - 140	4	30
Isopropylbenzene	<140		18200	17200		ug/Kg	☼	95	70 - 125	2	30
Methylene Chloride	<590		18200	16200		ug/Kg	☼	89	68 - 125	3	30
Methyl tert-butyl ether	<140		18200	13600		ug/Kg	☼	75	67 - 125	6	30
Naphthalene	<120		18200	13500		ug/Kg	☼	74	50 - 136	12	30
n-Butylbenzene	<140		18200	15000		ug/Kg	☼	82	70 - 125	3	30
N-Propylbenzene	<150		18200	16700		ug/Kg	☼	92	70 - 125	2	30
p-Isopropyltoluene	<130		18200	17100		ug/Kg	☼	94	70 - 125	2	30
sec-Butylbenzene	<140		18200	17000		ug/Kg	☼	93	70 - 125	2	30
Styrene	<140		18200	16600		ug/Kg	☼	91	70 - 125	2	30
tert-Butylbenzene	<140		18200	16300		ug/Kg	☼	90	70 - 125	3	30
1,1,1,2-Tetrachloroethane	<170		18200	16800		ug/Kg	☼	92	68 - 125	1	30
1,1,1,2,2-Tetrachloroethane	<140		18200	17400		ug/Kg	☼	95	68 - 125	10	30
Tetrachloroethene	3200		18200	20100		ug/Kg	☼	93	70 - 125	2	30
Toluene	<54		18200	16000		ug/Kg	☼	88	70 - 125	1	30
trans-1,2-Dichloroethene	<130		18200	16100		ug/Kg	☼	88	70 - 125	2	30
trans-1,3-Dichloropropene	<130		18200	15800		ug/Kg	☼	87	70 - 125	7	30
1,2,3-Trichlorobenzene	<170		18200	13800		ug/Kg	☼	76	58 - 135	9	30
1,2,4-Trichlorobenzene	<120		18200	13300		ug/Kg	☼	73	64 - 126	10	30
1,1,1-Trichloroethane	<140		18200	16000		ug/Kg	☼	88	70 - 125	3	30
1,1,2-Trichloroethane	<130		18200	17100		ug/Kg	☼	94	70 - 125	2	30
Trichloroethene	<60		18200	16500		ug/Kg	☼	90	70 - 125	1	30
Trichlorofluoromethane	<160		18200	16000		ug/Kg	☼	88	60 - 126	1	30
1,2,3-Trichloropropane	<150		18200	15700		ug/Kg	☼	86	63 - 125	4	30
1,2,4-Trimethylbenzene	<130		18200	16500		ug/Kg	☼	90	70 - 125	4	30
1,3,5-Trimethylbenzene	<140		18200	16500		ug/Kg	☼	91	70 - 125	3	30
Vinyl chloride	<95		18200	15800		ug/Kg	☼	87	70 - 126	1	30
Xylenes, Total	<80		36400	31500		ug/Kg	☼	86	70 - 125	2	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		71 - 127
4-Bromofluorobenzene (Surr)	98		71 - 120
Dibromofluoromethane	98		70 - 120
Toluene-d8 (Surr)	98		75 - 120

**Lab Sample ID: MB 500-371372/6**

**Matrix: Solid**

**Analysis Batch: 371372**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	<0.15		0.25	0.15	ug/Kg			02/09/17 11:17	1
Bromobenzene	<0.36		1.0	0.36	ug/Kg			02/09/17 11:17	1
Bromochloromethane	<0.43		1.0	0.43	ug/Kg			02/09/17 11:17	1

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# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

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

**Lab Sample ID: MB 500-371372/6**  
**Matrix: Solid**  
**Analysis Batch: 371372**

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Bromodichloromethane	<0.37		1.0	0.37	ug/Kg			02/09/17 11:17	1
Bromoform	<0.48		1.0	0.48	ug/Kg			02/09/17 11:17	1
Bromomethane	<0.80		2.0	0.80	ug/Kg			02/09/17 11:17	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/Kg			02/09/17 11:17	1
Chlorobenzene	<0.39		1.0	0.39	ug/Kg			02/09/17 11:17	1
Chloroethane	<0.50		1.0	0.50	ug/Kg			02/09/17 11:17	1
Chloroform	<0.37		2.0	0.37	ug/Kg			02/09/17 11:17	1
Chloromethane	<0.32		1.0	0.32	ug/Kg			02/09/17 11:17	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/Kg			02/09/17 11:17	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/Kg			02/09/17 11:17	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/Kg			02/09/17 11:17	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/Kg			02/09/17 11:17	1
Dibromochloromethane	<0.49		1.0	0.49	ug/Kg			02/09/17 11:17	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/Kg			02/09/17 11:17	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/Kg			02/09/17 11:17	1
Dibromomethane	<0.27		1.0	0.27	ug/Kg			02/09/17 11:17	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/Kg			02/09/17 11:17	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/Kg			02/09/17 11:17	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/Kg			02/09/17 11:17	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/Kg			02/09/17 11:17	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/Kg			02/09/17 11:17	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/Kg			02/09/17 11:17	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/Kg			02/09/17 11:17	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/Kg			02/09/17 11:17	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/Kg			02/09/17 11:17	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/Kg			02/09/17 11:17	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/Kg			02/09/17 11:17	1
Ethylbenzene	<0.18		0.25	0.18	ug/Kg			02/09/17 11:17	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/Kg			02/09/17 11:17	1
Isopropylbenzene	<0.38		1.0	0.38	ug/Kg			02/09/17 11:17	1
Isopropyl ether	<0.28		1.0	0.28	ug/Kg			02/09/17 11:17	1
Methylene Chloride	<1.6		5.0	1.6	ug/Kg			02/09/17 11:17	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/Kg			02/09/17 11:17	1
Naphthalene	<0.33		1.0	0.33	ug/Kg			02/09/17 11:17	1
n-Butylbenzene	<0.39		1.0	0.39	ug/Kg			02/09/17 11:17	1
N-Propylbenzene	<0.41		1.0	0.41	ug/Kg			02/09/17 11:17	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/Kg			02/09/17 11:17	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/Kg			02/09/17 11:17	1
Styrene	<0.39		1.0	0.39	ug/Kg			02/09/17 11:17	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/Kg			02/09/17 11:17	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/Kg			02/09/17 11:17	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/Kg			02/09/17 11:17	1
Tetrachloroethene	<0.37		1.0	0.37	ug/Kg			02/09/17 11:17	1
Toluene	<0.15		0.25	0.15	ug/Kg			02/09/17 11:17	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/Kg			02/09/17 11:17	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/Kg			02/09/17 11:17	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/Kg			02/09/17 11:17	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/Kg			02/09/17 11:17	1

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# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

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

**Lab Sample ID: MB 500-371372/6**  
**Matrix: Solid**  
**Analysis Batch: 371372**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/Kg			02/09/17 11:17	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/Kg			02/09/17 11:17	1
Trichloroethene	<0.16		0.50	0.16	ug/Kg			02/09/17 11:17	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/Kg			02/09/17 11:17	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/Kg			02/09/17 11:17	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/Kg			02/09/17 11:17	1
1,3,5-Trimethylbenzene	<0.38		1.0	0.38	ug/Kg			02/09/17 11:17	1
Vinyl chloride	<0.26		0.50	0.26	ug/Kg			02/09/17 11:17	1
Xylenes, Total	<0.22		0.50	0.22	ug/Kg			02/09/17 11:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		71 - 127		02/09/17 11:17	1
4-Bromofluorobenzene (Surr)	93		71 - 120		02/09/17 11:17	1
Dibromofluoromethane	101		70 - 120		02/09/17 11:17	1
Toluene-d8 (Surr)	97		75 - 120		02/09/17 11:17	1

**Lab Sample ID: LCS 500-371372/4**  
**Matrix: Solid**  
**Analysis Batch: 371372**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	49.0		ug/Kg		98	70 - 125
Bromobenzene	50.0	52.4		ug/Kg		105	70 - 125
Bromochloromethane	50.0	50.7		ug/Kg		101	70 - 125
Bromodichloromethane	50.0	48.1		ug/Kg		96	70 - 125
Bromoform	50.0	53.2		ug/Kg		106	54 - 128
Bromomethane	50.0	43.0		ug/Kg		86	40 - 150
Carbon tetrachloride	50.0	50.9		ug/Kg		102	70 - 125
Chlorobenzene	50.0	52.6		ug/Kg		105	70 - 125
Chloroethane	50.0	46.3		ug/Kg		93	60 - 139
Chloroform	50.0	48.7		ug/Kg		97	70 - 125
Chloromethane	50.0	49.5		ug/Kg		99	60 - 140
2-Chlorotoluene	50.0	52.6		ug/Kg		105	69 - 125
4-Chlorotoluene	50.0	51.4		ug/Kg		103	70 - 125
cis-1,2-Dichloroethene	50.0	50.2		ug/Kg		100	70 - 125
cis-1,3-Dichloropropene	50.0	48.7		ug/Kg		97	70 - 125
Dibromochloromethane	50.0	52.0		ug/Kg		104	66 - 125
1,2-Dibromo-3-Chloropropane	50.0	40.6		ug/Kg		81	51 - 125
1,2-Dibromoethane	50.0	50.4		ug/Kg		101	70 - 125
Dibromomethane	50.0	50.3		ug/Kg		101	70 - 125
1,2-Dichlorobenzene	50.0	51.1		ug/Kg		102	70 - 125
1,3-Dichlorobenzene	50.0	52.7		ug/Kg		105	70 - 125
1,4-Dichlorobenzene	50.0	51.9		ug/Kg		104	70 - 125
Dichlorodifluoromethane	50.0	30.4		ug/Kg		61	51 - 140
1,1-Dichloroethane	50.0	49.2		ug/Kg		98	70 - 125
1,2-Dichloroethane	50.0	48.8		ug/Kg		98	70 - 125
1,1-Dichloroethene	50.0	49.4		ug/Kg		99	70 - 125
1,2-Dichloropropane	50.0	51.6		ug/Kg		103	70 - 125

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# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

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

**Lab Sample ID: LCS 500-371372/4**  
**Matrix: Solid**  
**Analysis Batch: 371372**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichloropropane	50.0	51.1		ug/Kg		102	70 - 125
2,2-Dichloropropane	50.0	44.2		ug/Kg		88	62 - 125
1,1-Dichloropropene	50.0	49.4		ug/Kg		99	70 - 125
Ethylbenzene	50.0	53.0		ug/Kg		106	70 - 125
Hexachlorobutadiene	50.0	56.4		ug/Kg		113	57 - 140
Isopropylbenzene	50.0	54.1		ug/Kg		108	70 - 125
Methylene Chloride	50.0	48.1		ug/Kg		96	68 - 125
Methyl tert-butyl ether	50.0	39.6		ug/Kg		79	67 - 125
Naphthalene	50.0	37.4		ug/Kg		75	50 - 136
n-Butylbenzene	50.0	51.4		ug/Kg		103	70 - 125
N-Propylbenzene	50.0	53.9		ug/Kg		108	70 - 125
p-Isopropyltoluene	50.0	53.0		ug/Kg		106	70 - 125
sec-Butylbenzene	50.0	53.3		ug/Kg		107	70 - 125
Styrene	50.0	52.2		ug/Kg		104	70 - 125
tert-Butylbenzene	50.0	52.9		ug/Kg		106	70 - 125
1,1,1,2-Tetrachloroethane	50.0	51.7		ug/Kg		103	68 - 125
1,1,2,2-Tetrachloroethane	50.0	48.9		ug/Kg		98	68 - 125
Tetrachloroethene	50.0	53.2		ug/Kg		106	70 - 125
Toluene	50.0	50.8		ug/Kg		102	70 - 125
trans-1,2-Dichloroethene	50.0	49.6		ug/Kg		99	70 - 125
trans-1,3-Dichloropropene	50.0	47.9		ug/Kg		96	70 - 125
1,2,3-Trichlorobenzene	50.0	41.2		ug/Kg		82	58 - 135
1,2,4-Trichlorobenzene	50.0	42.5		ug/Kg		85	64 - 126
1,1,1-Trichloroethane	50.0	49.3		ug/Kg		99	70 - 125
1,1,2-Trichloroethane	50.0	50.9		ug/Kg		102	70 - 125
Trichloroethene	50.0	51.2		ug/Kg		102	70 - 125
Trichlorofluoromethane	50.0	48.1		ug/Kg		96	60 - 126
1,2,3-Trichloropropane	50.0	45.8		ug/Kg		92	63 - 125
1,2,4-Trimethylbenzene	50.0	52.3		ug/Kg		105	70 - 125
1,3,5-Trimethylbenzene	50.0	51.7		ug/Kg		103	70 - 125
Vinyl chloride	50.0	46.5		ug/Kg		93	70 - 126
Xylenes, Total	100	100		ug/Kg		100	70 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	93		71 - 127
4-Bromofluorobenzene (Surr)	96		71 - 120
Dibromofluoromethane	97		70 - 120
Toluene-d8 (Surr)	100		75 - 120

**Lab Sample ID: MB 500-371514/6**  
**Matrix: Water**  
**Analysis Batch: 371514**

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	<0.15		0.50	0.15	ug/L			02/10/17 10:03	1
Bromobenzene	<0.36		1.0	0.36	ug/L			02/10/17 10:03	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			02/10/17 10:03	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			02/10/17 10:03	1

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# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

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

**Lab Sample ID: MB 500-371514/6**  
**Matrix: Water**  
**Analysis Batch: 371514**

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Bromoform	<0.48		1.0	0.48	ug/L			02/10/17 10:03	1
Bromomethane	<0.80		2.0	0.80	ug/L			02/10/17 10:03	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			02/10/17 10:03	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			02/10/17 10:03	1
Chloroethane	<0.51		1.0	0.51	ug/L			02/10/17 10:03	1
Chloroform	<0.37		2.0	0.37	ug/L			02/10/17 10:03	1
Chloromethane	<0.32		1.0	0.32	ug/L			02/10/17 10:03	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			02/10/17 10:03	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			02/10/17 10:03	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			02/10/17 10:03	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			02/10/17 10:03	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			02/10/17 10:03	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			02/10/17 10:03	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			02/10/17 10:03	1
Dibromomethane	<0.27		1.0	0.27	ug/L			02/10/17 10:03	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			02/10/17 10:03	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			02/10/17 10:03	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			02/10/17 10:03	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			02/10/17 10:03	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			02/10/17 10:03	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			02/10/17 10:03	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			02/10/17 10:03	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			02/10/17 10:03	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			02/10/17 10:03	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			02/10/17 10:03	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			02/10/17 10:03	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			02/10/17 10:03	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			02/10/17 10:03	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			02/10/17 10:03	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			02/10/17 10:03	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			02/10/17 10:03	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			02/10/17 10:03	1
Naphthalene	<0.34		1.0	0.34	ug/L			02/10/17 10:03	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			02/10/17 10:03	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			02/10/17 10:03	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			02/10/17 10:03	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			02/10/17 10:03	1
Styrene	<0.39		1.0	0.39	ug/L			02/10/17 10:03	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			02/10/17 10:03	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			02/10/17 10:03	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			02/10/17 10:03	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			02/10/17 10:03	1
Toluene	<0.15		0.50	0.15	ug/L			02/10/17 10:03	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			02/10/17 10:03	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			02/10/17 10:03	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			02/10/17 10:03	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			02/10/17 10:03	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			02/10/17 10:03	1

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# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

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

**Lab Sample ID: MB 500-371514/6**  
**Matrix: Water**  
**Analysis Batch: 371514**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			02/10/17 10:03	1
Trichloroethene	<0.16		0.50	0.16	ug/L			02/10/17 10:03	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			02/10/17 10:03	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			02/10/17 10:03	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			02/10/17 10:03	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			02/10/17 10:03	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			02/10/17 10:03	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			02/10/17 10:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		71 - 127		02/10/17 10:03	1
4-Bromofluorobenzene (Surr)	94		71 - 120		02/10/17 10:03	1
Dibromofluoromethane	101		70 - 120		02/10/17 10:03	1
Toluene-d8 (Surr)	99		75 - 120		02/10/17 10:03	1

**Lab Sample ID: LCS 500-371514/4**  
**Matrix: Water**  
**Analysis Batch: 371514**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	49.6		ug/L		99	70 - 125
Bromobenzene	50.0	53.4		ug/L		107	70 - 125
Bromochloromethane	50.0	51.4		ug/L		103	70 - 125
Bromodichloromethane	50.0	48.0		ug/L		96	70 - 125
Bromoform	50.0	54.5		ug/L		109	54 - 128
Bromomethane	50.0	41.2		ug/L		82	40 - 150
Carbon tetrachloride	50.0	53.0		ug/L		106	70 - 125
Chlorobenzene	50.0	53.4		ug/L		107	70 - 125
Chloroethane	50.0	43.6		ug/L		87	60 - 139
Chloroform	50.0	48.9		ug/L		98	70 - 125
Chloromethane	50.0	46.8		ug/L		94	60 - 140
2-Chlorotoluene	50.0	53.0		ug/L		106	69 - 125
4-Chlorotoluene	50.0	52.3		ug/L		105	70 - 125
cis-1,2-Dichloroethene	50.0	51.5		ug/L		103	70 - 125
cis-1,3-Dichloropropene	50.0	49.8		ug/L		100	70 - 125
Dibromochloromethane	50.0	52.8		ug/L		106	66 - 125
1,2-Dibromo-3-Chloropropane	50.0	39.6		ug/L		79	51 - 125
1,2-Dibromoethane	50.0	51.1		ug/L		102	70 - 125
Dibromomethane	50.0	50.8		ug/L		102	70 - 125
1,2-Dichlorobenzene	50.0	51.8		ug/L		104	70 - 125
1,3-Dichlorobenzene	50.0	53.5		ug/L		107	70 - 125
1,4-Dichlorobenzene	50.0	52.3		ug/L		105	70 - 125
Dichlorodifluoromethane	50.0	27.9		ug/L		56	51 - 140
1,1-Dichloroethane	50.0	49.8		ug/L		100	70 - 125
1,2-Dichloroethane	50.0	49.1		ug/L		98	70 - 125
1,1-Dichloroethene	50.0	50.4		ug/L		101	70 - 125
1,2-Dichloropropane	50.0	51.7		ug/L		103	70 - 125
1,3-Dichloropropane	50.0	52.4		ug/L		105	70 - 125

TestAmerica Chicago

# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

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

**Lab Sample ID: LCS 500-371514/4**  
**Matrix: Water**  
**Analysis Batch: 371514**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,2-Dichloropropane	50.0	44.7		ug/L		89	62 - 125
1,1-Dichloropropene	50.0	50.2		ug/L		100	70 - 125
Ethylbenzene	50.0	54.3		ug/L		109	70 - 125
Hexachlorobutadiene	50.0	59.5		ug/L		119	57 - 140
Isopropylbenzene	50.0	55.2		ug/L		110	70 - 125
Methylene Chloride	50.0	48.8		ug/L		98	68 - 125
Methyl tert-butyl ether	50.0	40.4		ug/L		81	67 - 125
Naphthalene	50.0	37.5		ug/L		75	50 - 136
n-Butylbenzene	50.0	52.6		ug/L		105	70 - 125
N-Propylbenzene	50.0	54.9		ug/L		110	70 - 125
p-Isopropyltoluene	50.0	54.0		ug/L		108	70 - 125
sec-Butylbenzene	50.0	54.6		ug/L		109	70 - 125
Styrene	50.0	52.5		ug/L		105	70 - 125
tert-Butylbenzene	50.0	54.0		ug/L		108	70 - 125
1,1,1,2-Tetrachloroethane	50.0	53.2		ug/L		106	68 - 125
1,1,1,2,2-Tetrachloroethane	50.0	48.1		ug/L		96	68 - 125
Tetrachloroethene	50.0	56.1		ug/L		112	70 - 125
Toluene	50.0	51.6		ug/L		103	70 - 125
trans-1,2-Dichloroethene	50.0	50.7		ug/L		101	70 - 125
trans-1,3-Dichloropropene	50.0	48.9		ug/L		98	70 - 125
1,2,3-Trichlorobenzene	50.0	42.2		ug/L		84	58 - 135
1,2,4-Trichlorobenzene	50.0	44.4		ug/L		89	64 - 126
1,1,1-Trichloroethane	50.0	51.0		ug/L		102	70 - 125
1,1,2-Trichloroethane	50.0	51.3		ug/L		103	70 - 125
Trichloroethene	50.0	52.9		ug/L		106	70 - 125
Trichlorofluoromethane	50.0	45.3		ug/L		91	60 - 126
1,2,3-Trichloropropane	50.0	45.5		ug/L		91	63 - 125
1,2,4-Trimethylbenzene	50.0	53.1		ug/L		106	70 - 125
1,3,5-Trimethylbenzene	50.0	53.0		ug/L		106	70 - 125
Vinyl chloride	50.0	42.8		ug/L		86	70 - 126
Xylenes, Total	100	103		ug/L		103	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		71 - 127
4-Bromofluorobenzene (Surr)	94		71 - 120
Dibromofluoromethane	96		70 - 120
Toluene-d8 (Surr)	101		75 - 120

**Lab Sample ID: 500-123596-20 MS**  
**Matrix: Water**  
**Analysis Batch: 371514**

**Client Sample ID: GP-9**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.15		50.0	50.0		ug/L		100	70 - 125
Bromobenzene	<0.36		50.0	54.2		ug/L		108	70 - 125
Bromochloromethane	<0.43		50.0	52.6		ug/L		105	70 - 125
Bromodichloromethane	<0.37		50.0	49.7		ug/L		99	70 - 125
Bromoform	<0.48		50.0	56.6		ug/L		113	54 - 128

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# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

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

**Lab Sample ID: 500-123596-20 MS**

**Matrix: Water**

**Analysis Batch: 371514**

**Client Sample ID: GP-9**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	<0.80		50.0	39.8		ug/L		80	40 - 150
Carbon tetrachloride	<0.38		50.0	53.5		ug/L		107	70 - 125
Chlorobenzene	<0.39		50.0	54.3		ug/L		109	70 - 125
Chloroethane	<0.51		50.0	46.6		ug/L		93	60 - 139
Chloroform	<0.37		50.0	50.5		ug/L		101	70 - 125
Chloromethane	<0.32		50.0	48.8		ug/L		98	60 - 140
2-Chlorotoluene	<0.31		50.0	52.3		ug/L		105	69 - 125
4-Chlorotoluene	<0.35		50.0	51.2		ug/L		102	70 - 125
cis-1,2-Dichloroethene	<0.41		50.0	52.3		ug/L		105	70 - 125
cis-1,3-Dichloropropene	<0.42		50.0	50.1		ug/L		100	70 - 125
Dibromochloromethane	<0.49		50.0	54.3		ug/L		109	66 - 125
1,2-Dibromo-3-Chloropropane	<2.0		50.0	40.3		ug/L		81	51 - 125
1,2-Dibromoethane	<0.39		50.0	52.8		ug/L		106	70 - 125
Dibromomethane	<0.27		50.0	53.0		ug/L		106	70 - 125
1,2-Dichlorobenzene	<0.33		50.0	52.1		ug/L		104	70 - 125
1,3-Dichlorobenzene	<0.40		50.0	52.4		ug/L		105	70 - 125
1,4-Dichlorobenzene	<0.36		50.0	52.2		ug/L		104	70 - 125
Dichlorodifluoromethane	<0.67		50.0	29.2		ug/L		58	51 - 140
1,1-Dichloroethane	<0.41		50.0	50.0		ug/L		100	70 - 125
1,2-Dichloroethane	<0.39		50.0	51.8		ug/L		104	70 - 125
1,1-Dichloroethene	<0.39		50.0	49.2		ug/L		98	70 - 125
1,2-Dichloropropane	<0.43		50.0	52.9		ug/L		106	70 - 125
1,3-Dichloropropane	<0.36		50.0	52.9		ug/L		106	70 - 125
2,2-Dichloropropane	<0.44		50.0	42.6		ug/L		85	62 - 125
1,1-Dichloropropene	<0.30		50.0	50.5		ug/L		101	70 - 125
Ethylbenzene	<0.18		50.0	54.2		ug/L		108	70 - 125
Hexachlorobutadiene	<0.45		50.0	55.5		ug/L		111	57 - 140
Isopropylbenzene	<0.39		50.0	54.1		ug/L		108	70 - 125
Methylene Chloride	<1.6		50.0	49.8		ug/L		100	68 - 125
Methyl tert-butyl ether	<0.39		50.0	41.3		ug/L		83	67 - 125
Naphthalene	<0.34		50.0	37.8		ug/L		76	50 - 136
n-Butylbenzene	<0.39		50.0	49.3		ug/L		99	70 - 125
N-Propylbenzene	<0.41		50.0	53.1		ug/L		106	70 - 125
p-Isopropyltoluene	<0.36		50.0	53.5		ug/L		107	70 - 125
sec-Butylbenzene	<0.40		50.0	52.9		ug/L		106	70 - 125
Styrene	<0.39		50.0	53.5		ug/L		107	70 - 125
tert-Butylbenzene	<0.40		50.0	52.2		ug/L		104	70 - 125
1,1,1,2-Tetrachloroethane	<0.46		50.0	54.3		ug/L		109	68 - 125
1,1,2,2-Tetrachloroethane	<0.40		50.0	49.3		ug/L		99	68 - 125
Tetrachloroethene	<0.37		50.0	55.8		ug/L		112	70 - 125
Toluene	<0.15		50.0	51.7		ug/L		103	70 - 125
trans-1,2-Dichloroethene	<0.35		50.0	50.9		ug/L		102	70 - 125
trans-1,3-Dichloropropene	<0.36		50.0	48.0		ug/L		96	70 - 125
1,2,3-Trichlorobenzene	<0.46		50.0	41.7		ug/L		83	58 - 135
1,2,4-Trichlorobenzene	<0.34		50.0	43.4		ug/L		87	64 - 126
1,1,1-Trichloroethane	<0.38		50.0	50.7		ug/L		101	70 - 125
1,1,2-Trichloroethane	<0.35		50.0	52.4		ug/L		105	70 - 125
Trichloroethene	<0.16		50.0	53.3		ug/L		107	70 - 125

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# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

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

**Lab Sample ID: 500-123596-20 MS**

**Matrix: Water**

**Analysis Batch: 371514**

**Client Sample ID: GP-9**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichlorofluoromethane	<0.43		50.0	47.8		ug/L		96	60 - 126
1,2,3-Trichloropropane	<0.41		50.0	44.5		ug/L		89	63 - 125
1,2,4-Trimethylbenzene	<0.36		50.0	52.4		ug/L		105	70 - 125
1,3,5-Trimethylbenzene	<0.25		50.0	52.2		ug/L		104	70 - 125
Vinyl chloride	<0.20		50.0	45.0		ug/L		90	70 - 126
Xylenes, Total	<0.22		100	103		ug/L		103	70 - 125

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		71 - 127
4-Bromofluorobenzene (Surr)	94		71 - 120
Dibromofluoromethane	98		70 - 120
Toluene-d8 (Surr)	99		75 - 120

**Lab Sample ID: 500-123596-20 MSD**

**Matrix: Water**

**Analysis Batch: 371514**

**Client Sample ID: GP-9**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.15		50.0	50.6		ug/L		101	70 - 125	1	20
Bromobenzene	<0.36		50.0	56.1		ug/L		112	70 - 125	3	20
Bromochloromethane	<0.43		50.0	53.2		ug/L		106	70 - 125	1	20
Bromodichloromethane	<0.37		50.0	50.1		ug/L		100	70 - 125	1	20
Bromoform	<0.48		50.0	57.5		ug/L		115	54 - 128	2	20
Bromomethane	<0.80		50.0	43.2		ug/L		86	40 - 150	8	20
Carbon tetrachloride	<0.38		50.0	53.8		ug/L		108	70 - 125	0	20
Chlorobenzene	<0.39		50.0	54.7		ug/L		109	70 - 125	1	20
Chloroethane	<0.51		50.0	47.1		ug/L		94	60 - 139	1	20
Chloroform	<0.37		50.0	51.1		ug/L		102	70 - 125	1	20
Chloromethane	<0.32		50.0	50.0		ug/L		100	60 - 140	2	20
2-Chlorotoluene	<0.31		50.0	53.6		ug/L		107	69 - 125	2	20
4-Chlorotoluene	<0.35		50.0	51.5		ug/L		103	70 - 125	1	20
cis-1,2-Dichloroethene	<0.41		50.0	53.2		ug/L		106	70 - 125	2	20
cis-1,3-Dichloropropene	<0.42		50.0	50.2		ug/L		100	70 - 125	0	20
Dibromochloromethane	<0.49		50.0	54.8		ug/L		110	66 - 125	1	20
1,2-Dibromo-3-Chloropropane	<2.0		50.0	40.8		ug/L		82	51 - 125	1	20
1,2-Dibromoethane	<0.39		50.0	52.7		ug/L		105	70 - 125	0	20
Dibromomethane	<0.27		50.0	54.0		ug/L		108	70 - 125	2	20
1,2-Dichlorobenzene	<0.33		50.0	52.6		ug/L		105	70 - 125	1	20
1,3-Dichlorobenzene	<0.40		50.0	52.6		ug/L		105	70 - 125	0	20
1,4-Dichlorobenzene	<0.36		50.0	51.7		ug/L		103	70 - 125	1	20
Dichlorodifluoromethane	<0.67		50.0	29.3		ug/L		59	51 - 140	0	20
1,1-Dichloroethane	<0.41		50.0	50.6		ug/L		101	70 - 125	1	20
1,2-Dichloroethane	<0.39		50.0	52.0		ug/L		104	70 - 125	0	20
1,1-Dichloroethene	<0.39		50.0	50.2		ug/L		100	70 - 125	2	20
1,2-Dichloropropane	<0.43		50.0	53.5		ug/L		107	70 - 125	1	20
1,3-Dichloropropane	<0.36		50.0	53.7		ug/L		107	70 - 125	2	20
2,2-Dichloropropane	<0.44		50.0	43.7		ug/L		87	62 - 125	2	20
1,1-Dichloropropene	<0.30		50.0	50.6		ug/L		101	70 - 125	0	20

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

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

**Lab Sample ID: 500-123596-20 MSD**

**Matrix: Water**

**Analysis Batch: 371514**

**Client Sample ID: GP-9**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
Ethylbenzene	<0.18		50.0	53.6		ug/L		107	70 - 125	1	20
Hexachlorobutadiene	<0.45		50.0	53.8		ug/L		108	57 - 140	3	20
Isopropylbenzene	<0.39		50.0	55.8		ug/L		112	70 - 125	3	20
Methylene Chloride	<1.6		50.0	50.2		ug/L		100	68 - 125	1	20
Methyl tert-butyl ether	<0.39		50.0	41.8		ug/L		84	67 - 125	1	20
Naphthalene	<0.34		50.0	40.0		ug/L		80	50 - 136	6	20
n-Butylbenzene	<0.39		50.0	46.9		ug/L		94	70 - 125	5	20
N-Propylbenzene	<0.41		50.0	53.3		ug/L		107	70 - 125	0	20
p-Isopropyltoluene	<0.36		50.0	54.9		ug/L		110	70 - 125	3	20
sec-Butylbenzene	<0.40		50.0	53.2		ug/L		106	70 - 125	1	20
Styrene	<0.39		50.0	53.5		ug/L		107	70 - 125	0	20
tert-Butylbenzene	<0.40		50.0	52.0		ug/L		104	70 - 125	1	20
1,1,1,2-Tetrachloroethane	<0.46		50.0	55.6		ug/L		111	68 - 125	2	20
1,1,2,2-Tetrachloroethane	<0.40		50.0	49.7		ug/L		99	68 - 125	1	20
Tetrachloroethene	<0.37		50.0	56.3		ug/L		113	70 - 125	1	20
Toluene	<0.15		50.0	52.2		ug/L		104	70 - 125	1	20
trans-1,2-Dichloroethene	<0.35		50.0	50.9		ug/L		102	70 - 125	0	20
trans-1,3-Dichloropropene	<0.36		50.0	49.1		ug/L		98	70 - 125	2	20
1,2,3-Trichlorobenzene	<0.46		50.0	42.0		ug/L		84	58 - 135	1	20
1,2,4-Trichlorobenzene	<0.34		50.0	41.4		ug/L		83	64 - 126	5	20
1,1,1-Trichloroethane	<0.38		50.0	51.1		ug/L		102	70 - 125	1	20
1,1,2-Trichloroethane	<0.35		50.0	53.1		ug/L		106	70 - 125	1	20
Trichloroethene	<0.16		50.0	54.1		ug/L		108	70 - 125	2	20
Trichlorofluoromethane	<0.43		50.0	49.2		ug/L		98	60 - 126	3	20
1,2,3-Trichloropropane	<0.41		50.0	46.0		ug/L		92	63 - 125	3	20
1,2,4-Trimethylbenzene	<0.36		50.0	52.8		ug/L		106	70 - 125	1	20
1,3,5-Trimethylbenzene	<0.25		50.0	52.9		ug/L		106	70 - 125	1	20
Vinyl chloride	<0.20		50.0	45.4		ug/L		91	70 - 126	1	20
Xylenes, Total	<0.22		100	103		ug/L		103	70 - 125	0	20

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	96		71 - 127
4-Bromofluorobenzene (Surr)	96		71 - 120
Dibromofluoromethane	99		70 - 120
Toluene-d8 (Surr)	100		75 - 120

**Lab Sample ID: MB 500-371515/6**

**Matrix: Solid**

**Analysis Batch: 371515**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	<0.15		0.25	0.15	ug/Kg			02/10/17 10:03	1
Bromobenzene	<0.36		1.0	0.36	ug/Kg			02/10/17 10:03	1
Bromochloromethane	<0.43		1.0	0.43	ug/Kg			02/10/17 10:03	1
Bromodichloromethane	<0.37		1.0	0.37	ug/Kg			02/10/17 10:03	1
Bromoform	<0.48		1.0	0.48	ug/Kg			02/10/17 10:03	1
Bromomethane	<0.80		2.0	0.80	ug/Kg			02/10/17 10:03	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/Kg			02/10/17 10:03	1

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# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

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

**Lab Sample ID: MB 500-371515/6**  
**Matrix: Solid**  
**Analysis Batch: 371515**

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chlorobenzene	<0.39		1.0	0.39	ug/Kg			02/10/17 10:03	1
Chloroethane	<0.50		1.0	0.50	ug/Kg			02/10/17 10:03	1
Chloroform	<0.37		2.0	0.37	ug/Kg			02/10/17 10:03	1
Chloromethane	<0.32		1.0	0.32	ug/Kg			02/10/17 10:03	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/Kg			02/10/17 10:03	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/Kg			02/10/17 10:03	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/Kg			02/10/17 10:03	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/Kg			02/10/17 10:03	1
Dibromochloromethane	<0.49		1.0	0.49	ug/Kg			02/10/17 10:03	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/Kg			02/10/17 10:03	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/Kg			02/10/17 10:03	1
Dibromomethane	<0.27		1.0	0.27	ug/Kg			02/10/17 10:03	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/Kg			02/10/17 10:03	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/Kg			02/10/17 10:03	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/Kg			02/10/17 10:03	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/Kg			02/10/17 10:03	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/Kg			02/10/17 10:03	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/Kg			02/10/17 10:03	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/Kg			02/10/17 10:03	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/Kg			02/10/17 10:03	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/Kg			02/10/17 10:03	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/Kg			02/10/17 10:03	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/Kg			02/10/17 10:03	1
Ethylbenzene	<0.18		0.25	0.18	ug/Kg			02/10/17 10:03	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/Kg			02/10/17 10:03	1
Isopropylbenzene	<0.38		1.0	0.38	ug/Kg			02/10/17 10:03	1
Isopropyl ether	<0.28		1.0	0.28	ug/Kg			02/10/17 10:03	1
Methylene Chloride	<1.6		5.0	1.6	ug/Kg			02/10/17 10:03	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/Kg			02/10/17 10:03	1
Naphthalene	<0.33		1.0	0.33	ug/Kg			02/10/17 10:03	1
n-Butylbenzene	<0.39		1.0	0.39	ug/Kg			02/10/17 10:03	1
N-Propylbenzene	<0.41		1.0	0.41	ug/Kg			02/10/17 10:03	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/Kg			02/10/17 10:03	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/Kg			02/10/17 10:03	1
Styrene	<0.39		1.0	0.39	ug/Kg			02/10/17 10:03	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/Kg			02/10/17 10:03	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/Kg			02/10/17 10:03	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/Kg			02/10/17 10:03	1
Tetrachloroethene	<0.37		1.0	0.37	ug/Kg			02/10/17 10:03	1
Toluene	<0.15		0.25	0.15	ug/Kg			02/10/17 10:03	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/Kg			02/10/17 10:03	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/Kg			02/10/17 10:03	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/Kg			02/10/17 10:03	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/Kg			02/10/17 10:03	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/Kg			02/10/17 10:03	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/Kg			02/10/17 10:03	1
Trichloroethene	<0.16		0.50	0.16	ug/Kg			02/10/17 10:03	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/Kg			02/10/17 10:03	1

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# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

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

**Lab Sample ID: MB 500-371515/6**  
**Matrix: Solid**  
**Analysis Batch: 371515**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/Kg			02/10/17 10:03	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/Kg			02/10/17 10:03	1
1,3,5-Trimethylbenzene	<0.38		1.0	0.38	ug/Kg			02/10/17 10:03	1
Vinyl chloride	<0.26		0.50	0.26	ug/Kg			02/10/17 10:03	1
Xylenes, Total	<0.22		0.50	0.22	ug/Kg			02/10/17 10:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		71 - 127		02/10/17 10:03	1
4-Bromofluorobenzene (Surr)	94		71 - 120		02/10/17 10:03	1
Dibromofluoromethane	101		70 - 120		02/10/17 10:03	1
Toluene-d8 (Surr)	99		75 - 120		02/10/17 10:03	1

**Lab Sample ID: LCS 500-371515/4**  
**Matrix: Solid**  
**Analysis Batch: 371515**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	49.6		ug/Kg		99	70 - 125
Bromobenzene	50.0	53.4		ug/Kg		107	70 - 125
Bromochloromethane	50.0	51.4		ug/Kg		103	70 - 125
Bromodichloromethane	50.0	48.0		ug/Kg		96	70 - 125
Bromoform	50.0	54.5		ug/Kg		109	54 - 128
Bromomethane	50.0	41.2		ug/Kg		82	40 - 150
Carbon tetrachloride	50.0	53.0		ug/Kg		106	70 - 125
Chlorobenzene	50.0	53.4		ug/Kg		107	70 - 125
Chloroethane	50.0	43.6		ug/Kg		87	60 - 139
Chloroform	50.0	48.9		ug/Kg		98	70 - 125
Chloromethane	50.0	46.8		ug/Kg		94	60 - 140
2-Chlorotoluene	50.0	53.0		ug/Kg		106	69 - 125
4-Chlorotoluene	50.0	52.3		ug/Kg		105	70 - 125
cis-1,2-Dichloroethene	50.0	51.5		ug/Kg		103	70 - 125
cis-1,3-Dichloropropene	50.0	49.8		ug/Kg		100	70 - 125
Dibromochloromethane	50.0	52.8		ug/Kg		106	66 - 125
1,2-Dibromo-3-Chloropropane	50.0	39.6		ug/Kg		79	51 - 125
1,2-Dibromoethane	50.0	51.1		ug/Kg		102	70 - 125
Dibromomethane	50.0	50.8		ug/Kg		102	70 - 125
1,2-Dichlorobenzene	50.0	51.8		ug/Kg		104	70 - 125
1,3-Dichlorobenzene	50.0	53.5		ug/Kg		107	70 - 125
1,4-Dichlorobenzene	50.0	52.3		ug/Kg		105	70 - 125
Dichlorodifluoromethane	50.0	27.9		ug/Kg		56	51 - 140
1,1-Dichloroethane	50.0	49.8		ug/Kg		100	70 - 125
1,2-Dichloroethane	50.0	49.1		ug/Kg		98	70 - 125
1,1-Dichloroethene	50.0	50.4		ug/Kg		101	70 - 125
1,2-Dichloropropane	50.0	51.7		ug/Kg		103	70 - 125
1,3-Dichloropropane	50.0	52.4		ug/Kg		105	70 - 125
2,2-Dichloropropane	50.0	44.7		ug/Kg		89	62 - 125
1,1-Dichloropropene	50.0	50.2		ug/Kg		100	70 - 125
Ethylbenzene	50.0	54.3		ug/Kg		109	70 - 125

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# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

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

**Lab Sample ID: LCS 500-371515/4**  
**Matrix: Solid**  
**Analysis Batch: 371515**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hexachlorobutadiene	50.0	59.5		ug/Kg		119	57 - 140
Isopropylbenzene	50.0	55.2		ug/Kg		110	70 - 125
Methylene Chloride	50.0	48.8		ug/Kg		98	68 - 125
Methyl tert-butyl ether	50.0	40.4		ug/Kg		81	67 - 125
Naphthalene	50.0	37.5		ug/Kg		75	50 - 136
n-Butylbenzene	50.0	52.6		ug/Kg		105	70 - 125
N-Propylbenzene	50.0	54.9		ug/Kg		110	70 - 125
p-Isopropyltoluene	50.0	54.0		ug/Kg		108	70 - 125
sec-Butylbenzene	50.0	54.6		ug/Kg		109	70 - 125
Styrene	50.0	52.5		ug/Kg		105	70 - 125
tert-Butylbenzene	50.0	54.0		ug/Kg		108	70 - 125
1,1,1,2-Tetrachloroethane	50.0	53.2		ug/Kg		106	68 - 125
1,1,2,2-Tetrachloroethane	50.0	48.1		ug/Kg		96	68 - 125
Tetrachloroethene	50.0	56.1		ug/Kg		112	70 - 125
Toluene	50.0	51.6		ug/Kg		103	70 - 125
trans-1,2-Dichloroethene	50.0	50.7		ug/Kg		101	70 - 125
trans-1,3-Dichloropropene	50.0	48.9		ug/Kg		98	70 - 125
1,2,3-Trichlorobenzene	50.0	42.2		ug/Kg		84	58 - 135
1,2,4-Trichlorobenzene	50.0	44.4		ug/Kg		89	64 - 126
1,1,1-Trichloroethane	50.0	51.0		ug/Kg		102	70 - 125
1,1,2-Trichloroethane	50.0	51.3		ug/Kg		103	70 - 125
Trichloroethene	50.0	52.9		ug/Kg		106	70 - 125
Trichlorofluoromethane	50.0	45.3		ug/Kg		91	60 - 126
1,2,3-Trichloropropane	50.0	45.5		ug/Kg		91	63 - 125
1,2,4-Trimethylbenzene	50.0	53.1		ug/Kg		106	70 - 125
1,3,5-Trimethylbenzene	50.0	53.0		ug/Kg		106	70 - 125
Vinyl chloride	50.0	42.8		ug/Kg		86	70 - 126
Xylenes, Total	100	103		ug/Kg		103	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		71 - 127
4-Bromofluorobenzene (Surr)	94		71 - 120
Dibromofluoromethane	96		70 - 120
Toluene-d8 (Surr)	101		75 - 120

**Lab Sample ID: MB 500-372077/6**  
**Matrix: Water**  
**Analysis Batch: 372077**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			02/15/17 10:49	1
Bromobenzene	<0.36		1.0	0.36	ug/L			02/15/17 10:49	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			02/15/17 10:49	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			02/15/17 10:49	1
Bromoform	<0.48		1.0	0.48	ug/L			02/15/17 10:49	1
Bromomethane	<0.80		2.0	0.80	ug/L			02/15/17 10:49	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			02/15/17 10:49	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			02/15/17 10:49	1

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# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

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

**Lab Sample ID: MB 500-372077/6**  
**Matrix: Water**  
**Analysis Batch: 372077**

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloroethane	<0.51		1.0	0.51	ug/L			02/15/17 10:49	1
Chloroform	<0.37		2.0	0.37	ug/L			02/15/17 10:49	1
Chloromethane	<0.32		1.0	0.32	ug/L			02/15/17 10:49	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			02/15/17 10:49	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			02/15/17 10:49	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			02/15/17 10:49	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			02/15/17 10:49	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			02/15/17 10:49	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			02/15/17 10:49	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			02/15/17 10:49	1
Dibromomethane	<0.27		1.0	0.27	ug/L			02/15/17 10:49	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			02/15/17 10:49	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			02/15/17 10:49	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			02/15/17 10:49	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			02/15/17 10:49	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			02/15/17 10:49	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			02/15/17 10:49	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			02/15/17 10:49	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			02/15/17 10:49	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			02/15/17 10:49	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			02/15/17 10:49	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			02/15/17 10:49	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			02/15/17 10:49	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			02/15/17 10:49	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			02/15/17 10:49	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			02/15/17 10:49	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			02/15/17 10:49	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			02/15/17 10:49	1
Naphthalene	<0.34		1.0	0.34	ug/L			02/15/17 10:49	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			02/15/17 10:49	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			02/15/17 10:49	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			02/15/17 10:49	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			02/15/17 10:49	1
Styrene	<0.39		1.0	0.39	ug/L			02/15/17 10:49	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			02/15/17 10:49	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			02/15/17 10:49	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			02/15/17 10:49	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			02/15/17 10:49	1
Toluene	<0.15		0.50	0.15	ug/L			02/15/17 10:49	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			02/15/17 10:49	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			02/15/17 10:49	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			02/15/17 10:49	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			02/15/17 10:49	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			02/15/17 10:49	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			02/15/17 10:49	1
Trichloroethene	<0.16		0.50	0.16	ug/L			02/15/17 10:49	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			02/15/17 10:49	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			02/15/17 10:49	1

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# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

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

**Lab Sample ID: MB 500-372077/6**  
**Matrix: Water**  
**Analysis Batch: 372077**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			02/15/17 10:49	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			02/15/17 10:49	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			02/15/17 10:49	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			02/15/17 10:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		71 - 127		02/15/17 10:49	1
4-Bromofluorobenzene (Surr)	100		71 - 120		02/15/17 10:49	1
Dibromofluoromethane	95		70 - 120		02/15/17 10:49	1
Toluene-d8 (Surr)	100		75 - 120		02/15/17 10:49	1

**Lab Sample ID: LCS 500-372077/4**  
**Matrix: Water**  
**Analysis Batch: 372077**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	45.2		ug/L		90	70 - 125
Bromobenzene	50.0	45.9		ug/L		92	70 - 125
Bromochloromethane	50.0	42.9		ug/L		86	70 - 125
Bromodichloromethane	50.0	44.8		ug/L		90	70 - 125
Bromoform	50.0	41.2		ug/L		82	54 - 128
Bromomethane	50.0	42.9		ug/L		86	40 - 150
Carbon tetrachloride	50.0	45.5		ug/L		91	70 - 125
Chlorobenzene	50.0	46.5		ug/L		93	70 - 125
Chloroethane	50.0	47.0		ug/L		94	60 - 139
Chloroform	50.0	46.4		ug/L		93	70 - 125
Chloromethane	50.0	41.8		ug/L		84	60 - 140
2-Chlorotoluene	50.0	47.5		ug/L		95	69 - 125
4-Chlorotoluene	50.0	47.9		ug/L		96	70 - 125
cis-1,2-Dichloroethene	50.0	43.7		ug/L		87	70 - 125
cis-1,3-Dichloropropene	50.0	46.7		ug/L		93	70 - 125
Dibromochloromethane	50.0	45.3		ug/L		91	66 - 125
1,2-Dibromo-3-Chloropropane	50.0	42.8		ug/L		86	51 - 125
1,2-Dibromoethane	50.0	47.9		ug/L		96	70 - 125
Dibromomethane	50.0	45.1		ug/L		90	70 - 125
1,2-Dichlorobenzene	50.0	46.5		ug/L		93	70 - 125
1,3-Dichlorobenzene	50.0	47.0		ug/L		94	70 - 125
1,4-Dichlorobenzene	50.0	46.6		ug/L		93	70 - 125
Dichlorodifluoromethane	50.0	31.6		ug/L		63	51 - 140
1,1-Dichloroethane	50.0	45.0		ug/L		90	70 - 125
1,2-Dichloroethane	50.0	47.4		ug/L		95	70 - 125
1,1-Dichloroethene	50.0	44.5		ug/L		89	70 - 125
1,2-Dichloropropane	50.0	46.2		ug/L		92	70 - 125
1,3-Dichloropropane	50.0	47.6		ug/L		95	70 - 125
2,2-Dichloropropane	50.0	44.8		ug/L		90	62 - 125
1,1-Dichloropropene	50.0	46.8		ug/L		94	70 - 125
Ethylbenzene	50.0	49.2		ug/L		98	70 - 125
Hexachlorobutadiene	50.0	45.3		ug/L		91	57 - 140

TestAmerica Chicago

# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

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

Lab Sample ID: LCS 500-372077/4

Matrix: Water

Analysis Batch: 372077

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropylbenzene	50.0	48.3		ug/L		97	70 - 125
Methylene Chloride	50.0	44.0		ug/L		88	68 - 125
Methyl tert-butyl ether	50.0	45.6		ug/L		91	67 - 125
Naphthalene	50.0	42.1		ug/L		84	50 - 136
n-Butylbenzene	50.0	49.5		ug/L		99	70 - 125
N-Propylbenzene	50.0	49.0		ug/L		98	70 - 125
p-Isopropyltoluene	50.0	48.8		ug/L		98	70 - 125
sec-Butylbenzene	50.0	48.9		ug/L		98	70 - 125
Styrene	50.0	47.0		ug/L		94	70 - 125
tert-Butylbenzene	50.0	48.2		ug/L		96	70 - 125
1,1,1,2-Tetrachloroethane	50.0	45.5		ug/L		91	68 - 125
1,1,2,2-Tetrachloroethane	50.0	46.8		ug/L		94	68 - 125
Tetrachloroethene	50.0	48.5		ug/L		97	70 - 125
Toluene	50.0	47.7		ug/L		95	70 - 125
trans-1,2-Dichloroethene	50.0	44.3		ug/L		89	70 - 125
trans-1,3-Dichloropropene	50.0	45.7		ug/L		91	70 - 125
1,2,3-Trichlorobenzene	50.0	41.5		ug/L		83	58 - 135
1,2,4-Trichlorobenzene	50.0	43.8		ug/L		88	64 - 126
1,1,1-Trichloroethane	50.0	46.8		ug/L		94	70 - 125
1,1,2-Trichloroethane	50.0	47.1		ug/L		94	70 - 125
Trichloroethene	50.0	45.4		ug/L		91	70 - 125
Trichlorofluoromethane	50.0	52.5		ug/L		105	60 - 126
1,2,3-Trichloropropane	50.0	44.2		ug/L		88	63 - 125
1,2,4-Trimethylbenzene	50.0	48.9		ug/L		98	70 - 125
1,3,5-Trimethylbenzene	50.0	48.8		ug/L		98	70 - 125
Vinyl chloride	50.0	47.1		ug/L		94	70 - 126
Xylenes, Total	100	95.8		ug/L		96	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		71 - 127
4-Bromofluorobenzene (Surr)	98		71 - 120
Dibromofluoromethane	94		70 - 120
Toluene-d8 (Surr)	101		75 - 120

# Lab Chronicle

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: GP-7 (0-2')**

**Date Collected: 02/06/17 08:50**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-1**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371426	02/09/17 11:46	LWN	TAL CHI

**Client Sample ID: GP-7 (0-2')**

**Date Collected: 02/06/17 08:50**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-1**

**Matrix: Solid**

**Percent Solids: 80.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371336	02/06/17 08:50	WRE	TAL CHI
Total/NA	Analysis	8260B		50	371372	02/09/17 12:40	TCT	TAL CHI

**Client Sample ID: GP-7 (5-7.5')**

**Date Collected: 02/06/17 08:55**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-2**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371426	02/09/17 11:46	LWN	TAL CHI

**Client Sample ID: GP-7 (5-7.5')**

**Date Collected: 02/06/17 08:55**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-2**

**Matrix: Solid**

**Percent Solids: 85.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371336	02/06/17 08:55	WRE	TAL CHI
Total/NA	Analysis	8260B		50	371372	02/09/17 13:08	TCT	TAL CHI

**Client Sample ID: GP-8 (2.5-5')**

**Date Collected: 02/06/17 09:40**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-3**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371426	02/09/17 11:46	LWN	TAL CHI

**Client Sample ID: GP-8 (2.5-5')**

**Date Collected: 02/06/17 09:40**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-3**

**Matrix: Solid**

**Percent Solids: 86.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371336	02/06/17 09:40	WRE	TAL CHI
Total/NA	Analysis	8260B		50	371372	02/09/17 13:36	TCT	TAL CHI

TestAmerica Chicago



# Lab Chronicle

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: GP-8 (5-7.5')**

**Date Collected: 02/06/17 09:45**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-4**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371426	02/09/17 11:46	LWN	TAL CHI

**Client Sample ID: GP-8 (5-7.5')**

**Date Collected: 02/06/17 09:45**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-4**

**Matrix: Solid**

**Percent Solids: 84.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371336	02/06/17 09:45	WRE	TAL CHI
Total/NA	Analysis	8260B		50	371372	02/09/17 14:03	TCT	TAL CHI

**Client Sample ID: GP-9 (2.5-5')**

**Date Collected: 02/06/17 10:35**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-5**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371426	02/09/17 11:46	LWN	TAL CHI

**Client Sample ID: GP-9 (2.5-5')**

**Date Collected: 02/06/17 10:35**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-5**

**Matrix: Solid**

**Percent Solids: 82.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371336	02/06/17 10:35	WRE	TAL CHI
Total/NA	Analysis	8260B		50	371372	02/09/17 14:31	TCT	TAL CHI

**Client Sample ID: GP-9 (5-7.5')**

**Date Collected: 02/06/17 10:40**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-6**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371426	02/09/17 11:46	LWN	TAL CHI

**Client Sample ID: GP-9 (5-7.5')**

**Date Collected: 02/06/17 10:40**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-6**

**Matrix: Solid**

**Percent Solids: 79.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371336	02/06/17 10:40	WRE	TAL CHI
Total/NA	Analysis	8260B		50	371372	02/09/17 14:59	TCT	TAL CHI

TestAmerica Chicago

# Lab Chronicle

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: GP-10 (2.5-5')**

**Date Collected: 02/06/17 11:05**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-7**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371426	02/09/17 11:46	LWN	TAL CHI

**Client Sample ID: GP-10 (2.5-5')**

**Date Collected: 02/06/17 11:05**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-7**

**Matrix: Solid**

**Percent Solids: 88.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371336	02/06/17 11:05	WRE	TAL CHI
Total/NA	Analysis	8260B		50	371372	02/09/17 15:27	TCT	TAL CHI

**Client Sample ID: GP-10 (5-7.5')**

**Date Collected: 02/06/17 11:10**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-8**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371426	02/09/17 11:46	LWN	TAL CHI

**Client Sample ID: GP-10 (5-7.5')**

**Date Collected: 02/06/17 11:10**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-8**

**Matrix: Solid**

**Percent Solids: 89.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371336	02/06/17 11:10	WRE	TAL CHI
Total/NA	Analysis	8260B		50	371372	02/09/17 15:55	TCT	TAL CHI

**Client Sample ID: GP-11 (0-2.5')**

**Date Collected: 02/06/17 11:25**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-9**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371426	02/09/17 11:46	LWN	TAL CHI

**Client Sample ID: GP-11 (0-2.5')**

**Date Collected: 02/06/17 11:25**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-9**

**Matrix: Solid**

**Percent Solids: 86.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371336	02/06/17 11:25	WRE	TAL CHI
Total/NA	Analysis	8260B		50	371372	02/09/17 16:23	TCT	TAL CHI

TestAmerica Chicago

# Lab Chronicle

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: GP-11 (5-7.5')**

**Lab Sample ID: 500-123596-10**

**Date Collected: 02/06/17 11:30**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371426	02/09/17 11:46	LWN	TAL CHI

**Client Sample ID: GP-11 (5-7.5')**

**Lab Sample ID: 500-123596-10**

**Date Collected: 02/06/17 11:30**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 88.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371336	02/06/17 11:30	WRE	TAL CHI
Total/NA	Analysis	8260B		50	371372	02/09/17 16:50	TCT	TAL CHI

**Client Sample ID: MW-1 (2.5-5')**

**Lab Sample ID: 500-123596-11**

**Date Collected: 02/06/17 10:00**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371426	02/09/17 11:46	LWN	TAL CHI

**Client Sample ID: MW-1 (2.5-5')**

**Lab Sample ID: 500-123596-11**

**Date Collected: 02/06/17 10:00**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 90.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371336	02/06/17 10:00	WRE	TAL CHI
Total/NA	Analysis	8260B		50	371372	02/09/17 17:18	TCT	TAL CHI

**Client Sample ID: MW-1 (5-7.5')**

**Lab Sample ID: 500-123596-12**

**Date Collected: 02/06/17 10:05**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371426	02/09/17 11:46	LWN	TAL CHI

**Client Sample ID: MW-1 (5-7.5')**

**Lab Sample ID: 500-123596-12**

**Date Collected: 02/06/17 10:05**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 85.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371336	02/06/17 10:05	WRE	TAL CHI
Total/NA	Analysis	8260B		50	371372	02/09/17 17:46	TCT	TAL CHI

TestAmerica Chicago

# Lab Chronicle

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: MW-2 (2.5-5')**

**Lab Sample ID: 500-123596-13**

**Date Collected: 02/06/17 11:55**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371426	02/09/17 11:46	LWN	TAL CHI

**Client Sample ID: MW-2 (2.5-5')**

**Lab Sample ID: 500-123596-13**

**Date Collected: 02/06/17 11:55**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 88.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371336	02/06/17 11:55	WRE	TAL CHI
Total/NA	Analysis	8260B		50	371372	02/09/17 18:14	TCT	TAL CHI

**Client Sample ID: MW-2 (5-7.5')**

**Lab Sample ID: 500-123596-14**

**Date Collected: 02/06/17 12:00**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371426	02/09/17 11:46	LWN	TAL CHI

**Client Sample ID: MW-2 (5-7.5')**

**Lab Sample ID: 500-123596-14**

**Date Collected: 02/06/17 12:00**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 86.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371336	02/06/17 12:00	WRE	TAL CHI
Total/NA	Analysis	8260B		50	371372	02/09/17 18:42	TCT	TAL CHI

**Client Sample ID: MW-3 (0-2.5')**

**Lab Sample ID: 500-123596-15**

**Date Collected: 02/06/17 13:50**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371426	02/09/17 11:46	LWN	TAL CHI

**Client Sample ID: MW-3 (0-2.5')**

**Lab Sample ID: 500-123596-15**

**Date Collected: 02/06/17 13:50**

**Matrix: Solid**

**Date Received: 02/08/17 10:30**

**Percent Solids: 79.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371336	02/06/17 13:50	WRE	TAL CHI
Total/NA	Analysis	8260B		50	371372	02/09/17 19:10	TCT	TAL CHI

TestAmerica Chicago

# Lab Chronicle

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: MW-3 (5-7.5')**

**Lab Sample ID: 500-123596-16**

Date Collected: 02/06/17 13:55

Matrix: Solid

Date Received: 02/08/17 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371426	02/09/17 11:46	LWN	TAL CHI

**Client Sample ID: MW-3 (5-7.5')**

**Lab Sample ID: 500-123596-16**

Date Collected: 02/06/17 13:55

Matrix: Solid

Date Received: 02/08/17 10:30

Percent Solids: 89.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371336	02/06/17 13:55	WRE	TAL CHI
Total/NA	Analysis	8260B		50	371515	02/10/17 16:06	TCT	TAL CHI

**Client Sample ID: Trip Blank**

**Lab Sample ID: 500-123596-17**

Date Collected: 02/06/17 00:00

Matrix: Water

Date Received: 02/08/17 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	371514	02/10/17 16:34	TCT	TAL CHI

**Client Sample ID: GP-7**

**Lab Sample ID: 500-123596-18**

Date Collected: 02/06/17 10:10

Matrix: Water

Date Received: 02/08/17 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	371514	02/10/17 17:02	TCT	TAL CHI

**Client Sample ID: GP-8**

**Lab Sample ID: 500-123596-19**

Date Collected: 02/06/17 10:15

Matrix: Water

Date Received: 02/08/17 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	371514	02/10/17 17:30	TCT	TAL CHI

**Client Sample ID: GP-9**

**Lab Sample ID: 500-123596-20**

Date Collected: 02/06/17 12:55

Matrix: Water

Date Received: 02/08/17 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	371514	02/10/17 17:58	TCT	TAL CHI

TestAmerica Chicago

# Lab Chronicle

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

**Client Sample ID: GP-10**

**Date Collected: 02/06/17 12:40**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-21**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	372077	02/15/17 13:57	PMF	TAL CHI

**Client Sample ID: GP-11**

**Date Collected: 02/06/17 12:45**

**Date Received: 02/08/17 10:30**

**Lab Sample ID: 500-123596-22**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	372077	02/15/17 14:24	PMF	TAL CHI

**Laboratory References:**

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

# Certification Summary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-123596-1

## Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999580010	08-31-17

Analysis Method	Prep Method	Matrix	Analyte
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- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15



# TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 6  
Phone: 708.534.5200 Fax: 708.534.5200



500-123596 COC

Report To (optional) \_\_\_\_\_ Bill To (optional) \_\_\_\_\_  
 Contact: Robert Langdon Contact: \_\_\_\_\_  
 Company: SCS Engineers Company: \_\_\_\_\_  
 Address: 2830 Dairy Dr. Address: \_\_\_\_\_  
 Address: Madison, WI 53718 Address: \_\_\_\_\_  
 Phone: 608-211-7329 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_ Fax: \_\_\_\_\_  
 E-Mail: rlangdon@scsengineers.com PO#/Reference# \_\_\_\_\_

## Chain of Custody Record

Lab Job #: 500-123596  
 Chain of Custody Number: \_\_\_\_\_  
 Page \_\_\_\_\_ of \_\_\_\_\_  
 Temperature °C of Cooler: 0.8

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
SCS Engineers		252116186		M201		VOCs (82406)		8		Dry weight	
Project Name		Lab Project #		Date		Time		# of Containers		Matrix	
Arctic Laundry + Cleaners											
Project Location/State		Lab PM		Date		Time		# of Containers		Matrix	
Kenosha, WI		Sandie Fredrick									
Sampler		Lab PM		Date		Time		# of Containers		Matrix	
Jaclyn De Bruyne		Sandie Fredrick									
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix					
1		GP-7 (0-2')	2-6	850	2	S	X	X			
2		GP-7 (5-7.5')	2-6	855	2	S	X	X			
3		GP-8 (2.5-5')	2-6	940	2	S	X	X			
4		GP-8 (5-7.5')	2-6	945	2	S	X	X			
5		GP-9 (2.5-5')	2-6	1035	2	S	X	X			
6		GP-9 (5-7.5')	2-6	1040	2	S	X	X			
7		GP-10 (2.5-5')	2-6	1105	2	S	X	X			
8		GP-10 (5-7.5')	2-6	1110	2	S	X	X			
9		GP-11 (0-2.5')	2-6	1125	2	S	X	X			
10		GP-11 (5-7.5')	2-6	1130	2	S	X	X			

- Preservative Key
1. HCL, Cool to 4°
  2. H2SO4, Cool to 4°
  3. HNO3, Cool to 4°
  4. NaOH, Cool to 4°
  5. NaOH/Zn, Cool to 4°
  6. NaHSO4
  7. Cool to 4°
  8. None
  9. Other

Turnaround Time Required (Business Days) Standard  
 \_\_\_ 1 Day \_\_\_ 2 Days \_\_\_ 5 Days \_\_\_ 7 Days \_\_\_ 10 Days \_\_\_ 15 Days \_\_\_ Other \_\_\_  
 Requested Due Date \_\_\_\_\_

Sample Disposal  
 Return to Client  Disposal by Lab  Archive for \_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>Jaclyn De Bruyne</u> Company: <u>SCS Engineers</u> Date: <u>2-7-17</u> Time: <u>1030</u>	Received By <u>Shen...</u> Company: <u>SCS Engineers</u> Date: <u>2/8/17</u> Time: <u>1030</u>	Lab Courier _____
Relinquished By _____	Received By _____	Shipped <u>FedEx</u>
Relinquished By _____	Received By _____	Hand Delivered _____

Matrix Key

WW - Wastewater	SE - Sediment
W - Water	SO - Soil
S - Soil	L - Leachate
SL - Sludge	WI - Wipe
MS - Miscellaneous	DW - Drinking Water
OL - Oil	O - Other
A - Air	

Client Comments: \_\_\_\_\_  
 Lab Comments: \_\_\_\_\_

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484  
 Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional) Robert Langdon Bill To (optional) \_\_\_\_\_  
 Contact: SCS Engineers Company: \_\_\_\_\_  
 Address: 2830 Dairy Drive Address: \_\_\_\_\_  
 Address: Madison, WI 53718 Address: \_\_\_\_\_  
 Phone: 608-216-7329 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_ Fax: \_\_\_\_\_  
 E-Mail: rlangdon@scsengineers.com PO#/Reference# \_\_\_\_\_

## Chain of Custody Record

Lab Job #: 500-123596  
 Chain of Custody Number: \_\_\_\_\_  
 Page \_\_\_\_\_ of \_\_\_\_\_  
 Temperature °C of Cooler: \_\_\_\_\_

Client		Client Project #		Preservative		Parameter		PO#/Reference#		Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Lab Project #		Matrix		Matrix					
Project Location/State		Lab PM		Containers		Matrix					
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	Matrix	Matrix	Matrix		Comments
SCS Engineers		25216186		MROH 8		VOCs (8260B)		Dry Weight		.com	
Arctic Laundry and Cleaners											
Kenosha, WI		Sandie Fredrick									
SAMPLER: Jaclyn DeBruyne											
11		mw-1 (2.5-5')	2-6	1000	2 S	X	X				
12		mw-1 (5-7.5')	2-6	1005	2 S	X	X				
13		mw-2 (2.5-5')	2-6	1155	2 S	X	X				
14		mw-2 (5-7.5')	2-6	1200	2 S	X	X				
15		mw-3 (0-2.5')	2-6	1350	2 S	X	X				
16		mw-3 (5-7.5')	2-6	1355	2 S	X	X				
17		Trip blank	2-6		1 O	X					

Turnaround Time Required (Business Days) Standard  
 \_\_\_ 1 Day \_\_\_ 2 Days \_\_\_ 5 Days \_\_\_ 7 Days \_\_\_ 10 Days \_\_\_ 15 Days \_\_\_ Other  
 Requested Due Date \_\_\_\_\_

Sample Disposal  
 Return to Client  Disposal by Lab  Archive for \_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>JM DGH</u>	Company <u>SCS Engineers</u>	Date <u>2-7-17</u>	Time <u>11:30</u>	Received By <u>Shirley Scott</u>	Company <u>TA-CHE</u>	Date <u>2/8/17</u>	Time <u>1030</u>
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: \_\_\_\_\_  
 Shipped: FedEx  
 Hand Delivered: \_\_\_\_\_

Matrix Key

WW - Wastewater	SE - Sediment
W - Water	SO - Soil
S - Soil	L - Leachate
SL - Sludge	WI - Wipes
MS - Miscellaneous	DW - Drinking Water
OL - Oil	O - Other
A - Air	

Client Comments: \_\_\_\_\_

Lab Comments: \_\_\_\_\_



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484  
 Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)  
 Contact: Robert Langdon  
 Company: SCS Engineers  
 Address: 2830 Dairy Drive  
Madison, WI 53718  
 Address:  
 Phone: 608-211-7329  
 Fax:  
 E-Mail: rlangdon@scsengineers.com

Bill To (optional)  
 Contact:  
 Company:  
 Address:  
 Address:  
 Phone:  
 Fax:  
 PO#/Reference#

## Chain of Custody Record

Lab Job #: 500-123596  
 Chain of Custody Number:  
 Page \_\_\_\_\_ of \_\_\_\_\_  
 Temperature °C of Cooler:

Client		Client Project #		Preservative		Parameter		Matrix		Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other
Project Name		Project Location/State		Lab Project #		Sampler		Lab PM		
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix			Comments	
SCS Engineers		25216186		1		VOCs (821005)				
Arctic Laundry and Cleaners		Kenosha, WI				Jaelyn DeBruyne		Sandie Fredrick		
18		GP-7	2-6	1010	3 W	X				
19		GP-8	2-6	1015	3 W	X				
20		GP-9	2-6	1255	3 W	X			Rec 1 broken	
21		GP-10	2-6	1240	3 W	X				
22		GP-11	2-6	1245	3 W	X				

Turnaround Time Required (Business Days) Standard  
 \_\_\_ 1 Day \_\_\_ 2 Days \_\_\_ 5 Days \_\_\_ 7 Days \_\_\_ 10 Days \_\_\_ 15 Days \_\_\_ Other  
 Requested Due Date \_\_\_\_\_

Sample Disposal  
 Return to Client  Disposal by Lab  Archive for \_\_\_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>[Signature]</u>	Company SCS Engineers	Date 2-7-17	Time 1630	Received By <u>[Signature]</u>	Company SCS Engineers	Date 2/8/17	Time 1030
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier  
 Shipped FedEx  
 Hand Delivered

- Matrix Key
- WW - Wastewater
  - W - Water
  - S - Soil
  - SL - Sludge
  - MS - Miscellaneous
  - OL - Oil
  - A - Air
  - SE - Sediment
  - SO - Soil
  - L - Leachate
  - WI - Wipe
  - DW - Drinking Water
  - O - Other

Client Comments

Lab Comments:

# Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 500-123596-1

**Login Number: 123596**

**List Source: TestAmerica Chicago**

**List Number: 1**

**Creator: Scott, Sherri L**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	Containers recd broken. Sufficient sample in remaining containers for analysis.
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	False	Refer to Job Narrative for details.
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

February 21, 2017

Rob Langdon  
SCS Engineers  
2830 Dairy Drive  
Madison, WI 53718

RE: Project: 25216186 5619 22nd Ave. Kenosh  
Pace Project No.: 10378651

Dear Rob Langdon:

Enclosed are the analytical results for sample(s) received by the laboratory on February 09, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

*Carolynne Trout*

Carolynne Trout  
carolynne.trout@pacelabs.com  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 25216186 5619 22nd Ave. Kenosh

Pace Project No.: 10378651

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### Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414

Alaska Certification UST-107

525 N 8th Street, Salina, KS 67401

A2LA Certification #: 2926.01

Alaska Certification #: UST-078

Alaska Certification #MN00064

Alabama Certification #40770

Arizona Certification #: AZ-0014

Arkansas Certification #: 88-0680

California Certification #: 01155CA

Colorado Certification #Pace

Connecticut Certification #: PH-0256

EPA Region 8 Certification #: 8TMS-L

Florida/NELAP Certification #: E87605

Guam Certification #:14-008r

Georgia Certification #: 959

Georgia EPD #: Pace

Idaho Certification #: MN00064

Hawaii Certification #MN00064

Illinois Certification #: 200011

Indiana Certification#C-MN-01

Iowa Certification #: 368

Kansas Certification #: E-10167

Kentucky Dept of Envi. Protection - DW #90062

Kentucky Dept of Envi. Protection - WW #:90062

Louisiana DEQ Certification #: 3086

Louisiana DHH #: LA140001

Maine Certification #: 2013011

Maryland Certification #: 322

Michigan DEPH Certification #: 9909

Minnesota Certification #: 027-053-137

Mississippi Certification #: Pace

Montana Certification #: MT0092

Nevada Certification #: MN\_00064

Nebraska Certification #: Pace

New Jersey Certification #: MN-002

New York Certification #: 11647

North Carolina Certification #: 530

North Carolina State Public Health #: 27700

North Dakota Certification #: R-036

Ohio EPA #: 4150

Ohio VAP Certification #: CL101

Oklahoma Certification #: 9507

Oregon Certification #: MN200001

Oregon Certification #: MN300001

Pennsylvania Certification #: 68-00563

Puerto Rico Certification

Saipan (CNMI) #:MP0003

South Carolina #:74003001

Texas Certification #: T104704192

Tennessee Certification #: 02818

Utah Certification #: MN000642013-4

Virginia DGS Certification #: 251

Virginia/VELAP Certification #: Pace

Washington Certification #: C486

West Virginia Certification #: 382

West Virginia DHHR #:9952C

Wisconsin Certification #: 999407970

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 25216186 5619 22nd Ave. Kenosh

Pace Project No.: 10378651

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10378651001	5619 22nd Ave. Basement	Air	02/07/17 12:40	02/09/17 09:45
10378651002	5619 22nd Ave. 1st Floor	Air	02/07/17 12:22	02/09/17 09:45
10378651003	5619 22nd Ave. 2nd Floor	Air	02/07/17 12:28	02/09/17 09:45
10378651004	5619 22nd Ave. Outdoor	Air	02/07/17 12:34	02/09/17 09:45
10378651005	5619 22nd Ave. SS-1	Air	02/07/17 16:18	02/09/17 09:45
10378651006	5619 22nd Ave. SS-2	Air	02/07/17 17:05	02/09/17 09:45
10378651007	5619 22nd Ave. SS-3	Air	02/07/17 17:57	02/09/17 09:45

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 25216186 5619 22nd Ave. Kenosh

Pace Project No.: 10378651

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10378651001	5619 22nd Ave. Basement	TO-15	EMC	5	PASI-M
10378651002	5619 22nd Ave. 1st Floor	TO-15	EMC	5	PASI-M
10378651003	5619 22nd Ave. 2nd Floor	TO-15	EMC	5	PASI-M
10378651004	5619 22nd Ave. Outdoor	TO-15	EMC	5	PASI-M
10378651005	5619 22nd Ave. SS-1	TO-15	EMC	5	PASI-M
10378651006	5619 22nd Ave. SS-2	TO-15	EMC	5	PASI-M
10378651007	5619 22nd Ave. SS-3	TO-15	EMC	5	PASI-M

### REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: 25216186 5619 22nd Ave. Kenosh

Pace Project No.: 10378651

**Sample: 5619 22nd Ave. Basement**    **Lab ID: 10378651001**    Collected: 02/07/17 12:40    Received: 02/09/17 09:45    Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b> Analytical Method: TO-15									
cis-1,2-Dichloroethene	20.2	ug/m3	1.3	0.38	1.55		02/18/17 18:58	156-59-2	
trans-1,2-Dichloroethene	<0.60	ug/m3	1.3	0.60	1.55		02/18/17 18:58	156-60-5	
Tetrachloroethene	38.8	ug/m3	1.1	0.43	1.55		02/18/17 18:58	127-18-4	
Trichloroethene	5.7	ug/m3	0.85	0.43	1.55		02/18/17 18:58	79-01-6	
Vinyl chloride	<0.30	ug/m3	0.40	0.30	1.55		02/18/17 18:58	75-01-4	

**Sample: 5619 22nd Ave. 1st Floor**    **Lab ID: 10378651002**    Collected: 02/07/17 12:22    Received: 02/09/17 09:45    Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b> Analytical Method: TO-15									
cis-1,2-Dichloroethene	4.7	ug/m3	1.3	0.40	1.61		02/18/17 19:27	156-59-2	
trans-1,2-Dichloroethene	<0.62	ug/m3	1.3	0.62	1.61		02/18/17 19:27	156-60-5	
Tetrachloroethene	9.2	ug/m3	1.1	0.45	1.61		02/18/17 19:27	127-18-4	
Trichloroethene	1.7	ug/m3	0.89	0.44	1.61		02/18/17 19:27	79-01-6	
Vinyl chloride	<0.31	ug/m3	0.42	0.31	1.61		02/18/17 19:27	75-01-4	

**Sample: 5619 22nd Ave. 2nd Floor**    **Lab ID: 10378651003**    Collected: 02/07/17 12:28    Received: 02/09/17 09:45    Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b> Analytical Method: TO-15									
cis-1,2-Dichloroethene	3.4	ug/m3	1.4	0.41	1.68		02/18/17 19:55	156-59-2	
trans-1,2-Dichloroethene	<0.65	ug/m3	1.4	0.65	1.68		02/18/17 19:55	156-60-5	
Tetrachloroethene	7.9	ug/m3	1.2	0.47	1.68		02/18/17 19:55	127-18-4	
Trichloroethene	1.2	ug/m3	0.92	0.46	1.68		02/18/17 19:55	79-01-6	
Vinyl chloride	<0.33	ug/m3	0.44	0.33	1.68		02/18/17 19:55	75-01-4	

**Sample: 5619 22nd Ave. Outdoor**    **Lab ID: 10378651004**    Collected: 02/07/17 12:34    Received: 02/09/17 09:45    Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b> Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.37	ug/m3	1.2	0.37	1.49		02/18/17 20:24	156-59-2	
trans-1,2-Dichloroethene	<0.57	ug/m3	1.2	0.57	1.49		02/18/17 20:24	156-60-5	
Tetrachloroethene	12.2	ug/m3	1.0	0.41	1.49		02/18/17 20:24	127-18-4	
Trichloroethene	<0.41	ug/m3	0.82	0.41	1.49		02/18/17 20:24	79-01-6	
Vinyl chloride	<0.29	ug/m3	0.39	0.29	1.49		02/18/17 20:24	75-01-4	

**REPORT OF LABORATORY ANALYSIS**

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### ANALYTICAL RESULTS

Project: 25216186 5619 22nd Ave. Kenosh

Pace Project No.: 10378651

Sample: 5619 22nd Ave. SS-1      Lab ID: 10378651005      Collected: 02/07/17 16:18      Received: 02/09/17 09:45      Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b> Analytical Method: TO-15									
cis-1,2-Dichloroethene	23.1	ug/m3	1.5	0.45	1.83		02/18/17 20:56	156-59-2	
trans-1,2-Dichloroethene	23.3	ug/m3	1.5	0.70	1.83		02/18/17 20:56	156-60-5	
Tetrachloroethene	2880000	ug/m3	12900	2600	9369.6		02/20/17 18:13	127-18-4	A3,E
Trichloroethene	7050	ug/m3	639	162	585.6		02/20/17 13:09	79-01-6	A3
Vinyl chloride	<0.36	ug/m3	0.48	0.36	1.83		02/18/17 20:56	75-01-4	

Sample: 5619 22nd Ave. SS-2      Lab ID: 10378651006      Collected: 02/07/17 17:05      Received: 02/09/17 09:45      Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b> Analytical Method: TO-15									
cis-1,2-Dichloroethene	6.9	ug/m3	1.4	0.41	1.68		02/18/17 21:26	156-59-2	
trans-1,2-Dichloroethene	47.6	ug/m3	1.4	0.65	1.68		02/18/17 21:26	156-60-5	
Tetrachloroethene	6710	ug/m3	46.3	9.3	33.6		02/20/17 12:15	127-18-4	
Trichloroethene	363	ug/m3	36.7	9.3	33.6		02/20/17 12:15	79-01-6	
Vinyl chloride	<0.33	ug/m3	0.44	0.33	1.68		02/18/17 21:26	75-01-4	

Sample: 5619 22nd Ave. SS-3      Lab ID: 10378651007      Collected: 02/07/17 17:57      Received: 02/09/17 09:45      Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b> Analytical Method: TO-15									
cis-1,2-Dichloroethene	5.5	ug/m3	1.5	0.45	1.83		02/18/17 21:55	156-59-2	
trans-1,2-Dichloroethene	2.0	ug/m3	1.5	0.70	1.83		02/18/17 21:55	156-60-5	
Tetrachloroethene	180000	ug/m3	1620	326	1171.2		02/20/17 17:46	127-18-4	A3
Trichloroethene	472	ug/m3	160	40.4	146.4		02/20/17 12:42	79-01-6	A3
Vinyl chloride	<0.36	ug/m3	0.48	0.36	1.83		02/18/17 21:55	75-01-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 25216186 5619 22nd Ave. Kenosh

Pace Project No.: 10378651

QC Batch: 460708 Analysis Method: TO-15  
 QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level  
 Associated Lab Samples: 10378651001, 10378651002, 10378651003, 10378651004, 10378651005, 10378651006, 10378651007

METHOD BLANK: 2519802 Matrix: Air  
 Associated Lab Samples: 10378651001, 10378651002, 10378651003, 10378651004, 10378651005, 10378651006, 10378651007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.25	0.81	02/18/17 11:22	
Tetrachloroethene	ug/m3	<0.28	0.69	02/18/17 11:22	
trans-1,2-Dichloroethene	ug/m3	<0.38	0.81	02/18/17 11:22	
Trichloroethene	ug/m3	<0.28	0.55	02/18/17 11:22	
Vinyl chloride	ug/m3	<0.20	0.26	02/18/17 11:22	

LABORATORY CONTROL SAMPLE: 2519803

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/m3	40.3	45.6	113	65-139	
Tetrachloroethene	ug/m3	68.9	83.9	122	60-142	
trans-1,2-Dichloroethene	ug/m3	40.3	45.1	112	67-137	
Trichloroethene	ug/m3	54.6	62.1	114	60-144	
Vinyl chloride	ug/m3	26	27.7	107	63-135	

SAMPLE DUPLICATE: 2520204

Parameter	Units	10379197001 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND	<0.38		25	
Tetrachloroethene	ug/m3	8210	3450	82	25	E,R1
trans-1,2-Dichloroethene	ug/m3	ND	<0.60		25	
Trichloroethene	ug/m3	136	131	4	25	
Vinyl chloride	ug/m3	ND	<0.30		25	

SAMPLE DUPLICATE: 2520205

Parameter	Units	10379197003 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND	<0.35		25	
Tetrachloroethene	ug/m3	187	175	6	25	
trans-1,2-Dichloroethene	ug/m3	ND	<0.55		25	
Trichloroethene	ug/m3	6.2	5.4	14	25	
Vinyl chloride	ug/m3	ND	<0.28		25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

## QUALIFIERS

Project: 25216186 5619 22nd Ave. Kenosh

Pace Project No.: 10378651

---

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

### ANALYTE QUALIFIERS

A3 The sample was analyzed by serial dilution.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

R1 RPD value was outside control limits.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25216186 5619 22nd Ave. Kenosh

Pace Project No.: 10378651

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10378651001	5619 22nd Ave. Basement	TO-15	460708		
10378651002	5619 22nd Ave. 1st Floor	TO-15	460708		
10378651003	5619 22nd Ave. 2nd Floor	TO-15	460708		
10378651004	5619 22nd Ave. Outdoor	TO-15	460708		
10378651005	5619 22nd Ave. SS-1	TO-15	460708		
10378651006	5619 22nd Ave. SS-2	TO-15	460708		
10378651007	5619 22nd Ave. SS-3	TO-15	460708		

### REPORT OF LABORATORY ANALYSIS

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# AIR: CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

10378651

<b>Section A</b> Required Client Information: Company: <b>SCS Engineers</b> Address: <b>2830 Dairy Drive</b> Email To: <b>Pace Analytical</b> Phone: <b>608-216-7321</b> Requested Due Date/TAT:		<b>Section B</b> Required Project Information: Report To: <b>Robert Laughlin</b> Copy To: Purchase Order No.: Project Name: <b>2819 22nd Ave. Kenosha</b> Project Number: <b>252110186</b>		<b>Section C</b> Invoice Information: Attention: Company Name: Address: Pace Quote Reference: Pace Project Manager/Sales Rep. Pace Profile #:		Page: <b>26698</b> of <b>1</b>																													
<b>Section D</b> Required Client Information <b>AIR SAMPLE ID</b> Sample IDs MUST BE UNIQUE		Valid Media Codes MEDIA TB 1LC 6LC LVP HYP PM10 Teller Bag 1 Liter Summa Can 6 Liter Summa Can Low Volume Puff High Volume Puff Other		Method: PM10 3C - Fixed Gas (%) TO3 TO3M (Methane) TO4 (PAB) TO4-14 TO4-15 TO5 Short Let		Reporting Units ug/m <sup>3</sup> / ppm Other																													
Report Level II, III, IV, Other		Location of Sampling by State		UST <input type="checkbox"/> Superfund <input type="checkbox"/> Emissions <input type="checkbox"/> Clean Air Act Voluntary Clean Up <input type="checkbox"/> Dry Clean <input type="checkbox"/> RCRA <input type="checkbox"/> Other		Temp in °C Received on Custody Sealed Cooler Samples Intact																													
ITEM #	MEDIA CODE	PID Reading (Client only)	COLLECTED		Canister Pressure (Initial Field - psig)	Canister Pressure (Final Field - psig)	Summa Can Number	Flow Control Number	DATE	TIME	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS																		
			DATE	TIME														DATE	TIME																
1	6LC	2-6-17	1325	2-7-17	1240	29.5	-2	2105	0341	2-6-17	1325	2-7-17	1240	29.5	-2	2105	0341	2-9-17	0945	ARMY	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N				
2	6LC	2-6-17	1348	2-7-17	1222	29.5	-4	2151	1024	2-6-17	1348	2-7-17	1222	29.5	-4	2151	1024	2-9-17	0945	ARMY	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N			
3	6LC	2-6-17	1430	2-7-17	1228	30	-6	2727	0526	2-6-17	1430	2-7-17	1228	30	-6	2727	0526	2-9-17	0945	ARMY	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N		
4	6LC	2-6-17	1412	2-7-17	1234	28.5	-2	2344	0277	2-6-17	1412	2-7-17	1234	28.5	-2	2344	0277	2-9-17	0945	ARMY	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	
5	6LC	2-7-17	1548	2-7-17	1618	29	-7	1562	0832	2-7-17	1548	2-7-17	1618	29	-7	1562	0832	2-9-17	0945	ARMY	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	
6	6LC	2-7-17	1635	2-7-17	1705	30	-8	0029	0719	2-7-17	1635	2-7-17	1705	30	-8	0029	0719	2-9-17	0945	ARMY	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	
7	6LC	2-7-17	1721	2-7-17	1757	28.5	-8	0240	1230	2-7-17	1721	2-7-17	1757	28.5	-8	0240	1230	2-9-17	0945	ARMY	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N

Comments:  
 \* PCB, TCE, cis trans 1,2 DCE, and vinyl chloride

SAMPLER NAME AND SIGNATURE  
 PRINT NAME: **Mark Hayes**  
 SIGNATURE OF SAMPLER: *Mark Hayes*  
 DATE SIGNED (MM/DD/YY): **02/09/17**

ORIGINAL



**Air Sample Condition Upon Receipt**

Client Name: SCS Eng. Project #: \_\_\_\_\_

WO#: 10378651



10378651

Courier:  Fed Ex  UPS  Speedee  Client  
 Commercial  Pace  Other: \_\_\_\_\_

Tracking Number: 66375041 3429, 66375041 3430

Custody Seal on Cooler/Box Present?  Yes  No Seals Intact?  Yes  No

Optional: Proj. Due Date: \_\_\_\_\_ Proj. Name: \_\_\_\_\_

Packing Material:  Bubble Wrap  Bubble Bags  Foam  None  Tin Can  Other: \_\_\_\_\_ Temp Blank rec:  Yes  No

Temp. (TO17 and TO13 samples only) (°C): \_\_\_\_\_ Corrected Temp (°C): \_\_\_\_\_ Thermom. Used:  B88A912167504  151401163  
 B88A0143310098  151401164

Temp should be above freezing to 6°C Correction Factor: \_\_\_\_\_ Date & Initials of Person Examining Contents: 2/9/17

Type of ice Received  Blue  Wet  None

**Comments:**

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name and/or Signature on COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Media: <u>Air Can</u> Airbag Filter TDT Passive		11.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.

**Samples Received:**

Canisters			Canisters		
Sample Number	Can ID	Flow Controller ID	Sample Number	Can ID	Flow Controller ID

**CLIENT NOTIFICATION/RESOLUTION**

Field Data Required?  Yes  No

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/Resolution: \_\_\_\_\_

Project Manager Review: Carolynne Trout Date: 2/9/17

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Pace Analytical Services, Inc.  
1700 Elm Street – Suite 200  
Minneapolis, MN 55414  
Phone: 612.607.1700  
Fax: 612.607.6444

### ANALYTICAL RESULTS

Client: SCS Engineers  
Phone: 830-644-2130

Lab Project Number: 10378651  
Project Name: 25216186 5619 22nd Ave. Keno

Lab Sample No: 10378651001      ProjSampleNum: 10378651001      Date Collected: 02/07/17 12:40  
Client Sample ID: 5619 22nd Ave. Basement      Matrix: Air      Date Received: 02/09/17 9:45

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Ftnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	5	ppbv	0.32	0.094	02/18/17 18:58	EMC 156-59-2	
Tetrachloroethene	5.6	ppbv	0.16	0.062	02/18/17 18:58	EMC 127-18-4	
trans-1,2-Dichloroethene	<0.15	ppbv	0.32	0.15	02/18/17 18:58	EMC 156-60-5	
Trichloroethene	1	ppbv	0.16	0.079	02/18/17 18:58	EMC 79-01-6	
Vinyl chloride	<0.12	ppbv	0.15	0.12	02/18/17 18:58	EMC 75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

### SUPPLEMENTAL REPORT

Units Conversion Request



Pace Analytical Services, Inc.  
 1700 Elm Street – Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 830-644-2130

Lab Project Number: 10378651  
 Project Name: 25216186 5619 22nd Ave. Keno

Lab Sample No: 10378651002      ProjSampleNum: 10378651002      Date Collected: 02/07/17 12:22  
 Client Sample ID: 5619 22nd Ave. 1st Floor      Matrix: Air      Date Received: 02/09/17 9:45

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	1.2	ppbv	0.32	0.099	02/18/17 19:27	EMC 156-59-2	
Tetrachloroethene	1.3	ppbv	0.16	0.065	02/18/17 19:27	EMC 127-18-4	
trans-1,2-Dichloroethene	<0.15	ppbv	0.32	0.15	02/18/17 19:27	EMC 156-60-5	
Trichloroethene	0.31	ppbv	0.16	0.081	02/18/17 19:27	EMC 79-01-6	
Vinyl chloride	<0.12	ppbv	0.16	0.12	02/18/17 19:27	EMC 75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**

Units Conversion Request



Pace Analytical Services, Inc.  
 1700 Elm Street – Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

### ANALYTICAL RESULTS

Client: SCS Engineers  
 Phone: 830-644-2130

Lab Project Number: 10378651  
 Project Name: 25216186 5619 22nd Ave. Keno

Lab Sample No: 10378651003      ProjSampleNum: 10378651003      Date Collected: 02/07/17 12:28  
 Client Sample ID: 5619 22nd Ave. 2nd Floor      Matrix: Air      Date Received: 02/09/17 9:45

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	0.84	ppbv	0.35	0.1	02/18/17 19:55	EMC 156-59-2	
Tetrachloroethene	1.1	ppbv	0.17	0.068	02/18/17 19:55	EMC 127-18-4	
trans-1,2-Dichloroethene	<0.16	ppbv	0.35	0.16	02/18/17 19:55	EMC 156-60-5	
Trichloroethene	0.22	ppbv	0.17	0.084	02/18/17 19:55	EMC 79-01-6	
Vinyl chloride	<0.13	ppbv	0.17	0.13	02/18/17 19:55	EMC 75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

### SUPPLEMENTAL REPORT

Units Conversion Request



Pace Analytical Services, Inc.  
1700 Elm Street – Suite 200  
Minneapolis, MN 55414  
Phone: 612.607.1700  
Fax: 612.607.6444

### ANALYTICAL RESULTS

Client: SCS Engineers  
Phone: 830-644-2130

Lab Project Number: 10378651  
Project Name: 25216186 5619 22nd Ave. Keno

Lab Sample No: 10378651004      ProjSampleNum: 10378651004      Date Collected: 02/07/17 12:34  
Client Sample ID: 5619 22nd Ave. Outdoor      Matrix: Air      Date Received: 02/09/17 9:45

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Ftnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.092	ppbv	0.3	0.092	02/18/17 20:24	EMC 156-59-2	
Tetrachloroethene	1.8	ppbv	0.15	0.059	02/18/17 20:24	EMC 127-18-4	
trans-1,2-Dichloroethene	<0.14	ppbv	0.3	0.14	02/18/17 20:24	EMC 156-60-5	
Trichloroethene	<0.075	ppbv	0.15	0.075	02/18/17 20:24	EMC 79-01-6	
Vinyl chloride	<0.11	ppbv	0.15	0.11	02/18/17 20:24	EMC 75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

### SUPPLEMENTAL REPORT

Units Conversion Request



Pace Analytical Services, Inc.  
 1700 Elm Street – Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 830-644-2130

Lab Project Number: 10378651  
 Project Name: 25216186 5619 22nd Ave. Keno

Lab Sample No: 10378651005      ProjSampleNum: 10378651005      Date Collected: 02/07/17 16:18  
 Client Sample ID: 5619 22nd Ave. SS-1      Matrix: Air      Date Received: 02/09/17 9:45

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Ftnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	5.7	ppbv	0.37	0.11	02/18/17 20:56 EMC	156-59-2	
Tetrachloroethene	418000	ppbv	1870	377	02/20/17 18:13 EMC	127-18-4	A3, E
trans-1,2-Dichloroethene	5.8	ppbv	0.37	0.17	02/18/17 20:56 EMC	156-60-5	
Trichloroethene	1290	ppbv	117	29.7	02/20/17 13:09 EMC	79-01-6	A3
Vinyl chloride	<0.14	ppbv	0.18	0.14	02/18/17 20:56 EMC	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**

Units Conversion Request



Pace Analytical Services, Inc.  
 1700 Elm Street – Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 830-644-2130

Lab Project Number: 10378651  
 Project Name: 25216186 5619 22nd Ave. Keno

Lab Sample No: 10378651006      ProjSampleNum: 10378651006      Date Collected: 02/07/17 17:05  
 Client Sample ID: 5619 22nd Ave. SS-2      Matrix: Air      Date Received: 02/09/17 9:45

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	1.7	ppbv	0.35	0.1	02/18/17 21:26 EMC	156-59-2	
Tetrachloroethene	973	ppbv	6.7	1.3	02/20/17 12:15 EMC	127-18-4	
trans-1,2-Dichloroethene	11.8	ppbv	0.35	0.16	02/18/17 21:26 EMC	156-60-5	
Trichloroethene	66.5	ppbv	6.7	1.7	02/20/17 12:15 EMC	79-01-6	
Vinyl chloride	<0.13	ppbv	0.17	0.13	02/18/17 21:26 EMC	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**

Units Conversion Request





Pace Analytical Services, Inc.  
 1700 Elm Street – Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

### ANALYTICAL RESULTS

Client: SCS Engineers  
 Phone: 830-644-2130

Lab Project Number: 10378651  
 Project Name: 25216186 5619 22nd Ave. Keno

Lab Sample No: 10378651007      ProjSampleNum: 10378651007      Date Collected: 02/07/17 17:57  
 Client Sample ID: 5619 22nd Ave. SS-3      Matrix: Air      Date Received: 02/09/17 9:45

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	1.4	ppbv	0.37	0.11	02/18/17 21:55 EMC	156-59-2	
Tetrachloroethene	26100	ppbv	235	47.3	02/20/17 17:46 EMC	127-18-4	A3
trans-1,2-Dichloroethene	0.5	ppbv	0.37	0.17	02/18/17 21:55 EMC	156-60-5	
Trichloroethene	86.4	ppbv	29.3	7.4	02/20/17 12:42 EMC	79-01-6	A3
Vinyl chloride	<0.14	ppbv	0.18	0.14	02/18/17 21:55 EMC	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

### SUPPLEMENTAL REPORT

Units Conversion Request



Pace Analytical Services, Inc.  
1700 Elm Street – Suite 200  
Minneapolis, MN 55414  
Phone: 612.607.1700  
Fax: 612.607.6444

## ANALYTICAL RESULTS

Client: SCS Engineers  
Phone: 830-644-2130

Lab Project Number: 10378651  
Project Name: 25216186 5619 22nd Ave. Keno

---

## PARAMETER FOOTNOTES

ND Not detected at or above adjusted reporting limit

NC Not Calculable

J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

[A3] The sample was analyzed by serial dilution.

[E] Analyte concentration exceeded the calibration range. The reported result is estimated.

## SUPPLEMENTAL REPORT

Units Conversion Request

Date: 2/21/2017

Page 8

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago

2417 Bond Street

University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-124176-1

Client Project/Site: 5619 22nd Ave. Kenosha 25216186

For:

SCS Engineers

2830 Dairy Dr

Madison, Wisconsin 53718

Attn: Mr. Robert Langdon



Authorized for release by:

3/3/2017 4:51:30 PM

Sandie Fredrick, Project Manager II

(920)261-1660

[sandie.fredrick@testamericainc.com](mailto:sandie.fredrick@testamericainc.com)

### LINKS

Review your project  
results through

TotalAccess

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

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

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

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# Case Narrative

Client: SCS Engineers  
Project/Site: 5619 22nd Ave. Kenosha 25216186

TestAmerica Job ID: 500-124176-1

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**Job ID: 500-124176-1**

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**Laboratory: TestAmerica Chicago**

## Narrative

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**Job Narrative**  
**500-124176-1**

## Comments

No additional comments.

## Receipt

The samples were received on 2/22/2017 10:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.5° C.

## GC/MS VOA

Method(s) 8260B: The following samples were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). The pH however, was outside the required criteria when verified by the laboratory: MW-1 (500-124176-1), MW-2 (500-124176-2), MW-2-FD (500-124176-3) and MW-3 (500-124176-4). The sample was analyzed within 7 days per EPA recommendation, therefore no further corrective action was needed.

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



# Detection Summary

Client: SCS Engineers  
Project/Site: 5619 22nd Ave. Kenosha 25216186

TestAmerica Job ID: 500-124176-1

## Client Sample ID: MW-1

Lab Sample ID: 500-124176-1

No Detections.

## Client Sample ID: MW-2

Lab Sample ID: 500-124176-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloropropane	1.3		1.0	0.43	ug/L	1		8260B	Total/NA

## Client Sample ID: MW-2-FD

Lab Sample ID: 500-124176-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloropropane	1.2		1.0	0.43	ug/L	1		8260B	Total/NA

## Client Sample ID: MW-3

Lab Sample ID: 500-124176-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1.5		1.0	0.37	ug/L	1		8260B	Total/NA

## Client Sample ID: Trip Blank

Lab Sample ID: 500-124176-5

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

# Method Summary

Client: SCS Engineers  
Project/Site: 5619 22nd Ave. Kenosha 25216186

TestAmerica Job ID: 500-124176-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI

**Protocol References:**

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

**Laboratory References:**

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





# Sample Summary

Client: SCS Engineers  
Project/Site: 5619 22nd Ave. Kenosha 25216186

TestAmerica Job ID: 500-124176-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-124176-1	MW-1	Water	02/21/17 11:35	02/22/17 10:30
500-124176-2	MW-2	Water	02/21/17 11:45	02/22/17 10:30
500-124176-3	MW-2-FD	Water	02/21/17 11:50	02/22/17 10:30
500-124176-4	MW-3	Water	02/21/17 12:00	02/22/17 10:30
500-124176-5	Trip Blank	Water	02/21/17 00:00	02/22/17 10:30

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# Client Sample Results

Client: SCS Engineers  
 Project/Site: 5619 22nd Ave. Kenosha 25216186

TestAmerica Job ID: 500-124176-1

**Client Sample ID: MW-1**  
**Date Collected: 02/21/17 11:35**  
**Date Received: 02/22/17 10:30**

**Lab Sample ID: 500-124176-1**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			02/28/17 16:15	1
Bromobenzene	<0.36		1.0	0.36	ug/L			02/28/17 16:15	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			02/28/17 16:15	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			02/28/17 16:15	1
Bromoform	<0.48		1.0	0.48	ug/L			02/28/17 16:15	1
Bromomethane	<0.80		2.0	0.80	ug/L			02/28/17 16:15	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			02/28/17 16:15	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			02/28/17 16:15	1
Chloroethane	<0.51		1.0	0.51	ug/L			02/28/17 16:15	1
Chloroform	<0.37		2.0	0.37	ug/L			02/28/17 16:15	1
Chloromethane	<0.32		1.0	0.32	ug/L			02/28/17 16:15	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			02/28/17 16:15	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			02/28/17 16:15	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			02/28/17 16:15	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			02/28/17 16:15	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			02/28/17 16:15	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			02/28/17 16:15	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			02/28/17 16:15	1
Dibromomethane	<0.27		1.0	0.27	ug/L			02/28/17 16:15	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			02/28/17 16:15	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			02/28/17 16:15	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			02/28/17 16:15	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			02/28/17 16:15	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			02/28/17 16:15	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			02/28/17 16:15	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			02/28/17 16:15	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			02/28/17 16:15	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			02/28/17 16:15	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			02/28/17 16:15	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			02/28/17 16:15	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			02/28/17 16:15	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			02/28/17 16:15	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			02/28/17 16:15	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			02/28/17 16:15	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			02/28/17 16:15	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			02/28/17 16:15	1
Naphthalene	<0.34		1.0	0.34	ug/L			02/28/17 16:15	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			02/28/17 16:15	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			02/28/17 16:15	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			02/28/17 16:15	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			02/28/17 16:15	1
Styrene	<0.39		1.0	0.39	ug/L			02/28/17 16:15	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			02/28/17 16:15	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			02/28/17 16:15	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			02/28/17 16:15	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			02/28/17 16:15	1
Toluene	<0.15		0.50	0.15	ug/L			02/28/17 16:15	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			02/28/17 16:15	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			02/28/17 16:15	1

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# Client Sample Results

Client: SCS Engineers  
Project/Site: 5619 22nd Ave. Kenosha 25216186

TestAmerica Job ID: 500-124176-1

**Client Sample ID: MW-1**  
**Date Collected: 02/21/17 11:35**  
**Date Received: 02/22/17 10:30**

**Lab Sample ID: 500-124176-1**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			02/28/17 16:15	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			02/28/17 16:15	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			02/28/17 16:15	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			02/28/17 16:15	1
Trichloroethene	<0.16		0.50	0.16	ug/L			02/28/17 16:15	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			02/28/17 16:15	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			02/28/17 16:15	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			02/28/17 16:15	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			02/28/17 16:15	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			02/28/17 16:15	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			02/28/17 16:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		71 - 120					02/28/17 16:15	1
Dibromofluoromethane	95		70 - 120					02/28/17 16:15	1
1,2-Dichloroethane-d4 (Surr)	113		71 - 127					02/28/17 16:15	1
Toluene-d8 (Surr)	96		75 - 120					02/28/17 16:15	1

**Client Sample ID: MW-2**  
**Date Collected: 02/21/17 11:45**  
**Date Received: 02/22/17 10:30**

**Lab Sample ID: 500-124176-2**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			02/28/17 16:40	1
Bromobenzene	<0.36		1.0	0.36	ug/L			02/28/17 16:40	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			02/28/17 16:40	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			02/28/17 16:40	1
Bromoform	<0.48		1.0	0.48	ug/L			02/28/17 16:40	1
Bromomethane	<0.80		2.0	0.80	ug/L			02/28/17 16:40	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			02/28/17 16:40	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			02/28/17 16:40	1
Chloroethane	<0.51		1.0	0.51	ug/L			02/28/17 16:40	1
Chloroform	<0.37		2.0	0.37	ug/L			02/28/17 16:40	1
Chloromethane	<0.32		1.0	0.32	ug/L			02/28/17 16:40	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			02/28/17 16:40	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			02/28/17 16:40	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			02/28/17 16:40	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			02/28/17 16:40	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			02/28/17 16:40	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			02/28/17 16:40	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			02/28/17 16:40	1
Dibromomethane	<0.27		1.0	0.27	ug/L			02/28/17 16:40	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			02/28/17 16:40	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			02/28/17 16:40	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			02/28/17 16:40	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			02/28/17 16:40	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			02/28/17 16:40	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			02/28/17 16:40	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			02/28/17 16:40	1

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# Client Sample Results

Client: SCS Engineers  
Project/Site: 5619 22nd Ave. Kenosha 25216186

TestAmerica Job ID: 500-124176-1

**Client Sample ID: MW-2**

**Lab Sample ID: 500-124176-2**

**Date Collected: 02/21/17 11:45**

**Matrix: Water**

**Date Received: 02/22/17 10:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>1,2-Dichloropropane</b>	<b>1.3</b>		1.0	0.43	ug/L			02/28/17 16:40	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			02/28/17 16:40	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			02/28/17 16:40	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			02/28/17 16:40	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			02/28/17 16:40	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			02/28/17 16:40	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			02/28/17 16:40	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			02/28/17 16:40	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			02/28/17 16:40	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			02/28/17 16:40	1
Naphthalene	<0.34		1.0	0.34	ug/L			02/28/17 16:40	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			02/28/17 16:40	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			02/28/17 16:40	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			02/28/17 16:40	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			02/28/17 16:40	1
Styrene	<0.39		1.0	0.39	ug/L			02/28/17 16:40	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			02/28/17 16:40	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			02/28/17 16:40	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			02/28/17 16:40	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			02/28/17 16:40	1
Toluene	<0.15		0.50	0.15	ug/L			02/28/17 16:40	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			02/28/17 16:40	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			02/28/17 16:40	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			02/28/17 16:40	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			02/28/17 16:40	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			02/28/17 16:40	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			02/28/17 16:40	1
Trichloroethene	<0.16		0.50	0.16	ug/L			02/28/17 16:40	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			02/28/17 16:40	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			02/28/17 16:40	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			02/28/17 16:40	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			02/28/17 16:40	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			02/28/17 16:40	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			02/28/17 16:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		71 - 120		02/28/17 16:40	1
Dibromofluoromethane	97		70 - 120		02/28/17 16:40	1
1,2-Dichloroethane-d4 (Surr)	111		71 - 127		02/28/17 16:40	1
Toluene-d8 (Surr)	96		75 - 120		02/28/17 16:40	1

**Client Sample ID: MW-2-FD**

**Lab Sample ID: 500-124176-3**

**Date Collected: 02/21/17 11:50**

**Matrix: Water**

**Date Received: 02/22/17 10:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			02/28/17 17:05	1
Bromobenzene	<0.36		1.0	0.36	ug/L			02/28/17 17:05	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			02/28/17 17:05	1

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
 Project/Site: 5619 22nd Ave. Kenosha 25216186

TestAmerica Job ID: 500-124176-1

**Client Sample ID: MW-2-FD**

**Lab Sample ID: 500-124176-3**

**Date Collected: 02/21/17 11:50**

**Matrix: Water**

**Date Received: 02/22/17 10:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	<0.37		1.0	0.37	ug/L			02/28/17 17:05	1
Bromoform	<0.48		1.0	0.48	ug/L			02/28/17 17:05	1
Bromomethane	<0.80		2.0	0.80	ug/L			02/28/17 17:05	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			02/28/17 17:05	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			02/28/17 17:05	1
Chloroethane	<0.51		1.0	0.51	ug/L			02/28/17 17:05	1
Chloroform	<0.37		2.0	0.37	ug/L			02/28/17 17:05	1
Chloromethane	<0.32		1.0	0.32	ug/L			02/28/17 17:05	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			02/28/17 17:05	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			02/28/17 17:05	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			02/28/17 17:05	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			02/28/17 17:05	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			02/28/17 17:05	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			02/28/17 17:05	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			02/28/17 17:05	1
Dibromomethane	<0.27		1.0	0.27	ug/L			02/28/17 17:05	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			02/28/17 17:05	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			02/28/17 17:05	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			02/28/17 17:05	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			02/28/17 17:05	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			02/28/17 17:05	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			02/28/17 17:05	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			02/28/17 17:05	1
<b>1,2-Dichloropropane</b>	<b>1.2</b>		1.0	0.43	ug/L			02/28/17 17:05	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			02/28/17 17:05	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			02/28/17 17:05	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			02/28/17 17:05	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			02/28/17 17:05	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			02/28/17 17:05	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			02/28/17 17:05	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			02/28/17 17:05	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			02/28/17 17:05	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			02/28/17 17:05	1
Naphthalene	<0.34		1.0	0.34	ug/L			02/28/17 17:05	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			02/28/17 17:05	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			02/28/17 17:05	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			02/28/17 17:05	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			02/28/17 17:05	1
Styrene	<0.39		1.0	0.39	ug/L			02/28/17 17:05	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			02/28/17 17:05	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			02/28/17 17:05	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			02/28/17 17:05	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			02/28/17 17:05	1
Toluene	<0.15		0.50	0.15	ug/L			02/28/17 17:05	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			02/28/17 17:05	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			02/28/17 17:05	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			02/28/17 17:05	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			02/28/17 17:05	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			02/28/17 17:05	1

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
Project/Site: 5619 22nd Ave. Kenosha 25216186

TestAmerica Job ID: 500-124176-1

**Client Sample ID: MW-2-FD**

**Lab Sample ID: 500-124176-3**

**Date Collected: 02/21/17 11:50**

**Matrix: Water**

**Date Received: 02/22/17 10:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			02/28/17 17:05	1
Trichloroethene	<0.16		0.50	0.16	ug/L			02/28/17 17:05	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			02/28/17 17:05	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			02/28/17 17:05	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			02/28/17 17:05	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			02/28/17 17:05	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			02/28/17 17:05	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			02/28/17 17:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		71 - 120					02/28/17 17:05	1
Dibromofluoromethane	95		70 - 120					02/28/17 17:05	1
1,2-Dichloroethane-d4 (Surr)	116		71 - 127					02/28/17 17:05	1
Toluene-d8 (Surr)	96		75 - 120					02/28/17 17:05	1

**Client Sample ID: MW-3**

**Lab Sample ID: 500-124176-4**

**Date Collected: 02/21/17 12:00**

**Matrix: Water**

**Date Received: 02/22/17 10:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			02/28/17 17:30	1
Bromobenzene	<0.36		1.0	0.36	ug/L			02/28/17 17:30	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			02/28/17 17:30	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			02/28/17 17:30	1
Bromoform	<0.48		1.0	0.48	ug/L			02/28/17 17:30	1
Bromomethane	<0.80		2.0	0.80	ug/L			02/28/17 17:30	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			02/28/17 17:30	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			02/28/17 17:30	1
Chloroethane	<0.51		1.0	0.51	ug/L			02/28/17 17:30	1
Chloroform	<0.37		2.0	0.37	ug/L			02/28/17 17:30	1
Chloromethane	<0.32		1.0	0.32	ug/L			02/28/17 17:30	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			02/28/17 17:30	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			02/28/17 17:30	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			02/28/17 17:30	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			02/28/17 17:30	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			02/28/17 17:30	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			02/28/17 17:30	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			02/28/17 17:30	1
Dibromomethane	<0.27		1.0	0.27	ug/L			02/28/17 17:30	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			02/28/17 17:30	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			02/28/17 17:30	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			02/28/17 17:30	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			02/28/17 17:30	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			02/28/17 17:30	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			02/28/17 17:30	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			02/28/17 17:30	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			02/28/17 17:30	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			02/28/17 17:30	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			02/28/17 17:30	1

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# Client Sample Results

Client: SCS Engineers  
Project/Site: 5619 22nd Ave. Kenosha 25216186

TestAmerica Job ID: 500-124176-1

**Client Sample ID: MW-3**  
**Date Collected: 02/21/17 12:00**  
**Date Received: 02/22/17 10:30**

**Lab Sample ID: 500-124176-4**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			02/28/17 17:30	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			02/28/17 17:30	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			02/28/17 17:30	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			02/28/17 17:30	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			02/28/17 17:30	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			02/28/17 17:30	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			02/28/17 17:30	1
Naphthalene	<0.34		1.0	0.34	ug/L			02/28/17 17:30	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			02/28/17 17:30	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			02/28/17 17:30	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			02/28/17 17:30	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			02/28/17 17:30	1
Styrene	<0.39		1.0	0.39	ug/L			02/28/17 17:30	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			02/28/17 17:30	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			02/28/17 17:30	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			02/28/17 17:30	1
<b>Tetrachloroethene</b>	<b>1.5</b>		1.0	0.37	ug/L			02/28/17 17:30	1
Toluene	<0.15		0.50	0.15	ug/L			02/28/17 17:30	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			02/28/17 17:30	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			02/28/17 17:30	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			02/28/17 17:30	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			02/28/17 17:30	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			02/28/17 17:30	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			02/28/17 17:30	1
Trichloroethene	<0.16		0.50	0.16	ug/L			02/28/17 17:30	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			02/28/17 17:30	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			02/28/17 17:30	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			02/28/17 17:30	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			02/28/17 17:30	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			02/28/17 17:30	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			02/28/17 17:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		71 - 120		02/28/17 17:30	1
Dibromofluoromethane	96		70 - 120		02/28/17 17:30	1
1,2-Dichloroethane-d4 (Surr)	111		71 - 127		02/28/17 17:30	1
Toluene-d8 (Surr)	96		75 - 120		02/28/17 17:30	1

**Client Sample ID: Trip Blank**  
**Date Collected: 02/21/17 00:00**  
**Date Received: 02/22/17 10:30**

**Lab Sample ID: 500-124176-5**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			03/01/17 14:51	1
Bromobenzene	<0.36		1.0	0.36	ug/L			03/01/17 14:51	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			03/01/17 14:51	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			03/01/17 14:51	1
Bromoform	<0.48		1.0	0.48	ug/L			03/01/17 14:51	1
Bromomethane	<0.80		2.0	0.80	ug/L			03/01/17 14:51	1

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# Client Sample Results

Client: SCS Engineers  
 Project/Site: 5619 22nd Ave. Kenosha 25216186

TestAmerica Job ID: 500-124176-1

**Client Sample ID: Trip Blank**

**Lab Sample ID: 500-124176-5**

**Date Collected: 02/21/17 00:00**

**Matrix: Water**

**Date Received: 02/22/17 10:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			03/01/17 14:51	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			03/01/17 14:51	1
Chloroethane	<0.51		1.0	0.51	ug/L			03/01/17 14:51	1
Chloroform	<0.37		2.0	0.37	ug/L			03/01/17 14:51	1
Chloromethane	<0.32		1.0	0.32	ug/L			03/01/17 14:51	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			03/01/17 14:51	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			03/01/17 14:51	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			03/01/17 14:51	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			03/01/17 14:51	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			03/01/17 14:51	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			03/01/17 14:51	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			03/01/17 14:51	1
Dibromomethane	<0.27		1.0	0.27	ug/L			03/01/17 14:51	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			03/01/17 14:51	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			03/01/17 14:51	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			03/01/17 14:51	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			03/01/17 14:51	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			03/01/17 14:51	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			03/01/17 14:51	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			03/01/17 14:51	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			03/01/17 14:51	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			03/01/17 14:51	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			03/01/17 14:51	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			03/01/17 14:51	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			03/01/17 14:51	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			03/01/17 14:51	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			03/01/17 14:51	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			03/01/17 14:51	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			03/01/17 14:51	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			03/01/17 14:51	1
Naphthalene	<0.34		1.0	0.34	ug/L			03/01/17 14:51	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			03/01/17 14:51	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			03/01/17 14:51	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			03/01/17 14:51	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			03/01/17 14:51	1
Styrene	<0.39		1.0	0.39	ug/L			03/01/17 14:51	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			03/01/17 14:51	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			03/01/17 14:51	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			03/01/17 14:51	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			03/01/17 14:51	1
Toluene	<0.15		0.50	0.15	ug/L			03/01/17 14:51	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			03/01/17 14:51	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			03/01/17 14:51	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			03/01/17 14:51	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			03/01/17 14:51	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			03/01/17 14:51	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			03/01/17 14:51	1
Trichloroethene	<0.16		0.50	0.16	ug/L			03/01/17 14:51	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			03/01/17 14:51	1

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
 Project/Site: 5619 22nd Ave. Kenosha 25216186

TestAmerica Job ID: 500-124176-1

**Client Sample ID: Trip Blank**

**Lab Sample ID: 500-124176-5**

**Date Collected: 02/21/17 00:00**

**Matrix: Water**

**Date Received: 02/22/17 10:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			03/01/17 14:51	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			03/01/17 14:51	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			03/01/17 14:51	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			03/01/17 14:51	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			03/01/17 14:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		71 - 120		03/01/17 14:51	1
Dibromofluoromethane	95		70 - 120		03/01/17 14:51	1
1,2-Dichloroethane-d4 (Surr)	101		71 - 127		03/01/17 14:51	1
Toluene-d8 (Surr)	104		75 - 120		03/01/17 14:51	1



# Definitions/Glossary

Client: SCS Engineers  
Project/Site: 5619 22nd Ave. Kenosha 25216186

TestAmerica Job ID: 500-124176-1

## Glossary

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

# QC Association Summary

Client: SCS Engineers  
Project/Site: 5619 22nd Ave. Kenosha 25216186

TestAmerica Job ID: 500-124176-1

## GC/MS VOA

### Analysis Batch: 373770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-124176-1	MW-1	Total/NA	Water	8260B	
500-124176-2	MW-2	Total/NA	Water	8260B	
500-124176-3	MW-2-FD	Total/NA	Water	8260B	
500-124176-4	MW-3	Total/NA	Water	8260B	
MB 500-373770/6	Method Blank	Total/NA	Water	8260B	
LCS 500-373770/4	Lab Control Sample	Total/NA	Water	8260B	

### Analysis Batch: 373942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-124176-5	Trip Blank	Total/NA	Water	8260B	
MB 500-373942/6	Method Blank	Total/NA	Water	8260B	
LCS 500-373942/15	Lab Control Sample	Total/NA	Water	8260B	

# Surrogate Summary

Client: SCS Engineers  
Project/Site: 5619 22nd Ave. Kenosha 25216186

TestAmerica Job ID: 500-124176-1

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

**Matrix: Water**

**Prep Type: Total/NA**

## Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	12DCE	TOL
		(71-120)	(70-120)	(71-127)	(75-120)
500-124176-1	MW-1	100	95	113	96
500-124176-2	MW-2	99	97	111	96
500-124176-3	MW-2-FD	99	95	116	96
500-124176-4	MW-3	98	96	111	96
500-124176-5	Trip Blank	90	95	101	104
LCS 500-373770/4	Lab Control Sample	92	98	101	100
LCS 500-373942/15	Lab Control Sample	88	96	101	107
MB 500-373770/6	Method Blank	99	96	110	97
MB 500-373942/6	Method Blank	84	97	91	87

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

# QC Sample Results

Client: SCS Engineers  
 Project/Site: 5619 22nd Ave. Kenosha 25216186

TestAmerica Job ID: 500-124176-1

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

**Lab Sample ID: MB 500-373770/6**

**Matrix: Water**

**Analysis Batch: 373770**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			02/28/17 09:57	1
Bromobenzene	<0.36		1.0	0.36	ug/L			02/28/17 09:57	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			02/28/17 09:57	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			02/28/17 09:57	1
Bromoform	<0.48		1.0	0.48	ug/L			02/28/17 09:57	1
Bromomethane	<0.80		2.0	0.80	ug/L			02/28/17 09:57	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			02/28/17 09:57	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			02/28/17 09:57	1
Chloroethane	<0.51		1.0	0.51	ug/L			02/28/17 09:57	1
Chloroform	<0.37		2.0	0.37	ug/L			02/28/17 09:57	1
Chloromethane	<0.32		1.0	0.32	ug/L			02/28/17 09:57	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			02/28/17 09:57	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			02/28/17 09:57	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			02/28/17 09:57	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			02/28/17 09:57	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			02/28/17 09:57	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			02/28/17 09:57	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			02/28/17 09:57	1
Dibromomethane	<0.27		1.0	0.27	ug/L			02/28/17 09:57	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			02/28/17 09:57	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			02/28/17 09:57	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			02/28/17 09:57	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			02/28/17 09:57	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			02/28/17 09:57	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			02/28/17 09:57	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			02/28/17 09:57	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			02/28/17 09:57	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			02/28/17 09:57	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			02/28/17 09:57	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			02/28/17 09:57	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			02/28/17 09:57	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			02/28/17 09:57	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			02/28/17 09:57	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			02/28/17 09:57	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			02/28/17 09:57	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			02/28/17 09:57	1
Naphthalene	<0.34		1.0	0.34	ug/L			02/28/17 09:57	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			02/28/17 09:57	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			02/28/17 09:57	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			02/28/17 09:57	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			02/28/17 09:57	1
Styrene	<0.39		1.0	0.39	ug/L			02/28/17 09:57	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			02/28/17 09:57	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			02/28/17 09:57	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			02/28/17 09:57	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			02/28/17 09:57	1
Toluene	<0.15		0.50	0.15	ug/L			02/28/17 09:57	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			02/28/17 09:57	1

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# QC Sample Results

Client: SCS Engineers  
 Project/Site: 5619 22nd Ave. Kenosha 25216186

TestAmerica Job ID: 500-124176-1

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

**Lab Sample ID: MB 500-373770/6**  
**Matrix: Water**  
**Analysis Batch: 373770**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			02/28/17 09:57	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			02/28/17 09:57	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			02/28/17 09:57	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			02/28/17 09:57	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			02/28/17 09:57	1
Trichloroethene	<0.16		0.50	0.16	ug/L			02/28/17 09:57	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			02/28/17 09:57	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			02/28/17 09:57	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			02/28/17 09:57	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			02/28/17 09:57	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			02/28/17 09:57	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			02/28/17 09:57	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		71 - 120		02/28/17 09:57	1
Dibromofluoromethane	96		70 - 120		02/28/17 09:57	1
1,2-Dichloroethane-d4 (Surr)	110		71 - 127		02/28/17 09:57	1
Toluene-d8 (Surr)	97		75 - 120		02/28/17 09:57	1

**Lab Sample ID: LCS 500-373770/4**  
**Matrix: Water**  
**Analysis Batch: 373770**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	42.4		ug/L		85	70 - 125
Bromobenzene	50.0	41.4		ug/L		83	70 - 125
Bromochloromethane	50.0	43.0		ug/L		86	70 - 125
Bromodichloromethane	50.0	40.6		ug/L		81	70 - 125
Bromoform	50.0	38.7		ug/L		77	54 - 128
Bromomethane	50.0	55.4		ug/L		111	40 - 150
Carbon tetrachloride	50.0	46.4		ug/L		93	70 - 125
Chlorobenzene	50.0	44.6		ug/L		89	70 - 125
Chloroethane	50.0	47.7		ug/L		95	60 - 139
Chloroform	50.0	43.2		ug/L		86	70 - 125
Chloromethane	50.0	44.2		ug/L		88	60 - 140
2-Chlorotoluene	50.0	41.9		ug/L		84	69 - 125
4-Chlorotoluene	50.0	42.6		ug/L		85	70 - 125
cis-1,2-Dichloroethene	50.0	42.0		ug/L		84	70 - 125
cis-1,3-Dichloropropene	50.0	42.2		ug/L		84	70 - 125
Dibromochloromethane	50.0	41.2		ug/L		82	66 - 125
1,2-Dibromo-3-Chloropropane	50.0	35.9		ug/L		72	51 - 125
1,2-Dibromoethane	50.0	41.3		ug/L		83	70 - 125
Dibromomethane	50.0	41.8		ug/L		84	70 - 125
1,2-Dichlorobenzene	50.0	43.4		ug/L		87	70 - 125
1,3-Dichlorobenzene	50.0	43.5		ug/L		87	70 - 125
1,4-Dichlorobenzene	50.0	43.3		ug/L		87	70 - 125
Dichlorodifluoromethane	50.0	41.1		ug/L		82	51 - 140
1,1-Dichloroethane	50.0	43.8		ug/L		88	70 - 125

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# QC Sample Results

Client: SCS Engineers  
 Project/Site: 5619 22nd Ave. Kenosha 25216186

TestAmerica Job ID: 500-124176-1

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

**Lab Sample ID: LCS 500-373770/4**  
**Matrix: Water**  
**Analysis Batch: 373770**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	50.0	45.2		ug/L		90	70 - 125
1,1-Dichloroethene	50.0	42.7		ug/L		85	70 - 125
1,2-Dichloropropane	50.0	42.5		ug/L		85	70 - 125
1,3-Dichloropropane	50.0	41.3		ug/L		83	70 - 125
2,2-Dichloropropane	50.0	46.0		ug/L		92	62 - 125
1,1-Dichloropropene	50.0	45.0		ug/L		90	70 - 125
Ethylbenzene	50.0	44.9		ug/L		90	70 - 125
Hexachlorobutadiene	50.0	50.5		ug/L		101	57 - 140
Isopropylbenzene	50.0	42.9		ug/L		86	70 - 125
Methylene Chloride	50.0	41.7		ug/L		83	68 - 125
Methyl tert-butyl ether	50.0	40.6		ug/L		81	67 - 125
Naphthalene	50.0	48.2		ug/L		96	50 - 136
n-Butylbenzene	50.0	46.2		ug/L		92	70 - 125
N-Propylbenzene	50.0	43.7		ug/L		87	70 - 125
p-Isopropyltoluene	50.0	45.5		ug/L		91	70 - 125
sec-Butylbenzene	50.0	44.8		ug/L		90	70 - 125
Styrene	50.0	44.3		ug/L		89	70 - 125
tert-Butylbenzene	50.0	44.5		ug/L		89	70 - 125
1,1,1,2-Tetrachloroethane	50.0	44.7		ug/L		89	68 - 125
1,1,2,2-Tetrachloroethane	50.0	39.6		ug/L		79	68 - 125
Tetrachloroethene	50.0	46.3		ug/L		93	70 - 125
Toluene	50.0	44.8		ug/L		90	70 - 125
trans-1,2-Dichloroethene	50.0	42.2		ug/L		84	70 - 125
trans-1,3-Dichloropropene	50.0	40.6		ug/L		81	70 - 125
1,2,3-Trichlorobenzene	50.0	49.0		ug/L		98	58 - 135
1,2,4-Trichlorobenzene	50.0	48.9		ug/L		98	64 - 126
1,1,1-Trichloroethane	50.0	45.1		ug/L		90	70 - 125
1,1,2-Trichloroethane	50.0	41.7		ug/L		83	70 - 125
Trichloroethene	50.0	46.0		ug/L		92	70 - 125
Trichlorofluoromethane	50.0	49.5		ug/L		99	60 - 126
1,2,3-Trichloropropane	50.0	37.9		ug/L		76	63 - 125
1,2,4-Trimethylbenzene	50.0	43.4		ug/L		87	70 - 125
1,3,5-Trimethylbenzene	50.0	43.8		ug/L		88	70 - 125
Vinyl chloride	50.0	49.6		ug/L		99	70 - 126
Xylenes, Total	100	89.4		ug/L		89	70 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	92		71 - 120
Dibromofluoromethane	98		70 - 120
1,2-Dichloroethane-d4 (Surr)	101		71 - 127
Toluene-d8 (Surr)	100		75 - 120

**Lab Sample ID: MB 500-373942/6**  
**Matrix: Water**  
**Analysis Batch: 373942**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			03/01/17 10:26	1

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# QC Sample Results

Client: SCS Engineers  
 Project/Site: 5619 22nd Ave. Kenosha 25216186

TestAmerica Job ID: 500-124176-1

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

**Lab Sample ID: MB 500-373942/6**  
**Matrix: Water**  
**Analysis Batch: 373942**

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Bromobenzene	<0.36		1.0	0.36	ug/L			03/01/17 10:26	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			03/01/17 10:26	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			03/01/17 10:26	1
Bromoform	<0.48		1.0	0.48	ug/L			03/01/17 10:26	1
Bromomethane	<0.80		2.0	0.80	ug/L			03/01/17 10:26	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			03/01/17 10:26	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			03/01/17 10:26	1
Chloroethane	<0.51		1.0	0.51	ug/L			03/01/17 10:26	1
Chloroform	<0.37		2.0	0.37	ug/L			03/01/17 10:26	1
Chloromethane	<0.32		1.0	0.32	ug/L			03/01/17 10:26	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			03/01/17 10:26	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			03/01/17 10:26	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			03/01/17 10:26	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			03/01/17 10:26	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			03/01/17 10:26	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			03/01/17 10:26	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			03/01/17 10:26	1
Dibromomethane	<0.27		1.0	0.27	ug/L			03/01/17 10:26	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			03/01/17 10:26	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			03/01/17 10:26	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			03/01/17 10:26	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			03/01/17 10:26	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			03/01/17 10:26	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			03/01/17 10:26	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			03/01/17 10:26	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			03/01/17 10:26	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			03/01/17 10:26	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			03/01/17 10:26	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			03/01/17 10:26	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			03/01/17 10:26	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			03/01/17 10:26	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			03/01/17 10:26	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			03/01/17 10:26	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			03/01/17 10:26	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			03/01/17 10:26	1
Naphthalene	<0.34		1.0	0.34	ug/L			03/01/17 10:26	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			03/01/17 10:26	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			03/01/17 10:26	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			03/01/17 10:26	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			03/01/17 10:26	1
Styrene	<0.39		1.0	0.39	ug/L			03/01/17 10:26	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			03/01/17 10:26	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			03/01/17 10:26	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			03/01/17 10:26	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			03/01/17 10:26	1
Toluene	<0.15		0.50	0.15	ug/L			03/01/17 10:26	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			03/01/17 10:26	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			03/01/17 10:26	1

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# QC Sample Results

Client: SCS Engineers  
 Project/Site: 5619 22nd Ave. Kenosha 25216186

TestAmerica Job ID: 500-124176-1

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

**Lab Sample ID: MB 500-373942/6**  
**Matrix: Water**  
**Analysis Batch: 373942**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			03/01/17 10:26	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			03/01/17 10:26	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			03/01/17 10:26	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			03/01/17 10:26	1
Trichloroethene	<0.16		0.50	0.16	ug/L			03/01/17 10:26	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			03/01/17 10:26	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			03/01/17 10:26	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			03/01/17 10:26	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			03/01/17 10:26	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			03/01/17 10:26	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			03/01/17 10:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		71 - 120		03/01/17 10:26	1
Dibromofluoromethane	97		70 - 120		03/01/17 10:26	1
1,2-Dichloroethane-d4 (Surr)	91		71 - 127		03/01/17 10:26	1
Toluene-d8 (Surr)	87		75 - 120		03/01/17 10:26	1

**Lab Sample ID: LCS 500-373942/15**  
**Matrix: Water**  
**Analysis Batch: 373942**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	44.9		ug/L		90	70 - 125
Bromobenzene	50.0	47.7		ug/L		95	70 - 125
Bromochloromethane	50.0	46.6		ug/L		93	70 - 125
Bromodichloromethane	50.0	44.2		ug/L		88	70 - 125
Bromoform	50.0	53.8		ug/L		108	54 - 128
Bromomethane	50.0	37.1		ug/L		74	40 - 150
Carbon tetrachloride	50.0	45.4		ug/L		91	70 - 125
Chlorobenzene	50.0	46.6		ug/L		93	70 - 125
Chloroethane	50.0	33.6		ug/L		67	60 - 139
Chloroform	50.0	37.1		ug/L		74	70 - 125
Chloromethane	50.0	38.8		ug/L		78	60 - 140
2-Chlorotoluene	50.0	46.3		ug/L		93	69 - 125
4-Chlorotoluene	50.0	45.4		ug/L		91	70 - 125
cis-1,2-Dichloroethene	50.0	39.6		ug/L		79	70 - 125
cis-1,3-Dichloropropene	50.0	46.9		ug/L		94	70 - 125
Dibromochloromethane	50.0	48.3		ug/L		97	66 - 125
1,2-Dibromo-3-Chloropropane	50.0	34.9		ug/L		70	51 - 125
1,2-Dibromoethane	50.0	44.1		ug/L		88	70 - 125
Dibromomethane	50.0	44.5		ug/L		89	70 - 125
1,2-Dichlorobenzene	50.0	45.9		ug/L		92	70 - 125
1,3-Dichlorobenzene	50.0	46.5		ug/L		93	70 - 125
1,4-Dichlorobenzene	50.0	46.5		ug/L		93	70 - 125
Dichlorodifluoromethane	50.0	28.9		ug/L		58	51 - 140
1,1-Dichloroethane	50.0	48.8		ug/L		98	70 - 125
1,2-Dichloroethane	50.0	48.9		ug/L		98	70 - 125

TestAmerica Chicago

# QC Sample Results

Client: SCS Engineers  
 Project/Site: 5619 22nd Ave. Kenosha 25216186

TestAmerica Job ID: 500-124176-1

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

**Lab Sample ID: LCS 500-373942/15**

**Matrix: Water**

**Analysis Batch: 373942**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	50.0	40.1		ug/L		80	70 - 125
1,2-Dichloropropane	50.0	45.3		ug/L		91	70 - 125
1,3-Dichloropropane	50.0	41.1		ug/L		82	70 - 125
2,2-Dichloropropane	50.0	32.2		ug/L		64	62 - 125
1,1-Dichloropropene	50.0	41.4		ug/L		83	70 - 125
Ethylbenzene	50.0	44.7		ug/L		89	70 - 125
Hexachlorobutadiene	50.0	45.1		ug/L		90	57 - 140
Isopropylbenzene	50.0	44.9		ug/L		90	70 - 125
Methylene Chloride	50.0	44.5		ug/L		89	68 - 125
Methyl tert-butyl ether	50.0	35.2		ug/L		70	67 - 125
Naphthalene	50.0	38.9		ug/L		78	50 - 136
n-Butylbenzene	50.0	38.6		ug/L		77	70 - 125
N-Propylbenzene	50.0	43.1		ug/L		86	70 - 125
p-Isopropyltoluene	50.0	44.8		ug/L		90	70 - 125
sec-Butylbenzene	50.0	42.4		ug/L		85	70 - 125
Styrene	50.0	45.1		ug/L		90	70 - 125
tert-Butylbenzene	50.0	43.7		ug/L		87	70 - 125
1,1,1,2-Tetrachloroethane	50.0	48.5		ug/L		97	68 - 125
1,1,1,2,2-Tetrachloroethane	50.0	45.5		ug/L		91	68 - 125
Tetrachloroethene	50.0	50.6		ug/L		101	70 - 125
Toluene	50.0	47.9		ug/L		96	70 - 125
trans-1,2-Dichloroethene	50.0	45.2		ug/L		90	70 - 125
trans-1,3-Dichloropropene	50.0	46.1		ug/L		92	70 - 125
1,2,3-Trichlorobenzene	50.0	40.3		ug/L		81	58 - 135
1,2,4-Trichlorobenzene	50.0	40.8		ug/L		82	64 - 126
1,1,1-Trichloroethane	50.0	44.9		ug/L		90	70 - 125
1,1,2-Trichloroethane	50.0	48.8		ug/L		98	70 - 125
Trichloroethene	50.0	48.1		ug/L		96	70 - 125
Trichlorofluoromethane	50.0	36.4		ug/L		73	60 - 126
1,2,3-Trichloropropane	50.0	41.5		ug/L		83	63 - 125
1,2,4-Trimethylbenzene	50.0	43.1		ug/L		86	70 - 125
1,3,5-Trimethylbenzene	50.0	47.5		ug/L		95	70 - 125
Vinyl chloride	50.0	46.9		ug/L		94	70 - 126
Xylenes, Total	100	80.7		ug/L		81	70 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	88		71 - 120
Dibromofluoromethane	96		70 - 120
1,2-Dichloroethane-d4 (Surr)	101		71 - 127
Toluene-d8 (Surr)	107		75 - 120

# Lab Chronicle

Client: SCS Engineers  
Project/Site: 5619 22nd Ave. Kenosha 25216186

TestAmerica Job ID: 500-124176-1

**Client Sample ID: MW-1**  
**Date Collected: 02/21/17 11:35**  
**Date Received: 02/22/17 10:30**

**Lab Sample ID: 500-124176-1**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	373770	02/28/17 16:15	PMF	TAL CHI

**Client Sample ID: MW-2**  
**Date Collected: 02/21/17 11:45**  
**Date Received: 02/22/17 10:30**

**Lab Sample ID: 500-124176-2**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	373770	02/28/17 16:40	PMF	TAL CHI

**Client Sample ID: MW-2-FD**  
**Date Collected: 02/21/17 11:50**  
**Date Received: 02/22/17 10:30**

**Lab Sample ID: 500-124176-3**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	373770	02/28/17 17:05	PMF	TAL CHI

**Client Sample ID: MW-3**  
**Date Collected: 02/21/17 12:00**  
**Date Received: 02/22/17 10:30**

**Lab Sample ID: 500-124176-4**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	373770	02/28/17 17:30	PMF	TAL CHI

**Client Sample ID: Trip Blank**  
**Date Collected: 02/21/17 00:00**  
**Date Received: 02/22/17 10:30**

**Lab Sample ID: 500-124176-5**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	373942	03/01/17 14:51	TCT	TAL CHI

## Laboratory References:

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

# Certification Summary

Client: SCS Engineers  
Project/Site: 5619 22nd Ave. Kenosha 25216186

TestAmerica Job ID: 500-124176-1

## Laboratory: TestAmerica Chicago

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999580010	08-31-17

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# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING


2417 Bond Street, University Park, IL 60484  
Phone: 708.534.5200 Fax: 708.534.5211

Report To: Rob Langdon  
Contact: R.Langdon  
Company: SCS Engineers  
Address: 2830 Dairy Drive  
Address:  
Phone: 608-216-7329  
Fax:  
E-Mail: R.Langdon@scsengineers.com

Bill To: (optional)  
Contact:  
Company:  
Address: SAME  
Address:  
Phone:  
Fax:

## Chain of Custody Record

Lab Job #: 500-124176  
Chain of Custody Number: \_\_\_\_\_  
Page \_\_\_\_\_ of \_\_\_\_\_  
Temperature °C of Cooler: 4.9-7.5

Client		Client Project #		Preservative		Parameter		Project Name		Project Location/State		Lab Project #		Sampler		Lab PM		Preservative Key	
SCS Engineers		25216106		1				5619 22nd Ave. Kenosha		WI				Nate Havms				 500-124176 COC	
Lab ID	MS/MSD	Sample ID		Sampling		# of Containers	Matrix	VOCs											Comments
		Date	Time	Date	Time														
1		MW-1		2-21-17	11:35	3	W	X											
2		MW-2			11:45	3	W	X											
3		MW-2-FD			11:50	3	W	X											
4		MW-3			12:00	3	W	X											
5		TRE P Blank				2	W	X											

Turnaround Time Required (Business Days)

\_\_\_ 1 Day \_\_\_ 2 Days \_\_\_ 5 Days 7 Days \_\_\_ 10 Days \_\_\_ 15 Days \_\_\_ Other

Sample Disposal

Return to Client  Disposal by Lab  Archive for \_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Requested Due Date

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
<u>Nate Havms</u>	<u>SCS</u>	<u>2/21/17</u>	<u>1500</u>	<u>John Seng</u>	<u>TALHT</u>	<u>02/22/17</u>	<u>1050</u>
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: \_\_\_\_\_  
Shipped: FX Priority  
Hand Delivered: \_\_\_\_\_

Matrix Key

WW - Wastewater SE - Sediment  
W - Water SO - Soil  
S - Soil L - Leachate  
SL - Sludge WI - Wipe  
MS - Miscellaneous DW - Drinking Water  
OL - Oil O - Other  
A - Air

Client Comments

Lab Comments:

*(Handwritten signature)*



## Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 500-124176-1

**Login Number: 124176**

**List Source: TestAmerica Chicago**

**List Number: 1**

**Creator: Sanchez, Ariel M**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

February 12, 2018

Rob Langdon  
SCS Engineers  
2830 Dairy Drive  
Madison, WI 53718

RE: Project: 25216186 Former Arctic Cleaner  
Pace Project No.: 10418567

Dear Rob Langdon:

Enclosed are the analytical results for sample(s) received by the laboratory on January 29, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Megan McCabe  
megan.mccabe@pacelabs.com  
(612)607-1700  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 25216186 Former Arctic Cleaner

Pace Project No.: 10418567

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### Minnesota Certification IDs

1700 Elm Street SE, Suite 200, Minneapolis, MN 55414-2485

A2LA Certification #: 2926.01

Alabama Certification #: 40770

Alaska Contaminated Sites Certification #: 17-009

Alaska DW Certification #: MN00064

Arizona Certification #: AZ0014

Arkansas Certification #: 88-0680

California Certification #: 2929

CNMI Saipan Certification #: MP0003

Colorado Certification #: MN00064

Connecticut Certification #: PH-0256

EPA Region 8+Wyoming DW Certification #: via MN 027-053-137

Florida Certification #: E87605

Georgia Certification #: 959

Guam EPA Certification #: MN00064

Hawaii Certification #: MN00064

Idaho Certification #: MN00064

Illinois Certification #: 200011

Indiana Certification #: C-MN-01

Iowa Certification #: 368

Kansas Certification #: E-10167

Kentucky DW Certification #: 90062

Kentucky WW Certification #: 90062

Louisiana DEQ Certification #: 03086

Louisiana DW Certification #: MN00064

Maine Certification #: MN00064

Maryland Certification #: 322

Massachusetts Certification #: M-MN064

Michigan Certification #: 9909

Minnesota Certification #: 027-053-137

Mississippi Certification #: MN00064

Montana Certification #: CERT0092

Nebraska Certification #: NE-OS-18-06

Nevada Certification #: MN00064

New Hampshire Certification #: 2081

New Jersey Certification #: MN002

New York Certification #: 11647

North Carolina DW Certification #: 27700

North Carolina WW Certification #: 530

North Dakota Certification #: R-036

Ohio DW Certification #: 41244

Ohio VAP Certification #: CL101

Oklahoma Certification #: 9507

Oregon NwTPH Certification #: MN300001

Oregon Secondary Certification #: MN200001

Pennsylvania Certification #: 68-00563

Puerto Rico Certification #: MN00064

South Carolina Certification #: 74003001

Tennessee Certification #: TN02818

Texas Certification #: T104704192

Utah Certification #: MN00064

Virginia Certification #: 460163

Washington Certification #: C486

West Virginia DW Certification #: 9952 C

West Virginia DEP Certification #: 382

Wisconsin Certification #: 999407970

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 25216186 Former Arctic Cleaner

Pace Project No.: 10418567

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10418567001	5621, Basement	Air	01/24/18 11:01	01/29/18 12:15
10418567002	5621, First Floor	Air	01/24/18 10:59	01/29/18 12:15
10418567003	5625, Storage	Air	01/24/18 11:08	01/29/18 12:15
10418567004	5621, Outdoor	Air	01/24/18 10:47	01/29/18 12:15

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### SAMPLE ANALYTE COUNT

Project: 25216186 Former Arctic Cleaner

Pace Project No.: 10418567

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10418567001	5621, Basement	TO-15	EMC	5	PASI-M
10418567002	5621, First Floor	TO-15	EMC	5	PASI-M
10418567003	5625, Storage	TO-15	EMC	5	PASI-M
10418567004	5621, Outdoor	TO-15	EMC	5	PASI-M

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### ANALYTICAL RESULTS

Project: 25216186 Former Arctic Cleaner

Pace Project No.: 10418567

<b>Sample: 5621, Basement</b>									
		<b>Lab ID: 10418567001</b>	Collected: 01/24/18 11:01			Received: 01/29/18 12:15		Matrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.52	ug/m3	1.2	0.52	1.52		02/09/18 20:18	156-59-2	
trans-1,2-Dichloroethene	<0.45	ug/m3	1.2	0.45	1.52		02/09/18 20:18	156-60-5	
Tetrachloroethene	<0.44	ug/m3	1.0	0.44	1.52		02/09/18 20:18	127-18-4	
Trichloroethene	<0.41	ug/m3	0.83	0.41	1.52		02/09/18 20:18	79-01-6	
Vinyl chloride	<0.19	ug/m3	0.40	0.19	1.52		02/09/18 20:18	75-01-4	

<b>Sample: 5621, First Floor</b>									
		<b>Lab ID: 10418567002</b>	Collected: 01/24/18 10:59			Received: 01/29/18 12:15		Matrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.50	ug/m3	1.2	0.50	1.46		02/09/18 20:45	156-59-2	
trans-1,2-Dichloroethene	<0.43	ug/m3	1.2	0.43	1.46		02/09/18 20:45	156-60-5	
Tetrachloroethene	<0.42	ug/m3	1.0	0.42	1.46		02/09/18 20:45	127-18-4	
Trichloroethene	<0.39	ug/m3	0.80	0.39	1.46		02/09/18 20:45	79-01-6	
Vinyl chloride	<0.18	ug/m3	0.38	0.18	1.46		02/09/18 20:45	75-01-4	

<b>Sample: 5625, Storage</b>									
		<b>Lab ID: 10418567003</b>	Collected: 01/24/18 11:08			Received: 01/29/18 12:15		Matrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.53	ug/m3	1.2	0.53	1.55		02/09/18 21:12	156-59-2	
trans-1,2-Dichloroethene	<0.46	ug/m3	1.2	0.46	1.55		02/09/18 21:12	156-60-5	
Tetrachloroethene	<0.44	ug/m3	1.1	0.44	1.55		02/09/18 21:12	127-18-4	
Trichloroethene	<0.42	ug/m3	0.85	0.42	1.55		02/09/18 21:12	79-01-6	
Vinyl chloride	<0.20	ug/m3	0.40	0.20	1.55		02/09/18 21:12	75-01-4	

<b>Sample: 5621, Outdoor</b>									
		<b>Lab ID: 10418567004</b>	Collected: 01/24/18 10:47			Received: 01/29/18 12:15		Matrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.51	ug/m3	1.2	0.51	1.49		02/09/18 19:51	156-59-2	
trans-1,2-Dichloroethene	<0.44	ug/m3	1.2	0.44	1.49		02/09/18 19:51	156-60-5	
Tetrachloroethene	<0.43	ug/m3	1.0	0.43	1.49		02/09/18 19:51	127-18-4	
Trichloroethene	<0.40	ug/m3	0.81	0.40	1.49		02/09/18 19:51	79-01-6	
Vinyl chloride	<0.19	ug/m3	0.39	0.19	1.49		02/09/18 19:51	75-01-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 25216186 Former Arctic Cleaner  
Pace Project No.: 10418567

QC Batch: 522249 Analysis Method: TO-15  
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level  
Associated Lab Samples: 10418567001, 10418567002, 10418567003, 10418567004

METHOD BLANK: 2835447 Matrix: Air  
Associated Lab Samples: 10418567001, 10418567002, 10418567003, 10418567004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.34	0.81	02/09/18 09:15	
Tetrachloroethene	ug/m3	<0.29	0.69	02/09/18 09:15	
trans-1,2-Dichloroethene	ug/m3	<0.30	0.81	02/09/18 09:15	
Trichloroethene	ug/m3	<0.27	0.55	02/09/18 09:15	
Vinyl chloride	ug/m3	<0.13	0.26	02/09/18 09:15	

LABORATORY CONTROL SAMPLE: 2835448

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/m3	40.3	35.6	88	70-136	
Tetrachloroethene	ug/m3	68.9	68.2	99	70-133	
trans-1,2-Dichloroethene	ug/m3	40.3	35.2	87	70-132	
Trichloroethene	ug/m3	54.6	49.8	91	70-135	
Vinyl chloride	ug/m3	26	23.2	89	70-141	

SAMPLE DUPLICATE: 2835940

Parameter	Units	10418421001 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND	<0.46		25	
Tetrachloroethene	ug/m3	ND	<0.38		25	
trans-1,2-Dichloroethene	ug/m3	ND	<0.40		25	
Trichloroethene	ug/m3	ND	<0.36		25	
Vinyl chloride	ug/m3	ND	<0.17		25	

SAMPLE DUPLICATE: 2835941

Parameter	Units	10418421002 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND	<0.51		25	
Tetrachloroethene	ug/m3	ND	<0.43		25	
trans-1,2-Dichloroethene	ug/m3	ND	<0.44		25	
Trichloroethene	ug/m3	ND	<0.40		25	
Vinyl chloride	ug/m3	ND	<0.19		25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: 25216186 Former Arctic Cleaner

Pace Project No.: 10418567

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25216186 Former Arctic Cleaner

Pace Project No.: 10418567

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<b>Lab ID</b>	<b>Sample ID</b>	<b>QC Batch Method</b>	<b>QC Batch</b>	<b>Analytical Method</b>	<b>Analytical Batch</b>
10418567001	5621, Basement	TO-15	522249		
10418567002	5621, First Floor	TO-15	522249		
10418567003	5625, Storage	TO-15	522249		
10418567004	5621, Outdoor	TO-15	522249		

### REPORT OF LABORATORY ANALYSIS

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# AIR: CHAIN-OF-CUSTODY / Analytical Request Document

10418567

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

<b>Section A</b> Required Client Information:	<b>Section B</b> Required Project Information:	<b>Section C</b> Invoice Information:	<b>30711</b>
Company: <b>SCS Engineers</b>	Report To: <b>Robert Langdon</b>	Attention: <b>Robert Langdon</b>	Page: <b>1</b> of <b>1</b>
Address: <b>2830 Davy Drive Madison, WI 53718</b>	Copy To:	Company Name: <b>SCS Engineers</b>	Program
Email To: <b>R.Langdon@SCSEngineers.com</b>	Purchase Order No.: <b>com</b>	Address: <b>2830 Davy Drive, Madison, WI 53718</b>	<input type="checkbox"/> UST <input type="checkbox"/> Superfund <input type="checkbox"/> Emissions <input type="checkbox"/> Clean Air Act
Phone: <b>608-216-7321</b> Fax:	Project Name: <b>Forever Arctic Cleanups</b>	Pace Quote Reference:	<input type="checkbox"/> Voluntary Clean Up <input type="checkbox"/> Dry Clean <input type="checkbox"/> RCRA <input type="checkbox"/> Other
Requested Due Date/TAT:	Project Number: <b>25216186</b>	Pace Project Manager/Sales Rep.	Location of Sampling by State: <b>WI</b>
		Pace Profile #: <b>32630</b>	Reporting Units ug/m <sup>3</sup> _____ mg/m <sup>3</sup> _____ PPBV <input checked="" type="checkbox"/> PPMV _____ Other _____
			Report Level: <u>II</u> <input type="checkbox"/> <u>III</u> <input type="checkbox"/> <u>IV</u> <input type="checkbox"/> Other <input type="checkbox"/>

ITEM #	Section D Required Client Information <b>AIR SAMPLE ID</b> Sample IDs MUST BE UNIQUE	Valid Media Codes MEDIA CODE Tedlar Bag TB 1 Liter Summa Can 1LC 6 Liter Summa Can 6LC Low Volume Puff LVP High Volume Puff HVP Other PM10	MEDIA CODE	PID Reading (Client only)	COLLECTED				Canister Pressure (Initial Field - in Hg)	Canister Pressure (Final Field - in Hg)	Summa Can Number	Flow Control Number	Method: PM10 SC - Fixed Gas (%) TO-3 BTEX TO-3M (Methane) TO-14 TO-15 Full List VOCs TO-15 Short List BTEX TO-15 Short List Chlorinated TO-15 Short List (other)	Pace Lab ID
					COMPOSITE START		COMPOSITE - ENDIGRAB							
					DATE	TIME	DATE	TIME						
1	5621, Basement		6LL		1-23-18	1253	1-24-18	1101	-29	-3	2340	0272		001
2	5621, First floor		6LL		1-23-18	1225	1-24-18	1059	-26	-3	1074	1366		002
3	5625, Storage		6LL		1-23-18	1241	1-24-18	1108	-30	-5	0853	0340		003
4	5621, Outdoor		6LL		1-23-18	1248	1-24-18	1047	-30	-4	2046	0890		004
5														
6														
7														
8														
9														
10														
11														
12														

Comments : <b>⊗ PCE, TCE, Umyl Chloride cis 1,2 DCE, trans 1,2 DCE</b>	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS						
	<b>Walt Harris</b>	<b>1-24-18</b>	<b>11:30</b>	<b>Walt Harris</b>	<b>1-29-18</b>	<b>12:15</b>	Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER: <b>Walt Harris</b>	DATE Signed (MM/DD/YY) <b>01/24/18</b>
SIGNATURE of SAMPLER: <i>Walt Harris</i>	

ORIGINAL

Air Sample Condition Upon Receipt

Client Name: SCS Eng. Project #: WO#: 10418567

**WO#: 10418567**



Courier:  Fed Ex  UPS  Speedee  Client  
 Commercial  Pace  Other: \_\_\_\_\_

Tracking Number: 747630045528

Custody Seal on Cooler/Box Present?  Yes  No Seals Intact?  Yes  No

Packing Material:  Bubble Wrap  Bubble Bags  Foam  None  Tin Can  Other: \_\_\_\_\_ Temp Blank rec:  Yes  No

Temp. (TO17 and TO13 samples only) (°C): X Corrected Temp (°C): X Thermom. Used:  151401163  G87A9155100842

Temp should be above freezing to 6°C Correction Factor: X Date & Initials of Person Examining Contents: 1-29-18 [Signature]

Type of Ice Received  Blue  Wet  None

Comments:

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name and/or Signature on COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Media: <u>Air Can</u> Airbag Filter TDT Passive		11. Individually Certified Cans Y <u>N</u> (list which samples)
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.

Canisters					Canisters				
Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
<u>Basement</u>			<u>-3.5</u>	<u>+5</u>					
<u>First Floor</u>			<u>-2.5</u>	<u>"</u>					
<u>Storage</u>			<u>-4</u>	<u>"</u>					
<u>Outdoor</u>			<u>-3</u>	<u>"</u>					

CLIENT NOTIFICATION/RESOLUTION

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/Resolution: \_\_\_\_\_

Field Data Required?  Yes  No

Project Manager Review: Nathan Bobery Date: 1/29/18

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Pace Analytical Services, Inc.  
 1700 Elm Street – Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10418567  
 Project Name: 25216186 Former Arctic Cleaner

Lab Sample No: 10418567001      ProjSampleNum: 10418567001      Date Collected: 01/24/18 11:01  
 Client Sample ID: 5621, Basement      Matrix: Air      Date Received: 01/29/18 12:15

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Ftnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.13	ppbv	0.3	0.13	02/09/18 20:18 EMC	156-59-2	
Tetrachloroethene	<0.064	ppbv	0.15	0.064	02/09/18 20:18 EMC	127-18-4	
trans-1,2-Dichloroethene	<0.11	ppbv	0.3	0.11	02/09/18 20:18 EMC	156-60-5	
Trichloroethene	<0.075	ppbv	0.15	0.075	02/09/18 20:18 EMC	79-01-6	
Vinyl chloride	<0.073	ppbv	0.15	0.073	02/09/18 20:18 EMC	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**

Units Conversion Request



Pace Analytical Services, Inc.  
 1700 Elm Street – Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10418567  
 Project Name: 25216186 Former Arctic Cleaner

Lab Sample No: 10418567002      ProjSampleNum: 10418567002      Date Collected: 01/24/18 10:59  
 Client Sample ID: 5621, First Floor      Matrix: Air      Date Received: 01/29/18 12:15

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Ftnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.12	ppbv	0.3	0.12	02/09/18 20:45 EMC	156-59-2	
Tetrachloroethene	<0.061	ppbv	0.15	0.061	02/09/18 20:45 EMC	127-18-4	
trans-1,2-Dichloroethene	<0.11	ppbv	0.3	0.11	02/09/18 20:45 EMC	156-60-5	
Trichloroethene	<0.071	ppbv	0.15	0.071	02/09/18 20:45 EMC	79-01-6	
Vinyl chloride	<0.069	ppbv	0.15	0.069	02/09/18 20:45 EMC	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**  
 Units Conversion Request



Pace Analytical Services, Inc.  
 1700 Elm Street – Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10418567  
 Project Name: 25216186 Former Arctic Cleaner

Lab Sample No: 10418567003      ProjSampleNum: 10418567003      Date Collected: 01/24/18 11:08  
 Client Sample ID: 5625, Storage      Matrix: Air      Date Received: 01/29/18 12:15

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Ftnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.13	ppbv	0.3	0.13	02/09/18 21:12 EMC	156-59-2	
Tetrachloroethene	<0.064	ppbv	0.16	0.064	02/09/18 21:12 EMC	127-18-4	
trans-1,2-Dichloroethene	<0.11	ppbv	0.3	0.11	02/09/18 21:12 EMC	156-60-5	
Trichloroethene	<0.077	ppbv	0.16	0.077	02/09/18 21:12 EMC	79-01-6	
Vinyl chloride	<0.077	ppbv	0.15	0.077	02/09/18 21:12 EMC	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**  
 Units Conversion Request



Pace Analytical Services, Inc.  
 1700 Elm Street – Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10418567  
 Project Name: 25216186 Former Arctic Cleaner

Lab Sample No: 10418567004      ProjSampleNum: 10418567004      Date Collected: 01/24/18 10:47  
 Client Sample ID: 5621, Outdoor      Matrix: Air      Date Received: 01/29/18 12:15

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Ftnote
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**Air**  
 TO-15

cis-1,2-Dichloroethene	<0.13	ppbv	0.3	0.13	02/09/18 19:51 EMC	156-59-2	
Tetrachloroethene	<0.062	ppbv	0.15	0.062	02/09/18 19:51 EMC	127-18-4	
trans-1,2-Dichloroethene	<0.11	ppbv	0.3	0.11	02/09/18 19:51 EMC	156-60-5	
Trichloroethene	<0.073	ppbv	0.15	0.073	02/09/18 19:51 EMC	79-01-6	
Vinyl chloride	<0.073	ppbv	0.15	0.073	02/09/18 19:51 EMC	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**

Units Conversion Request





Pace Analytical Services, Inc.  
1700 Elm Street – Suite 200  
Minneapolis, MN 55414  
Phone: 612.607.1700  
Fax: 612.607.6444

### ANALYTICAL RESULTS

Client: SCS Engineers  
Phone: 843.746.8525

Lab Project Number: 10418567  
Project Name: 25216186 Former Arctic Cleaner

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## PARAMETER FOOTNOTES

SUPPLEMENTAL REPORT  
Units Conversion Request

Date: 2/12/2018

Page 5

February 12, 2018

Rob Langdon  
SCS Engineers  
2830 Dairy Drive  
Madison, WI 53718

RE: Project: 25216186 Former Arctic Cleaner  
Pace Project No.: 10418572

Dear Rob Langdon:

Enclosed are the analytical results for sample(s) received by the laboratory on January 29, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Megan McCabe  
megan.mccabe@pacelabs.com  
(612)607-1700  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 25216186 Former Arctic Cleaner

Pace Project No.: 10418572

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### Minnesota Certification IDs

1700 Elm Street SE, Suite 200, Minneapolis, MN 55414-2485

A2LA Certification #: 2926.01

Alabama Certification #: 40770

Alaska Contaminated Sites Certification #: 17-009

Alaska DW Certification #: MN00064

Arizona Certification #: AZ0014

Arkansas Certification #: 88-0680

California Certification #: 2929

CNMI Saipan Certification #: MP0003

Colorado Certification #: MN00064

Connecticut Certification #: PH-0256

EPA Region 8+Wyoming DW Certification #: via MN 027-053-137

Florida Certification #: E87605

Georgia Certification #: 959

Guam EPA Certification #: MN00064

Hawaii Certification #: MN00064

Idaho Certification #: MN00064

Illinois Certification #: 200011

Indiana Certification #: C-MN-01

Iowa Certification #: 368

Kansas Certification #: E-10167

Kentucky DW Certification #: 90062

Kentucky WW Certification #: 90062

Louisiana DEQ Certification #: 03086

Louisiana DW Certification #: MN00064

Maine Certification #: MN00064

Maryland Certification #: 322

Massachusetts Certification #: M-MN064

Michigan Certification #: 9909

Minnesota Certification #: 027-053-137

Mississippi Certification #: MN00064

Montana Certification #: CERT0092

Nebraska Certification #: NE-OS-18-06

Nevada Certification #: MN00064

New Hampshire Certification #: 2081

New Jersey Certification #: MN002

New York Certification #: 11647

North Carolina DW Certification #: 27700

North Carolina WW Certification #: 530

North Dakota Certification #: R-036

Ohio DW Certification #: 41244

Ohio VAP Certification #: CL101

Oklahoma Certification #: 9507

Oregon NwTPH Certification #: MN300001

Oregon Secondary Certification #: MN200001

Pennsylvania Certification #: 68-00563

Puerto Rico Certification #: MN00064

South Carolina Certification #: 74003001

Tennessee Certification #: TN02818

Texas Certification #: T104704192

Utah Certification #: MN00064

Virginia Certification #: 460163

Washington Certification #: C486

West Virginia DW Certification #: 9952 C

West Virginia DEP Certification #: 382

Wisconsin Certification #: 999407970

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 25216186 Former Arctic Cleaner

Pace Project No.: 10418572

---

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10418572001	SS-4	Air	01/24/18 14:36	01/29/18 12:15
10418572002	SS-5	Air	01/24/18 15:07	01/29/18 12:15
10418572003	SS-6	Air	01/24/18 15:57	01/29/18 12:15

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 25216186 Former Arctic Cleaner  
Pace Project No.: 10418572

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10418572001	SS-4	TO-15	EMC	5	PASI-M
10418572002	SS-5	TO-15	AFV	5	PASI-M
10418572003	SS-6	TO-15	AFV	5	PASI-M

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 25216186 Former Arctic Cleaner

Pace Project No.: 10418572

Sample: SS-4      Lab ID: 10418572001      Collected: 01/24/18 14:36      Received: 01/29/18 12:15      Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b> Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.61	ug/m3	1.4	0.61	1.79		02/09/18 23:56	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/m3	1.4	0.53	1.79		02/09/18 23:56	156-60-5	
Tetrachloroethene	<0.51	ug/m3	1.2	0.51	1.79		02/09/18 23:56	127-18-4	
Trichloroethene	<0.48	ug/m3	0.98	0.48	1.79		02/09/18 23:56	79-01-6	
Vinyl chloride	<0.23	ug/m3	0.47	0.23	1.79		02/09/18 23:56	75-01-4	

Sample: SS-5      Lab ID: 10418572002      Collected: 01/24/18 15:07      Received: 01/29/18 12:15      Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b> Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.70	ug/m3	1.7	0.70	2.06		02/10/18 19:42	156-59-2	
trans-1,2-Dichloroethene	<0.61	ug/m3	1.7	0.61	2.06		02/10/18 19:42	156-60-5	
Tetrachloroethene	5.4	ug/m3	1.4	0.59	2.06		02/10/18 19:42	127-18-4	
Trichloroethene	<0.55	ug/m3	1.1	0.55	2.06		02/10/18 19:42	79-01-6	
Vinyl chloride	<0.26	ug/m3	0.54	0.26	2.06		02/10/18 19:42	75-01-4	

Sample: SS-6      Lab ID: 10418572003      Collected: 01/24/18 15:57      Received: 01/29/18 12:15      Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b> Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.64	ug/m3	1.5	0.64	1.87		02/10/18 20:09	156-59-2	
trans-1,2-Dichloroethene	<0.55	ug/m3	1.5	0.55	1.87		02/10/18 20:09	156-60-5	
Tetrachloroethene	1.4	ug/m3	1.3	0.54	1.87		02/10/18 20:09	127-18-4	
Trichloroethene	<0.50	ug/m3	1.0	0.50	1.87		02/10/18 20:09	79-01-6	
Vinyl chloride	<0.24	ug/m3	0.49	0.24	1.87		02/10/18 20:09	75-01-4	

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: 25216186 Former Arctic Cleaner

Pace Project No.: 10418572

QC Batch:	522249	Analysis Method:	TO-15
QC Batch Method:	TO-15	Analysis Description:	TO15 MSV AIR Low Level
Associated Lab Samples:	10418572001		

METHOD BLANK: 2835447 Matrix: Air

Associated Lab Samples: 10418572001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.34	0.81	02/09/18 09:15	
Tetrachloroethene	ug/m3	<0.29	0.69	02/09/18 09:15	
trans-1,2-Dichloroethene	ug/m3	<0.30	0.81	02/09/18 09:15	
Trichloroethene	ug/m3	<0.27	0.55	02/09/18 09:15	
Vinyl chloride	ug/m3	<0.13	0.26	02/09/18 09:15	

LABORATORY CONTROL SAMPLE: 2835448

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/m3	40.3	35.6	88	70-136	
Tetrachloroethene	ug/m3	68.9	68.2	99	70-133	
trans-1,2-Dichloroethene	ug/m3	40.3	35.2	87	70-132	
Trichloroethene	ug/m3	54.6	49.8	91	70-135	
Vinyl chloride	ug/m3	26	23.2	89	70-141	

SAMPLE DUPLICATE: 2835940

Parameter	Units	10418421001 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND	<0.46		25	
Tetrachloroethene	ug/m3	ND	<0.38		25	
trans-1,2-Dichloroethene	ug/m3	ND	<0.40		25	
Trichloroethene	ug/m3	ND	<0.36		25	
Vinyl chloride	ug/m3	ND	<0.17		25	

SAMPLE DUPLICATE: 2835941

Parameter	Units	10418421002 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND	<0.51		25	
Tetrachloroethene	ug/m3	ND	<0.43		25	
trans-1,2-Dichloroethene	ug/m3	ND	<0.44		25	
Trichloroethene	ug/m3	ND	<0.40		25	
Vinyl chloride	ug/m3	ND	<0.19		25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA

Project: 25216186 Former Arctic Cleaner  
Pace Project No.: 10418572

QC Batch: 522334 Analysis Method: TO-15  
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level  
Associated Lab Samples: 10418572002, 10418572003

METHOD BLANK: 2835946 Matrix: Air  
Associated Lab Samples: 10418572002, 10418572003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.34	0.81	02/10/18 09:20	
Tetrachloroethene	ug/m3	<0.29	0.69	02/10/18 09:20	
trans-1,2-Dichloroethene	ug/m3	<0.30	0.81	02/10/18 09:20	
Trichloroethene	ug/m3	<0.27	0.55	02/10/18 09:20	
Vinyl chloride	ug/m3	<0.13	0.26	02/10/18 09:20	

LABORATORY CONTROL SAMPLE: 2835947

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/m3	40.3	38.7	96	70-136	
Tetrachloroethene	ug/m3	68.9	73.8	107	70-133	
trans-1,2-Dichloroethene	ug/m3	40.3	37.8	94	70-132	
Trichloroethene	ug/m3	54.6	52.2	96	70-135	
Vinyl chloride	ug/m3	26	23.9	92	70-141	

SAMPLE DUPLICATE: 2836483

Parameter	Units	10419404006 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND	<0.51		25	
Tetrachloroethene	ug/m3	ND	<0.43		25	
trans-1,2-Dichloroethene	ug/m3	ND	<0.44		25	
Trichloroethene	ug/m3	ND	<0.40		25	
Vinyl chloride	ug/m3	ND	<0.19		25	

SAMPLE DUPLICATE: 2836484

Parameter	Units	92371692001 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	1.5J	1.3J		25	
Tetrachloroethene	ug/m3	12.9	10.1	25	25	
trans-1,2-Dichloroethene	ug/m3	ND	<0.57		25	
Trichloroethene	ug/m3	9.0	7.6	16	25	
Vinyl chloride	ug/m3	ND	<0.24		25	

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## QUALIFIERS

Project: 25216186 Former Arctic Cleaner

Pace Project No.: 10418572

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25216186 Former Arctic Cleaner

Pace Project No.: 10418572

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10418572001	SS-4	TO-15	522249		
10418572002	SS-5	TO-15	522334		
10418572003	SS-6	TO-15	522334		

### REPORT OF LABORATORY ANALYSIS

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# AIR: CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

10418572

30710

Page: of

<b>Section A</b> Required Client Information:		<b>Section B</b> Required Project Information:		<b>Section C</b> Invoice Information:		Program	
Company: <i>SCS Engineers</i>		Report To: <i>Robert Langdon</i>		Attention: <i>Robert Langdon</i>		<input type="checkbox"/> UST <input type="checkbox"/> Superfund <input type="checkbox"/> Emissions <input type="checkbox"/> Clean Air Act <input type="checkbox"/> Voluntary Clean Up <input type="checkbox"/> Dry Clean <input type="checkbox"/> RCRA <input type="checkbox"/> Other	
Address: <i>2830 Dairy Drive</i>		Copy To:		Company Name: <i>SCS Engineers</i>		Location of Sampling by State: <i>WI</i>	
City: <i>Madison, WI 53718</i>		Purchase Order No.:		Address: <i>2830 Dairy Drive</i>		Reporting Units: <input checked="" type="checkbox"/> ug/m <sup>3</sup> <input type="checkbox"/> mg/m <sup>3</sup> <input type="checkbox"/> PPBV <input type="checkbox"/> PPMV <input type="checkbox"/> Other	
Email To: <i>R.Langdon@SCSengineers.com</i>		Project Name: <i>Former Arctic (Harms)</i>		Pace Quote Reference:		Report Level: <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/> Other	
Phone: <i>608-216-7329</i> Fax:		Project Number: <i>25216106</i>		Pace Project Manager/Sales Rep.:			
Requested Due Date/TAT:				Pace Profile #: <i>32670</i>			

ITEM #	Section D Required Client Information <b>AIR SAMPLE ID</b> Sample IDs MUST BE UNIQUE	Valid Media Codes MEDIA CODE Tedar Bag TB 1 Liter Summa Can 1LC 6 Liter Summa Can 6LC Low Volume Puff LVP High Volume Puff HVP Other PM10	MEDIA CODE	PID Reading (Client only)	COLLECTED				Canister Pressure (Initial Field - in Hg)	Canister Pressure (Final Field - in Hg)	Summa Can Number	Flow Control Number	Method: <input type="checkbox"/> PM10 <input type="checkbox"/> SC - Fixed Gas (%) <input type="checkbox"/> TO-3 BTEX <input type="checkbox"/> TO-14M (Methane) <input type="checkbox"/> TO-14 <input type="checkbox"/> TO-15 Full List VOCs <input type="checkbox"/> TO-15 Short List BTEX <input checked="" type="checkbox"/> TO-15 Short List (other)	Pace Lab ID
					COMPOSITE START		COMPOSITE - END/GRAB							
					DATE	TIME	DATE	TIME						
1	<i>SS-4</i>		<i>6LC</i>		<i>1-24-18</i>	<i>1406</i>	<i>1-24-18</i>	<i>1436</i>	<i>-30</i>	<i>-8</i>	<i>1611</i>	<i>0770</i>	<input checked="" type="checkbox"/>	<i>001</i>
2	<i>SS-5</i>		<i>6LC</i>		<i>1-24-18</i>	<i>1437</i>	<i>1-24-18</i>	<i>1507</i>	<i>-29</i>	<i>-10</i>	<i>0577</i>	<i>1218</i>	<input checked="" type="checkbox"/>	<i>002</i>
3	<i>SS-6</i>		<i>6LC</i>		<i>1-24-18</i>	<i>1527</i>	<i>1-24-18</i>	<i>1557</i>	<i>-28</i>	<i>-7</i>	<i>0093</i>	<i>1243</i>	<input checked="" type="checkbox"/>	<i>003</i>
4														
5														
6														
7														
8														
9														
10														
11														
12														

Comments:  
 PID = *SS-4 = 1110ppb*  
*SS-5 = 4086ppb*  
*SS-6 = 0*

Analyze for: *PCE, TCE, Vinyl Chloride, cis 12DCE, ORIGINAL trans 12DCE*

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS				
<i>Nate Harms</i>	<i>1-24-18</i>	<i>1900</i>	<i>Bill Pate</i>	<i>1-25-18</i>	<i>1215</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SAMPLER NAME AND SIGNATURE  
 PRINT Name of SAMPLER: *Nate Harms*  
 SIGNATURE OF SAMPLER: *Nate Harms* DATE Signed (MM/DD/YY) *01/25/18*


Temp in °C  
 Received on Ice   
 Custody Sealed Cooler   
 Samples intact

Page 10 of 15

Air Sample Condition Upon Receipt

Client Name: SCS Eng. Project #: \_\_\_\_\_

WO#: **10418572**



10418572

Courier:  Fed Ex  UPS  Speedee  Client  
 Commercial  Pace  Other: \_\_\_\_\_

Tracking Number: 7476 3004 5539

Custody Seal on Cooler/Box Present?  Yes  No Seals Intact?  Yes  No  
 Optional: Proj. Due Date: \_\_\_\_\_ Proj. Name: \_\_\_\_\_

Packing Material:  Bubble Wrap  Bubble Bags  Foam  None  Tin Can  Other: \_\_\_\_\_ Temp Blank rec:  Yes  No

Temp. (TO17 and TO13 samples only) (°C): X Corrected Temp (°C): X Thermom. Used:  151401163  
 G87A9155100842

Temp should be above freezing to 6°C Correction Factor: X Date & Initials of Person Examining Contents: 1-29-18 MA

Type of ice Received  Blue  Wet  None

				Comments:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	3.
Sampler Name and/or Signature on COC?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	8.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	10.
Media: <u>Air Can</u> Airbag Filter TDT Passive				11. Individually Certified Cans Y <input checked="" type="checkbox"/> N (list which samples)
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	12.

Samples Received: FFFT, 2 cones Pressure Gauge # 10AIR26

Canisters					Canisters				
Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
<u>SS-4</u>			<u>-7.5</u>	<u>+5</u>					
<u>-5</u>			<u>-10.5</u>	<u>"</u>					
<u>-6</u>			<u>-8.5</u>	<u>"</u>					

CLIENT NOTIFICATION/RESOLUTION  
 Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Comments/Resolution: \_\_\_\_\_

Project Manager Review: Nathan Boberg Date: 1/29/18

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Pace Analytical Services, Inc.  
 1700 Elm Street – Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10418572  
 Project Name: 25216186 Former Arctic Cleaner

Lab Sample No: 10418572001      ProjSampleNum: 10418572001      Date Collected: 01/24/18 14:36  
 Client Sample ID: SS-4      Matrix: Air      Date Received: 01/29/18 12:15

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Ftnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.15	ppbv	0.35	0.15	02/09/18 23:56 EMC	156-59-2	
Tetrachloroethene	<0.074	ppbv	0.17	0.074	02/09/18 23:56 EMC	127-18-4	
trans-1,2-Dichloroethene	<0.13	ppbv	0.35	0.13	02/09/18 23:56 EMC	156-60-5	
Trichloroethene	<0.088	ppbv	0.18	0.088	02/09/18 23:56 EMC	79-01-6	
Vinyl chloride	<0.089	ppbv	0.18	0.089	02/09/18 23:56 EMC	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**  
 Units Conversion Request



Pace Analytical Services, Inc.  
 1700 Elm Street – Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10418572  
 Project Name: 25216186 Former Arctic Cleaner

Lab Sample No: 10418572002      ProjSampleNum: 10418572002      Date Collected: 01/24/18 15:07  
 Client Sample ID: SS-5      Matrix: Air      Date Received: 01/29/18 12:15

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Ftnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.17	ppbv	0.42	0.17	02/10/18 19:42 AFV	156-59-2	
Tetrachloroethene	0.78	ppbv	0.2	0.086	02/10/18 19:42 AFV	127-18-4	
trans-1,2-Dichloroethene	<0.15	ppbv	0.42	0.15	02/10/18 19:42 AFV	156-60-5	
Trichloroethene	<0.1	ppbv	0.2	0.1	02/10/18 19:42 AFV	79-01-6	
Vinyl chloride	<0.1	ppbv	0.21	0.1	02/10/18 19:42 AFV	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**

Units Conversion Request



Pace Analytical Services, Inc.  
 1700 Elm Street – Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10418572  
 Project Name: 25216186 Former Arctic Cleaner

Lab Sample No: 10418572003      ProjSampleNum: 10418572003      Date Collected: 01/24/18 15:57  
 Client Sample ID: SS-6      Matrix: Air      Date Received: 01/29/18 12:15

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Ftnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.16	ppbv	0.37	0.16	02/10/18 20:09 AFV	156-59-2	
Tetrachloroethene	0.2	ppbv	0.19	0.078	02/10/18 20:09 AFV	127-18-4	
trans-1,2-Dichloroethene	<0.14	ppbv	0.37	0.14	02/10/18 20:09 AFV	156-60-5	
Trichloroethene	<0.092	ppbv	0.18	0.092	02/10/18 20:09 AFV	79-01-6	
Vinyl chloride	<0.092	ppbv	0.19	0.092	02/10/18 20:09 AFV	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**  
 Units Conversion Request



Pace Analytical Services, Inc.  
1700 Elm Street – Suite 200  
Minneapolis, MN 55414  
Phone: 612.607.1700  
Fax: 612.607.6444

### ANALYTICAL RESULTS

Client: SCS Engineers  
Phone: 843.746.8525

Lab Project Number: 10418572  
Project Name: 25216186 Former Arctic Cleaner

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## PARAMETER FOOTNOTES

SUPPLEMENTAL REPORT  
Units Conversion Request

Date: 2/12/2018

Page 4



February 12, 2018

Rob Langdon  
SCS Engineers  
2830 Dairy Drive  
Madison, WI 53718

RE: Project: 25216186 Former Arctic Cleaner  
Pace Project No.: 10418569

Dear Rob Langdon:

Enclosed are the analytical results for sample(s) received by the laboratory on January 29, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Megan McCabe  
megan.mccabe@pacelabs.com  
(612)607-1700  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 25216186 Former Arctic Cleaner

Pace Project No.: 10418569

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### Minnesota Certification IDs

1700 Elm Street SE, Suite 200, Minneapolis, MN 55414-2485

A2LA Certification #: 2926.01

Alabama Certification #: 40770

Alaska Contaminated Sites Certification #: 17-009

Alaska DW Certification #: MN00064

Arizona Certification #: AZ0014

Arkansas Certification #: 88-0680

California Certification #: 2929

CNMI Saipan Certification #: MP0003

Colorado Certification #: MN00064

Connecticut Certification #: PH-0256

EPA Region 8+Wyoming DW Certification #: via MN 027-053-137

Florida Certification #: E87605

Georgia Certification #: 959

Guam EPA Certification #: MN00064

Hawaii Certification #: MN00064

Idaho Certification #: MN00064

Illinois Certification #: 200011

Indiana Certification #: C-MN-01

Iowa Certification #: 368

Kansas Certification #: E-10167

Kentucky DW Certification #: 90062

Kentucky WW Certification #: 90062

Louisiana DEQ Certification #: 03086

Louisiana DW Certification #: MN00064

Maine Certification #: MN00064

Maryland Certification #: 322

Massachusetts Certification #: M-MN064

Michigan Certification #: 9909

Minnesota Certification #: 027-053-137

Mississippi Certification #: MN00064

Montana Certification #: CERT0092

Nebraska Certification #: NE-OS-18-06

Nevada Certification #: MN00064

New Hampshire Certification #: 2081

New Jersey Certification #: MN002

New York Certification #: 11647

North Carolina DW Certification #: 27700

North Carolina WW Certification #: 530

North Dakota Certification #: R-036

Ohio DW Certification #: 41244

Ohio VAP Certification #: CL101

Oklahoma Certification #: 9507

Oregon NwTPH Certification #: MN300001

Oregon Secondary Certification #: MN200001

Pennsylvania Certification #: 68-00563

Puerto Rico Certification #: MN00064

South Carolina Certification #: 74003001

Tennessee Certification #: TN02818

Texas Certification #: T104704192

Utah Certification #: MN00064

Virginia Certification #: 460163

Washington Certification #: C486

West Virginia DW Certification #: 9952 C

West Virginia DEP Certification #: 382

Wisconsin Certification #: 999407970

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 25216186 Former Arctic Cleaner

Pace Project No.: 10418569

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10418569001	5605-Outdoor	Air	01/25/18 11:08	01/29/18 12:15
10418569002	5605-Bar	Air	01/25/18 11:09	01/29/18 12:15
10418569003	5605-Liquor Store	Air	01/25/18 11:13	01/29/18 12:15
10418569004	5605-Basement	Air	01/25/18 11:15	01/29/18 12:15
10418569005	5605-2nd Floor	Air	01/25/18 11:07	01/29/18 12:15

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 25216186 Former Arctic Cleaner

Pace Project No.: 10418569

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10418569001	5605-Outdoor	TO-15	EMC	5	PASI-M
10418569002	5605-Bar	TO-15	EMC	5	PASI-M
10418569003	5605-Liquor Store	TO-15	EMC	5	PASI-M
10418569004	5605-Basement	TO-15	EMC	5	PASI-M
10418569005	5605-2nd Floor	TO-15	EMC	5	PASI-M

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 25216186 Former Arctic Cleaner

Pace Project No.: 10418569

<b>Sample: 5605-Outdoor</b>									
		<b>Lab ID: 10418569001</b>	Collected: 01/25/18 11:08			Received: 01/29/18 12:15		Matrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.49	ug/m3	1.2	0.49	1.44		02/09/18 21:38	156-59-2	
trans-1,2-Dichloroethene	<0.42	ug/m3	1.2	0.42	1.44		02/09/18 21:38	156-60-5	
Tetrachloroethene	<0.41	ug/m3	0.99	0.41	1.44		02/09/18 21:38	127-18-4	
Trichloroethene	<0.39	ug/m3	0.79	0.39	1.44		02/09/18 21:38	79-01-6	
Vinyl chloride	<0.18	ug/m3	0.37	0.18	1.44		02/09/18 21:38	75-01-4	

<b>Sample: 5605-Bar</b>									
		<b>Lab ID: 10418569002</b>	Collected: 01/25/18 11:09			Received: 01/29/18 12:15		Matrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.53	ug/m3	1.2	0.53	1.55		02/09/18 22:07	156-59-2	
trans-1,2-Dichloroethene	<0.46	ug/m3	1.2	0.46	1.55		02/09/18 22:07	156-60-5	
Tetrachloroethene	<0.44	ug/m3	1.1	0.44	1.55		02/09/18 22:07	127-18-4	
Trichloroethene	<0.42	ug/m3	0.85	0.42	1.55		02/09/18 22:07	79-01-6	
Vinyl chloride	<0.20	ug/m3	0.40	0.20	1.55		02/09/18 22:07	75-01-4	

<b>Sample: 5605-Liquor Store</b>									
		<b>Lab ID: 10418569003</b>	Collected: 01/25/18 11:13			Received: 01/29/18 12:15		Matrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.55	ug/m3	1.3	0.55	1.61		02/09/18 22:33	156-59-2	
trans-1,2-Dichloroethene	<0.47	ug/m3	1.3	0.47	1.61		02/09/18 22:33	156-60-5	
Tetrachloroethene	<0.46	ug/m3	1.1	0.46	1.61		02/09/18 22:33	127-18-4	
Trichloroethene	<0.43	ug/m3	0.88	0.43	1.61		02/09/18 22:33	79-01-6	
Vinyl chloride	<0.20	ug/m3	0.42	0.20	1.61		02/09/18 22:33	75-01-4	

<b>Sample: 5605-Basement</b>									
		<b>Lab ID: 10418569004</b>	Collected: 01/25/18 11:15			Received: 01/29/18 12:15		Matrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.53	ug/m3	1.2	0.53	1.55		02/09/18 23:01	156-59-2	
trans-1,2-Dichloroethene	<0.46	ug/m3	1.2	0.46	1.55		02/09/18 23:01	156-60-5	
Tetrachloroethene	<0.44	ug/m3	1.1	0.44	1.55		02/09/18 23:01	127-18-4	
Trichloroethene	<0.42	ug/m3	0.85	0.42	1.55		02/09/18 23:01	79-01-6	
Vinyl chloride	<0.20	ug/m3	0.40	0.20	1.55		02/09/18 23:01	75-01-4	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 25216186 Former Arctic Cleaner

Pace Project No.: 10418569

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**Sample: 5605-2nd Floor**      **Lab ID: 10418569005**      Collected: 01/25/18 11:07      Received: 01/29/18 12:15      Matrix: Air

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>		Analytical Method: TO-15							
cis-1,2-Dichloroethene	<b>&lt;0.53</b>	ug/m3	1.2	0.53	1.55		02/09/18 23:28	156-59-2	
trans-1,2-Dichloroethene	<b>&lt;0.46</b>	ug/m3	1.2	0.46	1.55		02/09/18 23:28	156-60-5	
Tetrachloroethene	<b>&lt;0.44</b>	ug/m3	1.1	0.44	1.55		02/09/18 23:28	127-18-4	
Trichloroethene	<b>&lt;0.42</b>	ug/m3	0.85	0.42	1.55		02/09/18 23:28	79-01-6	
Vinyl chloride	<b>&lt;0.20</b>	ug/m3	0.40	0.20	1.55		02/09/18 23:28	75-01-4	

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**QUALITY CONTROL DATA**

Project: 25216186 Former Arctic Cleaner

Pace Project No.: 10418569

QC Batch: 522249 Analysis Method: TO-15  
 QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level  
 Associated Lab Samples: 10418569001, 10418569002, 10418569003, 10418569004, 10418569005

METHOD BLANK: 2835447 Matrix: Air  
 Associated Lab Samples: 10418569001, 10418569002, 10418569003, 10418569004, 10418569005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.34	0.81	02/09/18 09:15	
Tetrachloroethene	ug/m3	<0.29	0.69	02/09/18 09:15	
trans-1,2-Dichloroethene	ug/m3	<0.30	0.81	02/09/18 09:15	
Trichloroethene	ug/m3	<0.27	0.55	02/09/18 09:15	
Vinyl chloride	ug/m3	<0.13	0.26	02/09/18 09:15	

LABORATORY CONTROL SAMPLE: 2835448

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/m3	40.3	35.6	88	70-136	
Tetrachloroethene	ug/m3	68.9	68.2	99	70-133	
trans-1,2-Dichloroethene	ug/m3	40.3	35.2	87	70-132	
Trichloroethene	ug/m3	54.6	49.8	91	70-135	
Vinyl chloride	ug/m3	26	23.2	89	70-141	

SAMPLE DUPLICATE: 2835940

Parameter	Units	10418421001 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND	<0.46		25	
Tetrachloroethene	ug/m3	ND	<0.38		25	
trans-1,2-Dichloroethene	ug/m3	ND	<0.40		25	
Trichloroethene	ug/m3	ND	<0.36		25	
Vinyl chloride	ug/m3	ND	<0.17		25	

SAMPLE DUPLICATE: 2835941

Parameter	Units	10418421002 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND	<0.51		25	
Tetrachloroethene	ug/m3	ND	<0.43		25	
trans-1,2-Dichloroethene	ug/m3	ND	<0.44		25	
Trichloroethene	ug/m3	ND	<0.40		25	
Vinyl chloride	ug/m3	ND	<0.19		25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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## QUALIFIERS

Project: 25216186 Former Arctic Cleaner

Pace Project No.: 10418569

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25216186 Former Arctic Cleaner

Pace Project No.: 10418569

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10418569001	5605-Outdoor	TO-15	522249		
10418569002	5605-Bar	TO-15	522249		
10418569003	5605-Liquor Store	TO-15	522249		
10418569004	5605-Basement	TO-15	522249		
10418569005	5605-2nd Floor	TO-15	522249		

### REPORT OF LABORATORY ANALYSIS

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10418569



# AIR: CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

<b>Section A</b> Required Client Information:	<b>Section B</b> Required Project Information:	<b>Section C</b> Invoice Information:	<b>30997</b>
Company: <u>SCS Engineers</u>	Report To: <u>Robert Langdon</u>	Attention: <u>Robert Langdon</u>	Page: 1 of 1
Address: <u>2830 Dairy Drive</u> <u>Madison, WI 53718</u>	Copy To:	Company Name: <u>SCS Engineers</u>	
Email To: <u>R.Langdon@scsengineers.com</u>	Purchase Order No.:	Address: <u>2830 Dairy Drive, Madison, WI 53718</u>	<b>Program</b> <input type="checkbox"/> UST <input type="checkbox"/> Superfund <input type="checkbox"/> Emissions <input type="checkbox"/> Clean Air Act <input type="checkbox"/> Voluntary Clean Up <input type="checkbox"/> Dry Clean <input type="checkbox"/> RCRA <input type="checkbox"/> Other
Phone: <u>608-216-3329</u> Fax:	Project Name: <u>Former Arctic Chemicals</u>	Pace Quote Reference:	
Requested Due Date/TAT:	Project Number: <u>25216186</u>	Pace Project Manager/Sales Rep.	
		Pace Profile #: <u>32630</u>	<b>Reporting Units</b> Location of Sampling by State: <u>WI</u> <input type="checkbox"/> ug/m <sup>3</sup> <input checked="" type="checkbox"/> mg/m <sup>3</sup> <input type="checkbox"/> PPBV <input type="checkbox"/> PPMV Other:
			<b>Report Level</b> I. II. III. IV. Other

ITEM #	Section D Required Client Information <b>AIR SAMPLE ID</b> Sample IDs MUST BE UNIQUE	Valid Media Codes MEDIA CODE Tedlar Bag TB 1 Liter Summa Can 1LC 6 Liter Summa Can 6LC Low Volume Puff LVP High Volume Puff HVP Other PM10	MEDIA CODE	PID Reading (Client only)	COLLECTED				Canister Pressure (Initial Field - In Hg)	Canister Pressure (Final Field - In Hg)	Summa Can Number	Flow Control Number	Method: <i>(Diagonally crossed out)</i> PM10 3C - Fixed Gas (%) TO-2 BTEX TO-3M (Methane) TO-14 TO-15 Full List VOCs TO-15 Short List BTEX TO-15 Short List Chlorinated	Pace Lab ID
					COMPOSITE START		COMPOSITE - END/GRAB							
					DATE	TIME	DATE	TIME						
1	5605- Outdoor		6LC	X	1-24-18	1153	1-25-18	1108	-29	-2	2369	0858	X	001
2	5605- Bar		6LC	X	1-24-18	1219	1-25-18	1109	-30	-3	2184	0143		002
3	5605- Liquor Store		6LC	X	1-24-18	1223	1-25-18	1113	-28	-4	2122	1418		003
4	5605- Basement		6LC	X	1-24-18	1230	1-25-18	1115	-30	-4	2315	1371		004
5	5605- 2 <sup>nd</sup> Floor		6LC	X	1-24-18	1241	1-25-18	1107	-30	-3	1651	1426		005
6														
7														
8														
9														
10														
11														
12														

Comments :  
 Analyze for:  
 DCE, TCE, Vinyl Chloride,  
 cis 1,2-DCE, trans 1,2-DCE

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS		
<u>North/Harms / SCS</u>	<u>1/26/18</u>	<u>1115</u>	<u>W. Langdon</u>	<u>1-29-18</u>	<u>1215</u>	Y/N	Y/N	Y/N
						Y/N	Y/N	Y/N
						Y/N	Y/N	Y/N
						Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE  
 PRINT Name of SAMPLER: North/Harms 1/26/18

**Air Sample Condition Upon Receipt**

**Client Name:** SCS Eng.      **Project #:** \_\_\_\_\_

WO#: 10418569

10418569

**Courier:**     Fed Ex     UPS     Speedee     Client  
 Commercial     Pace     Other: \_\_\_\_\_

**Tracking Number:** 7476 3003 9772 / 9783

**Custody Seal on Cooler/Box Present?**     Yes     No      **Seals Intact?**     Yes     No      **Optional:**    Proj. Due Date: \_\_\_\_\_    Proj. Name: \_\_\_\_\_

**Packing Material:**     Bubble Wrap     Bubble Bags     Foam     None     Tin Can     Other: \_\_\_\_\_      **Temp Blank rec:**     Yes     No

**Temp. (T017 and T013 samples only) (°C):**    X      **Corrected Temp (°C):**    X      **Thermom. Used:**     151401163

**Temp should be above freezing to 6°C**    **Correction Factor:**    X      **Date & Initials of Person Examining Contents:**    1-29-18 KA     G87A9155100842

**Type of Ice Received**     Blue     Wet     None

				Comments:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	3.
Sampler Name and/or Signature on COC?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	8.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	10.
Media: <u>Air Can</u> Airbag    Filter    TDT    Passive				11. Individually Certified Cans    Y <u>N</u> (list which samples)
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	12.

Samples Received:					Pressure Gauge # 10AIR26				
Canisters					Canisters				
Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
<u>Outdoor</u>			<u>-2</u>	<u>+5</u>					
<u>Bar</u>			<u>-4</u>	<u>"</u>					
<u>Liquor store</u>			<u>-5</u>	<u>"</u>					
<u>Basement</u>			<u>-4</u>	<u>"</u>					
<u>2nd Floor</u>			<u>-4</u>	<u>"</u>					

**CLIENT NOTIFICATION/RESOLUTION**      **Field Data Required?**     Yes     No

Person Contacted: \_\_\_\_\_      Date/Time: \_\_\_\_\_

Comments/Resolution: \_\_\_\_\_

**Project Manager Review:** William Poberg      **Date:** 1/29/18

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Pace Analytical Services, Inc.  
 1700 Elm Street – Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10418569  
 Project Name: 25216186 Former Arctic Cleaner

Lab Sample No: 10418569001      ProjSampleNum: 10418569001      Date Collected: 01/25/18 11:08  
 Client Sample ID: 5605-Outdoor      Matrix: Air      Date Received: 01/29/18 12:15

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Ftnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.12	ppbv	0.3	0.12	02/09/18 21:38 EMC	156-59-2	
Tetrachloroethene	<0.059	ppbv	0.14	0.059	02/09/18 21:38 EMC	127-18-4	
trans-1,2-Dichloroethene	<0.1	ppbv	0.3	0.1	02/09/18 21:38 EMC	156-60-5	
Trichloroethene	<0.071	ppbv	0.14	0.071	02/09/18 21:38 EMC	79-01-6	
Vinyl chloride	<0.069	ppbv	0.14	0.069	02/09/18 21:38 EMC	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**  
 Units Conversion Request



Pace Analytical Services, Inc.  
 1700 Elm Street – Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10418569  
 Project Name: 25216186 Former Arctic Cleaner

Lab Sample No: 10418569002      ProjSampleNum: 10418569002      Date Collected: 01/25/18 11:09  
 Client Sample ID: 5605-Bar      Matrix: Air      Date Received: 01/29/18 12:15

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Ftnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.13	ppbv	0.3	0.13	02/09/18 22:07 EMC	156-59-2	
Tetrachloroethene	<0.064	ppbv	0.16	0.064	02/09/18 22:07 EMC	127-18-4	
trans-1,2-Dichloroethene	<0.11	ppbv	0.3	0.11	02/09/18 22:07 EMC	156-60-5	
Trichloroethene	<0.077	ppbv	0.16	0.077	02/09/18 22:07 EMC	79-01-6	
Vinyl chloride	<0.077	ppbv	0.15	0.077	02/09/18 22:07 EMC	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**  
 Units Conversion Request



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 1700 Elm Street – Suite 200  
 Minneapolis, MN 55414  
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 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10418569  
 Project Name: 25216186 Former Arctic Cleaner

Lab Sample No: 10418569003      ProjSampleNum: 10418569003      Date Collected: 01/25/18 11:13  
 Client Sample ID: 5605-Liquor Store      Matrix: Air      Date Received: 01/29/18 12:15

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Ftnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.14	ppbv	0.32	0.14	02/09/18 22:33 EMC	156-59-2	
Tetrachloroethene	<0.067	ppbv	0.16	0.067	02/09/18 22:33 EMC	127-18-4	
trans-1,2-Dichloroethene	<0.12	ppbv	0.32	0.12	02/09/18 22:33 EMC	156-60-5	
Trichloroethene	<0.079	ppbv	0.16	0.079	02/09/18 22:33 EMC	79-01-6	
Vinyl chloride	<0.077	ppbv	0.16	0.077	02/09/18 22:33 EMC	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**  
 Units Conversion Request



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 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10418569  
 Project Name: 25216186 Former Arctic Cleaner

Lab Sample No: 10418569004      ProjSampleNum: 10418569004      Date Collected: 01/25/18 11:15  
 Client Sample ID: 5605-Basement      Matrix: Air      Date Received: 01/29/18 12:15

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Ftnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.13	ppbv	0.3	0.13	02/09/18 23:01 EMC	156-59-2	
Tetrachloroethene	<0.064	ppbv	0.16	0.064	02/09/18 23:01 EMC	127-18-4	
trans-1,2-Dichloroethene	<0.11	ppbv	0.3	0.11	02/09/18 23:01 EMC	156-60-5	
Trichloroethene	<0.077	ppbv	0.16	0.077	02/09/18 23:01 EMC	79-01-6	
Vinyl chloride	<0.077	ppbv	0.15	0.077	02/09/18 23:01 EMC	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**  
 Units Conversion Request



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 1700 Elm Street – Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10418569  
 Project Name: 25216186 Former Arctic Cleaner

Lab Sample No: 10418569005      ProjSampleNum: 10418569005      Date Collected: 01/25/18 11:07  
 Client Sample ID: 5605-2nd Floor      Matrix: Air      Date Received: 01/29/18 12:15

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Ftnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.13	ppbv	0.3	0.13	02/09/18 23:28 EMC	156-59-2	
Tetrachloroethene	<0.064	ppbv	0.16	0.064	02/09/18 23:28 EMC	127-18-4	
trans-1,2-Dichloroethene	<0.11	ppbv	0.3	0.11	02/09/18 23:28 EMC	156-60-5	
Trichloroethene	<0.077	ppbv	0.16	0.077	02/09/18 23:28 EMC	79-01-6	
Vinyl chloride	<0.077	ppbv	0.15	0.077	02/09/18 23:28 EMC	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**  
 Units Conversion Request





Pace Analytical Services, Inc.  
1700 Elm Street – Suite 200  
Minneapolis, MN 55414  
Phone: 612.607.1700  
Fax: 612.607.6444

### ANALYTICAL RESULTS

Client: SCS Engineers  
Phone: 843.746.8525

Lab Project Number: 10418569  
Project Name: 25216186 Former Arctic Cleaner

---

## PARAMETER FOOTNOTES

SUPPLEMENTAL REPORT  
Units Conversion Request

Date: 2/12/2018

Page 6

February 12, 2018

Rob Langdon  
SCS Engineers  
2830 Dairy Drive  
Madison, WI 53718

RE: Project: 25216186 Former Arctic Cleaner  
Pace Project No.: 10418566

Dear Rob Langdon:

Enclosed are the analytical results for sample(s) received by the laboratory on January 29, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Megan McCabe  
megan.mccabe@pacelabs.com  
(612)607-1700  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
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## CERTIFICATIONS

Project: 25216186 Former Arctic Cleaner

Pace Project No.: 10418566

---

### Minnesota Certification IDs

1700 Elm Street SE, Suite 200, Minneapolis, MN 55414-2485

A2LA Certification #: 2926.01

Alabama Certification #: 40770

Alaska Contaminated Sites Certification #: 17-009

Alaska DW Certification #: MN00064

Arizona Certification #: AZ0014

Arkansas Certification #: 88-0680

California Certification #: 2929

CNMI Saipan Certification #: MP0003

Colorado Certification #: MN00064

Connecticut Certification #: PH-0256

EPA Region 8+Wyoming DW Certification #: via MN 027-053-137

Florida Certification #: E87605

Georgia Certification #: 959

Guam EPA Certification #: MN00064

Hawaii Certification #: MN00064

Idaho Certification #: MN00064

Illinois Certification #: 200011

Indiana Certification #: C-MN-01

Iowa Certification #: 368

Kansas Certification #: E-10167

Kentucky DW Certification #: 90062

Kentucky WW Certification #: 90062

Louisiana DEQ Certification #: 03086

Louisiana DW Certification #: MN00064

Maine Certification #: MN00064

Maryland Certification #: 322

Massachusetts Certification #: M-MN064

Michigan Certification #: 9909

Minnesota Certification #: 027-053-137

Mississippi Certification #: MN00064

Montana Certification #: CERT0092

Nebraska Certification #: NE-OS-18-06

Nevada Certification #: MN00064

New Hampshire Certification #: 2081

New Jersey Certification #: MN002

New York Certification #: 11647

North Carolina DW Certification #: 27700

North Carolina WW Certification #: 530

North Dakota Certification #: R-036

Ohio DW Certification #: 41244

Ohio VAP Certification #: CL101

Oklahoma Certification #: 9507

Oregon NwTPH Certification #: MN300001

Oregon Secondary Certification #: MN200001

Pennsylvania Certification #: 68-00563

Puerto Rico Certification #: MN00064

South Carolina Certification #: 74003001

Tennessee Certification #: TN02818

Texas Certification #: T104704192

Utah Certification #: MN00064

Virginia Certification #: 460163

Washington Certification #: C486

West Virginia DW Certification #: 9952 C

West Virginia DEP Certification #: 382

Wisconsin Certification #: 999407970

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 25216186 Former Arctic Cleaner  
Pace Project No.: 10418566

---

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10418566001	SS-7	Air	01/25/18 12:48	01/29/18 12:15
10418566002	SS-8	Air	01/25/18 13:28	01/29/18 12:15
10418566003	SS-9	Air	01/25/18 13:56	01/29/18 12:15

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 25216186 Former Arctic Cleaner

Pace Project No.: 10418566

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10418566001	SS-7	TO-15	MLS	5	PASI-M
10418566002	SS-8	TO-15	MLS	5	PASI-M
10418566003	SS-9	TO-15	MLS	5	PASI-M

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 25216186 Former Arctic Cleaner

Pace Project No.: 10418566

Sample: SS-7									
Lab ID: 10418566001									
Collected: 01/25/18 12:48									
Received: 01/29/18 12:15									
Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.61	ug/m3	1.4	0.61	1.79		02/09/18 23:11	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/m3	1.4	0.53	1.79		02/09/18 23:11	156-60-5	
Tetrachloroethene	<0.51	ug/m3	1.2	0.51	1.79		02/09/18 23:11	127-18-4	
Trichloroethene	<0.48	ug/m3	0.98	0.48	1.79		02/09/18 23:11	79-01-6	
Vinyl chloride	<0.23	ug/m3	0.47	0.23	1.79		02/09/18 23:11	75-01-4	

Sample: SS-8									
Lab ID: 10418566002									
Collected: 01/25/18 13:28									
Received: 01/29/18 12:15									
Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.61	ug/m3	1.4	0.61	1.79		02/09/18 23:45	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/m3	1.4	0.53	1.79		02/09/18 23:45	156-60-5	
Tetrachloroethene	36.0	ug/m3	1.2	0.51	1.79		02/09/18 23:45	127-18-4	
Trichloroethene	1.2	ug/m3	0.98	0.48	1.79		02/09/18 23:45	79-01-6	
Vinyl chloride	<0.23	ug/m3	0.47	0.23	1.79		02/09/18 23:45	75-01-4	

Sample: SS-9									
Lab ID: 10418566003									
Collected: 01/25/18 13:56									
Received: 01/29/18 12:15									
Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.69	ug/m3	1.6	0.69	2.01		02/10/18 00:19	156-59-2	
trans-1,2-Dichloroethene	<0.59	ug/m3	1.6	0.59	2.01		02/10/18 00:19	156-60-5	
Tetrachloroethene	12.9	ug/m3	1.4	0.58	2.01		02/10/18 00:19	127-18-4	
Trichloroethene	<0.54	ug/m3	1.1	0.54	2.01		02/10/18 00:19	79-01-6	
Vinyl chloride	<0.25	ug/m3	0.52	0.25	2.01		02/10/18 00:19	75-01-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 25216186 Former Arctic Cleaner

Pace Project No.: 10418566

QC Batch: 522206

Analysis Method: TO-15

QC Batch Method: TO-15

Analysis Description: TO15 MSV AIR Low Level

Associated Lab Samples: 10418566001, 10418566002, 10418566003

METHOD BLANK: 2835209

Matrix: Air

Associated Lab Samples: 10418566001, 10418566002, 10418566003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.34	0.81	02/09/18 12:19	
Tetrachloroethene	ug/m3	<0.29	0.69	02/09/18 12:19	
trans-1,2-Dichloroethene	ug/m3	<0.30	0.81	02/09/18 12:19	
Trichloroethene	ug/m3	<0.27	0.55	02/09/18 12:19	
Vinyl chloride	ug/m3	<0.13	0.26	02/09/18 12:19	

LABORATORY CONTROL SAMPLE: 2835210

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/m3	40.3	41.3	102	70-136	
Tetrachloroethene	ug/m3	68.9	69.7	101	70-133	
trans-1,2-Dichloroethene	ug/m3	40.3	42.3	105	70-132	
Trichloroethene	ug/m3	54.6	57.8	106	70-135	
Vinyl chloride	ug/m3	26	27.4	105	70-141	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: 25216186 Former Arctic Cleaner

Pace Project No.: 10418566

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25216186 Former Arctic Cleaner

Pace Project No.: 10418566

---

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10418566001	SS-7	TO-15	522206		
10418566002	SS-8	TO-15	522206		
10418566003	SS-9	TO-15	522206		

### REPORT OF LABORATORY ANALYSIS

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# AIR: CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

104185766

30997

Page: 1 of 1

<b>Section A</b> Required Client Information:	<b>Section B</b> Required Project Information:	<b>Section C</b> Invoice Information:	<b>Program</b>
Company: <u>SCS Engineers</u>	Report To: <u>Robert Langdon</u>	Attention: <u>Robert Langdon</u>	<input type="checkbox"/> UST <input type="checkbox"/> Superfund <input type="checkbox"/> Emissions <input type="checkbox"/> Clean Air Act <input type="checkbox"/> Voluntary Clean Up <input type="checkbox"/> Dry Clean <input type="checkbox"/> RCRA <input type="checkbox"/> Other
Address: <u>2830 Dairy Drive</u> <u>Madison, WI 53718</u>	Copy To:	Company Name: <u>SCS Engineers</u>	
Email: <u>RLangdon@scsengineers.com</u>	Purchase Order No.:	Address: <u>2830 Dairy Drive, MSN, WI 53718</u>	Location of Sampling by State: <u>WI</u>
Phone: <u>608-216-7329</u> Fax:	Project Name: <u>Former Arctic Cleanup</u>	Pace Quote Reference:	Reporting Units <input type="checkbox"/> ug/m <sup>3</sup> <input type="checkbox"/> mg/m <sup>3</sup> <input checked="" type="checkbox"/> PPBV <input type="checkbox"/> PPMV <input type="checkbox"/> Other
Requested Due Date/TAT:	Project Number: <u>25216186</u>	Pace Profile #: <u>32630</u>	Report Level II. ___ III. ___ IV. ___ Other ___

ITEM #	'Section D Required Client Information <b>AIR SAMPLE ID</b> Sample IDs MUST BE UNIQUE	Valid Media Codes MEDIA CODE Tedlar Bag TB 1 Liter Summa Can 1LC 6 Liter Summa Can 6LC Low Volume Puff LVP High Volume Puff HVP Other PM10	MEDIA CODE	PID Reading (Client only)	COLLECTED				Canister Pressure (Initial Field - in Hg)	Canister Pressure (Final Field - in Hg)	Summa Can Number	Flow Control Number	Method: PM10 3C - Fixed Gas (%) TO-15 BTEX TO-15M (Methane) TO-14 TO-15 Full List VOCs TO-15 Short List BTEX TO-15 Short List Chlorinated TO-15 Short List (other)	Pace Lab ID	
					COMPOSITE START		COMPOSITE - END/GRAB								
					DATE	TIME	DATE	TIME							
1	SS-7		6LC		1-25-18	1218	1-25-18	1248	-30	-7	1730	1582		X	001
2	SS-8		6LC		1-25-18	1228	1-25-18	1328	-30	-7	1488	1202		X	002
3	SS-9		6LC		1-25-18	1326	1-25-18	1356	-29	-10	1834	6655		X	003
4															
5															
6															
7															
8															
9															
10															
11															
12															

Comments: <u>PTD (ppb)</u> <u>SS-7 = 649 ppb</u> <u>SS-8 = 4206 ppb</u> <u>SS-9 = 711, ppb ORIGINAL</u>	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	<u>North Havens</u>	<u>1-25-18</u>	<u>1130</u>	<u>Walt Harris</u>	<u>1-29-18</u>	<u>1215</u>	Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact

⊗ - PCE, TCE, CIS 12DCE, trans 12DCE, Vinyl Chloride

SAMPLER NAME AND SIGNATURE		Temp in °C
PRINT Name of SAMPLER: <u>Walt Harris</u>	DATE Signed (MM/DD/YY) <u>01/26/18</u>	Received on Ice
SIGNATURE of SAMPLER: <u>[Signature]</u>		Custody Sealed Cooler
		Samples Intact



Document Name:  
Air Sample Condition Upon Receipt  
Document No.:  
F-MN-A-106-rev.14

Document Revised: 28Dec2017  
Page 1 of 1  
Issuing Authority:  
Pace Minnesota Quality Office

Air Sample Condition Upon Receipt

Client Name:

Project #:

SCS Eng.

WO#: 10418566



Courier:  Fed Ex  UPS  Speedee  Client  
 Commercial  Pace  Other:

Tracking Number: 7476 3003 9783

Custody Seal on Cooler/Box Present?  Yes  No Seals Intact?  Yes  No

Packing Material:  Bubble Wrap  Bubble Bags  Foam  None  Tin Can  Other: Temp Blank rec:  Yes  No

Temp. (TO17 and TO13 samples only) (°C):  Corrected Temp (°C):  Thermom. Used:  151401163

Temp should be above freezing to 6°C Correction Factor:  Date & Initials of Person Examining Contents:  G87A9155100842 1-29-18 AA

Type of ice Received  Blue  Wet  None

Comments:

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name and/or Signature on COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Media: <u>Air Can</u> Airbag Filter TDT Passive		11. Individually Certified Cans Y <input checked="" type="checkbox"/> N (list which samples)
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.

Canisters					Canisters				
Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
SS-7			-7.5	+5					
-8			-7.5	"					
-9			-10	"					

CLIENT NOTIFICATION/RESOLUTION

Field Data Required?  Yes  No

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/Resolution: \_\_\_\_\_

Project Manager Review:

Nathan Bobery

Date: 1/29/18

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Pace Analytical Services, Inc.  
 1700 Elm Street – Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10418566  
 Project Name: 25216186 Former Arctic Cleaner

Lab Sample No: 10418566001      ProjSampleNum: 10418566001      Date Collected: 01/25/18 12:48  
 Client Sample ID: SS-7      Matrix: Air      Date Received: 01/29/18 12:15

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Ftnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.15	ppbv	0.35	0.15	02/09/18 23:11	MLS 156-59-2	
Tetrachloroethene	<0.074	ppbv	0.17	0.074	02/09/18 23:11	MLS 127-18-4	
trans-1,2-Dichloroethene	<0.13	ppbv	0.35	0.13	02/09/18 23:11	MLS 156-60-5	
Trichloroethene	<0.088	ppbv	0.18	0.088	02/09/18 23:11	MLS 79-01-6	
Vinyl chloride	<0.089	ppbv	0.18	0.089	02/09/18 23:11	MLS 75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**  
 Units Conversion Request



Pace Analytical Services, Inc.  
 1700 Elm Street – Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

### ANALYTICAL RESULTS

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10418566  
 Project Name: 25216186 Former Arctic Cleaner

Lab Sample No: 10418566002      ProjSampleNum: 10418566002      Date Collected: 01/25/18 13:28  
 Client Sample ID: SS-8      Matrix: Air      Date Received: 01/29/18 12:15

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Ftnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.15	ppbv	0.35	0.15	02/09/18 23:45	MLS 156-59-2	
Tetrachloroethene	5.2	ppbv	0.17	0.074	02/09/18 23:45	MLS 127-18-4	
trans-1,2-Dichloroethene	<0.13	ppbv	0.35	0.13	02/09/18 23:45	MLS 156-60-5	
Trichloroethene	0.22	ppbv	0.18	0.088	02/09/18 23:45	MLS 79-01-6	
Vinyl chloride	<0.089	ppbv	0.18	0.089	02/09/18 23:45	MLS 75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

### SUPPLEMENTAL REPORT

Units Conversion Request



Pace Analytical Services, Inc.  
 1700 Elm Street – Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10418566  
 Project Name: 25216186 Former Arctic Cleaner

Lab Sample No: 10418566003      ProjSampleNum: 10418566003      Date Collected: 01/25/18 13:56  
 Client Sample ID: SS-9      Matrix: Air      Date Received: 01/29/18 12:15

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Ftnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.17	ppbv	0.4	0.17	02/10/18 0:19	MLS 156-59-2	
Tetrachloroethene	1.9	ppbv	0.2	0.084	02/10/18 0:19	MLS 127-18-4	
trans-1,2-Dichloroethene	<0.15	ppbv	0.4	0.15	02/10/18 0:19	MLS 156-60-5	
Trichloroethene	<0.099	ppbv	0.2	0.099	02/10/18 0:19	MLS 79-01-6	
Vinyl chloride	<0.096	ppbv	0.2	0.096	02/10/18 0:19	MLS 75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**  
 Units Conversion Request



Pace Analytical Services, Inc.  
1700 Elm Street – Suite 200  
Minneapolis, MN 55414  
Phone: 612.607.1700  
Fax: 612.607.6444

### ANALYTICAL RESULTS

Client: SCS Engineers  
Phone: 843.746.8525

Lab Project Number: 10418566  
Project Name: 25216186 Former Arctic Cleaner

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## PARAMETER FOOTNOTES

SUPPLEMENTAL REPORT  
Units Conversion Request

Date: 2/12/2018

Page 4

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

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

TestAmerica Job ID: 500-152602-1

Client Project/Site: Arctic Laundry & Cleaners - 25216186

For:  
SCS Engineers  
2830 Dairy Dr  
Madison, Wisconsin 53718

Attn: Mr. Robert Langdon



Authorized for release by:  
10/15/2018 3:37:48 PM

Sandie Fredrick, Project Manager II  
(920)261-1660  
[sandie.fredrick@testamericainc.com](mailto:sandie.fredrick@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



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

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# Case Narrative

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-152602-1

**Job ID: 500-152602-1**

**Laboratory: TestAmerica Chicago**

## Narrative

**Job Narrative  
500-152602-1**

## Comments

No additional comments.

## Receipt

The samples were received on 10/4/2018 9:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.8° C.

## GC/MS VOA

Dichlorodifluoromethane was detected in the method blank associated with the sample. Dichlorodifluoromethane results have been flagged in the associated sample with a "B" flag to denote the presence in the blank and possible lab contamination.

The following samples were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH was outside the required criteria when verified by the laboratory, and corrective action was not possible: MW-2 (500-152602-1), MW-3 (500-152602-2), MW-3-Duplicate (500-152602-3) and MW-1 (500-152602-4).

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

# Detection Summary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-152602-1

## Client Sample ID: MW-2

## Lab Sample ID: 500-152602-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	0.85	J B	2.0	0.67	ug/L	1		8260B	Total/NA
1,2-Dichloropropane	2.6		1.0	0.43	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.39	J	1.0	0.37	ug/L	1		8260B	Total/NA

## Client Sample ID: MW-3

## Lab Sample ID: 500-152602-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	0.81	J B	2.0	0.67	ug/L	1		8260B	Total/NA
Tetrachloroethene	41		1.0	0.37	ug/L	1		8260B	Total/NA

## Client Sample ID: MW-3-Duplicate

## Lab Sample ID: 500-152602-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	41		1.0	0.37	ug/L	1		8260B	Total/NA

## Client Sample ID: MW-1

## Lab Sample ID: 500-152602-4

No Detections.

## Client Sample ID: Trip Blank

## Lab Sample ID: 500-152602-5

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

# Method Summary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-152602-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
5030B	Purge and Trap	SW846	TAL CHI

**Protocol References:**

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

**Laboratory References:**

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



# Sample Summary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-152602-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-152602-1	MW-2	Water	10/03/18 11:20	10/04/18 09:15
500-152602-2	MW-3	Water	10/03/18 11:35	10/04/18 09:15
500-152602-3	MW-3-Duplicate	Water	10/03/18 11:35	10/04/18 09:15
500-152602-4	MW-1	Water	10/03/18 11:55	10/04/18 09:15
500-152602-5	Trip Blank	Water	10/03/18 00:00	10/04/18 09:15

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# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-152602-1

**Client Sample ID: MW-2**  
**Date Collected: 10/03/18 11:20**  
**Date Received: 10/04/18 09:15**

**Lab Sample ID: 500-152602-1**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			10/11/18 13:56	1
Bromobenzene	<0.36		1.0	0.36	ug/L			10/11/18 13:56	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			10/11/18 13:56	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			10/11/18 13:56	1
Bromoform	<0.48		1.0	0.48	ug/L			10/11/18 13:56	1
Bromomethane	<0.80		2.0	0.80	ug/L			10/11/18 13:56	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			10/11/18 13:56	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			10/11/18 13:56	1
Chloroethane	<0.51		1.0	0.51	ug/L			10/11/18 13:56	1
Chloroform	<0.37		2.0	0.37	ug/L			10/11/18 13:56	1
Chloromethane	<0.32		1.0	0.32	ug/L			10/11/18 13:56	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			10/11/18 13:56	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			10/11/18 13:56	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/11/18 13:56	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/11/18 13:56	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			10/11/18 13:56	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			10/11/18 13:56	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			10/11/18 13:56	1
Dibromomethane	<0.27		1.0	0.27	ug/L			10/11/18 13:56	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			10/11/18 13:56	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			10/11/18 13:56	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			10/11/18 13:56	1
<b>Dichlorodifluoromethane</b>	<b>0.85</b>	<b>J B</b>	2.0	0.67	ug/L			10/11/18 13:56	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			10/11/18 13:56	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			10/11/18 13:56	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			10/11/18 13:56	1
<b>1,2-Dichloropropane</b>	<b>2.6</b>		1.0	0.43	ug/L			10/11/18 13:56	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			10/11/18 13:56	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			10/11/18 13:56	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			10/11/18 13:56	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			10/11/18 13:56	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			10/11/18 13:56	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			10/11/18 13:56	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			10/11/18 13:56	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			10/11/18 13:56	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			10/11/18 13:56	1
Naphthalene	<0.34		1.0	0.34	ug/L			10/11/18 13:56	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			10/11/18 13:56	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			10/11/18 13:56	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			10/11/18 13:56	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			10/11/18 13:56	1
Styrene	<0.39		1.0	0.39	ug/L			10/11/18 13:56	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			10/11/18 13:56	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			10/11/18 13:56	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			10/11/18 13:56	1
<b>Tetrachloroethene</b>	<b>0.39</b>	<b>J</b>	1.0	0.37	ug/L			10/11/18 13:56	1
Toluene	<0.15		0.50	0.15	ug/L			10/11/18 13:56	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			10/11/18 13:56	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			10/11/18 13:56	1

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# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-152602-1

**Client Sample ID: MW-2**  
**Date Collected: 10/03/18 11:20**  
**Date Received: 10/04/18 09:15**

**Lab Sample ID: 500-152602-1**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			10/11/18 13:56	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			10/11/18 13:56	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			10/11/18 13:56	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			10/11/18 13:56	1
Trichloroethene	<0.16		0.50	0.16	ug/L			10/11/18 13:56	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			10/11/18 13:56	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			10/11/18 13:56	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			10/11/18 13:56	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			10/11/18 13:56	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			10/11/18 13:56	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			10/11/18 13:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		72 - 124					10/11/18 13:56	1
Dibromofluoromethane	109		75 - 120					10/11/18 13:56	1
1,2-Dichloroethane-d4 (Surr)	93		75 - 126					10/11/18 13:56	1
Toluene-d8 (Surr)	97		75 - 120					10/11/18 13:56	1

**Client Sample ID: MW-3**  
**Date Collected: 10/03/18 11:35**  
**Date Received: 10/04/18 09:15**

**Lab Sample ID: 500-152602-2**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			10/11/18 14:22	1
Bromobenzene	<0.36		1.0	0.36	ug/L			10/11/18 14:22	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			10/11/18 14:22	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			10/11/18 14:22	1
Bromoform	<0.48		1.0	0.48	ug/L			10/11/18 14:22	1
Bromomethane	<0.80		2.0	0.80	ug/L			10/11/18 14:22	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			10/11/18 14:22	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			10/11/18 14:22	1
Chloroethane	<0.51		1.0	0.51	ug/L			10/11/18 14:22	1
Chloroform	<0.37		2.0	0.37	ug/L			10/11/18 14:22	1
Chloromethane	<0.32		1.0	0.32	ug/L			10/11/18 14:22	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			10/11/18 14:22	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			10/11/18 14:22	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/11/18 14:22	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/11/18 14:22	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			10/11/18 14:22	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			10/11/18 14:22	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			10/11/18 14:22	1
Dibromomethane	<0.27		1.0	0.27	ug/L			10/11/18 14:22	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			10/11/18 14:22	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			10/11/18 14:22	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			10/11/18 14:22	1
Dichlorodifluoromethane	0.81	J B	2.0	0.67	ug/L			10/11/18 14:22	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			10/11/18 14:22	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			10/11/18 14:22	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			10/11/18 14:22	1

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-152602-1

**Client Sample ID: MW-3**  
**Date Collected: 10/03/18 11:35**  
**Date Received: 10/04/18 09:15**

**Lab Sample ID: 500-152602-2**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			10/11/18 14:22	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			10/11/18 14:22	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			10/11/18 14:22	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			10/11/18 14:22	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			10/11/18 14:22	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			10/11/18 14:22	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			10/11/18 14:22	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			10/11/18 14:22	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			10/11/18 14:22	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			10/11/18 14:22	1
Naphthalene	<0.34		1.0	0.34	ug/L			10/11/18 14:22	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			10/11/18 14:22	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			10/11/18 14:22	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			10/11/18 14:22	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			10/11/18 14:22	1
Styrene	<0.39		1.0	0.39	ug/L			10/11/18 14:22	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			10/11/18 14:22	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			10/11/18 14:22	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			10/11/18 14:22	1
<b>Tetrachloroethene</b>	<b>41</b>		1.0	0.37	ug/L			10/11/18 14:22	1
Toluene	<0.15		0.50	0.15	ug/L			10/11/18 14:22	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			10/11/18 14:22	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			10/11/18 14:22	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			10/11/18 14:22	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			10/11/18 14:22	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			10/11/18 14:22	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			10/11/18 14:22	1
Trichloroethene	<0.16		0.50	0.16	ug/L			10/11/18 14:22	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			10/11/18 14:22	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			10/11/18 14:22	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			10/11/18 14:22	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			10/11/18 14:22	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			10/11/18 14:22	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			10/11/18 14:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		72 - 124		10/11/18 14:22	1
Dibromofluoromethane	89		75 - 120		10/11/18 14:22	1
1,2-Dichloroethane-d4 (Surr)	91		75 - 126		10/11/18 14:22	1
Toluene-d8 (Surr)	93		75 - 120		10/11/18 14:22	1

**Client Sample ID: MW-3-Duplicate**  
**Date Collected: 10/03/18 11:35**  
**Date Received: 10/04/18 09:15**

**Lab Sample ID: 500-152602-3**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			10/11/18 14:48	1
Bromobenzene	<0.36		1.0	0.36	ug/L			10/11/18 14:48	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			10/11/18 14:48	1

TestAmerica Chicago



# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-152602-1

**Client Sample ID: MW-3-Duplicate**

**Lab Sample ID: 500-152602-3**

**Date Collected: 10/03/18 11:35**

**Matrix: Water**

**Date Received: 10/04/18 09:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	<0.37		1.0	0.37	ug/L			10/11/18 14:48	1
Bromoform	<0.48		1.0	0.48	ug/L			10/11/18 14:48	1
Bromomethane	<0.80		2.0	0.80	ug/L			10/11/18 14:48	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			10/11/18 14:48	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			10/11/18 14:48	1
Chloroethane	<0.51		1.0	0.51	ug/L			10/11/18 14:48	1
Chloroform	<0.37		2.0	0.37	ug/L			10/11/18 14:48	1
Chloromethane	<0.32		1.0	0.32	ug/L			10/11/18 14:48	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			10/11/18 14:48	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			10/11/18 14:48	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/11/18 14:48	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/11/18 14:48	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			10/11/18 14:48	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			10/11/18 14:48	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			10/11/18 14:48	1
Dibromomethane	<0.27		1.0	0.27	ug/L			10/11/18 14:48	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			10/11/18 14:48	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			10/11/18 14:48	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			10/11/18 14:48	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			10/11/18 14:48	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			10/11/18 14:48	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			10/11/18 14:48	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			10/11/18 14:48	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			10/11/18 14:48	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			10/11/18 14:48	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			10/11/18 14:48	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			10/11/18 14:48	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			10/11/18 14:48	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			10/11/18 14:48	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			10/11/18 14:48	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			10/11/18 14:48	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			10/11/18 14:48	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			10/11/18 14:48	1
Naphthalene	<0.34		1.0	0.34	ug/L			10/11/18 14:48	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			10/11/18 14:48	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			10/11/18 14:48	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			10/11/18 14:48	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			10/11/18 14:48	1
Styrene	<0.39		1.0	0.39	ug/L			10/11/18 14:48	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			10/11/18 14:48	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			10/11/18 14:48	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			10/11/18 14:48	1
<b>Tetrachloroethene</b>	<b>41</b>		1.0	0.37	ug/L			10/11/18 14:48	1
Toluene	<0.15		0.50	0.15	ug/L			10/11/18 14:48	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			10/11/18 14:48	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			10/11/18 14:48	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			10/11/18 14:48	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			10/11/18 14:48	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			10/11/18 14:48	1

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-152602-1

**Client Sample ID: MW-3-Duplicate**

**Lab Sample ID: 500-152602-3**

**Date Collected: 10/03/18 11:35**

**Matrix: Water**

**Date Received: 10/04/18 09:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			10/11/18 14:48	1
Trichloroethene	<0.16		0.50	0.16	ug/L			10/11/18 14:48	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			10/11/18 14:48	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			10/11/18 14:48	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			10/11/18 14:48	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			10/11/18 14:48	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			10/11/18 14:48	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			10/11/18 14:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		72 - 124					10/11/18 14:48	1
Dibromofluoromethane	98		75 - 120					10/11/18 14:48	1
1,2-Dichloroethane-d4 (Surr)	98		75 - 126					10/11/18 14:48	1
Toluene-d8 (Surr)	92		75 - 120					10/11/18 14:48	1

**Client Sample ID: MW-1**

**Lab Sample ID: 500-152602-4**

**Date Collected: 10/03/18 11:55**

**Matrix: Water**

**Date Received: 10/04/18 09:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			10/11/18 15:14	1
Bromobenzene	<0.36		1.0	0.36	ug/L			10/11/18 15:14	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			10/11/18 15:14	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			10/11/18 15:14	1
Bromoform	<0.48		1.0	0.48	ug/L			10/11/18 15:14	1
Bromomethane	<0.80		2.0	0.80	ug/L			10/11/18 15:14	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			10/11/18 15:14	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			10/11/18 15:14	1
Chloroethane	<0.51		1.0	0.51	ug/L			10/11/18 15:14	1
Chloroform	<0.37		2.0	0.37	ug/L			10/11/18 15:14	1
Chloromethane	<0.32		1.0	0.32	ug/L			10/11/18 15:14	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			10/11/18 15:14	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			10/11/18 15:14	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/11/18 15:14	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/11/18 15:14	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			10/11/18 15:14	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			10/11/18 15:14	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			10/11/18 15:14	1
Dibromomethane	<0.27		1.0	0.27	ug/L			10/11/18 15:14	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			10/11/18 15:14	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			10/11/18 15:14	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			10/11/18 15:14	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			10/11/18 15:14	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			10/11/18 15:14	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			10/11/18 15:14	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			10/11/18 15:14	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			10/11/18 15:14	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			10/11/18 15:14	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			10/11/18 15:14	1

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-152602-1

**Client Sample ID: MW-1**

**Lab Sample ID: 500-152602-4**

**Date Collected: 10/03/18 11:55**

**Matrix: Water**

**Date Received: 10/04/18 09:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			10/11/18 15:14	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			10/11/18 15:14	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			10/11/18 15:14	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			10/11/18 15:14	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			10/11/18 15:14	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			10/11/18 15:14	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			10/11/18 15:14	1
Naphthalene	<0.34		1.0	0.34	ug/L			10/11/18 15:14	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			10/11/18 15:14	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			10/11/18 15:14	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			10/11/18 15:14	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			10/11/18 15:14	1
Styrene	<0.39		1.0	0.39	ug/L			10/11/18 15:14	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			10/11/18 15:14	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			10/11/18 15:14	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			10/11/18 15:14	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			10/11/18 15:14	1
Toluene	<0.15		0.50	0.15	ug/L			10/11/18 15:14	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			10/11/18 15:14	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			10/11/18 15:14	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			10/11/18 15:14	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			10/11/18 15:14	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			10/11/18 15:14	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			10/11/18 15:14	1
Trichloroethene	<0.16		0.50	0.16	ug/L			10/11/18 15:14	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			10/11/18 15:14	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			10/11/18 15:14	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			10/11/18 15:14	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			10/11/18 15:14	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			10/11/18 15:14	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			10/11/18 15:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		72 - 124		10/11/18 15:14	1
Dibromofluoromethane	91		75 - 120		10/11/18 15:14	1
1,2-Dichloroethane-d4 (Surr)	90		75 - 126		10/11/18 15:14	1
Toluene-d8 (Surr)	88		75 - 120		10/11/18 15:14	1

**Client Sample ID: Trip Blank**

**Lab Sample ID: 500-152602-5**

**Date Collected: 10/03/18 00:00**

**Matrix: Water**

**Date Received: 10/04/18 09:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			10/11/18 15:40	1
Bromobenzene	<0.36		1.0	0.36	ug/L			10/11/18 15:40	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			10/11/18 15:40	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			10/11/18 15:40	1
Bromoform	<0.48		1.0	0.48	ug/L			10/11/18 15:40	1
Bromomethane	<0.80		2.0	0.80	ug/L			10/11/18 15:40	1

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# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-152602-1

**Client Sample ID: Trip Blank**

**Lab Sample ID: 500-152602-5**

**Date Collected: 10/03/18 00:00**

**Matrix: Water**

**Date Received: 10/04/18 09:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			10/11/18 15:40	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			10/11/18 15:40	1
Chloroethane	<0.51		1.0	0.51	ug/L			10/11/18 15:40	1
Chloroform	<0.37		2.0	0.37	ug/L			10/11/18 15:40	1
Chloromethane	<0.32		1.0	0.32	ug/L			10/11/18 15:40	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			10/11/18 15:40	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			10/11/18 15:40	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/11/18 15:40	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/11/18 15:40	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			10/11/18 15:40	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			10/11/18 15:40	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			10/11/18 15:40	1
Dibromomethane	<0.27		1.0	0.27	ug/L			10/11/18 15:40	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			10/11/18 15:40	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			10/11/18 15:40	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			10/11/18 15:40	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			10/11/18 15:40	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			10/11/18 15:40	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			10/11/18 15:40	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			10/11/18 15:40	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			10/11/18 15:40	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			10/11/18 15:40	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			10/11/18 15:40	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			10/11/18 15:40	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			10/11/18 15:40	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			10/11/18 15:40	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			10/11/18 15:40	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			10/11/18 15:40	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			10/11/18 15:40	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			10/11/18 15:40	1
Naphthalene	<0.34		1.0	0.34	ug/L			10/11/18 15:40	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			10/11/18 15:40	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			10/11/18 15:40	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			10/11/18 15:40	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			10/11/18 15:40	1
Styrene	<0.39		1.0	0.39	ug/L			10/11/18 15:40	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			10/11/18 15:40	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			10/11/18 15:40	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			10/11/18 15:40	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			10/11/18 15:40	1
Toluene	<0.15		0.50	0.15	ug/L			10/11/18 15:40	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			10/11/18 15:40	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			10/11/18 15:40	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			10/11/18 15:40	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			10/11/18 15:40	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			10/11/18 15:40	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			10/11/18 15:40	1
Trichloroethene	<0.16		0.50	0.16	ug/L			10/11/18 15:40	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			10/11/18 15:40	1

TestAmerica Chicago

# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-152602-1

**Client Sample ID: Trip Blank**

**Lab Sample ID: 500-152602-5**

**Date Collected: 10/03/18 00:00**

**Matrix: Water**

**Date Received: 10/04/18 09:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			10/11/18 15:40	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			10/11/18 15:40	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			10/11/18 15:40	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			10/11/18 15:40	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			10/11/18 15:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		72 - 124		10/11/18 15:40	1
Dibromofluoromethane	90		75 - 120		10/11/18 15:40	1
1,2-Dichloroethane-d4 (Surr)	93		75 - 126		10/11/18 15:40	1
Toluene-d8 (Surr)	104		75 - 120		10/11/18 15:40	1

# Definitions/Glossary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-152602-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

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

# QC Association Summary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-152602-1

## GC/MS VOA

### Analysis Batch: 454340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-152602-1	MW-2	Total/NA	Water	8260B	
500-152602-2	MW-3	Total/NA	Water	8260B	
500-152602-3	MW-3-Duplicate	Total/NA	Water	8260B	
500-152602-4	MW-1	Total/NA	Water	8260B	
500-152602-5	Trip Blank	Total/NA	Water	8260B	
MB 500-454340/6	Method Blank	Total/NA	Water	8260B	
LCS 500-454340/4	Lab Control Sample	Total/NA	Water	8260B	

# Surrogate Summary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-152602-1

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

**Matrix: Water**

**Prep Type: Total/NA**

## Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	DCA	TOL
		(72-124)	(75-120)	(75-126)	(75-120)
500-152602-1	MW-2	92	109	93	97
500-152602-2	MW-3	94	89	91	93
500-152602-3	MW-3-Duplicate	93	98	98	92
500-152602-4	MW-1	94	91	90	88
500-152602-5	Trip Blank	93	90	93	104
LCS 500-454340/4	Lab Control Sample	94	87	79	99
MB 500-454340/6	Method Blank	93	92	89	79

### Surrogate Legend

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



# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-152602-1

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

**Lab Sample ID: MB 500-454340/6**

**Matrix: Water**

**Analysis Batch: 454340**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			10/11/18 10:54	1
Bromobenzene	<0.36		1.0	0.36	ug/L			10/11/18 10:54	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			10/11/18 10:54	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			10/11/18 10:54	1
Bromoform	<0.48		1.0	0.48	ug/L			10/11/18 10:54	1
Bromomethane	<0.80		2.0	0.80	ug/L			10/11/18 10:54	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			10/11/18 10:54	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			10/11/18 10:54	1
Chloroethane	<0.51		1.0	0.51	ug/L			10/11/18 10:54	1
Chloroform	<0.37		2.0	0.37	ug/L			10/11/18 10:54	1
Chloromethane	<0.32		1.0	0.32	ug/L			10/11/18 10:54	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			10/11/18 10:54	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			10/11/18 10:54	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/11/18 10:54	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/11/18 10:54	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			10/11/18 10:54	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			10/11/18 10:54	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			10/11/18 10:54	1
Dibromomethane	<0.27		1.0	0.27	ug/L			10/11/18 10:54	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			10/11/18 10:54	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			10/11/18 10:54	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			10/11/18 10:54	1
Dichlorodifluoromethane	1.63	J	2.0	0.67	ug/L			10/11/18 10:54	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			10/11/18 10:54	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			10/11/18 10:54	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			10/11/18 10:54	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			10/11/18 10:54	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			10/11/18 10:54	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			10/11/18 10:54	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			10/11/18 10:54	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			10/11/18 10:54	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			10/11/18 10:54	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			10/11/18 10:54	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			10/11/18 10:54	1
Methylene Chloride	2.42	J	5.0	1.6	ug/L			10/11/18 10:54	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			10/11/18 10:54	1
Naphthalene	<0.34		1.0	0.34	ug/L			10/11/18 10:54	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			10/11/18 10:54	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			10/11/18 10:54	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			10/11/18 10:54	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			10/11/18 10:54	1
Styrene	<0.39		1.0	0.39	ug/L			10/11/18 10:54	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			10/11/18 10:54	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			10/11/18 10:54	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			10/11/18 10:54	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			10/11/18 10:54	1
Toluene	<0.15		0.50	0.15	ug/L			10/11/18 10:54	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			10/11/18 10:54	1

TestAmerica Chicago

# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-152602-1

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

**Lab Sample ID: MB 500-454340/6**  
**Matrix: Water**  
**Analysis Batch: 454340**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			10/11/18 10:54	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			10/11/18 10:54	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			10/11/18 10:54	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			10/11/18 10:54	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			10/11/18 10:54	1
Trichloroethene	<0.16		0.50	0.16	ug/L			10/11/18 10:54	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			10/11/18 10:54	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			10/11/18 10:54	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			10/11/18 10:54	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			10/11/18 10:54	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			10/11/18 10:54	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			10/11/18 10:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		72 - 124		10/11/18 10:54	1
Dibromofluoromethane	92		75 - 120		10/11/18 10:54	1
1,2-Dichloroethane-d4 (Surr)	89		75 - 126		10/11/18 10:54	1
Toluene-d8 (Surr)	79		75 - 120		10/11/18 10:54	1

**Lab Sample ID: LCS 500-454340/4**  
**Matrix: Water**  
**Analysis Batch: 454340**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	46.7		ug/L		93	70 - 120
Bromobenzene	50.0	51.6		ug/L		103	70 - 122
Bromochloromethane	50.0	44.8		ug/L		90	65 - 122
Bromodichloromethane	50.0	50.4		ug/L		101	69 - 120
Bromoform	50.0	44.5		ug/L		89	56 - 132
Bromomethane	50.0	50.6		ug/L		101	40 - 152
Carbon tetrachloride	50.0	48.9		ug/L		98	59 - 133
Chlorobenzene	50.0	50.1		ug/L		100	70 - 120
Chloroethane	50.0	59.6		ug/L		119	48 - 136
Chloroform	50.0	50.8		ug/L		102	70 - 120
Chloromethane	50.0	51.7		ug/L		103	56 - 152
2-Chlorotoluene	50.0	51.4		ug/L		103	70 - 125
4-Chlorotoluene	50.0	51.2		ug/L		102	68 - 124
cis-1,2-Dichloroethene	50.0	52.8		ug/L		106	70 - 125
cis-1,3-Dichloropropene	50.0	48.2		ug/L		96	64 - 127
Dibromochloromethane	50.0	46.2		ug/L		92	68 - 125
1,2-Dibromo-3-Chloropropane	50.0	41.6		ug/L		83	56 - 123
1,2-Dibromoethane	50.0	47.5		ug/L		95	70 - 125
Dibromomethane	50.0	48.2		ug/L		96	70 - 120
1,2-Dichlorobenzene	50.0	49.4		ug/L		99	70 - 125
1,3-Dichlorobenzene	50.0	50.5		ug/L		101	70 - 125
1,4-Dichlorobenzene	50.0	49.7		ug/L		99	70 - 120
Dichlorodifluoromethane	50.0	53.4		ug/L		107	40 - 159
1,1-Dichloroethane	50.0	52.9		ug/L		106	70 - 125

TestAmerica Chicago

# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-152602-1

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

**Lab Sample ID: LCS 500-454340/4**  
**Matrix: Water**  
**Analysis Batch: 454340**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	50.0	44.6		ug/L		89	68 - 127
1,1-Dichloroethene	50.0	56.8		ug/L		114	67 - 122
1,2-Dichloropropane	50.0	51.8		ug/L		104	67 - 130
1,3-Dichloropropane	50.0	47.6		ug/L		95	62 - 136
2,2-Dichloropropane	50.0	50.2		ug/L		100	58 - 139
1,1-Dichloropropene	50.0	47.4		ug/L		95	70 - 121
Ethylbenzene	50.0	49.9		ug/L		100	70 - 123
Hexachlorobutadiene	50.0	51.3		ug/L		103	51 - 150
Isopropylbenzene	50.0	54.4		ug/L		109	70 - 126
Methylene Chloride	50.0	55.6		ug/L		111	69 - 125
Methyl tert-butyl ether	50.0	36.7		ug/L		73	55 - 123
Naphthalene	50.0	44.7		ug/L		89	53 - 144
n-Butylbenzene	50.0	55.0		ug/L		110	68 - 125
N-Propylbenzene	50.0	54.4		ug/L		109	69 - 127
p-Isopropyltoluene	50.0	53.4		ug/L		107	70 - 125
sec-Butylbenzene	50.0	49.2		ug/L		98	70 - 123
Styrene	50.0	46.6		ug/L		93	70 - 120
tert-Butylbenzene	50.0	52.3		ug/L		105	70 - 121
1,1,1,2-Tetrachloroethane	50.0	50.1		ug/L		100	70 - 125
1,1,1,2,2-Tetrachloroethane	50.0	47.6		ug/L		95	62 - 140
Tetrachloroethene	50.0	53.2		ug/L		106	70 - 128
Toluene	50.0	50.5		ug/L		101	70 - 125
trans-1,2-Dichloroethene	50.0	55.1		ug/L		110	70 - 125
trans-1,3-Dichloropropene	50.0	45.2		ug/L		90	62 - 128
1,2,3-Trichlorobenzene	50.0	50.5		ug/L		101	51 - 145
1,2,4-Trichlorobenzene	50.0	50.2		ug/L		100	57 - 137
1,1,1-Trichloroethane	50.0	50.2		ug/L		100	70 - 125
1,1,2-Trichloroethane	50.0	46.7		ug/L		93	71 - 130
Trichloroethene	50.0	57.6		ug/L		115	70 - 125
Trichlorofluoromethane	50.0	59.4		ug/L		119	55 - 128
1,2,3-Trichloropropane	50.0	47.8		ug/L		96	50 - 133
1,2,4-Trimethylbenzene	50.0	47.6		ug/L		95	70 - 123
1,3,5-Trimethylbenzene	50.0	52.4		ug/L		105	70 - 123
Vinyl chloride	50.0	57.1		ug/L		114	64 - 126
Xylenes, Total	100	99.6		ug/L		100	70 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	94		72 - 124
Dibromofluoromethane	87		75 - 120
1,2-Dichloroethane-d4 (Surr)	79		75 - 126
Toluene-d8 (Surr)	99		75 - 120

# Lab Chronicle

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-152602-1

**Client Sample ID: MW-2**  
**Date Collected: 10/03/18 11:20**  
**Date Received: 10/04/18 09:15**

**Lab Sample ID: 500-152602-1**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	454340	10/11/18 13:56	PMF	TAL CHI

**Client Sample ID: MW-3**  
**Date Collected: 10/03/18 11:35**  
**Date Received: 10/04/18 09:15**

**Lab Sample ID: 500-152602-2**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	454340	10/11/18 14:22	PMF	TAL CHI

**Client Sample ID: MW-3-Duplicate**  
**Date Collected: 10/03/18 11:35**  
**Date Received: 10/04/18 09:15**

**Lab Sample ID: 500-152602-3**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	454340	10/11/18 14:48	PMF	TAL CHI

**Client Sample ID: MW-1**  
**Date Collected: 10/03/18 11:55**  
**Date Received: 10/04/18 09:15**

**Lab Sample ID: 500-152602-4**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	454340	10/11/18 15:14	PMF	TAL CHI

**Client Sample ID: Trip Blank**  
**Date Collected: 10/03/18 00:00**  
**Date Received: 10/04/18 09:15**

**Lab Sample ID: 500-152602-5**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	454340	10/11/18 15:40	PMF	TAL CHI

## Laboratory References:

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

# Accreditation/Certification Summary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186

TestAmerica Job ID: 500-152602-1

## Laboratory: TestAmerica Chicago

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

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

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# TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60446  
 Phone: 708.534.5200 Fax: 708.534.5



500-152602 COC

Report To: (optional) Robert Longobardi  
 Contact: SCS Engineers  
 Company: SCS Engineers  
 Address: 2830 Dairy Drive  
 Address: Madison, WI 53718  
 Phone: 608-210-7329  
 Fax:  
 E-Mail: Rlongobardi@scsengineers.com

Bill To: (optional)  
 Contact: Same  
 Company: Same  
 Address:  
 Address:  
 Phone:  
 Fax:  
 Reference#

## Chain of Custody Record

Lab Job #: 500-152602  
 Chain of Custody Number:  
 Page 1 of 1  
 Temperature °C of Cooler: 5.8

Client		Client Project #		Preservative		Parameter		Matrix		Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other
Project Name		Lab Project #		Date		Time		# of Containers		
Project Location/State		Lab PM		Date		Time		Matrix		
Sampler		Lab PM		Date		Time		Matrix		
1	SCS Engineers	25216186		1						
2	Arctic Laundry + Cleaners									
3	Kenosha, WI									
4	Walter Harris									
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										

Turnaround Time Required (Business Days)

Requested Due Date:  1 Day  2 Days  5 Days  7 Days  10 Days  15 Days  Other

Sample Disposal

Return to Client  Disposal by Lab  Archive for \_\_\_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>Walter Harris</u>	Company: <u>SCS</u>	Date: <u>10/3/18</u>	Time: <u>1545</u>	Received By: <u>Shun-Lan DA-CHU</u>	Company: <u>SCS</u>	Date: <u>10/4/18</u>	Time: <u>0915</u>
Relinquished By:	Company:	Date:	Time:	Received By:	Company:	Date:	Time:
Relinquished By:	Company:	Date:	Time:	Received By:	Company:	Date:	Time:

Lab Courier:   
 Shipped:  FedEx  
 Hand Delivered:

- Matrix Key
- WW - Wastewater
  - W - Water
  - S - Soil
  - SL - Sludge
  - MS - Miscellaneous
  - OL - Oil
  - A - Air
  - SE - Sediment
  - SO - Soil
  - L - Leachate
  - WI - Wipe
  - DW - Drinking Water
  - O - Other

Client Comments:

Lab Comments:

## Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 500-152602-1

**Login Number: 152602**

**List Source: TestAmerica Chicago**

**List Number: 1**

**Creator: Scott, Sherri L**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



## ANALYTICAL REPORT

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

Laboratory Job ID: 500-171208-1

Client Project/Site: Arctic Laundry & Cleaners 25216186.00

**For:**

SCS Engineers  
2830 Dairy Dr  
Madison, Wisconsin 53718

Attn: Mr. Robert Langdon



*Authorized for release by:  
10/18/2019 1:10:52 PM*

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



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# Case Narrative

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

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## Job ID: 500-171208-1

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Laboratory: Eurofins TestAmerica, Chicago

### Narrative

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#### Job Narrative 500-171208-1

### Comments

No additional comments.

### Receipt

The samples were received on 10/4/2019 8:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.0° C.

### GC/MS VOA

Method 8260B: The following samples were collected in a properly preserved vial; however, the pH was outside the required criteria when verified by the laboratory. The samples were analyzed outside the 7-day holding time specified for unpreserved samples but within the 14-day holding time specified for preserved samples: MW3 Dup (500-171208-1), MW2 (500-171208-2) and MW3 (500-171208-3).

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

# Detection Summary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

## Client Sample ID: MW3 Dup

Lab Sample ID: 500-171208-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	41		1.0	0.37	ug/L	1		8260B	Total/NA
Toluene	0.19	J	0.50	0.15	ug/L	1		8260B	Total/NA

## Client Sample ID: MW2

Lab Sample ID: 500-171208-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloropropane	1.7		1.0	0.43	ug/L	1		8260B	Total/NA
Toluene	0.18	J	0.50	0.15	ug/L	1		8260B	Total/NA

## Client Sample ID: MW3

Lab Sample ID: 500-171208-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	37		1.0	0.37	ug/L	1		8260B	Total/NA
Toluene	0.22	J	0.50	0.15	ug/L	1		8260B	Total/NA

## Client Sample ID: MW1

Lab Sample ID: 500-171208-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.22	J	0.50	0.15	ug/L	1		8260B	Total/NA

## Client Sample ID: Trip Blank

Lab Sample ID: 500-171208-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.21	J	0.50	0.15	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Method Summary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
5030B	Purge and Trap	SW846	TAL CHI

**Protocol References:**

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

**Laboratory References:**

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



# Sample Summary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-171208-1	MW3 Dup	Water	10/01/19 13:15	10/04/19 08:45	
500-171208-2	MW2	Water	10/01/19 12:45	10/04/19 08:45	
500-171208-3	MW3	Water	10/01/19 13:15	10/04/19 08:45	
500-171208-4	MW1	Water	10/01/19 13:49	10/04/19 08:45	
500-171208-5	Trip Blank	Water	10/01/19 00:00	10/04/19 08:45	

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# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

**Client Sample ID: MW3 Dup**

**Lab Sample ID: 500-171208-1**

**Date Collected: 10/01/19 13:15**

**Matrix: Water**

**Date Received: 10/04/19 08:45**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			10/14/19 16:58	1
Bromobenzene	<0.36		1.0	0.36	ug/L			10/14/19 16:58	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			10/14/19 16:58	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			10/14/19 16:58	1
Bromoform	<0.48		1.0	0.48	ug/L			10/14/19 16:58	1
Bromomethane	<0.80		3.0	0.80	ug/L			10/14/19 16:58	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			10/14/19 16:58	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			10/14/19 16:58	1
Chloroethane	<0.51		1.0	0.51	ug/L			10/14/19 16:58	1
Chloroform	<0.37		2.0	0.37	ug/L			10/14/19 16:58	1
Chloromethane	<0.32		1.0	0.32	ug/L			10/14/19 16:58	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			10/14/19 16:58	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			10/14/19 16:58	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/14/19 16:58	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/14/19 16:58	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			10/14/19 16:58	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			10/14/19 16:58	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			10/14/19 16:58	1
Dibromomethane	<0.27		1.0	0.27	ug/L			10/14/19 16:58	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			10/14/19 16:58	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			10/14/19 16:58	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			10/14/19 16:58	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			10/14/19 16:58	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			10/14/19 16:58	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			10/14/19 16:58	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			10/14/19 16:58	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			10/14/19 16:58	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			10/14/19 16:58	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			10/14/19 16:58	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			10/14/19 16:58	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			10/14/19 16:58	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			10/14/19 16:58	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			10/14/19 16:58	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			10/14/19 16:58	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			10/14/19 16:58	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			10/14/19 16:58	1
Naphthalene	<0.34		1.0	0.34	ug/L			10/14/19 16:58	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			10/14/19 16:58	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			10/14/19 16:58	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			10/14/19 16:58	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			10/14/19 16:58	1
Styrene	<0.39		1.0	0.39	ug/L			10/14/19 16:58	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			10/14/19 16:58	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			10/14/19 16:58	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			10/14/19 16:58	1
<b>Tetrachloroethene</b>	<b>41</b>		1.0	0.37	ug/L			10/14/19 16:58	1
<b>Toluene</b>	<b>0.19 J</b>		0.50	0.15	ug/L			10/14/19 16:58	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			10/14/19 16:58	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			10/14/19 16:58	1

# Client Sample Results

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

**Client Sample ID: MW3 Dup**

**Lab Sample ID: 500-171208-1**

**Date Collected: 10/01/19 13:15**

**Matrix: Water**

**Date Received: 10/04/19 08:45**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			10/14/19 16:58	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			10/14/19 16:58	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			10/14/19 16:58	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			10/14/19 16:58	1
Trichloroethene	<0.16		0.50	0.16	ug/L			10/14/19 16:58	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			10/14/19 16:58	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			10/14/19 16:58	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			10/14/19 16:58	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			10/14/19 16:58	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			10/14/19 16:58	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			10/14/19 16:58	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	110		72 - 124					10/14/19 16:58	1
Dibromofluoromethane	90		75 - 120					10/14/19 16:58	1
1,2-Dichloroethane-d4 (Surr)	81		75 - 126					10/14/19 16:58	1
Toluene-d8 (Surr)	99		75 - 120					10/14/19 16:58	1

**Client Sample ID: MW2**

**Lab Sample ID: 500-171208-2**

**Date Collected: 10/01/19 12:45**

**Matrix: Water**

**Date Received: 10/04/19 08:45**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			10/14/19 17:23	1
Bromobenzene	<0.36		1.0	0.36	ug/L			10/14/19 17:23	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			10/14/19 17:23	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			10/14/19 17:23	1
Bromoform	<0.48		1.0	0.48	ug/L			10/14/19 17:23	1
Bromomethane	<0.80		3.0	0.80	ug/L			10/14/19 17:23	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			10/14/19 17:23	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			10/14/19 17:23	1
Chloroethane	<0.51		1.0	0.51	ug/L			10/14/19 17:23	1
Chloroform	<0.37		2.0	0.37	ug/L			10/14/19 17:23	1
Chloromethane	<0.32		1.0	0.32	ug/L			10/14/19 17:23	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			10/14/19 17:23	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			10/14/19 17:23	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/14/19 17:23	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/14/19 17:23	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			10/14/19 17:23	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			10/14/19 17:23	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			10/14/19 17:23	1
Dibromomethane	<0.27		1.0	0.27	ug/L			10/14/19 17:23	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			10/14/19 17:23	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			10/14/19 17:23	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			10/14/19 17:23	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			10/14/19 17:23	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			10/14/19 17:23	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			10/14/19 17:23	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			10/14/19 17:23	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

**Client Sample ID: MW2**

**Lab Sample ID: 500-171208-2**

Date Collected: 10/01/19 12:45

Matrix: Water

Date Received: 10/04/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>1,2-Dichloropropane</b>	<b>1.7</b>		1.0	0.43	ug/L			10/14/19 17:23	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			10/14/19 17:23	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			10/14/19 17:23	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			10/14/19 17:23	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			10/14/19 17:23	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			10/14/19 17:23	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			10/14/19 17:23	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			10/14/19 17:23	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			10/14/19 17:23	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			10/14/19 17:23	1
Naphthalene	<0.34		1.0	0.34	ug/L			10/14/19 17:23	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			10/14/19 17:23	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			10/14/19 17:23	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			10/14/19 17:23	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			10/14/19 17:23	1
Styrene	<0.39		1.0	0.39	ug/L			10/14/19 17:23	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			10/14/19 17:23	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			10/14/19 17:23	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			10/14/19 17:23	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			10/14/19 17:23	1
<b>Toluene</b>	<b>0.18 J</b>		0.50	0.15	ug/L			10/14/19 17:23	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			10/14/19 17:23	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			10/14/19 17:23	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			10/14/19 17:23	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			10/14/19 17:23	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			10/14/19 17:23	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			10/14/19 17:23	1
Trichloroethene	<0.16		0.50	0.16	ug/L			10/14/19 17:23	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			10/14/19 17:23	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			10/14/19 17:23	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			10/14/19 17:23	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			10/14/19 17:23	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			10/14/19 17:23	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			10/14/19 17:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		72 - 124		10/14/19 17:23	1
Dibromofluoromethane	90		75 - 120		10/14/19 17:23	1
1,2-Dichloroethane-d4 (Surr)	83		75 - 126		10/14/19 17:23	1
Toluene-d8 (Surr)	97		75 - 120		10/14/19 17:23	1

**Client Sample ID: MW3**

**Lab Sample ID: 500-171208-3**

Date Collected: 10/01/19 13:15

Matrix: Water

Date Received: 10/04/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			10/14/19 17:49	1
Bromobenzene	<0.36		1.0	0.36	ug/L			10/14/19 17:49	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			10/14/19 17:49	1

Eurofins TestAmerica, Chicago



# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

**Client Sample ID: MW3**  
**Date Collected: 10/01/19 13:15**  
**Date Received: 10/04/19 08:45**

**Lab Sample ID: 500-171208-3**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	<0.37		1.0	0.37	ug/L			10/14/19 17:49	1
Bromoform	<0.48		1.0	0.48	ug/L			10/14/19 17:49	1
Bromomethane	<0.80		3.0	0.80	ug/L			10/14/19 17:49	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			10/14/19 17:49	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			10/14/19 17:49	1
Chloroethane	<0.51		1.0	0.51	ug/L			10/14/19 17:49	1
Chloroform	<0.37		2.0	0.37	ug/L			10/14/19 17:49	1
Chloromethane	<0.32		1.0	0.32	ug/L			10/14/19 17:49	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			10/14/19 17:49	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			10/14/19 17:49	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/14/19 17:49	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/14/19 17:49	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			10/14/19 17:49	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			10/14/19 17:49	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			10/14/19 17:49	1
Dibromomethane	<0.27		1.0	0.27	ug/L			10/14/19 17:49	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			10/14/19 17:49	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			10/14/19 17:49	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			10/14/19 17:49	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			10/14/19 17:49	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			10/14/19 17:49	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			10/14/19 17:49	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			10/14/19 17:49	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			10/14/19 17:49	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			10/14/19 17:49	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			10/14/19 17:49	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			10/14/19 17:49	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			10/14/19 17:49	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			10/14/19 17:49	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			10/14/19 17:49	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			10/14/19 17:49	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			10/14/19 17:49	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			10/14/19 17:49	1
Naphthalene	<0.34		1.0	0.34	ug/L			10/14/19 17:49	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			10/14/19 17:49	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			10/14/19 17:49	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			10/14/19 17:49	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			10/14/19 17:49	1
Styrene	<0.39		1.0	0.39	ug/L			10/14/19 17:49	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			10/14/19 17:49	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			10/14/19 17:49	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			10/14/19 17:49	1
<b>Tetrachloroethene</b>	<b>37</b>		1.0	0.37	ug/L			10/14/19 17:49	1
<b>Toluene</b>	<b>0.22 J</b>		0.50	0.15	ug/L			10/14/19 17:49	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			10/14/19 17:49	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			10/14/19 17:49	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			10/14/19 17:49	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			10/14/19 17:49	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			10/14/19 17:49	1

# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

## Client Sample ID: MW3

Date Collected: 10/01/19 13:15

Date Received: 10/04/19 08:45

## Lab Sample ID: 500-171208-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			10/14/19 17:49	1
Trichloroethene	<0.16		0.50	0.16	ug/L			10/14/19 17:49	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			10/14/19 17:49	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			10/14/19 17:49	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			10/14/19 17:49	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			10/14/19 17:49	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			10/14/19 17:49	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			10/14/19 17:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		72 - 124					10/14/19 17:49	1
Dibromofluoromethane	93		75 - 120					10/14/19 17:49	1
1,2-Dichloroethane-d4 (Surr)	85		75 - 126					10/14/19 17:49	1
Toluene-d8 (Surr)	98		75 - 120					10/14/19 17:49	1

## Client Sample ID: MW1

Date Collected: 10/01/19 13:49

Date Received: 10/04/19 08:45

## Lab Sample ID: 500-171208-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			10/14/19 18:14	1
Bromobenzene	<0.36		1.0	0.36	ug/L			10/14/19 18:14	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			10/14/19 18:14	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			10/14/19 18:14	1
Bromoform	<0.48		1.0	0.48	ug/L			10/14/19 18:14	1
Bromomethane	<0.80		3.0	0.80	ug/L			10/14/19 18:14	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			10/14/19 18:14	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			10/14/19 18:14	1
Chloroethane	<0.51		1.0	0.51	ug/L			10/14/19 18:14	1
Chloroform	<0.37		2.0	0.37	ug/L			10/14/19 18:14	1
Chloromethane	<0.32		1.0	0.32	ug/L			10/14/19 18:14	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			10/14/19 18:14	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			10/14/19 18:14	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/14/19 18:14	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/14/19 18:14	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			10/14/19 18:14	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			10/14/19 18:14	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			10/14/19 18:14	1
Dibromomethane	<0.27		1.0	0.27	ug/L			10/14/19 18:14	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			10/14/19 18:14	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			10/14/19 18:14	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			10/14/19 18:14	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			10/14/19 18:14	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			10/14/19 18:14	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			10/14/19 18:14	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			10/14/19 18:14	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			10/14/19 18:14	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			10/14/19 18:14	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			10/14/19 18:14	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

**Client Sample ID: MW1**

**Lab Sample ID: 500-171208-4**

Date Collected: 10/01/19 13:49

Matrix: Water

Date Received: 10/04/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			10/14/19 18:14	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			10/14/19 18:14	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			10/14/19 18:14	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			10/14/19 18:14	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			10/14/19 18:14	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			10/14/19 18:14	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			10/14/19 18:14	1
Naphthalene	<0.34		1.0	0.34	ug/L			10/14/19 18:14	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			10/14/19 18:14	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			10/14/19 18:14	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			10/14/19 18:14	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			10/14/19 18:14	1
Styrene	<0.39		1.0	0.39	ug/L			10/14/19 18:14	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			10/14/19 18:14	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			10/14/19 18:14	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			10/14/19 18:14	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			10/14/19 18:14	1
<b>Toluene</b>	<b>0.22 J</b>		0.50	0.15	ug/L			10/14/19 18:14	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			10/14/19 18:14	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			10/14/19 18:14	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			10/14/19 18:14	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			10/14/19 18:14	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			10/14/19 18:14	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			10/14/19 18:14	1
Trichloroethene	<0.16		0.50	0.16	ug/L			10/14/19 18:14	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			10/14/19 18:14	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			10/14/19 18:14	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			10/14/19 18:14	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			10/14/19 18:14	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			10/14/19 18:14	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			10/14/19 18:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		72 - 124		10/14/19 18:14	1
Dibromofluoromethane	89		75 - 120		10/14/19 18:14	1
1,2-Dichloroethane-d4 (Surr)	83		75 - 126		10/14/19 18:14	1
Toluene-d8 (Surr)	100		75 - 120		10/14/19 18:14	1

**Client Sample ID: Trip Blank**

**Lab Sample ID: 500-171208-5**

Date Collected: 10/01/19 00:00

Matrix: Water

Date Received: 10/04/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			10/14/19 18:39	1
Bromobenzene	<0.36		1.0	0.36	ug/L			10/14/19 18:39	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			10/14/19 18:39	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			10/14/19 18:39	1
Bromoform	<0.48		1.0	0.48	ug/L			10/14/19 18:39	1
Bromomethane	<0.80		3.0	0.80	ug/L			10/14/19 18:39	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

**Client Sample ID: Trip Blank**

**Lab Sample ID: 500-171208-5**

**Date Collected: 10/01/19 00:00**

**Matrix: Water**

**Date Received: 10/04/19 08:45**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			10/14/19 18:39	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			10/14/19 18:39	1
Chloroethane	<0.51		1.0	0.51	ug/L			10/14/19 18:39	1
Chloroform	<0.37		2.0	0.37	ug/L			10/14/19 18:39	1
Chloromethane	<0.32		1.0	0.32	ug/L			10/14/19 18:39	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			10/14/19 18:39	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			10/14/19 18:39	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/14/19 18:39	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/14/19 18:39	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			10/14/19 18:39	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			10/14/19 18:39	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			10/14/19 18:39	1
Dibromomethane	<0.27		1.0	0.27	ug/L			10/14/19 18:39	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			10/14/19 18:39	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			10/14/19 18:39	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			10/14/19 18:39	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			10/14/19 18:39	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			10/14/19 18:39	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			10/14/19 18:39	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			10/14/19 18:39	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			10/14/19 18:39	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			10/14/19 18:39	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			10/14/19 18:39	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			10/14/19 18:39	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			10/14/19 18:39	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			10/14/19 18:39	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			10/14/19 18:39	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			10/14/19 18:39	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			10/14/19 18:39	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			10/14/19 18:39	1
Naphthalene	<0.34		1.0	0.34	ug/L			10/14/19 18:39	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			10/14/19 18:39	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			10/14/19 18:39	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			10/14/19 18:39	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			10/14/19 18:39	1
Styrene	<0.39		1.0	0.39	ug/L			10/14/19 18:39	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			10/14/19 18:39	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			10/14/19 18:39	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			10/14/19 18:39	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			10/14/19 18:39	1
<b>Toluene</b>	<b>0.21</b>	<b>J</b>	0.50	0.15	ug/L			10/14/19 18:39	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			10/14/19 18:39	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			10/14/19 18:39	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			10/14/19 18:39	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			10/14/19 18:39	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			10/14/19 18:39	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			10/14/19 18:39	1
Trichloroethene	<0.16		0.50	0.16	ug/L			10/14/19 18:39	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			10/14/19 18:39	1

# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

**Client Sample ID: Trip Blank**

**Lab Sample ID: 500-171208-5**

**Date Collected: 10/01/19 00:00**

**Matrix: Water**

**Date Received: 10/04/19 08:45**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			10/14/19 18:39	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			10/14/19 18:39	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			10/14/19 18:39	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			10/14/19 18:39	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			10/14/19 18:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		72 - 124		10/14/19 18:39	1
Dibromofluoromethane	90		75 - 120		10/14/19 18:39	1
1,2-Dichloroethane-d4 (Surr)	87		75 - 126		10/14/19 18:39	1
Toluene-d8 (Surr)	100		75 - 120		10/14/19 18:39	1

# Definitions/Glossary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

## Qualifiers

### GC/MS VOA

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

## Glossary

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

# QC Association Summary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

## GC/MS VOA

### Analysis Batch: 509833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-171208-1	MW3 Dup	Total/NA	Water	8260B	
500-171208-2	MW2	Total/NA	Water	8260B	
500-171208-3	MW3	Total/NA	Water	8260B	
500-171208-4	MW1	Total/NA	Water	8260B	
500-171208-5	Trip Blank	Total/NA	Water	8260B	
MB 500-509833/6	Method Blank	Total/NA	Water	8260B	
LCS 500-509833/4	Lab Control Sample	Total/NA	Water	8260B	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

# Surrogate Summary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

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

**Matrix: Water**

**Prep Type: Total/NA**

## Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	DCA	TOL
		(72-124)	(75-120)	(75-126)	(75-120)
500-171208-1	MW3 Dup	110	90	81	99
500-171208-2	MW2	108	90	83	97
500-171208-3	MW3	111	93	85	98
500-171208-4	MW1	112	89	83	100
500-171208-5	Trip Blank	112	90	87	100
LCS 500-509833/4	Lab Control Sample	94	95	83	105
MB 500-509833/6	Method Blank	105	91	87	96

### Surrogate Legend

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



# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

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

**Lab Sample ID: MB 500-509833/6**  
**Matrix: Water**  
**Analysis Batch: 509833**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			10/14/19 09:26	1
Bromobenzene	<0.36		1.0	0.36	ug/L			10/14/19 09:26	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			10/14/19 09:26	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			10/14/19 09:26	1
Bromoform	<0.48		1.0	0.48	ug/L			10/14/19 09:26	1
Bromomethane	<0.80		3.0	0.80	ug/L			10/14/19 09:26	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			10/14/19 09:26	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			10/14/19 09:26	1
Chloroethane	<0.51		1.0	0.51	ug/L			10/14/19 09:26	1
Chloroform	<0.37		2.0	0.37	ug/L			10/14/19 09:26	1
Chloromethane	<0.32		1.0	0.32	ug/L			10/14/19 09:26	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			10/14/19 09:26	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			10/14/19 09:26	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/14/19 09:26	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/14/19 09:26	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			10/14/19 09:26	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			10/14/19 09:26	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			10/14/19 09:26	1
Dibromomethane	<0.27		1.0	0.27	ug/L			10/14/19 09:26	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			10/14/19 09:26	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			10/14/19 09:26	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			10/14/19 09:26	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			10/14/19 09:26	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			10/14/19 09:26	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			10/14/19 09:26	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			10/14/19 09:26	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			10/14/19 09:26	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			10/14/19 09:26	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			10/14/19 09:26	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			10/14/19 09:26	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			10/14/19 09:26	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			10/14/19 09:26	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			10/14/19 09:26	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			10/14/19 09:26	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			10/14/19 09:26	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			10/14/19 09:26	1
Naphthalene	<0.34		1.0	0.34	ug/L			10/14/19 09:26	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			10/14/19 09:26	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			10/14/19 09:26	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			10/14/19 09:26	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			10/14/19 09:26	1
Styrene	<0.39		1.0	0.39	ug/L			10/14/19 09:26	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			10/14/19 09:26	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			10/14/19 09:26	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			10/14/19 09:26	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			10/14/19 09:26	1
Toluene	<0.15		0.50	0.15	ug/L			10/14/19 09:26	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			10/14/19 09:26	1

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

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

**Lab Sample ID: MB 500-509833/6**  
**Matrix: Water**  
**Analysis Batch: 509833**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			10/14/19 09:26	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			10/14/19 09:26	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			10/14/19 09:26	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			10/14/19 09:26	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			10/14/19 09:26	1
Trichloroethene	<0.16		0.50	0.16	ug/L			10/14/19 09:26	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			10/14/19 09:26	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			10/14/19 09:26	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			10/14/19 09:26	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			10/14/19 09:26	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			10/14/19 09:26	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			10/14/19 09:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		72 - 124		10/14/19 09:26	1
Dibromofluoromethane	91		75 - 120		10/14/19 09:26	1
1,2-Dichloroethane-d4 (Surr)	87		75 - 126		10/14/19 09:26	1
Toluene-d8 (Surr)	96		75 - 120		10/14/19 09:26	1

**Lab Sample ID: LCS 500-509833/4**  
**Matrix: Water**  
**Analysis Batch: 509833**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	49.3		ug/L		99	70 - 120
Bromobenzene	50.0	49.0		ug/L		98	70 - 122
Bromochloromethane	50.0	48.8		ug/L		98	65 - 122
Bromodichloromethane	50.0	42.8		ug/L		86	69 - 120
Bromoform	50.0	46.2		ug/L		92	56 - 132
Bromomethane	50.0	42.9		ug/L		86	40 - 152
Carbon tetrachloride	50.0	44.1		ug/L		88	59 - 133
Chlorobenzene	50.0	50.9		ug/L		102	70 - 120
Chloroethane	50.0	54.3		ug/L		109	48 - 136
Chloroform	50.0	45.9		ug/L		92	70 - 120
Chloromethane	50.0	41.7		ug/L		83	56 - 152
2-Chlorotoluene	50.0	47.3		ug/L		95	70 - 125
4-Chlorotoluene	50.0	46.1		ug/L		92	68 - 124
cis-1,2-Dichloroethene	50.0	48.5		ug/L		97	70 - 125
cis-1,3-Dichloropropene	50.0	47.9		ug/L		96	64 - 127
Dibromochloromethane	50.0	45.9		ug/L		92	68 - 125
1,2-Dibromo-3-Chloropropane	50.0	33.6		ug/L		67	56 - 123
1,2-Dibromoethane	50.0	48.6		ug/L		97	70 - 125
Dibromomethane	50.0	43.9		ug/L		88	70 - 120
1,2-Dichlorobenzene	50.0	48.7		ug/L		97	70 - 125
1,3-Dichlorobenzene	50.0	50.8		ug/L		102	70 - 125
1,4-Dichlorobenzene	50.0	48.7		ug/L		97	70 - 120
Dichlorodifluoromethane	50.0	34.8		ug/L		70	40 - 159
1,1-Dichloroethane	50.0	52.6		ug/L		105	70 - 125

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

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

**Lab Sample ID: LCS 500-509833/4**  
**Matrix: Water**  
**Analysis Batch: 509833**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	50.0	42.5		ug/L		85	68 - 127
1,1-Dichloroethene	50.0	45.7		ug/L		91	67 - 122
1,2-Dichloropropane	50.0	54.0		ug/L		108	67 - 130
1,3-Dichloropropane	50.0	47.3		ug/L		95	62 - 136
2,2-Dichloropropane	50.0	49.4		ug/L		99	58 - 139
1,1-Dichloropropene	50.0	50.2		ug/L		100	70 - 121
Ethylbenzene	50.0	53.1		ug/L		106	70 - 123
Hexachlorobutadiene	50.0	56.4		ug/L		113	51 - 150
Isopropylbenzene	50.0	50.4		ug/L		101	70 - 126
Methylene Chloride	50.0	46.5		ug/L		93	69 - 125
Methyl tert-butyl ether	50.0	40.6		ug/L		81	55 - 123
Naphthalene	50.0	40.5		ug/L		81	53 - 144
n-Butylbenzene	50.0	48.4		ug/L		97	68 - 125
N-Propylbenzene	50.0	48.4		ug/L		97	69 - 127
p-Isopropyltoluene	50.0	49.7		ug/L		99	70 - 125
sec-Butylbenzene	50.0	50.6		ug/L		101	70 - 123
Styrene	50.0	49.5		ug/L		99	70 - 120
tert-Butylbenzene	50.0	50.2		ug/L		100	70 - 121
1,1,1,2-Tetrachloroethane	50.0	49.6		ug/L		99	70 - 125
1,1,2,2-Tetrachloroethane	50.0	46.3		ug/L		93	62 - 140
Tetrachloroethene	50.0	56.6		ug/L		113	70 - 128
Toluene	50.0	49.5		ug/L		99	70 - 125
trans-1,2-Dichloroethene	50.0	49.0		ug/L		98	70 - 125
trans-1,3-Dichloropropene	50.0	43.5		ug/L		87	62 - 128
1,2,3-Trichlorobenzene	50.0	46.6		ug/L		93	51 - 145
1,2,4-Trichlorobenzene	50.0	49.0		ug/L		98	57 - 137
1,1,1-Trichloroethane	50.0	47.1		ug/L		94	70 - 125
1,1,2-Trichloroethane	50.0	46.5		ug/L		93	71 - 130
Trichloroethene	50.0	51.4		ug/L		103	70 - 125
Trichlorofluoromethane	50.0	44.6		ug/L		89	55 - 128
1,2,3-Trichloropropane	50.0	43.2		ug/L		86	50 - 133
1,2,4-Trimethylbenzene	50.0	48.4		ug/L		97	70 - 123
1,3,5-Trimethylbenzene	50.0	49.4		ug/L		99	70 - 123
Vinyl chloride	50.0	54.3		ug/L		109	64 - 126
Xylenes, Total	100	97.1		ug/L		97	70 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	94		72 - 124
Dibromofluoromethane	95		75 - 120
1,2-Dichloroethane-d4 (Surr)	83		75 - 126
Toluene-d8 (Surr)	105		75 - 120

# Lab Chronicle

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

## Client Sample ID: MW3 Dup

Date Collected: 10/01/19 13:15

Date Received: 10/04/19 08:45

Lab Sample ID: 500-171208-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	509833	10/14/19 16:58	STW	TAL CHI

## Client Sample ID: MW2

Date Collected: 10/01/19 12:45

Date Received: 10/04/19 08:45

Lab Sample ID: 500-171208-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	509833	10/14/19 17:23	STW	TAL CHI

## Client Sample ID: MW3

Date Collected: 10/01/19 13:15

Date Received: 10/04/19 08:45

Lab Sample ID: 500-171208-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	509833	10/14/19 17:49	STW	TAL CHI

## Client Sample ID: MW1

Date Collected: 10/01/19 13:49

Date Received: 10/04/19 08:45

Lab Sample ID: 500-171208-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	509833	10/14/19 18:14	STW	TAL CHI

## Client Sample ID: Trip Blank

Date Collected: 10/01/19 00:00

Date Received: 10/04/19 08:45

Lab Sample ID: 500-171208-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	509833	10/14/19 18:39	STW	TAL CHI

### Laboratory References:

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

# Accreditation/Certification Summary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

## Laboratory: Eurofins TestAmerica, Chicago

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

Authority	Program	Identification Number	Expiration Date
Wisconsin	State Program	999580010	08-31-20

- 1
- 2
- 3
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- 13
- 14
- 15

Chain of Custody Record



<b>Client Information</b>	Samples: <i>Robert Langdon</i>	Lab PM: Fredrick, Sandie	Carri: 500-171208 COC
Client Contact: Mr. Robert Langdon	Phone: 6082123995	E-Mail: sandie.fredrick@testamericainc.com	COC No: 500-75643-35177.1
Company: SCS Engineers	Address: 2830 Dairy Dr City: Madison State, Zip: WI, 53718		Page: Page 1 of 1
Project Name: Arctic Laundry & Cleaners 25216186.00	Project #: 50006561	Analysis Requested	

Due Date Requested:	TAT Requested (days): <i>standard</i>	PO #: 25216186.00	WO #:	Total Number of Containers: <i>500-171208</i>
Field Filtered Sample (Yes or No)	Permitted (MSDS) (Yes or No)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Special Instructions/Note:	
Field Filtered Sample (Yes or No)	Permitted (MSDS) (Yes or No)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Special Instructions/Note:	
Field Filtered Sample (Yes or No)	Permitted (MSDS) (Yes or No)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Special Instructions/Note:	

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Permitted (MSDS) (Yes or No)	Total Number of Containers	Special Instructions/Note
<i>MW3 Dup</i>	<i>10/1/19</i>	<i>1315</i>	<i>G</i>	<i>Water</i>	<i>N</i>	<i>X</i>	<i>3</i>	<i>3 UOA's</i>
<i>MW2</i>	<i>10/1/19</i>	<i>1245</i>	<i>G</i>	<i>Water</i>	<i>N</i>	<i>X</i>	<i>3</i>	<i>↓</i>
<i>MW3</i>	<i>10/1/19</i>	<i>1315</i>	<i>G</i>	<i>Water</i>	<i>N</i>	<i>X</i>	<i>3</i>	
<i>MW1</i>	<i>10/1/19</i>	<i>1319</i>	<i>G</i>	<i>Water</i>	<i>N</i>	<i>X</i>	<i>3</i>	
<i>Trip Blank</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>Water</i>	<i>N</i>	<i>X</i>	<i>1</i>	

<b>Possible Hazard Identification</b>	<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison B	<input type="checkbox"/> Unknown	<input type="checkbox"/> Radiological
<b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b>	<input type="checkbox"/> Return To Client	<input checked="" type="checkbox"/> Disposal By Lab	<input type="checkbox"/> Archive For _____ Months			

Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:		
Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: <i>Robert Langdon</i>	Date/Time: <i>10/3/19/1200</i>	Company: <i>SCS</i>	Received by: <i>[Signature]</i> Date/Time: <i>10/4/19 0845</i> Company: <i>TA</i>
Relinquished by:	Date/Time:	Company:	Received by:
Relinquished by:	Date/Time:	Company:	Received by:

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.: <i>136860</i>	Cooler Temperature(s) °C and Other Remarks: <i>1.0</i>
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## Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 500-171208-1

**Login Number: 171208**

**List Source: Eurofins TestAmerica, Chicago**

**List Number: 1**

**Creator: James, Jeff A**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



October 14, 2019

Rob Langdon  
SCS Engineers  
2830 Dairy Dr.  
Madison, WI 53718

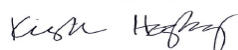
RE: Project: Artic Laundry & Cleaners  
Pace Project No.: 10494447

Dear Rob Langdon:

Enclosed are the analytical results for sample(s) received by the laboratory on October 04, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kirsten Hogberg  
kirsten.hogberg@pacelabs.com  
(612)607-1700  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Artic Laundry & Cleaners

Pace Project No.: 10494447

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### Minnesota Certification IDs

1700 Elm Street SE, Minneapolis, MN 55414-2485

A2LA Certification #: 2926.01

Alabama Certification #: 40770

Alaska Contaminated Sites Certification #: 17-009

Alaska DW Certification #: MN00064

Arizona Certification #: AZ0014

Arkansas DW Certification #: MN00064

Arkansas WW Certification #: 88-0680

California Certification #: 2929

CNMI Saipan Certification #: MP0003

Colorado Certification #: MN00064

Connecticut Certification #: PH-0256

EPA Region 8+Wyoming DW Certification #: via MN 027-053-137

Florida Certification #: E87605

Georgia Certification #: 959

Guam EPA Certification #: MN00064

Hawaii Certification #: MN00064

Idaho Certification #: MN00064

Illinois Certification #: 200011

Indiana Certification #: C-MN-01

Iowa Certification #: 368

Kansas Certification #: E-10167

Kentucky DW Certification #: 90062

Kentucky WW Certification #: 90062

Louisiana DEQ Certification #: 03086

Louisiana DW Certification #: MN00064

Maine Certification #: MN00064

Maryland Certification #: 322

Massachusetts Certification #: M-MN064

Michigan Certification #: 9909

Minnesota Certification #: 027-053-137

Minnesota Dept of Ag Certification #: via MN 027-053-137

Minnesota Petrofund Certification #: 1240

Mississippi Certification #: MN00064

Missouri Certification #: 10100

Montana Certification #: CERT0092

Nebraska Certification #: NE-OS-18-06

Nevada Certification #: MN00064

New Hampshire Certification #: 2081

New Jersey Certification #: MN002

New York Certification #: 11647

North Carolina DW Certification #: 27700

North Carolina WW Certification #: 530

North Dakota Certification #: R-036

Ohio DW Certification #: 41244

Ohio VAP Certification #: CL101

Oklahoma Certification #: 9507

Oregon Primary Certification #: MN300001

Oregon Secondary Certification #: MN200001

Pennsylvania Certification #: 68-00563

Puerto Rico Certification #: MN00064

South Carolina Certification #: 74003001

Tennessee Certification #: TN02818

Texas Certification #: T104704192

Utah Certification #: MN00064

Vermont Certification #: VT-027053137

Virginia Certification #: 460163

Washington Certification #: C486

West Virginia DEP Certification #: 382

West Virginia DW Certification #: 9952 C

Wisconsin Certification #: 999407970

Wyoming UST Certification #: via A2LA 2926.01

---

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Artic Laundry & Cleaners

Pace Project No.: 10494447

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10494447001	5605 Bar	Air	10/02/19 11:17	10/04/19 12:00
10494447002	5605 Liquor Store	Air	10/02/19 11:17	10/04/19 12:00
10494447003	5605 Basement	Air	10/02/19 11:19	10/04/19 12:00
10494447004	5605 Outdoor	Air	10/02/19 11:13	10/04/19 12:00
10494447005	5605 2nd Floor	Air	10/02/19 11:10	10/04/19 12:00
10494447006	5621 1st Floor	Air	10/02/19 11:40	10/04/19 12:00
10494447007	5621 Basement	Air	10/02/19 11:41	10/04/19 12:00
10494447008	5625 Storage	Air	10/02/19 11:42	10/04/19 12:00
10494447009	5621 Outdoor	Air	10/02/19 11:39	10/04/19 12:00
10494447010	Unused Can 0199	Air		10/04/19 12:00
10494447011	Unused Can 3495	Air		10/04/19 12:00

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Artic Laundry & Cleaners

Pace Project No.: 10494447

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10494447001	5605 Bar	TO-15	MJL	5	PASI-M
10494447002	5605 Liquor Store	TO-15	MJL	5	PASI-M
10494447003	5605 Basement	TO-15	MJL	5	PASI-M
10494447004	5605 Outdoor	TO-15	MJL	5	PASI-M
10494447005	5605 2nd Floor	TO-15	MJL	5	PASI-M
10494447006	5621 1st Floor	TO-15	MJL	5	PASI-M
10494447007	5621 Basement	TO-15	MJL	5	PASI-M
10494447008	5625 Storage	TO-15	MJL	5	PASI-M
10494447009	5621 Outdoor	TO-15	MJL	5	PASI-M

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Artic Laundry & Cleaners

Pace Project No.: 10494447

Sample: 5605 Bar									
Lab ID: 10494447001									
Collected: 10/02/19 11:17									
Received: 10/04/19 12:00									
Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.33	ug/m3	1.2	0.33	1.49		10/11/19 22:59	156-59-2	
trans-1,2-Dichloroethene	<0.42	ug/m3	1.2	0.42	1.49		10/11/19 22:59	156-60-5	
Tetrachloroethene	0.87J	ug/m3	1.0	0.47	1.49		10/11/19 22:59	127-18-4	
Trichloroethene	<0.38	ug/m3	0.81	0.38	1.49		10/11/19 22:59	79-01-6	
Vinyl chloride	<0.19	ug/m3	0.39	0.19	1.49		10/11/19 22:59	75-01-4	

Sample: 5605 Liquor Store									
Lab ID: 10494447002									
Collected: 10/02/19 11:17									
Received: 10/04/19 12:00									
Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.33	ug/m3	1.2	0.33	1.49		10/11/19 22:01	156-59-2	
trans-1,2-Dichloroethene	<0.42	ug/m3	1.2	0.42	1.49		10/11/19 22:01	156-60-5	
Tetrachloroethene	0.78J	ug/m3	1.0	0.47	1.49		10/11/19 22:01	127-18-4	
Trichloroethene	<0.38	ug/m3	0.81	0.38	1.49		10/11/19 22:01	79-01-6	
Vinyl chloride	<0.19	ug/m3	0.39	0.19	1.49		10/11/19 22:01	75-01-4	

Sample: 5605 Basement									
Lab ID: 10494447003									
Collected: 10/02/19 11:19									
Received: 10/04/19 12:00									
Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.33	ug/m3	1.2	0.33	1.49		10/11/19 23:57	156-59-2	
trans-1,2-Dichloroethene	<0.42	ug/m3	1.2	0.42	1.49		10/11/19 23:57	156-60-5	
Tetrachloroethene	3.2	ug/m3	1.0	0.47	1.49		10/11/19 23:57	127-18-4	
Trichloroethene	0.86	ug/m3	0.81	0.38	1.49		10/11/19 23:57	79-01-6	
Vinyl chloride	<0.19	ug/m3	0.39	0.19	1.49		10/11/19 23:57	75-01-4	

Sample: 5605 Outdoor									
Lab ID: 10494447004									
Collected: 10/02/19 11:13									
Received: 10/04/19 12:00									
Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.28	ug/m3	1.0	0.28	1.3		10/12/19 00:55	156-59-2	
trans-1,2-Dichloroethene	<0.37	ug/m3	1.0	0.37	1.3		10/12/19 00:55	156-60-5	
Tetrachloroethene	<0.41	ug/m3	0.90	0.41	1.3		10/12/19 00:55	127-18-4	
Trichloroethene	<0.33	ug/m3	0.71	0.33	1.3		10/12/19 00:55	79-01-6	
Vinyl chloride	<0.16	ug/m3	0.34	0.16	1.3		10/12/19 00:55	75-01-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Artic Laundry & Cleaners

Pace Project No.: 10494447

<b>Sample: 5605 2nd Floor</b>									
		<b>Lab ID: 10494447005</b>	Collected: 10/02/19 11:10			Received: 10/04/19 12:00		Matrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.33	ug/m3	1.2	0.33	1.49		10/12/19 01:25	156-59-2	
trans-1,2-Dichloroethene	<0.42	ug/m3	1.2	0.42	1.49		10/12/19 01:25	156-60-5	
Tetrachloroethene	0.81J	ug/m3	1.0	0.47	1.49		10/12/19 01:25	127-18-4	
Trichloroethene	<0.38	ug/m3	0.81	0.38	1.49		10/12/19 01:25	79-01-6	
Vinyl chloride	<0.19	ug/m3	0.39	0.19	1.49		10/12/19 01:25	75-01-4	

<b>Sample: 5621 1st Floor</b>									
		<b>Lab ID: 10494447006</b>	Collected: 10/02/19 11:40			Received: 10/04/19 12:00		Matrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.33	ug/m3	1.2	0.33	1.49		10/12/19 01:55	156-59-2	
trans-1,2-Dichloroethene	<0.42	ug/m3	1.2	0.42	1.49		10/12/19 01:55	156-60-5	
Tetrachloroethene	<0.47	ug/m3	1.0	0.47	1.49		10/12/19 01:55	127-18-4	
Trichloroethene	<0.38	ug/m3	0.81	0.38	1.49		10/12/19 01:55	79-01-6	
Vinyl chloride	<0.19	ug/m3	0.39	0.19	1.49		10/12/19 01:55	75-01-4	

<b>Sample: 5621 Basement</b>									
		<b>Lab ID: 10494447007</b>	Collected: 10/02/19 11:41			Received: 10/04/19 12:00		Matrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.33	ug/m3	1.2	0.33	1.49		10/12/19 03:27	156-59-2	
trans-1,2-Dichloroethene	<0.42	ug/m3	1.2	0.42	1.49		10/12/19 03:27	156-60-5	
Tetrachloroethene	<0.47	ug/m3	1.0	0.47	1.49		10/12/19 03:27	127-18-4	
Trichloroethene	<0.38	ug/m3	0.81	0.38	1.49		10/12/19 03:27	79-01-6	
Vinyl chloride	<0.19	ug/m3	0.39	0.19	1.49		10/12/19 03:27	75-01-4	

<b>Sample: 5625 Storage</b>									
		<b>Lab ID: 10494447008</b>	Collected: 10/02/19 11:42			Received: 10/04/19 12:00		Matrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.84	ug/m3	3.1	0.84	3.85		10/12/19 02:28	156-59-2	
trans-1,2-Dichloroethene	<1.1	ug/m3	3.1	1.1	3.85		10/12/19 02:28	156-60-5	
Tetrachloroethene	<1.2	ug/m3	2.7	1.2	3.85		10/12/19 02:28	127-18-4	
Trichloroethene	<0.97	ug/m3	2.1	0.97	3.85		10/12/19 02:28	79-01-6	
Vinyl chloride	<0.49	ug/m3	1.0	0.49	3.85		10/12/19 02:28	75-01-4	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Artic Laundry & Cleaners

Pace Project No.: 10494447

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**Sample: 5621 Outdoor**      **Lab ID: 10494447009**      Collected: 10/02/19 11:39      Received: 10/04/19 12:00      Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>		Analytical Method: TO-15							
cis-1,2-Dichloroethene	<0.31	ug/m3	1.1	0.31	1.41		10/12/19 02:58	156-59-2	
trans-1,2-Dichloroethene	<0.40	ug/m3	1.1	0.40	1.41		10/12/19 02:58	156-60-5	
Tetrachloroethene	<0.44	ug/m3	0.97	0.44	1.41		10/12/19 02:58	127-18-4	
Trichloroethene	<0.36	ug/m3	0.77	0.36	1.41		10/12/19 02:58	79-01-6	
Vinyl chloride	<0.18	ug/m3	0.37	0.18	1.41		10/12/19 02:58	75-01-4	

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Artic Laundry & Cleaners  
Pace Project No.: 10494447

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QC Batch: 637837 Analysis Method: TO-15  
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level  
Associated Lab Samples: 10494447001, 10494447002, 10494447003, 10494447004, 10494447005, 10494447006, 10494447007, 10494447008, 10494447009

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METHOD BLANK: 3438137 Matrix: Air  
Associated Lab Samples: 10494447001, 10494447002, 10494447003, 10494447004, 10494447005, 10494447006, 10494447007, 10494447008, 10494447009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.22	0.81	10/11/19 15:14	
Tetrachloroethene	ug/m3	<0.31	0.69	10/11/19 15:14	
trans-1,2-Dichloroethene	ug/m3	<0.28	0.81	10/11/19 15:14	
Trichloroethene	ug/m3	<0.25	0.55	10/11/19 15:14	
Vinyl chloride	ug/m3	<0.13	0.26	10/11/19 15:14	

LABORATORY CONTROL SAMPLE: 3438138

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/m3	40.3	42.1	105	70-130	
Tetrachloroethene	ug/m3	68.9	69.3	101	70-130	
trans-1,2-Dichloroethene	ug/m3	40.3	42.9	106	70-130	
Trichloroethene	ug/m3	54.6	56.5	103	70-130	
Vinyl chloride	ug/m3	26	23.9	92	70-130	

SAMPLE DUPLICATE: 3438738

Parameter	Units	10494461003 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND	<0.42		25	
Tetrachloroethene	ug/m3	ND	1.2J		25	
trans-1,2-Dichloroethene	ug/m3	ND	<0.55		25	
Trichloroethene	ug/m3	ND	<0.49		25	
Vinyl chloride	ug/m3	ND	<0.24		25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: Artic Laundry & Cleaners

Pace Project No.: 10494447

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Artic Laundry & Cleaners

Pace Project No.: 10494447

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10494447001	5605 Bar	TO-15	637837		
10494447002	5605 Liquor Store	TO-15	637837		
10494447003	5605 Basement	TO-15	637837		
10494447004	5605 Outdoor	TO-15	637837		
10494447005	5605 2nd Floor	TO-15	637837		
10494447006	5621 1st Floor	TO-15	637837		
10494447007	5621 Basement	TO-15	637837		
10494447008	5625 Storage	TO-15	637837		
10494447009	5621 Outdoor	TO-15	637837		

### REPORT OF LABORATORY ANALYSIS

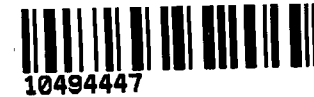
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# AIR: CHAIN-OF-CUSTODY / A

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant f

## WO#: 10494447



45591

Page: 1 of 1

<b>Section A</b> Required Client Information:	<b>Section B</b> Required Project Information:	<b>Section C</b> Invoice Information:	<b>Program</b> <input type="checkbox"/> UST <input type="checkbox"/> Superfund <input type="checkbox"/> Emissions <input type="checkbox"/> Clean Air Act <input checked="" type="checkbox"/> Voluntary Clean Up <input type="checkbox"/> Dry Clean <input type="checkbox"/> RCRA <input type="checkbox"/> Other
Company: <b>SCS</b>	Report To: <b>Robert Langda</b>	Attention: <b>Same</b>	Location of Sampling by State: <b>WI</b>
Address: <b>2830 Derry Tr Madison WI 53718</b>	Copy To:	Company Name:	Reporting Units ug/m <sup>3</sup> <input type="checkbox"/> PPBV <input checked="" type="checkbox"/> PPMV <input type="checkbox"/> Other <input type="checkbox"/>
Email To: <b>V.Langda@SCSEng.com</b>	Purchase Order No.:	Address:	Report Level: <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/> Other
Phone: <b>608216729</b> Fax:	Project Name: <b>Arctic Laundry Cleaners</b>	Pace Quote Reference:	
Requested Due Date/TAT:	Project Number:	Pace Project Manager/Sales Rep.	
		Pace Profile #: <b>32630</b>	

ITEM #	'Section D Required Client Information <b>AIR SAMPLE ID</b> Sample IDs MUST BE UNIQUE	Valid Media Codes MEDIA CODE Tedlar Bag TB 1 Liter Summa Can 1LC 6 Liter Summa Can 6LC Low Volume Puff LVP High Volume Puff HVP Other PM10	MEDIA CODE	PID Reading (Client only)	COLLECTED				Canister Pressure (Initial Field - in Hg)	Canister Pressure (Final Field - in Hg)	Summa Can Number	Flow Control Number	Method: PM10 3C - Fixed Gas (%) TO-3 BTEX TO-3M (Methane) TO-14 TO-15 Full List VOCs TO-15 Short List BTEX TO-15 Short List Chlorinated	Pace Lab ID
					COMPOSITE START		COMPOSITE - END/GRAB							
					DATE	TIME	DATE	TIME						
1	5605 Bar		UO		10/1/19	1126	10/2/19	1117	-30	-4	01232037		X	001
2	5605 liquor store		UO		10/1/19	1130	10/2/19	1117	-30	-4	35672158		X	002
3	5605 Basement		UO		10/1/19	1135	10/1/19	1119	-285	-5	01272080		X	003
4	5605 outdoor		UO		10/1/19	1143	10/2/19	1113	-29	-1	26752135		X	004
5	5605 2nd Floor		UO		10/1/19	1115	10/2/19	1110	-29	-35	26931988		X	005
6	5621 1st Floor		UO		10/1/19	1200	10/2/19	1140	-30	-4	16372150		X	006
7	5621 Basement		UO		10/1/19	1201	10/2/19	1141	-30	-3	02412071		X	007
8	5625 storage		UO		10/1/19	1206	10/1/19	1142	-30	-21	35911938		X	008
9	5621 outdoor		UO		10/1/19	1203	10/1/19	1139	-30	-4	11892153		X	009

Comments:  
 \* PCB, TCE, Cis & trans 1,2-DCE  
 and vinyl chloride.  
 Returning two un-used  
 30-min canisters # 199  
 and 3495 ORIGINAL

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Robert Langda	10/3/19	1200	Matt J. Pice	10-4-19	12:00	AMB	Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
PRINT Name of SAMPLER	SIGNATURE OF SAMPLER				
	Robert Langda				
	[Signature]				
DATE Signed (MM/DD/YY)					
		10/03/19			



Document Name:  
**Air Sample Condition Upon Receipt**

Document No.:  
**F-MN-A-106-rev.18**

Document Revised: 31Jan2019  
Page 1 of 1

Issuing Authority:  
North Carolina Department of Environment and Natural Resources

**Air Sample Condition Upon Receipt** Client Name: SCS Project #: \_\_\_\_\_

**WO#: 10494447**

PM: KNH Due Date: 10/11/19  
CLIENT: SCS Engineer

Courier:  Fed Ex  UPS  USPS  Client  
 Pace  Speedee  Commercial  See Exception

Tracking Number: 1083 0281 0784, 1083 0281 0810  
10-7-19 1083 0281 0800, 1083 0281 0773

Custody Seal on Cooler/Box Present?  Yes  No Seals Intact?  Yes  No

Packing Material:  Bubble Wrap  Bubble Bags  Foam  None  Tin Can  Other: \_\_\_\_\_ Temp Blank rec:  Yes  No

Temp. (TO17 and TO13 samples only) (°C): \_\_\_\_\_ Corrected Temp (°C): \_\_\_\_\_ Thermometer Used:  G87A9170600254  G87A9155100842

Temp should be above freezing to 6°C Correction Factor: \_\_\_\_\_ Date & Initials of Person Examining Contents: 10-7-19 MI

Type of ice Received  Blue  Wet  None

**Comments:**

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.
Sampler Name and/or Signature on COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Media: <u>Air Can</u> Airbag Filter TDT Passive		11. Individually Certified Cans Y <u>N</u> (list which samples)
Is sufficient information available to reconcile samples to the COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12.
Do cans need to be pressurized (3C and ASTM 1946 DO NOT PRESSURIZE)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13.

Samples Received: \_\_\_\_\_ Pressure Gauge #  10AIR34  10AIR35

Canisters					Canisters				
Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
5605 Bar	123	2037	-3	5	5621 Outdoor	1189	2153	-1.5	5
5605 1 <sup>st</sup> floor	3567	2158	-3	5	Unused 199	199	2835		
5605 Basement	127	2088	-3	5	Unused 3495	3495	1731		
5605 Outdoor	2045	2135	+0.5	5					
5605 2 <sup>nd</sup> floor	2693	1988	-3	5					
5621 1 <sup>st</sup> floor	1637	2150	-3	5					
5621 Basement	241	2071	-3	5					
5625 Storage	3591	1938	-19.5	5					

**CLIENT NOTIFICATION/RESOLUTION**

Field Data Required?  Yes  No

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/Resolution: \_\_\_\_\_

Project Manager Review: Kirsten Hoffberg

Date: 10/8/2019

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Pace Analytical Services, LLC  
 1700 Elm Street, Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10494447  
 Project Name: Artic Laundry & Cleaners

Lab Sample No: 10494447001      ProjSampleNum: 10494447001      Date Collected: 10/02/19 11:17  
 Client Sample ID: 5605 Bar      Matrix: Air      Date Received: 10/04/19 12:00

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.082	ppbv	0.3	0.082	10/11/19 22:59 MJL	156-59-2	
Tetrachloroethene	0.13J	ppbv	0.15	0.068	10/11/19 22:59 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.1	ppbv	0.3	0.1	10/11/19 22:59 MJL	156-60-5	
Trichloroethene	<0.07	ppbv	0.15	0.07	10/11/19 22:59 MJL	79-01-6	
Vinyl chloride	<0.073	ppbv	0.15	0.073	10/11/19 22:59 MJL	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**

Units Conversion Request



Pace Analytical Services, LLC  
 1700 Elm Street, Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10494447  
 Project Name: Artic Laundry & Cleaners

Lab Sample No: 10494447002      ProjSampleNum: 10494447002      Date Collected: 10/02/19 11:17  
 Client Sample ID: 5605 Liquor Store      Matrix: Air      Date Received: 10/04/19 12:00

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.082	ppbv	0.3	0.082	10/11/19 22:01 MJL	156-59-2	
Tetrachloroethene	0.11J	ppbv	0.15	0.068	10/11/19 22:01 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.1	ppbv	0.3	0.1	10/11/19 22:01 MJL	156-60-5	
Trichloroethene	<0.07	ppbv	0.15	0.07	10/11/19 22:01 MJL	79-01-6	
Vinyl chloride	<0.073	ppbv	0.15	0.073	10/11/19 22:01 MJL	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**

Units Conversion Request



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**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10494447  
 Project Name: Artic Laundry & Cleaners

Lab Sample No: 10494447003      ProjSampleNum: 10494447003      Date Collected: 10/02/19 11:19  
 Client Sample ID: 5605 Basement      Matrix: Air      Date Received: 10/04/19 12:00

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.082	ppbv	0.3	0.082	10/11/19 23:57 MJL	156-59-2	
Tetrachloroethene	0.46	ppbv	0.15	0.068	10/11/19 23:57 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.1	ppbv	0.3	0.1	10/11/19 23:57 MJL	156-60-5	
Trichloroethene	0.16	ppbv	0.15	0.07	10/11/19 23:57 MJL	79-01-6	
Vinyl chloride	<0.073	ppbv	0.15	0.073	10/11/19 23:57 MJL	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**

Units Conversion Request



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 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10494447  
 Project Name: Artic Laundry & Cleaners

Lab Sample No: 10494447004      ProjSampleNum: 10494447004      Date Collected: 10/02/19 11:13  
 Client Sample ID: 5605 Outdoor      Matrix: Air      Date Received: 10/04/19 12:00

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.069	ppbv	0.25	0.069	10/12/19 0:55 MJL	156-59-2	
Tetrachloroethene	<0.059	ppbv	0.13	0.059	10/12/19 0:55 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.092	ppbv	0.25	0.092	10/12/19 0:55 MJL	156-60-5	
Trichloroethene	<0.06	ppbv	0.13	0.06	10/12/19 0:55 MJL	79-01-6	
Vinyl chloride	<0.062	ppbv	0.13	0.062	10/12/19 0:55 MJL	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**

Units Conversion Request



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 1700 Elm Street, Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10494447  
 Project Name: Artic Laundry & Cleaners

Lab Sample No: 10494447005      ProjSampleNum: 10494447005      Date Collected: 10/02/19 11:10  
 Client Sample ID: 5605 2nd Floor      Matrix: Air      Date Received: 10/04/19 12:00

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.082	ppbv	0.3	0.082	10/12/19 1:25 MJL	156-59-2	
Tetrachloroethene	0.12J	ppbv	0.15	0.068	10/12/19 1:25 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.1	ppbv	0.3	0.1	10/12/19 1:25 MJL	156-60-5	
Trichloroethene	<0.07	ppbv	0.15	0.07	10/12/19 1:25 MJL	79-01-6	
Vinyl chloride	<0.073	ppbv	0.15	0.073	10/12/19 1:25 MJL	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**

Units Conversion Request





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 Minneapolis, MN 55414  
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 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10494447  
 Project Name: Artic Laundry & Cleaners

Lab Sample No: 10494447006      ProjSampleNum: 10494447006      Date Collected: 10/02/19 11:40  
 Client Sample ID: 5621 1st Floor      Matrix: Air      Date Received: 10/04/19 12:00

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.082	ppbv	0.3	0.082	10/12/19 1:55 MJL	156-59-2	
Tetrachloroethene	<0.068	ppbv	0.15	0.068	10/12/19 1:55 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.1	ppbv	0.3	0.1	10/12/19 1:55 MJL	156-60-5	
Trichloroethene	<0.07	ppbv	0.15	0.07	10/12/19 1:55 MJL	79-01-6	
Vinyl chloride	<0.073	ppbv	0.15	0.073	10/12/19 1:55 MJL	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**

Units Conversion Request



Pace Analytical Services, LLC  
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 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10494447  
 Project Name: Artic Laundry & Cleaners

Lab Sample No: 10494447007      ProjSampleNum: 10494447007      Date Collected: 10/02/19 11:41  
 Client Sample ID: 5621 Basement      Matrix: Air      Date Received: 10/04/19 12:00

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.082	ppbv	0.3	0.082	10/12/19 3:27 MJL	156-59-2	
Tetrachloroethene	<0.068	ppbv	0.15	0.068	10/12/19 3:27 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.1	ppbv	0.3	0.1	10/12/19 3:27 MJL	156-60-5	
Trichloroethene	<0.07	ppbv	0.15	0.07	10/12/19 3:27 MJL	79-01-6	
Vinyl chloride	<0.073	ppbv	0.15	0.073	10/12/19 3:27 MJL	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**

Units Conversion Request



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 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10494447  
 Project Name: Artic Laundry & Cleaners

Lab Sample No: 10494447008      ProjSampleNum: 10494447008      Date Collected: 10/02/19 11:42  
 Client Sample ID: 5625 Storage      Matrix: Air      Date Received: 10/04/19 12:00

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.21	ppbv	0.77	0.21	10/12/19 2:28 MJL	156-59-2	
Tetrachloroethene	<0.17	ppbv	0.39	0.17	10/12/19 2:28 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.27	ppbv	0.77	0.27	10/12/19 2:28 MJL	156-60-5	
Trichloroethene	<0.18	ppbv	0.38	0.18	10/12/19 2:28 MJL	79-01-6	
Vinyl chloride	<0.19	ppbv	0.38	0.19	10/12/19 2:28 MJL	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**

Units Conversion Request



Pace Analytical Services, LLC  
 1700 Elm Street, Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10494447  
 Project Name: Artic Laundry & Cleaners

Lab Sample No: 10494447009      ProjSampleNum: 10494447009      Date Collected: 10/02/19 11:39  
 Client Sample ID: 5621 Outdoor      Matrix: Air      Date Received: 10/04/19 12:00

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.077	ppbv	0.27	0.077	10/12/19 2:58 MJL	156-59-2	
Tetrachloroethene	<0.064	ppbv	0.14	0.064	10/12/19 2:58 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.099	ppbv	0.27	0.099	10/12/19 2:58 MJL	156-60-5	
Trichloroethene	<0.066	ppbv	0.14	0.066	10/12/19 2:58 MJL	79-01-6	
Vinyl chloride	<0.069	ppbv	0.14	0.069	10/12/19 2:58 MJL	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**

Units Conversion Request



Pace Analytical Services, LLC  
1700 Elm Street, Suite 200  
Minneapolis, MN 55414  
Phone: 612.607.1700  
Fax: 612.607.6444

### ANALYTICAL RESULTS

Client: SCS Engineers  
Phone: 843.746.8525

Lab Project Number: 10494447  
Project Name: Artic Laundry & Cleaners

---

## PARAMETER FOOTNOTES

SUPPLEMENTAL REPORT  
Units Conversion Request

October 14, 2019

Rob Langdon  
SCS Engineers  
2830 Dairy Dr.  
Madison, WI 53718

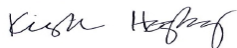
RE: Project: 25216186 Arctic Laundry & Clea  
Pace Project No.: 10494511

Dear Rob Langdon:

Enclosed are the analytical results for sample(s) received by the laboratory on October 05, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kirsten Hogberg  
kirsten.hogberg@pacelabs.com  
(612)607-1700  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 25216186 Arctic Laundry & Clea

Pace Project No.: 10494511

---

### Minnesota Certification IDs

1700 Elm Street SE, Minneapolis, MN 55414-2485

A2LA Certification #: 2926.01

Alabama Certification #: 40770

Alaska Contaminated Sites Certification #: 17-009

Alaska DW Certification #: MN00064

Arizona Certification #: AZ0014

Arkansas DW Certification #: MN00064

Arkansas WW Certification #: 88-0680

California Certification #: 2929

CNMI Saipan Certification #: MP0003

Colorado Certification #: MN00064

Connecticut Certification #: PH-0256

EPA Region 8+Wyoming DW Certification #: via MN 027-053-137

Florida Certification #: E87605

Georgia Certification #: 959

Guam EPA Certification #: MN00064

Hawaii Certification #: MN00064

Idaho Certification #: MN00064

Illinois Certification #: 200011

Indiana Certification #: C-MN-01

Iowa Certification #: 368

Kansas Certification #: E-10167

Kentucky DW Certification #: 90062

Kentucky WW Certification #: 90062

Louisiana DEQ Certification #: 03086

Louisiana DW Certification #: MN00064

Maine Certification #: MN00064

Maryland Certification #: 322

Massachusetts Certification #: M-MN064

Michigan Certification #: 9909

Minnesota Certification #: 027-053-137

Minnesota Dept of Ag Certification #: via MN 027-053-137

Minnesota Petrofund Certification #: 1240

Mississippi Certification #: MN00064

Missouri Certification #: 10100

Montana Certification #: CERT0092

Nebraska Certification #: NE-OS-18-06

Nevada Certification #: MN00064

New Hampshire Certification #: 2081

New Jersey Certification #: MN002

New York Certification #: 11647

North Carolina DW Certification #: 27700

North Carolina WW Certification #: 530

North Dakota Certification #: R-036

Ohio DW Certification #: 41244

Ohio VAP Certification #: CL101

Oklahoma Certification #: 9507

Oregon Primary Certification #: MN300001

Oregon Secondary Certification #: MN200001

Pennsylvania Certification #: 68-00563

Puerto Rico Certification #: MN00064

South Carolina Certification #: 74003001

Tennessee Certification #: TN02818

Texas Certification #: T104704192

Utah Certification #: MN00064

Vermont Certification #: VT-027053137

Virginia Certification #: 460163

Washington Certification #: C486

West Virginia DEP Certification #: 382

West Virginia DW Certification #: 9952 C

Wisconsin Certification #: 999407970

Wyoming UST Certification #: via A2LA 2926.01

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 25216186 Arctic Laundry & Clea  
Pace Project No.: 10494511

---

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10494511001	SS-6	Air	10/02/19 14:35	10/05/19 09:10
10494511002	SS-7	Air	10/02/19 12:35	10/05/19 09:10
10494511003	SS-8	Air	10/02/19 13:34	10/05/19 09:10
10494511004	SS-9	Air	10/02/19 12:45	10/05/19 09:10

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 25216186 Arctic Laundry & Clea

Pace Project No.: 10494511

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10494511001	SS-6	TO-15	MJL	5	PASI-M
10494511002	SS-7	TO-15	MJL	5	PASI-M
10494511003	SS-8	TO-15	MJL	5	PASI-M
10494511004	SS-9	TO-15	MJL	5	PASI-M

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 25216186 Arctic Laundry & Clea

Pace Project No.: 10494511

Sample: SS-6									
Lab ID: 10494511001									
Collected: 10/02/19 14:35									
Received: 10/05/19 09:10									
Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.49	ug/m3	1.8	0.49	2.24		10/12/19 21:51	156-59-2	
trans-1,2-Dichloroethene	<0.64	ug/m3	1.8	0.64	2.24		10/12/19 21:51	156-60-5	
Tetrachloroethene	6.4	ug/m3	1.5	0.70	2.24		10/12/19 21:51	127-18-4	
Trichloroethene	<0.57	ug/m3	1.2	0.57	2.24		10/12/19 21:51	79-01-6	
Vinyl chloride	<0.28	ug/m3	0.58	0.28	2.24		10/12/19 21:51	75-01-4	

Sample: SS-7									
Lab ID: 10494511002									
Collected: 10/02/19 12:35									
Received: 10/05/19 09:10									
Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.38	ug/m3	1.4	0.38	1.75		10/12/19 22:21	156-59-2	
trans-1,2-Dichloroethene	<0.50	ug/m3	1.4	0.50	1.75		10/12/19 22:21	156-60-5	
Tetrachloroethene	29.9	ug/m3	1.2	0.55	1.75		10/12/19 22:21	127-18-4	
Trichloroethene	<0.44	ug/m3	0.96	0.44	1.75		10/12/19 22:21	79-01-6	
Vinyl chloride	<0.22	ug/m3	0.46	0.22	1.75		10/12/19 22:21	75-01-4	

Sample: SS-8									
Lab ID: 10494511003									
Collected: 10/02/19 13:34									
Received: 10/05/19 09:10									
Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.35	ug/m3	1.3	0.35	1.61		10/12/19 22:50	156-59-2	
trans-1,2-Dichloroethene	<0.46	ug/m3	1.3	0.46	1.61		10/12/19 22:50	156-60-5	
Tetrachloroethene	76.1	ug/m3	1.1	0.51	1.61		10/12/19 22:50	127-18-4	
Trichloroethene	4.4	ug/m3	0.88	0.41	1.61		10/12/19 22:50	79-01-6	
Vinyl chloride	<0.20	ug/m3	0.42	0.20	1.61		10/12/19 22:50	75-01-4	

Sample: SS-9									
Lab ID: 10494511004									
Collected: 10/02/19 12:45									
Received: 10/05/19 09:10									
Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.35	ug/m3	1.3	0.35	1.61		10/12/19 23:20	156-59-2	
trans-1,2-Dichloroethene	<0.46	ug/m3	1.3	0.46	1.61		10/12/19 23:20	156-60-5	
Tetrachloroethene	25.1	ug/m3	1.1	0.51	1.61		10/12/19 23:20	127-18-4	
Trichloroethene	<0.41	ug/m3	0.88	0.41	1.61		10/12/19 23:20	79-01-6	
Vinyl chloride	<0.20	ug/m3	0.42	0.20	1.61		10/12/19 23:20	75-01-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 25216186 Arctic Laundry & Clea  
Pace Project No.: 10494511

QC Batch: 637913 Analysis Method: TO-15  
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level  
Associated Lab Samples: 10494511001, 10494511002, 10494511003, 10494511004

METHOD BLANK: 3438892 Matrix: Air  
Associated Lab Samples: 10494511001, 10494511002, 10494511003, 10494511004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.22	0.81	10/12/19 10:45	
Tetrachloroethene	ug/m3	<0.31	0.69	10/12/19 10:45	
trans-1,2-Dichloroethene	ug/m3	<0.28	0.81	10/12/19 10:45	
Trichloroethene	ug/m3	<0.25	0.55	10/12/19 10:45	
Vinyl chloride	ug/m3	<0.13	0.26	10/12/19 10:45	

LABORATORY CONTROL SAMPLE: 3438893

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/m3	40.3	44.8	111	70-130	
Tetrachloroethene	ug/m3	68.9	70.4	102	70-130	
trans-1,2-Dichloroethene	ug/m3	40.3	30.3	75	70-130	
Trichloroethene	ug/m3	54.6	59.8	109	70-130	
Vinyl chloride	ug/m3	26	29.1	112	70-130	

SAMPLE DUPLICATE: 3439043

Parameter	Units	10493456010 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND	<0.32		25	
Tetrachloroethene	ug/m3	18.7	19.0	1	25	
trans-1,2-Dichloroethene	ug/m3	ND	<0.41		25	
Trichloroethene	ug/m3	ND	<0.36		25	
Vinyl chloride	ug/m3	ND	<0.18		25	

SAMPLE DUPLICATE: 3439044

Parameter	Units	10493456011 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND	<0.33		25	
Tetrachloroethene	ug/m3	ND	<0.47		25	
trans-1,2-Dichloroethene	ug/m3	ND	<0.42		25	
Trichloroethene	ug/m3	ND	<0.38		25	
Vinyl chloride	ug/m3	ND	<0.19		25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: 25216186 Arctic Laundry & Clea

Pace Project No.: 10494511

---

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25216186 Arctic Laundry & Clea

Pace Project No.: 10494511

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10494511001	SS-6	TO-15	637913		
10494511002	SS-7	TO-15	637913		
10494511003	SS-8	TO-15	637913		
10494511004	SS-9	TO-15	637913		

### REPORT OF LABORATORY ANALYSIS

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# AIR: CHAIN-OF-CUSTODY

The Chain-of-Custody is a LEGAL DOCUMENT. All rele

## WO#: 10494511



45592

Page: 1 of 1

<b>Section A</b> Required Client Information:		<b>Section B</b> Required Project Information:		<b>Section C</b> Invoice Information:		Program	
Company: <u>SS Engineers</u>		Report To: <u>Robert Lang</u>		Attention: <u>Same</u>		<input type="checkbox"/> UST <input type="checkbox"/> Superfund <input type="checkbox"/> Emissions <input type="checkbox"/> Clean Air Act <input checked="" type="checkbox"/> Voluntary Clean Up <input type="checkbox"/> Dry Clean <input type="checkbox"/> RCRA <input type="checkbox"/> Other	
Address: <u>2830 Darryl Dr Madison, WI 53718</u>		Copy To:		Company Name: <u>Same</u>		Location of Sampling by State: <u>WI</u>	
Email To: <u>rlang@ssengineers.com</u>		Purchase Order No.:		Address:		<b>Reporting Units</b> ug/m <sup>3</sup> _____ mg/m <sup>3</sup> _____ PPBV _____ PPMV _____ Other _____	
Phone: <u>608 216 7719</u> Fax:		Project Name: <u>Arctic Laundry &amp; Clean</u>		Pace Quote Reference:		Report Level: <u>II</u> <input type="checkbox"/> <u>III</u> <input type="checkbox"/> <u>IV</u> <input type="checkbox"/> Other: _____	
Requested Due Date/TAT:		Project Number: <u>25216186</u>		Pace Project Manager/Sales Rep.:			
				Pace Profile #: <u>32630</u>			

ITEM #	Section D Required Client Information <b>AIR SAMPLE ID</b> Sample IDs MUST BE UNIQUE	Valid Media Codes MEDIA CODE Tedlar Bag TB 1 Liter Summa Can 1LC 6 Liter Summa Can 6LC Low Volume Puff LVP High Volume Puff HVP Other PM10	MEDIA CODE	PID Reading (Client only)	COLLECTED				Canister Pressure (Initial Field - in Hg)	Canister Pressure (Final Field - in Hg)	Summa Can Number	Flow Control Number	Method:							Pace Lab ID	
					COMPOSITE START		COMPOSITE - END/GRAB						PM10	SC - Piked Gas (%)	TO-3 BTEX	TO-3M (Methane)	TO-14	TO-15 Full List VOCs	TO-15 Short List BTEX		TO-15 Short List Chlorinated
					DATE	TIME	DATE	TIME													
1	SS-6		6612	10/2/19	1355	10/2/19	1435	-30	-13	0645	1224									001	
2	SS-7		6626	10/2/19	1205	10/2/19	1235	-275	-6	3537	1246									002	
3	<del>SS-8</del>		<del>6611</del>	<del>10/2/19</del>	<del>1145</del>	<del>10/2/19</del>	<del>1245</del>	<del>31</del>	<del>5</del>	<del>3654</del>	<del>0912</del>									<del>002</del>	
4	SS-8		6616	10/2/19	1300	10/2/19	1374	-70	5	3654	0912									003	
5	SS-9		6611	10/2/19	1245	10/2/19	1245	-3	-5	0679	1119									004	

Comments:  
\* PCB, PCB, CO & trans  
12 PCB, and vinyl  
dibenzide

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS								
<u>Robert Lang</u>	<u>10/4/19</u>	<u>1200</u>	<u>[Signature]</u>	<u>10/15/19</u>	<u>9:00</u>									

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
PRINT Name of SAMPLER: <u>Robert Lang</u>	SIGNATURE of SAMPLER: <u>[Signature]</u>				
DATE Signed (MM/DD/Y): <u>10/07/19</u>					

ORIGINAL



Document Name:  
**Air Sample Condition Upon Receipt**

Document No.:  
F-MN-A-106-rev.18

Document Revised: 31Jan2019  
Page 1 of 1  
Issuing Authority:

**WO#: 10494511**

**Air Sample Condition Upon Receipt** Client Name: SCS

Project #: **PM: KNH Due Date: 10/14/19**  
**CLIENT: SCS Engineer**

Courier:  Fed Ex  UPS  USPS  Client  
 Pace  Speedee  Commercial See Exception

Tracking Number: 1083 0281 0800

Custody Seal on Cooler/Box Present?  Yes  No Seals Intact?  Yes  No

Packing Material:  Bubble Wrap  Bubble Bags  Foam  None  Tin Can  Other: \_\_\_\_\_ Temp Blank rec:  Yes  No

Temp. (TO17 and TO13 samples only) (°C): \_\_\_\_\_ Corrected Temp (°C): \_\_\_\_\_

Thermometer Used:  G87A9170600254  
 G87A9155100842

Temp should be above freezing to 6°C Correction Factor: \_\_\_\_\_

Date & Initials of Person Examining Contents: EG 10/7/19

Type of ice Received  Blue  Wet  None

**Comments:**

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.
Sampler Name and/or Signature on COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Media: <u>Air Can</u> Airbag Filter TDT Passive		11. Individually Certified Cans Y <u>N</u> (list which samples)
Is sufficient information available to reconcile samples to the COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12.
Do cans need to be pressurized (3C and ASTM 1946 DO NOT PRESSURIZE)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13.

Samples Received:					Pressure Gauge # <input type="checkbox"/> 10AIR34 <input type="checkbox"/> 10AIR35				
Canisters					Canisters				
Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
SS-6	0645	1224	-12	+5					
" 7	3537	1246	-7	"					
" 8	3054	0912	-5	"					
" 9	0679	1119	-5	"					

**CLIENT NOTIFICATION/RESOLUTION**

Field Data Required?  Yes  No

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/Resolution: \_\_\_\_\_

Project Manager Review: Kirsten Hopfer

Date: 10/8/2019

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Pace Analytical Services, LLC  
 1700 Elm Street, Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10494511  
 Project Name: 25216186 Artic Laundry & Clean

Lab Sample No: 10494511001      ProjSampleNum: 10494511001      Date Collected: 10/02/19 14:35  
 Client Sample ID: SS-6      Matrix: Air      Date Received: 10/05/19 9:10

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.12	ppbv	0.45	0.12	10/12/19 21:51 MJL	156-59-2	
Tetrachloroethene	0.93	ppbv	0.22	0.1	10/12/19 21:51 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.16	ppbv	0.45	0.16	10/12/19 21:51 MJL	156-60-5	
Trichloroethene	<0.1	ppbv	0.22	0.1	10/12/19 21:51 MJL	79-01-6	
Vinyl chloride	<0.11	ppbv	0.22	0.11	10/12/19 21:51 MJL	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**

Units Conversion Request





Pace Analytical Services, LLC  
 1700 Elm Street, Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10494511  
 Project Name: 25216186 Artic Laundry & Clean

Lab Sample No: 10494511002      ProjSampleNum: 10494511002      Date Collected: 10/02/19 12:35  
 Client Sample ID: SS-7      Matrix: Air      Date Received: 10/05/19 9:10

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.094	ppbv	0.35	0.094	10/12/19 22:21 MJL	156-59-2	
Tetrachloroethene	4.3	ppbv	0.17	0.08	10/12/19 22:21 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.12	ppbv	0.35	0.12	10/12/19 22:21 MJL	156-60-5	
Trichloroethene	<0.081	ppbv	0.18	0.081	10/12/19 22:21 MJL	79-01-6	
Vinyl chloride	<0.085	ppbv	0.18	0.085	10/12/19 22:21 MJL	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**

Units Conversion Request



Pace Analytical Services, LLC  
 1700 Elm Street, Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10494511  
 Project Name: 25216186 Artic Laundry & Clean

Lab Sample No: 10494511003      ProjSampleNum: 10494511003      Date Collected: 10/02/19 13:34  
 Client Sample ID: SS-8      Matrix: Air      Date Received: 10/05/19 9:10

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.087	ppbv	0.32	0.087	10/12/19 22:50 MJL	156-59-2	
Tetrachloroethene	11	ppbv	0.16	0.074	10/12/19 22:50 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.11	ppbv	0.32	0.11	10/12/19 22:50 MJL	156-60-5	
Trichloroethene	0.81	ppbv	0.16	0.075	10/12/19 22:50 MJL	79-01-6	
Vinyl chloride	<0.077	ppbv	0.16	0.077	10/12/19 22:50 MJL	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**

Units Conversion Request



Pace Analytical Services, LLC  
 1700 Elm Street, Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10494511  
 Project Name: 25216186 Artic Laundry & Clean

Lab Sample No: 10494511004      ProjSampleNum: 10494511004      Date Collected: 10/02/19 12:45  
 Client Sample ID: SS-9      Matrix: Air      Date Received: 10/05/19 9:10

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.087	ppbv	0.32	0.087	10/12/19 23:20 MJL	156-59-2	
Tetrachloroethene	3.6	ppbv	0.16	0.074	10/12/19 23:20 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.11	ppbv	0.32	0.11	10/12/19 23:20 MJL	156-60-5	
Trichloroethene	<0.075	ppbv	0.16	0.075	10/12/19 23:20 MJL	79-01-6	
Vinyl chloride	<0.077	ppbv	0.16	0.077	10/12/19 23:20 MJL	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**

Units Conversion Request



Pace Analytical Services, LLC  
1700 Elm Street, Suite 200  
Minneapolis, MN 55414  
Phone: 612.607.1700  
Fax: 612.607.6444

### ANALYTICAL RESULTS

Client: SCS Engineers  
Phone: 843.746.8525

Lab Project Number: 10494511  
Project Name: 25216186 Artic Laundry & Clean

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## PARAMETER FOOTNOTES

SUPPLEMENTAL REPORT  
Units Conversion Request

Date: 10/14/2019

Page 5

## ANALYTICAL REPORT

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

Laboratory Job ID: 500-186927-1

Client Project/Site: Arctic Laundry & Cleaners - 25216186.00

**For:**

SCS Engineers  
2830 Dairy Dr  
Madison, Wisconsin 53718

Attn: Mr. Robert Langdon



Authorized for release by:  
9/2/2020 9:22:55 AM

Sandie Fredrick, Project Manager II  
(920)261-1660  
[sandra.fredrick@eurofinset.com](mailto:sandra.fredrick@eurofinset.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

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

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



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# Case Narrative

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186.00

Job ID: 500-186927-1

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**Job ID: 500-186927-1**

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**Laboratory: Eurofins TestAmerica, Chicago**

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**Narrative**

**Job Narrative  
500-186927-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 8/27/2020 10:10 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.0° C.

**GC/MS VOA**

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

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# Detection Summary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186.00

Job ID: 500-186927-1

## Client Sample ID: MW-1

Lab Sample ID: 500-186927-1

No Detections.

## Client Sample ID: MW-2

Lab Sample ID: 500-186927-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloropropane	1.7		1.0	0.43	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.63	J	1.0	0.37	ug/L	1		8260B	Total/NA

## Client Sample ID: MW-3

Lab Sample ID: 500-186927-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	39		1.0	0.37	ug/L	1		8260B	Total/NA

## Client Sample ID: TB

Lab Sample ID: 500-186927-4

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago



# Method Summary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186.00

Job ID: 500-186927-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
5030B	Purge and Trap	SW846	TAL CHI

**Protocol References:**

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

**Laboratory References:**

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



# Sample Summary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186.00

Job ID: 500-186927-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-186927-1	MW-1	Water	08/26/20 12:30	08/27/20 10:10	
500-186927-2	MW-2	Water	08/26/20 12:40	08/27/20 10:10	
500-186927-3	MW-3	Water	08/26/20 12:20	08/27/20 10:10	
500-186927-4	TB	Water	08/26/20 00:00	08/27/20 10:10	

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# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186.00

Job ID: 500-186927-1

**Client Sample ID: MW-1**

**Lab Sample ID: 500-186927-1**

**Date Collected: 08/26/20 12:30**

**Matrix: Water**

**Date Received: 08/27/20 10:10**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			09/01/20 12:14	1
Bromobenzene	<0.36		1.0	0.36	ug/L			09/01/20 12:14	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			09/01/20 12:14	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			09/01/20 12:14	1
Bromoform	<0.48		1.0	0.48	ug/L			09/01/20 12:14	1
Bromomethane	<0.80		3.0	0.80	ug/L			09/01/20 12:14	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			09/01/20 12:14	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			09/01/20 12:14	1
Chloroethane	<0.51		1.0	0.51	ug/L			09/01/20 12:14	1
Chloroform	<0.37		2.0	0.37	ug/L			09/01/20 12:14	1
Chloromethane	<0.32		1.0	0.32	ug/L			09/01/20 12:14	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			09/01/20 12:14	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			09/01/20 12:14	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			09/01/20 12:14	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			09/01/20 12:14	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			09/01/20 12:14	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			09/01/20 12:14	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			09/01/20 12:14	1
Dibromomethane	<0.27		1.0	0.27	ug/L			09/01/20 12:14	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			09/01/20 12:14	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			09/01/20 12:14	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			09/01/20 12:14	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			09/01/20 12:14	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			09/01/20 12:14	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			09/01/20 12:14	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			09/01/20 12:14	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			09/01/20 12:14	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			09/01/20 12:14	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			09/01/20 12:14	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			09/01/20 12:14	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			09/01/20 12:14	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			09/01/20 12:14	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			09/01/20 12:14	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			09/01/20 12:14	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			09/01/20 12:14	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			09/01/20 12:14	1
Naphthalene	<0.34		1.0	0.34	ug/L			09/01/20 12:14	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			09/01/20 12:14	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			09/01/20 12:14	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			09/01/20 12:14	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			09/01/20 12:14	1
Styrene	<0.39		1.0	0.39	ug/L			09/01/20 12:14	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			09/01/20 12:14	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			09/01/20 12:14	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			09/01/20 12:14	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			09/01/20 12:14	1
Toluene	<0.15		0.50	0.15	ug/L			09/01/20 12:14	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			09/01/20 12:14	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			09/01/20 12:14	1

# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186.00

Job ID: 500-186927-1

**Client Sample ID: MW-1**

**Lab Sample ID: 500-186927-1**

**Date Collected: 08/26/20 12:30**

**Matrix: Water**

**Date Received: 08/27/20 10:10**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			09/01/20 12:14	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			09/01/20 12:14	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			09/01/20 12:14	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			09/01/20 12:14	1
Trichloroethene	<0.16		0.50	0.16	ug/L			09/01/20 12:14	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			09/01/20 12:14	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			09/01/20 12:14	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			09/01/20 12:14	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			09/01/20 12:14	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			09/01/20 12:14	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			09/01/20 12:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		72 - 124		09/01/20 12:14	1
Dibromofluoromethane	98		75 - 120		09/01/20 12:14	1
1,2-Dichloroethane-d4 (Surr)	110		75 - 126		09/01/20 12:14	1
Toluene-d8 (Surr)	103		75 - 120		09/01/20 12:14	1

# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186.00

Job ID: 500-186927-1

**Client Sample ID: MW-2**

**Lab Sample ID: 500-186927-2**

**Date Collected: 08/26/20 12:40**

**Matrix: Water**

**Date Received: 08/27/20 10:10**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			09/01/20 12:40	1
Bromobenzene	<0.36		1.0	0.36	ug/L			09/01/20 12:40	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			09/01/20 12:40	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			09/01/20 12:40	1
Bromoform	<0.48		1.0	0.48	ug/L			09/01/20 12:40	1
Bromomethane	<0.80		3.0	0.80	ug/L			09/01/20 12:40	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			09/01/20 12:40	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			09/01/20 12:40	1
Chloroethane	<0.51		1.0	0.51	ug/L			09/01/20 12:40	1
Chloroform	<0.37		2.0	0.37	ug/L			09/01/20 12:40	1
Chloromethane	<0.32		1.0	0.32	ug/L			09/01/20 12:40	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			09/01/20 12:40	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			09/01/20 12:40	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			09/01/20 12:40	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			09/01/20 12:40	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			09/01/20 12:40	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			09/01/20 12:40	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			09/01/20 12:40	1
Dibromomethane	<0.27		1.0	0.27	ug/L			09/01/20 12:40	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			09/01/20 12:40	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			09/01/20 12:40	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			09/01/20 12:40	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			09/01/20 12:40	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			09/01/20 12:40	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			09/01/20 12:40	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			09/01/20 12:40	1
<b>1,2-Dichloropropane</b>	<b>1.7</b>		1.0	0.43	ug/L			09/01/20 12:40	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			09/01/20 12:40	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			09/01/20 12:40	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			09/01/20 12:40	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			09/01/20 12:40	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			09/01/20 12:40	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			09/01/20 12:40	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			09/01/20 12:40	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			09/01/20 12:40	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			09/01/20 12:40	1
Naphthalene	<0.34		1.0	0.34	ug/L			09/01/20 12:40	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			09/01/20 12:40	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			09/01/20 12:40	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			09/01/20 12:40	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			09/01/20 12:40	1
Styrene	<0.39		1.0	0.39	ug/L			09/01/20 12:40	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			09/01/20 12:40	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			09/01/20 12:40	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			09/01/20 12:40	1
<b>Tetrachloroethene</b>	<b>0.63 J</b>		1.0	0.37	ug/L			09/01/20 12:40	1
Toluene	<0.15		0.50	0.15	ug/L			09/01/20 12:40	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			09/01/20 12:40	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			09/01/20 12:40	1

# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186.00

Job ID: 500-186927-1

**Client Sample ID: MW-2**

**Lab Sample ID: 500-186927-2**

**Date Collected: 08/26/20 12:40**

**Matrix: Water**

**Date Received: 08/27/20 10:10**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			09/01/20 12:40	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			09/01/20 12:40	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			09/01/20 12:40	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			09/01/20 12:40	1
Trichloroethene	<0.16		0.50	0.16	ug/L			09/01/20 12:40	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			09/01/20 12:40	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			09/01/20 12:40	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			09/01/20 12:40	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			09/01/20 12:40	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			09/01/20 12:40	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			09/01/20 12:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		72 - 124		09/01/20 12:40	1
Dibromofluoromethane	100		75 - 120		09/01/20 12:40	1
1,2-Dichloroethane-d4 (Surr)	111		75 - 126		09/01/20 12:40	1
Toluene-d8 (Surr)	105		75 - 120		09/01/20 12:40	1

# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186.00

Job ID: 500-186927-1

**Client Sample ID: MW-3**  
**Date Collected: 08/26/20 12:20**  
**Date Received: 08/27/20 10:10**

**Lab Sample ID: 500-186927-3**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			09/01/20 13:07	1
Bromobenzene	<0.36		1.0	0.36	ug/L			09/01/20 13:07	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			09/01/20 13:07	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			09/01/20 13:07	1
Bromoform	<0.48		1.0	0.48	ug/L			09/01/20 13:07	1
Bromomethane	<0.80		3.0	0.80	ug/L			09/01/20 13:07	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			09/01/20 13:07	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			09/01/20 13:07	1
Chloroethane	<0.51		1.0	0.51	ug/L			09/01/20 13:07	1
Chloroform	<0.37		2.0	0.37	ug/L			09/01/20 13:07	1
Chloromethane	<0.32		1.0	0.32	ug/L			09/01/20 13:07	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			09/01/20 13:07	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			09/01/20 13:07	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			09/01/20 13:07	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			09/01/20 13:07	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			09/01/20 13:07	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			09/01/20 13:07	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			09/01/20 13:07	1
Dibromomethane	<0.27		1.0	0.27	ug/L			09/01/20 13:07	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			09/01/20 13:07	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			09/01/20 13:07	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			09/01/20 13:07	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			09/01/20 13:07	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			09/01/20 13:07	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			09/01/20 13:07	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			09/01/20 13:07	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			09/01/20 13:07	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			09/01/20 13:07	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			09/01/20 13:07	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			09/01/20 13:07	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			09/01/20 13:07	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			09/01/20 13:07	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			09/01/20 13:07	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			09/01/20 13:07	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			09/01/20 13:07	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			09/01/20 13:07	1
Naphthalene	<0.34		1.0	0.34	ug/L			09/01/20 13:07	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			09/01/20 13:07	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			09/01/20 13:07	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			09/01/20 13:07	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			09/01/20 13:07	1
Styrene	<0.39		1.0	0.39	ug/L			09/01/20 13:07	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			09/01/20 13:07	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			09/01/20 13:07	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			09/01/20 13:07	1
<b>Tetrachloroethene</b>	<b>39</b>		1.0	0.37	ug/L			09/01/20 13:07	1
Toluene	<0.15		0.50	0.15	ug/L			09/01/20 13:07	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			09/01/20 13:07	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			09/01/20 13:07	1

# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186.00

Job ID: 500-186927-1

**Client Sample ID: MW-3**

**Lab Sample ID: 500-186927-3**

**Date Collected: 08/26/20 12:20**

**Matrix: Water**

**Date Received: 08/27/20 10:10**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			09/01/20 13:07	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			09/01/20 13:07	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			09/01/20 13:07	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			09/01/20 13:07	1
Trichloroethene	<0.16		0.50	0.16	ug/L			09/01/20 13:07	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			09/01/20 13:07	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			09/01/20 13:07	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			09/01/20 13:07	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			09/01/20 13:07	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			09/01/20 13:07	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			09/01/20 13:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		72 - 124		09/01/20 13:07	1
Dibromofluoromethane	101		75 - 120		09/01/20 13:07	1
1,2-Dichloroethane-d4 (Surr)	111		75 - 126		09/01/20 13:07	1
Toluene-d8 (Surr)	101		75 - 120		09/01/20 13:07	1



# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186.00

Job ID: 500-186927-1

**Client Sample ID: TB**

**Lab Sample ID: 500-186927-4**

**Date Collected: 08/26/20 00:00**

**Matrix: Water**

**Date Received: 08/27/20 10:10**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			09/01/20 11:47	1
Bromobenzene	<0.36		1.0	0.36	ug/L			09/01/20 11:47	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			09/01/20 11:47	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			09/01/20 11:47	1
Bromoform	<0.48		1.0	0.48	ug/L			09/01/20 11:47	1
Bromomethane	<0.80		3.0	0.80	ug/L			09/01/20 11:47	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			09/01/20 11:47	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			09/01/20 11:47	1
Chloroethane	<0.51		1.0	0.51	ug/L			09/01/20 11:47	1
Chloroform	<0.37		2.0	0.37	ug/L			09/01/20 11:47	1
Chloromethane	<0.32		1.0	0.32	ug/L			09/01/20 11:47	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			09/01/20 11:47	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			09/01/20 11:47	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			09/01/20 11:47	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			09/01/20 11:47	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			09/01/20 11:47	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			09/01/20 11:47	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			09/01/20 11:47	1
Dibromomethane	<0.27		1.0	0.27	ug/L			09/01/20 11:47	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			09/01/20 11:47	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			09/01/20 11:47	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			09/01/20 11:47	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			09/01/20 11:47	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			09/01/20 11:47	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			09/01/20 11:47	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			09/01/20 11:47	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			09/01/20 11:47	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			09/01/20 11:47	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			09/01/20 11:47	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			09/01/20 11:47	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			09/01/20 11:47	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			09/01/20 11:47	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			09/01/20 11:47	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			09/01/20 11:47	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			09/01/20 11:47	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			09/01/20 11:47	1
Naphthalene	<0.34		1.0	0.34	ug/L			09/01/20 11:47	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			09/01/20 11:47	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			09/01/20 11:47	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			09/01/20 11:47	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			09/01/20 11:47	1
Styrene	<0.39		1.0	0.39	ug/L			09/01/20 11:47	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			09/01/20 11:47	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			09/01/20 11:47	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			09/01/20 11:47	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			09/01/20 11:47	1
Toluene	<0.15		0.50	0.15	ug/L			09/01/20 11:47	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			09/01/20 11:47	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			09/01/20 11:47	1

# Client Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186.00

Job ID: 500-186927-1

**Client Sample ID: TB**

**Lab Sample ID: 500-186927-4**

**Date Collected: 08/26/20 00:00**

**Matrix: Water**

**Date Received: 08/27/20 10:10**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			09/01/20 11:47	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			09/01/20 11:47	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			09/01/20 11:47	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			09/01/20 11:47	1
Trichloroethene	<0.16		0.50	0.16	ug/L			09/01/20 11:47	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			09/01/20 11:47	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			09/01/20 11:47	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			09/01/20 11:47	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			09/01/20 11:47	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			09/01/20 11:47	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			09/01/20 11:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		72 - 124		09/01/20 11:47	1
Dibromofluoromethane	99		75 - 120		09/01/20 11:47	1
1,2-Dichloroethane-d4 (Surr)	109		75 - 126		09/01/20 11:47	1
Toluene-d8 (Surr)	105		75 - 120		09/01/20 11:47	1

# Definitions/Glossary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186.00

Job ID: 500-186927-1

## Qualifiers

### GC/MS VOA

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

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# QC Association Summary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186.00

Job ID: 500-186927-1

## GC/MS VOA

### Analysis Batch: 559392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-186927-1	MW-1	Total/NA	Water	8260B	
500-186927-2	MW-2	Total/NA	Water	8260B	
500-186927-3	MW-3	Total/NA	Water	8260B	
500-186927-4	TB	Total/NA	Water	8260B	
MB 500-559392/6	Method Blank	Total/NA	Water	8260B	
LCS 500-559392/4	Lab Control Sample	Total/NA	Water	8260B	

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# Surrogate Summary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186.00

Job ID: 500-186927-1

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

**Matrix: Water**

**Prep Type: Total/NA**

## Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	DCA	TOL
		(72-124)	(75-120)	(75-126)	(75-120)
500-186927-1	MW-1	107	98	110	103
500-186927-2	MW-2	105	100	111	105
500-186927-3	MW-3	107	101	111	101
500-186927-4	TB	106	99	109	105
LCS 500-559392/4	Lab Control Sample	112	98	105	104
MB 500-559392/6	Method Blank	112	98	109	103

### Surrogate Legend

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

# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186.00

Job ID: 500-186927-1

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

**Lab Sample ID: MB 500-559392/6**  
**Matrix: Water**  
**Analysis Batch: 559392**

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	<0.15		0.50	0.15	ug/L			09/01/20 11:20	1
Bromobenzene	<0.36		1.0	0.36	ug/L			09/01/20 11:20	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			09/01/20 11:20	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			09/01/20 11:20	1
Bromoform	<0.48		1.0	0.48	ug/L			09/01/20 11:20	1
Bromomethane	<0.80		3.0	0.80	ug/L			09/01/20 11:20	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			09/01/20 11:20	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			09/01/20 11:20	1
Chloroethane	<0.51		1.0	0.51	ug/L			09/01/20 11:20	1
Chloroform	<0.37		2.0	0.37	ug/L			09/01/20 11:20	1
Chloromethane	<0.32		1.0	0.32	ug/L			09/01/20 11:20	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			09/01/20 11:20	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			09/01/20 11:20	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			09/01/20 11:20	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			09/01/20 11:20	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			09/01/20 11:20	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			09/01/20 11:20	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			09/01/20 11:20	1
Dibromomethane	<0.27		1.0	0.27	ug/L			09/01/20 11:20	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			09/01/20 11:20	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			09/01/20 11:20	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			09/01/20 11:20	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			09/01/20 11:20	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			09/01/20 11:20	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			09/01/20 11:20	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			09/01/20 11:20	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			09/01/20 11:20	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			09/01/20 11:20	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			09/01/20 11:20	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			09/01/20 11:20	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			09/01/20 11:20	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			09/01/20 11:20	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			09/01/20 11:20	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			09/01/20 11:20	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			09/01/20 11:20	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			09/01/20 11:20	1
Naphthalene	<0.34		1.0	0.34	ug/L			09/01/20 11:20	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			09/01/20 11:20	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			09/01/20 11:20	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			09/01/20 11:20	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			09/01/20 11:20	1
Styrene	<0.39		1.0	0.39	ug/L			09/01/20 11:20	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			09/01/20 11:20	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			09/01/20 11:20	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			09/01/20 11:20	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			09/01/20 11:20	1
Toluene	<0.15		0.50	0.15	ug/L			09/01/20 11:20	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			09/01/20 11:20	1

# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186.00

Job ID: 500-186927-1

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

**Lab Sample ID: MB 500-559392/6**  
**Matrix: Water**  
**Analysis Batch: 559392**

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			09/01/20 11:20	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			09/01/20 11:20	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			09/01/20 11:20	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			09/01/20 11:20	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			09/01/20 11:20	1
Trichloroethene	<0.16		0.50	0.16	ug/L			09/01/20 11:20	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			09/01/20 11:20	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			09/01/20 11:20	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			09/01/20 11:20	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			09/01/20 11:20	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			09/01/20 11:20	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			09/01/20 11:20	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	112		72 - 124		09/01/20 11:20	1
Dibromofluoromethane	98		75 - 120		09/01/20 11:20	1
1,2-Dichloroethane-d4 (Surr)	109		75 - 126		09/01/20 11:20	1
Toluene-d8 (Surr)	103		75 - 120		09/01/20 11:20	1

**Lab Sample ID: LCS 500-559392/4**  
**Matrix: Water**  
**Analysis Batch: 559392**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	50.0	50.7		ug/L		101	70 - 122
Bromochloromethane	50.0	47.2		ug/L		94	65 - 122
Bromodichloromethane	50.0	48.0		ug/L		96	69 - 120
Bromoform	50.0	49.2		ug/L		98	56 - 132
Bromomethane	50.0	33.2		ug/L		66	40 - 152
Carbon tetrachloride	50.0	47.3		ug/L		95	59 - 133
Chlorobenzene	50.0	50.1		ug/L		100	70 - 120
Chloroethane	50.0	61.3		ug/L		123	48 - 136
Chloroform	50.0	44.8		ug/L		90	70 - 120
Chloromethane	50.0	35.2		ug/L		70	56 - 152
2-Chlorotoluene	50.0	50.3		ug/L		101	70 - 125
4-Chlorotoluene	50.0	50.9		ug/L		102	68 - 124
cis-1,2-Dichloroethene	50.0	45.9		ug/L		92	70 - 125
cis-1,3-Dichloropropene	50.0	47.9		ug/L		96	64 - 127
Dibromochloromethane	50.0	48.6		ug/L		97	68 - 125
1,2-Dibromo-3-Chloropropane	50.0	48.9		ug/L		98	56 - 123
1,2-Dibromoethane	50.0	50.4		ug/L		101	70 - 125
Dibromomethane	50.0	47.5		ug/L		95	70 - 120
1,2-Dichlorobenzene	50.0	47.6		ug/L		95	70 - 125
1,3-Dichlorobenzene	50.0	49.9		ug/L		100	70 - 125
1,4-Dichlorobenzene	50.0	49.1		ug/L		98	70 - 120
Dichlorodifluoromethane	50.0	41.4		ug/L		83	40 - 159
1,1-Dichloroethane	50.0	44.5		ug/L		89	70 - 125

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: SCS Engineers  
 Project/Site: Arctic Laundry & Cleaners - 25216186.00

Job ID: 500-186927-1

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

**Lab Sample ID: LCS 500-559392/4**  
**Matrix: Water**  
**Analysis Batch: 559392**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	50.0	50.6		ug/L		101	68 - 127
1,1-Dichloroethene	50.0	45.4		ug/L		91	67 - 122
1,2-Dichloropropane	50.0	48.2		ug/L		96	67 - 130
1,3-Dichloropropane	50.0	48.9		ug/L		98	62 - 136
2,2-Dichloropropane	50.0	47.5		ug/L		95	58 - 139
1,1-Dichloropropene	50.0	48.7		ug/L		97	70 - 121
Ethylbenzene	50.0	48.9		ug/L		98	70 - 123
Hexachlorobutadiene	50.0	42.8		ug/L		86	51 - 150
Isopropylbenzene	50.0	51.9		ug/L		104	70 - 126
Methylene Chloride	50.0	45.1		ug/L		90	69 - 125
Methyl tert-butyl ether	50.0	43.0		ug/L		86	55 - 123
Naphthalene	50.0	45.6		ug/L		91	53 - 144
n-Butylbenzene	50.0	49.5		ug/L		99	68 - 125
N-Propylbenzene	50.0	52.0		ug/L		104	69 - 127
p-Isopropyltoluene	50.0	51.4		ug/L		103	70 - 125
sec-Butylbenzene	50.0	51.1		ug/L		102	70 - 123
Styrene	50.0	50.9		ug/L		102	70 - 120
tert-Butylbenzene	50.0	51.6		ug/L		103	70 - 121
1,1,1,2-Tetrachloroethane	50.0	44.4		ug/L		89	70 - 125
1,1,2,2-Tetrachloroethane	50.0	48.0		ug/L		96	62 - 140
Tetrachloroethene	50.0	51.6		ug/L		103	70 - 128
Toluene	50.0	49.7		ug/L		99	70 - 125
trans-1,2-Dichloroethene	50.0	45.8		ug/L		92	70 - 125
trans-1,3-Dichloropropene	50.0	49.6		ug/L		99	62 - 128
1,2,3-Trichlorobenzene	50.0	42.7		ug/L		85	51 - 145
1,2,4-Trichlorobenzene	50.0	44.6		ug/L		89	57 - 137
1,1,1-Trichloroethane	50.0	47.5		ug/L		95	70 - 125
1,1,2-Trichloroethane	50.0	50.5		ug/L		101	71 - 130
Trichloroethene	50.0	52.7		ug/L		105	70 - 125
Trichlorofluoromethane	50.0	40.3		ug/L		81	55 - 128
1,2,3-Trichloropropane	50.0	56.3		ug/L		113	50 - 133
1,2,4-Trimethylbenzene	50.0	50.2		ug/L		100	70 - 123
1,3,5-Trimethylbenzene	50.0	51.2		ug/L		102	70 - 123
Vinyl chloride	50.0	42.0		ug/L		84	64 - 126
Xylenes, Total	100	93.3		ug/L		93	70 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	112		72 - 124
Dibromofluoromethane	98		75 - 120
1,2-Dichloroethane-d4 (Surr)	105		75 - 126
Toluene-d8 (Surr)	104		75 - 120



# Lab Chronicle

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186.00

Job ID: 500-186927-1

## Client Sample ID: MW-1

Date Collected: 08/26/20 12:30

Date Received: 08/27/20 10:10

Lab Sample ID: 500-186927-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	559392	09/01/20 12:14	PMF	TAL CHI

## Client Sample ID: MW-2

Date Collected: 08/26/20 12:40

Date Received: 08/27/20 10:10

Lab Sample ID: 500-186927-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	559392	09/01/20 12:40	PMF	TAL CHI

## Client Sample ID: MW-3

Date Collected: 08/26/20 12:20

Date Received: 08/27/20 10:10

Lab Sample ID: 500-186927-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	559392	09/01/20 13:07	PMF	TAL CHI

## Client Sample ID: TB

Date Collected: 08/26/20 00:00

Date Received: 08/27/20 10:10

Lab Sample ID: 500-186927-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	559392	09/01/20 11:47	PMF	TAL CHI

### Laboratory References:

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

# Accreditation/Certification Summary

Client: SCS Engineers  
Project/Site: Arctic Laundry & Cleaners - 25216186.00

Job ID: 500-186927-1

## Laboratory: Eurofins TestAmerica, Chicago

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

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999580010	08-31-21

1

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**Eurofins TestAmerica, Chicago**

2417 Bond Street  
 University Park, IL 60464  
 Phone: 708-534-5200 Fax: 708-534-5211

**Chain of Custody Record**



Environment, Test & Analytics

<b>Client Information</b> Client Contact: Mr. Robert Langdon Company: SCS Engineers Address: 2830 Dairy Dr, Madison, WI 53718 Phone: 500-186927 COC Email: rlangdon@scsengineers.com Project Name: Arctic Laundry & Cleaners 25216186 00 Site:		Sample: <i>Zach Watson</i> Phone: <i>262 271 3744</i> Lat: PM Fredrick, Sandie E-Mail: sandie.fredrick@testamericainc.com Carrier Tracking No(s):		COC No: 500-84594-35177 1 Page: Page 1 of 1 Job #: <i>500-186927</i> Preservation Codes: A - HCL, M - Hexane B - NaOH, N - None C - Zn Acetate, O - AsNaO2 D - Nitric Acid, P - Na2O4S E - NaHSO4, Q - Na2SO3 F - MeOH, R - Na2S2O3 G - Amchlor, S - H2SO4 H - Ascorbic Acid, T - TSP Dodecahydrate I - Ice, U - Acetone J - DI Water, V - MCAA K - EDTA, W - pH 4-5 L - EDA, Z - Other (specify)																																																		
Due Date Requested: TAT Requested (days): PO #: 25216186 00 WO #:		<b>Analysis Requested</b> Field Filtered Sample (Yes or No): Perform MS/MSD (Yes or No): <i>8260 VOCs</i>		Total Number of Containers: Special Instructions/Note:																																																		
<b>Sample Identification</b> <table border="1"> <thead> <tr> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=comp, G=grab)</th> <th>Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)</th> <th>Field Filtered Sample (Yes or No)</th> <th>Perform MS/MSD (Yes or No)</th> <th>Total Number of Containers</th> </tr> </thead> <tbody> <tr> <td><i>8-26</i></td> <td><i>1230</i></td> <td><i>G</i></td> <td><i>Water</i></td> <td><i>X</i></td> <td><i>X</i></td> <td></td> </tr> <tr> <td><i>8-26</i></td> <td><i>1240</i></td> <td><i>G</i></td> <td><i>Water</i></td> <td><i>X</i></td> <td><i>X</i></td> <td></td> </tr> <tr> <td><i>8-26</i></td> <td><i>1220</i></td> <td><i>G</i></td> <td><i>Water</i></td> <td><i>X</i></td> <td><i>X</i></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td><i>Water</i></td> <td><i>X</i></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td><i>Water</i></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td><i>Water</i></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of Containers	<i>8-26</i>	<i>1230</i>	<i>G</i>	<i>Water</i>	<i>X</i>	<i>X</i>		<i>8-26</i>	<i>1240</i>	<i>G</i>	<i>Water</i>	<i>X</i>	<i>X</i>		<i>8-26</i>	<i>1220</i>	<i>G</i>	<i>Water</i>	<i>X</i>	<i>X</i>					<i>Water</i>	<i>X</i>						<i>Water</i>							<i>Water</i>				Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of Containers																																																
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			<i>Water</i>																																																			
			<i>Water</i>																																																			
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:																																																				
Empty Kit Relinquished by: <i>Zach Watson</i> Date: <i>8-26-20 1400</i> Company: <i>SCS</i>		Received by: <i>[Signature]</i> Date/Time: <i>8-26-20 1400</i> Company: <i>TA</i>		Relinquished by: <i>[Signature]</i> Date/Time: <i>8-26-20 1700</i> Company: <i>TA</i>		Received by: <i>[Signature]</i> Date/Time: <i>8/27/20 1010</i> Company: <i>TA-OPI</i>																																																
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: <i>1.0 -&gt; 2.0</i>																																																		

EWS



# Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 500-186927-1

**Login Number: 186927**

**List Source: Eurofins TestAmerica, Chicago**

**List Number: 1**

**Creator: Scott, Sherri L**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



May 05, 2021

Rob Langdon  
SCS Engineers  
2830 Dairy Dr.  
Madison, WI 53718

RE: Project: 25216186.00 Artic Laundry & CI  
Pace Project No.: 10557256

Dear Rob Langdon:

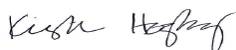
Enclosed are the analytical results for sample(s) received by the laboratory on April 27, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kirsten Hogberg  
kirsten.hogberg@pacelabs.com  
(612)607-1700  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 25216186.00 Artic Laundry & CI

Pace Project No.: 10557256

---

### **Pace Analytical Services, LLC - Minneapolis MN**

1700 Elm Street SE, Minneapolis, MN 55414

1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab

A2LA Certification #: 2926.01\*

Alabama Certification #: 40770

Alaska Contaminated Sites Certification #: 17-009\*

Alaska DW Certification #: MN00064

Arizona Certification #: AZ0014\*

Arkansas DW Certification #: MN00064

Arkansas WW Certification #: 88-0680

California Certification #: 2929

Colorado Certification #: MN00064

Connecticut Certification #: PH-0256

EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137

Florida Certification #: E87605\*

Georgia Certification #: 959

Hawaii Certification #: MN00064

Idaho Certification #: MN00064

Illinois Certification #: 200011

Indiana Certification #: C-MN-01

Iowa Certification #: 368

Kansas Certification #: E-10167

Kentucky DW Certification #: 90062

Kentucky WW Certification #: 90062

Louisiana DEQ Certification #: AI-03086\*

Louisiana DW Certification #: MN00064

Maine Certification #: MN00064\*

Maryland Certification #: 322

Michigan Certification #: 9909

Minnesota Certification #: 027-053-137\*

Minnesota Dept of Ag Approval: via MN 027-053-137

Minnesota Petrofund Registration #: 1240\*

Mississippi Certification #: MN00064

Missouri Certification #: 10100

Montana Certification #: CERT0092

Nebraska Certification #: NE-OS-18-06

Nevada Certification #: MN00064

New Hampshire Certification #: 2081\*

New Jersey Certification #: MN002

New York Certification #: 11647\*

North Carolina DW Certification #: 27700

North Carolina WW Certification #: 530

North Dakota Certification #: R-036

Ohio DW Certification #: 41244

Ohio VAP Certification (1700) #: CL101

Ohio VAP Certification (1800) #: CL110\*

Oklahoma Certification #: 9507\*

Oregon Primary Certification #: MN300001

Oregon Secondary Certification #: MN200001\*

Pennsylvania Certification #: 68-00563\*

Puerto Rico Certification #: MN00064

South Carolina Certification #:74003001

Tennessee Certification #: TN02818

Texas Certification #: T104704192\*

Utah Certification #: MN00064\*

Vermont Certification #: VT-027053137

Virginia Certification #: 460163\*

Washington Certification #: C486\*

West Virginia DEP Certification #: 382

West Virginia DW Certification #: 9952 C

Wisconsin Certification #: 999407970

Wyoming UST Certification #: via A2LA 2926.01

USDA Permit #: P330-19-00208

\*Please Note: Applicable air certifications are denoted with an asterisk (\*).

---

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 25216186.00 Artic Laundry & CI

Pace Project No.: 10557256

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10557256001	5619 Basement	Air	04/23/21 10:20	04/27/21 11:05
10557256002	5619 1st Floor	Air	04/23/21 10:24	04/27/21 11:05
10557256003	5619 2nd Floor	Air	04/23/21 10:14	04/27/21 11:05
10557256004	5619 1st Floor Dup	Air	04/23/21 10:24	04/27/21 11:05

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 25216186.00 Artic Laundry & CI  
Pace Project No.: 10557256

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10557256001	5619 Basement	TO-15	EMC	5	PASI-M
10557256002	5619 1st Floor	TO-15	EMC	5	PASI-M
10557256003	5619 2nd Floor	TO-15	EMC	5	PASI-M
10557256004	5619 1st Floor Dup	TO-15	EMC	5	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 25216186.00 Artic Laundry & CI

Pace Project No.: 10557256

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>10557256001</b>	<b>5619 Basement</b>					
TO-15	Tetrachloroethene	5.2	ug/m3	1.0	05/03/21 21:25	
<b>10557256002</b>	<b>5619 1st Floor</b>					
TO-15	Tetrachloroethene	4.0	ug/m3	1.1	05/03/21 21:54	
<b>10557256003</b>	<b>5619 2nd Floor</b>					
TO-15	Tetrachloroethene	1.1	ug/m3	1.1	05/03/21 22:22	
<b>10557256004</b>	<b>5619 1st Floor Dup</b>					
TO-15	Tetrachloroethene	3.7	ug/m3	1.1	05/03/21 22:51	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 25216186.00 Artic Laundry & CI

Pace Project No.: 10557256

Sample: 5619 Basement									
		Lab ID: 10557256001	Collected: 04/23/21 10:20	Received: 04/27/21 11:05	Matrix: Air				
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
cis-1,2-Dichloroethene	<0.30	ug/m3	1.2	0.30	1.52		05/03/21 21:25	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/m3	1.2	0.26	1.52		05/03/21 21:25	156-60-5	
Tetrachloroethene	5.2	ug/m3	1.0	0.44	1.52		05/03/21 21:25	127-18-4	
Trichloroethene	<0.30	ug/m3	0.83	0.30	1.52		05/03/21 21:25	79-01-6	
Vinyl chloride	<0.13	ug/m3	0.40	0.13	1.52		05/03/21 21:25	75-01-4	

Sample: 5619 1st Floor									
		Lab ID: 10557256002	Collected: 04/23/21 10:24	Received: 04/27/21 11:05	Matrix: Air				
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
cis-1,2-Dichloroethene	<0.31	ug/m3	1.3	0.31	1.58		05/03/21 21:54	156-59-2	
trans-1,2-Dichloroethene	<0.27	ug/m3	1.3	0.27	1.58		05/03/21 21:54	156-60-5	
Tetrachloroethene	4.0	ug/m3	1.1	0.46	1.58		05/03/21 21:54	127-18-4	
Trichloroethene	<0.31	ug/m3	0.86	0.31	1.58		05/03/21 21:54	79-01-6	
Vinyl chloride	<0.14	ug/m3	0.41	0.14	1.58		05/03/21 21:54	75-01-4	

Sample: 5619 2nd Floor									
		Lab ID: 10557256003	Collected: 04/23/21 10:14	Received: 04/27/21 11:05	Matrix: Air				
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
cis-1,2-Dichloroethene	<0.30	ug/m3	1.2	0.30	1.55		05/03/21 22:22	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/m3	1.2	0.26	1.55		05/03/21 22:22	156-60-5	
Tetrachloroethene	1.1	ug/m3	1.1	0.45	1.55		05/03/21 22:22	127-18-4	
Trichloroethene	<0.30	ug/m3	0.85	0.30	1.55		05/03/21 22:22	79-01-6	
Vinyl chloride	<0.13	ug/m3	0.40	0.13	1.55		05/03/21 22:22	75-01-4	

Sample: 5619 1st Floor Dup									
		Lab ID: 10557256004	Collected: 04/23/21 10:24	Received: 04/27/21 11:05	Matrix: Air				
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
cis-1,2-Dichloroethene	<0.31	ug/m3	1.3	0.31	1.61		05/03/21 22:51	156-59-2	
trans-1,2-Dichloroethene	<0.27	ug/m3	1.3	0.27	1.61		05/03/21 22:51	156-60-5	
Tetrachloroethene	3.7	ug/m3	1.1	0.47	1.61		05/03/21 22:51	127-18-4	
Trichloroethene	<0.32	ug/m3	0.88	0.32	1.61		05/03/21 22:51	79-01-6	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 25216186.00 Artic Laundry & CI

Pace Project No.: 10557256

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**Sample: 5619 1st Floor Dup**      **Lab ID: 10557256004**      Collected: 04/23/21 10:24      Received: 04/27/21 11:05      Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15 Pace Analytical Services - Minneapolis									
Vinyl chloride	<0.14	ug/m3	0.42	0.14	1.61		05/03/21 22:51	75-01-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 25216186.00 Artic Laundry & CI

Pace Project No.: 10557256

QC Batch: 739154 Analysis Method: TO-15  
 QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level  
 Laboratory: Pace Analytical Services - Minneapolis  
 Associated Lab Samples: 10557256001, 10557256002, 10557256003, 10557256004

METHOD BLANK: 3942215 Matrix: Air  
 Associated Lab Samples: 10557256001, 10557256002, 10557256003, 10557256004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.20	0.81	05/03/21 10:46	
Tetrachloroethene	ug/m3	<0.29	0.69	05/03/21 10:46	
trans-1,2-Dichloroethene	ug/m3	<0.17	0.81	05/03/21 10:46	
Trichloroethene	ug/m3	<0.20	0.55	05/03/21 10:46	
Vinyl chloride	ug/m3	<0.087	0.26	05/03/21 10:46	

LABORATORY CONTROL SAMPLE: 3942216

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/m3	43.4	42.4	98	70-137	
Tetrachloroethene	ug/m3	73.4	71.1	97	70-130	
trans-1,2-Dichloroethene	ug/m3	43.6	41.5	95	70-130	
Trichloroethene	ug/m3	58.4	56.9	97	70-130	
Vinyl chloride	ug/m3	28	25.7	92	70-137	

SAMPLE DUPLICATE: 3944057

Parameter	Units	10557089001 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.27	<0.27		25	
Tetrachloroethene	ug/m3	12.9	12.4	4	25	
trans-1,2-Dichloroethene	ug/m3	<0.24	<0.24		25	
Trichloroethene	ug/m3	<0.28	<0.28		25	
Vinyl chloride	ug/m3	<0.12	<0.12		25	

SAMPLE DUPLICATE: 3944058

Parameter	Units	10557089003 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.31	<0.31		25	
Tetrachloroethene	ug/m3	17.0	16.8	1	25	
trans-1,2-Dichloroethene	ug/m3	<0.27	<0.27		25	
Trichloroethene	ug/m3	<0.31	<0.31		25	
Vinyl chloride	ug/m3	0.26J	0.28J		25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: 25216186.00 Artic Laundry & CI

Pace Project No.: 10557256

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 25216186.00 Artic Laundry & CI  
Pace Project No.: 10557256

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10557256001	5619 Basement	TO-15	739154		
10557256002	5619 1st Floor	TO-15	739154		
10557256003	5619 2nd Floor	TO-15	739154		
10557256004	5619 1st Floor Dup	TO-15	739154		

**REPORT OF LABORATORY ANALYSIS**

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# AIR: CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

42519

Page: 1 of 1

<b>Section A</b> Required Client Information: Company: <i>SCS Engineers</i> Address: <i>2030 Dairy Dr</i> <i>Madison, WI 53718</i> Email To: <i>rlangdon@scsengineers.com</i> Phone: <i>608.212.8995</i> Fax: <i>-</i> Requested Due Date/TAT: <i>-</i>	<b>Section B</b> Required Project Information: Report To: <i>Robert Langdon</i> Copy To: <i>SCS</i> Purchase Order No.: <i>-</i> Project Name: <i>Arctic Laundry &amp; Cleaners</i> Project Number: <i>25216186-00</i>	<b>Section C</b> Invoice Information: Attention: <i>Robert Langdon</i> Company Name: <i>SCS Engineers</i> Address: <i>See Sect H</i> Pace Quote Reference: <i>-</i> Pace Project Manager/Sales Rep.: <i>-</i> Pace Profile #: <i>37630</i>	<b>Program</b> <input type="checkbox"/> UST <input type="checkbox"/> Superfund <input type="checkbox"/> Emissions <input type="checkbox"/> Clean Air Act <input type="checkbox"/> Voluntary Clean Up <input checked="" type="checkbox"/> Dry Clean <input type="checkbox"/> RCRA <input type="checkbox"/> Other <b>Reporting Units</b> Location of Sampling by State: <i>WI</i> ug/m <sup>3</sup> <input type="checkbox"/> mg/m <sup>3</sup> <input type="checkbox"/> PPBV <input checked="" type="checkbox"/> PPMV <input type="checkbox"/> Other <input type="checkbox"/> <b>Report Level</b> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> Other <input type="checkbox"/>
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ITEM #	'Section D Required Client Information AIR SAMPLE ID Sample IDs MUST BE UNIQUE	Valid Media Codes MEDIA CODE Tedar Bag TB 1 Liter Summa Can 1LC 6 Liter Summa Can 6LC Low Volume Puff LVP High Volume Puff HVP Other PM10	MEDIA CODE	PID Reading (Client only)	COLLECTED				Canister Pressure (Initial Field - in Hg)	Canister Pressure (Final Field - in Hg)	Summa Can Number	Flow Control Number	Method:								Pace Lab ID
					COMPOSITE START		COMPOSITE - END/GRAB						PM10	3c - Fixed Gas (%)	TO-3 BTEX	TO-3M (Methane)	TO-14	TO-15 Full List VOCs	TO-15 Short List BTEX	TO-15 Short List Chl/Other	
					DATE	TIME	DATE	TIME													
1	5619 Basement		6LW2		4/27	11:15	4/27	10:20	30	5	1196	0217								001	
2	5619 1st floor		25		4/27	11:57	4/27	10:24	20	6	2760	1945								002	
3	5619 2nd floor		22		4/27	11:50	4/27	10:14	27	3	1698	1395								003	
4	<del>5619 outdoor</del>										<del>0710</del>	<del>0748</del>									
5																					
6	5619 1st floor Top		27		4/27	12:01	4/27	10:24	28	5	0410	0748								004	
7																					
8																					
9																					
10																					
11																					
12																					

Comments: <i>Analyze for PCB, TOE, Cis &amp; Trans 1,2DCE and vinyl chloride</i>	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	<i>Zach Watson / SCS</i>	<i>4/23</i>	<i>12:00</i>	<i>Math / SCS</i>	<i>4-27-21</i>	<i>11:05</i>	-	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> Y
								<input type="checkbox"/> Y	<input type="checkbox"/> Y	<input type="checkbox"/> Y
								<input type="checkbox"/> Y	<input type="checkbox"/> Y	<input type="checkbox"/> Y

WO#: 10557256

1700 Elm St 10557256

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
PRINT Name of SAMPLER: <i>ZACH WATSON</i> SIGNATURE of SAMPLER: 	DATE Signed (MM/DD/YY) <i>4/23/21</i>				





Document Name: Sample Condition Upon Receipt (SCUR) - Air

Document Revised: 24Mar2020

Page 1 of 1

Document No.: ENV-FRM-MIN4-0113 Rev.00

Pace Analytical Services - Minneapolis

Air Sample Condition Upon Receipt

Client Name: SCS Engineers

Project #:

WO#: 10557256

PM: KNH

Due Date: 05/04/21

CLIENT: SCS Engineer

Courier: [X] Fed Ex [ ] UPS [ ] USPS [ ] Client [ ] Pace [ ] SpeeDee [ ] Commercial See Exception

Tracking Number: 1723 25482690, 2704

Custody Seal on Cooler/Box Present? [ ] Yes [X] No Seals Intact? [ ] Yes [ ] No

Packing Material: [ ] Bubble Wrap [ ] Bubble Bags [X] Foam [ ] None [ ] Tin Can [ ] Other: \_\_\_\_\_

Temp Blank rec: [ ] Yes [X] No

Temp. (TO17 and TO13 samples only) (°C): \_\_\_\_\_ Corrected Temp (°C): \_\_\_\_\_

Thermometer Used: [ ] G87A9170600254 [ ] G87A9155100842

Temp should be above freezing to 6°C Correction Factor: \_\_\_\_\_

Date & Initials of Person Examining Contents: 4/27/21 KNH

Type of ice Received [ ] Blue [ ] Wet [X] None

Comments:

Table with 13 rows of questions and checkboxes. Questions include Chain of Custody Present?, Samples Arrived within Hold Time?, Short Hold Time Analysis (<72 hr)?, Rush Turn Around Time Requested?, Sufficient Volume?, Correct Containers Used?, Containers Intact?, Media: Air Can, Airbag, Filter, TDT, Passive, Is sufficient information available to reconcile samples to the COC?, Do cans need to be pressurized? (DO NOT PRESSURIZE 3C or ASTM 1946!!!)

Gauge # [ ] 10AIR26 [X] 10AIR34 [ ] 10AIR35 [ ] 4097

Canisters

Canisters

Table with 10 columns: Sample Number, Can ID, Flow Controller, Initial Pressure, Final Pressure. Contains handwritten data for samples 5619, 1st floor, 2nd floor, 1st floor DUP.

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? [ ] Yes [ ] No

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/Resolution: \_\_\_\_\_

Project Manager Review:

Kirsten Hopper

Date: 4/27/2021

Page 12 of 17

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)





Pace Analytical Services, LLC  
 1700 Elm Street, Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10557256  
 Project Name: 25216186.00 Artic Laundry & CI

Lab Sample No: 10557256001  
 Client Sample ID: 5619 Basement

ProjSampleNum: 10557256001  
 Matrix: Air

Date Collected: 04/23/21 10:20  
 Date Received: 04/27/21 11:05

Parameters	Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.074	ppbv	0.3	1.52	05/03/21 21:25 EMC	156-59-2	
Tetrachloroethene	0.75	ppbv	0.15	1.52	05/03/21 21:25 EMC	127-18-4	
trans-1,2-Dichloroethene	<0.065	ppbv	0.3	1.52	05/03/21 21:25 EMC	156-60-5	
Trichloroethene	<0.055	ppbv	0.15	1.52	05/03/21 21:25 EMC	79-01-6	
Vinyl chloride	<0.05	ppbv	0.15	1.52	05/03/21 21:25 EMC	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**  
 Units Conversion Request



Pace Analytical Services, LLC  
 1700 Elm Street, Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

### ANALYTICAL RESULTS

Client: SCS Engineers Lab Project Number: 10557256  
 Phone: 843.746.8525 Project Name: 25216186.00 Artic Laundry & CI  
 Lab Sample No: 10557256002 ProjSampleNum: 10557256002 Date Collected: 04/23/21 10:24  
 Client Sample ID: 5619 1st Floor Matrix: Air Date Received: 04/27/21 11:05

Parameters	Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.077	ppbv	0.32	1.58	05/03/21 21:54 EMC	156-59-2	
Tetrachloroethene	0.58	ppbv	0.16	1.58	05/03/21 21:54 EMC	127-18-4	
trans-1,2-Dichloroethene	<0.067	ppbv	0.32	1.58	05/03/21 21:54 EMC	156-60-5	
Trichloroethene	<0.057	ppbv	0.16	1.58	05/03/21 21:54 EMC	79-01-6	
Vinyl chloride	<0.054	ppbv	0.16	1.58	05/03/21 21:54 EMC	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

### SUPPLEMENTAL REPORT Units Conversion Request



### ANALYTICAL RESULTS

Client: SCS Engineers  
Phone: 843.746.8525  
Lab Sample No: 10557256003  
Client Sample ID: 5619 2nd Floor

Lab Project Number: 10557256  
Project Name: 25216186.00 Artic Laundry & CI  
ProjSampleNum: 10557256003  
Matrix: Air

Date Collected: 04/23/21 10:14  
Date Received: 04/27/21 11:05

Parameters	Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.074	ppbv	0.3	1.55	05/03/21 22:22	EMC 156-59-2	
Tetrachloroethene	0.16	ppbv	0.16	1.55	05/03/21 22:22	EMC 127-18-4	
trans-1,2-Dichloroethene	<0.065	ppbv	0.3	1.55	05/03/21 22:22	EMC 156-60-5	
Trichloroethene	<0.055	ppbv	0.16	1.55	05/03/21 22:22	EMC 79-01-6	
Vinyl chloride	<0.05	ppbv	0.15	1.55	05/03/21 22:22	EMC 75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

### SUPPLEMENTAL REPORT Units Conversion Request



### ANALYTICAL RESULTS

Client: SCS Engineers	Lab Project Number: 10557256
Phone: 843.746.8525	Project Name: 25216186.00 Artic Laundry & CI
Lab Sample No: 10557256004	ProjSampleNum: 10557256004
Client Sample ID: 5619 1st Floor Dup	Date Collected: 04/23/21 10:24
	Date Received: 04/27/21 11:05
	Matrix: Air

Parameters	Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.077	ppbv	0.32	1.61	05/03/21 22:51 EMC	156-59-2	
Tetrachloroethene	0.54	ppbv	0.16	1.61	05/03/21 22:51 EMC	127-18-4	
trans-1,2-Dichloroethene	<0.067	ppbv	0.32	1.61	05/03/21 22:51 EMC	156-60-5	
Trichloroethene	<0.059	ppbv	0.16	1.61	05/03/21 22:51 EMC	79-01-6	
Vinyl chloride	<0.054	ppbv	0.16	1.61	05/03/21 22:51 EMC	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

### SUPPLEMENTAL REPORT

Units Conversion Request



Pace Analytical Services, LLC  
1700 Elm Street, Suite 200  
Minneapolis, MN 55414  
Phone: 612.607.1700  
Fax: 612.607.6444

## ANALYTICAL RESULTS

Client: SCS Engineers  
Phone: 843.746.8525

Lab Project Number: 10557256  
Project Name: 25216186.00 Artic Laundry & CI

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## PARAMETER FOOTNOTES

## SUPPLEMENTAL REPORT

Units Conversion Request

Date: 5/5/2021

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