FINAL DESIGN REPORT

Former C&B Dry Cleaners
(NYSDEC Site Number 907028)
Jamestown, Chautauqua County, New York

NYSDEC STANDBY ENGINEERING CONTRACT
Work Assignment #D007625-16

PREPARED FOR
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
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NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

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LIST OF ACRONYMS

a.m.	Ante Meridiem
amsl	Above Mean Sea Level
bgs	Below Ground Surface
COCs	Contaminants of Concern
DCA	Dichloroethane
DCE	Dichloroethene
DER	Division of Environmental Remediation
EPA	Environmental Protection Agency
FER	Final Engineering Report
HDR	Henningson, Durham & Richardson Architecture and Engineering, P.C.
ISCO	In Situ Chemical Oxidation
MFR	Modified Fenton's Reagent
mg/kg	Milligram Per Kilogram
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
OU1	Operable Unit 1
OU2	Operable Unit 2
PCE	Tetrachloroethene
PDI	Pre-Design Investigation
p.m.	Post Meridiem
RA	Remedial Action
RD	Remedial Design
RI	Remedial Investigation
ROD	Record of Decision
SCOs	Soil Cleanup Objectives
SMP	Site Management Plan
SOD	Soil Oxidant Demand
TCA	Trichloroethane
TCE	Trichloroethene
µg/l	Micrograms per Liter
UIC	Underground Injection Control
VC	Vinyl Chloride
VOCs	Volatile Organic Compound

1.0 INTRODUCTION

Henningson, Durham & Richardson Architecture and Engineering, P. C. (HDR) was retained by the New York State Department of Environmental Conservation (NYSDEC) to prepare the final design for the for the Former C&B Dry Cleaners site (NYSDEC Site # 907028) ("site") in Chautauqua County, New York. The work is being accomplished under Contract D007625. This Final Design Report was prepared to provide the design methodologies and supporting documents for the Remedial Design (RD). The RD was prepared in accordance with the Record of Decisions (RODs) (NYSDEC, 2013) for the site, as well as applicable New York State (NYS) regulations and guidance (6 NYCRR Part 375 and Department of Environmental Remediation (DER) Guidance Document DER-10).

1.1 Site Location and Description

The site is located at 2241 Washington Street in the City of Jamestown, Chautauqua County, New York (**Figure 1**), and encompasses two tax parcels (SBL 109-3-11.2 and 109-3-12.1) (**Figure 2**). It is currently vacant and has not been occupied since at least 1999, when commercial dry cleaning operations ceased. The site consists of approximately 0.22 acres of land and the remains of a former approximate 2,170-square-foot building that was demolished in July 2003. Building remains include the concrete floors and foundation. Asphalt and gravel access roads and parking areas are located outside the limits of the former building. The main site is generally flat and features a gravel access road, parking areas, and the foundation remains of the former building.

The site is currently inactive, and is zoned C-M service and highway-commercial. Commercial development occurs along the east and west sides of Washington Street in the vicinity of the site. The site is bounded to the east by Washington Street, beyond which is a used automobile dealership and soft drink bottler; to the north by a restaurant (Pal Joey's); to the west by an unpaved parking lot associated with Pal Joey's and to the south by a commercial building (Swanson Building) that is used for the storage of automobiles, automobile parts, and service equipment.

1.2 Site Background and History

The site was utilized for commercial dry cleaning operations from approximately 1931 through 1999, when it was closed and abandoned. Chautauqua County acquired the site via tax foreclosure from James and Joann Perry in November 2001. Previous owner/operators of the dry cleaning facility also include Ronald and Janice Hodges; A.F. & A. Maruccia, R. Olson & J. O'Connell; and Carpenter and Bacot. With regard to the former structure located on the site, historical records indicated the following:

- The main portion of the former building was constructed in 1931.
- The boiler room at the rear of the former building was constructed in 1936.

- An addition on the south side of the building was constructed in 1939.

The structure formerly located at the site was demolished in July 2003.

The site has been the subject of previous environmental assessments, investigations, and remedial actions. The following paragraphs provide a summary of those investigations.

- **Preliminary Environmental Site Assessment/Emergency Removal Actions**: A Preliminary Environmental Site Assessment (ESA) of the site was completed in 2001. Based on this ESA, it was determined that the site was used almost exclusively for commercial dry cleaning operations until its abandonment in 1999. During the site reconnaissance, miscellaneous debris was observed outside the former building. A subsequent emergency removal action was initiated, and the materials were disposed off-site.
- **Underground Storage Tank Investigation/Removal:** The site reconnaissance revealed the presence of several abandoned pipes along the north side of the building and raised suspicion of the existence of Underground Storage Tanks (USTs). The Chautauqua County Department of Public Facilities (CCDPF) completed excavations that revealed two USTs on the western side of the building. A removal action for the USTs was initiated on December 19, 2001; both USTs and their associated piping were emptied, cleaned, and removed.
- **Asbestos Survey**: Prior to demolition of the C&B Dry Cleaners building, a pre-demolition asbestos survey was completed to identify and quantify asbestos-containing materials (ACMs). The demolition of the on-site structures occurred in July 2003.
- **Remedial Investigation/Alternative Analysis:** On behalf of the CCDPF, TVGA Consultants (TVGA) conducted a remedial investigation (RI) at the site from 2005 to 2007. TVGA submitted its Remedial Investigation/Alternatives Analysis report to the NYSDEC in December 2007. Analytical results of soil gas, subsurface soil/fill, surface water, groundwater, and air samples collected during the RI were evaluated to determine the magnitude and extent of potential contamination occurring in the media. The data evaluation conducted based on the RI findings and risk assessments identified contaminants of concerns (COCs), which included Tetrachloroethene (PCE), Trichloroethene (TCE), dichloroethylene (DCE), and arsenic. As summarized below, COCs were determined to exceed the applicable SCGs for on-site soil and groundwater, as well as to exceed the applicable New York State Department of Health (NYSDOH) indoor air guidance for soil vapor. The detailed field investigation, analytical results, and findings of the RI for other media are described in the December 2007 Draft Remedial Investigation/Alternatives Analysis Report prepared by TVGA (TVGA, 2007).
    - On-site Soil - PCE was detected at concentrations that exceeded the commercial SCGs in two locations. The PCE concentrations detected in soil were 8,000 milligram per kilogram (mg/kg) and 160 mg/kg, exceeding the Protection of Groundwater Soil Cleanup Objectives (SCOs) of 1.3 ppm. Arsenic was also detected at concentrations that exceeded the SCOs in the four on-site soil

samples analyzed for TAL metals. Arsenic was detected at concentrations of 109 mg/kg and 85.7 mg/kg respectively—above the Protection of Groundwater and Commercial Use SCO of 16 mg/kg.

- o On-site Groundwater - Seven different Target Compound List (TCL) volatile organic compounds (VOCs) were detected in all but one of seven on-site groundwater samples at concentrations that exceeded NYSDEC Class GA Groundwater Standard or Guidance Value. PCE concentrations ranged from 7 to 1,000,000 parts per billion (ppb), with the most significantly elevated concentrations detected in a groundwater sample in the vicinity of the former USTs. The PCE concentrations in a majority of the remaining on-site locations were significantly above the SCG of 5.0 ppb, but none approached the levels near the former USTs. The other VOCs detected at concentrations above the SCGs include 1,1,2,2-tetrachloroethane; 1,1- -DCE); vinyl chloride; cis-1,2-dichloroethene; isopropylbenzene; and TCE.

- o Soil Vapor and Indoor Air - Contaminants from the site have adversely impacted indoor air quality at an adjacent property north of the site which was addressed by an IRM. PCE was detected in the sub-slab soil vapor and in an ambient air sample collected from the basement. The results exceeded the NYSDOH indoor air guidance value for PCE. The concentration of PCE in the sub-slab sample was 190,000 micrograms per cubic meter ($\mu g/m^3$), and in the ambient air basement sample 2,200 $\mu g/m^3$.

1.3 Selected Remedy

The detailed elements of the RD program as described in the ROD are as follows:

- Completion of a Pre-Design Investigation (PDI);
- Excavation and off-site disposal of on-site soils contaminated with arsenic;
- Removal and off-site disposal of VOC-contaminated subsurface soil/fill down to the top of the groundwater table; and,
- Treatment of the shallow groundwater plume (on-site and off-site) using in situ chemical oxidation (ISCO).

A PDI was completed in early 2015. The results of the PDI are documented in HDR's PDI report (HDR, 2015). PCE was not detected in soil at concentrations above the SCO during the PDI. Soil remediation for PCE contamination in the vadose zone was not, therefore, required. A soil IRM at the site was completed in October 2015 and consisted of the excavation and off-site disposal of approximately 880 cubic yards of arsenic impacted soil. A complete summary of the soil removal action can be found in the IRM Report (HDR, 2016). Since the removal and off-site disposal of soil contamination was completed recently as part of the IRM, soil RD is not included as part of this groundwater RD.

2.0 SITE CHARACTERISTICS

2.1 Site Geology and Hydrogeology

The geology of the site consists of approximately 6 to 8 feet of sand and gravel soil/fill material from an off-site source (the specific source is not known). A thin layer of peat underlain by soil/fill was observed in 2015 PDI soil boring locations in the western portion of the site near wetland area. Native gravelly sand and silt underlie the soil/fill and/or peat. The native soil underlying the fill materials consists of similar grey and brown fine to coarse silty sand with gravel soils. However, its classification varies from mostly sand to well graded gravelly sands. Below this sand and gravel soil, a moist silty gray clay stratum exists at the bottom of the soil borings at approximately 10 to 16 feet below ground surface (ft bgs). This clay unit limits the potential for downward vertical migration of the contamination from the soil and groundwater. Shallow groundwater is present from 5 and 6 ft bgs. Groundwater flow is generally to the south west/south towards the Chadakoin River.

2.2 Nature and Extent of Contamination

During early 2015, a PDI was conducted to verify arsenic soil contamination results and limits of contamination in the northwest area of the site; verify PCE soil contamination results in the vadose zone; and, determine the ISCO parameters to complete an effective RD for the existing groundwater contamination (on and off-site). The results of the PDI are documented in HDR's PDI report (HDR, 2015).

2.2.1 Nature and Extent of Soil Contamination

As part of the PDI, twenty-one (21) soil borings were advanced to verify arsenic soil contamination results and determine the limits of excavation in the northwest area of the site. As shown in **Figure 2**, soil boring locations, CBSB101, CBSB104, CBSB105 and CBSB106, were advanced in the northwest area of the site to verify the limits of arsenic soil contamination.

Barium and arsenic were the only constituents detected in soil samples at concentrations exceeding the soil SCOs. Arsenic was detected in soil samples collected from the western portion of the site at concentrations above the soil SCOs of 16 mg/kg. Arsenic values ranged between 2.5 to 217 mg/kg with a maximum concentration detected at the CBSB101 location from the depth interval 4 - 6 feet bgs. CBSB101 is located at the northwest corner of the Former C&B Dry Cleaners property boundary. The 2015 PDI assisted in delineating the horizontal and vertical limits of the arsenic impacted soils at the site. However, the northwestern portion of the soil impacts was not fully delineated. Specifically, the horizontal and vertical limits have not been delineated to the north of CBSB101 and CBSB106.

Further subsurface soil sampling was conducted by Groundwater & Environmental Services, Inc. (GES) to fully determine the extent of the vertical and horizontal contamination in this area. GES advanced twelve (12) soil borings to determine the limits of excavation in the northwest

area of the site. Arsenic values ranged between 10.5 to 210 mg/kg with a maximum concentration detected at the SB-106 location from the depth interval 4 feet bgs. SB-106 is located on the northern boundary of the site. Based on the recent sampling conducted by GES, the estimated limit of the arsenic contamination in soil was revised and shown in **Figure 3**.

2.2.2 Nature and Extent of Groundwater Contamination

PCE and other chlorinated VOCs were detected in groundwater at concentrations above their respective SCOs across the on-site and off-site areas during the PDI. In general, the footprint of the groundwater contaminant plume was similar to that identified during the RI conducted by TVGA (TVGA, 2007); however, the concentration of PCE was lower than previously detected. During the PDI, the greatest concentration [28,000 micrograms per liter (µg/l)] of PCE in groundwater was detected in the monitoring well MW-05 located within the source area (**Figure-4**). During the RI conducted in 2007, PCE had been detected at a concentration (1,000,000 µg/l) in this monitoring well. This may be an indication that natural degradation processes are reducing contaminant concentrations at the site. The presence of PCE breakdown products observed during the RI also indicates that some biodegradation is occurring. Further, based on the available groundwater analytical data, groundwater elevation data collected during the RI and PDI, and locations of former USTs and a wash tub, it appears that that there may have been two sources of PCE on-site, resulting in two separate plumes with PCE concentrations greater than 200 µg/l. Additionally, during the PDI, an area near the creek behind (south of) the Swanson Building was inaccessible due to heavy snowfall, preventing HDR from installing additional wells. Therefore, a data gap exists in this area.

3.0 SOIL REMEDIATION

The results of the PDI indicated that soil remediation was limited to the excavation of on-site soils impacted only by arsenic at concentrations above the Standards, Criteria, and Guidance (SCGs) for Part 375 Protection of Groundwater and Commercial Use SCO Protection of Groundwater of 16 mg/kg. PCE was not detected in soil at concentrations above the SCO of 150 mg/kg during the PDI. Soil remediation for PCE contamination in the vadose zone was not, therefore, required.

Progress was made in delineating the horizontal and vertical limits of the arsenic-impacted soils at the site. However, the northwestern portion of the soil impacts was not fully delineated. Specifically, the horizontal and vertical limits were not delineated to the north of PDI locations CBSB101 and CBSB106. The estimated excavation extent to remove the soil impacts of arsenic greater than the SCO was expanded beyond the northwestern property boundary of the site. Prior to conducting an interim remedial measure (IRM) for soil, further subsurface soil sampling was conducted to determine the extent of the vertical and horizontal contamination in this area.

A soil IRM was recently completed at the site. The IRM consisted of the excavation and off-site disposal of impacted soil to a depth ranging from 4 to 5 feet (intersecting the top of the groundwater table). A total of approximately 880 cubic yards of soil was excavated as part of the

IRM. The IRM activities were completed by October 27, 2015. A complete summary of the soil removal action can be found in the IRM Report (HDR, 2016). Since the removal and off-site disposal of soil contamination was completed recently as part of the IRM, soil RD is not included as part of this groundwater RD.

4.0 GROUNDWATER REMEDIAL DESIGN

The ROD for the C&B Dry Cleaners site requires treatment of shallow groundwater plume (on-site and off-site) using ISCO remedial technology. The extent of the ISCO treatment area was established as shown on Sheet **C-03** of the draft final design drawings. There may have been two sources (former USTs and wash tub located inside the building) of PCE on-site, resulting in the two separate plumes with PCE concentration greater than 200 µg/l. The western plume likely contains PCE concentrations an order of magnitude larger than the eastern plume. After discussions with the NYSDEC and taking into account the small size of the site, the preliminary design ISCO treatment area shown on Sheet C-03 was established. The ISCO treatment area covers the entire downgradient portion of the two plumes where the concentration of PCE is greater than 200 µg/l, as well as the area between these plumes. The treatment area also covers the bulk of the downgradient plume where the concentration of PCE is greater than 5 µg/l.

4.1 Treatment of Shallow Groundwater Plume

The ROD stipulates the use of ISCO to actively treat contaminated soil and groundwater at the site. The remediation of groundwater or soil using ISCO involves injecting oxidants directly into the source zone near monitoring well, MW-05 and dissolved phase plume. The ISCO reagent reacts with the contaminants producing less toxic compounds such as carbon dioxide and water. Injections of ISCO for treatment of groundwater will be limited to areas shown on Sheet **C-03**.

4.1.1 Reagent Selection

XDD performed the bench-scale treatability testing of ISCO on soil and groundwater from the site. The bench scale tests evaluated the potential for select ISCO reagents to treat the site contaminants including TCE, cis-1,2-dichloroethylene, and PCE. The following reagents were evaluated in the treatability study:

- Sodium persulfate – un-activated persulfate, iron activated persulfate, and alkaline activated persulfate at three concentrations.
- Potassium permanganate at three concentrations.
- Hydrogen peroxide – stabilized and catalyzed hydrogen peroxide (CHP) at two concentrations.

The Bench-Scale In-Situ Chemical Oxidation Treatability Study Results prepared by the XDD was provided with the 2015 PDI report. The treatability testing indicated that iron activated

persulfate and potassium permanganate were the most successful at treating the site contaminants in groundwater. Of these two, potassium permanganate is likely the best choice for the following reasons:

- Stability over the test period was acceptable
- >99% destruction of COCs in groundwater
- pH would remain neutral
- Limited metals mobilization potential

The low-oxidant concentration test condition [3.5 grams per liter (g/l) potassium permanganate] would be recommended since it would result in the lowest cost and least amount of metals mobilization, yet would still achieve the COC reductions in groundwater.

The amount of potassium permanganate needed was estimated based on the direct stoichiometry of using potassium permanganate to oxidize each of the COCs. The balanced chemical equations for potassium permanganate oxidation of TCE and PCE are:

TCE

$$2KMnO_4 + CHCl_3 \rightarrow 2CO_2 + 2MnO_2 + 2K^+ + 2Cl^- + HCl$$

PCE

$$4KMnO_4 + 3C_2Cl_4 + 4H_2O \rightarrow 6CO_2 + 4MnO_2 + 4K^+ + 12Cl^- + 8H^+$$

The potential for metals mobilization in groundwater following an ISCO application is often a concern. However, any increases in metals concentrations following ISCO are expected to be temporary. Additionally, some of the metals detections originate from the chemical makeup of the oxidants themselves (e.g., potassium and manganese from potassium permanganate).

There is potential for several byproducts, including carbon dioxide, MnO_2 solids, cations (e.g., potassium), and halides (when chlorinated solvents are present) to be generated and released to the groundwater. The byproducts of this reaction are not expected to pose water quality problems because most of the byproducts are either innocuous or will readily react with aquifer material and subsequently stabilize. The production of carbon dioxide is not expected to cause negative impacts as the amount of off-gassing will be very minimal.

4.1.2 Layout of Temporary Injection Points

Based on the extent of the ISCO treatment area, the layout for the temporary ISCO injection points was developed as shown on Sheet **C-04** of the design drawings. The ISCO injection system includes the installation of approximately 60 temporary injection points by direct push technology in order to treat groundwater within the proposed ISCO treatment area. Injection wells will be installed approximately 16 feet apart with adequate overlap to achieve substantial coverage.

Injections under the Swanson Building were considered, but the shallow depth to clay (15 feet bgs) and the presence of the building basement limit the available technologies to treat this small area. In addition, the Swanson Building has been condemned, and it is considered unsafe to perform directional drilling beneath it. The proposed ISCO treatment, therefore, does not include direct treatment of impacted groundwater beneath the Swanson Building; rather, it proposes treatment at the outside perimeter of the building. Although this results in an inaccessible treatment area (approximately 4,000 square feet) beneath the footprint of the building, the design includes a high density of injection points as close to the building foundation wall as possible to provide maximal coverage under the building.

4.1.3 Reagent Volume

It is difficult to estimate site behavior during the injection of ISCO reagents based solely on estimations of site hydraulic characteristics due to variability in subsurface conditions and how the subsurface might respond throughout the injection. Based on the estimated site hydraulic characteristics, the ISCO injection contractor will be required to submit an injection plan for the site, while also incorporating an intuitive sense of the site's aquifer architecture, as well as previous experience at other similar sites. The injection plan will include the estimated injection volume and rate for each location as well as the means and method for injecting reagent at each location. However, due to the tremendous amount of variability in the subsurface and the dynamic responses of an aquifer, it will be important to pay attention to the initial phase of the injection process.

For the purpose of estimating the total amount of reagent required for conducting the ISCO injections in the treatment area, a 30% pore volume was assumed. The total pore volume was calculated based on the total treatment area of 24,500 square feet minus the inaccessible area of 4,000 square feet located underneath the building, a treatment depth of 10 feet, and a porosity of 30%. Calculations for estimating the total amount of reagent required for ISCO injections in the treatment area are provided in **Appendix A**.

5.0 REMEDIAL ACTION SCOPE

The remedial action (RA) for this project includes the following:

- Site Preparation
- Installation of the temporary injection points;
- ISCO injection event; and
- Groundwater performance monitoring
- Demobilization

5.1 Site Preparation

Site preparation includes general mobilization/demobilization (setting up staging areas for injection, decontamination, and waste storage), utility clearance, site clearing, and permitting.

Equipment and chemicals will be stored at a central location in the empty lot located south of the Swanson Building. From this location, a mobile injection skid and interconnecting hosing will be used for the injection application.

All underground utilities—including, but not limited to, water, sanitary, gas, and communications—will need to be located and marked prior to any drilling and injection activities. It is necessary to conduct a field inspection prior to injection operations to be sure that the injection application area is at a sufficient distance from any underground utilities. Additionally, a field inspection is needed to locate any boreholes from previous investigations that may have improper or incomplete seals, which will then be properly re-sealed prior to injection. The application of ISCO reagents via a pressurized application may find utility or borehole conduits that will act as a preferential pathway and cause reagent to surface. The injection points will also be adjusted in the field to minimize proximity to any utilities located in the site.

5.2 Installation of the Temporary Points

The temporary injection points will be installed via direct-push drilling technology, and the reagent will be injected across the screened interval from the top of groundwater to the top of clay. Small diameter (~1.25- to 3.25-inch) hollow steel rods will be advanced downward into the target zone. Each temporary injection point will consist of a series of threaded 3- to 5-foot long stainless steel drive rods that will be advanced via a series of connected rod joints to approximately 13 to 15 feet bgs. The steel rods will include screened sections to permit the injection of oxidant within the treatment zone. It is assumed that a drilling subcontractor will install the temporary injection points and an ISCO injection subcontractor will conduct the injections.

5.3 ISCO Injection Events

5.3.1 Baseline Sampling

One month prior to performing ISCO injections one round of groundwater samples will be collected by the overseeing Engineer from 3 existing wells and 4 new monitoring wells to be installed to determine baseline conditions at the site (see Sheet **C-05**). Field parameters that will be collected include:

- Dissolved oxygen;
- Oxidation/reduction potential (ORP);
- Specific conductance;
- Turbidity;
- Temperature; and
- pH

Groundwater samples will be collected and analyzed for VOCs, metals, and sulfate using a NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory. Samples will

be analyzed using a two-week turnaround time. Sample results will be tabulated and plotted on a site map and evaluated to verify that no changes to the design are needed as a result of the baseline data.

5.3.2 Injection Solution

The injection solution will consist of 5% potassium permanganate solution. The contractor can order concentrated permanganate in tankers and dilute to the delivery concentration on-site or, alternatively, order the crystalline form of potassium permanganate and dissolve on-site. Potassium permanganate can be delivered in crystalline form in 1,000- to 2,000- pound (lb) polypropylene sacks. If the contractor receives the potassium permanganate in tankers already dissolved there would be no solids to dissolve. This is a much safer approach in terms on handling. If the contractor does dissolve the solid product on-site it adds an additional step in handling to dissolve the product creating a concentration which is then diluted to delivery concentration. The contractor would draw from the concentrated tanker and a bulk water tank, blending the two to create a 5% solution by weight in a mixing unit; the solution would then be moved to a batch holding delivery tank, which will be kept constantly mixing to maintain the solution before transferring to a delivery tank which aids in tracing the delivery volume. From the delivery tank this solution will be injected at an estimated flow rate of 5 gallons per minute into each temporary injection point. A total of approximately 36,800 pounds of potassium permanganate and approximately 88,200 gallons of water are estimated to treat the entire treatment area.

5.3.3 ISCO Injection and Infield Design Modifications

As mentioned in Section 4.1.2, approximately 60 temporary injection locations are included as part of the ISCO injection. Extracted groundwater or clean water from an external source will be used to prepare the solution. A mobile injection skid and interconnecting hosing located at the central location will be used for the injection application. Based on the site geology and estimated hydraulic characteristics, an injection flow rate of 5 gallons per minute is estimated.

Based on the 6 locations per day goal, the duration for completing the ISCO injection event is estimated to be 12 days. This includes two additional field days to account for time required to implement infield design modifications, if required.

During the ISCO injection, delivery performance monitoring will be performed by the Engineer during and immediately after oxidant delivery in order to: monitor injection flow rates and volume, ensure adequate distribution of the oxidants, monitor and manage aquifer conditions that affect oxidant chemistry, and monitor migration/displacement of COCs during injection. Delivery performance monitoring will be conducted utilizing the monitoring wells located within the treatment area. Monitoring during injection will include visual inspection for oxidant color and field measurements of ORP, specific conductivity, injection pressure and flow rate, water level, and tracers (if they are used). The delivery performance monitoring will assist in determining the necessary modifications for reagent injection volumes, radius of influence, and

injection rate. Based on information gathered on aquifer response under various injection modifications tested during the monitoring, a number of alternatives or combinations of alternatives will be proposed to make the application both efficient and cost effective. The required infield modifications will be discussed and approved by the NYSDEC prior to implementation.

5.4 Performance Monitoring

As mentioned above, a data gap exists in the area near the creek behind (south of) the Swanson Building. Three additional monitoring wells will therefore be installed in this area and will be utilized as performance monitoring wells. An additional monitoring well will also be installed within the upgradient area of the treatment area to monitor upgradient groundwater conditions. Also, three of the existing monitoring wells will be used for performance monitoring for a total of seven performance monitoring wells.

Baseline groundwater samples will be collected from the seven performance monitoring wells as well as from MW-05 (located in the source area) for potential biological or abiotic degradation by-products, VOCs and metals, and general water quality parameters—such as ORP, specific conductivity, chloride, and water level measurements.

Two rounds of performance monitoring will be conducted after the injection event. The initial round of groundwater samples will be collected two weeks following the injection event. A second monitoring event will be conducted one month later. Groundwater samples will be collected from the seven performance monitoring wells for VOCs and metals analyses and general water quality parameters such as ORP, specific conductivity, chloride, and water level measurements. The results of initial monitoring will be discussed with the NYSDEC. Performance monitoring will be conducted by the overseeing Engineer. Based on the results of groundwater samples collected during the ISCO injection, additional injection events may be required.

5.5 Demobilization

Upon completion of the injections all equipment and chemicals will be removed from the site. Materials will not be permitted to be stored on-site between injection events.

6.0 PERMITS, AUTHORIZATIONS, AND ACCESS

6.1 Site Access

The NYSDEC will be responsible for obtaining site access agreements needed to complete the work. Site access will be required for the on-site and off-site areas as shown on Sheet **C-01** of the design drawings.

6.2 Local Permits

The City of Jamestown Municipal Code was reviewed to identify any permits that will be required to complete the work. Based on a reading of Chapter 198-2, noise was identified as potentially applicable to the RA activity. RA activities will not be permitted between the hours of 6:00 p.m. and 7:00 a.m. on weekdays, all day Saturday, all day Sunday, or on holidays. No permits or approvals are required.

6.3 Federal Permits:

The injection of ISCO requires notification to the Environmental Protection Agency (EPA) in accordance with the Underground Injection Control (UIC) Program. Injection wells for the purpose of aquifer remediation are classified as Class V wells under the UIC program and are authorized by rule. Though a permit is not required, the activity still requires notification to the EPA, so injection wells can be inventoried. The overseeing Engineer will be responsible for notifying EPA prior to beginning the ISCO injection for the RA.

7.0 SCHEDULE

This section provides a preliminary schedule for the activities necessary to complete the RD. The actual sequence will be determined by the contractor and will be submitted once proposed.

7.1 Construction Sequence

- Obtain Permits: The overseeing Engineer will be responsible for obtaining all permits required to complete the work.
- Underground Utility Location: The contractor will have all underground utilities located prior to any disturbances.
- Mobilization and Temporary Facilities: The contractor will mobilize equipment and set up temporary facilities.
- ISCO Injection: The contractor will install all 60 temporary injection wells. Following installation, the area will be restored to its original condition or as otherwise indicated on the construction drawings.
- Groundwater Monitoring: The four new groundwater monitoring wells (one upgradient and three downgradient) will be installed by the overseeing Engineer. Baseline groundwater monitoring will be conducted by the overseeing Engineer prior to the performance of the injection. Two rounds of groundwater monitoring will also be conducted by the overseeing Engineer after the ISCO injection.

7.2 Preliminary Construction Schedule

The duration of construction and completion of one injection and groundwater monitoring events is estimated to be approximately 12 weeks. A summary of the major construction activities is provided below.

- Procurement of Permits: 1 week

- Baseline Groundwater Monitoring: 1 week
- Mobilization & Site Preparation: 1 week
- ISCO Injection: 3 weeks
- Post-injection Groundwater Monitoring: 1 week per round for two rounds, total of 2 weeks
- Final Contractor Submittals: 6 weeks
- NYSDEC Final Submittals: 12 weeks

8.0 POST CONSTRUCTION PLANS

8.1 Final Engineering Report

After the RA has been completed, a Final Engineering Report (FER) will be prepared by the Engineer to document the implementation of the RA. The FER will be prepared in accordance with Section 5.8 of DER-10 and will be certified by a NYS Licensed Professional Engineer. The FER will include a description of the remedy as constructed, a discussion of any problems encountered during construction along with their resolution, a description of any changes to the design, a listing of waste streams along with quantities of waste, and restoration activities. The FER will include documentation of all waste manifests or waste disposal tickets and results of all analyses.

8.2 Site Management Plan

A Site Management Plan (SMP) will be prepared by the Engineer to ensure continued safe reuse of the property and operation of the groundwater hydraulic control system after the RA has been completed. The SMP will address site management and will include information such as a description of the Engineering and institutional controls, the inspection and maintenance requirements, restrictions placed on the property that will limit the future reuse of the site, and periodic review and reporting requirements.

9.0 CERTIFICATION

I __Erich Zimmerman___ certify that I am currently a NYS registered professional engineer and that this Final Design Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with DER Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.

Signature: _____

Date: 8/30/16

Name: Erich Zimmerman

License No.: 081831

10.0 REFERENCES

New York State Department of Environmental Conservation. Record of Decision for Former C&B Dry Cleaners, Environmental Restoration Project, Jamestown, Chautauqua County, Site No. E907028 – April 2013.

TVGA Consultants. Draft remedial investigation/alternatives analysis report – December 2007.

HDR. Pre-Design Investigation Report, Former C&B Dry Cleaners (NYSDEC Site Number 907028) - July 2015.

HDR. Final Interim Remedial Measures Report, Former C&B Dry Cleaners, Soil Remediation, (NYSDEC Site Number 907028) – January 2016.

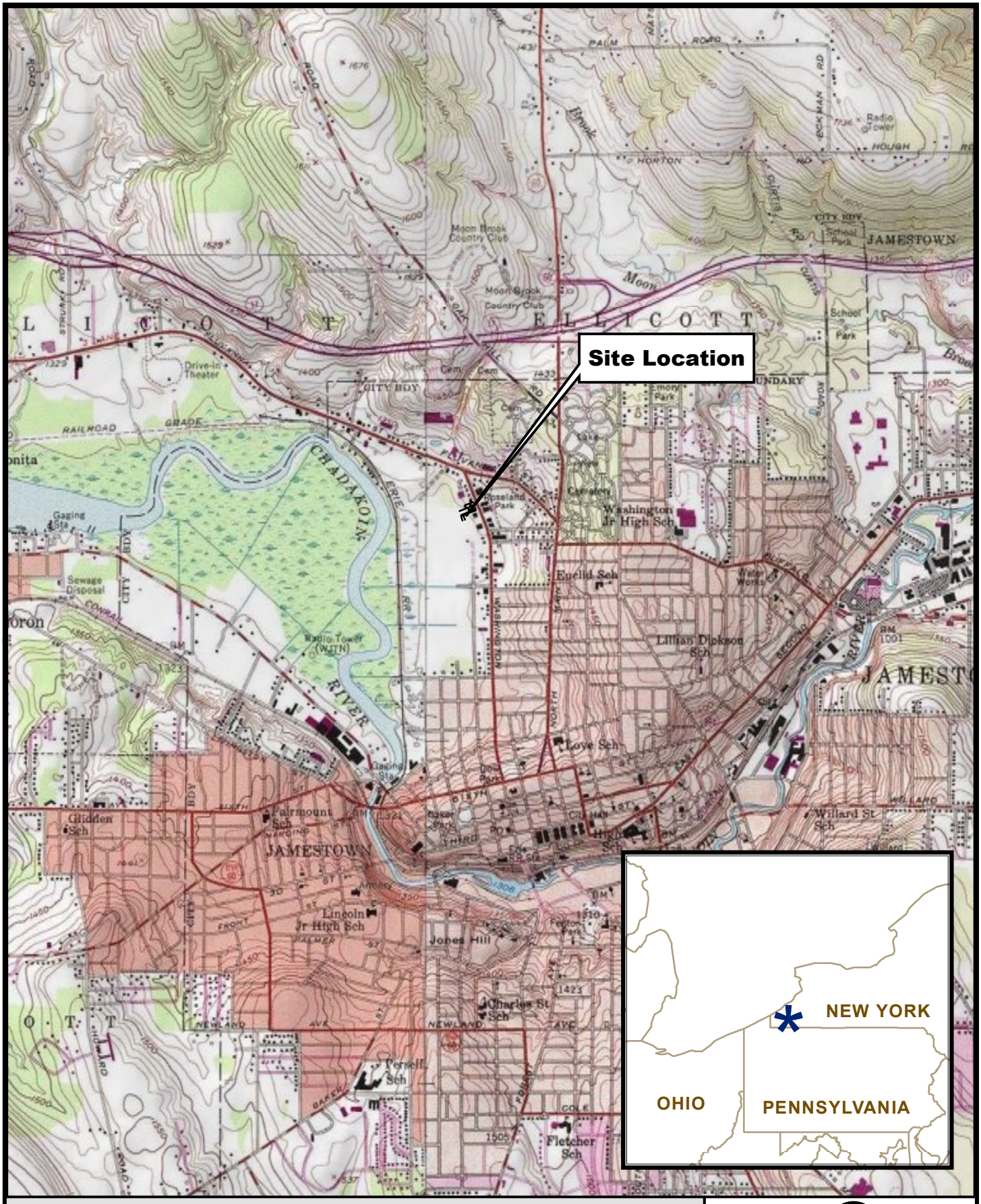
TABLES

Table 1
Groundwater Elevations (January 2015)
Former C & B Dry Cleaners Final Design
Jamestown, Chautauqua County, New York

ID	Northing	Easting	Date (mm/dd/yyyy)	Time (24-day)	Top of Inner Casing Elevation (feet amsl)	Depth to water from top of inner casing (feet bgs)	Water level elevation (feet)	Depth to bottom of well (feet bgs)	Well bottom elevation (feet)
MW5	770300.21	968283.70	1/16/2015	8:57	1327.67	7.92	1319.75	14.40	1313.27
CBPZ101	770119.30	968259.58	1/16/2015	8:21	1321.27	6.22	1315.05	15.93	1305.34
CBPZ102	770084.01	968289.79	1/16/2015	8:35	1322.75	7.78	1314.97	17.91	1304.84
CBPZ104	770059.51	968305.56	1/16/2015	8:41	1323.34	8.30	1315.04	18.10	1305.24
CBPZ105	770062.94	968345.35	1/16/2015	8:44	1324.87	7.46	1317.41	18.13	1306.74
CBPZ106	770130.78	968356.24	1/16/2015	8:17	1324.74	7.17	1317.57	15.10	1309.64
CBPZ108	770277.57	968208.82	1/16/2015	8:59	1326.35	7.69	1318.66	16.06	1310.29
CBPZ109	770288.46	968142.27	1/16/2015	9:05	1326.21	9.00	1317.21	14.00	1312.21
CBPZ110	770157.89	968295.67	1/16/2015	8:19	1323.46	5.73	1317.73	15.77	1307.69
SP24	770205.93	968320.15	1/16/2015	8:52	1327.36	9.52	1317.84	18.85	1308.51
SP26	770372.97	968330.53	1/16/2015	9:10	1327.87	7.17	1320.70	13.85	1314.02
SP22/27	770231.25	968199.74	1/16/2015	9:02	1323.85	7.56	1316.29	14.78	1309.07
SP28	770144.95	968250.44	1/16/2015	8:31	1322.34	7.26	1315.08	16.90	1305.44
SP29	770080.05	968302.50	1/16/2015	8:38	1323.56	8.55	1315.01	14.95	1308.61
SP30	770094.89	968333.59	1/16/2015	8:49	1324.52	8.36	1316.16	14.94	1309.58
SP42	770242.75	968396.02	1/16/2015	8:54	1327.84	9.40	1318.44	14.85	1312.99

Notes:
bgs - below ground surface
amsl - above mean sea level

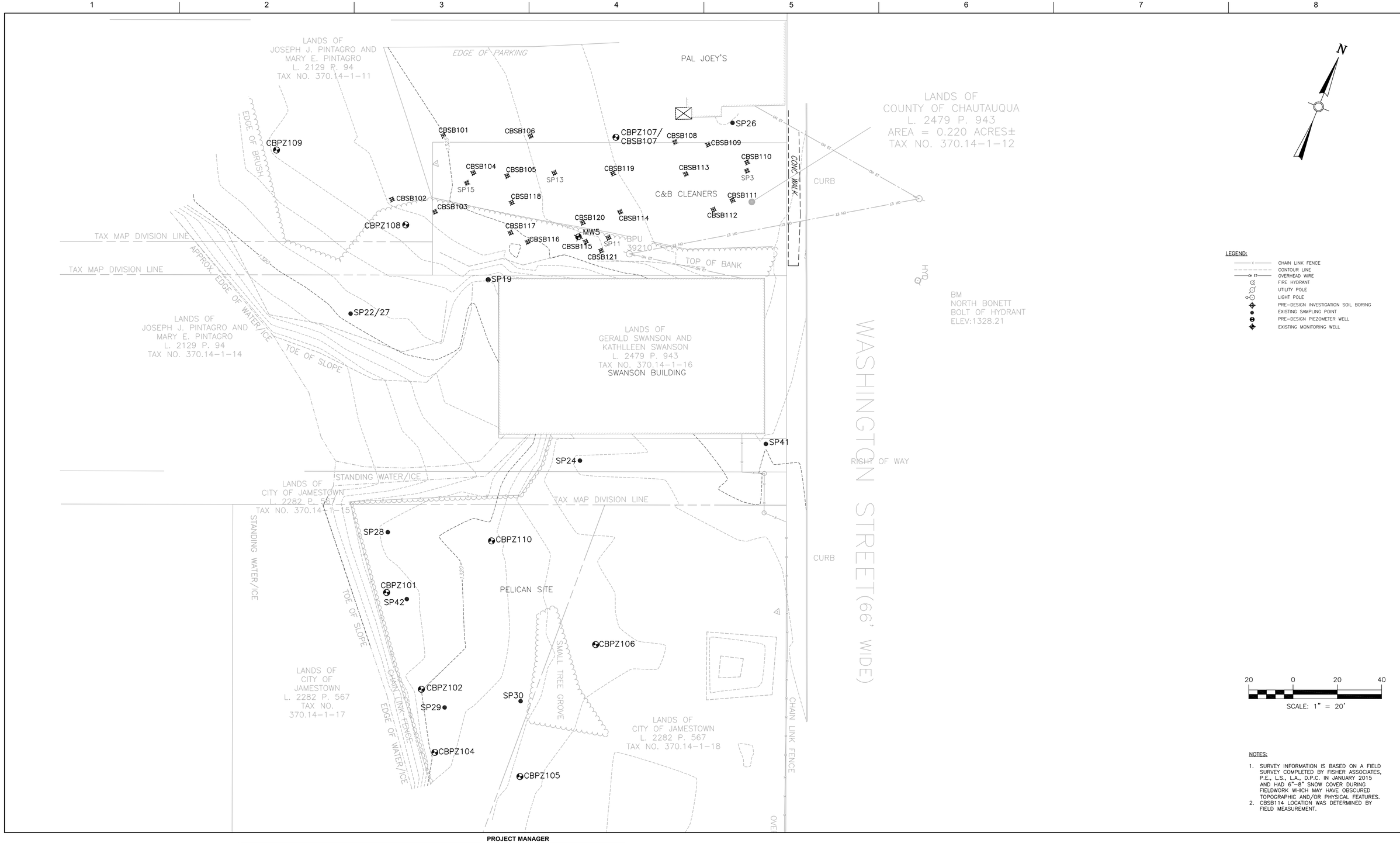
FIGURES



Source: United States Geological Survey Topographic Map. For more information on this map, visit http://goto.arcgisonline.com/maps/NGS_Topo_US_2D

Site Location Map
Former C&B Dry Cleaners Site
City of Jamestown, New York

Job No.	Date	Figure No.
230036	08/2016	1



NOTES:

1. SURVEY INFORMATION IS BASED ON A FIELD SURVEY COMPLETED BY FISHER ASSOCIATES, P.E., L.S., L.A., D.P.C. IN JANUARY 2015 AND HAD 6"-8" SNOW COVER DURING FIELDWORK WHICH MAY HAVE OBSCURED TOPOGRAPHIC AND/OR PHYSICAL FEATURES.
2. CBSB114 LOCATION WAS DETERMINED BY FIELD MEASUREMENT.

ISSUE	DATE	DESCRIPTION	PROJECT MANAGER	
			PROJECT NUMBER	

FORMER C&B DRY CLEANERS
CITY OF JAMESTOWN, CHAUTAUQUA COUNTY, NEW YORK

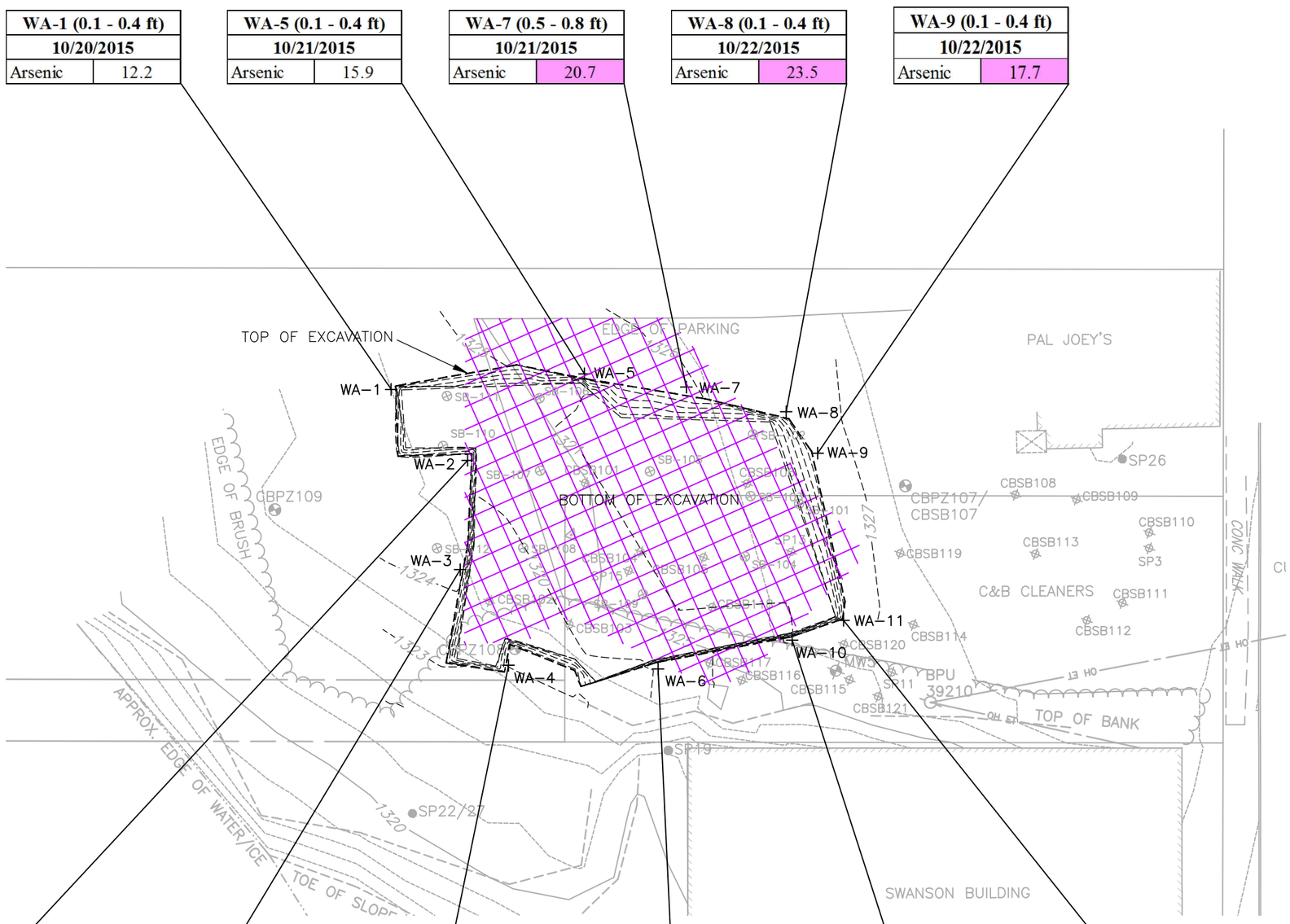
PRE-DESIGN INVESTIGATION SAMPLE LOCATIONS

0 20 40

FILENAME

SCALE 1"= 20'

FIGURE 2



WA-1 (0.1 - 0.4 ft)	
10/20/2015	
Arsenic	12.2

WA-5 (0.1 - 0.4 ft)	
10/21/2015	
Arsenic	15.9

WA-7 (0.5 - 0.8 ft)	
10/21/2015	
Arsenic	20.7

WA-8 (0.1 - 0.4 ft)	
10/22/2015	
Arsenic	23.5

WA-9 (0.1 - 0.4 ft)	
10/22/2015	
Arsenic	17.7

WA-2 (0.1 - 0.4 ft)	
10/20/2015	
Arsenic	24.0

WA-3 (0.1 - 0.4 ft)	
10/20/2015	
Arsenic	11.8

WA-4 (0.1 - 0.4 ft)	
10/20/2015	
Arsenic	27.1

WA-6 (0.1 - 0.4 ft)	
10/21/2015	
Arsenic	16.1

WA-10 (0.1 - 0.3 ft)	
10/22/2015	
Arsenic	16.2

WA-11 (0.1 - 0.3 ft)	
10/22/2015	
Arsenic	8.7

LEGEND:

- AS-BUILT LIMITS OF EXCAVATION
- EXCAVATION PIT CONTOUR LINE
- EXISTING CONTOUR LINE
- CHAIN LINK FENCE
- OVERHEAD WIRE
- FIRE HYDRANT
- UTILITY POLE
- LIGHT POLE
- PRE-DESIGN INVESTIGATION SOIL BORING
- EXISTING SAMPLING POINT
- PRE-DESIGN PIEZOMETER WELL
- EXISTING MONITORING WELL
- WA-1 CONFIRMATORY SAMPLE LOCATION (SIDEWALL SAMPLE)
- PRE-REMEDIAL ACTION SOIL BORING LOCATION (BY GES)

SAMPLE IDENTIFICATION
SAMPLE DEPTH OR INTERVAL

WA-2 (0.1 - 0.4 ft)	
10/20/2015	
Arsenic	24.0

SAMPLE DATE
ANALYTICAL RESULT MG/KG (PINK HIGHLIGHT INDICATES CONCENTRATION GREATER THAN RESTRICTED COMMERCIAL SCO)
ANALYTICAL PARAMETER

Restricted Use Commercial Soil Cleanup Objectives	
Contaminant	(mg/kg)
Arsenic	16

NOTES:

1. SURVEY INFORMATION IS BASED ON A FIELD SURVEY COMPLETED BY FISHER ASSOCIATES, P.E., L.S., L.A., D.P.C., IN JANUARY AND OCTOBER 2015 AND HAD 6"-8" SNOW COVER DURING FIELDWORK WHICH MAY HAVE OBSCURED TOPOGRAPHIC AND/OR PHYSICAL FEATURES.
2. CBSB114 LOCATION WAS DETERMINED BY FIELD MEASUREMENT.
3. AS-BUILT LIMIT OF EXCAVATION WAS SURVEYED BY FISHER ASSOCIATES, P.E., L.S., L.A., D.P.C., ON OCTOBER 23, 2015.

30 0 30 60

SCALE: 1" = 30'

PROJECT TITLE
FORMER C & B DRY CLEANER
CHAUTAUQUA COUNTY, NEW YORK

SHEET TITLE
SUMMARY OF SOIL CONFIRMATORY SAMPLE RESULTS - ARSENIC

PROJECT NUMBER

PROJECT MANAGER
E. ZIMMERMAN

DATE

REFERENCE SHEET

SCALE
1"= 30'

FIGURE
3

CBPZ109 (3 - 13 ft)	
Sample Date	1/12/2015
1,1-Dichloroethane	< 1.0
cis-1,2-Dichloroethylene	< 1.0
PCE	< 1.0
trans-1,2-Dichloroethene	< 1.0
TCE	< 1.0
Vinyl Chloride	< 1.0

CBPZ108 (3 - 13 ft)	
Sample Date	1/12/2015
1,1-Dichloroethane	< 1.0
cis-1,2-Dichloroethylene	< 1.0
PCE	< 1.0
trans-1,2-Dichloroethene	< 1.0
TCE	< 1.0
Vinyl Chloride	< 1.0

CBMW5 (5 - 15 ft)*	
Sample Date	1/15/2015
1,1-Dichloroethane	< 50
cis-1,2-Dichloroethylene	< 50
PCE	**28000**
trans-1,2-Dichloroethene	< 50
TCE	**220**
Vinyl Chloride	< 50

CBPZ107 (3 - 13 ft)	
Sample Date	1/12/2015
1,1-Dichloroethane	< 1.0
cis-1,2-Dichloroethylene	< 1.0
PCE	**6.3**
trans-1,2-Dichloroethene	< 1.0
TCE	< 1.0
Vinyl Chloride	< 1.0

CBSP27 (5 - 15 ft)*	
Sample Date	1/15/2015
1,1-Dichloroethane	< 1.0
cis-1,2-Dichloroethylene	1.5
PCE	0.40
trans-1,2-Dichloroethene	< 1.0
TCE	0.87
Vinyl Chloride	< 1.0

CBSP28 (5 - 15 ft)*	
Sample Date	1/13/2015
1,1-Dichloroethane	< 1.0
cis-1,2-Dichloroethylene	**180**
PCE	**100**
trans-1,2-Dichloroethene	1.3
TCE	**5.8**
Vinyl Chloride	**32**

CBPZ101 (3 - 10 ft)	
Sample Date	1/14/2015
1,1-Dichloroethane	< 1.0
cis-1,2-Dichloroethylene	**79**
PCE	**250**
trans-1,2-Dichloroethene	< 1.0
TCE	**16**
Vinyl Chloride	**44**

CBPZ102 (5 - 10 ft)	
Sample Date	1/15/2015
1,1-Dichloroethane	< 1.0
cis-1,2-Dichloroethylene	**17**
PCE	**20**
trans-1,2-Dichloroethene	< 1.0
TCE	**10**
Vinyl Chloride	**3.6**

CBPZ104 (5 - 15 ft)	
Sample Date	1/15/2015
1,1-Dichloroethane	< 1.0
cis-1,2-Dichloroethylene	< 1.0
PCE	< 1.0
trans-1,2-Dichloroethene	< 1.0
TCE	0.65
Vinyl Chloride	< 1.0

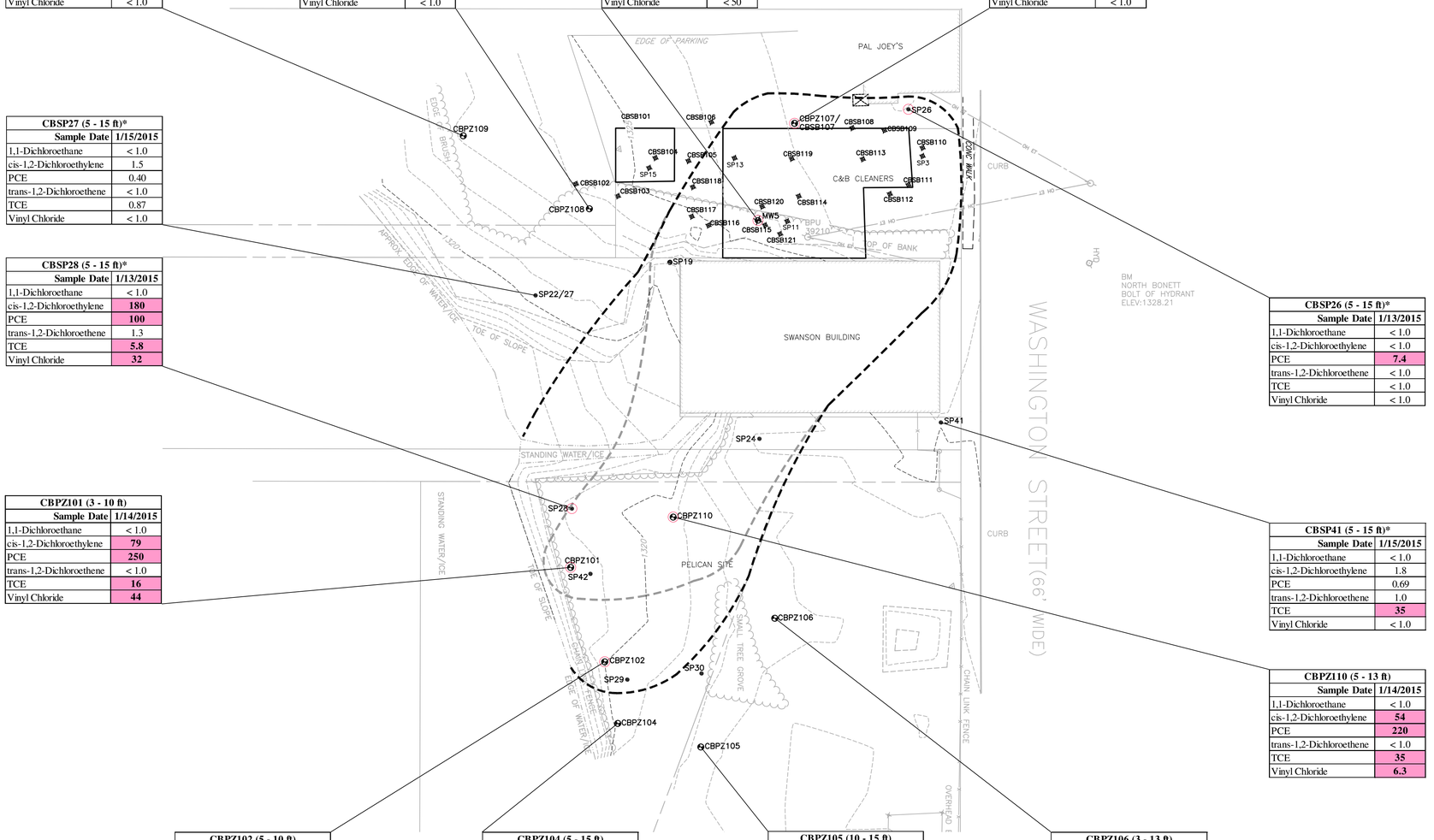
CBPZ105 (10 - 15 ft)	
Sample Date	1/15/2015
1,1-Dichloroethane	< 1.0
cis-1,2-Dichloroethylene	< 1.0
PCE	< 1.0
trans-1,2-Dichloroethene	< 1.0
TCE	0.59
Vinyl Chloride	< 1.0

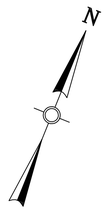
CBPZ106 (3 - 13 ft)	
Sample Date	1/15/2015
1,1-Dichloroethane	< 1.0
cis-1,2-Dichloroethylene	0.94
PCE	1.6
trans-1,2-Dichloroethene	< 1.0
TCE	2.6
Vinyl Chloride	< 1.0

CBSP26 (5 - 15 ft)*	
Sample Date	1/13/2015
1,1-Dichloroethane	< 1.0
cis-1,2-Dichloroethylene	< 1.0
PCE	**7.4**
trans-1,2-Dichloroethene	< 1.0
TCE	< 1.0
Vinyl Chloride	< 1.0

CBSP41 (5 - 15 ft)*	
Sample Date	1/15/2015
1,1-Dichloroethane	< 1.0
cis-1,2-Dichloroethylene	1.8
PCE	0.69
trans-1,2-Dichloroethene	1.0
TCE	**35**
Vinyl Chloride	< 1.0

CBPZ110 (5 - 13 ft)	
Sample Date	1/14/2015
1,1-Dichloroethane	< 1.0
cis-1,2-Dichloroethylene	**54**
PCE	**220**
trans-1,2-Dichloroethene	< 1.0
TCE	**35**
Vinyl Chloride	**6.3**





LEGEND:

- CHAIN LINK FENCE
- CONTOUR LINE
- OVERHEAD WIRE
- FIRE HYDRANT
- UTILITY POLE
- LIGHT POLE
- PRE-DESIGN INVESTIGATION SOIL BORING
- EXISTING SAMPLING POINT
- PRE-DESIGN PIEZOMETER WELL
- EXISTING MONITORING WELL
- INFERRED LIMITS OF PCE GROUNDWATER CONTAMINATION PLUME (2007 RI)
- INFERRED LIMITS OF PCE GROUNDWATER CONTAMINATION PLUME (2015 PDI)
- PCE CONCENTRATION GREATER THAN NYSDEC TOGS 1.1.1 CLASS GA GROUNDWATER STANDARD

NYSDEC TOGS 1.1.1 CLASS GA GROUNDWATER STANDARDS (ug/l)	
1,1-Dichloroethane	5
cis-1,2-Dichloroethylene	5
PCE	5
trans-1,2-Dichloroethene	5
TCE	5
Vinyl Chloride	2

SAMPLE IDENTIFICATION
SAMPLE DEPTH OR INTERVAL
*SAMPLE DEPTH FOR PREVIOUS LOCATION IS ASSUMED TO BE 5-10 FEET BGS

CBSP42 (5 - 15 ft)*	
Sample Date	1/15/2015 ← SAMPLE DATE
1,1-Dichloroethane	< 1.0
cis-1,2-Dichloroethylene	1.8
PCE	0.69
trans-1,2-Dichloroethene	1.0
TCE	**35** ← ANALYTICAL RESULT UG/L (BOLD AND PINK HIGHLIGHT INDICATES CONCENTRATION GREATER THAN NYSDEC CLASS GA GROUNDWATER STANDARDS.)
Vinyl Chloride	< 1.0

↳ ANALYTICAL PARAMETER

NOTES:

1. SURVEY INFORMATION IS BASED ON A FIELD SURVEY COMPLETED BY FISHER ASSOCIATES, P.E., L.S., L.A., D.P.C. IN JANUARY 2015 AND HAD 6"-8" SNOW COVER DURING FIELDWORK WHICH MAY HAVE OBSCURED TOPOGRAPHIC AND/OR PHYSICAL FEATURES.
2. CBSB114 LOCATION WAS DETERMINED BY FIELD MEASUREMENT.

30 0 30 60

SCALE: 1" = 30'

PROJECT MANAGER

ISSUE	DATE	DESCRIPTION	PROJECT NUMBER

DRAFT

FORMER C&B DRY CLEANERS
CITY OF JAMESTOWN, CHAUTAUQUA COUNTY, NEW YORK

SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS - SELECTED VOCS

0 30 60

FILENAME

SCALE 1"= 30'

FIGURE 4

APPENDIX A

Oxidant Demand Calculations

Appendix A: Calculate Volume & Mass of Total Chlorinated Volatiles

Area	Porosity	Thickness	Volume	Volume	Mass
sf		ft	cf	liters	kg
24,500	0.3	10	245,000	6,938,400	9,366,840

Mass of Chlorinated Volatiles:

	Max. Concentration*	Mass of Compound	Mass of Compound	Oxidant Demand	Total Oxidant
	ug/L	ug	grams	gKMnO4 / g cont.	grams
PCE	28000	1.94E+11	194,275.20	1.2	240,728
TCE	220	1.53E+09	1,526.45	2.4	3,673

*maximum concentrations are from samples collected in 2015.

Chemical Oxidant Demand (COD) in gra 244,410.0

Mass of Soil treated:

Density 84.1 lb/cf
Density 1.35 kg/L

Area	Depth	Volume	volume	Mass
sf	ft	cf	liter	kg
24,500	10	245000	6938400	9,366,840

Soil Oxidant Demand (SOD): 2.1 g KMnO4/Kg soil

SOD: 19,670,364 grams

Calculate Total Amount of Oxidant Needed:

Total Oxidant Demand = SOD + COD 19,914,774 grams

Convert to lbs: 454 grams / lb 43,900 lbs

Calculate Amount of Solution Needed:

% Solution = weight of KMnO4 / weight of water

water 8.35 lbs/gal
KMnO4 43,900 lbs
Concentration 5.00%
Water 878,000.00 lbs
Water 105,150 gallons

APPENDIX B

Bench-Scale ISCO Treatability Study

STRATEGIC. ENVIRONMENTAL. SOLUTIONS.

via E-Mail (amita.patel@hdrinc.com)

May 11, 2015

Ms. Amita Patel, P.E.
HDR, Inc.
One International Boulevard, 10th Floor
Mahwah, New Jersey 07495

RE: Bench-Scale ISCO Treatability Study
Former C&B Dry Cleaners Site (Site 907028)
2241 Washington St, City of Jamestown, Chautauqua County, New York

Dear Ms. Patel,

XDD, LLC (XDD) appreciates the opportunity to provide HDR, Inc. (HDR) with this report summarizing the results of the Bench-Scale In Situ Chemical Oxidation (ISCO) Treatability Study for the above referenced site. The bench testing was performed in accordance with Attachment B (*"Scope of Work – Bench-Scale ISCO Treatability Study")* of the Treatability Test Task Order, dated December 29, 2014.

If you have any questions regarding the information presented in this report, please do not hesitate to call me at 603.778.1100.

Sincerely,
XDD, LLC

Laurel Crawford
Senior Scientist

cc: Michael Marley/XDD

BENCH-SCALE IN SITU CHEMICAL OXIDATION TREATABILITY STUDY RESULTS

Former C&B Dry Cleaners Site (Site 907028)
Jamestown, New York

Prepared For:

HDR, INC.
ONE INTERNATIONAL BOULEVARD, 10TH FLOOR
MAHWAH, NEW JERSEY 07495

Prepared By:

22 MARIN WAY
STRATHAM, NEW HAMPSHIRE 03885
TEL: (603) 778-1100
FAX: (603) 778-2121

May 11, 2014

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1.0 INTRODUCTION

XDD, LLC (XDD) was retained by HDR, Inc. (HDR) to perform a bench-scale evaluation of in-situ chemical oxidation (ISCO) on soil and groundwater from the Former C&B Dry Cleaners Site (Site #907028) located in Jamestown, New York (site). The bench scale tests evaluated the potential for select ISCO reagents to treat the site contaminants of concern (COCs) in soil and groundwater. The site COCs include arsenic and volatile organic compounds (VOCs) including tetrachloroethylene (PCE), trichloroethylene (TCE), and cis-1,2-dichloroethylene (cisDCE). PCE and arsenic are considered the primary COCs, with detected concentrations in the on-site soil on the order of 8,000 milligrams per kilogram (mg/kg) and 109 mg/kg, respectively. Detected concentrations in groundwater includes PCE on the order of 9,200 micrograms per liter (µg/L), with concentrations up to 1 mg/L in the underground storage tank source area.

The following reagents were evaluated in the treatability study:

- Sodium persulfate - unactivated persulfate, iron activated persulfate, and alkaline activated persulfate at three concentrations.
- Potassium permanganate at three concentrations.
- Hydrogen peroxide – stabilized and catalyzed hydrogen peroxide (CHP) at two concentrations.

1.1 BENCH TEST OBJECTIVES

The objectives of the treatability study were to:

- Evaluate the efficacy of each ISCO reagent tested at various dosages.
- Recommend the most appropriate reagent, concentrations, and any buffer or catalyst necessary for successful application of the selected ISCO reagent at the site.
- Provide an evaluation of indigenous bacteria present, whether these bacteria are capable of reductively dechlorinating constituents detected in groundwater, and whether biostimulation and/or bioaugmentation shall be necessary or recommended.
- Reduce the contaminant concentrations in groundwater by at least 99%.

2.0 OXIDATION CHEMISTRY BACKGROUND

XDD has expertise in the following oxidation chemistries.

2.1 CATALYZED HYDROGEN PEROXIDE

Catalyzed hydrogen peroxide (CHP), also known as Fenton's reagent, is a commonly used ISCO process. It is based on the standard Fenton's reaction, in which the decomposition of a solution of dilute hydrogen peroxide (H_2O_2) is catalyzed by excess iron (II), resulting in near-stoichiometric generation of hydroxyl radicals (OH•):

$$H_2O_2 + Fe^{2+} \Rightarrow OH\bullet + OH^- + Fe^{3+}$$

With a standard reduction potential of 2.8 V, the hydroxyl radical reacts with most contaminants of concern at near diffusion-controlled rates, and readily attacks even highly chlorinated compounds (e.g., PCE) and polychlorinated biphenyls. Field application of CHP differs from the classic Fenton's reagent by using higher concentrations of H_2O_2 and varying the type of catalyst (i.e., iron (III), iron chelates or iron oxyhydroxide minerals). These modifications result in the formation of additional transient oxygen species such as superoxide anion and hydroperoxide:

$$OH\bullet + H_2O_2 \Rightarrow HO_2\bullet + H_2O$$

$$HO_2\bullet + Fe^{2+} \Rightarrow HO_2^- + Fe^{3+}$$

$$HO_2\bullet \Leftrightarrow O_2\bullet^- + H^+$$

Superoxide anion ($O_2\bullet^-$) is a reductant and a weak nucleophile that has been found to be reactive with compounds such as carbon tetrachloride and 1,1,1-trichloroethane. Hydroperoxide (HO_2^-) is a reductant and a strong nucleophile capable of degrading problematic compounds such as trinitrobenzene. The combination of hydroxyl radicals, superoxide, and hydroperoxide anions can potentially desorb sorbed contaminants and disrupt non-aqueous phase liguids (NAPLs); furthermore, they can oxidize reduced compounds and reduce oxidized compounds, increasing the likelihood of mineralization of recalcitrant contaminants. CHP reactions that generate all three transient oxygen species have the potential to provide a complete treatment matrix for ISCO.

2.2 ACTIVATED PERSULFATE

Sodium persulfate is a key component of many industrial processes and commercial products. For example, sodium persulfate has been used for decades as an oxidant in the analysis of organic carbon in aqueous samples and in water and wastewater treatment. It is only over the last several years that persulfate has been considered for in-situ remediation applications, with XDD one of the original innovators.

The persulfate anion ($S_2O_8^{2-}$) is the most powerful oxidant of the peroxygen family of compounds, and is among the strongest oxidants commonly used for water and wastewater treatment. The persulfate molecule can be activated by several methods to form the sulfate free radical ($SO_4^{-}\bullet$), a powerful oxidant (2.6 V) capable of reaction with many contaminants of concern. Persulfate activation methods include heat activation, a reaction with a reduced transition metal such as ferrous iron, and autodecomposition of the persulfate under slightly acidic or alkaline conditions.

The alkaline activation method is based on the auto-decomposition of persulfate under alkaline conditions, likely causing the persulfate molecule to break at the –O-O- bond, resulting in the formation of two sulfate radicals:

$$S_2O_8^{2-} \rightarrow 2\ SO_4^{-}\bullet$$

Additional propagation reactions are possible after this initial step, including the possible formation of the hydroxyl radical or hydrogen peroxide, but current research has not yet been definitive on these reactions within the alkaline activation method.

The stoichiometric reaction between persulfate and ferrous iron is shown in the following equations:

$$Fe^{2+} + S_2O_8^{2-} \Rightarrow Fe^{3+} + SO_4^{2-} + SO_4^{-}\bullet$$
$$SO_4^{-}\bullet + Fe^{2+} \Rightarrow Fe^{3+} + SO_4^{2-}$$

For a net reaction of:

$$2Fe^{2+} + S_2O_8^{2-} \Rightarrow 2Fe^{3+} + 2SO_4^{2-}$$

The field of activated persulfate oxidation is rapidly developing and several novel activation methods are currently being developed and deployed in the field. XDD has the capability to bench test each of these persulfate activation methods in house and develop the site specific parameters necessary for a successful remedial application.

2.3 PERMANGANATE

Permanganate has been used for over 50 years to oxidize organic chemicals in drinking water and wastewater treatment, including removal of iron (Fe) and manganese (Mn), phenols, and more recently chlorinated hydrocarbons related to industrial solvents. Permanganate has been applied for the in-situ destruction of chlorinated solvents in the subsurface for over 10 years. Both field and laboratory studies have demonstrated that permanganate is capable of degrading

chlorinated ethenes such as TCE and PCE as either a dissolved or non-aqueous phase. During in-situ applications, oxidants are delivered to the subsurface to contact and react with target chemicals, which are either completely oxidized to carbon dioxide or converted into innocuous compounds commonly found in nature.

Permanganate is an effective oxidizing agent (1.7 V) when it contacts chlorinated ethenes, aromatic hydrocarbons, and simple polycyclic aromatic hydrocarbons. In particular, permanganate reacts rapidly with the non-conjugated (i.e., non-aromatic) double bonds in chlorinated ethenes such as TCE, PCE, dichloroethene (DCE) isomers, and vinyl chloride (VC). It will also oxidize ketones and alcohols.

The balanced chemical equations for potassium permanganate oxidation of TCE and PCE are:

- TCE: $2KMnO_4 + C_2HCl_3 \rightarrow 2CO_2 + 2MnO_2 + 2K^+ + 3Cl^- + H^+$
- PCE: $4KMnO_4 + 3C_2Cl_4 + 4H_2O \rightarrow 6CO_2 + 4MnO_2 + 4K^+ + 12Cl^- + 8H^+$

Half-lives for dissolved phase TCE and PCE are approximately 18 minutes and 4.3 hours, respectively, in the presence of excess MnO_4^-.

3.0 EXPERIMENTAL PROCEDURE

The following contains a description of the general procedures followed for the tests conducted in this bench-scale evaluation.

3.1 SAMPLE HANDLING

The soil and groundwater samples used in the ISCO bench tests were collected from sample locations CBSB120-6.0-8.0 and CBMW-05, respectively. All samples collected for treatability testing were stored at approximately 38 degrees Fahrenheit (°F) prior to use in the test reactors.

3.2 EXPERIMENTAL PROCEDURES

Unless otherwise specified, experiments were conducted at 70 °F in borosilicate-glass batch reactors. Approximately two pore volumes of reagent were applied to the soil unless otherwise noted. Aqueous phase residual oxidant concentrations for each ISCO technology were determined using iodometric titration. Geochemical parameters, such as pH, were determined using an ion selective probe.

3.2.1 EXPERIMENTAL PROCEDURES: ISCO PHASE 1

XDD evaluated the ISCO technologies in two phases to identify potential failure mechanisms via testing the site specific soil geochemistry and ISCO process chemistry. The first phase, Phase 1, evaluated the acid buffering capacity, stability, and associated gas / heat evolution of hydrogen peroxide. Phase 1 also evaluated the soil oxidant demand (SOD) of persulfate and permanganate, and the base buffering capacity of alkaline activated persulfate. Based on the Phase 1 results, the preferred oxidant concentrations and buffering, catalyst, and/or stabilization agents were selected for testing in Phase 2 (i.e., injection simulation test) to aid in the determination of field implementation design parameters. The Phase 1 test procedures are discussed below.

3.2.1.1 Hydrogen Peroxide

For the hydrogen peroxide tests, XDD evaluated hydrogen peroxide, hydrogen peroxide stabilized with citric acid, and CHP (i.e., Fenton's), as each method generates a unique chemistry that has been found to be advantageous under different site conditions. General procedures used for each test were as follows:

- ***Acid Buffering Capacity***: Various concentrations of sulfuric acid were added to separate duplicate vials containing 20 grams (g) of site soil. The concentrations varied from 0.1 g/L to 20 g/L sulfuric acid. pH measurements were collected after 1, 4, 7, and 14 days of contact time between the sulfuric acid solutions and the soil. The quantity of acid required to lower and maintain the pH was assessed and calculated as grams of sulfuric acid per kilogram (Kg) of soil.
- ***Hydrogen Peroxide Stability***: The rate of decomposition of 5 % and 9 % hydrogen peroxide (w/w groundwater solution) with 30 g soil was assessed over 24 hours under different stabilizing and catalyzing conditions. Test conditions included four concentrations of citric acid (5 millimolar [mM], 20, mM, 50 mM, and 100 mM citric acid) and two concentrations of chelated iron (1 mM iron and 2 mM iron). In addition, duplicate control reactors using hydrogen peroxide and distilled water only (no soil) were evaluated as part of the CHP stability test. Residual hydrogen peroxide was monitored at several time points during the 24 hour test.
- ***Gas and Heat Evolution:*** Using the test conditions identified in the hydrogen peroxide stability tests, the rate of evolution of gas and heat during the decomposition of hydrogen peroxide was evaluated. Gas was collected and measured in a lubricated syringe.

3.2.1.2 Sodium Persulfate

For the persulfate tests, XDD evaluated unactivated, iron-chelate, and alkaline activation methods as each method generates a unique chemistry that has been found to be advantageous under different site conditions. General procedures used for each test were as follows:

- ***Base Buffering Capacity***: Various concentrations of sodium hydroxide were added to separate vials containing 20 grams of soil. The concentrations varied from 0.1 g/L to 40 g/L sodium hydroxide. pH measurements were collected after 1, 4, 7, and 14 days of contact time between the sodium hydroxide solutions and the soil. The quantity of base required to raise and maintain the pH above 10.5 was assessed (for alkaline activation of sodium persulfate) and calculated as g of sodium hydroxide per Kg of soil (mass loading).
- ***Persulfate Stability***: The stability of unactivated, alkaline activated, and iron activated sodium persulfate was evaluated by monitoring residual persulfate in duplicate reactors of three different concentrations of sodium persulfate (50g/L, 100 g/L, and 200 g/L) dissolved into site groundwater in the presence of 30 g of soil. The decomposition of persulfate in the reactors was evaluated at time steps of 1, 7, and 14 days.
- ***Total and Soil Oxidant Demands***: SOD and total oxidant demand (TOD) were calculated using the data generated in the persulfate stability test by calculating the mass as g of oxidant consumed per Kg of soil in each reactor. TOD was considered to be the oxidant consumed in comparison to the baseline while SOD was the oxidant consumed in comparison to the control reactors containing activation chemicals.

3.2.1.3 Potassium Permanganate

For the permanganate, the following procedures were performed:

- ***Permanganate Stability***: The stability of permanganate was evaluated by monitoring residual persulfate in duplicate reactors of three different concentrations of potassium permanganate (5 g/L, 15 g/L, and 30 g/L) dissolved into site groundwater in the presence of 30 g of soil. The decomposition of permanganate in the reactors was evaluated at time steps of 1, 7, and 14 days.
- ***Total and Soil Oxidant Demands***: SOD and TOD were calculated using the data generated in the permanganate stability test by calculating the mass as g of oxidant consumed per Kg of soil in each reactor. TOD was considered to be the oxidant consumed in comparison to the baseline while SOD was the oxidant consumed in comparison to the control reactors containing activation chemicals.

3.2.2 EXPERIMENTAL PROCEDURES: ISCO PHASE 2

Following the completion of Phase 1 tests, the reagents and concentrations, including necessary stability and/or catalyst agents, were selected for the injection simulation tests conducted in Phase 2.

Baseline COC conditions were evaluated by HDR in the groundwater and soil prior to developing the injection simulation test setup. In addition, a standard plate count analysis was conducted on the groundwater by BioTrax, located in Cheektowaga, NY, using Environmental Protection Agency (EPA) Method 9215B.

For the injection simulation test reactors, approximately 7.5 pore volumes of the oxidant solution was added to the reactors and was allowed to contact the soil for 17 days. After the 17 days of contact time, soil and groundwater samples were submitted to TestAmerica Laboratories Inc. in Amherst, NY for the analysis of VOCs using EPA Method 8260C, select metals using EPA Method 6010C, and total organic carbon (TOC) using EPA Method 5310C. Residual oxidant concentrations and pH were measured by XDD.

4.0 RESULTS AND DISCUSSION

The results of Phase 1 and Phase 2 bench scale tests are presented and discussed in this section.

4.1 ISCO PHASE 1 TESTS

The ISCO Phase 1 tests are intended to evaluate the effects of the site geochemistry on the ISCO process technology. XDD evaluated hydrogen peroxide, persulfate, and permanganate in the Phase 1 tests.

4.1.1 HYDROGEN PEROXIDE

4.1.1.1 Acid Buffering Capacity

Results from the acid buffering capacity are presented in Figure 1. Test results indicated that the test condition with the highest concentration of acid was required to lower the pH to the desired range of pH 3 to 4 for CHP. The highest loading of sulfuric acid, 20 g/L, or 5.5 g sulfuric acid per kg of soil, was required to result in a pH 3.5.

4.1.1.2 Hydrogen Peroxide Stability

The 5 % and 9% hydrogen peroxide stability tests are shown in Figure 2 and the resulting half-lives based on pseudo-first order kinetics are shown on Table 1. Both 5 % and 9 % hydrogen

peroxide without a stabilization agent decomposed quickly; almost no hydrogen peroxide remained after the first few minutes of contact with the soil and groundwater. The addition of a catalyst, ferrous iron, yielded similar results. The addition of citric acid as a stabilizer slightly decreased the rate of decomposition of hydrogen peroxide. As shown in Table 1, the addition of increasing amounts of citric acid had minimal effect on the half-life of hydrogen peroxide, each resulting in half-lives of less than 7 hours. Half-lives of at least 15 hours are ideal in a field application in order to give the hydrogen peroxide enough time to be distributed from the injection point. The observed minimal stability of hydrogen peroxide and high acid demand, depending upon site design parameters, could be considered a potential failure mechanism for the field application of hydrogen peroxide at this site.

4.1.1.3 Gas and Heat Evolution

The decomposition of hydrogen peroxide and degradation of organic material both have the potential to generate gases. The rate at which gases evolved from the various systems in the hydrogen peroxide stability testing was quantified and the results are presented in Figure 3. The data show that a majority of the test conditions resulted in the evolution of a significant quantity of gas within the first few minutes of the test. The addition of 50 and 100 mM citirc acid slightly decreased the rate of evolution and the quantity of gas.

Heat evolution was also monitored during the tests, as the evolution of heat is possible during the application of hydrogen peroxide. The results of the heat evolution measurements are presented in Figure 4. The data show that a significant amount of heat rapidly evolves from the hydrogen peroxide test conditions within the first several minutes of the test.

4.1.2 SODIUM PERSULFATE TESTS

4.1.2.1 Base Buffering Capacity

Results from the base buffering capacity test are presented in Figure 5. Test results indicated that after 14 days of contact between the sodium hydroxide solution and the soils, 1.9 g of sodium hydroxide per Kg of soil was required to elevate the pH to greater than pH 10.5. A field design should consider methods of upscaling these results to the field. The reaction will likely be a function of the surface area contacted by the reagents. The surface area contacted in the bench scale is likely much higher per Kg than will be observed in the field.

4.1.2.2 Persulfate Stability

The persulfate stability test evaluated the persistence of unactivated, iron activated, and alkaline activated persulfate in the presence of site soil and groundwater. The test evaluated persulfate in

reactors with initial target concentrations of 50 g/L, 100 g/L, and 200 g/L sodium persulfate dissolved in site groundwater in contact with site soil for each activation method (Figure 6). The data show that unactivated, iron activated, and alkaline activated persulfate persisted in site soil for the 14 day period tested. Given the residual concentrations at the end of 14 days, it is reasonable to expect treatment to occur for greater than 14 days. While some phases of contamination may require additional contact time, 14 days is considered to be sufficient to adequately distribute the oxidant and establish contact with readily available contamination. Also, iron activated and alkaline activated persulfate systems generally resulted in lower residual concentrations of sodium persulfate than the unactivated persulfate systems.

4.1.2.3 Total and Soil Oxidant Demand

Results from the TOD and SOD tests after 14 days of contact with 50 g/L, 100 g/L, and 200 g/L persulfate for the unactivated, iron activated, and alkaline activated systems are presented in Table 2. The data show that the SOD ranges from 5 to 20 g/Kg for the unactivated persulfate system. TOD ranges from 4 to 12 g/Kg for the iron activated system and 12 to 28 g/Kg for the alkaline activated system. It is common to have SOD and TOD increase with increasing persulfate concentrations.

TOD and SOD are intended to be an estimation of the mass of oxidant that will be consumed during the application of activated persulfate in site groundwater and soil. TOD is intended to include decomposition of oxidant based on the activator as well as SOD. TOD tends to be used most often as a design engineering parameter. SOD is intended to estimate the role of non-target reactions with natural organic material and mineralogy. As unactivated persulfate does not have oxidant demand due to an activator, TOD and SOD are theoretically the same, with any difference due to the method of calculation.

4.1.3 POTASSIUM PERMANGANATE TESTS

4.1.3.1 Permanganate Stability

The permanganate stability test evaluated the persistence of permanganate in the presence of site soil and groundwater. The test evaluated initial target concentrations of 5 g/L, 15 g/L, and 30 g/L permanganate dissolved in site groundwater in contact with site soil (Figure 7). The data show that for the 5 g/L and 15 g/L permanganate test conditions, little to no permanganate remained after one and seven days, respectively. However, the 30 g/L permanganate persisted in site soil for the 14 day period tested. Given the residual concentration for the 30 g/L test condition at the end of 14 days, it is reasonable to expect treatment to occur for greater than 14 days. While some phases of contamination may require additional contact time, 14 days is

considered to be sufficient to adequately distribute the oxidant and establish contact with readily available contamination.

4.1.3.2 Soil Oxidant Demand

Results from the SOD tests after 14 days of contact with 5 g/L, 15 g/L, and 30 g/L permanganate test conditions are presented in Table 2. The data show that the SOD ranges from 2 to 11 g/Kg for permanganate. It is common to have SOD increase with increasing permanganate concentrations. As is the case for unactivated persulfate, permanganate does not have oxidant demand due to an activator. Therefore, TOD and SOD are theoretically the same.

4.2 PHASE 2 TESTS: INJECTION SIMULATION

The original scope of work (SOW) proposed the testing of four oxidants: persulfate, permanganate, hydrogen peroxide, and Fenton's. However, based on the Phase 1 test results, hydrogen peroxide and Fenton's would not be considered ideal for a field application at this site due to the high acid buffering capacity of the soil, and the stability, heat, and gas evolution. After consultation with HDR, it was decided to eliminate Fenton's and test two activation schemes for persulfate instead.

The injection simulation tests were set up in glass jars with no headspace for the persulfate and permanganate test conditions. The hydrogen peroxide test reactors had some headspace in the reactors to avoid breakage due to gas evolution. Two sets up controls were set up: one set with no headspace for comparison to the persulfate and permanganate test conditions, and a second set with the same amount of headspace as the hydrogen peroxide reactors.

The injection simulation test reactors required more than two pore volumes of oxidant (an approximate 7.5 : 1 pore volume ratio of groundwater to soil) to allow for sufficient sample volume for laboratory analyses at the end of the testing. Therefore, the injection simulation tests were conducted at slightly lower oxidant concentrations than Phase 1 as follows:

- Controls (no oxidant)
  - Controls with no headspace (for comparison to persulfate and permanganate tests)
  - Controls with headspace (for comparison to hydrogen peroxide tests)
- Iron Activated Persulfate
  - 35 g/L
  - 70 g/L
  - 140 g/L
- Alkaline Activated Persulfate

  - 35 g/L
  - 70 g/L
  - 140 g/L
- Potassium Permanganate
  - 3.5 g/L
  - 10 g/L
  - 20 g/L
- Hydrogen Peroxide with 100 mM citric acid stabilizer
  - 3 %
  - 6 %

4.2.1 ISCO TREATMENT EFFECTIVENESS

The injection simulation test results are discussed below and are shown on Tables 3A through Table 7, with analytical laboratory reports attached in Appendix A.

4.2.1.1 VOCs

The analytical data for VOCs is presented on Tables 3A and 3B for groundwater and soil, respectively. Tables 3A and 3B list the COCs (PCE, TCE, and cisDCE) and other detected VOCs.

The percent reduction in COC concentrations compared to the control reactors are shown on Tables 4A and 4B for groundwater and soil, respectively. Percent reduction calculations were calculated by comparison to the control. The sample detection limit was used for compounds reported as non-detect. It should be noted that the percent reduction calculations can be skewed if the sample had to be diluted for the analysis, yielding higher detection limits that get factored into the calculations. The data indicate the following:

- Persulfate and Permanganate:
  - Total COCs in groundwater were reduced by 99% or greater for all test conditions except for the 35 and 70 g/L alkaline activated persulfate test conditions.
  - Total reduction of COCs in soil ranged from 0 to 99%, with the highest percent reductions achieved in the permanganate tests.
  - Table 4A also shows the residual oxidant concentrations at the end of the injection simulation test. For each test conditions, persulfate and permanganate concentrations remained in each reactor, indicating that treatment would continue beyond the 17 day time-point when the data was collected.
- Hydrogen Peroxide:

- Total COCs in groundwater were reduced by 98% and 80%, respectively, for the low and high hydrogen peroxide test conditions.
- Total COCs in soil were reduced by 97% and 99%, respectively, for the low and high hydrogen peroxide test conditions. These percent reductions may be biased high due to the anomalously high PCE concentration (220 mg/Kg) in soil detected in the hydrogen peroxide control reactor. This PCE detection is not consistent with the PCE concentrations detected in the baseline (7.9 mg/Kg) or persulfate / permanganate control reactor (11 mg/Kg).
- There was no peroxide remaining in the reactors by the end of the test (Table 4A), which was not unexpected due to the results from the Phase 1 peroxide stability testing.

The formation of chlorinated by-products is known to occur during in-situ ISCO processes, but the mechanism is not yet completely understood. The mechanism is thought to be analogous to the formation of trihalomethanes (THMs) and other disinfection by-products that often occur during the treatment of municipal drinking water. Specifically, the conditions seem to require reduced halogen compounds (chloride, bromide, etc), organic material, and certain oxidants. While these conditions are present in most ISCO applications to some degree, XDD has observed the formation of chlorinated by-products at a limited number of sites. The persistence of the chlorinated by-products will vary given the site conditions and the specific compound. For example, chloromethane and chloroethane are both expected to volatilize and undergo hydrolysis in groundwater.

The degradation ratio is a ratio of the mass of oxidant consumed during the reaction divided by the mass of contamination degraded as compared to the control reactors. Degradation ratios were calculated for PCE and TCE only [cisDCE was not included in the calculations since it was either non-detect or detected below the laboratory reporting limit ("J qualifier)] and are shown on Table 5. Degradation ratios typically increase with increasing oxidant concentration. XDD has found that the lower end of the range is experienced during most field applications. The degradation ratios tend to be much higher than stoichiometric ratios at lower contaminant concentrations as the degradation ratio also includes non-target demand for the oxidant.

4.2.1.2 Metals Evaluation

A summary of the metals results are shown in Tables 6A and 6B for groundwater and soil, respectively. The data show the following:

- **Metals in Groundwater**

- Alkaline Activated Persulfate:
  - Arsenic, chromium, and sodium exceeded the groundwater regulatory criteria for all three test conditions.
  - Chromium and lead were detected in one of the test conditions at values estimated ("J" qualifier) below the method reporting limits.
- Iron Activated Persulfate:
  - Cadmium and sodium exceeded groundwater regulatory criteria in the low (35 g/L) iron activated persulfate test condition (the medium and high test conditions were destroyed during the digestion method procedure).
- Potassium Permanganate:
  - Iron and manganese exceeded the groundwater regulatory criteria for all three test conditions.
  - For the high (20 g/L) test condition, arsenic, barium, and lead exceeded groundwater regulatory criteria, although the arsenic value was estimated ("J" qualifier) below the method reporting limit.
- Hydrogen Peroxide:
  - Barium, beryllium, cadmium, iron, lead, manganese, and nickel exceeded the groundwater regulatory criteria for both hydrogen peroxide test conditions.
  - Chromium and thallium exceed groundwater regulatory criteria in one test condition only.

- **Metals in Soil**
  - The injection simulation test resulted in no notable exceedances of soil cleanup objectives (SCOs) for metals except for aluminum in the high hydrogen peroxide test condition and calcium in the high permanganate test condition.
  - The SCOs for iron were exceeded in all test conditions including the controls.

The potential for metals mobilization in groundwater following an ISCO application is often a concern. However, any increases in metals concentrations following ISCO are expected to be temporary. Additionally, some of the metals detections originate from the chemical makeup of the oxidants themselves (e.g., sodium from sodium persulfate and potassium and manganese from potassium permanganate).

4.2.1.3 TOC and pH Evaluation

The TOC data for groundwater and soil and pH data for groundwater are shown on Table 7. Compared to the groundwater controls, TOC increased by several orders of magnitude in all the

test conditions, likely due to dissolution of oxidized TOC on soil. TOC in soil increased slightly compared to the controls.

The pH data remained neutral in the potassium permanganate test conditions. As expected, the iron activated persulfate and hydrogen peroxide test conditions remained acidic (pH <4) throughout the test, and the pH in the alkaline activated persulfate test conditions were 12.7 or greater throughout the test.

4.3 HETEROTROPHIC PLATE COUNT EVALUATION

Baseline groundwater was submitted for heterotrophic plate count analysis and the results were as follows:

- CBMW-5: 3,370,000 colony forming units/mL (CFU/mL)

Plate counts on the order of 10^6 CFU/mL and higher are generally considered necessary to support adequate biodegradation. While the plate count results for the site may indicate a sufficient population is present for biodegradation to occur, it doesn't indicate which type(s) of bacteria are present [i.e., *dehalococcoides (dhc)* are the bacteria that degrade PCE]. Also, there are many other factors that need to be considered in order for bacterial populations to thrive. Biodegradation of the COCs at the site are degraded anaerobically which would require reducing conditions [dissolved oxygen <0.5 mg/L and oxidation reduction potential of -180 millivolts (mV) or lower]. In addition, neutral pH conditions (7.0 +/-1) and certain nutrients (i.e., nitrogen and phosphate) need to be available in sufficient quantities. High concentrations of certain compounds may interfere with the activity of microorganisms. Therefore, if biodegradation is considered as a remedy in an area where ISCO may occur, it may be necessary to wait for subsurface conditions to return to pre-ISCO conditions.

5.0 CONCLUSIONS

The bench scale data support the following conclusions:

- Phase 1 ISCO Tests:
    - Hydrogen Peroxide: The results from the Phase 1 tests for CHP indicate several parameters could present issues in a field scale application. Specifically, the stability of the hydrogen peroxide may limit the time for the reagents to be distributed within the subsurface. The evolution of heat could impact equipment and increase the rate of autodecomposition of the hydrogen peroxide. Gases that evolve at a rate greater than they can dissipate could form pockets in the subsurface preventing distribution of the reagents. Due to these potential issues, it

was decided to test only two concentrations of hydrogen peroxide in the Phase 2 injection simulation tests.

  - Persulfate: The base buffer capacity, stability of the persulfate with each activation method, and SOD/TOD were within typical ranges for a potential field application. After consultation with HDR, it was decided to test both alkaline and iron activated persulfate in the Phase 2 injection simulation tests.
  - Permanganate: The SOD and stability of the permanganate were within typical ranges for a potential field application. In accordance with the original scope of work, permanganate was tested at three concentrations in the Phase 2 injection simulation tests.

- Phase 2 ISCO Injection Simulation Tests:
  - A 99% or greater reduction in groundwater COCs concentrations was achieved for all three loadings of the iron activated persulfate and potassium permanganate test conditions.
  - Iron activated persulfate and potassium permanganate also resulted in less metals mobilization than alkaline activated persulfate or hydrogen peroxide.
- Heterotrophic Plate Count Test:
  - The plate count results indicate the presence of a moderate microbial population, but the type of bacteria present at the site and the ability to fully dechlorinate the COCs is unknown.
  - Many other factors such as pH, redox, and availability of nutrients need to be taken into account to understand if the bacterial community present is capable of degrading the site COCs.

6.0 RECOMMENDATIONS

The ISCO bench tests indicated that iron activated persulfate and potassium permanganate were the most successful at treating the site COCs in groundwater. Of the two, potassium permanganate is likely the best choice for the following reasons:

- Stability over the test period was acceptable
- >99% destruction of COCs in groundwater
- pH would remain neutral
- Limited metals mobilization potential

The low oxidant concentration test condition, 3.5 g/L potassium permanganate, would be recommended since it would result in the lowest cost and least amount of metals mobilization, yet would still achieve the COC reductions in groundwater. A field application design should

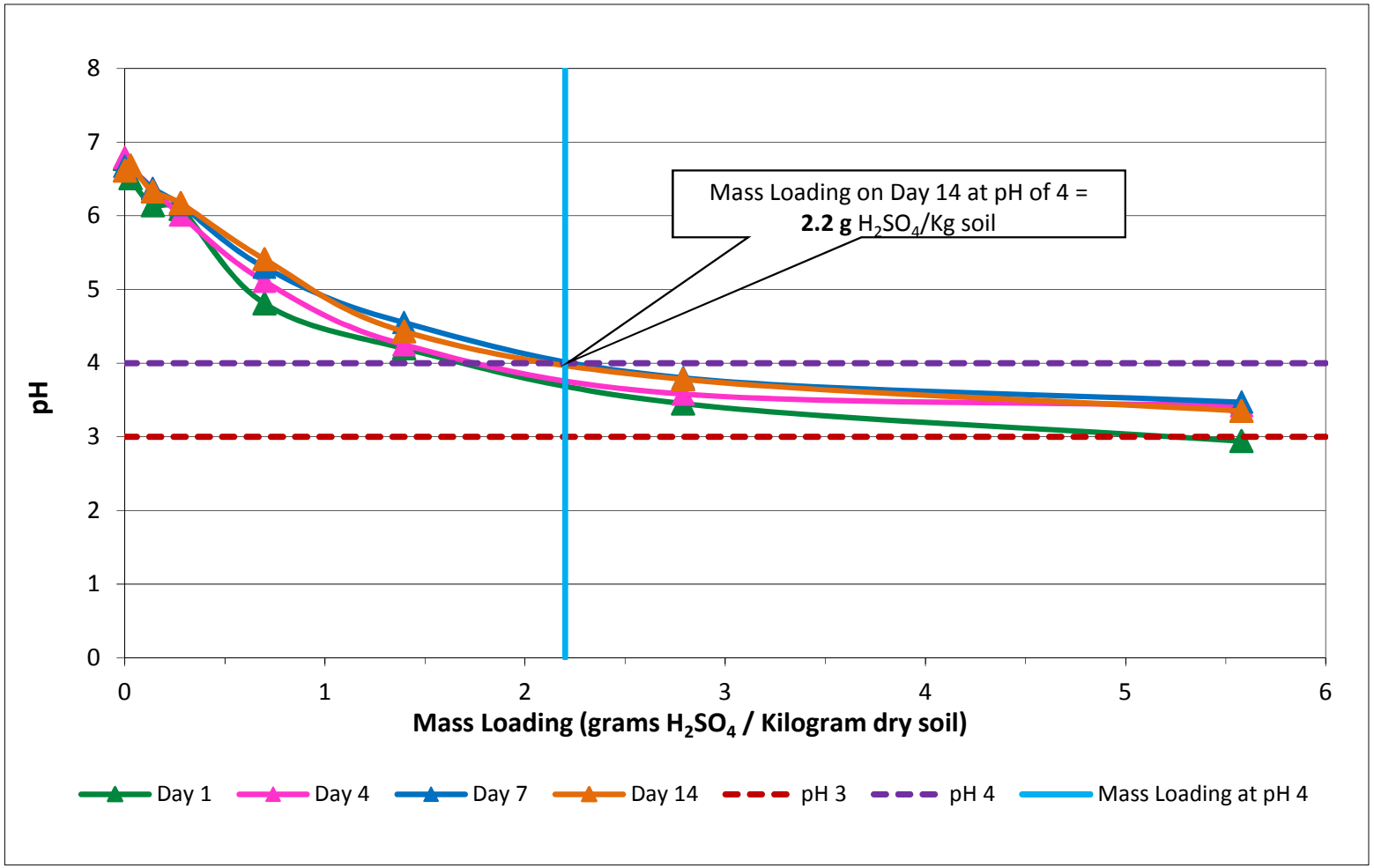
take into consideration the oxidant pore volume ratio to soil and overall injection scheme and strategy.

If biodegradation were considered as a remedial option for the site, a microcosm study would be recommended to determine if native bacteria capable of degrading site COCs are present, and if biostimulation and potentially bioaugmentation would be required.

Figures

Figure 1
Acid Buffering Capacity Test

Former C&B Dry Cleaners Site
Jamestown, New York

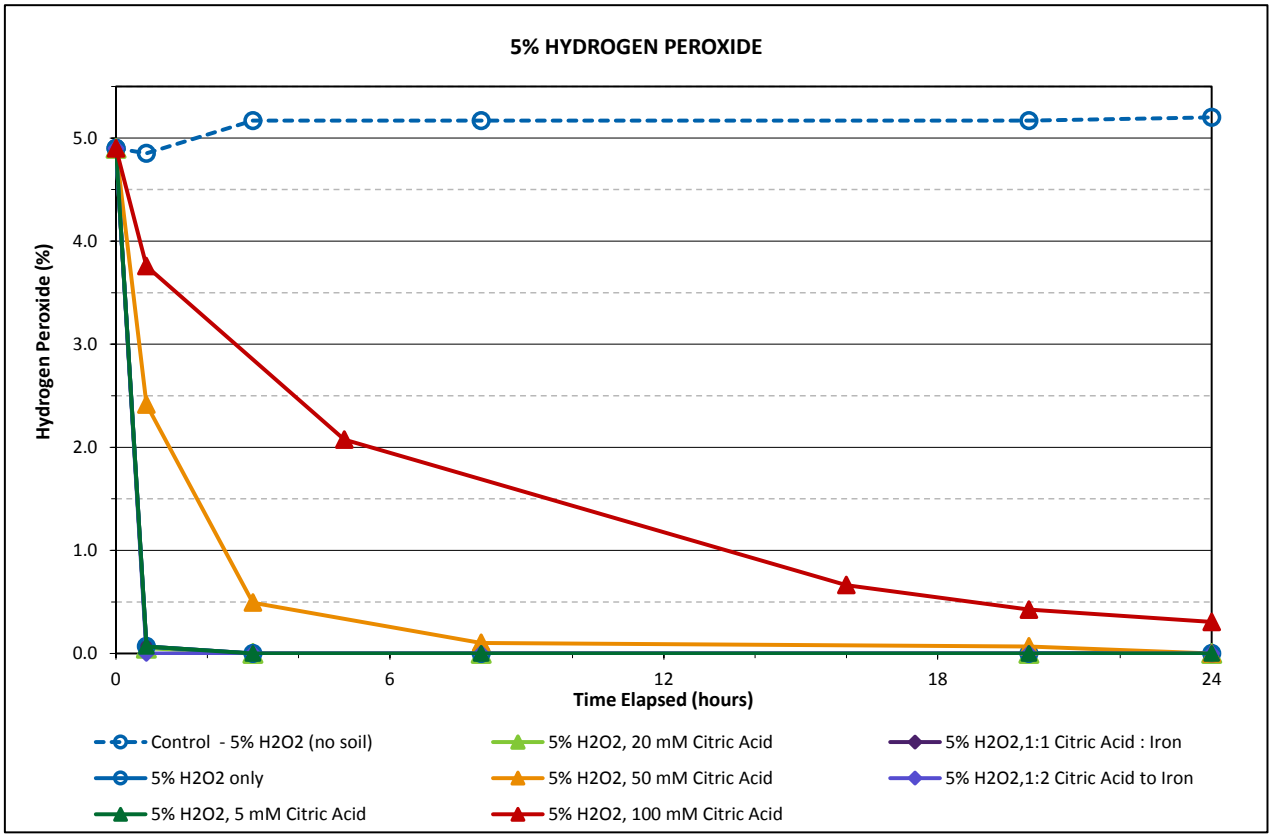


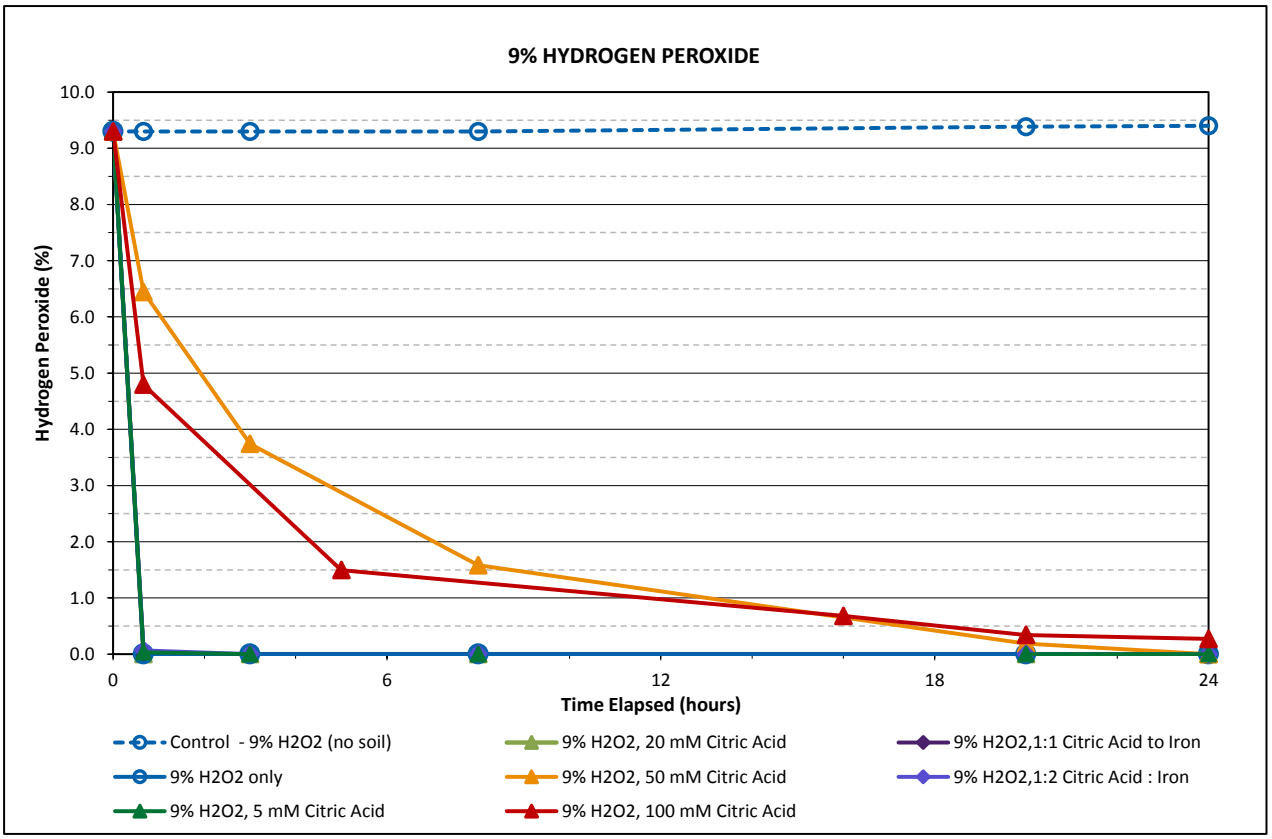
Notes:

H_2SO_4 = Sulfuric Acid g = grams Kg = kilograms

Figure 2
Hydrogen Peroxide Stability Test

Former C&B Dry Cleaners Site
Jamestown, New York

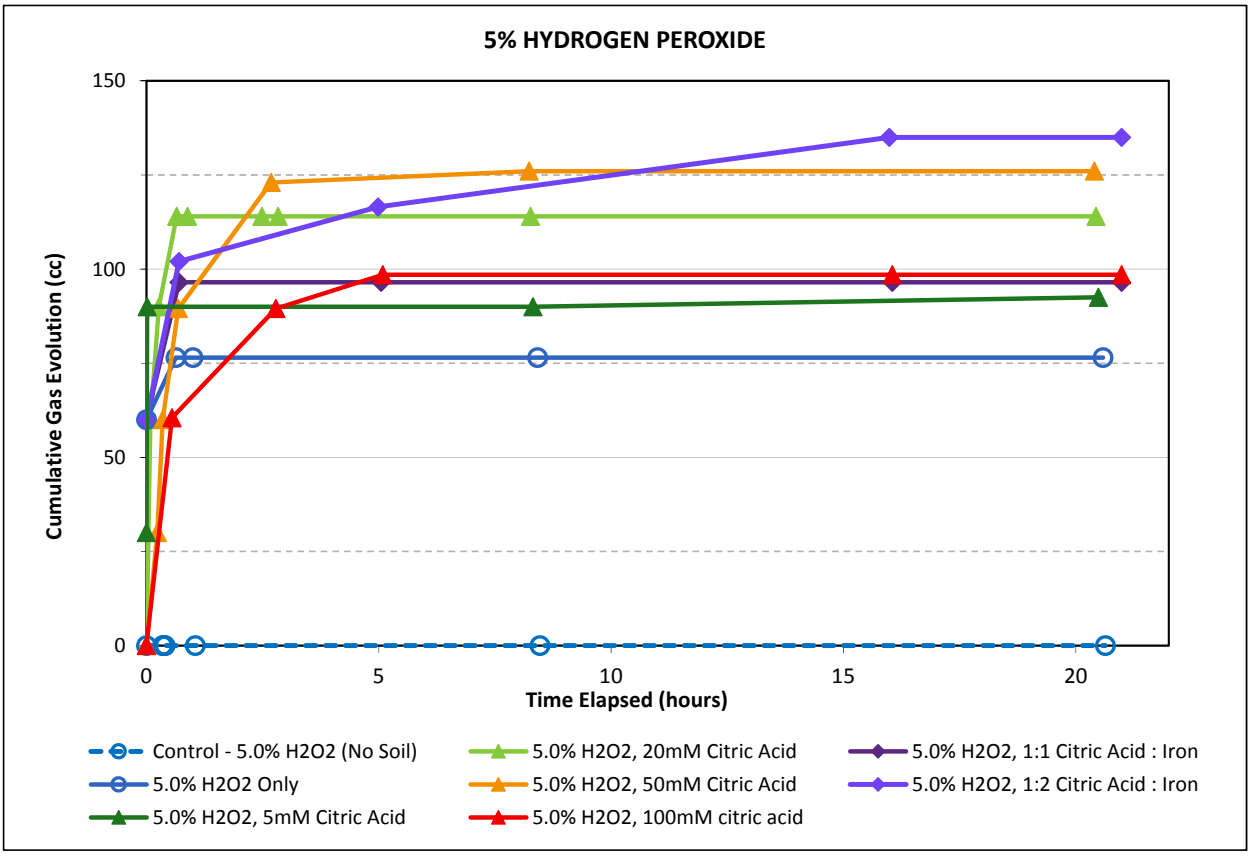


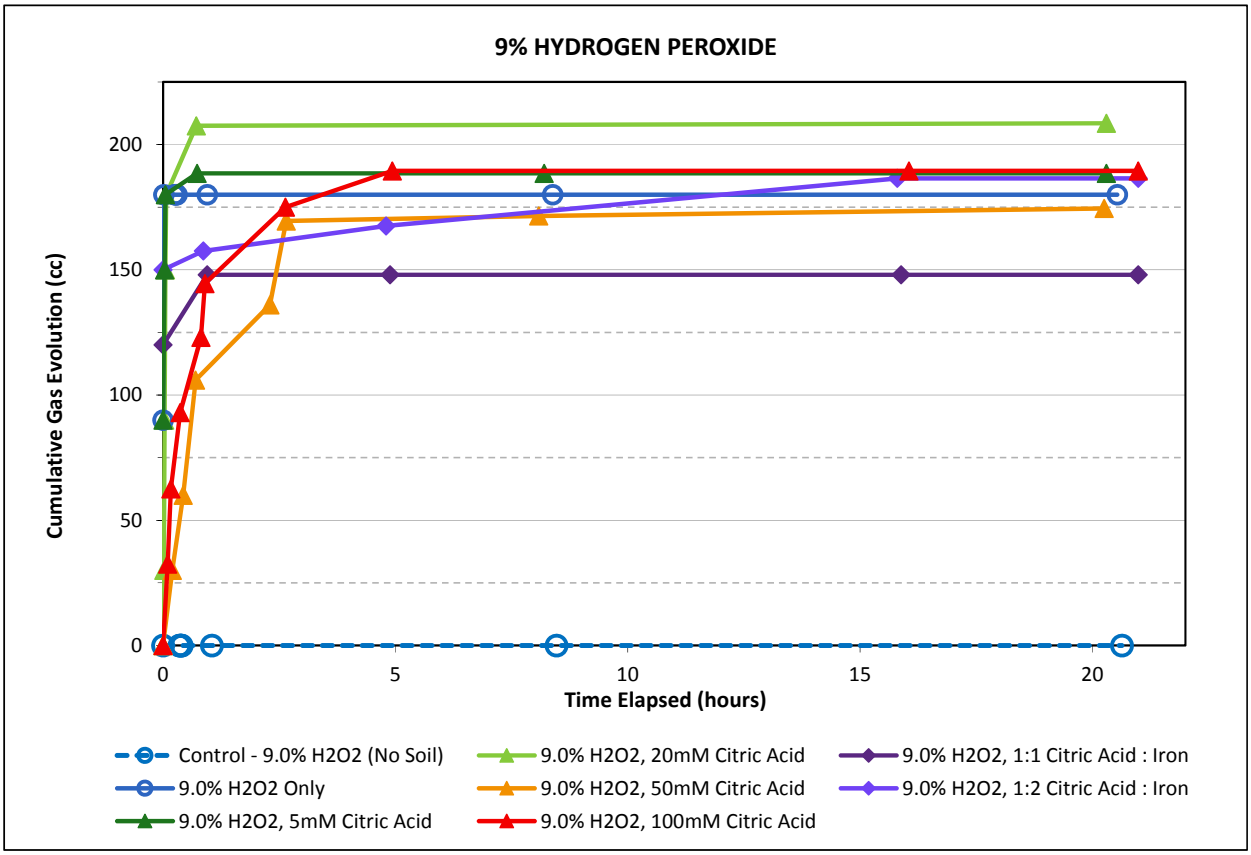


Notes:
H_2O_2 = hydrogen peroxide
mM = millimolar
% = percent

Figure 3
Hydrogen Peroxide Gas Evolution Test

Former C&B Dry Cleaners Site
Jamestown, New York

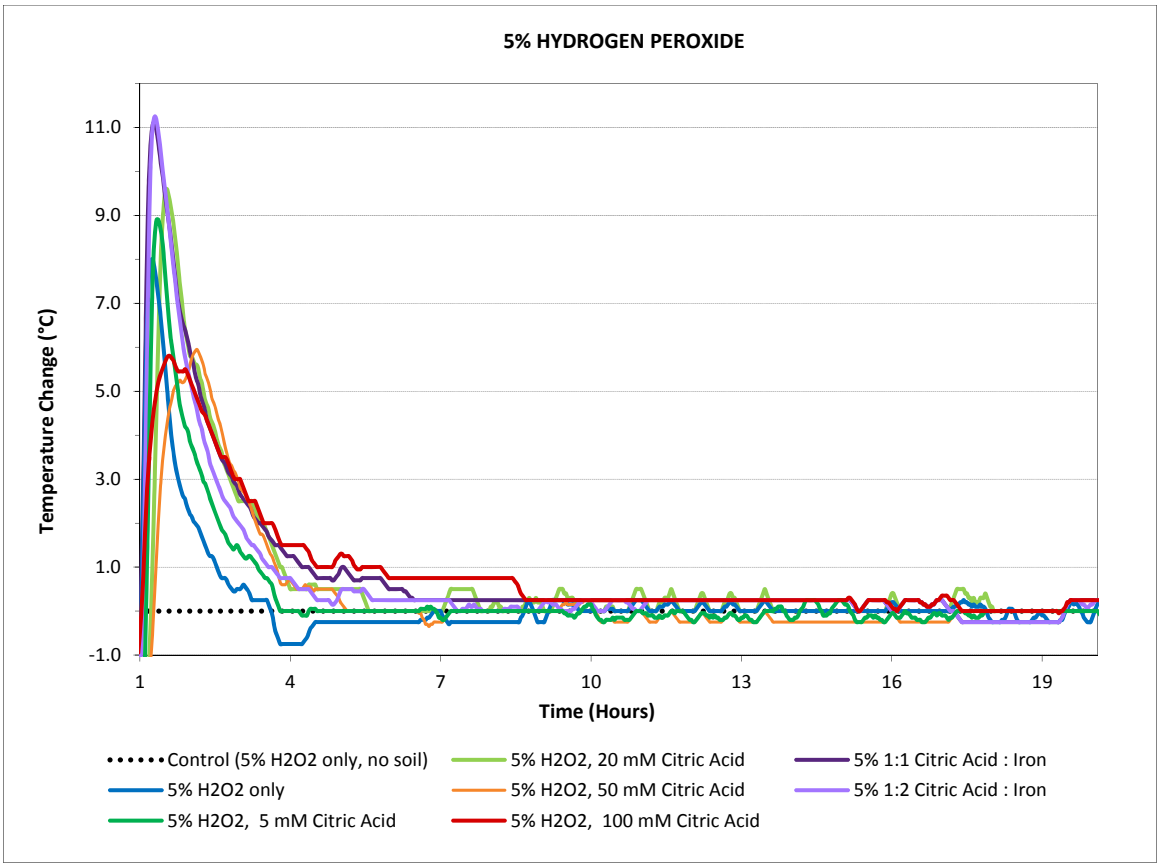


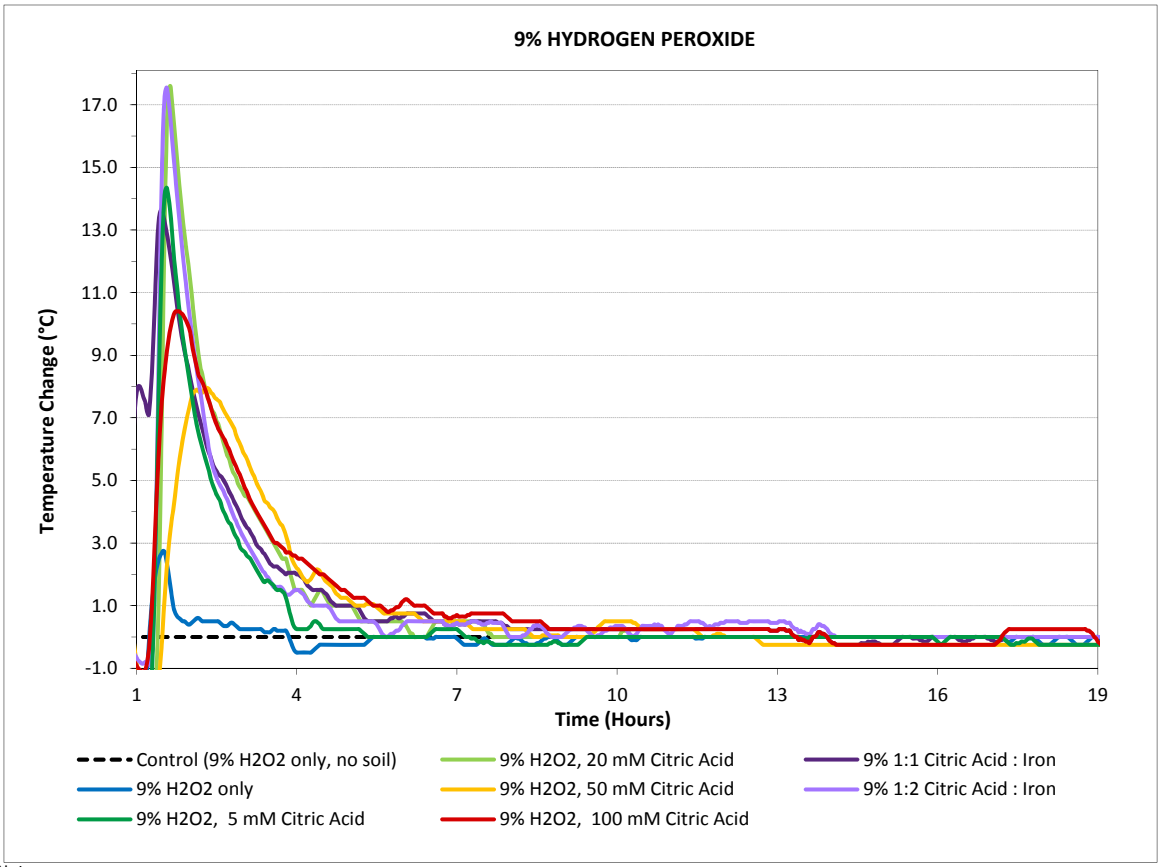


Notes:
H_2O_2 = hydrogen peroxide; cc = cubic centimeters; mM = millimolar

Figure 4
Hydrogen Peroxide Heat Evolution Test

Former C&B Dry Cleaners Site
Jamestown, New York

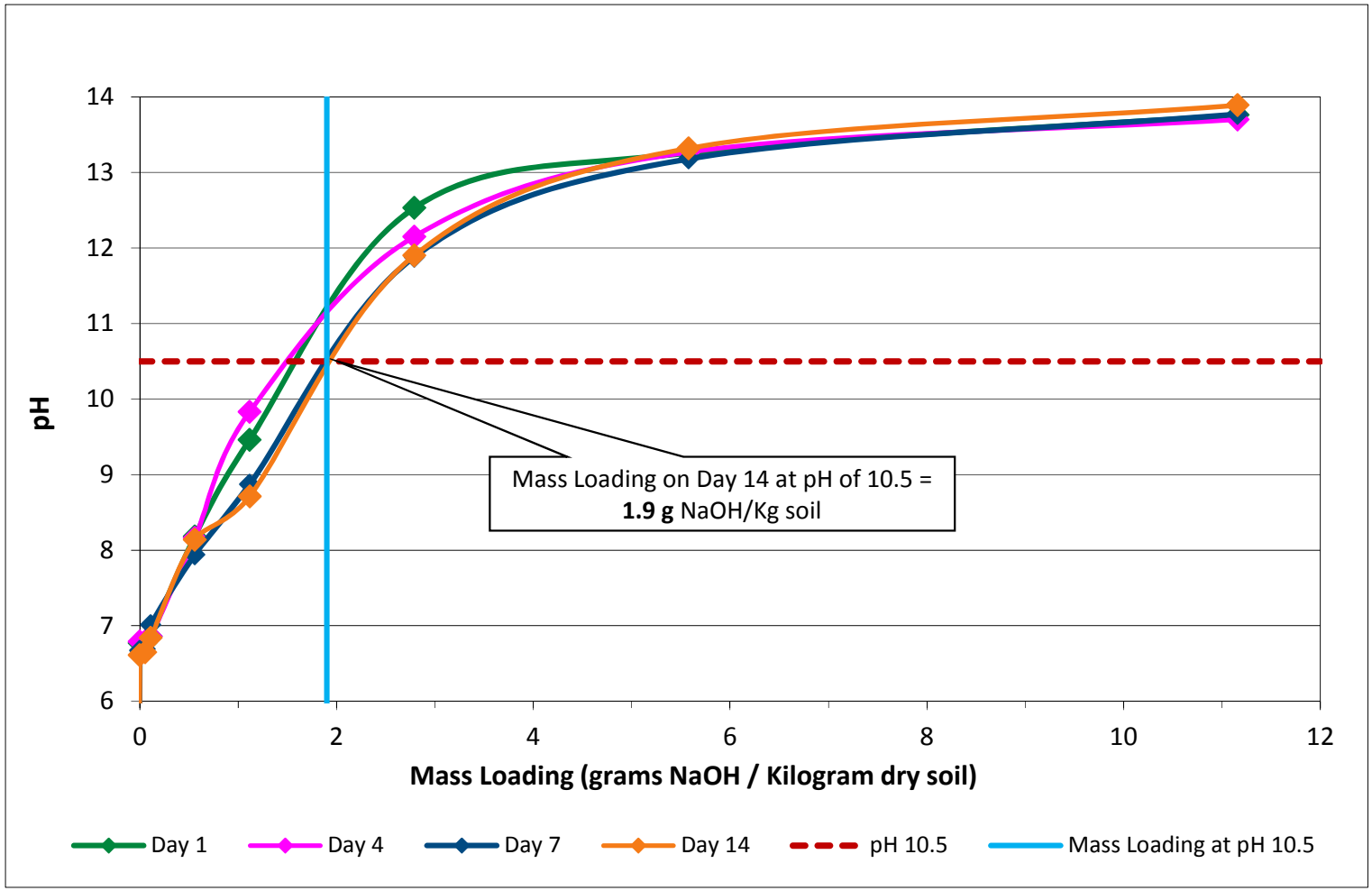




Notes:
H_2O_2 = hydrogen peroxide; °C = degrees Celcius; mM = millimolar

Figure 5
Base Buffering Capacity Test

Former C&B Dry Cleaners Site
Jamestown, New York

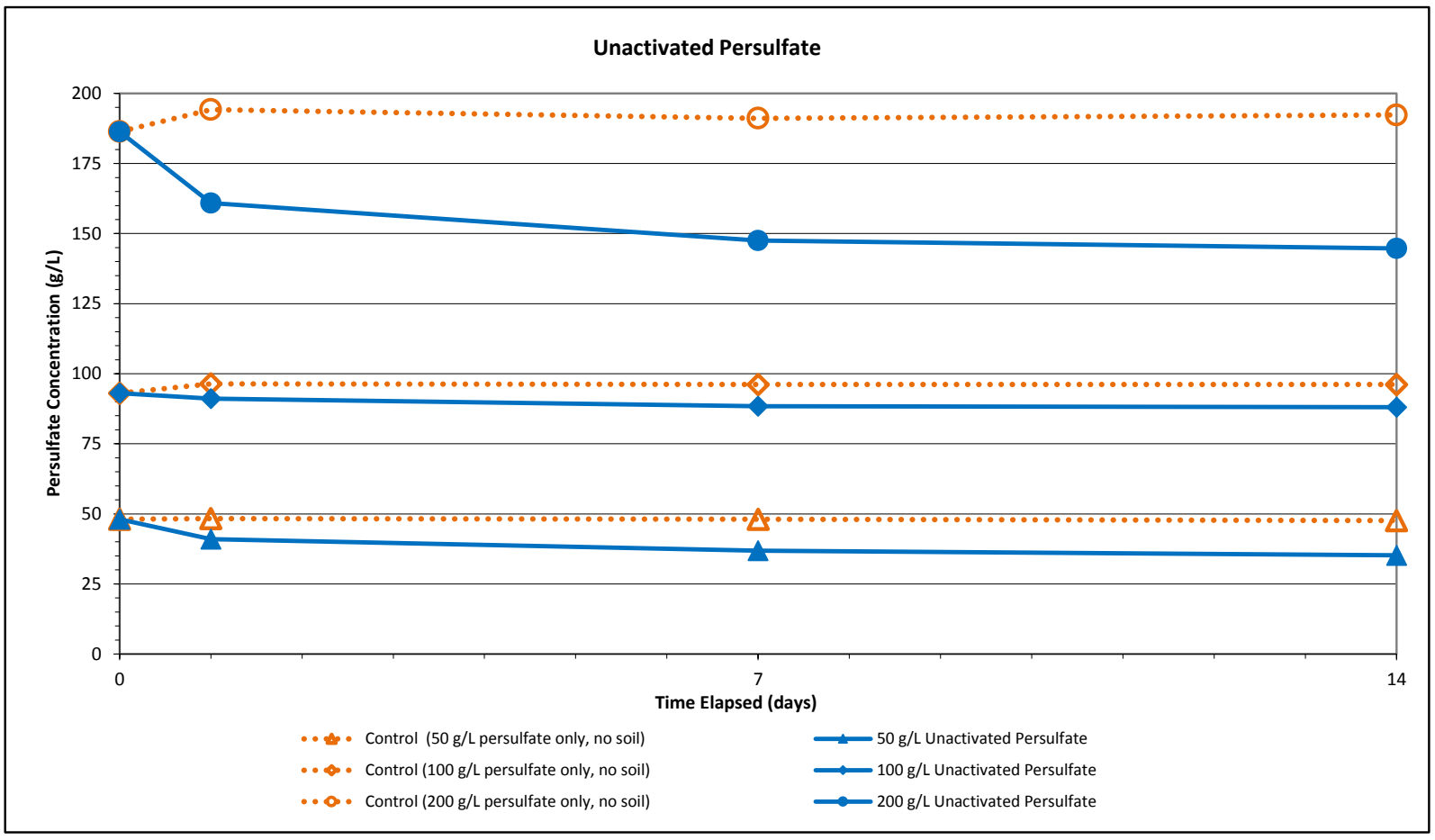


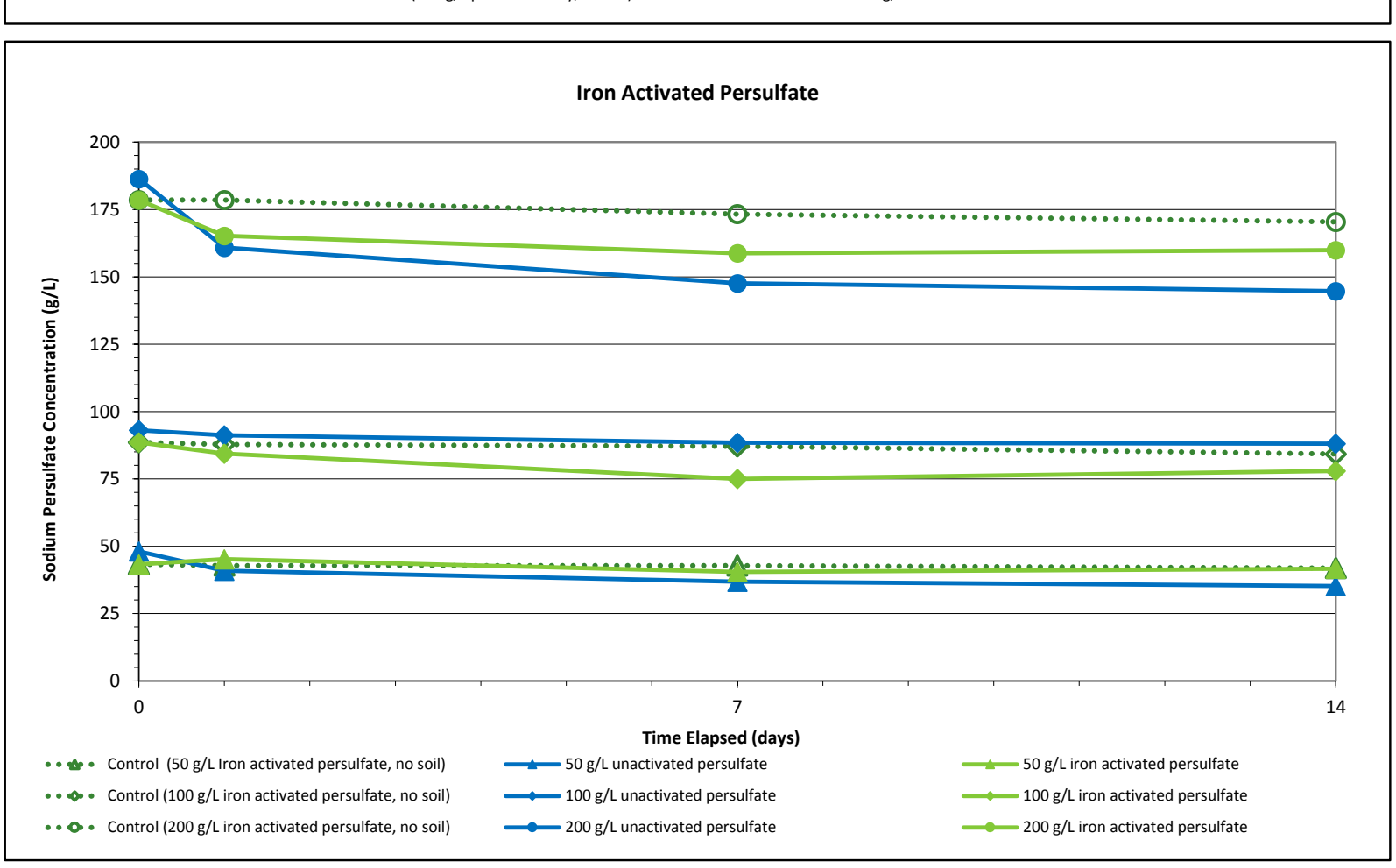
Notes:

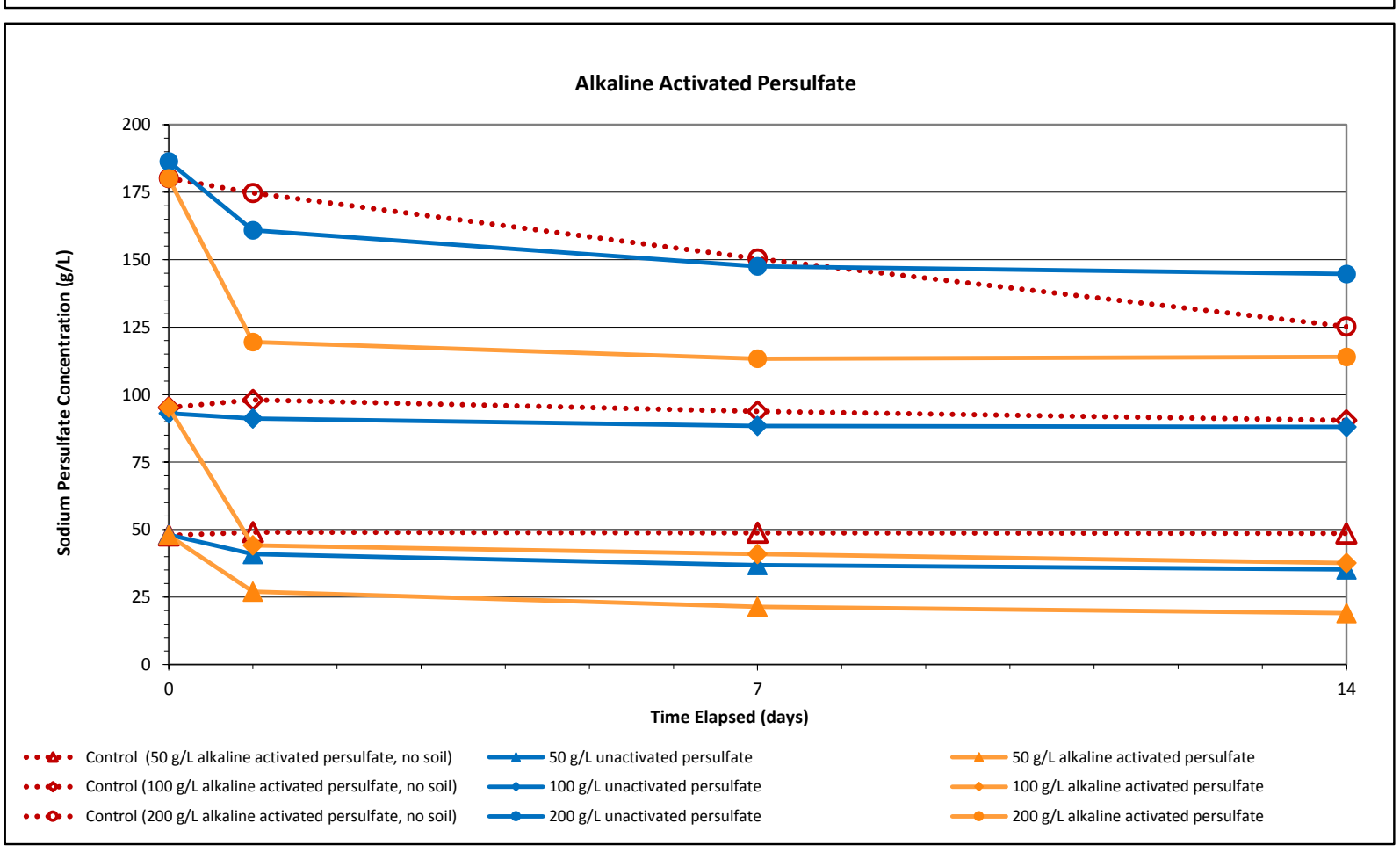
NaOH = Sodium Hydroxide g = grams Kg = kilograms

Figure 6
Sodium Persulfate Stability Test

Former C&B Dry Cleaners Site
Jamestown, New York



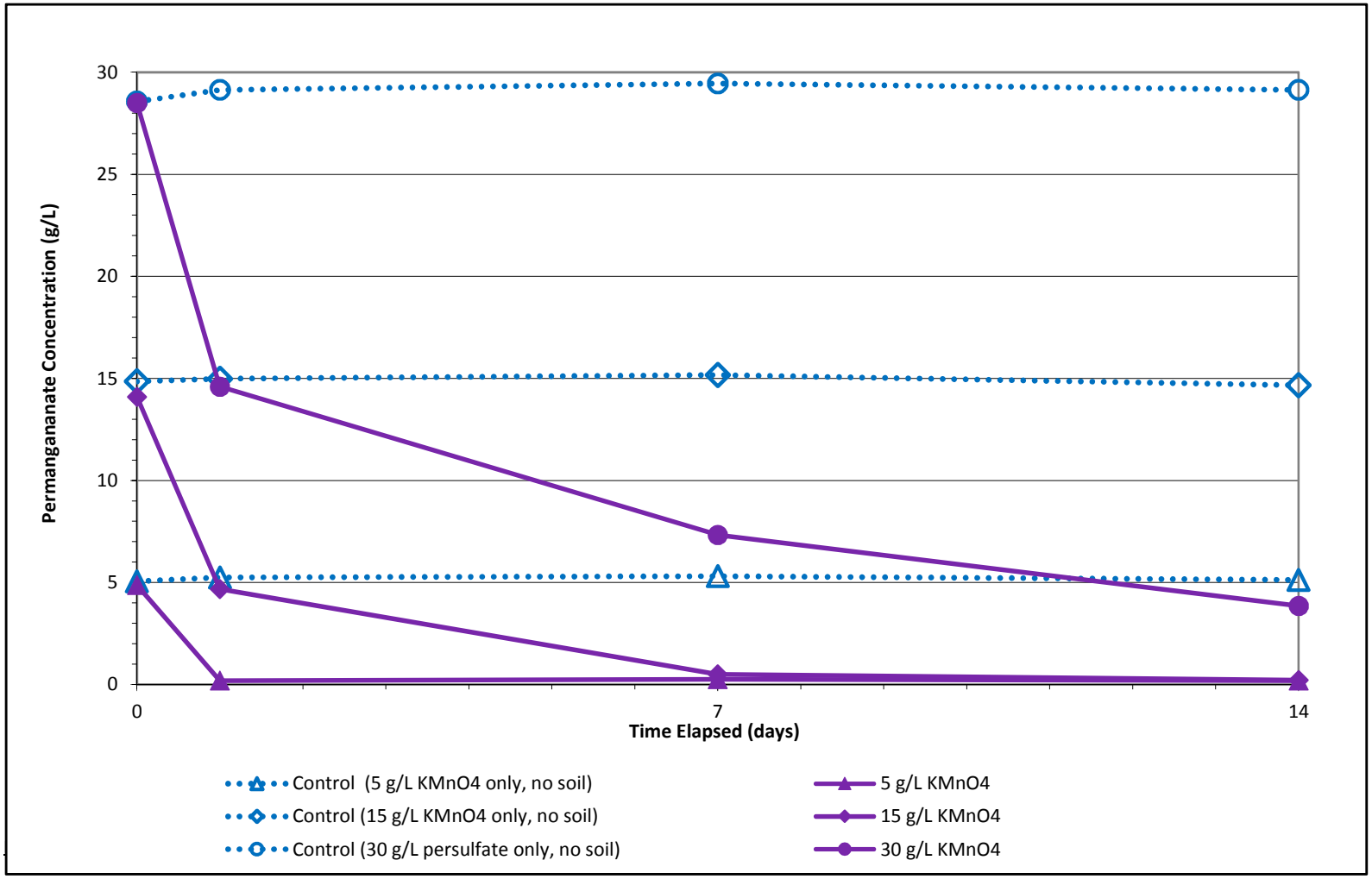




g/L = gram per liter

Figure 7
Potassium Permanganate Stability Test

Former C&B Dry Cleaners Site
Jamestown, New York



g/L = grams per liter

Tables

Table 1
Hydrogen Peroxide Stability Test Half Life

Former C&B Dry Cleaners Site
Jamestown, New York

Treatment	Half Life [a] (hours)	R^2
5% H2O2		
5% H2O2 only	0.1	1.00
5% H2O2, 5 mM Citric Acid	0.1	1.00
5% H2O2, 20 mM Citric Acid	0.1	1.00
5% H2O2, 50 mM Citric Acid	3.6	0.733
5% H2O2, 100 mM Citric Acid	6.2	0.992
5% H2O2,1:1 Citric Acid : Iron	0.1	1.00
9% H2O2		
9% H2O2 only	NA	0.85
9% H2O2, 5 mM Citric Acid	0.1	1.00
9% H2O2, 50 mM Citric Acid	3.7	0.999
9% H2O2, 100 mM Citric Acid	5.2	0.928
9% H2O2,1:2 Citric Acid : Iron	0.1	1.00

Notes:

[a] Based on first order model of hydrogen peroxide decomposition

R^2 = correlation coefficient

% = percent

H_2O_2 = hydrogen peroxide

mM = milliMolar

Table 2
Soil Oxidant Demand and Total Oxidant Demand

Former C&B Dry Cleaners Site
Jamestown, New York

Treatment	Starting Oxidant Test Concentration *(g/L)*	Soil Oxidant Demand	Total Oxidant Demand
		(grams oxidant / Kilogram dry soil)	
Potassium Permanganate	5 g/L	2.1	*NA*
	15 g/L	6.1	*NA*
	30 g/L	11	*NA*
Unactivated Persulfate	50 g/L	5.2	*NA*
	100 g/L	3.4	*NA*
	200 g/L	20	*NA*
Iron Activated Persulfate	50 g/L	0.1	0.7
	100 g/L	2.6	4.4
	200 g/L	4.4	7.8
Alkaline Activated Persulfate	50 g/L	12	12
	100 g/L	22	24
	200 g/L	4.7	28

Notes:
g/L = grams per liter
NA = Not applicable (no activator)
Soil Oxidant Demand and Total Oxidant Demand based on Day 14 readings.
Total Oxidant Demand = Soil Oxidant Demand + Activator Demand
Iron activated persulfate was activated with iron (Fe) and citric acid (CA) at a 100: 1: 1 molar ratio (persulfate: Fe: CA).
Alkaline activated persulfate was activated with sodium hydroxide (NaOH) at a 1 : 2.25 molar ratio (persulfate: NaOH).
*XDD recommends that a TOD of less than **2.5** g/Kg should not be used for field estimation purposes.*

XDD

Table 3A
Injection Simulation Results Summary: VOCs in Groundwater

Former C&B Dry Cleaners Site
Jamestown, New York

Test Condition		Initial Oxidant Concen-tration	Sample ID	units	VOCs (EPA Method 8260C)											
					COCs			Other Detected VOCs								
					Cis-1,2-DCE	PCE	TCE	1,2-DCA	Carbon Disulfide	Bromo-methane	Chloro-form	Chloro-methane	Methylene Chloride	Acetone	1,1,2-TCA	2-Butanone
GROUNDWATER																
Baseline	Baseline	N/A	CBMW-5	µg/L	< 50	**28,000**	**220**	< 50	< 50	< 50	< 50	< 50	**630**	< 500	< 50	< 500
Controls	Controls (Persulfate and Permanganate)	N/A	SP-CTRL	µg/L	**10**	**9,300**	**130**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	**J 12**	< 2.0	< 20
			SP-CTRL-DUP	µg/L	**9.8**	**9,100**	**130**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	**J 8.5**	< 2.0	< 20
Persulfate	Alkaline Activated Persulfate Low	35 g/L	SP NAOH LOW	µg/L	< 40	**910**	< 40	< 40	< 40	< 40	< 40	< 40	< 40	**620**	< 40	< 400
	Alkaline Activated Persulfate Mid	70 g/L	SP NAOH MID	µg/L	< 5.0	**230**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**52**	< 5.0	< 50
	Alkaline Activated Persulfate High	140 g/L	SP NAOH HIGH	µg/L	< 5.0	**40**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 5.0	< 50
	Iron Activated Persulfate - Low	35 g/L	SP FECA LOW	µg/L	< 10	< 10	< 10	**J 5.6**	< 10	**10**	**16**	**380**	**130**	**470**	< 10	< 100
	Iron Activated Persulfate - Mid	70 g/L	SP FECA MID	µg/L	< 10	< 10	< 10	**13**	< 10	**J 8.9**	**24**	**680**	**420**	**430**	**J 5.7**	< 100
	Iron Activated Persulfate - High	140 g/L	SP FECA HIGH	µg/L	< 10	**J 4.7**	< 10	**J 7.0**	< 10	< 10	**18**	**520**	**380**	**460**	**J 2.4**	< 100
Potassium Perman-ganate	Potassium Permanganate Low	3.5 g/L	KMNO4 LOW	µg/L	< 5.0	**J 2.1**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**820**	< 5.0	**110**
	Potassium Permanganate Mid	10 g/L	KMNO4 MID	µg/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	**2,300**	< 10	**J 75**
	Potassium Permanganate High	20 g/L	KMNO4 HIGH	µg/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	**3,700**	< 10	**J 33**
Hydrogen Peroxide	Hydrogen Peroxide Controls	N/A	HP CTRL	µg/L	**8.8**	**7,700**	**110**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 20	< 2.0	< 20
			HP CTRL DUP	µg/L	**8.9**	**6,700**	**110**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 20	< 2.0	< 20
	Hydrogen Peroxide Low	3%	HP LOW	µg/L	< 10	**110**	< 10	< 10	**J 3.7**	< 10	< 10	< 10	< 10	**450,000**	< 10	**J 60**
	Hydrogen Peroxide High	6%	HP HIGH	µg/L	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	**440,000**	< 500	< 5,000

Notes:

COC = contaminant of concern

PCE = tetrachloroethylene; TCE = trichloroethylene; cisDCE = cis-1,2-dichloroethylene

N/A = not applicable

g/L = grams per liter

µg/L = micrograms per liter

< = less than

J = the result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

Table 3B
Injection Simulation Results Summary: VOCs in Soil

Former C&B Dry Cleaners Site
Jamestown, New York

Test Condition		Initial Oxidant Concen-tration	Sample ID	units	VOCs (EPA Method 8260C)											
					COCs			Other Detected VOCs								
					Cis-1,2-DCE	PCE	TCE	1,2-DCA	Carbon Disulfide	Bromo-methane	Chloro-form	Chloro-methane	Methylene Chloride	Acetone	1,1,2-TCA	2-Butanone
SOIL																
Baseline	Baseline	N/A	CBSB121-4.0-6.0	mg/Kg	< 0.0038	NR	< 0.0038	< 0.0038	< 0.0038	< 0.0038	< 0.0038	< 0.0038	< 0.0038	**J 0.017**	< 0.0038	< 0.019
		N/A	CBSB121-4.0-6.0-1	mg/Kg	< 0.048	**7.9**	< 0.048	< 0.048	< 0.048	< 0.048	< 0.048	< 0.048	**J 0.014**	< 0.24	< 0.048	< 0.24
Controls	Controls (Persulfate and Permanganate)	N/A	SP-CTRL	mg/Kg	**J 0.0013**	**11**	**0.35**	< 0.0042	< 0.0042	< 0.0042	< 0.0042	< 0.0042	< 0.0042	< 0.021	< 0.0042	< 0.021
			SP-CTRL-DUP	mg/Kg	na	na	na	na	na	na	na	na	na	na	na	na
Persulfate	Alkaline Activated Persulfate Low	35 g/L	SP NAOH LOW	mg/Kg	< 0.0044	**8.9**	**J 0.0025**	< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.0044	**0.063**	< 0.0044	< 0.022
	Alkaline Activated Persulfate Mid	70 g/L	SP NAOH MID	mg/Kg	< 0.15	**4.2**	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	**0.19**	**1.1**	< 0.15	**2**
	Alkaline Activated Persulfate High	140 g/L	SP NAOH HIGH	mg/Kg	< 0.25	**11**	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	**0.25**	**J 1**	< 0.25	< 1.2
	Iron Activated Persulfate - Low	35 g/L	SP FECA LOW	mg/Kg	< 0.0042	**5.7**	< 0.0042	**J 0.0009**	< 0.0042	**J 0.0029**	**J 0.0037**	**0.048**	**0.012**	**0.054**	< 0.0042	< 0.021
	Iron Activated Persulfate - Mid	70 g/L	SP FECA MID	mg/Kg	**J 0.00037**	**2**	**J 0.00083**	**J 0.0014**	**0.0035**	**J 0.0014**	**0.005**	**0.066**	**0.03**	**0.03**	**J 0.0011**	**0.016**
	Iron Activated Persulfate - High	140 g/L	SP FECA HIGH	mg/Kg	< 0.0039	**4**	< 0.0039	**J 0.0026**	**J 0.0023**	**J 0.0025**	**0.0097**	**0.21**	**0.1**	**0.17**	**J 0.0017**	< 0.02
Potassium Perman-ganate	Potassium Permanganate Low	3.5 g/L	KMNO4 LOW	mg/Kg	< 0.0045	**1.8**	< 0.0045	< 0.0045	< 0.0045	< 0.0045	< 0.0045	< 0.0045	< 0.0045	**0.077**	< 0.0045	**J 0.013**
	Potassium Permanganate Mid	10 g/L	KMNO4 MID	mg/Kg	< 0.0043	**0.074**	< 0.0043	< 0.0043	< 0.0043	< 0.0043	< 0.0043	< 0.0043	< 0.0043	**0.2**	< 0.0043	**J 0.012**
	Potassium Permanganate High	20 g/L	KMNO4 HIGH	mg/Kg	< 0.0045	**0.058**	< 0.0045	< 10.000	< 0.0045	< 0.0045	< 0.0045	< 0.0045	< 0.0045	**0.4**	< 0.0045	**J 0.011**
Hydrogen Peroxide	Hydrogen Peroxide Controls	N/A	HP CTRL	mg/Kg	**J 0.0064**	**220**	**0.14**	< 0.034	< 0.034	< 0.034	< 0.034	< 0.034	< 0.034	**1.2**	< 0.034	< 0.17
			HP CTRL DUP	mg/Kg	na	na	na	na	na	na	na	na	na	na	na	na
	Hydrogen Peroxide Low	3%	HP LOW	mg/Kg	< 0.25	**5.5**	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	**0.37**	**65**	< 0.25	< 1.3
	Hydrogen Peroxide High	6%	HP HIGH	mg/Kg	< 0.0044	**2.3**	< 0.0044	< 0.0044	**J 0.0035**	< 0.0044	< 0.0044	< 0.0044	< 0.0044	**120**	< 0.0044	< 0.022

Notes:

COC = contaminant of concern

PCE = tetrachloroethylene; TCE = trichloroethylene; cisDCE = cis-1,2-dichloroethylene

N/A = not applicable

g/L = grams per liter

mg/Kg = milligrams per kilogram

< = less than

J = the result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

na = not analyzed

Table 4A
Injection Simulation Results Summary: COCs Reduction in Groundwater

Former C&B Dry Cleaners Site
Jamestown, New York

Test Condition		Oxidant			PCE		TCE		cisDCE		TOTAL COCs	
		Initial Concentration	Residual Concentration	Percent remaining	Concentration	Percent Reduction	Concentration	Percent Reduction	Concentration	Percent Reduction	Concentration	Percent Reduction
		(g/L)		*(%)*	*(µg/L)*	*(%)*	*(µg/L)*	*(%)*	*(µg/L)*	*(%)*	*(µg/L)*	*(%)*
		GROUNDWATER										
Controls	Controls (Persulfate and Permanganate)[1]	0	0	N/A	**9,200**	N/A	**130**	N/A	**9.9**	N/A	**9,340**	N/A
Persulfate	Alkaline Activated Persulfate Low	35	21	60	**910**	90	< 40	> 69	**40**	-304	**990**	89
	Alkaline Activated Persulfate Mid	70	48	68	**230**	98	< 5.0	> 96	< 5.0	49	**240**	97
	Alkaline Activated Persulfate High	140	88	63	**40**	> 99	< 5.0	> 96	< 5.0	49	**50**	99
	Iron Activated Persulfate - Low	35	29	82	< 10	> 99	< 10	> 92	< 10	-1	< **30**	> 99
	Iron Activated Persulfate - Mid	70	62	88	< 10	> 99	< 10	> 92	< 10	-1	< **30**	> 99
	Iron Activated Persulfate - High	140	123	88	**J 4.7**	> 99	< 10	> 92	< 10	-1	**J 24.7**	> 99
Potassium Perman-ganate	Potassium Permanganate Low	3.5	0.4	11	**J 2.1**	> 99	< 5.0	> 96	< 5.0	49	**J 12.1**	> 99
	Potassium Permanganate Mid	10	4.9	49	< 10	> 99	< 10	> 92	< 10	-1	< **30**	> 99
	Potassium Permanganate High	20	12	61	< 10	> 99	< 10	> 92	< 10	-1	**J 30**	> 99
Hydrogen Peroxide	Hydrogen Peroxide Control[1]	0	0	N/A	**7,200**	N/A	**110**	N/A	**8.9**	N/A	**7,319**	N/A
	Hydrogen Peroxide Low	3	0	0	**110**	98	< 10	> 91	< 10	-13	**130**	98
	Hydrogen Peroxide High	6	0	0	< 500	> 93	< 500	-355	< 500	-5,550	< 1,500	80

Notes:
[1] Groundwater control concentrations are an average concentration of the duplicate reactors for each test. The control reactors did not contain the oxidant.
Percent reductions were calculated by comparison with the control.
For the purposes of this evaluation, the sample detection limit was used as the concentration value for compounds reported as non-detect.
Reactors were submitted for laboratory analysis after 17 days of contact time.
COC = contaminant of concern
PCE = tetrachloroethylene; TCE = trichloroethylene; cisDCE = cis-1,2-dichloroethylene
µg/L = micrograms per liter
g/L = grams per liter
% = percent
N/A = not applicable
< = less than
> = greater than
ual to the method detection limit and the concentration is an approximate value.

Table 4B
Injection Simulation Results Summary: COCs Reduction in Soil

Former C&B Dry Cleaners Site
Jamestown, New York

Test Condition		PCE		TCE		cisDCE		TOTAL COCs	
		Concentration	Percent Reduction	Concentration	Percent Reduction	Concentration	Percent Reduction	Concentration	Percent Reduction
		(mg/Kg)	*(%)*	*(mg/Kg)*	*(%)*	*(mg/Kg)*	*(%)*	*(mg/Kg)*	*(%)*
		SOIL							
Controls	Controls (Persulfate and Permanganate)[1]	**11**	N/A	**0.35**	N/A	**J 0.0013**	N/A	**11**	N/A
Persulfate	Alkaline Activated Persulfate Low	**8.9**	19	**J 0.0025**	99	< 0.0044	-238	**8.9**	22
	Alkaline Activated Persulfate Mid	**4.2**	62	< 0.15	99	< 0.15	-11,438	**4.5**	60
	Alkaline Activated Persulfate High	**11**	0	< 0.25	99	< 0.25	-19,131	**11.5**	-1
	Iron Activated Persulfate - Low	**5.7**	48	< 0.0042	99	< 0.0042	-223	**5.7**	50
	Iron Activated Persulfate - Mid	**2**	82	**J 0.00083**	> 99	**J 0.00037**	72	**2**	82
	Iron Activated Persulfate - High	**4**	64	< 0.0039	99	< 0.0039	-200	**4**	65
Potassium Perman-ganate	Potassium Permanganate Low	**1.8**	84	< 0.0045	99	< 0.0045	-246	**1.8**	84
	Potassium Permanganate Mid	**0.074**	> 99	< 0.0043	99	< 0.0043	-231	**0.083**	99
	Potassium Permanganate High	**0.058**	99	< 0.0045	99	< 0.0045	-246	**0.067**	99
Hydrogen Peroxide	Hydrogen Peroxide Control[1]	**220**	N/A	**0.14**	N/A	**J 0.0064**	N/A	**220**	N/A
	Hydrogen Peroxide Low	**5.5**	> 98	< 0.25	-79	< 0.25	-3,806	**6**	97
	Hydrogen Peroxide High	**2.3**	> 99	< 0.0044	97	< 0.0044	31	**2.3**	99

Notes:
(1) The control reactors did not contain the oxidant.
Percent reductions were calculated by comparison with the control.
For the purposes of this evaluation, the sample detection limit was used as the concentration value for compounds reported as non-detect.
Reactors were submitted for laboratory analysis after 17 days of contact time.
COC = contaminant of concern
PCE = tetrachloroethylene; TCE = trichloroethylene; cisDCE = cis-1,2-dichloroethylene
% = percent
N/A = not applicable
mg/Kg = milligrams per kilogram
< = less than
> = greater than
J = the result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

Table 5
Degradation Ratios: Treatment with Sodium Persulfate and Potassium Permanganate

Former C&B Dry Cleaners Site
Jamestown, New York

Test Condition	Persulfate Concentration *(g/L)*		Oxidant Utilized *(g)*	COC Mass *(µg)*			Degradation Ratio[(1)] (grams persulfate/ grams contaminant)
	Initial	Residual		Initial	Final	Total Mass Degraded	
SODIUM PERSULFATE							
35 g/L Alkaline Activated Persulfate	35	21	2.76	3,227	1,279	1,948	**1,419**
70 g/L Alkaline Activated Persulfate	70	48	4.41	3,227	580	2,647	**1,664**
140 g/L Alkaline Activated Persulfate	140	88	10.17	3,227	1,389	1,843	**5,516**
35 g/L Iron Activated Persulfate	35	29	1.22	3,227	703	2,523	**483**
70 g/L Iron Activated Persulfate	70	62	1.64	3,227	249	2,977	**552**
140 g/L Iron Activated Persulfate	140	123	3.33	3,227	494	2,733	**1,220**
POTASSIUM PERMANGANATE							
3.5 g/L Potassium Permanganate	3.5	0.4	0.60	3,227	223	3,004	**200**
10 g/L Potassium Permanganate	10	4.9	1.01	3,227	13.5	3,213	**314**
20 g/L Potassium Permanganate	20	12	1.56	3,227	11.6	3,215	**485**

Notes:
[(1)] Degradation ratio calculated for total COC concentration compared to the control.
Residual oxidant measured after 17 days of contact time.
COC = contaminant of concern (PCE and TCE)
g/L = grams per liter
µg = micrograms

Table 6A
Injection Simulation Results Summary: Metals in Groundwater

Former C&B Dry Cleaners Site
Jamestown, New York

Test Condition		Initial Oxidant Concentration	Sample ID	units	Metals (EPA Method 6010C)											
					Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead
					GROUNDWATER											
NYSDEC Glass GA Groundwater Standard or Guidance Value				mg/L	--	0.003	0.025	1	0.003	0.005	--	0.05	--	0.2	0.3	0.025
Baseline	Baseline	N/A	CBMW-5	mg/L	na	na	na	na	na	na	na	na	na	na	na	na
Controls	Controls (Persulfate and Permanganate)	N/A	SP-CTRL	mg/L	< 0.2	< 0.02	< 0.015	**0.011**	< 0.002	< 0.002	**9.1**	< 0.004	< 0.004	< 0.01	< 0.05	0.01
			SP-CTRL-DUP	mg/L	< 0.2	< 0.02	< 0.015	**0.011**	< 0.002	< 0.002	**10.5**	< 0.004	< 0.004	< 0.01	< 0.05	0.01
Persulfate	Alkaline Activated Persulfate Low	35 g/L	SP NAOH LOW	mg/L	**12.3**	< 0.02	**0.15**	**J 0.0014**	< 0.002	< 0.002	**0.66**	**0.063**	< 0.004	**J 0.0064**	< 0.05	< 0.01
	Alkaline Activated Persulfate Mid	70 g/L	SP NAOH MID	mg/L	**225**	< 2	**1.8**	< 0.2	< 0.2	< 0.2	< 50	**0.79**	< 0.4	< 1	< 5	< 1
	Alkaline Activated Persulfate High	140 g/L	SP NAOH HIGH	mg/L	**291**	< 2	**2.2**	**J 0.085**	< 0.2	< 0.2	< 50	**1.2**	< 0.4	< 1	< 5	**J 0.98**
	Iron Activated Persulfate - Low	35 g/L	SP FECA LOW	mg/L	**3**	< 0.02	**J 0.0057**	**0.0046**	**J 0.0011**	**0.0053**	**63.1**	**J 0.0034**	< 0.004	**0.015**	< 0.05	< 0.01
	Iron Activated Persulfate - Mid	70 g/L	SP FECA MID	mg/L	na[1]	na[1]	na[1]	na[1]	na[1]	na[1]	na[1]	na[1]	na[1]	na[1]	na[1]	na[1]
	Iron Activated Persulfate - High	140 g/L	SP FECA HIGH	mg/L	na[1]	na[1]	na[1]	na[1]	na[1]	na[1]	na[1]	na[1]	na[1]	na[1]	na[1]	na[1]
Potassium Perman-ganate	Potassium Permanganate Low	3.5 g/L	KMNO4 LOW	mg/L	**0.45**	< 0.02	< 0.015	**0.065**	< 0.002	< 0.002	**5.5**	**0.0056**	**J 0.0038**	**0.014**	**1.1**	**J 0.0036**
	Potassium Permanganate Mid	10 g/L	KMNO4 MID	mg/L	**3.1**	< 0.1	< 0.075	**0.38**	< 0.002	< 0.01	**4.8**	**0.025**	**0.02**	**0.072**	**3.7**	**J 0.023**
	Potassium Permanganate High	20 g/L	KMNO4 HIGH	mg/L	**6.6**	< 0.1	**J 0.033**	**1.2**	**J 0.0004**	< 0.01	**5**	**0.042**	**0.0041**	**J 0.0045**	**2.2**	**0.081**
Hydrogen Peroxide	Hydrogen Peroxide Controls	N/A	HP CTRL	mg/L	< 0.2	< 0.02	< 0.015	**0.011**	< 0.002	< 0.002	**9.8**	< 0.004	< 0.004	< 0.01	< 0.05	< 0.01
			HP CTRL DUP	mg/L	< 0.2	< 0.02	< 0.015	**0.011**	< 0.002	< 0.002	**9.2**	< 0.004	< 0.004	< 0.01	< 0.05	< 0.01
	Hydrogen Peroxide Low	3%	HP LOW	mg/L	**54.6**	< 0.1	< 0.075	**2.1**	**J 0.0059**	**0.019**	**67.8**	**0.037**	**0.14**	**0.13**	**95.6**	**0.073**
	Hydrogen Peroxide High	6%	HP HIGH	mg/L	**49.4**	< 0.02	**J 0.01**	**1.3**	**0.0055**	**0.016**	**61.2**	**0.061**	**0.15**	**0.18**	**76.3**	**0.026**

Notes:
N/A = not applicable
g/L = grams per liter
mg/L = milligrams per liter
-- = no regulatory value associated with this compound
< = Less than
J = the result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
B = compound was found in the blank and sample.
na = not analyzed
[1] = sample was destroyed during digestion method procedure.
Regulatory values derived from NYS Ambient Water Quality Standards TOGS 1.1.1 (Source of Drinking Water, groundwater).

Table 6A
Injection Simulation Results Summary: Metals in Groundwater

Former C&B Dry Cleaners Site
Jamestown, New York

Test Condition		Initial Oxidant Concentration	Sample ID	units	Metals (EPA Method 6010C)									
					Magnesium	Manganese	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
					GROUNDWATER									
NYSDEC Glass GA Groundwater Standard or Guidance Value				mg/L	35	0.3	0.1	--	0.01	0.05	20	0.0005	--	2
Baseline	Baseline	N/A	CBMW-5	mg/L	na	na	na	na	na	na	na	na	na	na
Controls	Controls (Persulfate and Permanganate)	N/A	SP-CTRL	mg/L	**1.9**	**JB 0.0023**	< 0.01	**J 0.25**	< 0.025	< 0.006	**8.2**	< 0.02	< 0.005	< 0.01
			SP-CTRL-DUP	mg/L	**1.9**	**JB 0.0023**	< 0.01	**J 0.25**	< 0.025	< 0.006	**10.3**	< 0.02	< 0.005	< 0.01
Persulfate	Alkaline Activated Persulfate Low	35 g/L	SP NAOH LOW	mg/L	< 0.2	**JB 0.0012**	< 0.01	**0.89**	**J 0.012**	< 0.006	**1,290**	< 0.02	**0.041**	< 0.01
	Alkaline Activated Persulfate Mid	70 g/L	SP NAOH MID	mg/L	< 20	**JB 0.11**	< 1	**J 13.7**	< 2.5	< 0.6	**24,000**	< 2	**0.6**	**J 0.2**
	Alkaline Activated Persulfate High	140 g/L	SP NAOH HIGH	mg/L	< 20	**JB 0.12**	< 1	**J 37.9**	< 2.5	< 0.6	**45,800**	< 2	**0.84**	**J 0.6**
	Iron Activated Persulfate - Low	35 g/L	SP FECA LOW	mg/L	**10.5**	**B 0.14**	**0.083**	**1.7**	< 0.025	< 0.006	**600**	< 0.02	< 0.005	**0.58**
	Iron Activated Persulfate - Mid	70 g/L	SP FECA MID	mg/L	na[1]	na[1]	na[1]	na[1]	na[1]	na[1]	na[1]	na[1]	na[1]	na[1]
	Iron Activated Persulfate - High	140 g/L	SP FECA HIGH	mg/L	na[1]	na[1]	na[1]	na[1]	na[1]	na[1]	na[1]	na[1]	na[1]	na[1]
Potassium Perman-ganate	Potassium Permanganate Low	3.5 g/L	KMNO4 LOW	mg/L	**3.8**	**B 32**	**0.021**	**27.8**	< 0.025	**J 0.005**	**10**	< 0.02	< 0.005	**0.029**
	Potassium Permanganate Mid	10 g/L	KMNO4 MID	mg/L	**7.9**	**B 188**	**0.084**	**137**	< 0.13	**0.031**	**10.4**	< 0.1	**0.013**	**0.3**
	Potassium Permanganate High	20 g/L	KMNO4 HIGH	mg/L	**5.4**	**B 192**	**J 0.014**	**257**	< 0.13	**0.032**	**8.6**	< 0.1	**0.019**	< 0.05
Hydrogen Peroxide	Hydrogen Peroxide Controls	N/A	HP CTRL	mg/L	**1.8**	**JB 0.0018**	< 0.01	**J 0.29**	< 0.025	< 0.006	**10.7**	< 0.02	< 0.005	< 0.01
			HP CTRL DUP	mg/L	**1.6**	**JB 0.0018**	< 0.01	**J 0.25**	< 0.025	< 0.006	**10.2**	< 0.02	< 0.005	< 0.01
	Hydrogen Peroxide Low	3%	HP LOW	mg/L	**8.1**	**B 61**	**0.29**	**J 1.4**	< 0.13	**0.0062**	**10.6**	**J 0.01**	**0.039**	**0.86**
	Hydrogen Peroxide High	6%	HP HIGH	mg/L	**10.7**	**B 49.2**	**0.31**	**1.2**	< 0.025	**0.0087**	**10.2**	< 0.02	**0.065**	**1.1**

Notes:
N/A = not applicable
g/L = grams per liter
mg/L = milligrams per liter
-- = no regulatory value associated with this compound
< = Less than
J = the result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
B = compound was found in the blank and sample.
na = not analyzed
[1] = sample was destroyed during digestion method procedure.
Regulatory values derived from NYS Ambient Water Quality Standards TOGS 1.1.1 (Source of Drinking Water, groundwater).

Table 6B
Injection Simulation Results Summary: Metals in Soil

Former C&B Dry Cleaners Site
Jamestown, New York

Test Condition		Initial Oxidant Concentration	Sample ID	units	Metals (EPA Method 6010C)											
					Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead
					SOIL											
Part 375 Soil Cleanup Objectives Commercial				mg/Kg	10,000*	10,000*	16	400	590	9	10,000*	400	10,000*	270	10,000*	1,000
Baseline	Baseline	N/A	CBSB121-4.0-6.0	mg/Kg	**9,040**	< 16.8	**8.4**	**136**	**0.38**	**J 0.14**	**B 1,570**	**11.1**	**8.1**	**22.1**	**B 17,600**	**28.4**
		N/A	CBSB121-4.0-6.0-1	mg/Kg	**10,700**	< 17.6	**8.5**	**161**	**0.38**	**J 0.16**	**B 1,740**	**13**	**8.9**	**23.1**	**B 20,200**	**59.1**
Controls	Controls (Persulfate and Permanganate)	N/A	SP-CTRL	mg/Kg	**11,600**	**J 1.1**	**9.5**	**106**	**0.44**	**0.32**	**45,600**	**11.6**	**9.2**	**42**	**B 26,400**	**27.7**
			SP-CTRL-DUP	mg/Kg	na	na	na	na	na	na	na	na	na	na	na	na
Persulfate	Alkaline Activated Persulfate Low	35 g/L	SP NAOH LOW	mg/Kg	**5,550**	< 18.5	**3.9**	**75.2**	**J 0.23**	**0.27**	**882**	**6.6**	**4.1**	**11**	**B 10,900**	**10.1**
	Alkaline Activated Persulfate Mid	70 g/L	SP NAOH MID	mg/Kg	**8,150**	**J 0.62**	**5.2**	**73.6**	**0.32**	**J 0.17**	**1,450**	**11.1**	**7.8**	**18.4**	**B 20,700**	**9.8**
	Alkaline Activated Persulfate High	140 g/L	SP NAOH HIGH	mg/Kg	**6,430**	< 17.9	**6.7**	**112**	**0.3**	**0.25**	**3,660**	**7.6**	**7.1**	**16**	**B 14,400**	**19.5**
	Iron Activated Persulfate - Low	35 g/L	SP FECA LOW	mg/Kg	**6,320**	< 19.3	**6.4**	**93.5**	**0.32**	**0.34**	**2,570**	**7.1**	**6.7**	**17.3**	**B 12,900**	**14.6**
	Iron Activated Persulfate - Mid	70 g/L	SP FECA MID	mg/Kg	**7,030**	**J 0.69**	**6.3**	**104**	**0.29**	**J 0.22**	**1,120**	**9.7**	**6.3**	**14.7**	**B 15,400**	**12.9**
	Iron Activated Persulfate - High	140 g/L	SP FECA HIGH	mg/Kg	**8,310**	**J 0.53**	**9.5**	**103**	**0.32**	**J 0.15**	**1,100**	**10.9**	**8**	**23.4**	**B 20,900**	**13.9**
Potassium Permanganate	Potassium Permanganate Low	3.5 g/L	KMNO4 LOW	mg/Kg	**7,950**	**J 0.75**	**6.8**	**113**	**0.36**	**0.29**	**1,300**	**10.6**	**8**	**19.7**	**B 22,800**	**12.5**
	Potassium Permanganate Mid	10 g/L	KMNO4 MID	mg/Kg	**8,610**	**J 0.52**	**9.2**	**127**	**0.36**	**0.34**	**1,080**	**9.9**	**7.7**	**21**	**B 19,000**	**17.4**
	Potassium Permanganate High	20 g/L	KMNO4 HIGH	mg/Kg	**7,090**	< 20.3	**4.1**	**85.4**	**J 0.23**	**J 0.24**	**33,600**	**6.7**	**5.8**	**14.9**	**B 13,500**	**12.9**
Hydrogen Peroxide	Hydrogen Peroxide Controls	N/A	HP CTRL	mg/Kg	**66,400**	**J 5.4**	**57.1**	**943**	**2.9**	**3.5**	**46,700**	**78.7**	**63.2**	**159**	**B 153,000**	**125**
			HP CTRL DUP	mg/Kg	na	na	na	na	na	na	na	na	na	na	na	na
	Hydrogen Peroxide Low	3%	HP LOW	mg/Kg	**10,700**	**J 0.61**	**5.5**	**67.6**	**0.3**	**J 0.15**	**1,410**	**11.7**	**7.6**	**42.2**	**B 22,100**	**11.7**
	Hydrogen Peroxide High	6%	HP HIGH	mg/Kg	**7,650**	**J 0.68**	**8.9**	**73.6**	**0.34**	**J 0.2**	**1,050**	**9.5**	**5.7**	**17.4**	**B 22,700**	**13.4**

Notes:
N/A = not applicable
g/L = grams per liter
mg/Kg = milligrams per kilogram
-- = no regulatory value associated with this compound
< = Less than
J = the result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
B = compound was found in the blank and sample.
na = not analyzed
Part 375 Soil Cleanup Objective (SCO) source is NYSDEC 6NYCRR Part 375 Environmental Remediation Programs (Part 375). Determination of SCOs and Cleanup Levels for restricted commercial use (Part 375-6.8(b)) effective 12/14/06.
* Soil SCOs for Individual Metals were capped at 10,000 unless otherwise specified.

Table 6B
Injection Simulation Results Summary: Metals in Soil

Former C&B Dry Cleaners Site
Jamestown, New York

Test Condition		Initial Oxidant Concentration	Sample ID	units	Metals (EPA Method 6010C)									
					Magnesium	Manganese	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
					SOIL									
Part 375 Soil Cleanup Objectives Commercial				mg/Kg	10,000*	10,000	310	10,000*	1,500	1,500	10,000*	10,000*	10,000*	10,000
Baseline	Baseline	N/A	CBSB121-4.0-6.0	mg/Kg	**B 2,580**	**B 752**	**21.1**	**866**	< 4.5	< 0.67	**BJ 120**	< 6.7	**13.8**	**B 50.1**
		N/A	CBSB121-4.0-6.0-1	mg/Kg	**B 3,370**	**B 938**	**25.1**	**934**	< 4.7	< 0.7	**BJ 123**	< 7	**17.7**	**B 60.3**
Controls	Controls (Persulfate and Permanganate)	N/A	SP-CTRL	mg/Kg	**4,100**	**B 1,590**	**24.6**	**1,720**	< 4.8	< 0.72	**J 69.2**	< 7.2	**18.2**	**B 91**
			SP-CTRL-DUP	mg/Kg	na	na	na	na	na	na	na	na	na	na
Persulfate	Alkaline Activated Persulfate Low	35 g/L	SP NAOH LOW	mg/Kg	**1,660**	**B 622**	**11.3**	**696**	< 4.9	< 0.74	**2,520**	< 7.4	**8.1**	**B 46.6**
	Alkaline Activated Persulfate Mid	70 g/L	SP NAOH MID	mg/Kg	**2,970**	**B 559**	**22.9**	**656**	< 4.8	< 0.72	**3,630**	< 7.2	**11.3**	**B 88.5**
	Alkaline Activated Persulfate High	140 g/L	SP NAOH HIGH	mg/Kg	**1,960**	**B 685**	**18.4**	**776**	< 4.8	< 0.71	**8,630**	< 7.1	**8.9**	**B 68.8**
	Iron Activated Persulfate - Low	35 g/L	SP FECA LOW	mg/Kg	**1,630**	**B 902**	**15**	**674**	< 5.1	< 0.77	**1,050**	< 7.7	**8.4**	**B 52.8**
	Iron Activated Persulfate - Mid	70 g/L	SP FECA MID	mg/Kg	**2,010**	**B 929**	**15.1**	**857**	< 5.2	< 0.78	**2,230**	< 7.8	**11.6**	**B 53.2**
	Iron Activated Persulfate - High	140 g/L	SP FECA HIGH	mg/Kg	**2,690**	**B 1,050**	**20**	**1,030**	< 4.9	< 0.73	**3,460**	< 7.3	**13.1**	**B 62.6**
Potassium Perman-ganate	Potassium Permanganate Low	3.5 g/L	KMNO4 LOW	mg/Kg	**2,650**	**B 1,850**	**21.5**	**1,390**	< 4.4	< 0.66	**J 53.8**	< 6.6	**11.9**	**B 71.4**
	Potassium Permanganate Mid	10 g/L	KMNO4 MID	mg/Kg	**2,460**	**B 3,220**	**20.1**	**2,310**	< 4.4	**J 0.25**	**J 48.8**	< 6.5	**12.3**	**B 81.5**
	Potassium Permanganate High	20 g/L	KMNO4 HIGH	mg/Kg	**2,790**	**B 3,200**	**14.6**	**1,790**	< 5.4	**J 0.34**	**J 74.8**	**J 0.41**	**8.9**	**B 60.8**
Hydrogen Peroxide	Hydrogen Peroxide Controls	N/A	HP CTRL	mg/Kg	**38,100**	**B 7,740**	**164**	**7,140**	< 44.8	< 6.7	**J 593**	< 67.2	**103**	**B 712**
			HP CTRL DUP	mg/Kg	na	na	na	na	na	na	na	na	na	na
	Hydrogen Peroxide Low	3%	HP LOW	mg/Kg	**5,550**	**B 519**	**20.8**	**743**	< 4.7	< 0.71	**J 62.6**	< 7.1	**20.9**	**B 66**
	Hydrogen Peroxide High	6%	HP HIGH	mg/Kg	**3,040**	**B 462**	**15.9**	**779**	< 5.1	< 0.76	**J 36.8**	< 7.6	**12.6**	**B 73.4**

Notes:
N/A = not applicable
g/L = grams per liter
mg/Kg = milligrams per kilogram
-- = no regulatory value associated with this compound
< = Less than
J = the result is less than the reporting limit but greater than or equal to
the method detection limit and the concentration is an approximate value.
B = compound was found in the blank and sample.
na = not analyzed
Part 375 Soil Cleanup Objective (SCO) source is NYSDEC 6NYCRR Part 375 Environment
Remediation Programs (Part 375). Determination of SCOs and Cleanup
Levels for restricted commercial use (Part 375-6.8(b)) effective 12/14/06.
* Soil SCOs for Individual Metals were capped at 10,000 unless otherwise specified.

Table 7
Injection Simulation Results Summary: TOC and pH

Former C&B Dry Cleaners Site
Jamestown, New York

Test Condition		Initial Oxidant Concen-tration	Sample ID	GROUNDWATER		SOIL	
				pH	TOC[1] (EPA Method 9060A) *(mg/L)*	TOC (EPA Method 9060A) *(mg/Kg)*	
Baseline	Baseline	N/A	CBMW-5	na	**2.2**		na
Controls	Controls (Persulfate and Permanganate)	N/A	SP-CTRL	**7.1**	**4.2**	**B**	**4,870**
			SP-CTRL-DUP	**7.2**	**4.9**		na
Persulfate	Alkaline Activated Persulfate Low	35 g/L	SP NAOH LOW	**12.7**	**B 42,504**	**B**	**5,480**
	Alkaline Activated Persulfate Mid	70 g/L	SP NAOH MID	**13.6**	**B 40,407**	**B**	**7,030**
	Alkaline Activated Persulfate High	140 g/L	SP NAOH HIGH	**14.0**	**B 115,440**	**B**	**4,160**
	Iron Activated Persulfate - Low	35 g/L	SP FECA LOW	**3.6**	**B 78,032**	**B**	**5,640**
	Iron Activated Persulfate - Mid	70 g/L	SP FECA MID	**2.9**	**B 85,344**	**B**	**5,850**
	Iron Activated Persulfate - High	140 g/L	SP FECA HIGH	**2.4**	**B 148,867**	**B**	**4,890**
Potassium Perman-ganate	Potassium Permanganate Low	3.5 g/L	KMNO4 LOW	**6.9**	**712**	**B**	**4,950**
	Potassium Permanganate Mid	10 g/L	KMNO4 MID	**6.8**	**3,348**	**B**	**6,490**
	Potassium Permanganate High	20 g/L	KMNO4 HIGH	**6.9**	**B 11,274**	**B**	**11,200**
Hydrogen Peroxide	Hydrogen Peroxide Controls	N/A	HP CTRL	**7.1**	**5.7**	**B**	**8,600**
			HP CTRL DUP	**7.2**	**3.2**		na
	Hydrogen Peroxide Low	3%	HP LOW	**3.4**	**7,031**	**B**	**6,670**
	Hydrogen Peroxide High	6%	HP HIGH	**4.1**	**10,164**	**B**	**7,180**

Notes:

TOC = total organic carbon

g/L = grams per liter

mg/L = milligrams per liter

mg/Kg = milligrams per kilogram

N/A = not applicable

na = not analyzed

[1] Sample volume was limited so distilled water was added to the samples to bring the total volume up to fill the sample container prior to sending to the laboratory. The data shown reflects the laboratory result multiplied by the dilution factor.

B = compound was found in the blank and sample.

Appendix A

Laboratory Analytical Data Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 480-78472-1
Client Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

For:
New York State D.E.C.
625 Broadway 9th Floor
Albany, New York 12233-7258

Attn: George Momberger

Joseph V. Giacomazza

Authorized for release by:
4/29/2015 10:20:11 AM
Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Joe Giacomazza
Project Management Assistant II
4/29/2015 10:20:11 AM

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
E	Result exceeded calibration range.

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)

Job ID: 480-78472-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-78472-1

Receipt
The samples were received on 4/15/2015 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.3º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 237835 recovered above the upper control limit for multiple analytes. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: HP CTRL (480-78472-3) and HP CTRL DUP (480-78472-4).

Method(s) 8260C: The continuing calibration verification (CCV) analyzed in 237835 was outside the method criteria for the following analytes: 2-Butanone and/or Acetone. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes is considered estimated.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 237835 recovered outside acceptance criteria, low biased, for multiple analytes. A reporting limit (RL) standard was analyzed, and the target analytes were detected. Since the associated samples were non-detect for these analytes, the data have been reported.

Method(s) 8260C: Due to the coelution of Ethyl Acetate with 2-Butanone in the full spike solution, these analytes exceeded control limits in the laboratory control sample (LCS) associated with batch 237835.SP CTRL (480-78472-1), SP CTRL DUP (480-78472-2), HP CTRL (480-78472-3), HP CTRL DUP (480-78472-4) and HP LOW (480-78472-8)

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: SP CTRL (480-78472-1), SP CTRL DUP (480-78472-2), HP CTRL (480-78472-3), HP CTRL DUP (480-78472-4) and HP LOW (480-78472-8). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 37835 recovered above the upper control limit for 2-Butanone. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: SP CTRL (480-78472-1) and SP CTRL DUP (480-78472-2).

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: SP CTRL (480-78472-1), SP CTRL DUP (480-78472-2) and HP CTRL (480-78472-3). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: HP CTRL DUP (480-78472-4), KMN04 LOW (480-78472-5), KMN04 MID (480-78472-6), KMN04 HIGH (480-78472-7), HP HIGH (480-78472-9), SP FECA LOW (480-78472-10), SP FEC MID (480-78472-11), SP FECA HIGH (480-78472-12) and SP NAOH LOW (480-78472-13). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following volatile samples were analyzed with significant headspace in the sample vial: HP CTRL DUP (480-78472-4) and KMN04 MID (480-78472-6). Significant headspace is defined as a bubble greater than 6 mm in diameter.

Method(s) 8260C: The method blank (MB) associated with batch 238245 contained Tetrachloroethene at an amount lower than the reporting limit (RL). Due to this contamination, the following samples reported an estimated value for this analyte: KMN04 LOW (480-78472-5) and SP FECA HIGH (480-78472-12)

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 238599 recovered above the upper control limit for several analytes. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: HP LOW (480-78472-8), HP HIGH (480-78472-9), SP NAOH MID (480-78472-14) and SP NAOH HIGH (480-78472-15).

Method(s) 8260C: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis:

Job ID: 480-78472-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

SP NAOH HIGH (480-78472-15). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: HP LOW (480-78472-8), HP HIGH (480-78472-9) and SP NAOH MID (480-78472-14). Elevated reporting limits (RLs) are provided.

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

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: SP CTRL
Date Collected: 04/14/15 14:00
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	1.6	ug/L			04/22/15 19:37	2
1,1,2,2-Tetrachloroethane	ND		2.0	0.42	ug/L			04/22/15 19:37	2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.62	ug/L			04/22/15 19:37	2
1,1,2-Trichloroethane	ND		2.0	0.46	ug/L			04/22/15 19:37	2
1,1-Dichloroethane	ND		2.0	0.76	ug/L			04/22/15 19:37	2
1,1-Dichloroethene	ND		2.0	0.58	ug/L			04/22/15 19:37	2
1,2,4-Trichlorobenzene	ND		2.0	0.82	ug/L			04/22/15 19:37	2
1,2-Dibromo-3-Chloropropane	ND		2.0	0.78	ug/L			04/22/15 19:37	2
1,2-Dibromoethane	ND		2.0	1.5	ug/L			04/22/15 19:37	2
1,2-Dichlorobenzene	ND		2.0	1.6	ug/L			04/22/15 19:37	2
1,2-Dichloroethane	ND		2.0	0.42	ug/L			04/22/15 19:37	2
1,2-Dichloropropane	ND		2.0	1.4	ug/L			04/22/15 19:37	2
1,3-Dichlorobenzene	ND		2.0	1.6	ug/L			04/22/15 19:37	2
1,4-Dichlorobenzene	ND		2.0	1.7	ug/L			04/22/15 19:37	2
2-Butanone (MEK)	ND	*	20	2.6	ug/L			04/22/15 19:37	2
2-Hexanone	ND		10	2.5	ug/L			04/22/15 19:37	2
4-Methyl-2-pentanone (MIBK)	ND		10	4.2	ug/L			04/22/15 19:37	2
Acetone	**12**	**J ^**	20	6.0	ug/L			04/22/15 19:37	2
Benzene	ND		2.0	0.82	ug/L			04/22/15 19:37	2
Bromodichloromethane	ND		2.0	0.78	ug/L			04/22/15 19:37	2
Bromoform	ND		2.0	0.52	ug/L			04/22/15 19:37	2
Bromomethane	ND		2.0	1.4	ug/L			04/22/15 19:37	2
Carbon disulfide	ND		2.0	0.38	ug/L			04/22/15 19:37	2
Carbon tetrachloride	ND		2.0	0.54	ug/L			04/22/15 19:37	2
Chlorobenzene	ND		2.0	1.5	ug/L			04/22/15 19:37	2
Chloroethane	ND		2.0	0.64	ug/L			04/22/15 19:37	2
Chloroform	ND		2.0	0.68	ug/L			04/22/15 19:37	2
Chloromethane	ND		2.0	0.70	ug/L			04/22/15 19:37	2
cis-1,2-Dichloroethene	**10**		2.0	1.6	ug/L			04/22/15 19:37	2
cis-1,3-Dichloropropene	ND		2.0	0.72	ug/L			04/22/15 19:37	2
Cyclohexane	ND		2.0	0.36	ug/L			04/22/15 19:37	2
Dibromochloromethane	ND		2.0	0.64	ug/L			04/22/15 19:37	2
Dichlorodifluoromethane	ND		2.0	1.4	ug/L			04/22/15 19:37	2
Ethylbenzene	ND		2.0	1.5	ug/L			04/22/15 19:37	2
Isopropylbenzene	ND		2.0	1.6	ug/L			04/22/15 19:37	2
Methyl acetate	ND		5.0	1.0	ug/L			04/22/15 19:37	2
Methyl tert-butyl ether	ND		2.0	0.32	ug/L			04/22/15 19:37	2
Methylcyclohexane	ND		2.0	0.32	ug/L			04/22/15 19:37	2
Methylene Chloride	ND		2.0	0.88	ug/L			04/22/15 19:37	2
Styrene	ND		2.0	1.5	ug/L			04/22/15 19:37	2
Tetrachloroethene	**3000**	**E**	2.0	0.72	ug/L			04/22/15 19:37	2
Toluene	ND		2.0	1.0	ug/L			04/22/15 19:37	2
trans-1,2-Dichloroethene	ND		2.0	1.8	ug/L			04/22/15 19:37	2
trans-1,3-Dichloropropene	ND		2.0	0.74	ug/L			04/22/15 19:37	2
Trichloroethene	**130**		2.0	0.92	ug/L			04/22/15 19:37	2
Trichlorofluoromethane	ND		2.0	1.8	ug/L			04/22/15 19:37	2
Vinyl chloride	ND		2.0	1.8	ug/L			04/22/15 19:37	2
Xylenes, Total	ND		4.0	1.3	ug/L			04/22/15 19:37	2

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: SP CTRL
Date Collected: 04/14/15 14:00
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-1
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		66 - 137		04/22/15 19:37	2
4-Bromofluorobenzene (Surr)	92		73 - 120		04/22/15 19:37	2
Dibromofluoromethane (Surr)	100		60 - 140		04/22/15 19:37	2
Toluene-d8 (Surr)	94		71 - 126		04/22/15 19:37	2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		100	82	ug/L			04/23/15 19:54	100
1,1,2,2-Tetrachloroethane	ND		100	21	ug/L			04/23/15 19:54	100
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	31	ug/L			04/23/15 19:54	100
1,1,2-Trichloroethane	ND		100	23	ug/L			04/23/15 19:54	100
1,1-Dichloroethane	ND		100	38	ug/L			04/23/15 19:54	100
1,1-Dichloroethene	ND		100	29	ug/L			04/23/15 19:54	100
1,2,4-Trichlorobenzene	ND		100	41	ug/L			04/23/15 19:54	100
1,2-Dibromo-3-Chloropropane	ND		100	39	ug/L			04/23/15 19:54	100
1,2-Dibromoethane	ND		100	73	ug/L			04/23/15 19:54	100
1,2-Dichlorobenzene	ND		100	79	ug/L			04/23/15 19:54	100
1,2-Dichloroethane	ND		100	21	ug/L			04/23/15 19:54	100
1,2-Dichloropropane	ND		100	72	ug/L			04/23/15 19:54	100
1,3-Dichlorobenzene	ND		100	78	ug/L			04/23/15 19:54	100
1,4-Dichlorobenzene	ND		100	84	ug/L			04/23/15 19:54	100
2-Butanone (MEK)	ND		1000	130	ug/L			04/23/15 19:54	100
2-Hexanone	ND		500	120	ug/L			04/23/15 19:54	100
4-Methyl-2-pentanone (MIBK)	ND		500	210	ug/L			04/23/15 19:54	100
Acetone	ND		1000	300	ug/L			04/23/15 19:54	100
Benzene	ND		100	41	ug/L			04/23/15 19:54	100
Bromodichloromethane	ND		100	39	ug/L			04/23/15 19:54	100
Bromoform	ND		100	26	ug/L			04/23/15 19:54	100
Bromomethane	ND		100	69	ug/L			04/23/15 19:54	100
Carbon disulfide	ND		100	19	ug/L			04/23/15 19:54	100
Carbon tetrachloride	ND		100	27	ug/L			04/23/15 19:54	100
Chlorobenzene	ND		100	75	ug/L			04/23/15 19:54	100
Chloroethane	ND		100	32	ug/L			04/23/15 19:54	100
Chloroform	ND		100	34	ug/L			04/23/15 19:54	100
Chloromethane	ND		100	35	ug/L			04/23/15 19:54	100
cis-1,2-Dichloroethene	ND		100	81	ug/L			04/23/15 19:54	100
cis-1,3-Dichloropropene	ND		100	36	ug/L			04/23/15 19:54	100
Cyclohexane	ND		100	18	ug/L			04/23/15 19:54	100
Dibromochloromethane	ND		100	32	ug/L			04/23/15 19:54	100
Dichlorodifluoromethane	ND		100	68	ug/L			04/23/15 19:54	100
Ethylbenzene	ND		100	74	ug/L			04/23/15 19:54	100
Isopropylbenzene	ND		100	79	ug/L			04/23/15 19:54	100
Methyl acetate	ND		250	50	ug/L			04/23/15 19:54	100
Methyl tert-butyl ether	ND		100	16	ug/L			04/23/15 19:54	100
Methylcyclohexane	ND		100	16	ug/L			04/23/15 19:54	100
Methylene Chloride	ND		100	44	ug/L			04/23/15 19:54	100
Styrene	ND		100	73	ug/L			04/23/15 19:54	100
Tetrachloroethene	**9300**		100	36	ug/L			04/23/15 19:54	100
Toluene	ND		100	51	ug/L			04/23/15 19:54	100
trans-1,2-Dichloroethene	ND		100	90	ug/L			04/23/15 19:54	100

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: SP CTRL
Date Collected: 04/14/15 14:00
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		100	37	ug/L			04/23/15 19:54	100
Trichloroethene	**130**		100	46	ug/L			04/23/15 19:54	100
Trichlorofluoromethane	ND		100	88	ug/L			04/23/15 19:54	100
Vinyl chloride	ND		100	90	ug/L			04/23/15 19:54	100
Xylenes, Total	ND		200	66	ug/L			04/23/15 19:54	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*66 - 137*		*04/23/15 19:54*	*100*
4-Bromofluorobenzene (Surr)	*93*		*73 - 120*		*04/23/15 19:54*	*100*
Dibromofluoromethane (Surr)	*108*		*60 - 140*		*04/23/15 19:54*	*100*
Toluene-d8 (Surr)	*97*		*71 - 126*		*04/23/15 19:54*	*100*

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: SP CTRL DUP
Date Collected: 04/14/15 14:35
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	1.6	ug/L			04/22/15 20:04	2
1,1,2,2-Tetrachloroethane	ND		2.0	0.42	ug/L			04/22/15 20:04	2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.62	ug/L			04/22/15 20:04	2
1,1,2-Trichloroethane	ND		2.0	0.46	ug/L			04/22/15 20:04	2
1,1-Dichloroethane	ND		2.0	0.76	ug/L			04/22/15 20:04	2
1,1-Dichloroethene	ND		2.0	0.58	ug/L			04/22/15 20:04	2
1,2,4-Trichlorobenzene	ND		2.0	0.82	ug/L			04/22/15 20:04	2
1,2-Dibromo-3-Chloropropane	ND		2.0	0.78	ug/L			04/22/15 20:04	2
1,2-Dibromoethane	ND		2.0	1.5	ug/L			04/22/15 20:04	2
1,2-Dichlorobenzene	ND		2.0	1.6	ug/L			04/22/15 20:04	2
1,2-Dichloroethane	ND		2.0	0.42	ug/L			04/22/15 20:04	2
1,2-Dichloropropane	ND		2.0	1.4	ug/L			04/22/15 20:04	2
1,3-Dichlorobenzene	ND		2.0	1.6	ug/L			04/22/15 20:04	2
1,4-Dichlorobenzene	ND		2.0	1.7	ug/L			04/22/15 20:04	2
2-Butanone (MEK)	ND	*	20	2.6	ug/L			04/22/15 20:04	2
2-Hexanone	ND		10	2.5	ug/L			04/22/15 20:04	2
4-Methyl-2-pentanone (MIBK)	ND		10	4.2	ug/L			04/22/15 20:04	2
Acetone	**8.5**	**J ^**	20	6.0	ug/L			04/22/15 20:04	2
Benzene	ND		2.0	0.82	ug/L			04/22/15 20:04	2
Bromodichloromethane	ND		2.0	0.78	ug/L			04/22/15 20:04	2
Bromoform	ND		2.0	0.52	ug/L			04/22/15 20:04	2
Bromomethane	ND		2.0	1.4	ug/L			04/22/15 20:04	2
Carbon disulfide	ND		2.0	0.38	ug/L			04/22/15 20:04	2
Carbon tetrachloride	ND		2.0	0.54	ug/L			04/22/15 20:04	2
Chlorobenzene	ND		2.0	1.5	ug/L			04/22/15 20:04	2
Chloroethane	ND		2.0	0.64	ug/L			04/22/15 20:04	2
Chloroform	ND		2.0	0.68	ug/L			04/22/15 20:04	2
Chloromethane	ND		2.0	0.70	ug/L			04/22/15 20:04	2
cis-1,2-Dichloroethene	**9.8**		2.0	1.6	ug/L			04/22/15 20:04	2
cis-1,3-Dichloropropene	ND		2.0	0.72	ug/L			04/22/15 20:04	2
Cyclohexane	ND		2.0	0.36	ug/L			04/22/15 20:04	2
Dibromochloromethane	ND		2.0	0.64	ug/L			04/22/15 20:04	2
Dichlorodifluoromethane	ND		2.0	1.4	ug/L			04/22/15 20:04	2
Ethylbenzene	ND		2.0	1.5	ug/L			04/22/15 20:04	2
Isopropylbenzene	ND		2.0	1.6	ug/L			04/22/15 20:04	2
Methyl acetate	ND		5.0	1.0	ug/L			04/22/15 20:04	2
Methyl tert-butyl ether	ND		2.0	0.32	ug/L			04/22/15 20:04	2
Methylcyclohexane	ND		2.0	0.32	ug/L			04/22/15 20:04	2
Methylene Chloride	ND		2.0	0.88	ug/L			04/22/15 20:04	2
Styrene	ND		2.0	1.5	ug/L			04/22/15 20:04	2
Tetrachloroethene	**3000**	**E**	2.0	0.72	ug/L			04/22/15 20:04	2
Toluene	ND		2.0	1.0	ug/L			04/22/15 20:04	2
trans-1,2-Dichloroethene	ND		2.0	1.8	ug/L			04/22/15 20:04	2
trans-1,3-Dichloropropene	ND		2.0	0.74	ug/L			04/22/15 20:04	2
Trichloroethene	**130**		2.0	0.92	ug/L			04/22/15 20:04	2
Trichlorofluoromethane	ND		2.0	1.8	ug/L			04/22/15 20:04	2
Vinyl chloride	ND		2.0	1.8	ug/L			04/22/15 20:04	2
Xylenes, Total	ND		4.0	1.3	ug/L			04/22/15 20:04	2

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: SP CTRL DUP
Date Collected: 04/14/15 14:35
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-2
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*106*		*66 - 137*		*04/22/15 20:04*	*2*
4-Bromofluorobenzene (Surr)	*94*		*73 - 120*		*04/22/15 20:04*	*2*
Dibromofluoromethane (Surr)	*103*		*60 - 140*		*04/22/15 20:04*	*2*
Toluene-d8 (Surr)	*96*		*71 - 126*		*04/22/15 20:04*	*2*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		100	82	ug/L			04/23/15 20:22	100
1,1,2,2-Tetrachloroethane	ND		100	21	ug/L			04/23/15 20:22	100
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	31	ug/L			04/23/15 20:22	100
1,1,2-Trichloroethane	ND		100	23	ug/L			04/23/15 20:22	100
1,1-Dichloroethane	ND		100	38	ug/L			04/23/15 20:22	100
1,1-Dichloroethene	ND		100	29	ug/L			04/23/15 20:22	100
1,2,4-Trichlorobenzene	ND		100	41	ug/L			04/23/15 20:22	100
1,2-Dibromo-3-Chloropropane	ND		100	39	ug/L			04/23/15 20:22	100
1,2-Dibromoethane	ND		100	73	ug/L			04/23/15 20:22	100
1,2-Dichlorobenzene	ND		100	79	ug/L			04/23/15 20:22	100
1,2-Dichloroethane	ND		100	21	ug/L			04/23/15 20:22	100
1,2-Dichloropropane	ND		100	72	ug/L			04/23/15 20:22	100
1,3-Dichlorobenzene	ND		100	78	ug/L			04/23/15 20:22	100
1,4-Dichlorobenzene	ND		100	84	ug/L			04/23/15 20:22	100
2-Butanone (MEK)	ND		1000	130	ug/L			04/23/15 20:22	100
2-Hexanone	ND		500	120	ug/L			04/23/15 20:22	100
4-Methyl-2-pentanone (MIBK)	ND		500	210	ug/L			04/23/15 20:22	100
Acetone	ND		1000	300	ug/L			04/23/15 20:22	100
Benzene	ND		100	41	ug/L			04/23/15 20:22	100
Bromodichloromethane	ND		100	39	ug/L			04/23/15 20:22	100
Bromoform	ND		100	26	ug/L			04/23/15 20:22	100
Bromomethane	ND		100	69	ug/L			04/23/15 20:22	100
Carbon disulfide	ND		100	19	ug/L			04/23/15 20:22	100
Carbon tetrachloride	ND		100	27	ug/L			04/23/15 20:22	100
Chlorobenzene	ND		100	75	ug/L			04/23/15 20:22	100
Chloroethane	ND		100	32	ug/L			04/23/15 20:22	100
Chloroform	ND		100	34	ug/L			04/23/15 20:22	100
Chloromethane	ND		100	35	ug/L			04/23/15 20:22	100
cis-1,2-Dichloroethene	ND		100	81	ug/L			04/23/15 20:22	100
cis-1,3-Dichloropropene	ND		100	36	ug/L			04/23/15 20:22	100
Cyclohexane	ND		100	18	ug/L			04/23/15 20:22	100
Dibromochloromethane	ND		100	32	ug/L			04/23/15 20:22	100
Dichlorodifluoromethane	ND		100	68	ug/L			04/23/15 20:22	100
Ethylbenzene	ND		100	74	ug/L			04/23/15 20:22	100
Isopropylbenzene	ND		100	79	ug/L			04/23/15 20:22	100
Methyl acetate	ND		250	50	ug/L			04/23/15 20:22	100
Methyl tert-butyl ether	ND		100	16	ug/L			04/23/15 20:22	100
Methylcyclohexane	ND		100	16	ug/L			04/23/15 20:22	100
Methylene Chloride	ND		100	44	ug/L			04/23/15 20:22	100
Styrene	ND		100	73	ug/L			04/23/15 20:22	100
Tetrachloroethene	**9100**		100	36	ug/L			04/23/15 20:22	100
Toluene	ND		100	51	ug/L			04/23/15 20:22	100
trans-1,2-Dichloroethene	ND		100	90	ug/L			04/23/15 20:22	100

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: SP CTRL DUP
Date Collected: 04/14/15 14:35
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		100	37	ug/L			04/23/15 20:22	100
Trichloroethene	**140**		100	46	ug/L			04/23/15 20:22	100
Trichlorofluoromethane	ND		100	88	ug/L			04/23/15 20:22	100
Vinyl chloride	ND		100	90	ug/L			04/23/15 20:22	100
Xylenes, Total	ND		200	66	ug/L			04/23/15 20:22	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*66 - 137*		*04/23/15 20:22*	*100*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*04/23/15 20:22*	*100*
Dibromofluoromethane (Surr)	*106*		*60 - 140*		*04/23/15 20:22*	*100*
Toluene-d8 (Surr)	*97*		*71 - 126*		*04/23/15 20:22*	*100*

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: HP CTRL
Date Collected: 04/14/15 15:40
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	1.6	ug/L			04/22/15 20:31	2
1,1,2,2-Tetrachloroethane	ND		2.0	0.42	ug/L			04/22/15 20:31	2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.62	ug/L			04/22/15 20:31	2
1,1,2-Trichloroethane	ND		2.0	0.46	ug/L			04/22/15 20:31	2
1,1-Dichloroethane	ND		2.0	0.76	ug/L			04/22/15 20:31	2
1,1-Dichloroethene	ND		2.0	0.58	ug/L			04/22/15 20:31	2
1,2,4-Trichlorobenzene	ND		2.0	0.82	ug/L			04/22/15 20:31	2
1,2-Dibromo-3-Chloropropane	ND		2.0	0.78	ug/L			04/22/15 20:31	2
1,2-Dibromoethane	ND		2.0	1.5	ug/L			04/22/15 20:31	2
1,2-Dichlorobenzene	ND		2.0	1.6	ug/L			04/22/15 20:31	2
1,2-Dichloroethane	ND		2.0	0.42	ug/L			04/22/15 20:31	2
1,2-Dichloropropane	ND		2.0	1.4	ug/L			04/22/15 20:31	2
1,3-Dichlorobenzene	ND		2.0	1.6	ug/L			04/22/15 20:31	2
1,4-Dichlorobenzene	ND		2.0	1.7	ug/L			04/22/15 20:31	2
2-Butanone (MEK)	ND	*	20	2.6	ug/L			04/22/15 20:31	2
2-Hexanone	ND		10	2.5	ug/L			04/22/15 20:31	2
4-Methyl-2-pentanone (MIBK)	ND		10	4.2	ug/L			04/22/15 20:31	2
Acetone	ND		20	6.0	ug/L			04/22/15 20:31	2
Benzene	ND		2.0	0.82	ug/L			04/22/15 20:31	2
Bromodichloromethane	ND		2.0	0.78	ug/L			04/22/15 20:31	2
Bromoform	ND		2.0	0.52	ug/L			04/22/15 20:31	2
Bromomethane	ND		2.0	1.4	ug/L			04/22/15 20:31	2
Carbon disulfide	ND		2.0	0.38	ug/L			04/22/15 20:31	2
Carbon tetrachloride	ND		2.0	0.54	ug/L			04/22/15 20:31	2
Chlorobenzene	ND		2.0	1.5	ug/L			04/22/15 20:31	2
Chloroethane	ND		2.0	0.64	ug/L			04/22/15 20:31	2
Chloroform	ND		2.0	0.68	ug/L			04/22/15 20:31	2
Chloromethane	ND		2.0	0.70	ug/L			04/22/15 20:31	2
cis-1,2-Dichloroethene	**8.8**		2.0	1.6	ug/L			04/22/15 20:31	2
cis-1,3-Dichloropropene	ND		2.0	0.72	ug/L			04/22/15 20:31	2
Cyclohexane	ND		2.0	0.36	ug/L			04/22/15 20:31	2
Dibromochloromethane	ND		2.0	0.64	ug/L			04/22/15 20:31	2
Dichlorodifluoromethane	ND		2.0	1.4	ug/L			04/22/15 20:31	2
Ethylbenzene	ND		2.0	1.5	ug/L			04/22/15 20:31	2
Isopropylbenzene	ND		2.0	1.6	ug/L			04/22/15 20:31	2
Methyl acetate	ND		5.0	1.0	ug/L			04/22/15 20:31	2
Methyl tert-butyl ether	ND		2.0	0.32	ug/L			04/22/15 20:31	2
Methylcyclohexane	ND		2.0	0.32	ug/L			04/22/15 20:31	2
Methylene Chloride	ND		2.0	0.88	ug/L			04/22/15 20:31	2
Styrene	ND		2.0	1.5	ug/L			04/22/15 20:31	2
Tetrachloroethene	**2800**	**E**	2.0	0.72	ug/L			04/22/15 20:31	2
Toluene	ND		2.0	1.0	ug/L			04/22/15 20:31	2
trans-1,2-Dichloroethene	ND		2.0	1.8	ug/L			04/22/15 20:31	2
trans-1,3-Dichloropropene	ND		2.0	0.74	ug/L			04/22/15 20:31	2
Trichloroethene	**110**		2.0	0.92	ug/L			04/22/15 20:31	2
Trichlorofluoromethane	ND		2.0	1.8	ug/L			04/22/15 20:31	2
Vinyl chloride	ND		2.0	1.8	ug/L			04/22/15 20:31	2
Xylenes, Total	ND		4.0	1.3	ug/L			04/22/15 20:31	2

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: HP CTRL
Date Collected: 04/14/15 15:40
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-3
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*105*		*66 - 137*		*04/22/15 20:31*	*2*
4-Bromofluorobenzene (Surr)	*93*		*73 - 120*		*04/22/15 20:31*	*2*
Dibromofluoromethane (Surr)	*103*		*60 - 140*		*04/22/15 20:31*	*2*
Toluene-d8 (Surr)	*95*		*71 - 126*		*04/22/15 20:31*	*2*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		100	82	ug/L			04/23/15 20:49	100
1,1,2,2-Tetrachloroethane	ND		100	21	ug/L			04/23/15 20:49	100
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	31	ug/L			04/23/15 20:49	100
1,1,2-Trichloroethane	ND		100	23	ug/L			04/23/15 20:49	100
1,1-Dichloroethane	ND		100	38	ug/L			04/23/15 20:49	100
1,1-Dichloroethene	ND		100	29	ug/L			04/23/15 20:49	100
1,2,4-Trichlorobenzene	ND		100	41	ug/L			04/23/15 20:49	100
1,2-Dibromo-3-Chloropropane	ND		100	39	ug/L			04/23/15 20:49	100
1,2-Dibromoethane	ND		100	73	ug/L			04/23/15 20:49	100
1,2-Dichlorobenzene	ND		100	79	ug/L			04/23/15 20:49	100
1,2-Dichloroethane	ND		100	21	ug/L			04/23/15 20:49	100
1,2-Dichloropropane	ND		100	72	ug/L			04/23/15 20:49	100
1,3-Dichlorobenzene	ND		100	78	ug/L			04/23/15 20:49	100
1,4-Dichlorobenzene	ND		100	84	ug/L			04/23/15 20:49	100
2-Butanone (MEK)	ND		1000	130	ug/L			04/23/15 20:49	100
2-Hexanone	ND		500	120	ug/L			04/23/15 20:49	100
4-Methyl-2-pentanone (MIBK)	ND		500	210	ug/L			04/23/15 20:49	100
Acetone	ND		1000	300	ug/L			04/23/15 20:49	100
Benzene	ND		100	41	ug/L			04/23/15 20:49	100
Bromodichloromethane	ND		100	39	ug/L			04/23/15 20:49	100
Bromoform	ND		100	26	ug/L			04/23/15 20:49	100
Bromomethane	ND		100	69	ug/L			04/23/15 20:49	100
Carbon disulfide	ND		100	19	ug/L			04/23/15 20:49	100
Carbon tetrachloride	ND		100	27	ug/L			04/23/15 20:49	100
Chlorobenzene	ND		100	75	ug/L			04/23/15 20:49	100
Chloroethane	ND		100	32	ug/L			04/23/15 20:49	100
Chloroform	ND		100	34	ug/L			04/23/15 20:49	100
Chloromethane	ND		100	35	ug/L			04/23/15 20:49	100
cis-1,2-Dichloroethene	ND		100	81	ug/L			04/23/15 20:49	100
cis-1,3-Dichloropropene	ND		100	36	ug/L			04/23/15 20:49	100
Cyclohexane	ND		100	18	ug/L			04/23/15 20:49	100
Dibromochloromethane	ND		100	32	ug/L			04/23/15 20:49	100
Dichlorodifluoromethane	ND		100	68	ug/L			04/23/15 20:49	100
Ethylbenzene	ND		100	74	ug/L			04/23/15 20:49	100
Isopropylbenzene	ND		100	79	ug/L			04/23/15 20:49	100
Methyl acetate	ND		250	50	ug/L			04/23/15 20:49	100
Methyl tert-butyl ether	ND		100	16	ug/L			04/23/15 20:49	100
Methylcyclohexane	ND		100	16	ug/L			04/23/15 20:49	100
Methylene Chloride	ND		100	44	ug/L			04/23/15 20:49	100
Styrene	ND		100	73	ug/L			04/23/15 20:49	100
Tetrachloroethene	**7700**		100	36	ug/L			04/23/15 20:49	100
Toluene	ND		100	51	ug/L			04/23/15 20:49	100
trans-1,2-Dichloroethene	ND		100	90	ug/L			04/23/15 20:49	100

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: HP CTRL
Date Collected: 04/14/15 15:40
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		100	37	ug/L			04/23/15 20:49	100
Trichloroethene	**100**		100	46	ug/L			04/23/15 20:49	100
Trichlorofluoromethane	ND		100	88	ug/L			04/23/15 20:49	100
Vinyl chloride	ND		100	90	ug/L			04/23/15 20:49	100
Xylenes, Total	ND		200	66	ug/L			04/23/15 20:49	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*66 - 137*		*04/23/15 20:49*	*100*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*04/23/15 20:49*	*100*
Dibromofluoromethane (Surr)	*106*		*60 - 140*		*04/23/15 20:49*	*100*
Toluene-d8 (Surr)	*98*		*71 - 126*		*04/23/15 20:49*	*100*

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: HP CTRL DUP
Date Collected: 04/14/15 15:55
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	1.6	ug/L			04/22/15 20:58	2
1,1,2,2-Tetrachloroethane	ND		2.0	0.42	ug/L			04/22/15 20:58	2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.62	ug/L			04/22/15 20:58	2
1,1,2-Trichloroethane	ND		2.0	0.46	ug/L			04/22/15 20:58	2
1,1-Dichloroethane	ND		2.0	0.76	ug/L			04/22/15 20:58	2
1,1-Dichloroethene	ND		2.0	0.58	ug/L			04/22/15 20:58	2
1,2,4-Trichlorobenzene	ND		2.0	0.82	ug/L			04/22/15 20:58	2
1,2-Dibromo-3-Chloropropane	ND		2.0	0.78	ug/L			04/22/15 20:58	2
1,2-Dibromoethane	ND		2.0	1.5	ug/L			04/22/15 20:58	2
1,2-Dichlorobenzene	ND		2.0	1.6	ug/L			04/22/15 20:58	2
1,2-Dichloroethane	ND		2.0	0.42	ug/L			04/22/15 20:58	2
1,2-Dichloropropane	ND		2.0	1.4	ug/L			04/22/15 20:58	2
1,3-Dichlorobenzene	ND		2.0	1.6	ug/L			04/22/15 20:58	2
1,4-Dichlorobenzene	ND		2.0	1.7	ug/L			04/22/15 20:58	2
2-Butanone (MEK)	ND	*	20	2.6	ug/L			04/22/15 20:58	2
2-Hexanone	ND		10	2.5	ug/L			04/22/15 20:58	2
4-Methyl-2-pentanone (MIBK)	ND		10	4.2	ug/L			04/22/15 20:58	2
Acetone	ND		20	6.0	ug/L			04/22/15 20:58	2
Benzene	ND		2.0	0.82	ug/L			04/22/15 20:58	2
Bromodichloromethane	ND		2.0	0.78	ug/L			04/22/15 20:58	2
Bromoform	ND		2.0	0.52	ug/L			04/22/15 20:58	2
Bromomethane	ND		2.0	1.4	ug/L			04/22/15 20:58	2
Carbon disulfide	ND		2.0	0.38	ug/L			04/22/15 20:58	2
Carbon tetrachloride	ND		2.0	0.54	ug/L			04/22/15 20:58	2
Chlorobenzene	ND		2.0	1.5	ug/L			04/22/15 20:58	2
Chloroethane	ND		2.0	0.64	ug/L			04/22/15 20:58	2
Chloroform	ND		2.0	0.68	ug/L			04/22/15 20:58	2
Chloromethane	ND		2.0	0.70	ug/L			04/22/15 20:58	2
cis-1,2-Dichloroethene	**8.9**		2.0	1.6	ug/L			04/22/15 20:58	2
cis-1,3-Dichloropropene	ND		2.0	0.72	ug/L			04/22/15 20:58	2
Cyclohexane	ND		2.0	0.36	ug/L			04/22/15 20:58	2
Dibromochloromethane	ND		2.0	0.64	ug/L			04/22/15 20:58	2
Dichlorodifluoromethane	ND		2.0	1.4	ug/L			04/22/15 20:58	2
Ethylbenzene	ND		2.0	1.5	ug/L			04/22/15 20:58	2
Isopropylbenzene	ND		2.0	1.6	ug/L			04/22/15 20:58	2
Methyl acetate	ND		5.0	1.0	ug/L			04/22/15 20:58	2
Methyl tert-butyl ether	ND		2.0	0.32	ug/L			04/22/15 20:58	2
Methylcyclohexane	ND		2.0	0.32	ug/L			04/22/15 20:58	2
Methylene Chloride	ND		2.0	0.88	ug/L			04/22/15 20:58	2
Styrene	ND		2.0	1.5	ug/L			04/22/15 20:58	2
Tetrachloroethene	**2800**	**E**	2.0	0.72	ug/L			04/22/15 20:58	2
Toluene	ND		2.0	1.0	ug/L			04/22/15 20:58	2
trans-1,2-Dichloroethene	ND		2.0	1.8	ug/L			04/22/15 20:58	2
trans-1,3-Dichloropropene	ND		2.0	0.74	ug/L			04/22/15 20:58	2
Trichloroethene	**110**		2.0	0.92	ug/L			04/22/15 20:58	2
Trichlorofluoromethane	ND		2.0	1.8	ug/L			04/22/15 20:58	2
Vinyl chloride	ND		2.0	1.8	ug/L			04/22/15 20:58	2
Xylenes, Total	ND		4.0	1.3	ug/L			04/22/15 20:58	2

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: HP CTRL DUP
Date Collected: 04/14/15 15:55
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-4
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*106*		*66 - 137*		*04/22/15 20:58*	*2*
4-Bromofluorobenzene (Surr)	*91*		*73 - 120*		*04/22/15 20:58*	*2*
Dibromofluoromethane (Surr)	*103*		*60 - 140*		*04/22/15 20:58*	*2*
Toluene-d8 (Surr)	*95*		*71 - 126*		*04/22/15 20:58*	*2*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		100	82	ug/L			04/24/15 04:09	100
1,1,2,2-Tetrachloroethane	ND		100	21	ug/L			04/24/15 04:09	100
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	31	ug/L			04/24/15 04:09	100
1,1,2-Trichloroethane	ND		100	23	ug/L			04/24/15 04:09	100
1,1-Dichloroethane	ND		100	38	ug/L			04/24/15 04:09	100
1,1-Dichloroethene	ND		100	29	ug/L			04/24/15 04:09	100
1,2,4-Trichlorobenzene	ND		100	41	ug/L			04/24/15 04:09	100
1,2-Dibromo-3-Chloropropane	ND		100	39	ug/L			04/24/15 04:09	100
1,2-Dibromoethane	ND		100	73	ug/L			04/24/15 04:09	100
1,2-Dichlorobenzene	ND		100	79	ug/L			04/24/15 04:09	100
1,2-Dichloroethane	ND		100	21	ug/L			04/24/15 04:09	100
1,2-Dichloropropane	ND		100	72	ug/L			04/24/15 04:09	100
1,3-Dichlorobenzene	ND		100	78	ug/L			04/24/15 04:09	100
1,4-Dichlorobenzene	ND		100	84	ug/L			04/24/15 04:09	100
2-Butanone (MEK)	ND		1000	130	ug/L			04/24/15 04:09	100
2-Hexanone	ND		500	120	ug/L			04/24/15 04:09	100
4-Methyl-2-pentanone (MIBK)	ND		500	210	ug/L			04/24/15 04:09	100
Acetone	ND		1000	300	ug/L			04/24/15 04:09	100
Benzene	ND		100	41	ug/L			04/24/15 04:09	100
Bromodichloromethane	ND		100	39	ug/L			04/24/15 04:09	100
Bromoform	ND		100	26	ug/L			04/24/15 04:09	100
Bromomethane	ND		100	69	ug/L			04/24/15 04:09	100
Carbon disulfide	ND		100	19	ug/L			04/24/15 04:09	100
Carbon tetrachloride	ND		100	27	ug/L			04/24/15 04:09	100
Chlorobenzene	ND		100	75	ug/L			04/24/15 04:09	100
Chloroethane	ND		100	32	ug/L			04/24/15 04:09	100
Chloroform	ND		100	34	ug/L			04/24/15 04:09	100
Chloromethane	ND		100	35	ug/L			04/24/15 04:09	100
cis-1,2-Dichloroethene	ND		100	81	ug/L			04/24/15 04:09	100
cis-1,3-Dichloropropene	ND		100	36	ug/L			04/24/15 04:09	100
Cyclohexane	ND		100	18	ug/L			04/24/15 04:09	100
Dibromochloromethane	ND		100	32	ug/L			04/24/15 04:09	100
Dichlorodifluoromethane	ND		100	68	ug/L			04/24/15 04:09	100
Ethylbenzene	ND		100	74	ug/L			04/24/15 04:09	100
Isopropylbenzene	ND		100	79	ug/L			04/24/15 04:09	100
Methyl acetate	ND		250	50	ug/L			04/24/15 04:09	100
Methyl tert-butyl ether	ND		100	16	ug/L			04/24/15 04:09	100
Methylcyclohexane	ND		100	16	ug/L			04/24/15 04:09	100
Methylene Chloride	ND		100	44	ug/L			04/24/15 04:09	100
Styrene	ND		100	73	ug/L			04/24/15 04:09	100
Tetrachloroethene	**6700**		100	36	ug/L			04/24/15 04:09	100
Toluene	ND		100	51	ug/L			04/24/15 04:09	100
trans-1,2-Dichloroethene	ND		100	90	ug/L			04/24/15 04:09	100

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: HP CTRL DUP
Date Collected: 04/14/15 15:55
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		100	37	ug/L			04/24/15 04:09	100
Trichloroethene	**100**		100	46	ug/L			04/24/15 04:09	100
Trichlorofluoromethane	ND		100	88	ug/L			04/24/15 04:09	100
Vinyl chloride	ND		100	90	ug/L			04/24/15 04:09	100
Xylenes, Total	ND		200	66	ug/L			04/24/15 04:09	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*66 - 137*		*04/24/15 04:09*	*100*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*04/24/15 04:09*	*100*
Dibromofluoromethane (Surr)	*106*		*60 - 140*		*04/24/15 04:09*	*100*
Toluene-d8 (Surr)	*98*		*71 - 126*		*04/24/15 04:09*	*100*

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: KMN04 LOW
Date Collected: 04/14/15 14:05
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	4.1	ug/L			04/24/15 04:36	5
1,1,2,2-Tetrachloroethane	ND		5.0	1.1	ug/L			04/24/15 04:36	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.6	ug/L			04/24/15 04:36	5
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L			04/24/15 04:36	5
1,1-Dichloroethane	ND		5.0	1.9	ug/L			04/24/15 04:36	5
1,1-Dichloroethene	ND		5.0	1.5	ug/L			04/24/15 04:36	5
1,2,4-Trichlorobenzene	ND		5.0	2.1	ug/L			04/24/15 04:36	5
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/L			04/24/15 04:36	5
1,2-Dibromoethane	ND		5.0	3.7	ug/L			04/24/15 04:36	5
1,2-Dichlorobenzene	ND		5.0	4.0	ug/L			04/24/15 04:36	5
1,2-Dichloroethane	ND		5.0	1.1	ug/L			04/24/15 04:36	5
1,2-Dichloropropane	ND		5.0	3.6	ug/L			04/24/15 04:36	5
1,3-Dichlorobenzene	ND		5.0	3.9	ug/L			04/24/15 04:36	5
1,4-Dichlorobenzene	ND		5.0	4.2	ug/L			04/24/15 04:36	5
2-Butanone (MEK)	**110**		50	6.6	ug/L			04/24/15 04:36	5
2-Hexanone	ND		25	6.2	ug/L			04/24/15 04:36	5
4-Methyl-2-pentanone (MIBK)	ND		25	11	ug/L			04/24/15 04:36	5
Acetone	**820**		50	15	ug/L			04/24/15 04:36	5
Benzene	ND		5.0	2.1	ug/L			04/24/15 04:36	5
Bromodichloromethane	ND		5.0	2.0	ug/L			04/24/15 04:36	5
Bromoform	ND		5.0	1.3	ug/L			04/24/15 04:36	5
Bromomethane	ND		5.0	3.5	ug/L			04/24/15 04:36	5
Carbon disulfide	ND		5.0	0.95	ug/L			04/24/15 04:36	5
Carbon tetrachloride	ND		5.0	1.4	ug/L			04/24/15 04:36	5
Chlorobenzene	ND		5.0	3.8	ug/L			04/24/15 04:36	5
Chloroethane	ND		5.0	1.6	ug/L			04/24/15 04:36	5
Chloroform	ND		5.0	1.7	ug/L			04/24/15 04:36	5
Chloromethane	ND		5.0	1.8	ug/L			04/24/15 04:36	5
cis-1,2-Dichloroethene	ND		5.0	4.1	ug/L			04/24/15 04:36	5
cis-1,3-Dichloropropene	ND		5.0	1.8	ug/L			04/24/15 04:36	5
Cyclohexane	ND		5.0	0.90	ug/L			04/24/15 04:36	5
Dibromochloromethane	ND		5.0	1.6	ug/L			04/24/15 04:36	5
Dichlorodifluoromethane	ND		5.0	3.4	ug/L			04/24/15 04:36	5
Ethylbenzene	ND		5.0	3.7	ug/L			04/24/15 04:36	5
Isopropylbenzene	ND		5.0	4.0	ug/L			04/24/15 04:36	5
Methyl acetate	ND		13	2.5	ug/L			04/24/15 04:36	5
Methyl tert-butyl ether	ND		5.0	0.80	ug/L			04/24/15 04:36	5
Methylcyclohexane	ND		5.0	0.80	ug/L			04/24/15 04:36	5
Methylene Chloride	ND		5.0	2.2	ug/L			04/24/15 04:36	5
Styrene	ND		5.0	3.7	ug/L			04/24/15 04:36	5
Tetrachloroethene	**2.1**	**J**	5.0	1.8	ug/L			04/24/15 04:36	5
Toluene	ND		5.0	2.6	ug/L			04/24/15 04:36	5
trans-1,2-Dichloroethene	ND		5.0	4.5	ug/L			04/24/15 04:36	5
trans-1,3-Dichloropropene	ND		5.0	1.9	ug/L			04/24/15 04:36	5
Trichloroethene	ND		5.0	2.3	ug/L			04/24/15 04:36	5
Trichlorofluoromethane	ND		5.0	4.4	ug/L			04/24/15 04:36	5
Vinyl chloride	ND		5.0	4.5	ug/L			04/24/15 04:36	5
Xylenes, Total	ND		10	3.3	ug/L			04/24/15 04:36	5

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: KMN04 LOW
Date Collected: 04/14/15 14:05
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-5
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		66 - 137		04/24/15 04:36	5
4-Bromofluorobenzene (Surr)	94		73 - 120		04/24/15 04:36	5
Dibromofluoromethane (Surr)	107		60 - 140		04/24/15 04:36	5
Toluene-d8 (Surr)	97		71 - 126		04/24/15 04:36	5

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: KMN04 MID
Date Collected: 04/14/15 14:08
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	8.2	ug/L			04/24/15 05:04	10
1,1,2,2-Tetrachloroethane	ND		10	2.1	ug/L			04/24/15 05:04	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	3.1	ug/L			04/24/15 05:04	10
1,1,2-Trichloroethane	ND		10	2.3	ug/L			04/24/15 05:04	10
1,1-Dichloroethane	ND		10	3.8	ug/L			04/24/15 05:04	10
1,1-Dichloroethene	ND		10	2.9	ug/L			04/24/15 05:04	10
1,2,4-Trichlorobenzene	ND		10	4.1	ug/L			04/24/15 05:04	10
1,2-Dibromo-3-Chloropropane	ND		10	3.9	ug/L			04/24/15 05:04	10
1,2-Dibromoethane	ND		10	7.3	ug/L			04/24/15 05:04	10
1,2-Dichlorobenzene	ND		10	7.9	ug/L			04/24/15 05:04	10
1,2-Dichloroethane	ND		10	2.1	ug/L			04/24/15 05:04	10
1,2-Dichloropropane	ND		10	7.2	ug/L			04/24/15 05:04	10
1,3-Dichlorobenzene	ND		10	7.8	ug/L			04/24/15 05:04	10
1,4-Dichlorobenzene	ND		10	8.4	ug/L			04/24/15 05:04	10
2-Butanone (MEK)	**75**	**J**	100	13	ug/L			04/24/15 05:04	10
2-Hexanone	ND		50	12	ug/L			04/24/15 05:04	10
4-Methyl-2-pentanone (MIBK)	ND		50	21	ug/L			04/24/15 05:04	10
Acetone	**2300**		100	30	ug/L			04/24/15 05:04	10
Benzene	ND		10	4.1	ug/L			04/24/15 05:04	10
Bromodichloromethane	ND		10	3.9	ug/L			04/24/15 05:04	10
Bromoform	ND		10	2.6	ug/L			04/24/15 05:04	10
Bromomethane	ND		10	6.9	ug/L			04/24/15 05:04	10
Carbon disulfide	ND		10	1.9	ug/L			04/24/15 05:04	10
Carbon tetrachloride	ND		10	2.7	ug/L			04/24/15 05:04	10
Chlorobenzene	ND		10	7.5	ug/L			04/24/15 05:04	10
Chloroethane	ND		10	3.2	ug/L			04/24/15 05:04	10
Chloroform	ND		10	3.4	ug/L			04/24/15 05:04	10
Chloromethane	ND		10	3.5	ug/L			04/24/15 05:04	10
cis-1,2-Dichloroethene	ND		10	8.1	ug/L			04/24/15 05:04	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			04/24/15 05:04	10
Cyclohexane	ND		10	1.8	ug/L			04/24/15 05:04	10
Dibromochloromethane	ND		10	3.2	ug/L			04/24/15 05:04	10
Dichlorodifluoromethane	ND		10	6.8	ug/L			04/24/15 05:04	10
Ethylbenzene	ND		10	7.4	ug/L			04/24/15 05:04	10
Isopropylbenzene	ND		10	7.9	ug/L			04/24/15 05:04	10
Methyl acetate	ND		25	5.0	ug/L			04/24/15 05:04	10
Methyl tert-butyl ether	ND		10	1.6	ug/L			04/24/15 05:04	10
Methylcyclohexane	ND		10	1.6	ug/L			04/24/15 05:04	10
Methylene Chloride	ND		10	4.4	ug/L			04/24/15 05:04	10
Styrene	ND		10	7.3	ug/L			04/24/15 05:04	10
Tetrachloroethene	ND		10	3.6	ug/L			04/24/15 05:04	10
Toluene	ND		10	5.1	ug/L			04/24/15 05:04	10
trans-1,2-Dichloroethene	ND		10	9.0	ug/L			04/24/15 05:04	10
trans-1,3-Dichloropropene	ND		10	3.7	ug/L			04/24/15 05:04	10
Trichloroethene	ND		10	4.6	ug/L			04/24/15 05:04	10
Trichlorofluoromethane	ND		10	8.8	ug/L			04/24/15 05:04	10
Vinyl chloride	ND		10	9.0	ug/L			04/24/15 05:04	10
Xylenes, Total	ND		20	6.6	ug/L			04/24/15 05:04	10

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: KMN04 MID
Date Collected: 04/14/15 14:08
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-6
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		66 - 137		04/24/15 05:04	10
4-Bromofluorobenzene (Surr)	93		73 - 120		04/24/15 05:04	10
Dibromofluoromethane (Surr)	105		60 - 140		04/24/15 05:04	10
Toluene-d8 (Surr)	96		71 - 126		04/24/15 05:04	10

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: KMN04 HIGH
Date Collected: 04/14/15 14:15
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	8.2	ug/L			04/24/15 05:31	10
1,1,2,2-Tetrachloroethane	ND		10	2.1	ug/L			04/24/15 05:31	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	3.1	ug/L			04/24/15 05:31	10
1,1,2-Trichloroethane	ND		10	2.3	ug/L			04/24/15 05:31	10
1,1-Dichloroethane	ND		10	3.8	ug/L			04/24/15 05:31	10
1,1-Dichloroethene	ND		10	2.9	ug/L			04/24/15 05:31	10
1,2,4-Trichlorobenzene	ND		10	4.1	ug/L			04/24/15 05:31	10
1,2-Dibromo-3-Chloropropane	ND		10	3.9	ug/L			04/24/15 05:31	10
1,2-Dibromoethane	ND		10	7.3	ug/L			04/24/15 05:31	10
1,2-Dichlorobenzene	ND		10	7.9	ug/L			04/24/15 05:31	10
1,2-Dichloroethane	ND		10	2.1	ug/L			04/24/15 05:31	10
1,2-Dichloropropane	ND		10	7.2	ug/L			04/24/15 05:31	10
1,3-Dichlorobenzene	ND		10	7.8	ug/L			04/24/15 05:31	10
1,4-Dichlorobenzene	ND		10	8.4	ug/L			04/24/15 05:31	10
2-Butanone (MEK)	**33**	**J**	100	13	ug/L			04/24/15 05:31	10
2-Hexanone	ND		50	12	ug/L			04/24/15 05:31	10
4-Methyl-2-pentanone (MIBK)	ND		50	21	ug/L			04/24/15 05:31	10
Acetone	**3700**		100	30	ug/L			04/24/15 05:31	10
Benzene	ND		10	4.1	ug/L			04/24/15 05:31	10
Bromodichloromethane	ND		10	3.9	ug/L			04/24/15 05:31	10
Bromoform	ND		10	2.6	ug/L			04/24/15 05:31	10
Bromomethane	ND		10	6.9	ug/L			04/24/15 05:31	10
Carbon disulfide	ND		10	1.9	ug/L			04/24/15 05:31	10
Carbon tetrachloride	ND		10	2.7	ug/L			04/24/15 05:31	10
Chlorobenzene	ND		10	7.5	ug/L			04/24/15 05:31	10
Chloroethane	ND		10	3.2	ug/L			04/24/15 05:31	10
Chloroform	ND		10	3.4	ug/L			04/24/15 05:31	10
Chloromethane	ND		10	3.5	ug/L			04/24/15 05:31	10
cis-1,2-Dichloroethene	ND		10	8.1	ug/L			04/24/15 05:31	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			04/24/15 05:31	10
Cyclohexane	ND		10	1.8	ug/L			04/24/15 05:31	10
Dibromochloromethane	ND		10	3.2	ug/L			04/24/15 05:31	10
Dichlorodifluoromethane	ND		10	6.8	ug/L			04/24/15 05:31	10
Ethylbenzene	ND		10	7.4	ug/L			04/24/15 05:31	10
Isopropylbenzene	ND		10	7.9	ug/L			04/24/15 05:31	10
Methyl acetate	ND		25	5.0	ug/L			04/24/15 05:31	10
Methyl tert-butyl ether	ND		10	1.6	ug/L			04/24/15 05:31	10
Methylcyclohexane	ND		10	1.6	ug/L			04/24/15 05:31	10
Methylene Chloride	ND		10	4.4	ug/L			04/24/15 05:31	10
Styrene	ND		10	7.3	ug/L			04/24/15 05:31	10
Tetrachloroethene	ND		10	3.6	ug/L			04/24/15 05:31	10
Toluene	ND		10	5.1	ug/L			04/24/15 05:31	10
trans-1,2-Dichloroethene	ND		10	9.0	ug/L			04/24/15 05:31	10
trans-1,3-Dichloropropene	ND		10	3.7	ug/L			04/24/15 05:31	10
Trichloroethene	ND		10	4.6	ug/L			04/24/15 05:31	10
Trichlorofluoromethane	ND		10	8.8	ug/L			04/24/15 05:31	10
Vinyl chloride	ND		10	9.0	ug/L			04/24/15 05:31	10
Xylenes, Total	ND		20	6.6	ug/L			04/24/15 05:31	10

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: KMN04 HIGH
Date Collected: 04/14/15 14:15
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-7
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		66 - 137		04/24/15 05:31	10
4-Bromofluorobenzene (Surr)	93		73 - 120		04/24/15 05:31	10
Dibromofluoromethane (Surr)	105		60 - 140		04/24/15 05:31	10
Toluene-d8 (Surr)	96		71 - 126		04/24/15 05:31	10

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: HP LOW
Date Collected: 04/14/15 16:45
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	8.2	ug/L			04/22/15 22:48	10
1,1,2,2-Tetrachloroethane	ND		10	2.1	ug/L			04/22/15 22:48	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	3.1	ug/L			04/22/15 22:48	10
1,1,2-Trichloroethane	ND		10	2.3	ug/L			04/22/15 22:48	10
1,1-Dichloroethane	ND		10	3.8	ug/L			04/22/15 22:48	10
1,1-Dichloroethene	ND		10	2.9	ug/L			04/22/15 22:48	10
1,2,4-Trichlorobenzene	ND		10	4.1	ug/L			04/22/15 22:48	10
1,2-Dibromo-3-Chloropropane	ND		10	3.9	ug/L			04/22/15 22:48	10
1,2-Dibromoethane	ND		10	7.3	ug/L			04/22/15 22:48	10
1,2-Dichlorobenzene	ND		10	7.9	ug/L			04/22/15 22:48	10
1,2-Dichloroethane	ND		10	2.1	ug/L			04/22/15 22:48	10
1,2-Dichloropropane	ND		10	7.2	ug/L			04/22/15 22:48	10
1,3-Dichlorobenzene	ND		10	7.8	ug/L			04/22/15 22:48	10
1,4-Dichlorobenzene	ND		10	8.4	ug/L			04/22/15 22:48	10
2-Butanone (MEK)	**60**	**J ^ ***	100	13	ug/L			04/22/15 22:48	10
2-Hexanone	ND		50	12	ug/L			04/22/15 22:48	10
4-Methyl-2-pentanone (MIBK)	ND		50	21	ug/L			04/22/15 22:48	10
Acetone	**75000**	**E ^**	100	30	ug/L			04/22/15 22:48	10
Benzene	ND		10	4.1	ug/L			04/22/15 22:48	10
Bromodichloromethane	ND		10	3.9	ug/L			04/22/15 22:48	10
Bromoform	ND		10	2.6	ug/L			04/22/15 22:48	10
Bromomethane	ND		10	6.9	ug/L			04/22/15 22:48	10
Carbon disulfide	**3.7**	**J**	10	1.9	ug/L			04/22/15 22:48	10
Carbon tetrachloride	ND		10	2.7	ug/L			04/22/15 22:48	10
Chlorobenzene	ND		10	7.5	ug/L			04/22/15 22:48	10
Chloroethane	ND		10	3.2	ug/L			04/22/15 22:48	10
Chloroform	ND		10	3.4	ug/L			04/22/15 22:48	10
Chloromethane	ND		10	3.5	ug/L			04/22/15 22:48	10
cis-1,2-Dichloroethene	ND		10	8.1	ug/L			04/22/15 22:48	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			04/22/15 22:48	10
Cyclohexane	ND		10	1.8	ug/L			04/22/15 22:48	10
Dibromochloromethane	ND		10	3.2	ug/L			04/22/15 22:48	10
Dichlorodifluoromethane	ND		10	6.8	ug/L			04/22/15 22:48	10
Ethylbenzene	ND		10	7.4	ug/L			04/22/15 22:48	10
Isopropylbenzene	ND		10	7.9	ug/L			04/22/15 22:48	10
Methyl acetate	ND		25	5.0	ug/L			04/22/15 22:48	10
Methyl tert-butyl ether	ND		10	1.6	ug/L			04/22/15 22:48	10
Methylcyclohexane	ND		10	1.6	ug/L			04/22/15 22:48	10
Methylene Chloride	ND		10	4.4	ug/L			04/22/15 22:48	10
Styrene	ND		10	7.3	ug/L			04/22/15 22:48	10
Tetrachloroethene	**110**		10	3.6	ug/L			04/22/15 22:48	10
Toluene	ND		10	5.1	ug/L			04/22/15 22:48	10
trans-1,2-Dichloroethene	ND		10	9.0	ug/L			04/22/15 22:48	10
trans-1,3-Dichloropropene	ND		10	3.7	ug/L			04/22/15 22:48	10
Trichloroethene	ND		10	4.6	ug/L			04/22/15 22:48	10
Trichlorofluoromethane	ND		10	8.8	ug/L			04/22/15 22:48	10
Vinyl chloride	ND		10	9.0	ug/L			04/22/15 22:48	10
Xylenes, Total	ND		20	6.6	ug/L			04/22/15 22:48	10

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: HP LOW
Date Collected: 04/14/15 16:45
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-8
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*103*		*66 - 137*		*04/22/15 22:48*	*10*
4-Bromofluorobenzene (Surr)	*94*		*73 - 120*		*04/22/15 22:48*	*10*
Dibromofluoromethane (Surr)	*102*		*60 - 140*		*04/22/15 22:48*	*10*
Toluene-d8 (Surr)	*98*		*71 - 126*		*04/22/15 22:48*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2000	1600	ug/L			04/25/15 14:46	2000
1,1,2,2-Tetrachloroethane	ND		2000	420	ug/L			04/25/15 14:46	2000
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2000	620	ug/L			04/25/15 14:46	2000
1,1,2-Trichloroethane	ND		2000	460	ug/L			04/25/15 14:46	2000
1,1-Dichloroethane	ND		2000	760	ug/L			04/25/15 14:46	2000
1,1-Dichloroethene	ND		2000	580	ug/L			04/25/15 14:46	2000
1,2,4-Trichlorobenzene	ND		2000	820	ug/L			04/25/15 14:46	2000
1,2-Dibromo-3-Chloropropane	ND		2000	780	ug/L			04/25/15 14:46	2000
1,2-Dibromoethane	ND		2000	1500	ug/L			04/25/15 14:46	2000
1,2-Dichlorobenzene	ND		2000	1600	ug/L			04/25/15 14:46	2000
1,2-Dichloroethane	ND		2000	420	ug/L			04/25/15 14:46	2000
1,2-Dichloropropane	ND		2000	1400	ug/L			04/25/15 14:46	2000
1,3-Dichlorobenzene	ND		2000	1600	ug/L			04/25/15 14:46	2000
1,4-Dichlorobenzene	ND		2000	1700	ug/L			04/25/15 14:46	2000
2-Butanone (MEK)	ND		20000	2600	ug/L			04/25/15 14:46	2000
2-Hexanone	ND		10000	2500	ug/L			04/25/15 14:46	2000
4-Methyl-2-pentanone (MIBK)	ND		10000	4200	ug/L			04/25/15 14:46	2000
Acetone	**450000**		20000	6000	ug/L			04/25/15 14:46	2000
Benzene	ND		2000	820	ug/L			04/25/15 14:46	2000
Bromodichloromethane	ND		2000	780	ug/L			04/25/15 14:46	2000
Bromoform	ND		2000	520	ug/L			04/25/15 14:46	2000
Bromomethane	ND		2000	1400	ug/L			04/25/15 14:46	2000
Carbon disulfide	ND		2000	380	ug/L			04/25/15 14:46	2000
Carbon tetrachloride	ND		2000	540	ug/L			04/25/15 14:46	2000
Chlorobenzene	ND		2000	1500	ug/L			04/25/15 14:46	2000
Chloroethane	ND		2000	640	ug/L			04/25/15 14:46	2000
Chloroform	ND		2000	680	ug/L			04/25/15 14:46	2000
Chloromethane	ND		2000	700	ug/L			04/25/15 14:46	2000
cis-1,2-Dichloroethene	ND		2000	1600	ug/L			04/25/15 14:46	2000
cis-1,3-Dichloropropene	ND		2000	720	ug/L			04/25/15 14:46	2000
Cyclohexane	ND		2000	360	ug/L			04/25/15 14:46	2000
Dibromochloromethane	ND		2000	640	ug/L			04/25/15 14:46	2000
Dichlorodifluoromethane	ND		2000	1400	ug/L			04/25/15 14:46	2000
Ethylbenzene	ND		2000	1500	ug/L			04/25/15 14:46	2000
Isopropylbenzene	ND		2000	1600	ug/L			04/25/15 14:46	2000
Methyl acetate	ND		5000	1000	ug/L			04/25/15 14:46	2000
Methyl tert-butyl ether	ND		2000	320	ug/L			04/25/15 14:46	2000
Methylcyclohexane	ND		2000	320	ug/L			04/25/15 14:46	2000
Methylene Chloride	ND		2000	880	ug/L			04/25/15 14:46	2000
Styrene	ND		2000	1500	ug/L			04/25/15 14:46	2000
Tetrachloroethene	ND		2000	720	ug/L			04/25/15 14:46	2000
Toluene	ND		2000	1000	ug/L			04/25/15 14:46	2000
trans-1,2-Dichloroethene	ND		2000	1800	ug/L			04/25/15 14:46	2000

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: HP LOW
Date Collected: 04/14/15 16:45
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		2000	740	ug/L			04/25/15 14:46	2000
Trichloroethene	ND		2000	920	ug/L			04/25/15 14:46	2000
Trichlorofluoromethane	ND		2000	1800	ug/L			04/25/15 14:46	2000
Vinyl chloride	ND		2000	1800	ug/L			04/25/15 14:46	2000
Xylenes, Total	ND		4000	1300	ug/L			04/25/15 14:46	2000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*66 - 137*		*04/25/15 14:46*	*2000*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*04/25/15 14:46*	*2000*
Dibromofluoromethane (Surr)	*101*		*60 - 140*		*04/25/15 14:46*	*2000*
Toluene-d8 (Surr)	*95*		*71 - 126*		*04/25/15 14:46*	*2000*

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: HP HIGH
Date Collected: 04/14/15 16:55
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		500	410	ug/L			04/24/15 06:26	500
1,1,2,2-Tetrachloroethane	ND		500	110	ug/L			04/24/15 06:26	500
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		500	160	ug/L			04/24/15 06:26	500
1,1,2-Trichloroethane	ND		500	120	ug/L			04/24/15 06:26	500
1,1-Dichloroethane	ND		500	190	ug/L			04/24/15 06:26	500
1,1-Dichloroethene	ND		500	150	ug/L			04/24/15 06:26	500
1,2,4-Trichlorobenzene	ND		500	210	ug/L			04/24/15 06:26	500
1,2-Dibromo-3-Chloropropane	ND		500	200	ug/L			04/24/15 06:26	500
1,2-Dibromoethane	ND		500	370	ug/L			04/24/15 06:26	500
1,2-Dichlorobenzene	ND		500	400	ug/L			04/24/15 06:26	500
1,2-Dichloroethane	ND		500	110	ug/L			04/24/15 06:26	500
1,2-Dichloropropane	ND		500	360	ug/L			04/24/15 06:26	500
1,3-Dichlorobenzene	ND		500	390	ug/L			04/24/15 06:26	500
1,4-Dichlorobenzene	ND		500	420	ug/L			04/24/15 06:26	500
2-Butanone (MEK)	ND		5000	660	ug/L			04/24/15 06:26	500
2-Hexanone	ND		2500	620	ug/L			04/24/15 06:26	500
4-Methyl-2-pentanone (MIBK)	ND		2500	1100	ug/L			04/24/15 06:26	500
Acetone	**540000**	**E**	5000	1500	ug/L			04/24/15 06:26	500
Benzene	ND		500	210	ug/L			04/24/15 06:26	500
Bromodichloromethane	ND		500	200	ug/L			04/24/15 06:26	500
Bromoform	ND		500	130	ug/L			04/24/15 06:26	500
Bromomethane	ND		500	350	ug/L			04/24/15 06:26	500
Carbon disulfide	ND		500	95	ug/L			04/24/15 06:26	500
Carbon tetrachloride	ND		500	140	ug/L			04/24/15 06:26	500
Chlorobenzene	ND		500	380	ug/L			04/24/15 06:26	500
Chloroethane	ND		500	160	ug/L			04/24/15 06:26	500
Chloroform	ND		500	170	ug/L			04/24/15 06:26	500
Chloromethane	ND		500	180	ug/L			04/24/15 06:26	500
cis-1,2-Dichloroethene	ND		500	410	ug/L			04/24/15 06:26	500
cis-1,3-Dichloropropene	ND		500	180	ug/L			04/24/15 06:26	500
Cyclohexane	ND		500	90	ug/L			04/24/15 06:26	500
Dibromochloromethane	ND		500	160	ug/L			04/24/15 06:26	500
Dichlorodifluoromethane	ND		500	340	ug/L			04/24/15 06:26	500
Ethylbenzene	ND		500	370	ug/L			04/24/15 06:26	500
Isopropylbenzene	ND		500	400	ug/L			04/24/15 06:26	500
Methyl acetate	ND		1300	250	ug/L			04/24/15 06:26	500
Methyl tert-butyl ether	ND		500	80	ug/L			04/24/15 06:26	500
Methylcyclohexane	ND		500	80	ug/L			04/24/15 06:26	500
Methylene Chloride	ND		500	220	ug/L			04/24/15 06:26	500
Styrene	ND		500	370	ug/L			04/24/15 06:26	500
Tetrachloroethene	ND		500	180	ug/L			04/24/15 06:26	500
Toluene	ND		500	260	ug/L			04/24/15 06:26	500
trans-1,2-Dichloroethene	ND		500	450	ug/L			04/24/15 06:26	500
trans-1,3-Dichloropropene	ND		500	190	ug/L			04/24/15 06:26	500
Trichloroethene	ND		500	230	ug/L			04/24/15 06:26	500
Trichlorofluoromethane	ND		500	440	ug/L			04/24/15 06:26	500
Vinyl chloride	ND		500	450	ug/L			04/24/15 06:26	500
Xylenes, Total	ND		1000	330	ug/L			04/24/15 06:26	500

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: HP HIGH
Date Collected: 04/14/15 16:55
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-9
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*66 - 137*		*04/24/15 06:26*	*500*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*04/24/15 06:26*	*500*
Dibromofluoromethane (Surr)	*106*		*60 - 140*		*04/24/15 06:26*	*500*
Toluene-d8 (Surr)	*98*		*71 - 126*		*04/24/15 06:26*	*500*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2000	1600	ug/L			04/25/15 15:09	2000
1,1,2,2-Tetrachloroethane	ND		2000	420	ug/L			04/25/15 15:09	2000
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2000	620	ug/L			04/25/15 15:09	2000
1,1,2-Trichloroethane	ND		2000	460	ug/L			04/25/15 15:09	2000
1,1-Dichloroethane	ND		2000	760	ug/L			04/25/15 15:09	2000
1,1-Dichloroethene	ND		2000	580	ug/L			04/25/15 15:09	2000
1,2,4-Trichlorobenzene	ND		2000	820	ug/L			04/25/15 15:09	2000
1,2-Dibromo-3-Chloropropane	ND		2000	780	ug/L			04/25/15 15:09	2000
1,2-Dibromoethane	ND		2000	1500	ug/L			04/25/15 15:09	2000
1,2-Dichlorobenzene	ND		2000	1600	ug/L			04/25/15 15:09	2000
1,2-Dichloroethane	ND		2000	420	ug/L			04/25/15 15:09	2000
1,2-Dichloropropane	ND		2000	1400	ug/L			04/25/15 15:09	2000
1,3-Dichlorobenzene	ND		2000	1600	ug/L			04/25/15 15:09	2000
1,4-Dichlorobenzene	ND		2000	1700	ug/L			04/25/15 15:09	2000
2-Butanone (MEK)	ND		20000	2600	ug/L			04/25/15 15:09	2000
2-Hexanone	ND		10000	2500	ug/L			04/25/15 15:09	2000
4-Methyl-2-pentanone (MIBK)	ND		10000	4200	ug/L			04/25/15 15:09	2000
Acetone	**440000**		20000	6000	ug/L			04/25/15 15:09	2000
Benzene	ND		2000	820	ug/L			04/25/15 15:09	2000
Bromodichloromethane	ND		2000	780	ug/L			04/25/15 15:09	2000
Bromoform	ND		2000	520	ug/L			04/25/15 15:09	2000
Bromomethane	ND		2000	1400	ug/L			04/25/15 15:09	2000
Carbon disulfide	ND		2000	380	ug/L			04/25/15 15:09	2000
Carbon tetrachloride	ND		2000	540	ug/L			04/25/15 15:09	2000
Chlorobenzene	ND		2000	1500	ug/L			04/25/15 15:09	2000
Chloroethane	ND		2000	640	ug/L			04/25/15 15:09	2000
Chloroform	ND		2000	680	ug/L			04/25/15 15:09	2000
Chloromethane	ND		2000	700	ug/L			04/25/15 15:09	2000
cis-1,2-Dichloroethene	ND		2000	1600	ug/L			04/25/15 15:09	2000
cis-1,3-Dichloropropene	ND		2000	720	ug/L			04/25/15 15:09	2000
Cyclohexane	ND		2000	360	ug/L			04/25/15 15:09	2000
Dibromochloromethane	ND		2000	640	ug/L			04/25/15 15:09	2000
Dichlorodifluoromethane	ND		2000	1400	ug/L			04/25/15 15:09	2000
Ethylbenzene	ND		2000	1500	ug/L			04/25/15 15:09	2000
Isopropylbenzene	ND		2000	1600	ug/L			04/25/15 15:09	2000
Methyl acetate	ND		5000	1000	ug/L			04/25/15 15:09	2000
Methyl tert-butyl ether	ND		2000	320	ug/L			04/25/15 15:09	2000
Methylcyclohexane	ND		2000	320	ug/L			04/25/15 15:09	2000
Methylene Chloride	ND		2000	880	ug/L			04/25/15 15:09	2000
Styrene	ND		2000	1500	ug/L			04/25/15 15:09	2000
Tetrachloroethene	ND		2000	720	ug/L			04/25/15 15:09	2000
Toluene	ND		2000	1000	ug/L			04/25/15 15:09	2000
trans-1,2-Dichloroethene	ND		2000	1800	ug/L			04/25/15 15:09	2000

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: HP HIGH
Date Collected: 04/14/15 16:55
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		2000	740	ug/L			04/25/15 15:09	2000
Trichloroethene	ND		2000	920	ug/L			04/25/15 15:09	2000
Trichlorofluoromethane	ND		2000	1800	ug/L			04/25/15 15:09	2000
Vinyl chloride	ND		2000	1800	ug/L			04/25/15 15:09	2000
Xylenes, Total	ND		4000	1300	ug/L			04/25/15 15:09	2000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*66 - 137*		*04/25/15 15:09*	*2000*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*04/25/15 15:09*	*2000*
Dibromofluoromethane (Surr)	*103*		*60 - 140*		*04/25/15 15:09*	*2000*
Toluene-d8 (Surr)	*97*		*71 - 126*		*04/25/15 15:09*	*2000*

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: SP FECA LOW
Date Collected: 04/14/15 15:00
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	8.2	ug/L			04/24/15 06:54	10
1,1,2,2-Tetrachloroethane	ND		10	2.1	ug/L			04/24/15 06:54	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	3.1	ug/L			04/24/15 06:54	10
1,1,2-Trichloroethane	ND		10	2.3	ug/L			04/24/15 06:54	10
1,1-Dichloroethane	ND		10	3.8	ug/L			04/24/15 06:54	10
1,1-Dichloroethene	ND		10	2.9	ug/L			04/24/15 06:54	10
1,2,4-Trichlorobenzene	ND		10	4.1	ug/L			04/24/15 06:54	10
1,2-Dibromo-3-Chloropropane	ND		10	3.9	ug/L			04/24/15 06:54	10
1,2-Dibromoethane	ND		10	7.3	ug/L			04/24/15 06:54	10
1,2-Dichlorobenzene	ND		10	7.9	ug/L			04/24/15 06:54	10
1,2-Dichloroethane	**5.6**	**J**	10	2.1	ug/L			04/24/15 06:54	10
1,2-Dichloropropane	ND		10	7.2	ug/L			04/24/15 06:54	10
1,3-Dichlorobenzene	ND		10	7.8	ug/L			04/24/15 06:54	10
1,4-Dichlorobenzene	ND		10	8.4	ug/L			04/24/15 06:54	10
2-Butanone (MEK)	ND		100	13	ug/L			04/24/15 06:54	10
2-Hexanone	ND		50	12	ug/L			04/24/15 06:54	10
4-Methyl-2-pentanone (MIBK)	ND		50	21	ug/L			04/24/15 06:54	10
Acetone	**470**		100	30	ug/L			04/24/15 06:54	10
Benzene	ND		10	4.1	ug/L			04/24/15 06:54	10
Bromodichloromethane	ND		10	3.9	ug/L			04/24/15 06:54	10
Bromoform	ND		10	2.6	ug/L			04/24/15 06:54	10
Bromomethane	**10**		10	6.9	ug/L			04/24/15 06:54	10
Carbon disulfide	ND		10	1.9	ug/L			04/24/15 06:54	10
Carbon tetrachloride	ND		10	2.7	ug/L			04/24/15 06:54	10
Chlorobenzene	ND		10	7.5	ug/L			04/24/15 06:54	10
Chloroethane	ND		10	3.2	ug/L			04/24/15 06:54	10
Chloroform	**16**		10	3.4	ug/L			04/24/15 06:54	10
Chloromethane	**380**		10	3.5	ug/L			04/24/15 06:54	10
cis-1,2-Dichloroethene	ND		10	8.1	ug/L			04/24/15 06:54	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			04/24/15 06:54	10
Cyclohexane	ND		10	1.8	ug/L			04/24/15 06:54	10
Dibromochloromethane	ND		10	3.2	ug/L			04/24/15 06:54	10
Dichlorodifluoromethane	ND		10	6.8	ug/L			04/24/15 06:54	10
Ethylbenzene	ND		10	7.4	ug/L			04/24/15 06:54	10
Isopropylbenzene	ND		10	7.9	ug/L			04/24/15 06:54	10
Methyl acetate	ND		25	5.0	ug/L			04/24/15 06:54	10
Methyl tert-butyl ether	ND		10	1.6	ug/L			04/24/15 06:54	10
Methylcyclohexane	ND		10	1.6	ug/L			04/24/15 06:54	10
Methylene Chloride	**130**		10	4.4	ug/L			04/24/15 06:54	10
Styrene	ND		10	7.3	ug/L			04/24/15 06:54	10
Tetrachloroethene	ND		10	3.6	ug/L			04/24/15 06:54	10
Toluene	ND		10	5.1	ug/L			04/24/15 06:54	10
trans-1,2-Dichloroethene	ND		10	9.0	ug/L			04/24/15 06:54	10
trans-1,3-Dichloropropene	ND		10	3.7	ug/L			04/24/15 06:54	10
Trichloroethene	ND		10	4.6	ug/L			04/24/15 06:54	10
Trichlorofluoromethane	ND		10	8.8	ug/L			04/24/15 06:54	10
Vinyl chloride	ND		10	9.0	ug/L			04/24/15 06:54	10
Xylenes, Total	ND		20	6.6	ug/L			04/24/15 06:54	10

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: SP FECA LOW
Date Collected: 04/14/15 15:00
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-10
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		66 - 137		04/24/15 06:54	10
4-Bromofluorobenzene (Surr)	95		73 - 120		04/24/15 06:54	10
Dibromofluoromethane (Surr)	106		60 - 140		04/24/15 06:54	10
Toluene-d8 (Surr)	99		71 - 126		04/24/15 06:54	10

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: SP FEC MID
Date Collected: 04/14/15 15:05
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-11
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	8.2	ug/L			04/24/15 07:21	10
1,1,2,2-Tetrachloroethane	ND		10	2.1	ug/L			04/24/15 07:21	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	3.1	ug/L			04/24/15 07:21	10
1,1,2-Trichloroethane	**5.7**	**J**	10	2.3	ug/L			04/24/15 07:21	10
1,1-Dichloroethane	ND		10	3.8	ug/L			04/24/15 07:21	10
1,1-Dichloroethene	ND		10	2.9	ug/L			04/24/15 07:21	10
1,2,4-Trichlorobenzene	ND		10	4.1	ug/L			04/24/15 07:21	10
1,2-Dibromo-3-Chloropropane	ND		10	3.9	ug/L			04/24/15 07:21	10
1,2-Dibromoethane	ND		10	7.3	ug/L			04/24/15 07:21	10
1,2-Dichlorobenzene	ND		10	7.9	ug/L			04/24/15 07:21	10
1,2-Dichloroethane	**13**		10	2.1	ug/L			04/24/15 07:21	10
1,2-Dichloropropane	ND		10	7.2	ug/L			04/24/15 07:21	10
1,3-Dichlorobenzene	ND		10	7.8	ug/L			04/24/15 07:21	10
1,4-Dichlorobenzene	ND		10	8.4	ug/L			04/24/15 07:21	10
2-Butanone (MEK)	ND		100	13	ug/L			04/24/15 07:21	10
2-Hexanone	ND		50	12	ug/L			04/24/15 07:21	10
4-Methyl-2-pentanone (MIBK)	ND		50	21	ug/L			04/24/15 07:21	10
Acetone	**430**		100	30	ug/L			04/24/15 07:21	10
Benzene	ND		10	4.1	ug/L			04/24/15 07:21	10
Bromodichloromethane	ND		10	3.9	ug/L			04/24/15 07:21	10
Bromoform	ND		10	2.6	ug/L			04/24/15 07:21	10
Bromomethane	**8.9**	**J**	10	6.9	ug/L			04/24/15 07:21	10
Carbon disulfide	ND		10	1.9	ug/L			04/24/15 07:21	10
Carbon tetrachloride	ND		10	2.7	ug/L			04/24/15 07:21	10
Chlorobenzene	ND		10	7.5	ug/L			04/24/15 07:21	10
Chloroethane	ND		10	3.2	ug/L			04/24/15 07:21	10
Chloroform	**24**		10	3.4	ug/L			04/24/15 07:21	10
Chloromethane	**680**		10	3.5	ug/L			04/24/15 07:21	10
cis-1,2-Dichloroethene	ND		10	8.1	ug/L			04/24/15 07:21	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			04/24/15 07:21	10
Cyclohexane	ND		10	1.8	ug/L			04/24/15 07:21	10
Dibromochloromethane	ND		10	3.2	ug/L			04/24/15 07:21	10
Dichlorodifluoromethane	ND		10	6.8	ug/L			04/24/15 07:21	10
Ethylbenzene	ND		10	7.4	ug/L			04/24/15 07:21	10
Isopropylbenzene	ND		10	7.9	ug/L			04/24/15 07:21	10
Methyl acetate	ND		25	5.0	ug/L			04/24/15 07:21	10
Methyl tert-butyl ether	ND		10	1.6	ug/L			04/24/15 07:21	10
Methylcyclohexane	ND		10	1.6	ug/L			04/24/15 07:21	10
Methylene Chloride	**420**		10	4.4	ug/L			04/24/15 07:21	10
Styrene	ND		10	7.3	ug/L			04/24/15 07:21	10
Tetrachloroethene	ND		10	3.6	ug/L			04/24/15 07:21	10
Toluene	ND		10	5.1	ug/L			04/24/15 07:21	10
trans-1,2-Dichloroethene	ND		10	9.0	ug/L			04/24/15 07:21	10
trans-1,3-Dichloropropene	ND		10	3.7	ug/L			04/24/15 07:21	10
Trichloroethene	ND		10	4.6	ug/L			04/24/15 07:21	10
Trichlorofluoromethane	ND		10	8.8	ug/L			04/24/15 07:21	10
Vinyl chloride	ND		10	9.0	ug/L			04/24/15 07:21	10
Xylenes, Total	ND		20	6.6	ug/L			04/24/15 07:21	10

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: SP FEC MID
Date Collected: 04/14/15 15:05
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-11
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		66 - 137		04/24/15 07:21	10
4-Bromofluorobenzene (Surr)	95		73 - 120		04/24/15 07:21	10
Dibromofluoromethane (Surr)	106		60 - 140		04/24/15 07:21	10
Toluene-d8 (Surr)	99		71 - 126		04/24/15 07:21	10

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: SP FECA HIGH
Date Collected: 04/14/15 15:10
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	8.2	ug/L			04/24/15 07:49	10
1,1,2,2-Tetrachloroethane	ND		10	2.1	ug/L			04/24/15 07:49	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	3.1	ug/L			04/24/15 07:49	10
1,1,2-Trichloroethane	**2.4**	**J**	10	2.3	ug/L			04/24/15 07:49	10
1,1-Dichloroethane	ND		10	3.8	ug/L			04/24/15 07:49	10
1,1-Dichloroethene	ND		10	2.9	ug/L			04/24/15 07:49	10
1,2,4-Trichlorobenzene	ND		10	4.1	ug/L			04/24/15 07:49	10
1,2-Dibromo-3-Chloropropane	ND		10	3.9	ug/L			04/24/15 07:49	10
1,2-Dibromoethane	ND		10	7.3	ug/L			04/24/15 07:49	10
1,2-Dichlorobenzene	ND		10	7.9	ug/L			04/24/15 07:49	10
1,2-Dichloroethane	**7.0**	**J**	10	2.1	ug/L			04/24/15 07:49	10
1,2-Dichloropropane	ND		10	7.2	ug/L			04/24/15 07:49	10
1,3-Dichlorobenzene	ND		10	7.8	ug/L			04/24/15 07:49	10
1,4-Dichlorobenzene	ND		10	8.4	ug/L			04/24/15 07:49	10
2-Butanone (MEK)	ND		100	13	ug/L			04/24/15 07:49	10
2-Hexanone	ND		50	12	ug/L			04/24/15 07:49	10
4-Methyl-2-pentanone (MIBK)	ND		50	21	ug/L			04/24/15 07:49	10
Acetone	**460**		100	30	ug/L			04/24/15 07:49	10
Benzene	ND		10	4.1	ug/L			04/24/15 07:49	10
Bromodichloromethane	ND		10	3.9	ug/L			04/24/15 07:49	10
Bromoform	ND		10	2.6	ug/L			04/24/15 07:49	10
Bromomethane	ND		10	6.9	ug/L			04/24/15 07:49	10
Carbon disulfide	ND		10	1.9	ug/L			04/24/15 07:49	10
Carbon tetrachloride	ND		10	2.7	ug/L			04/24/15 07:49	10
Chlorobenzene	ND		10	7.5	ug/L			04/24/15 07:49	10
Chloroethane	ND		10	3.2	ug/L			04/24/15 07:49	10
Chloroform	**18**		10	3.4	ug/L			04/24/15 07:49	10
Chloromethane	**520**		10	3.5	ug/L			04/24/15 07:49	10
cis-1,2-Dichloroethene	ND		10	8.1	ug/L			04/24/15 07:49	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			04/24/15 07:49	10
Cyclohexane	ND		10	1.8	ug/L			04/24/15 07:49	10
Dibromochloromethane	ND		10	3.2	ug/L			04/24/15 07:49	10
Dichlorodifluoromethane	ND		10	6.8	ug/L			04/24/15 07:49	10
Ethylbenzene	ND		10	7.4	ug/L			04/24/15 07:49	10
Isopropylbenzene	ND		10	7.9	ug/L			04/24/15 07:49	10
Methyl acetate	ND		25	5.0	ug/L			04/24/15 07:49	10
Methyl tert-butyl ether	ND		10	1.6	ug/L			04/24/15 07:49	10
Methylcyclohexane	ND		10	1.6	ug/L			04/24/15 07:49	10
Methylene Chloride	**380**		10	4.4	ug/L			04/24/15 07:49	10
Styrene	ND		10	7.3	ug/L			04/24/15 07:49	10
Tetrachloroethene	**4.7**	**J**	10	3.6	ug/L			04/24/15 07:49	10
Toluene	ND		10	5.1	ug/L			04/24/15 07:49	10
trans-1,2-Dichloroethene	ND		10	9.0	ug/L			04/24/15 07:49	10
trans-1,3-Dichloropropene	ND		10	3.7	ug/L			04/24/15 07:49	10
Trichloroethene	ND		10	4.6	ug/L			04/24/15 07:49	10
Trichlorofluoromethane	ND		10	8.8	ug/L			04/24/15 07:49	10
Vinyl chloride	ND		10	9.0	ug/L			04/24/15 07:49	10
Xylenes, Total	ND		20	6.6	ug/L			04/24/15 07:49	10

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: SP FECA HIGH
Date Collected: 04/14/15 15:10
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-12
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		66 - 137		04/24/15 07:49	10
4-Bromofluorobenzene (Surr)	92		73 - 120		04/24/15 07:49	10
Dibromofluoromethane (Surr)	105		60 - 140		04/24/15 07:49	10
Toluene-d8 (Surr)	97		71 - 126		04/24/15 07:49	10

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: SP NAOH LOW
Date Collected: 04/14/15 15:15
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-13
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		40	33	ug/L			04/24/15 08:16	40
1,1,2,2-Tetrachloroethane	ND		40	8.4	ug/L			04/24/15 08:16	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		40	12	ug/L			04/24/15 08:16	40
1,1,2-Trichloroethane	ND		40	9.2	ug/L			04/24/15 08:16	40
1,1-Dichloroethane	ND		40	15	ug/L			04/24/15 08:16	40
1,1-Dichloroethene	ND		40	12	ug/L			04/24/15 08:16	40
1,2,4-Trichlorobenzene	ND		40	16	ug/L			04/24/15 08:16	40
1,2-Dibromo-3-Chloropropane	ND		40	16	ug/L			04/24/15 08:16	40
1,2-Dibromoethane	ND		40	29	ug/L			04/24/15 08:16	40
1,2-Dichlorobenzene	ND		40	32	ug/L			04/24/15 08:16	40
1,2-Dichloroethane	ND		40	8.4	ug/L			04/24/15 08:16	40
1,2-Dichloropropane	ND		40	29	ug/L			04/24/15 08:16	40
1,3-Dichlorobenzene	ND		40	31	ug/L			04/24/15 08:16	40
1,4-Dichlorobenzene	ND		40	34	ug/L			04/24/15 08:16	40
2-Butanone (MEK)	ND		400	53	ug/L			04/24/15 08:16	40
2-Hexanone	ND		200	50	ug/L			04/24/15 08:16	40
4-Methyl-2-pentanone (MIBK)	ND		200	84	ug/L			04/24/15 08:16	40
Acetone	**620**		400	120	ug/L			04/24/15 08:16	40
Benzene	ND		40	16	ug/L			04/24/15 08:16	40
Bromodichloromethane	ND		40	16	ug/L			04/24/15 08:16	40
Bromoform	ND		40	10	ug/L			04/24/15 08:16	40
Bromomethane	ND		40	28	ug/L			04/24/15 08:16	40
Carbon disulfide	ND		40	7.6	ug/L			04/24/15 08:16	40
Carbon tetrachloride	ND		40	11	ug/L			04/24/15 08:16	40
Chlorobenzene	ND		40	30	ug/L			04/24/15 08:16	40
Chloroethane	ND		40	13	ug/L			04/24/15 08:16	40
Chloroform	ND		40	14	ug/L			04/24/15 08:16	40
Chloromethane	ND		40	14	ug/L			04/24/15 08:16	40
cis-1,2-Dichloroethene	ND		40	32	ug/L			04/24/15 08:16	40
cis-1,3-Dichloropropene	ND		40	14	ug/L			04/24/15 08:16	40
Cyclohexane	ND		40	7.2	ug/L			04/24/15 08:16	40
Dibromochloromethane	ND		40	13	ug/L			04/24/15 08:16	40
Dichlorodifluoromethane	ND		40	27	ug/L			04/24/15 08:16	40
Ethylbenzene	ND		40	30	ug/L			04/24/15 08:16	40
Isopropylbenzene	ND		40	32	ug/L			04/24/15 08:16	40
Methyl acetate	ND		100	20	ug/L			04/24/15 08:16	40
Methyl tert-butyl ether	ND		40	6.4	ug/L			04/24/15 08:16	40
Methylcyclohexane	ND		40	6.4	ug/L			04/24/15 08:16	40
Methylene Chloride	ND		40	18	ug/L			04/24/15 08:16	40
Styrene	ND		40	29	ug/L			04/24/15 08:16	40
Tetrachloroethene	**910**		40	14	ug/L			04/24/15 08:16	40
Toluene	ND		40	20	ug/L			04/24/15 08:16	40
trans-1,2-Dichloroethene	ND		40	36	ug/L			04/24/15 08:16	40
trans-1,3-Dichloropropene	ND		40	15	ug/L			04/24/15 08:16	40
Trichloroethene	ND		40	18	ug/L			04/24/15 08:16	40
Trichlorofluoromethane	ND		40	35	ug/L			04/24/15 08:16	40
Vinyl chloride	ND		40	36	ug/L			04/24/15 08:16	40
Xylenes, Total	ND		80	26	ug/L			04/24/15 08:16	40

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: SP NAOH LOW
Date Collected: 04/14/15 15:15
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-13
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		66 - 137		04/24/15 08:16	40
4-Bromofluorobenzene (Surr)	93		73 - 120		04/24/15 08:16	40
Dibromofluoromethane (Surr)	106		60 - 140		04/24/15 08:16	40
Toluene-d8 (Surr)	97		71 - 126		04/24/15 08:16	40

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: SP NAOH MID
Date Collected: 04/14/15 15:20
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-14
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	4.1	ug/L			04/25/15 15:34	5
1,1,2,2-Tetrachloroethane	ND		5.0	1.1	ug/L			04/25/15 15:34	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.6	ug/L			04/25/15 15:34	5
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L			04/25/15 15:34	5
1,1-Dichloroethane	ND		5.0	1.9	ug/L			04/25/15 15:34	5
1,1-Dichloroethene	ND		5.0	1.5	ug/L			04/25/15 15:34	5
1,2,4-Trichlorobenzene	ND		5.0	2.1	ug/L			04/25/15 15:34	5
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/L			04/25/15 15:34	5
1,2-Dibromoethane	ND		5.0	3.7	ug/L			04/25/15 15:34	5
1,2-Dichlorobenzene	ND		5.0	4.0	ug/L			04/25/15 15:34	5
1,2-Dichloroethane	ND		5.0	1.1	ug/L			04/25/15 15:34	5
1,2-Dichloropropane	ND		5.0	3.6	ug/L			04/25/15 15:34	5
1,3-Dichlorobenzene	ND		5.0	3.9	ug/L			04/25/15 15:34	5
1,4-Dichlorobenzene	ND		5.0	4.2	ug/L			04/25/15 15:34	5
2-Butanone (MEK)	ND		50	6.6	ug/L			04/25/15 15:34	5
2-Hexanone	ND		25	6.2	ug/L			04/25/15 15:34	5
4-Methyl-2-pentanone (MIBK)	ND		25	11	ug/L			04/25/15 15:34	5
Acetone	**52**		50	15	ug/L			04/25/15 15:34	5
Benzene	ND		5.0	2.1	ug/L			04/25/15 15:34	5
Bromodichloromethane	ND		5.0	2.0	ug/L			04/25/15 15:34	5
Bromoform	ND		5.0	1.3	ug/L			04/25/15 15:34	5
Bromomethane	ND		5.0	3.5	ug/L			04/25/15 15:34	5
Carbon disulfide	ND		5.0	0.95	ug/L			04/25/15 15:34	5
Carbon tetrachloride	ND		5.0	1.4	ug/L			04/25/15 15:34	5
Chlorobenzene	ND		5.0	3.8	ug/L			04/25/15 15:34	5
Chloroethane	ND		5.0	1.6	ug/L			04/25/15 15:34	5
Chloroform	ND		5.0	1.7	ug/L			04/25/15 15:34	5
Chloromethane	ND		5.0	1.8	ug/L			04/25/15 15:34	5
cis-1,2-Dichloroethene	ND		5.0	4.1	ug/L			04/25/15 15:34	5
cis-1,3-Dichloropropene	ND		5.0	1.8	ug/L			04/25/15 15:34	5
Cyclohexane	ND		5.0	0.90	ug/L			04/25/15 15:34	5
Dibromochloromethane	ND		5.0	1.6	ug/L			04/25/15 15:34	5
Dichlorodifluoromethane	ND		5.0	3.4	ug/L			04/25/15 15:34	5
Ethylbenzene	ND		5.0	3.7	ug/L			04/25/15 15:34	5
Isopropylbenzene	ND		5.0	4.0	ug/L			04/25/15 15:34	5
Methyl acetate	ND		13	2.5	ug/L			04/25/15 15:34	5
Methyl tert-butyl ether	ND		5.0	0.80	ug/L			04/25/15 15:34	5
Methylcyclohexane	ND		5.0	0.80	ug/L			04/25/15 15:34	5
Methylene Chloride	ND		5.0	2.2	ug/L			04/25/15 15:34	5
Styrene	ND		5.0	3.7	ug/L			04/25/15 15:34	5
Tetrachloroethene	**230**		5.0	1.8	ug/L			04/25/15 15:34	5
Toluene	ND		5.0	2.6	ug/L			04/25/15 15:34	5
trans-1,2-Dichloroethene	ND		5.0	4.5	ug/L			04/25/15 15:34	5
trans-1,3-Dichloropropene	ND		5.0	1.9	ug/L			04/25/15 15:34	5
Trichloroethene	ND		5.0	2.3	ug/L			04/25/15 15:34	5
Trichlorofluoromethane	ND		5.0	4.4	ug/L			04/25/15 15:34	5
Vinyl chloride	ND		5.0	4.5	ug/L			04/25/15 15:34	5
Xylenes, Total	ND		10	3.3	ug/L			04/25/15 15:34	5

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: SP NAOH MID
Date Collected: 04/14/15 15:20
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-14
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		66 - 137		04/25/15 15:34	5
4-Bromofluorobenzene (Surr)	101		73 - 120		04/25/15 15:34	5
Dibromofluoromethane (Surr)	103		60 - 140		04/25/15 15:34	5
Toluene-d8 (Surr)	96		71 - 126		04/25/15 15:34	5

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: SP NAOH HIGH
Date Collected: 04/14/15 15:25
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-15
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	4.1	ug/L			04/25/15 15:58	5
1,1,2,2-Tetrachloroethane	ND		5.0	1.1	ug/L			04/25/15 15:58	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.6	ug/L			04/25/15 15:58	5
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L			04/25/15 15:58	5
1,1-Dichloroethane	ND		5.0	1.9	ug/L			04/25/15 15:58	5
1,1-Dichloroethene	ND		5.0	1.5	ug/L			04/25/15 15:58	5
1,2,4-Trichlorobenzene	ND		5.0	2.1	ug/L			04/25/15 15:58	5
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/L			04/25/15 15:58	5
1,2-Dibromoethane	ND		5.0	3.7	ug/L			04/25/15 15:58	5
1,2-Dichlorobenzene	ND		5.0	4.0	ug/L			04/25/15 15:58	5
1,2-Dichloroethane	ND		5.0	1.1	ug/L			04/25/15 15:58	5
1,2-Dichloropropane	ND		5.0	3.6	ug/L			04/25/15 15:58	5
1,3-Dichlorobenzene	ND		5.0	3.9	ug/L			04/25/15 15:58	5
1,4-Dichlorobenzene	ND		5.0	4.2	ug/L			04/25/15 15:58	5
2-Butanone (MEK)	ND		50	6.6	ug/L			04/25/15 15:58	5
2-Hexanone	ND		25	6.2	ug/L			04/25/15 15:58	5
4-Methyl-2-pentanone (MIBK)	ND		25	11	ug/L			04/25/15 15:58	5
Acetone	ND		50	15	ug/L			04/25/15 15:58	5
Benzene	ND		5.0	2.1	ug/L			04/25/15 15:58	5
Bromodichloromethane	ND		5.0	2.0	ug/L			04/25/15 15:58	5
Bromoform	ND		5.0	1.3	ug/L			04/25/15 15:58	5
Bromomethane	ND		5.0	3.5	ug/L			04/25/15 15:58	5
Carbon disulfide	ND		5.0	0.95	ug/L			04/25/15 15:58	5
Carbon tetrachloride	ND		5.0	1.4	ug/L			04/25/15 15:58	5
Chlorobenzene	ND		5.0	3.8	ug/L			04/25/15 15:58	5
Chloroethane	ND		5.0	1.6	ug/L			04/25/15 15:58	5
Chloroform	ND		5.0	1.7	ug/L			04/25/15 15:58	5
Chloromethane	ND		5.0	1.8	ug/L			04/25/15 15:58	5
cis-1,2-Dichloroethene	ND		5.0	4.1	ug/L			04/25/15 15:58	5
cis-1,3-Dichloropropene	ND		5.0	1.8	ug/L			04/25/15 15:58	5
Cyclohexane	ND		5.0	0.90	ug/L			04/25/15 15:58	5
Dibromochloromethane	ND		5.0	1.6	ug/L			04/25/15 15:58	5
Dichlorodifluoromethane	ND		5.0	3.4	ug/L			04/25/15 15:58	5
Ethylbenzene	ND		5.0	3.7	ug/L			04/25/15 15:58	5
Isopropylbenzene	ND		5.0	4.0	ug/L			04/25/15 15:58	5
Methyl acetate	ND		13	2.5	ug/L			04/25/15 15:58	5
Methyl tert-butyl ether	ND		5.0	0.80	ug/L			04/25/15 15:58	5
Methylcyclohexane	ND		5.0	0.80	ug/L			04/25/15 15:58	5
Methylene Chloride	ND		5.0	2.2	ug/L			04/25/15 15:58	5
Styrene	ND		5.0	3.7	ug/L			04/25/15 15:58	5
Tetrachloroethene	**40**		5.0	1.8	ug/L			04/25/15 15:58	5
Toluene	ND		5.0	2.6	ug/L			04/25/15 15:58	5
trans-1,2-Dichloroethene	ND		5.0	4.5	ug/L			04/25/15 15:58	5
trans-1,3-Dichloropropene	ND		5.0	1.9	ug/L			04/25/15 15:58	5
Trichloroethene	ND		5.0	2.3	ug/L			04/25/15 15:58	5
Trichlorofluoromethane	ND		5.0	4.4	ug/L			04/25/15 15:58	5
Vinyl chloride	ND		5.0	4.5	ug/L			04/25/15 15:58	5
Xylenes, Total	ND		10	3.3	ug/L			04/25/15 15:58	5

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: SP NAOH HIGH
Date Collected: 04/14/15 15:25
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-15
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		66 - 137		04/25/15 15:58	5
4-Bromofluorobenzene (Surr)	101		73 - 120		04/25/15 15:58	5
Dibromofluoromethane (Surr)	102		60 - 140		04/25/15 15:58	5
Toluene-d8 (Surr)	95		71 - 126		04/25/15 15:58	5

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: TRIP BLANK
Date Collected: 04/14/15 17:00
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-16
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/24/15 03:41	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/24/15 03:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/24/15 03:41	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/24/15 03:41	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/24/15 03:41	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/24/15 03:41	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/24/15 03:41	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/24/15 03:41	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/24/15 03:41	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/24/15 03:41	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/24/15 03:41	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/24/15 03:41	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/24/15 03:41	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/24/15 03:41	1
2-Butanone (MEK)	ND		10	1.3	ug/L			04/24/15 03:41	1
2-Hexanone	ND		5.0	1.2	ug/L			04/24/15 03:41	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/24/15 03:41	1
Acetone	ND		10	3.0	ug/L			04/24/15 03:41	1
Benzene	ND		1.0	0.41	ug/L			04/24/15 03:41	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/24/15 03:41	1
Bromoform	ND		1.0	0.26	ug/L			04/24/15 03:41	1
Bromomethane	ND		1.0	0.69	ug/L			04/24/15 03:41	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/24/15 03:41	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/24/15 03:41	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/24/15 03:41	1
Chloroethane	ND		1.0	0.32	ug/L			04/24/15 03:41	1
Chloroform	ND		1.0	0.34	ug/L			04/24/15 03:41	1
Chloromethane	ND		1.0	0.35	ug/L			04/24/15 03:41	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/24/15 03:41	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/24/15 03:41	1
Cyclohexane	ND		1.0	0.18	ug/L			04/24/15 03:41	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/24/15 03:41	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/24/15 03:41	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/24/15 03:41	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/24/15 03:41	1
Methyl acetate	ND		2.5	0.50	ug/L			04/24/15 03:41	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/24/15 03:41	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/24/15 03:41	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/24/15 03:41	1
Styrene	ND		1.0	0.73	ug/L			04/24/15 03:41	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/24/15 03:41	1
Toluene	ND		1.0	0.51	ug/L			04/24/15 03:41	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/24/15 03:41	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/24/15 03:41	1
Trichloroethene	ND		1.0	0.46	ug/L			04/24/15 03:41	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/24/15 03:41	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/24/15 03:41	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/24/15 03:41	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: TRIP BLANK
Date Collected: 04/14/15 17:00
Date Received: 04/15/15 09:00

Lab Sample ID: 480-78472-16
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		66 - 137		04/24/15 03:41	1
4-Bromofluorobenzene (Surr)	94		73 - 120		04/24/15 03:41	1
Dibromofluoromethane (Surr)	105		60 - 140		04/24/15 03:41	1
Toluene-d8 (Surr)	97		71 - 126		04/24/15 03:41	1

Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: SP CTRL — Lab Sample ID: 480-78472-1

Date Collected: 04/14/15 14:00 — **Matrix: Water**
Date Received: 04/15/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	237835	04/22/15 19:37	EDB	TAL BUF
Total/NA	Analysis	8260C	DL	100	238033	04/23/15 19:54	NMD1	TAL BUF

Client Sample ID: SP CTRL DUP — Lab Sample ID: 480-78472-2

Date Collected: 04/14/15 14:35 — **Matrix: Water**
Date Received: 04/15/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	237835	04/22/15 20:04	EDB	TAL BUF
Total/NA	Analysis	8260C	DL	100	238033	04/23/15 20:22	NMD1	TAL BUF

Client Sample ID: HP CTRL — Lab Sample ID: 480-78472-3

Date Collected: 04/14/15 15:40 — **Matrix: Water**
Date Received: 04/15/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	237835	04/22/15 20:31	EDB	TAL BUF
Total/NA	Analysis	8260C	DL	100	238033	04/23/15 20:49	NMD1	TAL BUF

Client Sample ID: HP CTRL DUP — Lab Sample ID: 480-78472-4

Date Collected: 04/14/15 15:55 — **Matrix: Water**
Date Received: 04/15/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	237835	04/22/15 20:58	EDB	TAL BUF
Total/NA	Analysis	8260C	DL	100	238245	04/24/15 04:09	EDB	TAL BUF

Client Sample ID: KMN04 LOW — Lab Sample ID: 480-78472-5

Date Collected: 04/14/15 14:05 — **Matrix: Water**
Date Received: 04/15/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	238245	04/24/15 04:36	EDB	TAL BUF

Client Sample ID: KMN04 MID — Lab Sample ID: 480-78472-6

Date Collected: 04/14/15 14:08 — **Matrix: Water**
Date Received: 04/15/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	238245	04/24/15 05:04	EDB	TAL BUF

Client Sample ID: KMN04 HIGH

Lab Sample ID: 480-78472-7

Date Collected: 04/14/15 14:15

Matrix: Water

Date Received: 04/15/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	238245	04/24/15 05:31	EDB	TAL BUF

Client Sample ID: HP LOW

Lab Sample ID: 480-78472-8

Date Collected: 04/14/15 16:45

Matrix: Water

Date Received: 04/15/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	237835	04/22/15 22:48	EDB	TAL BUF
Total/NA	Analysis	8260C	DL	2000	238599	04/25/15 14:46	SWO	TAL BUF

Client Sample ID: HP HIGH

Lab Sample ID: 480-78472-9

Date Collected: 04/14/15 16:55

Matrix: Water

Date Received: 04/15/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		500	238245	04/24/15 06:26	EDB	TAL BUF
Total/NA	Analysis	8260C	DL	2000	238599	04/25/15 15:09	SWO	TAL BUF

Client Sample ID: SP FECA LOW

Lab Sample ID: 480-78472-10

Date Collected: 04/14/15 15:00

Matrix: Water

Date Received: 04/15/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	238245	04/24/15 06:54	EDB	TAL BUF

Client Sample ID: SP FEC MID

Lab Sample ID: 480-78472-11

Date Collected: 04/14/15 15:05

Matrix: Water

Date Received: 04/15/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	238245	04/24/15 07:21	EDB	TAL BUF

Client Sample ID: SP FECA HIGH

Lab Sample ID: 480-78472-12

Date Collected: 04/14/15 15:10

Matrix: Water

Date Received: 04/15/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	238245	04/24/15 07:49	EDB	TAL BUF

Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Client Sample ID: SP NAOH LOW

Lab Sample ID: 480-78472-13

Date Collected: 04/14/15 15:15
Matrix: Water
Date Received: 04/15/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		40	238245	04/24/15 08:16	EDB	TAL BUF

Client Sample ID: SP NAOH MID

Lab Sample ID: 480-78472-14

Date Collected: 04/14/15 15:20
Matrix: Water
Date Received: 04/15/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	238599	04/25/15 15:34	SWO	TAL BUF

Client Sample ID: SP NAOH HIGH

Lab Sample ID: 480-78472-15

Date Collected: 04/14/15 15:25
Matrix: Water
Date Received: 04/15/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	238599	04/25/15 15:58	SWO	TAL BUF

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-78472-16

Date Collected: 04/14/15 17:00
Matrix: Water
Date Received: 04/15/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	238245	04/24/15 03:41	EDB	TAL BUF

Laboratory References:

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

Certification Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Laboratory: TestAmerica Buffalo

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-16

Method Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78472-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-78472-1	SP CTRL	Water	04/14/15 14:00	04/15/15 09:00
480-78472-2	SP CTRL DUP	Water	04/14/15 14:35	04/15/15 09:00
480-78472-3	HP CTRL	Water	04/14/15 15:40	04/15/15 09:00
480-78472-4	HP CTRL DUP	Water	04/14/15 15:55	04/15/15 09:00
480-78472-5	KMN04 LOW	Water	04/14/15 14:05	04/15/15 09:00
480-78472-6	KMN04 MID	Water	04/14/15 14:08	04/15/15 09:00
480-78472-7	KMN04 HIGH	Water	04/14/15 14:15	04/15/15 09:00
480-78472-8	HP LOW	Water	04/14/15 16:45	04/15/15 09:00
480-78472-9	HP HIGH	Water	04/14/15 16:55	04/15/15 09:00
480-78472-10	SP FECA LOW	Water	04/14/15 15:00	04/15/15 09:00
480-78472-11	SP FEC MID	Water	04/14/15 15:05	04/15/15 09:00
480-78472-12	SP FECA HIGH	Water	04/14/15 15:10	04/15/15 09:00
480-78472-13	SP NAOH LOW	Water	04/14/15 15:15	04/15/15 09:00
480-78472-14	SP NAOH MID	Water	04/14/15 15:20	04/15/15 09:00
480-78472-15	SP NAOH HIGH	Water	04/14/15 15:25	04/15/15 09:00
480-78472-16	TRIP BLANK	Water	04/14/15 17:00	04/15/15 09:00

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAm
THE LEADER IN ENVIRO

480-78472 Chain of Custody

TAL-4124 (1007)

Client	Project Manager	Date	
HDR	Amita Patel	4/14/15	78U100
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	
1 International Blvd, 10th Floor, Ste 1000	(201)335-9419		Page 1 of 2
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Mahwah / NJ / 07495		Brian Fischer	
Project Name and Location (State)	**Carrier/Waybill Number**		
Former C&B Dry cleaners, Jamestown NY			
Contract/Purchase Order/Quote No. Site # 907028			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: TCL VOCs 8260	TAL metals*	Special Instructions/ Conditions of Receipt
SP ctrl	4/14/15	1400		X						X			1		
SP ctrl dup		1435		X						X			2		
HP ctrl		1540		X						X			2		
HP ctrl dup		1555		X						X			2		
KMnO4 low		1405		X						X			2		
KMnO4 mid		1408		X						X			2		
KMnO4 High		1415		X						X			2		
HP low		1645		X						X			2		
HP high		1655		X						X			2		
SP FeCA low		1500		X						X			2		
SP FeCA mid		1505		X						X			3		
SP FeCA High		1510		X						X			3		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Jared Crawford	4/14/15	1710	1. Received By: TA STAFF	4/15/15	0900
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments
Please email results to: LCrawford@Xdd-LLC.com

~~* excluding mercury and cyanide~~

#1 4.3

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
HDR	Amita Patel	4/14/15	280763

Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page
1 International Blvd, 10th Floor Ste 1000	(201) 335-9419		Page 2 of 2

City	State	Zip Code	Site Contact	Lab Contact
Mahwah	NJ	07495		Brian Fischer

Project Name and Location (State)	Carrier/Waybill Number
Former C&B Dry Cleaners, Jamestown, NY	

Contract/Purchase Order/Quote No. Site # 907028

Analysis (Attach list if more space is needed)

Special Instructions/ Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	TCL VOCs 8260	TAL metals	Hg
SP NaOH low	4/14/15	~~1515~~ 1500		X						X			2		
SP NaOH MID		1520		X						X			2		
SP NaOH High		1525		X						X			3		
Trip Blank	4/14/15	1700		X						X			2		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify)

1. Relinquished By	Date	Time	1. Received By	Date	Time
[signature]	4/14/15	1710	[signature] TA BUF	4/15/15	0900
2. Relinquished By	Date	Time	2. Received By	Date	Time
			[signature]		
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments
Please email results to: LCrawford@xdd-LLC.com
~~adding mercury cyanide~~ & hyphen
#1 4.3

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

4/29/2015

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-78472-1

Login Number: 78472

List Source: TestAmerica Buffalo

List Number: 1

Creator: Wallace, Cameron

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	NEW YORK DEC
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 480-78558-1
Client Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

For:
New York State D.E.C.
625 Broadway 9th Floor
Albany, New York 12233-7258

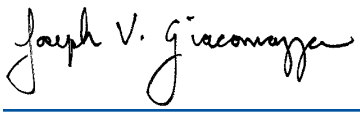
Attn: George Momberger

Authorized for release by:
5/6/2015 2:54:42 PM
Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Joe Giacomazza
Project Management Assistant II
5/6/2015 2:54:42 PM

Table of Contents

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.
E	Result exceeded calibration range.
*	LCS or LCSD is outside acceptance limits.

Metals

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.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, 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)

Job ID: 480-78558-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-78558-1

Receipt
The samples were received on 4/16/2015 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.9º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 237173 recovered above the upper control limit for Chlorodibromomethane. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: KMNO4 LOW (480-78558-16), KMNO4 MID (480-78558-17) and KMNO4 HIGH (480-78558-18).

Method(s) 8260C: The laboratory control sample (LCS) for batch 237173 recovered outside control limits for the following analyte: Cyclohexane. This was not a requested spike compound; therefore, the data have been qualified and reported.KMNO4 LOW (480-78558-16), KMNO4 MID (480-78558-17) and KMNO4 HIGH (480-78558-18)

Method(s) 8260C: The following samples were analyzed using medium level soil analysis to bring the concentration of target analytes within the calibration range: SP CTRL (480-78558-15), KMNO4 LOW (480-78558-16), SP FECA LOW (480-78558-19), SP FECA MID (480-78558-20), SP FECA HIGH (480-78558-21), SP NAOH MID (480-78558-23), SP NAOH HIGH (480-78558-24), HP LOW (480-78558-25), HP HIGH (480-78558-26) and HP CTRL (480-78558-29). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 238941 recovered above the upper control limit for several analytes. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: SP NAOH LOW (480-78558-22) and (480-78972-B-6-D).

Method(s) 8260C: The following sample was analyzed using medium soil analysis to bring the concentration of target analytes within the calibration range: SP NAOH LOW (480-78558-22). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The analyte Methylene Chloride was detected in the dilution analysis of samples KMNO4 LOW (480-78558-16), SP FECA LOW (480-78558-19), HP HIGH (480-78558-26) and HP CTRL (480-78558-29). Additional manipulation of the samples was required to analyze the samples at a dilution, therefore, the sample detection for Methylene Chloride in the analysis may potentially be due to laboratory contamination and should be evaluated accordingly.

Method(s) 8260C: The recovery of Acetone and Methyl Acetate in the Medium Level Extraction analysis is inconsistent with that in the base sample analysis. This is due to the non-homogenous matrix of the sample and the recovery efficiency of the methanol extraction process.KMNO4 LOW (480-78558-16), SP FECA LOW (480-78558-19), SP FECA MID (480-78558-20), SP FECA HIGH (480-78558-21) and HP HIGH (480-78558-26)

Method(s) 8260C: The recovery of Methylene Chloride in the Medium Level Extraction analysis is inconsistent with that in the base sample analysis. This is due to the non-homogenous matrix of the sample and the recovery efficiency of the methanol extraction process.SP FECA MID (480-78558-20) and SP FECA HIGH (480-78558-21)

Method(s) 8260C: The analytes Acetone and Methylene Chloride were detected in the dilution analysis of sample SP CTRL (480-78558-15). Additional manipulation of the sample is required to analyze a sample at a dilution, therefore, the sample detections for Acetone and Methylene Chloride in the analysis may potentially be due to laboratory contamination and should be evaluated accordingly.

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

Metals
Method(s) 3005A: The following samples were not able to be digested by method 3005A due to matrix: SP FECA MID (480-78558-7), SP FECA HIGH (480-78558-8), SP NAOH MID (480-78558-10) and SP NAOH HIGH (480-78558-11). A pre-prep dilution of 1:10 was performed and the samples bubbled over on the digestion block losing volume in the process and contaminating other samples in the batch.

Job ID: 480-78558-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

Method(s) 6010C: The interference check standard solution (ICSA 480-239467/9) associated with the following samples showed results for strontium at a level greater than 2 times the limit of detection (LOD). It is believed that the solution contains trace impurities of this element and the results are not due to matrix interference. These results are consistent with those found by the manufacturer of the ICSA solution. (ICVL 480-239467/7)

Method(s) 6010C: The following samples were diluted for total arsenic, cadmium, nickel, lead, antimony, and zinc due to the nature of the sample matrix: KMNO4 MID (480-78558-4) and KMNO4 HIGH (480-78558-5). Elevated reporting limits (RLs) are provided.

Method(s) 6010C: The following samples were diluted due to the presence of total manganese which interferes with silver, aluminum, chromium, magnesium, selenium, and thallium: KMNO4 MID (480-78558-4) and KMNO4 HIGH (480-78558-5). Elevated reporting limits (RLs) are provided.

Method(s) 6010C: Due to sample matrix effect on the internal standard (ISTD), a dilution for total aluminum, arsenic, barium, beryllium, calcium, cadmium, iron, potassium, manganese, sodium, antimony, and selenium was required for the following sample: HP LOW (480-78558-12).

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

General Chemistry

Method(s) 9060A: The result for the following sample exceeded the instrument calibration range of 100mg/L. The %RSD was 24 percent which exceeds the 20% criteria. Insufficient volume remains for reanalysis so results have been reported. SP NAOH MID (480-78558-10). Result may be biased low.

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

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP CTRL
Date Collected: 04/15/15 10:00
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-1
Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		04/28/15 16:23	04/29/15 14:39	1
Antimony	ND		0.020	0.0068	mg/L		04/28/15 16:23	04/29/15 14:39	1
Arsenic	ND		0.015	0.0056	mg/L		04/28/15 16:23	04/29/15 14:39	1
Barium	**0.011**		0.0020	0.00070	mg/L		04/28/15 16:23	04/29/15 14:39	1
Beryllium	ND		0.0020	0.00030	mg/L		04/28/15 16:23	04/29/15 14:39	1
Cadmium	ND		0.0020	0.00050	mg/L		04/28/15 16:23	04/29/15 14:39	1
Calcium	**9.1**		0.50	0.10	mg/L		04/28/15 16:23	04/29/15 14:39	1
Chromium	ND		0.0040	0.0010	mg/L		04/28/15 16:23	04/29/15 14:39	1
Cobalt	ND		0.0040	0.00063	mg/L		04/28/15 16:23	04/29/15 14:39	1
Copper	ND		0.010	0.0016	mg/L		04/28/15 16:23	04/29/15 14:39	1
Iron	ND		0.050	0.019	mg/L		04/28/15 16:23	04/29/15 14:39	1
Lead	ND		0.010	0.0030	mg/L		04/28/15 16:23	04/29/15 14:39	1
Magnesium	**1.9**		0.20	0.043	mg/L		04/28/15 16:23	04/29/15 14:39	1
Manganese	**0.0023**	**J B**	0.0030	0.00040	mg/L		04/28/15 16:23	04/29/15 14:39	1
Nickel	ND		0.010	0.0013	mg/L		04/28/15 16:23	04/29/15 14:39	1
Potassium	**0.25**	**J**	0.50	0.10	mg/L		04/28/15 16:23	04/29/15 14:39	1
Selenium	ND		0.025	0.0087	mg/L		04/28/15 16:23	04/29/15 14:39	1
Silver	ND		0.0060	0.0017	mg/L		04/28/15 16:23	04/29/15 14:39	1
Sodium	**8.2**		1.0	0.32	mg/L		04/28/15 16:23	04/29/15 14:39	1
Thallium	ND		0.020	0.010	mg/L		04/28/15 16:23	04/29/15 14:39	1
Vanadium	ND		0.0050	0.0015	mg/L		04/28/15 16:23	04/29/15 14:39	1
Zinc	ND		0.010	0.0015	mg/L		04/28/15 16:23	04/29/15 14:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.9**		1.0	0.43	mg/L			04/19/15 17:10	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP CTRL DUP
Date Collected: 04/15/15 10:05
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-2
Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		04/28/15 16:23	04/29/15 14:41	1
Antimony	ND		0.020	0.0068	mg/L		04/28/15 16:23	04/29/15 14:41	1
Arsenic	ND		0.015	0.0056	mg/L		04/28/15 16:23	04/29/15 14:41	1
Barium	**0.011**		0.0020	0.00070	mg/L		04/28/15 16:23	04/29/15 14:41	1
Beryllium	ND		0.0020	0.00030	mg/L		04/28/15 16:23	04/29/15 14:41	1
Cadmium	ND		0.0020	0.00050	mg/L		04/28/15 16:23	04/29/15 14:41	1
Calcium	**10.5**		0.50	0.10	mg/L		04/28/15 16:23	04/29/15 14:41	1
Chromium	ND		0.0040	0.0010	mg/L		04/28/15 16:23	04/29/15 14:41	1
Cobalt	ND		0.0040	0.00063	mg/L		04/28/15 16:23	04/29/15 14:41	1
Copper	ND		0.010	0.0016	mg/L		04/28/15 16:23	04/29/15 14:41	1
Iron	ND		0.050	0.019	mg/L		04/28/15 16:23	04/29/15 14:41	1
Lead	ND		0.010	0.0030	mg/L		04/28/15 16:23	04/29/15 14:41	1
Magnesium	**1.9**		0.20	0.043	mg/L		04/28/15 16:23	04/29/15 14:41	1
Manganese	**0.0023**	**J B**	0.0030	0.00040	mg/L		04/28/15 16:23	04/29/15 14:41	1
Nickel	ND		0.010	0.0013	mg/L		04/28/15 16:23	04/29/15 14:41	1
Potassium	**0.25**	**J**	0.50	0.10	mg/L		04/28/15 16:23	04/29/15 14:41	1
Selenium	ND		0.025	0.0087	mg/L		04/28/15 16:23	04/29/15 14:41	1
Silver	ND		0.0060	0.0017	mg/L		04/28/15 16:23	04/29/15 14:41	1
Sodium	**10.3**		1.0	0.32	mg/L		04/28/15 16:23	04/29/15 14:41	1
Thallium	ND		0.020	0.010	mg/L		04/28/15 16:23	04/29/15 14:41	1
Vanadium	ND		0.0050	0.0015	mg/L		04/28/15 16:23	04/29/15 14:41	1
Zinc	ND		0.010	0.0015	mg/L		04/28/15 16:23	04/29/15 14:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**4.1**		1.0	0.43	mg/L			04/20/15 16:51	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: KMNO4 LOW
Date Collected: 04/15/15 10:10
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-3
Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.45**		0.20	0.060	mg/L		04/28/15 16:23	04/29/15 14:50	1
Antimony	ND		0.020	0.0068	mg/L		04/28/15 16:23	04/29/15 14:50	1
Arsenic	ND		0.015	0.0056	mg/L		04/28/15 16:23	04/29/15 14:50	1
Barium	**0.065**		0.0020	0.00070	mg/L		04/28/15 16:23	04/29/15 14:50	1
Beryllium	ND		0.0020	0.00030	mg/L		04/28/15 16:23	04/29/15 14:50	1
Cadmium	ND		0.0020	0.00050	mg/L		04/28/15 16:23	04/29/15 14:50	1
Calcium	**5.5**		0.50	0.10	mg/L		04/28/15 16:23	04/29/15 14:50	1
Chromium	**0.0056**		0.0040	0.0010	mg/L		04/28/15 16:23	04/29/15 14:50	1
Cobalt	**0.0038**	**J**	0.0040	0.00063	mg/L		04/28/15 16:23	04/29/15 14:50	1
Copper	**0.014**		0.010	0.0016	mg/L		04/28/15 16:23	04/29/15 14:50	1
Iron	**1.1**		0.050	0.019	mg/L		04/28/15 16:23	04/29/15 14:50	1
Lead	**0.0036**	**J**	0.010	0.0030	mg/L		04/28/15 16:23	04/29/15 14:50	1
Magnesium	**3.8**		0.20	0.043	mg/L		04/28/15 16:23	04/29/15 14:50	1
Manganese	**32.0**	**B**	0.0030	0.00040	mg/L		04/28/15 16:23	04/29/15 14:50	1
Nickel	**0.021**		0.010	0.0013	mg/L		04/28/15 16:23	04/29/15 14:50	1
Potassium	**27.8**		0.50	0.10	mg/L		04/28/15 16:23	04/29/15 14:50	1
Selenium	ND		0.025	0.0087	mg/L		04/28/15 16:23	04/29/15 14:50	1
Silver	**0.0050**	**J**	0.0060	0.0017	mg/L		04/28/15 16:23	04/29/15 14:50	1
Sodium	**10**		1.0	0.32	mg/L		04/28/15 16:23	04/29/15 14:50	1
Thallium	ND		0.020	0.010	mg/L		04/28/15 16:23	04/29/15 14:50	1
Vanadium	ND		0.0050	0.0015	mg/L		04/28/15 16:23	04/29/15 14:50	1
Zinc	**0.029**		0.010	0.0015	mg/L		04/28/15 16:23	04/29/15 14:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**339**		10.0	4.3	mg/L			04/23/15 09:19	10

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: KMNO4 MID
Date Collected: 04/15/15 10:15
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-4
Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**3.1**		1.0	0.30	mg/L		04/28/15 16:23	04/29/15 15:22	5
Antimony	ND		0.10	0.034	mg/L		04/28/15 16:23	04/29/15 15:22	5
Arsenic	ND		0.075	0.028	mg/L		04/28/15 16:23	04/29/15 15:22	5
Barium	**0.38**		0.0020	0.00070	mg/L		04/28/15 16:23	04/29/15 14:53	1
Beryllium	ND		0.0020	0.00030	mg/L		04/28/15 16:23	04/29/15 14:53	1
Cadmium	ND		0.010	0.0025	mg/L		04/28/15 16:23	04/29/15 15:22	5
Calcium	**4.8**		0.50	0.10	mg/L		04/28/15 16:23	04/29/15 14:53	1
Chromium	**0.025**		0.020	0.0050	mg/L		04/28/15 16:23	04/29/15 15:22	5
Cobalt	**0.020**		0.0040	0.00063	mg/L		04/28/15 16:23	04/29/15 14:53	1
Copper	**0.072**		0.010	0.0016	mg/L		04/28/15 16:23	04/29/15 14:53	1
Iron	**3.7**		0.050	0.019	mg/L		04/28/15 16:23	04/29/15 14:53	1
Lead	**0.023**	**J**	0.050	0.015	mg/L		04/28/15 16:23	04/29/15 15:22	5
Magnesium	**7.9**		1.0	0.22	mg/L		04/28/15 16:23	04/29/15 15:22	5
Manganese	**188**	**B**	0.015	0.0020	mg/L		04/28/15 16:23	04/29/15 15:22	5
Nickel	**0.084**		0.050	0.0063	mg/L		04/28/15 16:23	04/29/15 15:22	5
Potassium	**137**		0.50	0.10	mg/L		04/28/15 16:23	04/29/15 14:53	1
Selenium	ND		0.13	0.044	mg/L		04/28/15 16:23	04/29/15 15:22	5
Silver	**0.031**		0.030	0.0085	mg/L		04/28/15 16:23	04/29/15 15:22	5
Sodium	**10.4**		1.0	0.32	mg/L		04/28/15 16:23	04/29/15 14:53	1
Thallium	ND		0.10	0.051	mg/L		04/28/15 16:23	04/29/15 15:22	5
Vanadium	**0.013**		0.0050	0.0015	mg/L		04/28/15 16:23	04/29/15 14:53	1
Zinc	**0.30**		0.050	0.0075	mg/L		04/28/15 16:23	04/29/15 15:22	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2790**		100	43.4	mg/L			04/23/15 10:15	100

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: KMNO4 HIGH
Date Collected: 04/15/15 10:20
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-5
Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**6.6**		1.0	0.30	mg/L		04/28/15 16:23	04/29/15 15:25	5
Antimony	ND		0.10	0.034	mg/L		04/28/15 16:23	04/29/15 15:25	5
Arsenic	**0.033**	**J**	0.075	0.028	mg/L		04/28/15 16:23	04/29/15 15:25	5
Barium	**1.2**		0.0020	0.00070	mg/L		04/28/15 16:23	04/29/15 14:56	1
Beryllium	**0.00040**	**J**	0.0020	0.00030	mg/L		04/28/15 16:23	04/29/15 14:56	1
Cadmium	ND		0.010	0.0025	mg/L		04/28/15 16:23	04/29/15 15:25	5
Calcium	**5.0**		0.50	0.10	mg/L		04/28/15 16:23	04/29/15 14:56	1
Chromium	**0.042**		0.020	0.0050	mg/L		04/28/15 16:23	04/29/15 15:25	5
Cobalt	**0.0041**		0.0040	0.00063	mg/L		04/28/15 16:23	04/29/15 14:56	1
Copper	**0.0045**	**J**	0.010	0.0016	mg/L		04/28/15 16:23	04/29/15 14:56	1
Iron	**2.2**		0.050	0.019	mg/L		04/28/15 16:23	04/29/15 14:56	1
Lead	**0.081**		0.050	0.015	mg/L		04/28/15 16:23	04/29/15 15:25	5
Magnesium	**5.4**		1.0	0.22	mg/L		04/28/15 16:23	04/29/15 15:25	5
Manganese	**192**	**B**	0.015	0.0020	mg/L		04/28/15 16:23	04/29/15 15:25	5
Nickel	**0.014**	**J**	0.050	0.0063	mg/L		04/28/15 16:23	04/29/15 15:25	5
Potassium	**257**		0.50	0.10	mg/L		04/28/15 16:23	04/29/15 14:56	1
Selenium	ND		0.13	0.044	mg/L		04/28/15 16:23	04/29/15 15:25	5
Silver	**0.032**		0.030	0.0085	mg/L		04/28/15 16:23	04/29/15 15:25	5
Sodium	**8.6**		1.0	0.32	mg/L		04/28/15 16:23	04/29/15 14:56	1
Thallium	ND		0.10	0.051	mg/L		04/28/15 16:23	04/29/15 15:25	5
Vanadium	**0.019**		0.0050	0.0015	mg/L		04/28/15 16:23	04/29/15 14:56	1
Zinc	ND		0.050	0.0075	mg/L		04/28/15 16:23	04/29/15 15:25	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**8590**	**B**	400	174	mg/L			05/01/15 19:37	400

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP FECA LOW

Lab Sample ID: 480-78558-6

Date Collected: 04/15/15 10:25

Matrix: Water

Date Received: 04/16/15 09:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**3.0**		0.20	0.060	mg/L		04/28/15 16:23	04/29/15 15:08	1
Antimony	ND		0.020	0.0068	mg/L		04/28/15 16:23	04/29/15 15:08	1
Arsenic	**0.0057**	**J**	0.015	0.0056	mg/L		04/28/15 16:23	04/29/15 15:08	1
Barium	**0.0046**		0.0020	0.00070	mg/L		04/28/15 16:23	04/29/15 15:08	1
Beryllium	**0.0011**	**J**	0.0020	0.00030	mg/L		04/28/15 16:23	04/29/15 15:08	1
Cadmium	**0.0053**		0.0020	0.00050	mg/L		04/28/15 16:23	04/29/15 15:08	1
Calcium	**63.1**		0.50	0.10	mg/L		04/28/15 16:23	04/29/15 15:08	1
Chromium	**0.0034**	**J**	0.0040	0.0010	mg/L		04/28/15 16:23	04/29/15 15:08	1
Cobalt	ND		0.0040	0.00063	mg/L		04/28/15 16:23	04/29/15 15:08	1
Copper	**0.015**		0.010	0.0016	mg/L		04/28/15 16:23	04/29/15 15:08	1
Iron	ND		0.050	0.019	mg/L		04/28/15 16:23	04/29/15 15:08	1
Lead	ND		0.010	0.0030	mg/L		04/28/15 16:23	04/29/15 15:08	1
Magnesium	**10.5**		0.20	0.043	mg/L		04/28/15 16:23	04/29/15 15:08	1
Manganese	**0.14**	**B**	0.0030	0.00040	mg/L		04/28/15 16:23	04/29/15 15:08	1
Nickel	**0.083**		0.010	0.0013	mg/L		04/28/15 16:23	04/29/15 15:08	1
Potassium	**1.7**		0.50	0.10	mg/L		04/28/15 16:23	04/29/15 15:08	1
Selenium	ND		0.025	0.0087	mg/L		04/28/15 16:23	04/29/15 15:08	1
Silver	ND		0.0060	0.0017	mg/L		04/28/15 16:23	04/29/15 15:08	1
Sodium	**600**		1.0	0.32	mg/L		04/28/15 16:23	04/29/15 15:08	1
Thallium	ND		0.020	0.010	mg/L		04/28/15 16:23	04/29/15 15:08	1
Vanadium	ND		0.0050	0.0015	mg/L		04/28/15 16:23	04/29/15 15:08	1
Zinc	**0.58**		0.010	0.0015	mg/L		04/28/15 16:23	04/29/15 15:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**35300**	**B**	800	347	mg/L			05/01/15 20:04	800

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP FECA MID
Date Collected: 04/15/15 10:30
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-7
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	50800	B	800	347	mg/L			05/01/15 22:21	800

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP FECA HIGH
Date Collected: 04/15/15 10:35
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-8
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	95700	B	1000	434	mg/L			05/01/15 22:47	1000

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP NAOH LOW
Date Collected: 04/15/15 10:40
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-9
Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**12.3**		0.20	0.060	mg/L		04/28/15 16:23	04/29/15 15:10	1
Antimony	ND		0.020	0.0068	mg/L		04/28/15 16:23	04/29/15 15:10	1
Arsenic	**0.15**		0.015	0.0056	mg/L		04/28/15 16:23	04/29/15 15:10	1
Barium	**0.0014**	**J**	0.0020	0.00070	mg/L		04/28/15 16:23	04/29/15 15:10	1
Beryllium	ND		0.0020	0.00030	mg/L		04/28/15 16:23	04/29/15 15:10	1
Cadmium	ND		0.0020	0.00050	mg/L		04/28/15 16:23	04/29/15 15:10	1
Calcium	**0.66**		0.50	0.10	mg/L		04/28/15 16:23	04/29/15 15:10	1
Chromium	**0.063**		0.0040	0.0010	mg/L		04/28/15 16:23	04/29/15 15:10	1
Cobalt	ND		0.0040	0.00063	mg/L		04/28/15 16:23	04/29/15 15:10	1
Copper	**0.0064**	**J**	0.010	0.0016	mg/L		04/28/15 16:23	04/29/15 15:10	1
Iron	ND		0.050	0.019	mg/L		04/28/15 16:23	04/29/15 15:10	1
Lead	ND		0.010	0.0030	mg/L		04/28/15 16:23	04/29/15 15:10	1
Magnesium	ND		0.20	0.043	mg/L		04/28/15 16:23	04/29/15 15:10	1
Manganese	**0.0012**	**J B**	0.0030	0.00040	mg/L		04/28/15 16:23	04/29/15 15:10	1
Nickel	ND		0.010	0.0013	mg/L		04/28/15 16:23	04/29/15 15:10	1
Potassium	**0.89**		0.50	0.10	mg/L		04/28/15 16:23	04/29/15 15:10	1
Selenium	**0.012**	**J**	0.025	0.0087	mg/L		04/28/15 16:23	04/29/15 15:10	1
Silver	ND		0.0060	0.0017	mg/L		04/28/15 16:23	04/29/15 15:10	1
Sodium	**1290**		1.0	0.32	mg/L		04/28/15 16:23	04/29/15 15:10	1
Thallium	ND		0.020	0.010	mg/L		04/28/15 16:23	04/29/15 15:10	1
Vanadium	**0.041**		0.0050	0.0015	mg/L		04/28/15 16:23	04/29/15 15:10	1
Zinc	ND		0.010	0.0015	mg/L		04/28/15 16:23	04/29/15 15:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**25300**	**B**	400	174	mg/L			05/01/15 23:14	400

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP NAOH MID
Date Collected: 04/15/15 10:45
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-10
Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**225**		20.0	6.0	mg/L		05/01/15 11:58	05/04/15 10:22	1
Antimony	ND		2.0	0.68	mg/L		05/01/15 11:58	05/04/15 10:22	1
Arsenic	**1.8**		1.5	0.56	mg/L		05/01/15 11:58	05/04/15 10:22	1
Barium	ND		0.20	0.070	mg/L		05/01/15 11:58	05/04/15 10:22	1
Beryllium	ND		0.20	0.030	mg/L		05/01/15 11:58	05/04/15 10:22	1
Cadmium	ND		0.20	0.050	mg/L		05/01/15 11:58	05/04/15 10:22	1
Calcium	ND		50.0	10.0	mg/L		05/01/15 11:58	05/04/15 10:22	1
Chromium	**0.79**		0.40	0.10	mg/L		05/01/15 11:58	05/04/15 10:22	1
Cobalt	ND		0.40	0.063	mg/L		05/01/15 11:58	05/04/15 10:22	1
Copper	ND		1.0	0.16	mg/L		05/01/15 11:58	05/04/15 10:22	1
Iron	ND	^	5.0	1.9	mg/L		05/01/15 11:58	05/04/15 10:22	1
Lead	ND		1.0	0.30	mg/L		05/01/15 11:58	05/04/15 10:22	1
Magnesium	ND		20.0	4.3	mg/L		05/01/15 11:58	05/04/15 10:22	1
Manganese	**0.11**	**J B**	0.30	0.040	mg/L		05/01/15 11:58	05/04/15 10:22	1
Nickel	ND		1.0	0.13	mg/L		05/01/15 11:58	05/04/15 10:22	1
Potassium	**13.7**	**J**	50.0	10.0	mg/L		05/01/15 11:58	05/04/15 10:22	1
Selenium	ND		2.5	0.87	mg/L		05/01/15 11:58	05/04/15 10:22	1
Silver	ND		0.60	0.17	mg/L		05/01/15 11:58	05/04/15 10:22	1
Sodium	**24000**		100	32.4	mg/L		05/01/15 11:58	05/04/15 10:22	1
Thallium	ND		2.0	1.0	mg/L		05/01/15 11:58	05/04/15 10:22	1
Vanadium	**0.60**		0.50	0.15	mg/L		05/01/15 11:58	05/04/15 10:22	1
Zinc	**0.20**	**J**	1.0	0.15	mg/L		05/01/15 11:58	05/04/15 10:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**27900**		40.0	17.4	mg/L			04/22/15 15:20	40

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP NAOH HIGH
Date Collected: 04/15/15 10:50
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-11
Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**291**		20.0	6.0	mg/L		05/01/15 11:58	05/04/15 10:25	1
Antimony	ND		2.0	0.68	mg/L		05/01/15 11:58	05/04/15 10:25	1
Arsenic	**2.2**		1.5	0.56	mg/L		05/01/15 11:58	05/04/15 10:25	1
Barium	**0.085**	**J**	0.20	0.070	mg/L		05/01/15 11:58	05/04/15 10:25	1
Beryllium	ND		0.20	0.030	mg/L		05/01/15 11:58	05/04/15 10:25	1
Cadmium	ND		0.20	0.050	mg/L		05/01/15 11:58	05/04/15 10:25	1
Calcium	ND		50.0	10.0	mg/L		05/01/15 11:58	05/04/15 10:25	1
Chromium	**1.2**		0.40	0.10	mg/L		05/01/15 11:58	05/04/15 10:25	1
Cobalt	ND		0.40	0.063	mg/L		05/01/15 11:58	05/04/15 10:25	1
Copper	ND		1.0	0.16	mg/L		05/01/15 11:58	05/04/15 10:25	1
Iron	ND	^	5.0	1.9	mg/L		05/01/15 11:58	05/04/15 10:25	1
Lead	**0.98**	**J**	1.0	0.30	mg/L		05/01/15 11:58	05/04/15 10:25	1
Magnesium	ND		20.0	4.3	mg/L		05/01/15 11:58	05/04/15 10:25	1
Manganese	**0.12**	**J B**	0.30	0.040	mg/L		05/01/15 11:58	05/04/15 10:25	1
Nickel	ND		1.0	0.13	mg/L		05/01/15 11:58	05/04/15 10:25	1
Potassium	**37.9**	**J**	50.0	10.0	mg/L		05/01/15 11:58	05/04/15 10:25	1
Selenium	ND		2.5	0.87	mg/L		05/01/15 11:58	05/04/15 10:25	1
Silver	ND		0.60	0.17	mg/L		05/01/15 11:58	05/04/15 10:25	1
Sodium	**45800**		100	32.4	mg/L		05/01/15 11:58	05/04/15 10:25	1
Thallium	ND		2.0	1.0	mg/L		05/01/15 11:58	05/04/15 10:25	1
Vanadium	**0.84**		0.50	0.15	mg/L		05/01/15 11:58	05/04/15 10:25	1
Zinc	**0.60**	**J**	1.0	0.15	mg/L		05/01/15 11:58	05/04/15 10:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**96200**	**B**	1000	434	mg/L			05/01/15 23:40	1000

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: HP LOW
Date Collected: 04/15/15 11:00
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-12
Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	54.6		1.0	0.30	mg/L		04/28/15 16:23	04/30/15 08:16	5
Antimony	ND		0.10	0.034	mg/L		04/28/15 16:23	04/30/15 08:16	5
Arsenic	ND		0.075	0.028	mg/L		04/28/15 16:23	04/30/15 08:16	5
Barium	2.1		0.010	0.0035	mg/L		04/28/15 16:23	04/30/15 08:16	5
Beryllium	0.0059	J	0.010	0.0015	mg/L		04/28/15 16:23	04/30/15 08:16	5
Cadmium	0.019		0.010	0.0025	mg/L		04/28/15 16:23	04/30/15 08:16	5
Calcium	67.8		2.5	0.50	mg/L		04/28/15 16:23	04/30/15 08:16	5
Chromium	0.037		0.0040	0.0010	mg/L		04/28/15 16:23	04/29/15 14:44	1
Cobalt	0.14		0.0040	0.00063	mg/L		04/28/15 16:23	04/29/15 14:44	1
Copper	0.13		0.010	0.0016	mg/L		04/28/15 16:23	04/29/15 14:44	1
Iron	95.6		0.25	0.097	mg/L		04/28/15 16:23	04/30/15 08:16	5
Lead	0.073		0.010	0.0030	mg/L		04/28/15 16:23	04/29/15 14:44	1
Magnesium	8.1		0.20	0.043	mg/L		04/28/15 16:23	04/29/15 14:44	1
Manganese	61.0	B	0.015	0.0020	mg/L		04/28/15 16:23	04/30/15 08:16	5
Nickel	0.29		0.010	0.0013	mg/L		04/28/15 16:23	04/29/15 14:44	1
Potassium	1.4	J	2.5	0.50	mg/L		04/28/15 16:23	04/30/15 08:16	5
Selenium	ND		0.13	0.044	mg/L		04/28/15 16:23	04/30/15 08:16	5
Silver	0.0062		0.0060	0.0017	mg/L		04/28/15 16:23	04/29/15 14:44	1
Sodium	10.6		5.0	1.6	mg/L		04/28/15 16:23	04/30/15 08:16	5
Thallium	0.010	J	0.020	0.010	mg/L		04/28/15 16:23	04/29/15 14:44	1
Vanadium	0.039		0.0050	0.0015	mg/L		04/28/15 16:23	04/29/15 14:44	1
Zinc	0.86		0.010	0.0015	mg/L		04/28/15 16:23	04/29/15 14:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	4520		200	86.8	mg/L			04/22/15 16:16	200

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: HP HIGH
Date Collected: 04/15/15 11:10
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-13
Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	49.4		0.20	0.060	mg/L		04/28/15 16:23	04/29/15 14:47	1
Antimony	ND		0.020	0.0068	mg/L		04/28/15 16:23	04/29/15 14:47	1
Arsenic	0.010	J	0.015	0.0056	mg/L		04/28/15 16:23	04/29/15 14:47	1
Barium	1.3		0.0020	0.00070	mg/L		04/28/15 16:23	04/29/15 14:47	1
Beryllium	0.0055		0.0020	0.00030	mg/L		04/28/15 16:23	04/29/15 14:47	1
Cadmium	0.016		0.0020	0.00050	mg/L		04/28/15 16:23	04/29/15 14:47	1
Calcium	61.2		0.50	0.10	mg/L		04/28/15 16:23	04/29/15 14:47	1
Chromium	0.061		0.0040	0.0010	mg/L		04/28/15 16:23	04/29/15 14:47	1
Cobalt	0.15		0.0040	0.00063	mg/L		04/28/15 16:23	04/29/15 14:47	1
Copper	0.18		0.010	0.0016	mg/L		04/28/15 16:23	04/29/15 14:47	1
Iron	76.3		0.050	0.019	mg/L		04/28/15 16:23	04/29/15 14:47	1
Lead	0.026		0.010	0.0030	mg/L		04/28/15 16:23	04/29/15 14:47	1
Magnesium	10.7		0.20	0.043	mg/L		04/28/15 16:23	04/29/15 14:47	1
Manganese	49.2	B	0.0030	0.00040	mg/L		04/28/15 16:23	04/29/15 14:47	1
Nickel	0.31		0.010	0.0013	mg/L		04/28/15 16:23	04/29/15 14:47	1
Potassium	1.2		0.50	0.10	mg/L		04/28/15 16:23	04/29/15 14:47	1
Selenium	ND		0.025	0.0087	mg/L		04/28/15 16:23	04/29/15 14:47	1
Silver	0.0087		0.0060	0.0017	mg/L		04/28/15 16:23	04/29/15 14:47	1
Sodium	10.2		1.0	0.32	mg/L		04/28/15 16:23	04/29/15 14:47	1
Thallium	ND		0.020	0.010	mg/L		04/28/15 16:23	04/29/15 14:47	1
Vanadium	0.065		0.0050	0.0015	mg/L		04/28/15 16:23	04/29/15 14:47	1
Zinc	1.1		0.010	0.0015	mg/L		04/28/15 16:23	04/29/15 14:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	6050		100	43.4	mg/L			04/22/15 16:43	100

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: HP CTRL
Date Collected: 04/15/15 09:00
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-14
Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		04/28/15 16:23	04/29/15 15:13	1
Antimony	ND		0.020	0.0068	mg/L		04/28/15 16:23	04/29/15 15:13	1
Arsenic	ND		0.015	0.0056	mg/L		04/28/15 16:23	04/29/15 15:13	1
Barium	**0.011**		0.0020	0.00070	mg/L		04/28/15 16:23	04/29/15 15:13	1
Beryllium	ND		0.0020	0.00030	mg/L		04/28/15 16:23	04/29/15 15:13	1
Cadmium	ND		0.0020	0.00050	mg/L		04/28/15 16:23	04/29/15 15:13	1
Calcium	**9.8**		0.50	0.10	mg/L		04/28/15 16:23	04/29/15 15:13	1
Chromium	ND		0.0040	0.0010	mg/L		04/28/15 16:23	04/29/15 15:13	1
Cobalt	ND		0.0040	0.00063	mg/L		04/28/15 16:23	04/29/15 15:13	1
Copper	ND		0.010	0.0016	mg/L		04/28/15 16:23	04/29/15 15:13	1
Iron	ND		0.050	0.019	mg/L		04/28/15 16:23	04/29/15 15:13	1
Lead	ND		0.010	0.0030	mg/L		04/28/15 16:23	04/29/15 15:13	1
Magnesium	**1.8**		0.20	0.043	mg/L		04/28/15 16:23	04/29/15 15:13	1
Manganese	**0.0018**	**J B**	0.0030	0.00040	mg/L		04/28/15 16:23	04/29/15 15:13	1
Nickel	ND		0.010	0.0013	mg/L		04/28/15 16:23	04/29/15 15:13	1
Potassium	**0.29**	**J**	0.50	0.10	mg/L		04/28/15 16:23	04/29/15 15:13	1
Selenium	ND		0.025	0.0087	mg/L		04/28/15 16:23	04/29/15 15:13	1
Silver	ND		0.0060	0.0017	mg/L		04/28/15 16:23	04/29/15 15:13	1
Sodium	**10.7**		1.0	0.32	mg/L		04/28/15 16:23	04/29/15 15:13	1
Thallium	ND		0.020	0.010	mg/L		04/28/15 16:23	04/29/15 15:13	1
Vanadium	ND		0.0050	0.0015	mg/L		04/28/15 16:23	04/29/15 15:13	1
Zinc	ND		0.010	0.0015	mg/L		04/28/15 16:23	04/29/15 15:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**5.2**		1.0	0.43	mg/L			04/22/15 00:24	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP CTRL
Date Collected: 04/15/15 10:00
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-15
Matrix: Solid
Percent Solids: 80.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.2	0.30	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
1,1,2,2-Tetrachloroethane	ND		4.2	0.67	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.2	0.95	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
1,1,2-Trichloroethane	ND		4.2	0.54	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
1,1-Dichloroethane	ND		4.2	0.51	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
1,1-Dichloroethene	ND		4.2	0.51	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
1,2,4-Trichlorobenzene	ND		4.2	0.25	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
1,2-Dibromo-3-Chloropropane	ND		4.2	2.1	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
1,2-Dibromoethane	ND		4.2	0.53	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
1,2-Dichlorobenzene	ND		4.2	0.33	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
1,2-Dichloroethane	ND		4.2	0.21	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
1,2-Dichloropropane	ND		4.2	2.1	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
1,3-Dichlorobenzene	ND		4.2	0.21	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
1,4-Dichlorobenzene	ND		4.2	0.58	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
2-Butanone (MEK)	ND		21	1.5	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
2-Hexanone	ND		21	2.1	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
4-Methyl-2-pentanone (MIBK)	ND		21	1.4	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
Acetone	ND		21	3.5	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
Benzene	ND		4.2	0.20	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
Bromodichloromethane	ND		4.2	0.56	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
Bromoform	ND		4.2	2.1	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
Bromomethane	ND		4.2	0.37	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
Carbon disulfide	ND		4.2	2.1	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
Carbon tetrachloride	ND		4.2	0.40	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
Chlorobenzene	ND		4.2	0.55	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
Chloroethane	ND		4.2	0.94	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
Chloroform	ND		4.2	0.26	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
Chloromethane	ND		4.2	0.25	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
cis-1,2-Dichloroethene	**1.3**	**J**	4.2	0.53	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
cis-1,3-Dichloropropene	ND		4.2	0.60	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
Cyclohexane	ND		4.2	0.58	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
Dibromochloromethane	ND		4.2	0.53	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
Dichlorodifluoromethane	ND		4.2	0.34	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
Ethylbenzene	ND		4.2	0.29	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
Isopropylbenzene	ND		4.2	0.63	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
Methyl acetate	ND		4.2	2.5	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
Methyl tert-butyl ether	ND		4.2	0.41	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
Methylcyclohexane	ND		4.2	0.63	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
Methylene Chloride	ND		4.2	1.9	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
Styrene	ND		4.2	0.21	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
Tetrachloroethene	**2000**	**E**	4.2	0.56	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
Toluene	ND		4.2	0.31	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
trans-1,2-Dichloroethene	ND		4.2	0.43	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
trans-1,3-Dichloropropene	ND		4.2	1.8	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
Trichloroethene	**35**		4.2	0.91	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
Trichlorofluoromethane	ND		4.2	0.39	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
Vinyl chloride	ND		4.2	0.51	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1
Xylenes, Total	ND		8.3	0.70	ug/Kg	☼	04/16/15 14:00	04/17/15 13:42	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP CTRL
Date Collected: 04/15/15 10:00
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-15
Matrix: Solid
Percent Solids: 80.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		64 - 126	04/16/15 14:00	04/17/15 13:42	1
4-Bromofluorobenzene (Surr)	98		72 - 126	04/16/15 14:00	04/17/15 13:42	1
Dibromofluoromethane (Surr)	92		60 - 140	04/16/15 14:00	04/17/15 13:42	1
Toluene-d8 (Surr)	95		71 - 125	04/16/15 14:00	04/17/15 13:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		240	67	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
1,1,2,2-Tetrachloroethane	ND		240	39	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		240	120	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
1,1,2-Trichloroethane	ND		240	51	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
1,1-Dichloroethane	ND		240	75	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
1,1-Dichloroethene	ND		240	84	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
1,2,4-Trichlorobenzene	ND		240	92	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
1,2-Dibromo-3-Chloropropane	ND		240	120	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
1,2-Dibromoethane	ND		240	42	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
1,2-Dichlorobenzene	ND		240	62	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
1,2-Dichloroethane	ND		240	99	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
1,2-Dichloropropane	ND		240	39	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
1,3-Dichlorobenzene	ND		240	65	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
1,4-Dichlorobenzene	ND		240	34	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
2-Butanone (MEK)	ND		1200	720	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
2-Hexanone	ND		1200	500	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
4-Methyl-2-pentanone (MIBK)	ND		1200	77	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
Acetone	**1000**	**J**	1200	990	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
Benzene	ND		240	46	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
Bromodichloromethane	ND		240	48	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
Bromoform	ND		240	120	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
Bromomethane	ND		240	53	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
Carbon disulfide	ND		240	110	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
Carbon tetrachloride	ND		240	62	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
Chlorobenzene	ND		240	32	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
Chloroethane	ND		240	50	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
Chloroform	ND		240	170	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
Chloromethane	ND		240	58	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
cis-1,2-Dichloroethene	ND		240	67	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
cis-1,3-Dichloropropene	ND		240	58	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
Cyclohexane	ND		240	54	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
Dibromochloromethane	ND		240	120	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
Dichlorodifluoromethane	ND		240	110	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
Ethylbenzene	ND		240	70	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
Isopropylbenzene	ND		240	36	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
Methyl acetate	ND		240	120	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
Methyl tert-butyl ether	ND		240	91	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
Methylcyclohexane	ND		240	110	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
Methylene Chloride	**250**		240	48	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
Styrene	ND		240	58	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
Tetrachloroethene	**11000**		240	33	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
Toluene	ND		240	65	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
trans-1,2-Dichloroethene	ND		240	57	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP CTRL
Date Collected: 04/15/15 10:00
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-15
Matrix: Solid
Percent Solids: 80.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		240	24	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
Trichloroethene	**67**	**J**	240	67	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
Trichlorofluoromethane	ND		240	110	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
Vinyl chloride	ND		240	81	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4
Xylenes, Total	ND		480	130	ug/Kg	☼	04/16/15 14:00	04/24/15 04:20	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*53 - 146*	*04/16/15 14:00*	*04/24/15 04:20*	*4*
4-Bromofluorobenzene (Surr)	*100*		*49 - 148*	*04/16/15 14:00*	*04/24/15 04:20*	*4*
Dibromofluoromethane (Surr)	*95*		*60 - 140*	*04/16/15 14:00*	*04/24/15 04:20*	*4*
Toluene-d8 (Surr)	*99*		*50 - 149*	*04/16/15 14:00*	*04/24/15 04:20*	*4*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**11600**		12.0	5.3	mg/Kg	☼	04/17/15 14:13	04/21/15 09:09	1
Antimony	**1.1**	**J**	18.0	0.48	mg/Kg	☼	04/17/15 14:13	04/21/15 09:09	1
Arsenic	**9.5**		2.4	0.48	mg/Kg	☼	04/17/15 14:13	04/21/15 09:09	1
Barium	**106**		0.60	0.13	mg/Kg	☼	04/17/15 14:13	04/21/15 09:09	1
Beryllium	**0.44**		0.24	0.034	mg/Kg	☼	04/17/15 14:13	04/21/15 09:09	1
Cadmium	**0.32**		0.24	0.036	mg/Kg	☼	04/17/15 14:13	04/21/15 09:09	1
Calcium	**45600**		59.9	4.0	mg/Kg	☼	04/17/15 14:13	04/21/15 09:09	1
Chromium	**11.6**		0.60	0.24	mg/Kg	☼	04/17/15 14:13	04/21/15 09:09	1
Cobalt	**9.2**		0.60	0.060	mg/Kg	☼	04/17/15 14:13	04/21/15 09:09	1
Copper	**42.0**		1.2	0.25	mg/Kg	☼	04/17/15 14:13	04/21/15 09:09	1
Iron	**26400**	**B**	12.0	1.3	mg/Kg	☼	04/17/15 14:13	04/21/15 09:09	1
Lead	**27.7**		1.2	0.29	mg/Kg	☼	04/17/15 14:13	04/21/15 09:09	1
Magnesium	**4100**		24.0	1.1	mg/Kg	☼	04/17/15 14:13	04/21/15 09:09	1
Manganese	**1590**	**B**	0.24	0.038	mg/Kg	☼	04/17/15 14:13	04/21/15 09:09	1
Nickel	**24.6**		6.0	0.28	mg/Kg	☼	04/17/15 14:13	04/21/15 09:09	1
Potassium	**1720**		36.0	24.0	mg/Kg	☼	04/17/15 14:13	04/21/15 09:09	1
Selenium	ND		4.8	0.48	mg/Kg	☼	04/17/15 14:13	04/21/15 09:09	1
Silver	ND		0.72	0.24	mg/Kg	☼	04/17/15 14:13	04/21/15 09:09	1
Sodium	**69.2**	**J**	168	15.6	mg/Kg	☼	04/17/15 14:13	04/21/15 09:09	1
Thallium	ND		7.2	0.36	mg/Kg	☼	04/17/15 14:13	04/21/15 09:09	1
Vanadium	**18.2**		0.60	0.13	mg/Kg	☼	04/17/15 14:13	04/21/15 09:09	1
Zinc	**91.0**	**B**	2.4	0.18	mg/Kg	☼	04/17/15 14:13	04/21/15 09:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**4870**	**B**	1000	120	mg/Kg			04/22/15 18:31	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: KMNO4 LOW
Date Collected: 04/15/15 10:10
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-16
Matrix: Solid
Percent Solids: 84.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.5	0.33	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
1,1,2,2-Tetrachloroethane	ND		4.5	0.73	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.5	1.0	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
1,1,2-Trichloroethane	ND		4.5	0.59	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
1,1-Dichloroethane	ND		4.5	0.55	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
1,1-Dichloroethene	ND		4.5	0.55	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
1,2,4-Trichlorobenzene	ND		4.5	0.27	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
1,2-Dibromo-3-Chloropropane	ND		4.5	2.3	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
1,2-Dibromoethane	ND		4.5	0.58	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
1,2-Dichlorobenzene	ND		4.5	0.35	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
1,2-Dichloroethane	ND		4.5	0.23	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
1,2-Dichloropropane	ND		4.5	2.3	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
1,3-Dichlorobenzene	ND		4.5	0.23	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
1,4-Dichlorobenzene	ND		4.5	0.63	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
2-Butanone (MEK)	**13**	**J**	23	1.6	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
2-Hexanone	ND		23	2.3	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
4-Methyl-2-pentanone (MIBK)	ND		23	1.5	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
Acetone	**77**		23	3.8	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
Benzene	ND		4.5	0.22	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
Bromodichloromethane	ND		4.5	0.60	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
Bromoform	ND		4.5	2.3	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
Bromomethane	ND		4.5	0.41	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
Carbon disulfide	ND		4.5	2.3	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
Carbon tetrachloride	ND		4.5	0.44	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
Chlorobenzene	ND		4.5	0.59	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
Chloroethane	ND		4.5	1.0	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
Chloroform	ND		4.5	0.28	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
Chloromethane	ND		4.5	0.27	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
cis-1,2-Dichloroethene	ND		4.5	0.58	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
cis-1,3-Dichloropropene	ND		4.5	0.65	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
Cyclohexane	ND	*	4.5	0.63	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
Dibromochloromethane	ND		4.5	0.58	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
Dichlorodifluoromethane	ND		4.5	0.37	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
Ethylbenzene	ND		4.5	0.31	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
Isopropylbenzene	ND		4.5	0.68	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
Methyl acetate	ND		4.5	2.7	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
Methyl tert-butyl ether	ND		4.5	0.44	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
Methylcyclohexane	ND		4.5	0.68	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
Methylene Chloride	ND		4.5	2.1	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
Styrene	ND		4.5	0.23	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
Tetrachloroethene	**220**	**E**	4.5	0.60	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
Toluene	ND		4.5	0.34	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
trans-1,2-Dichloroethene	ND		4.5	0.47	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
trans-1,3-Dichloropropene	ND		4.5	2.0	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
Trichloroethene	ND		4.5	0.99	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
Trichlorofluoromethane	ND		4.5	0.43	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
Vinyl chloride	ND		4.5	0.55	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1
Xylenes, Total	ND		9.0	0.76	ug/Kg	☼	04/16/15 14:00	04/20/15 02:13	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: KMNO4 LOW
Date Collected: 04/15/15 10:10
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-16
Matrix: Solid
Percent Solids: 84.2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*64 - 126*	*04/16/15 14:00*	*04/20/15 02:13*	*1*
4-Bromofluorobenzene (Surr)	*97*		*72 - 126*	*04/16/15 14:00*	*04/20/15 02:13*	*1*
Dibromofluoromethane (Surr)	*97*		*60 - 140*	*04/16/15 14:00*	*04/20/15 02:13*	*1*
Toluene-d8 (Surr)	*103*		*71 - 125*	*04/16/15 14:00*	*04/20/15 02:13*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		51	14	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
1,1,2,2-Tetrachloroethane	ND		51	8.3	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		51	26	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
1,1,2-Trichloroethane	ND		51	11	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
1,1-Dichloroethane	ND		51	16	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
1,1-Dichloroethene	ND		51	18	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
1,2,4-Trichlorobenzene	ND		51	19	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
1,2-Dibromo-3-Chloropropane	ND		51	26	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
1,2-Dibromoethane	ND		51	9.0	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
1,2-Dichlorobenzene	ND		51	13	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
1,2-Dichloroethane	ND		51	21	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
1,2-Dichloropropane	ND		51	8.3	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
1,3-Dichlorobenzene	ND		51	14	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
1,4-Dichlorobenzene	ND		51	7.2	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
2-Butanone (MEK)	ND		260	150	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
2-Hexanone	ND		260	110	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
4-Methyl-2-pentanone (MIBK)	ND		260	16	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
Acetone	**340**		260	210	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
Benzene	ND		51	9.8	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
Bromodichloromethane	ND		51	10	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
Bromoform	ND		51	26	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
Bromomethane	ND		51	11	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
Carbon disulfide	ND		51	23	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
Carbon tetrachloride	ND		51	13	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
Chlorobenzene	ND		51	6.8	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
Chloroethane	ND		51	11	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
Chloroform	ND		51	35	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
Chloromethane	ND		51	12	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
cis-1,2-Dichloroethene	ND		51	14	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
cis-1,3-Dichloropropene	ND		51	12	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
Cyclohexane	ND		51	11	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
Dibromochloromethane	ND		51	25	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
Dichlorodifluoromethane	ND		51	22	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
Ethylbenzene	ND		51	15	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
Isopropylbenzene	ND		51	7.7	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
Methyl acetate	**380**		51	24	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
Methyl tert-butyl ether	ND		51	19	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
Methylcyclohexane	ND		51	24	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
Methylene Chloride	**51**		51	10	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
Styrene	ND		51	12	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
Tetrachloroethene	**1800**		51	6.9	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
Toluene	ND		51	14	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
trans-1,2-Dichloroethene	ND		51	12	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: KMNO4 LOW
Date Collected: 04/15/15 10:10
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-16
Matrix: Solid
Percent Solids: 84.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		51	5.1	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
Trichloroethene	ND		51	14	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
Trichlorofluoromethane	ND		51	24	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
Vinyl chloride	ND		51	17	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1
Xylenes, Total	ND		100	28	ug/Kg	☼	04/16/15 14:00	04/24/15 04:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*53 - 146*	*04/16/15 14:00*	*04/24/15 04:43*	*1*
4-Bromofluorobenzene (Surr)	*100*		*49 - 148*	*04/16/15 14:00*	*04/24/15 04:43*	*1*
Dibromofluoromethane (Surr)	*91*		*60 - 140*	*04/16/15 14:00*	*04/24/15 04:43*	*1*
Toluene-d8 (Surr)	*99*		*50 - 149*	*04/16/15 14:00*	*04/24/15 04:43*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**7950**		11.0	4.8	mg/Kg	☼	04/17/15 14:13	04/21/15 09:12	1
Antimony	**0.75**	**J**	16.5	0.44	mg/Kg	☼	04/17/15 14:13	04/21/15 09:12	1
Arsenic	**6.8**		2.2	0.44	mg/Kg	☼	04/17/15 14:13	04/21/15 09:12	1
Barium	**113**		0.55	0.12	mg/Kg	☼	04/17/15 14:13	04/21/15 09:12	1
Beryllium	**0.36**		0.22	0.031	mg/Kg	☼	04/17/15 14:13	04/21/15 09:12	1
Cadmium	**0.29**		0.22	0.033	mg/Kg	☼	04/17/15 14:13	04/21/15 09:12	1
Calcium	**1300**		55.0	3.6	mg/Kg	☼	04/17/15 14:13	04/21/15 09:12	1
Chromium	**10.6**		0.55	0.22	mg/Kg	☼	04/17/15 14:13	04/21/15 09:12	1
Cobalt	**8.0**		0.55	0.055	mg/Kg	☼	04/17/15 14:13	04/21/15 09:12	1
Copper	**19.7**		1.1	0.23	mg/Kg	☼	04/17/15 14:13	04/21/15 09:12	1
Iron	**22800**	**B**	11.0	1.2	mg/Kg	☼	04/17/15 14:13	04/21/15 09:12	1
Lead	**12.5**		1.1	0.26	mg/Kg	☼	04/17/15 14:13	04/21/15 09:12	1
Magnesium	**2650**		22.0	1.0	mg/Kg	☼	04/17/15 14:13	04/21/15 09:12	1
Manganese	**1850**	**B**	0.22	0.035	mg/Kg	☼	04/17/15 14:13	04/21/15 09:12	1
Nickel	**21.5**		5.5	0.25	mg/Kg	☼	04/17/15 14:13	04/21/15 09:12	1
Potassium	**1390**		33.0	22.0	mg/Kg	☼	04/17/15 14:13	04/21/15 09:12	1
Selenium	ND		4.4	0.44	mg/Kg	☼	04/17/15 14:13	04/21/15 09:12	1
Silver	ND		0.66	0.22	mg/Kg	☼	04/17/15 14:13	04/21/15 09:12	1
Sodium	**53.8**	**J**	154	14.3	mg/Kg	☼	04/17/15 14:13	04/21/15 09:12	1
Thallium	ND		6.6	0.33	mg/Kg	☼	04/17/15 14:13	04/21/15 09:12	1
Vanadium	**11.9**		0.55	0.12	mg/Kg	☼	04/17/15 14:13	04/21/15 09:12	1
Zinc	**71.4**	**B**	2.2	0.17	mg/Kg	☼	04/17/15 14:13	04/21/15 09:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**4950**	**B**	1000	120	mg/Kg			04/22/15 18:37	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: KMNO4 MID
Date Collected: 04/15/15 10:15
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-17
Matrix: Solid
Percent Solids: 86.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.3	0.32	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
1,1,2,2-Tetrachloroethane	ND		4.3	0.70	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.3	0.99	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
1,1,2-Trichloroethane	ND		4.3	0.56	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
1,1-Dichloroethane	ND		4.3	0.53	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
1,1-Dichloroethene	ND		4.3	0.53	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
1,2,4-Trichlorobenzene	ND		4.3	0.26	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
1,2-Dibromo-3-Chloropropane	ND		4.3	2.2	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
1,2-Dibromoethane	ND		4.3	0.56	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
1,2-Dichlorobenzene	ND		4.3	0.34	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
1,2-Dichloroethane	ND		4.3	0.22	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
1,2-Dichloropropane	ND		4.3	2.2	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
1,3-Dichlorobenzene	ND		4.3	0.22	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
1,4-Dichlorobenzene	ND		4.3	0.61	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
2-Butanone (MEK)	**12**	**J**	22	1.6	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
2-Hexanone	ND		22	2.2	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
4-Methyl-2-pentanone (MIBK)	ND		22	1.4	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
Acetone	**200**		22	3.7	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
Benzene	ND		4.3	0.21	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
Bromodichloromethane	ND		4.3	0.58	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
Bromoform	ND		4.3	2.2	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
Bromomethane	ND		4.3	0.39	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
Carbon disulfide	ND		4.3	2.2	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
Carbon tetrachloride	ND		4.3	0.42	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
Chlorobenzene	ND		4.3	0.57	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
Chloroethane	ND		4.3	0.98	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
Chloroform	ND		4.3	0.27	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
Chloromethane	ND		4.3	0.26	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
cis-1,2-Dichloroethene	ND		4.3	0.56	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
cis-1,3-Dichloropropene	ND		4.3	0.63	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
Cyclohexane	ND	*	4.3	0.61	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
Dibromochloromethane	ND		4.3	0.56	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
Dichlorodifluoromethane	ND		4.3	0.36	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
Ethylbenzene	ND		4.3	0.30	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
Isopropylbenzene	ND		4.3	0.65	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
Methyl acetate	ND		4.3	2.6	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
Methyl tert-butyl ether	ND		4.3	0.43	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
Methylcyclohexane	ND		4.3	0.66	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
Methylene Chloride	ND		4.3	2.0	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
Styrene	ND		4.3	0.22	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
Tetrachloroethene	**74**		4.3	0.58	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
Toluene	ND		4.3	0.33	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
trans-1,2-Dichloroethene	ND		4.3	0.45	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
trans-1,3-Dichloropropene	ND		4.3	1.9	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
Trichloroethene	ND		4.3	0.96	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
Trichlorofluoromethane	ND		4.3	0.41	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
Vinyl chloride	ND		4.3	0.53	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1
Xylenes, Total	ND		8.7	0.73	ug/Kg	☼	04/16/15 14:00	04/20/15 03:04	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: KMNO4 MID
Date Collected: 04/15/15 10:15
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-17
Matrix: Solid
Percent Solids: 86.1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		64 - 126	04/16/15 14:00	04/20/15 03:04	1
4-Bromofluorobenzene (Surr)	99		72 - 126	04/16/15 14:00	04/20/15 03:04	1
Dibromofluoromethane (Surr)	99		60 - 140	04/16/15 14:00	04/20/15 03:04	1
Toluene-d8 (Surr)	105		71 - 125	04/16/15 14:00	04/20/15 03:04	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	8610		10.9	4.8	mg/Kg	☼	04/17/15 14:13	04/21/15 09:16	1
Antimony	0.52	J	16.4	0.44	mg/Kg	☼	04/17/15 14:13	04/21/15 09:16	1
Arsenic	9.2		2.2	0.44	mg/Kg	☼	04/17/15 14:13	04/21/15 09:16	1
Barium	127		0.55	0.12	mg/Kg	☼	04/17/15 14:13	04/21/15 09:16	1
Beryllium	0.36		0.22	0.031	mg/Kg	☼	04/17/15 14:13	04/21/15 09:16	1
Cadmium	0.34		0.22	0.033	mg/Kg	☼	04/17/15 14:13	04/21/15 09:16	1
Calcium	1080		54.5	3.6	mg/Kg	☼	04/17/15 14:13	04/21/15 09:16	1
Chromium	9.9		0.55	0.22	mg/Kg	☼	04/17/15 14:13	04/21/15 09:16	1
Cobalt	7.7		0.55	0.055	mg/Kg	☼	04/17/15 14:13	04/21/15 09:16	1
Copper	21.0		1.1	0.23	mg/Kg	☼	04/17/15 14:13	04/21/15 09:16	1
Iron	19000	B	10.9	1.2	mg/Kg	☼	04/17/15 14:13	04/21/15 09:16	1
Lead	17.4		1.1	0.26	mg/Kg	☼	04/17/15 14:13	04/21/15 09:16	1
Magnesium	2460		21.8	1.0	mg/Kg	☼	04/17/15 14:13	04/21/15 09:16	1
Manganese	3220	B	0.22	0.035	mg/Kg	☼	04/17/15 14:13	04/21/15 09:16	1
Nickel	20.1		5.5	0.25	mg/Kg	☼	04/17/15 14:13	04/21/15 09:16	1
Potassium	2310		32.7	21.8	mg/Kg	☼	04/17/15 14:13	04/21/15 09:16	1
Selenium	ND		4.4	0.44	mg/Kg	☼	04/17/15 14:13	04/21/15 09:16	1
Silver	0.25	J	0.65	0.22	mg/Kg	☼	04/17/15 14:13	04/21/15 09:16	1
Sodium	48.8	J	153	14.2	mg/Kg	☼	04/17/15 14:13	04/21/15 09:16	1
Thallium	ND		6.5	0.33	mg/Kg	☼	04/17/15 14:13	04/21/15 09:16	1
Vanadium	12.3		0.55	0.12	mg/Kg	☼	04/17/15 14:13	04/21/15 09:16	1
Zinc	81.5	B	2.2	0.17	mg/Kg	☼	04/17/15 14:13	04/21/15 09:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	6490	B	1000	120	mg/Kg			04/22/15 18:44	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: KMNO4 HIGH
Date Collected: 04/15/15 10:20
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-18
Matrix: Solid
Percent Solids: 80.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.5	0.33	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
1,1,2,2-Tetrachloroethane	ND		4.5	0.73	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.5	1.0	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
1,1,2-Trichloroethane	ND		4.5	0.58	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
1,1-Dichloroethane	ND		4.5	0.55	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
1,1-Dichloroethene	ND		4.5	0.55	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
1,2,4-Trichlorobenzene	ND		4.5	0.27	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
1,2-Dibromo-3-Chloropropane	ND		4.5	2.2	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
1,2-Dibromoethane	ND		4.5	0.58	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
1,2-Dichlorobenzene	ND		4.5	0.35	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
1,2-Dichloroethane	ND		4.5	0.22	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
1,2-Dichloropropane	ND		4.5	2.2	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
1,3-Dichlorobenzene	ND		4.5	0.23	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
1,4-Dichlorobenzene	ND		4.5	0.63	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
2-Butanone (MEK)	**11**	**J**	22	1.6	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
2-Hexanone	ND		22	2.2	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
4-Methyl-2-pentanone (MIBK)	ND		22	1.5	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
Acetone	**400**		22	3.8	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
Benzene	ND		4.5	0.22	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
Bromodichloromethane	ND		4.5	0.60	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
Bromoform	ND		4.5	2.2	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
Bromomethane	ND		4.5	0.40	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
Carbon disulfide	ND		4.5	2.2	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
Carbon tetrachloride	ND		4.5	0.43	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
Chlorobenzene	ND		4.5	0.59	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
Chloroethane	ND		4.5	1.0	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
Chloroform	ND		4.5	0.28	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
Chloromethane	ND		4.5	0.27	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
cis-1,2-Dichloroethene	ND		4.5	0.57	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
cis-1,3-Dichloropropene	ND		4.5	0.65	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
Cyclohexane	ND	*	4.5	0.63	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
Dibromochloromethane	ND		4.5	0.57	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
Dichlorodifluoromethane	ND		4.5	0.37	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
Ethylbenzene	ND		4.5	0.31	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
Isopropylbenzene	ND		4.5	0.68	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
Methyl acetate	ND		4.5	2.7	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
Methyl tert-butyl ether	ND		4.5	0.44	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
Methylcyclohexane	ND		4.5	0.68	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
Methylene Chloride	ND		4.5	2.1	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
Styrene	ND		4.5	0.22	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
Tetrachloroethene	**58**		4.5	0.60	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
Toluene	ND		4.5	0.34	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
trans-1,2-Dichloroethene	ND		4.5	0.46	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
trans-1,3-Dichloropropene	ND		4.5	2.0	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
Trichloroethene	ND		4.5	0.99	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
Trichlorofluoromethane	ND		4.5	0.42	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
Vinyl chloride	ND		4.5	0.55	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1
Xylenes, Total	ND		9.0	0.75	ug/Kg	☼	04/16/15 14:00	04/20/15 03:30	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: KMNO4 HIGH
Date Collected: 04/15/15 10:20
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-18
Matrix: Solid
Percent Solids: 80.6

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*64 - 126*	*04/16/15 14:00*	*04/20/15 03:30*	*1*
4-Bromofluorobenzene (Surr)	*99*		*72 - 126*	*04/16/15 14:00*	*04/20/15 03:30*	*1*
Dibromofluoromethane (Surr)	*98*		*60 - 140*	*04/16/15 14:00*	*04/20/15 03:30*	*1*
Toluene-d8 (Surr)	*105*		*71 - 125*	*04/16/15 14:00*	*04/20/15 03:30*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**7090**		13.5	6.0	mg/Kg	☼	04/17/15 14:13	04/21/15 09:19	1
Antimony	ND		20.3	0.54	mg/Kg	☼	04/17/15 14:13	04/21/15 09:19	1
Arsenic	**4.1**		2.7	0.54	mg/Kg	☼	04/17/15 14:13	04/21/15 09:19	1
Barium	**85.4**		0.68	0.15	mg/Kg	☼	04/17/15 14:13	04/21/15 09:19	1
Beryllium	**0.23**	**J**	0.27	0.038	mg/Kg	☼	04/17/15 14:13	04/21/15 09:19	1
Cadmium	**0.24**	**J**	0.27	0.041	mg/Kg	☼	04/17/15 14:13	04/21/15 09:19	1
Calcium	**33600**		67.6	4.5	mg/Kg	☼	04/17/15 14:13	04/21/15 09:19	1
Chromium	**6.7**		0.68	0.27	mg/Kg	☼	04/17/15 14:13	04/21/15 09:19	1
Cobalt	**5.8**		0.68	0.068	mg/Kg	☼	04/17/15 14:13	04/21/15 09:19	1
Copper	**14.9**		1.4	0.28	mg/Kg	☼	04/17/15 14:13	04/21/15 09:19	1
Iron	**13500**	**B**	13.5	1.5	mg/Kg	☼	04/17/15 14:13	04/21/15 09:19	1
Lead	**12.9**		1.4	0.32	mg/Kg	☼	04/17/15 14:13	04/21/15 09:19	1
Magnesium	**2790**		27.1	1.3	mg/Kg	☼	04/17/15 14:13	04/21/15 09:19	1
Manganese	**3200**	**B**	0.27	0.043	mg/Kg	☼	04/17/15 14:13	04/21/15 09:19	1
Nickel	**14.6**		6.8	0.31	mg/Kg	☼	04/17/15 14:13	04/21/15 09:19	1
Potassium	**1790**		40.6	27.1	mg/Kg	☼	04/17/15 14:13	04/21/15 09:19	1
Selenium	ND		5.4	0.54	mg/Kg	☼	04/17/15 14:13	04/21/15 09:19	1
Silver	**0.34**	**J**	0.81	0.27	mg/Kg	☼	04/17/15 14:13	04/21/15 09:19	1
Sodium	**74.8**	**J**	189	17.6	mg/Kg	☼	04/17/15 14:13	04/21/15 09:19	1
Thallium	**0.41**	**J**	8.1	0.41	mg/Kg	☼	04/17/15 14:13	04/21/15 09:19	1
Vanadium	**8.9**		0.68	0.15	mg/Kg	☼	04/17/15 14:13	04/21/15 09:19	1
Zinc	**60.8**	**B**	2.7	0.21	mg/Kg	☼	04/17/15 14:13	04/21/15 09:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**11200**	**B**	1000	120	mg/Kg			04/22/15 18:51	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP FECA LOW
Date Collected: 04/15/15 10:25
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-19
Matrix: Solid
Percent Solids: 79.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.2	0.30	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
1,1,2,2-Tetrachloroethane	ND		4.2	0.67	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.2	0.95	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
1,1,2-Trichloroethane	ND		4.2	0.54	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
1,1-Dichloroethane	ND		4.2	0.51	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
1,1-Dichloroethene	ND		4.2	0.51	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
1,2,4-Trichlorobenzene	ND		4.2	0.25	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
1,2-Dibromo-3-Chloropropane	ND		4.2	2.1	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
1,2-Dibromoethane	ND		4.2	0.53	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
1,2-Dichlorobenzene	ND		4.2	0.33	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
1,2-Dichloroethane	**0.90**	**J**	4.2	0.21	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
1,2-Dichloropropane	ND		4.2	2.1	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
1,3-Dichlorobenzene	ND		4.2	0.21	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
1,4-Dichlorobenzene	ND		4.2	0.58	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
2-Butanone (MEK)	ND		21	1.5	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
2-Hexanone	ND		21	2.1	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
4-Methyl-2-pentanone (MIBK)	ND		21	1.4	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
Acetone	**54**		21	3.5	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
Benzene	**0.43**	**J**	4.2	0.20	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
Bromodichloromethane	ND		4.2	0.56	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
Bromoform	ND		4.2	2.1	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
Bromomethane	**2.9**	**J**	4.2	0.37	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
Carbon disulfide	ND		4.2	2.1	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
Carbon tetrachloride	ND		4.2	0.40	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
Chlorobenzene	ND		4.2	0.55	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
Chloroethane	ND		4.2	0.94	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
Chloroform	**3.7**	**J**	4.2	0.26	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
Chloromethane	**48**		4.2	0.25	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
cis-1,2-Dichloroethene	ND		4.2	0.53	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
cis-1,3-Dichloropropene	ND		4.2	0.60	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
Cyclohexane	ND		4.2	0.58	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
Dibromochloromethane	ND		4.2	0.53	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
Dichlorodifluoromethane	ND		4.2	0.34	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
Ethylbenzene	ND		4.2	0.29	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
Isopropylbenzene	ND		4.2	0.63	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
Methyl acetate	ND		4.2	2.5	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
Methyl tert-butyl ether	ND		4.2	0.41	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
Methylcyclohexane	ND		4.2	0.63	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
Methylene Chloride	**12**		4.2	1.9	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
Styrene	ND		4.2	0.21	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
Tetrachloroethene	**830**	**E**	4.2	0.56	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
Toluene	ND		4.2	0.31	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
trans-1,2-Dichloroethene	ND		4.2	0.43	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
trans-1,3-Dichloropropene	ND		4.2	1.8	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
Trichloroethene	ND		4.2	0.92	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
Trichlorofluoromethane	ND		4.2	0.39	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
Vinyl chloride	ND		4.2	0.51	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1
Xylenes, Total	ND		8.3	0.70	ug/Kg	☼	04/16/15 14:00	04/17/15 15:25	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP FECA LOW
Date Collected: 04/15/15 10:25
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-19
Matrix: Solid
Percent Solids: 79.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*64 - 126*	*04/16/15 14:00*	*04/17/15 15:25*	*1*
4-Bromofluorobenzene (Surr)	*94*		*72 - 126*	*04/16/15 14:00*	*04/17/15 15:25*	*1*
Dibromofluoromethane (Surr)	*98*		*60 - 140*	*04/16/15 14:00*	*04/17/15 15:25*	*1*
Toluene-d8 (Surr)	*96*		*71 - 125*	*04/16/15 14:00*	*04/17/15 15:25*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		59	16	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
1,1,2,2-Tetrachloroethane	ND		59	9.6	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		59	30	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
1,1,2-Trichloroethane	ND		59	12	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
1,1-Dichloroethane	ND		59	18	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
1,1-Dichloroethene	ND		59	20	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
1,2,4-Trichlorobenzene	ND		59	22	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
1,2-Dibromo-3-Chloropropane	ND		59	30	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
1,2-Dibromoethane	ND		59	10	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
1,2-Dichlorobenzene	ND		59	15	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
1,2-Dichloroethane	ND		59	24	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
1,2-Dichloropropane	ND		59	9.6	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
1,3-Dichlorobenzene	ND		59	16	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
1,4-Dichlorobenzene	ND		59	8.3	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
2-Butanone (MEK)	ND		300	180	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
2-Hexanone	ND		300	120	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
4-Methyl-2-pentanone (MIBK)	ND		300	19	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
Acetone	**470**		300	240	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
Benzene	ND		59	11	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
Bromodichloromethane	ND		59	12	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
Bromoform	ND		59	30	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
Bromomethane	ND		59	13	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
Carbon disulfide	ND		59	27	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
Carbon tetrachloride	ND		59	15	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
Chlorobenzene	ND		59	7.8	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
Chloroethane	ND		59	12	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
Chloroform	ND		59	41	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
Chloromethane	**95**		59	14	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
cis-1,2-Dichloroethene	ND		59	16	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
cis-1,3-Dichloropropene	ND		59	14	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
Cyclohexane	ND		59	13	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
Dibromochloromethane	ND		59	29	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
Dichlorodifluoromethane	ND		59	26	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
Ethylbenzene	ND		59	17	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
Isopropylbenzene	ND		59	8.9	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
Methyl acetate	**210**		59	28	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
Methyl tert-butyl ether	ND		59	22	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
Methylcyclohexane	ND		59	28	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
Methylene Chloride	**96**		59	12	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
Styrene	ND		59	14	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
Tetrachloroethene	**5700**		59	7.9	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
Toluene	ND		59	16	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
trans-1,2-Dichloroethene	ND		59	14	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP FECA LOW
Date Collected: 04/15/15 10:25
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-19
Matrix: Solid
Percent Solids: 79.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		59	5.8	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
Trichloroethene	ND		59	16	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
Trichlorofluoromethane	ND		59	28	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
Vinyl chloride	ND		59	20	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1
Xylenes, Total	ND		120	33	ug/Kg	☼	04/16/15 14:00	04/24/15 05:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*53 - 146*	*04/16/15 14:00*	*04/24/15 05:07*	*1*
4-Bromofluorobenzene (Surr)	*99*		*49 - 148*	*04/16/15 14:00*	*04/24/15 05:07*	*1*
Dibromofluoromethane (Surr)	*92*		*60 - 140*	*04/16/15 14:00*	*04/24/15 05:07*	*1*
Toluene-d8 (Surr)	*99*		*50 - 149*	*04/16/15 14:00*	*04/24/15 05:07*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**6230**		12.9	5.7	mg/Kg	☼	04/17/15 14:13	04/21/15 09:22	1
Antimony	ND		19.3	0.51	mg/Kg	☼	04/17/15 14:13	04/21/15 09:22	1
Arsenic	**6.4**		2.6	0.51	mg/Kg	☼	04/17/15 14:13	04/21/15 09:22	1
Barium	**93.5**		0.64	0.14	mg/Kg	☼	04/17/15 14:13	04/21/15 09:22	1
Beryllium	**0.32**		0.26	0.036	mg/Kg	☼	04/17/15 14:13	04/21/15 09:22	1
Cadmium	**0.34**		0.26	0.039	mg/Kg	☼	04/17/15 14:13	04/21/15 09:22	1
Calcium	**2570**		64.3	4.2	mg/Kg	☼	04/17/15 14:13	04/21/15 09:22	1
Chromium	**7.1**		0.64	0.26	mg/Kg	☼	04/17/15 14:13	04/21/15 09:22	1
Cobalt	**6.7**		0.64	0.064	mg/Kg	☼	04/17/15 14:13	04/21/15 09:22	1
Copper	**17.3**		1.3	0.27	mg/Kg	☼	04/17/15 14:13	04/21/15 09:22	1
Iron	**12900**	**B**	12.9	1.4	mg/Kg	☼	04/17/15 14:13	04/21/15 09:22	1
Lead	**14.6**		1.3	0.31	mg/Kg	☼	04/17/15 14:13	04/21/15 09:22	1
Magnesium	**1630**		25.7	1.2	mg/Kg	☼	04/17/15 14:13	04/21/15 09:22	1
Manganese	**902**	**B**	0.26	0.041	mg/Kg	☼	04/17/15 14:13	04/21/15 09:22	1
Nickel	**15.0**		6.4	0.30	mg/Kg	☼	04/17/15 14:13	04/21/15 09:22	1
Potassium	**674**		38.6	25.7	mg/Kg	☼	04/17/15 14:13	04/21/15 09:22	1
Selenium	ND		5.1	0.51	mg/Kg	☼	04/17/15 14:13	04/21/15 09:22	1
Silver	ND		0.77	0.26	mg/Kg	☼	04/17/15 14:13	04/21/15 09:22	1
Sodium	**1050**		180	16.7	mg/Kg	☼	04/17/15 14:13	04/21/15 09:22	1
Thallium	ND		7.7	0.39	mg/Kg	☼	04/17/15 14:13	04/21/15 09:22	1
Vanadium	**8.4**		0.64	0.14	mg/Kg	☼	04/17/15 14:13	04/21/15 09:22	1
Zinc	**52.8**	**B**	2.6	0.20	mg/Kg	☼	04/17/15 14:13	04/21/15 09:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**5640**	**B**	1000	120	mg/Kg			04/22/15 18:58	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP FECA MID
Date Collected: 04/15/15 10:30
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-20
Matrix: Solid
Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.8	0.20	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
1,1,2,2-Tetrachloroethane	ND		2.8	0.45	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.8	0.63	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
1,1,2-Trichloroethane	**1.1**	**J**	2.8	0.36	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
1,1-Dichloroethane	ND		2.8	0.34	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
1,1-Dichloroethene	ND		2.8	0.34	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
1,2,4-Trichlorobenzene	ND		2.8	0.17	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
1,2-Dibromo-3-Chloropropane	ND		2.8	1.4	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
1,2-Dibromoethane	ND		2.8	0.36	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
1,2-Dichlorobenzene	ND		2.8	0.22	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
1,2-Dichloroethane	**1.4**	**J**	2.8	0.14	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
1,2-Dichloropropane	ND		2.8	1.4	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
1,3-Dichlorobenzene	ND		2.8	0.14	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
1,4-Dichlorobenzene	ND		2.8	0.39	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
2-Butanone (MEK)	**16**		14	1.0	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
2-Hexanone	ND		14	1.4	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
4-Methyl-2-pentanone (MIBK)	ND		14	0.91	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
Acetone	**30**		14	2.3	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
Benzene	**0.19**	**J**	2.8	0.14	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
Bromodichloromethane	ND		2.8	0.37	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
Bromoform	ND		2.8	1.4	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
Bromomethane	**1.4**	**J**	2.8	0.25	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
Carbon disulfide	**3.5**		2.8	1.4	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
Carbon tetrachloride	ND		2.8	0.27	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
Chlorobenzene	ND		2.8	0.37	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
Chloroethane	ND		2.8	0.63	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
Chloroform	**5.0**		2.8	0.17	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
Chloromethane	**66**		2.8	0.17	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
cis-1,2-Dichloroethene	**0.37**	**J**	2.8	0.36	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
cis-1,3-Dichloropropene	ND		2.8	0.40	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
Cyclohexane	ND		2.8	0.39	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
Dibromochloromethane	ND		2.8	0.36	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
Dichlorodifluoromethane	ND		2.8	0.23	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
Ethylbenzene	ND		2.8	0.19	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
Isopropylbenzene	ND		2.8	0.42	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
Methyl acetate	ND		2.8	1.7	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
Methyl tert-butyl ether	ND		2.8	0.27	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
Methylcyclohexane	ND		2.8	0.42	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
Methylene Chloride	**30**		2.8	1.3	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
Styrene	ND		2.8	0.14	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
Tetrachloroethene	**490**	**E**	2.8	0.37	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
Toluene	ND		2.8	0.21	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
trans-1,2-Dichloroethene	ND		2.8	0.29	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
trans-1,3-Dichloropropene	ND		2.8	1.2	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
Trichloroethene	**0.83**	**J**	2.8	0.61	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
Trichlorofluoromethane	ND		2.8	0.26	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
Vinyl chloride	ND		2.8	0.34	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1
Xylenes, Total	ND		5.6	0.47	ug/Kg	☼	04/16/15 14:00	04/17/15 15:51	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP FECA MID
Date Collected: 04/15/15 10:30
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-20
Matrix: Solid
Percent Solids: 81.6

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		64 - 126	04/16/15 14:00	04/17/15 15:51	1
4-Bromofluorobenzene (Surr)	94		72 - 126	04/16/15 14:00	04/17/15 15:51	1
Dibromofluoromethane (Surr)	97		60 - 140	04/16/15 14:00	04/17/15 15:51	1
Toluene-d8 (Surr)	92		71 - 125	04/16/15 14:00	04/17/15 15:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		42	12	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
1,1,2,2-Tetrachloroethane	ND		42	6.9	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		42	21	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
1,1,2-Trichloroethane	ND		42	8.9	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
1,1-Dichloroethane	ND		42	13	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
1,1-Dichloroethene	ND		42	15	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
1,2,4-Trichlorobenzene	ND		42	16	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
1,2-Dibromo-3-Chloropropane	ND		42	21	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
1,2-Dibromoethane	ND		42	7.4	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
1,2-Dichlorobenzene	ND		42	11	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
1,2-Dichloroethane	ND		42	17	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
1,2-Dichloropropane	ND		42	6.9	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
1,3-Dichlorobenzene	ND		42	11	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
1,4-Dichlorobenzene	ND		42	5.9	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
2-Butanone (MEK)	**4800**		210	130	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
2-Hexanone	ND		210	87	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
4-Methyl-2-pentanone (MIBK)	ND		210	14	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
Acetone	**1300**		210	170	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
Benzene	ND		42	8.1	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
Bromodichloromethane	ND		42	8.5	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
Bromoform	ND		42	21	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
Bromomethane	ND		42	9.3	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
Carbon disulfide	ND		42	19	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
Carbon tetrachloride	ND		42	11	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
Chlorobenzene	ND		42	5.6	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
Chloroethane	ND		42	8.8	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
Chloroform	ND		42	29	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
Chloromethane	**77**		42	10	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
cis-1,2-Dichloroethene	ND		42	12	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
cis-1,3-Dichloropropene	ND		42	10	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
Cyclohexane	ND		42	9.4	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
Dibromochloromethane	ND		42	21	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
Dichlorodifluoromethane	ND		42	18	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
Ethylbenzene	ND		42	12	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
Isopropylbenzene	ND		42	6.4	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
Methyl acetate	**340**		42	20	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
Methyl tert-butyl ether	ND		42	16	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
Methylcyclohexane	ND		42	20	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
Methylene Chloride	**120**		42	8.4	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
Styrene	ND		42	10	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
Tetrachloroethene	**2000**		42	5.7	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
Toluene	**26**	**J**	42	11	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
trans-1,2-Dichloroethene	ND		42	10	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1

Client Sample ID: SP FECA MID
Date Collected: 04/15/15 10:30
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-20
Matrix: Solid
Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		42	4.2	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
Trichloroethene	ND		42	12	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
Trichlorofluoromethane	ND		42	20	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
Vinyl chloride	ND		42	14	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1
Xylenes, Total	ND		85	23	ug/Kg	☼	04/16/15 14:00	04/24/15 05:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*53 - 146*	*04/16/15 14:00*	*04/24/15 05:31*	*1*
4-Bromofluorobenzene (Surr)	*100*		*49 - 148*	*04/16/15 14:00*	*04/24/15 05:31*	*1*
Dibromofluoromethane (Surr)	*92*		*60 - 140*	*04/16/15 14:00*	*04/24/15 05:31*	*1*
Toluene-d8 (Surr)	*99*		*50 - 149*	*04/16/15 14:00*	*04/24/15 05:31*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**7030**		13.1	5.8	mg/Kg	☼	04/17/15 14:13	04/21/15 09:25	1
Antimony	**0.69**	**J**	19.6	0.52	mg/Kg	☼	04/17/15 14:13	04/21/15 09:25	1
Arsenic	**6.3**		2.6	0.52	mg/Kg	☼	04/17/15 14:13	04/21/15 09:25	1
Barium	**104**		0.65	0.14	mg/Kg	☼	04/17/15 14:13	04/21/15 09:25	1
Beryllium	**0.29**		0.26	0.037	mg/Kg	☼	04/17/15 14:13	04/21/15 09:25	1
Cadmium	**0.22**	**J**	0.26	0.039	mg/Kg	☼	04/17/15 14:13	04/21/15 09:25	1
Calcium	**1120**		65.4	4.3	mg/Kg	☼	04/17/15 14:13	04/21/15 09:25	1
Chromium	**9.7**		0.65	0.26	mg/Kg	☼	04/17/15 14:13	04/21/15 09:25	1
Cobalt	**6.3**		0.65	0.065	mg/Kg	☼	04/17/15 14:13	04/21/15 09:25	1
Copper	**14.7**		1.3	0.27	mg/Kg	☼	04/17/15 14:13	04/21/15 09:25	1
Iron	**15400**	**B**	13.1	1.4	mg/Kg	☼	04/17/15 14:13	04/21/15 09:25	1
Lead	**12.9**		1.3	0.31	mg/Kg	☼	04/17/15 14:13	04/21/15 09:25	1
Magnesium	**2010**		26.2	1.2	mg/Kg	☼	04/17/15 14:13	04/21/15 09:25	1
Manganese	**929**	**B**	0.26	0.042	mg/Kg	☼	04/17/15 14:13	04/21/15 09:25	1
Nickel	**15.1**		6.5	0.30	mg/Kg	☼	04/17/15 14:13	04/21/15 09:25	1
Potassium	**857**		39.2	26.2	mg/Kg	☼	04/17/15 14:13	04/21/15 09:25	1
Selenium	ND		5.2	0.52	mg/Kg	☼	04/17/15 14:13	04/21/15 09:25	1
Silver	ND		0.78	0.26	mg/Kg	☼	04/17/15 14:13	04/21/15 09:25	1
Sodium	**2230**		183	17.0	mg/Kg	☼	04/17/15 14:13	04/21/15 09:25	1
Thallium	ND		7.8	0.39	mg/Kg	☼	04/17/15 14:13	04/21/15 09:25	1
Vanadium	**11.6**		0.65	0.14	mg/Kg	☼	04/17/15 14:13	04/21/15 09:25	1
Zinc	**53.2**	**B**	2.6	0.20	mg/Kg	☼	04/17/15 14:13	04/21/15 09:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**5850**	**B**	1000	120	mg/Kg			04/22/15 19:05	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP FECA HIGH
Date Collected: 04/15/15 10:35
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-21
Matrix: Solid
Percent Solids: 90.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3.9	0.29	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
1,1,2,2-Tetrachloroethane	**0.69**	**J**	3.9	0.64	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.9	0.90	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
1,1,2-Trichloroethane	**1.7**	**J**	3.9	0.51	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
1,1-Dichloroethane	ND		3.9	0.48	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
1,1-Dichloroethene	ND		3.9	0.48	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
1,2,4-Trichlorobenzene	ND		3.9	0.24	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
1,2-Dibromo-3-Chloropropane	ND		3.9	2.0	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
1,2-Dibromoethane	ND		3.9	0.51	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
1,2-Dichlorobenzene	ND		3.9	0.31	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
1,2-Dichloroethane	**2.6**	**J**	3.9	0.20	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
1,2-Dichloropropane	ND		3.9	2.0	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
1,3-Dichlorobenzene	ND		3.9	0.20	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
1,4-Dichlorobenzene	ND		3.9	0.55	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
2-Butanone (MEK)	ND		20	1.4	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
2-Hexanone	ND		20	2.0	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
4-Methyl-2-pentanone (MIBK)	ND		20	1.3	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
Acetone	**170**		20	3.3	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
Benzene	ND		3.9	0.19	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
Bromodichloromethane	ND		3.9	0.53	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
Bromoform	ND		3.9	2.0	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
Bromomethane	**2.5**	**J**	3.9	0.36	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
Carbon disulfide	**2.3**	**J**	3.9	2.0	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
Carbon tetrachloride	ND		3.9	0.38	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
Chlorobenzene	ND		3.9	0.52	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
Chloroethane	ND		3.9	0.89	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
Chloroform	**9.7**		3.9	0.24	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
Chloromethane	**200**	**E**	3.9	0.24	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
cis-1,2-Dichloroethene	ND		3.9	0.51	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
cis-1,3-Dichloropropene	ND		3.9	0.57	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
Cyclohexane	ND		3.9	0.55	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
Dibromochloromethane	ND		3.9	0.51	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
Dichlorodifluoromethane	ND		3.9	0.33	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
Ethylbenzene	ND		3.9	0.27	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
Isopropylbenzene	ND		3.9	0.60	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
Methyl acetate	ND		3.9	2.4	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
Methyl tert-butyl ether	ND		3.9	0.39	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
Methylcyclohexane	ND		3.9	0.60	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
Methylene Chloride	**100**		3.9	1.8	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
Styrene	ND		3.9	0.20	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
Tetrachloroethene	**300**	**E**	3.9	0.53	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
Toluene	ND		3.9	0.30	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
trans-1,2-Dichloroethene	ND		3.9	0.41	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
trans-1,3-Dichloropropene	ND		3.9	1.7	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
Trichloroethene	ND		3.9	0.87	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
Trichlorofluoromethane	ND		3.9	0.37	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
Vinyl chloride	ND		3.9	0.48	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1
Xylenes, Total	ND		7.9	0.66	ug/Kg	☼	04/16/15 14:00	04/17/15 16:17	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP FECA HIGH
Date Collected: 04/15/15 10:35
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-21
Matrix: Solid
Percent Solids: 90.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*64 - 126*	*04/16/15 14:00*	*04/17/15 16:17*	*1*
4-Bromofluorobenzene (Surr)	*90*		*72 - 126*	*04/16/15 14:00*	*04/17/15 16:17*	*1*
Dibromofluoromethane (Surr)	*111*		*60 - 140*	*04/16/15 14:00*	*04/17/15 16:17*	*1*
Toluene-d8 (Surr)	*83*		*71 - 125*	*04/16/15 14:00*	*04/17/15 16:17*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		51	14	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
1,1,2,2-Tetrachloroethane	ND		51	8.2	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		51	25	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
1,1,2-Trichloroethane	ND		51	11	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
1,1-Dichloroethane	ND		51	16	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
1,1-Dichloroethene	ND		51	18	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
1,2,4-Trichlorobenzene	ND		51	19	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
1,2-Dibromo-3-Chloropropane	ND		51	25	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
1,2-Dibromoethane	ND		51	8.9	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
1,2-Dichlorobenzene	ND		51	13	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
1,2-Dichloroethane	ND		51	21	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
1,2-Dichloropropane	ND		51	8.2	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
1,3-Dichlorobenzene	ND		51	14	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
1,4-Dichlorobenzene	ND		51	7.1	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
2-Butanone (MEK)	ND		250	150	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
2-Hexanone	ND		250	100	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
4-Methyl-2-pentanone (MIBK)	ND		250	16	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
Acetone	**910**		250	210	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
Benzene	ND		51	9.6	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
Bromodichloromethane	ND		51	10	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
Bromoform	ND		51	25	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
Bromomethane	ND		51	11	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
Carbon disulfide	ND		51	23	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
Carbon tetrachloride	ND		51	13	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
Chlorobenzene	ND		51	6.7	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
Chloroethane	ND		51	11	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
Chloroform	ND		51	35	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
Chloromethane	**210**		51	12	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
cis-1,2-Dichloroethene	ND		51	14	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
cis-1,3-Dichloropropene	ND		51	12	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
Cyclohexane	ND		51	11	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
Dibromochloromethane	ND		51	25	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
Dichlorodifluoromethane	ND		51	22	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
Ethylbenzene	ND		51	15	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
Isopropylbenzene	ND		51	7.6	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
Methyl acetate	**910**		51	24	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
Methyl tert-butyl ether	ND		51	19	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
Methylcyclohexane	ND		51	24	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
Methylene Chloride	**230**		51	10	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
Styrene	ND		51	12	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
Tetrachloroethene	**4000**		51	6.8	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
Toluene	ND		51	14	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
trans-1,2-Dichloroethene	ND		51	12	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP FECA HIGH
Date Collected: 04/15/15 10:35
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-21
Matrix: Solid
Percent Solids: 90.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		51	5.0	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
Trichloroethene	ND		51	14	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
Trichlorofluoromethane	ND		51	24	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
Vinyl chloride	ND		51	17	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1
Xylenes, Total	ND		100	28	ug/Kg	☼	04/16/15 14:00	04/24/15 05:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*53 - 146*	*04/16/15 14:00*	*04/24/15 05:54*	*1*
4-Bromofluorobenzene (Surr)	*100*		*49 - 148*	*04/16/15 14:00*	*04/24/15 05:54*	*1*
Dibromofluoromethane (Surr)	*92*		*60 - 140*	*04/16/15 14:00*	*04/24/15 05:54*	*1*
Toluene-d8 (Surr)	*99*		*50 - 149*	*04/16/15 14:00*	*04/24/15 05:54*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**8310**		12.2	5.4	mg/Kg	☼	04/17/15 14:13	04/21/15 09:28	1
Antimony	**0.53**	**J**	18.4	0.49	mg/Kg	☼	04/17/15 14:13	04/21/15 09:28	1
Arsenic	**9.5**		2.4	0.49	mg/Kg	☼	04/17/15 14:13	04/21/15 09:28	1
Barium	**103**		0.61	0.13	mg/Kg	☼	04/17/15 14:13	04/21/15 09:28	1
Beryllium	**0.32**		0.24	0.034	mg/Kg	☼	04/17/15 14:13	04/21/15 09:28	1
Cadmium	**0.15**	**J**	0.24	0.037	mg/Kg	☼	04/17/15 14:13	04/21/15 09:28	1
Calcium	**1100**		61.2	4.0	mg/Kg	☼	04/17/15 14:13	04/21/15 09:28	1
Chromium	**10.9**		0.61	0.24	mg/Kg	☼	04/17/15 14:13	04/21/15 09:28	1
Cobalt	**8.0**		0.61	0.061	mg/Kg	☼	04/17/15 14:13	04/21/15 09:28	1
Copper	**23.4**		1.2	0.26	mg/Kg	☼	04/17/15 14:13	04/21/15 09:28	1
Iron	**20900**	**B**	12.2	1.3	mg/Kg	☼	04/17/15 14:13	04/21/15 09:28	1
Lead	**13.9**		1.2	0.29	mg/Kg	☼	04/17/15 14:13	04/21/15 09:28	1
Magnesium	**2690**		24.5	1.1	mg/Kg	☼	04/17/15 14:13	04/21/15 09:28	1
Manganese	**1050**	**B**	0.24	0.039	mg/Kg	☼	04/17/15 14:13	04/21/15 09:28	1
Nickel	**20.0**		6.1	0.28	mg/Kg	☼	04/17/15 14:13	04/21/15 09:28	1
Potassium	**1030**		36.7	24.5	mg/Kg	☼	04/17/15 14:13	04/21/15 09:28	1
Selenium	ND		4.9	0.49	mg/Kg	☼	04/17/15 14:13	04/21/15 09:28	1
Silver	ND		0.73	0.24	mg/Kg	☼	04/17/15 14:13	04/21/15 09:28	1
Sodium	**3460**		171	15.9	mg/Kg	☼	04/17/15 14:13	04/21/15 09:28	1
Thallium	ND		7.3	0.37	mg/Kg	☼	04/17/15 14:13	04/21/15 09:28	1
Vanadium	**13.1**		0.61	0.13	mg/Kg	☼	04/17/15 14:13	04/21/15 09:28	1
Zinc	**62.6**	**B**	2.4	0.19	mg/Kg	☼	04/17/15 14:13	04/21/15 09:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**4890**	**B**	1000	120	mg/Kg			04/22/15 19:13	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP NAOH LOW
Date Collected: 04/15/15 10:40
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-22
Matrix: Solid
Percent Solids: 79.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.4	0.32	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
1,1,2,2-Tetrachloroethane	ND		4.4	0.72	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.4	1.0	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
1,1,2-Trichloroethane	ND		4.4	0.58	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
1,1-Dichloroethane	ND		4.4	0.54	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
1,1-Dichloroethene	ND		4.4	0.54	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
1,2,4-Trichlorobenzene	ND		4.4	0.27	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
1,2-Dibromo-3-Chloropropane	ND		4.4	2.2	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
1,2-Dibromoethane	ND		4.4	0.57	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
1,2-Dichlorobenzene	ND		4.4	0.35	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
1,2-Dichloroethane	ND		4.4	0.22	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
1,2-Dichloropropane	ND		4.4	2.2	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
1,3-Dichlorobenzene	ND		4.4	0.23	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
1,4-Dichlorobenzene	ND		4.4	0.62	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
2-Butanone (MEK)	ND		22	1.6	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
2-Hexanone	ND		22	2.2	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
4-Methyl-2-pentanone (MIBK)	ND		22	1.5	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
Acetone	**63**		22	3.7	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
Benzene	**0.93**	**J**	4.4	0.22	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
Bromodichloromethane	ND		4.4	0.59	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
Bromoform	ND		4.4	2.2	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
Bromomethane	ND		4.4	0.40	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
Carbon disulfide	ND		4.4	2.2	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
Carbon tetrachloride	ND		4.4	0.43	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
Chlorobenzene	ND		4.4	0.58	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
Chloroethane	ND		4.4	1.0	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
Chloroform	ND		4.4	0.27	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
Chloromethane	ND		4.4	0.27	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
cis-1,2-Dichloroethene	ND		4.4	0.57	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
cis-1,3-Dichloropropene	ND		4.4	0.64	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
Cyclohexane	ND		4.4	0.62	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
Dibromochloromethane	ND		4.4	0.57	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
Dichlorodifluoromethane	ND		4.4	0.37	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
Ethylbenzene	ND		4.4	0.31	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
Isopropylbenzene	ND		4.4	0.67	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
Methyl acetate	ND		4.4	2.7	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
Methyl tert-butyl ether	ND		4.4	0.44	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
Methylcyclohexane	ND		4.4	0.67	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
Methylene Chloride	ND		4.4	2.0	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
Styrene	ND		4.4	0.22	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
Tetrachloroethene	**1400**	**E**	4.4	0.59	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
Toluene	ND		4.4	0.33	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
trans-1,2-Dichloroethene	ND		4.4	0.46	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
trans-1,3-Dichloropropene	ND		4.4	1.9	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
Trichloroethene	**2.5**	**J**	4.4	0.97	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
Trichlorofluoromethane	ND		4.4	0.42	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
Vinyl chloride	ND		4.4	0.54	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1
Xylenes, Total	ND		8.9	0.74	ug/Kg	☼	04/16/15 14:00	04/17/15 16:42	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP NAOH LOW
Date Collected: 04/15/15 10:40
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-22
Matrix: Solid
Percent Solids: 79.8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		64 - 126	04/16/15 14:00	04/17/15 16:42	1
4-Bromofluorobenzene (Surr)	97		72 - 126	04/16/15 14:00	04/17/15 16:42	1
Dibromofluoromethane (Surr)	60		60 - 140	04/16/15 14:00	04/17/15 16:42	1
Toluene-d8 (Surr)	95		71 - 125	04/16/15 14:00	04/17/15 16:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		250	69	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
1,1,2,2-Tetrachloroethane	ND		250	40	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		250	120	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
1,1,2-Trichloroethane	ND		250	52	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
1,1-Dichloroethane	ND		250	77	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
1,1-Dichloroethene	ND		250	86	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
1,2,4-Trichlorobenzene	ND		250	94	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
1,2-Dibromo-3-Chloropropane	ND		250	120	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
1,2-Dibromoethane	ND		250	43	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
1,2-Dichlorobenzene	ND		250	63	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
1,2-Dichloroethane	ND		250	100	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
1,2-Dichloropropane	ND		250	40	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
1,3-Dichlorobenzene	ND		250	66	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
1,4-Dichlorobenzene	ND		250	35	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
2-Butanone (MEK)	ND		1200	740	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
2-Hexanone	ND		1200	510	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
4-Methyl-2-pentanone (MIBK)	ND		1200	79	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
Acetone	ND		1200	1000	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
Benzene	ND		250	47	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
Bromodichloromethane	ND		250	50	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
Bromoform	ND		250	120	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
Bromomethane	ND		250	55	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
Carbon disulfide	ND		250	110	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
Carbon tetrachloride	ND		250	63	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
Chlorobenzene	ND		250	33	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
Chloroethane	ND		250	52	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
Chloroform	ND		250	170	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
Chloromethane	ND		250	59	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
cis-1,2-Dichloroethene	ND		250	69	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
cis-1,3-Dichloropropene	ND		250	59	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
Cyclohexane	ND		250	55	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
Dibromochloromethane	ND		250	120	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
Dichlorodifluoromethane	ND		250	110	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
Ethylbenzene	ND		250	72	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
Isopropylbenzene	ND		250	37	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
Methyl acetate	ND		250	120	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
Methyl tert-butyl ether	ND		250	94	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
Methylcyclohexane	ND		250	120	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
Methylene Chloride	ND		250	49	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
Styrene	ND		250	60	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
Tetrachloroethene	**8900**		250	33	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
Toluene	ND		250	67	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
trans-1,2-Dichloroethene	ND		250	59	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4

Client Sample ID: SP NAOH LOW
Date Collected: 04/15/15 10:40
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-22
Matrix: Solid
Percent Solids: 79.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		250	24	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
Trichloroethene	ND		250	69	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
Trichlorofluoromethane	ND		250	120	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
Vinyl chloride	ND		250	83	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4
Xylenes, Total	ND		500	140	ug/Kg	☼	04/16/15 14:00	04/28/15 04:44	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*53 - 146*	*04/16/15 14:00*	*04/28/15 04:44*	*4*
4-Bromofluorobenzene (Surr)	*104*		*49 - 148*	*04/16/15 14:00*	*04/28/15 04:44*	*4*
Dibromofluoromethane (Surr)	*98*		*60 - 140*	*04/16/15 14:00*	*04/28/15 04:44*	*4*
Toluene-d8 (Surr)	*101*		*50 - 149*	*04/16/15 14:00*	*04/28/15 04:44*	*4*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**5550**		12.3	5.4	mg/Kg	☼	04/17/15 14:13	04/21/15 09:39	1
Antimony	ND		18.5	0.49	mg/Kg	☼	04/17/15 14:13	04/21/15 09:39	1
Arsenic	**3.9**		2.5	0.49	mg/Kg	☼	04/17/15 14:13	04/21/15 09:39	1
Barium	**75.2**		0.62	0.14	mg/Kg	☼	04/17/15 14:13	04/21/15 09:39	1
Beryllium	**0.23**	**J**	0.25	0.035	mg/Kg	☼	04/17/15 14:13	04/21/15 09:39	1
Cadmium	**0.27**		0.25	0.037	mg/Kg	☼	04/17/15 14:13	04/21/15 09:39	1
Calcium	**882**		61.6	4.1	mg/Kg	☼	04/17/15 14:13	04/21/15 09:39	1
Chromium	**6.6**		0.62	0.25	mg/Kg	☼	04/17/15 14:13	04/21/15 09:39	1
Cobalt	**4.1**		0.62	0.062	mg/Kg	☼	04/17/15 14:13	04/21/15 09:39	1
Copper	**11.0**		1.2	0.26	mg/Kg	☼	04/17/15 14:13	04/21/15 09:39	1
Iron	**10900**	**B**	12.3	1.4	mg/Kg	☼	04/17/15 14:13	04/21/15 09:39	1
Lead	**10.1**		1.2	0.30	mg/Kg	☼	04/17/15 14:13	04/21/15 09:39	1
Magnesium	**1660**		24.7	1.1	mg/Kg	☼	04/17/15 14:13	04/21/15 09:39	1
Manganese	**622**	**B**	0.25	0.039	mg/Kg	☼	04/17/15 14:13	04/21/15 09:39	1
Nickel	**11.3**		6.2	0.28	mg/Kg	☼	04/17/15 14:13	04/21/15 09:39	1
Potassium	**696**		37.0	24.7	mg/Kg	☼	04/17/15 14:13	04/21/15 09:39	1
Selenium	ND		4.9	0.49	mg/Kg	☼	04/17/15 14:13	04/21/15 09:39	1
Silver	ND		0.74	0.25	mg/Kg	☼	04/17/15 14:13	04/21/15 09:39	1
Sodium	**2520**		173	16.0	mg/Kg	☼	04/17/15 14:13	04/21/15 09:39	1
Thallium	ND		7.4	0.37	mg/Kg	☼	04/17/15 14:13	04/21/15 09:39	1
Vanadium	**8.1**		0.62	0.14	mg/Kg	☼	04/17/15 14:13	04/21/15 09:39	1
Zinc	**46.6**	**B**	2.5	0.19	mg/Kg	☼	04/17/15 14:13	04/21/15 09:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**5480**	**B**	1000	120	mg/Kg			04/22/15 19:20	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP NAOH MID
Date Collected: 04/15/15 10:45
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-23
Matrix: Solid
Percent Solids: 82.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		150	41	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
1,1,2,2-Tetrachloroethane	ND		150	24	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		150	74	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
1,1,2-Trichloroethane	ND		150	31	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
1,1-Dichloroethane	ND		150	46	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
1,1-Dichloroethene	ND		150	51	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
1,2,4-Trichlorobenzene	ND		150	56	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
1,2-Dibromo-3-Chloropropane	ND		150	74	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
1,2-Dibromoethane	ND		150	26	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
1,2-Dichlorobenzene	ND		150	38	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
1,2-Dichloroethane	ND		150	60	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
1,2-Dichloropropane	ND		150	24	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
1,3-Dichlorobenzene	ND		150	39	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
1,4-Dichlorobenzene	ND		150	21	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
2-Butanone (MEK)	**2000**		740	440	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
2-Hexanone	ND		740	300	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
4-Methyl-2-pentanone (MIBK)	ND		740	47	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
Acetone	**1100**		740	610	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
Benzene	ND		150	28	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
Bromodichloromethane	ND		150	29	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
Bromoform	ND		150	74	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
Bromomethane	ND		150	32	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
Carbon disulfide	ND		150	67	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
Carbon tetrachloride	ND		150	38	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
Chlorobenzene	ND		150	19	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
Chloroethane	ND		150	31	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
Chloroform	ND		150	100	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
Chloromethane	ND		150	35	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
cis-1,2-Dichloroethene	ND		150	41	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
cis-1,3-Dichloropropene	ND		150	35	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
Cyclohexane	ND		150	33	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
Dibromochloromethane	ND		150	71	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
Dichlorodifluoromethane	ND		150	64	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
Ethylbenzene	ND		150	43	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
Isopropylbenzene	ND		150	22	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
Methyl acetate	ND		150	70	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
Methyl tert-butyl ether	ND		150	56	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
Methylcyclohexane	ND		150	69	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
Methylene Chloride	**190**		150	29	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
Styrene	ND		150	36	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
Tetrachloroethene	**4200**		150	20	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
Toluene	ND		150	40	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
trans-1,2-Dichloroethene	ND		150	35	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
trans-1,3-Dichloropropene	ND		150	14	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
Trichloroethene	ND		150	41	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
Trichlorofluoromethane	ND		150	69	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
Vinyl chloride	ND		150	49	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4
Xylenes, Total	ND		290	82	ug/Kg	☼	04/16/15 14:00	04/24/15 06:18	4

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP NAOH MID
Date Collected: 04/15/15 10:45
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-23
Matrix: Solid
Percent Solids: 82.8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		53 - 146	04/16/15 14:00	04/24/15 06:18	4
4-Bromofluorobenzene (Surr)	102		49 - 148	04/16/15 14:00	04/24/15 06:18	4
Dibromofluoromethane (Surr)	93		60 - 140	04/16/15 14:00	04/24/15 06:18	4
Toluene-d8 (Surr)	101		50 - 149	04/16/15 14:00	04/24/15 06:18	4

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	8150		12.0	5.3	mg/Kg	☼	04/17/15 14:13	04/21/15 09:42	1
Antimony	0.62	J	18.1	0.48	mg/Kg	☼	04/17/15 14:13	04/21/15 09:42	1
Arsenic	5.2		2.4	0.48	mg/Kg	☼	04/17/15 14:13	04/21/15 09:42	1
Barium	73.6		0.60	0.13	mg/Kg	☼	04/17/15 14:13	04/21/15 09:42	1
Beryllium	0.32		0.24	0.034	mg/Kg	☼	04/17/15 14:13	04/21/15 09:42	1
Cadmium	0.17	J	0.24	0.036	mg/Kg	☼	04/17/15 14:13	04/21/15 09:42	1
Calcium	1450		60.2	4.0	mg/Kg	☼	04/17/15 14:13	04/21/15 09:42	1
Chromium	11.1		0.60	0.24	mg/Kg	☼	04/17/15 14:13	04/21/15 09:42	1
Cobalt	7.8		0.60	0.060	mg/Kg	☼	04/17/15 14:13	04/21/15 09:42	1
Copper	18.4		1.2	0.25	mg/Kg	☼	04/17/15 14:13	04/21/15 09:42	1
Iron	20700	B	12.0	1.3	mg/Kg	☼	04/17/15 14:13	04/21/15 09:42	1
Lead	9.8		1.2	0.29	mg/Kg	☼	04/17/15 14:13	04/21/15 09:42	1
Magnesium	2970		24.1	1.1	mg/Kg	☼	04/17/15 14:13	04/21/15 09:42	1
Manganese	559	B	0.24	0.039	mg/Kg	☼	04/17/15 14:13	04/21/15 09:42	1
Nickel	22.9		6.0	0.28	mg/Kg	☼	04/17/15 14:13	04/21/15 09:42	1
Potassium	656		36.1	24.1	mg/Kg	☼	04/17/15 14:13	04/21/15 09:42	1
Selenium	ND		4.8	0.48	mg/Kg	☼	04/17/15 14:13	04/21/15 09:42	1
Silver	ND		0.72	0.24	mg/Kg	☼	04/17/15 14:13	04/21/15 09:42	1
Sodium	3630		168	15.6	mg/Kg	☼	04/17/15 14:13	04/21/15 09:42	1
Thallium	ND		7.2	0.36	mg/Kg	☼	04/17/15 14:13	04/21/15 09:42	1
Vanadium	11.3		0.60	0.13	mg/Kg	☼	04/17/15 14:13	04/21/15 09:42	1
Zinc	88.5	B	2.4	0.18	mg/Kg	☼	04/17/15 14:13	04/21/15 09:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	7030	B	1000	120	mg/Kg			04/22/15 19:27	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP NAOH HIGH
Date Collected: 04/15/15 10:50
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-24
Matrix: Solid
Percent Solids: 80.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		250	68	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
1,1,2,2-Tetrachloroethane	ND		250	40	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		250	120	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
1,1,2-Trichloroethane	ND		250	52	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
1,1-Dichloroethane	ND		250	76	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
1,1-Dichloroethene	ND		250	85	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
1,2,4-Trichlorobenzene	ND		250	94	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
1,2-Dibromo-3-Chloropropane	ND		250	120	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
1,2-Dibromoethane	ND		250	43	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
1,2-Dichlorobenzene	ND		250	63	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
1,2-Dichloroethane	ND		250	100	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
1,2-Dichloropropane	ND		250	40	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
1,3-Dichlorobenzene	ND		250	66	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
1,4-Dichlorobenzene	ND		250	35	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
2-Butanone (MEK)	ND		1200	730	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
2-Hexanone	ND		1200	510	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
4-Methyl-2-pentanone (MIBK)	ND		1200	79	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
Acetone	**1000**	**J**	1200	1000	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
Benzene	ND		250	47	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
Bromodichloromethane	ND		250	49	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
Bromoform	ND		250	120	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
Bromomethane	ND		250	54	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
Carbon disulfide	ND		250	110	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
Carbon tetrachloride	ND		250	63	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
Chlorobenzene	ND		250	33	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
Chloroethane	ND		250	51	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
Chloroform	ND		250	170	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
Chloromethane	ND		250	59	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
cis-1,2-Dichloroethene	ND		250	68	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
cis-1,3-Dichloropropene	ND		250	59	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
Cyclohexane	ND		250	55	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
Dibromochloromethane	ND		250	120	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
Dichlorodifluoromethane	ND		250	110	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
Ethylbenzene	ND		250	72	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
Isopropylbenzene	ND		250	37	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
Methyl acetate	ND		250	120	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
Methyl tert-butyl ether	ND		250	93	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
Methylcyclohexane	ND		250	120	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
Methylene Chloride	**250**		250	49	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
Styrene	ND		250	60	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
Tetrachloroethene	**11000**		250	33	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
Toluene	ND		250	66	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
trans-1,2-Dichloroethene	ND		250	58	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
trans-1,3-Dichloropropene	ND		250	24	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
Trichloroethene	ND		250	69	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
Trichlorofluoromethane	ND		250	120	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
Vinyl chloride	ND		250	83	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4
Xylenes, Total	ND		490	140	ug/Kg	☼	04/16/15 14:00	04/24/15 06:41	4

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP NAOH HIGH
Date Collected: 04/15/15 10:50
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-24
Matrix: Solid
Percent Solids: 80.8

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*53 - 146*	*04/16/15 14:00*	*04/24/15 06:41*	*4*
4-Bromofluorobenzene (Surr)	*101*		*49 - 148*	*04/16/15 14:00*	*04/24/15 06:41*	*4*
Dibromofluoromethane (Surr)	*93*		*60 - 140*	*04/16/15 14:00*	*04/24/15 06:41*	*4*
Toluene-d8 (Surr)	*100*		*50 - 149*	*04/16/15 14:00*	*04/24/15 06:41*	*4*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**6430**		11.9	5.2	mg/Kg	☼	04/17/15 14:13	04/21/15 09:45	1
Antimony	ND		17.9	0.48	mg/Kg	☼	04/17/15 14:13	04/21/15 09:45	1
Arsenic	**6.7**		2.4	0.48	mg/Kg	☼	04/17/15 14:13	04/21/15 09:45	1
Barium	**112**		0.60	0.13	mg/Kg	☼	04/17/15 14:13	04/21/15 09:45	1
Beryllium	**0.30**		0.24	0.033	mg/Kg	☼	04/17/15 14:13	04/21/15 09:45	1
Cadmium	**0.25**		0.24	0.036	mg/Kg	☼	04/17/15 14:13	04/21/15 09:45	1
Calcium	**3660**		59.6	3.9	mg/Kg	☼	04/17/15 14:13	04/21/15 09:45	1
Chromium	**7.6**		0.60	0.24	mg/Kg	☼	04/17/15 14:13	04/21/15 09:45	1
Cobalt	**7.1**		0.60	0.060	mg/Kg	☼	04/17/15 14:13	04/21/15 09:45	1
Copper	**16.0**		1.2	0.25	mg/Kg	☼	04/17/15 14:13	04/21/15 09:45	1
Iron	**14400**	**B**	11.9	1.3	mg/Kg	☼	04/17/15 14:13	04/21/15 09:45	1
Lead	**19.5**		1.2	0.29	mg/Kg	☼	04/17/15 14:13	04/21/15 09:45	1
Magnesium	**1960**		23.8	1.1	mg/Kg	☼	04/17/15 14:13	04/21/15 09:45	1
Manganese	**685**	**B**	0.24	0.038	mg/Kg	☼	04/17/15 14:13	04/21/15 09:45	1
Nickel	**18.4**		6.0	0.27	mg/Kg	☼	04/17/15 14:13	04/21/15 09:45	1
Potassium	**776**		35.7	23.8	mg/Kg	☼	04/17/15 14:13	04/21/15 09:45	1
Selenium	ND		4.8	0.48	mg/Kg	☼	04/17/15 14:13	04/21/15 09:45	1
Silver	ND		0.71	0.24	mg/Kg	☼	04/17/15 14:13	04/21/15 09:45	1
Sodium	**8630**		167	15.5	mg/Kg	☼	04/17/15 14:13	04/21/15 09:45	1
Thallium	ND		7.1	0.36	mg/Kg	☼	04/17/15 14:13	04/21/15 09:45	1
Vanadium	**8.9**		0.60	0.13	mg/Kg	☼	04/17/15 14:13	04/21/15 09:45	1
Zinc	**68.8**	**B**	2.4	0.18	mg/Kg	☼	04/17/15 14:13	04/21/15 09:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**4160**	**B**	1000	120	mg/Kg			04/22/15 19:34	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: HP LOW
Date Collected: 04/15/15 11:00
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-25
Matrix: Solid
Percent Solids: 88.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		250	70	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
1,1,2,2-Tetrachloroethane	ND		250	41	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		250	130	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
1,1,2-Trichloroethane	ND		250	53	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
1,1-Dichloroethane	ND		250	78	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
1,1-Dichloroethene	ND		250	88	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
1,2,4-Trichlorobenzene	ND		250	96	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
1,2-Dibromo-3-Chloropropane	ND		250	130	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
1,2-Dibromoethane	ND		250	44	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
1,2-Dichlorobenzene	ND		250	65	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
1,2-Dichloroethane	ND		250	100	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
1,2-Dichloropropane	ND		250	41	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
1,3-Dichlorobenzene	ND		250	68	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
1,4-Dichlorobenzene	ND		250	36	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
2-Butanone (MEK)	ND		1300	750	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
2-Hexanone	ND		1300	520	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
4-Methyl-2-pentanone (MIBK)	ND		1300	81	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
Acetone	**65000**		1300	1000	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
Benzene	ND		250	48	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
Bromodichloromethane	ND		250	51	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
Bromoform	ND		250	130	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
Bromomethane	ND		250	56	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
Carbon disulfide	ND		250	120	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
Carbon tetrachloride	ND		250	65	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
Chlorobenzene	ND		250	33	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
Chloroethane	ND		250	53	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
Chloroform	ND		250	170	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
Chloromethane	ND		250	60	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
cis-1,2-Dichloroethene	ND		250	70	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
cis-1,3-Dichloropropene	ND		250	61	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
Cyclohexane	ND		250	56	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
Dibromochloromethane	ND		250	120	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
Dichlorodifluoromethane	ND		250	110	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
Ethylbenzene	ND		250	74	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
Isopropylbenzene	ND		250	38	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
Methyl acetate	**330**		250	120	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
Methyl tert-butyl ether	ND		250	96	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
Methylcyclohexane	ND		250	120	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
Methylene Chloride	**370**		250	50	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
Styrene	ND		250	61	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
Tetrachloroethene	**5500**		250	34	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
Toluene	ND		250	68	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
trans-1,2-Dichloroethene	ND		250	60	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
trans-1,3-Dichloropropene	ND		250	25	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
Trichloroethene	ND		250	71	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
Trichlorofluoromethane	ND		250	120	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
Vinyl chloride	ND		250	85	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5
Xylenes, Total	ND		510	140	ug/Kg	☼	04/16/15 14:00	04/24/15 07:05	5

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: HP LOW
Date Collected: 04/15/15 11:00
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-25
Matrix: Solid
Percent Solids: 88.1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		53 - 146	04/16/15 14:00	04/24/15 07:05	5
4-Bromofluorobenzene (Surr)	98		49 - 148	04/16/15 14:00	04/24/15 07:05	5
Dibromofluoromethane (Surr)	96		60 - 140	04/16/15 14:00	04/24/15 07:05	5
Toluene-d8 (Surr)	98		50 - 149	04/16/15 14:00	04/24/15 07:05	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	10700		11.8	5.2	mg/Kg	☼	04/17/15 14:13	04/21/15 09:48	1
Antimony	0.61	J	17.7	0.47	mg/Kg	☼	04/17/15 14:13	04/21/15 09:48	1
Arsenic	5.5		2.4	0.47	mg/Kg	☼	04/17/15 14:13	04/21/15 09:48	1
Barium	67.6		0.59	0.13	mg/Kg	☼	04/17/15 14:13	04/21/15 09:48	1
Beryllium	0.30		0.24	0.033	mg/Kg	☼	04/17/15 14:13	04/21/15 09:48	1
Cadmium	0.15	J	0.24	0.035	mg/Kg	☼	04/17/15 14:13	04/21/15 09:48	1
Calcium	1410		59.0	3.9	mg/Kg	☼	04/17/15 14:13	04/21/15 09:48	1
Chromium	11.7		0.59	0.24	mg/Kg	☼	04/17/15 14:13	04/21/15 09:48	1
Cobalt	7.6		0.59	0.059	mg/Kg	☼	04/17/15 14:13	04/21/15 09:48	1
Copper	42.2		1.2	0.25	mg/Kg	☼	04/17/15 14:13	04/21/15 09:48	1
Iron	22100	B	11.8	1.3	mg/Kg	☼	04/17/15 14:13	04/21/15 09:48	1
Lead	11.7		1.2	0.28	mg/Kg	☼	04/17/15 14:13	04/21/15 09:48	1
Magnesium	5550		23.6	1.1	mg/Kg	☼	04/17/15 14:13	04/21/15 09:48	1
Manganese	519	B	0.24	0.038	mg/Kg	☼	04/17/15 14:13	04/21/15 09:48	1
Nickel	20.8		5.9	0.27	mg/Kg	☼	04/17/15 14:13	04/21/15 09:48	1
Potassium	743		35.4	23.6	mg/Kg	☼	04/17/15 14:13	04/21/15 09:48	1
Selenium	ND		4.7	0.47	mg/Kg	☼	04/17/15 14:13	04/21/15 09:48	1
Silver	ND		0.71	0.24	mg/Kg	☼	04/17/15 14:13	04/21/15 09:48	1
Sodium	62.6	J	165	15.3	mg/Kg	☼	04/17/15 14:13	04/21/15 09:48	1
Thallium	ND		7.1	0.35	mg/Kg	☼	04/17/15 14:13	04/21/15 09:48	1
Vanadium	20.9		0.59	0.13	mg/Kg	☼	04/17/15 14:13	04/21/15 09:48	1
Zinc	66.0	B	2.4	0.18	mg/Kg	☼	04/17/15 14:13	04/21/15 09:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	6670	B	1000	120	mg/Kg			04/22/15 19:42	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: HP HIGH
Date Collected: 04/15/15 11:10
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-26
Matrix: Solid
Percent Solids: 85.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.4	0.32	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
1,1,2,2-Tetrachloroethane	ND		4.4	0.71	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.4	0.99	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
1,1,2-Trichloroethane	ND		4.4	0.57	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
1,1-Dichloroethane	ND		4.4	0.53	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
1,1-Dichloroethene	ND		4.4	0.53	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
1,2,4-Trichlorobenzene	ND		4.4	0.26	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
1,2-Dibromo-3-Chloropropane	ND		4.4	2.2	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
1,2-Dibromoethane	ND		4.4	0.56	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
1,2-Dichlorobenzene	ND		4.4	0.34	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
1,2-Dichloroethane	ND		4.4	0.22	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
1,2-Dichloropropane	ND		4.4	2.2	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
1,3-Dichlorobenzene	ND		4.4	0.22	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
1,4-Dichlorobenzene	ND		4.4	0.61	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
2-Butanone (MEK)	ND		22	1.6	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
2-Hexanone	ND		22	2.2	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
4-Methyl-2-pentanone (MIBK)	ND		22	1.4	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
Acetone	**23000**	**E**	22	3.7	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
Benzene	ND		4.4	0.21	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
Bromodichloromethane	ND		4.4	0.58	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
Bromoform	ND		4.4	2.2	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
Bromomethane	ND		4.4	0.39	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
Carbon disulfide	**3.5**	**J**	4.4	2.2	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
Carbon tetrachloride	ND		4.4	0.42	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
Chlorobenzene	ND		4.4	0.58	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
Chloroethane	ND		4.4	0.98	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
Chloroform	ND		4.4	0.27	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
Chloromethane	ND		4.4	0.26	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
cis-1,2-Dichloroethene	ND		4.4	0.56	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
cis-1,3-Dichloropropene	ND		4.4	0.63	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
Cyclohexane	ND		4.4	0.61	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
Dibromochloromethane	ND		4.4	0.56	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
Dichlorodifluoromethane	ND		4.4	0.36	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
Ethylbenzene	ND		4.4	0.30	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
Isopropylbenzene	ND		4.4	0.66	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
Methyl acetate	ND		4.4	2.6	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
Methyl tert-butyl ether	ND		4.4	0.43	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
Methylcyclohexane	ND		4.4	0.66	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
Methylene Chloride	ND		4.4	2.0	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
Styrene	ND		4.4	0.22	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
Tetrachloroethene	**280**	**E**	4.4	0.58	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
Toluene	ND		4.4	0.33	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
trans-1,2-Dichloroethene	ND		4.4	0.45	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
trans-1,3-Dichloropropene	ND		4.4	1.9	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
Trichloroethene	ND		4.4	0.96	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
Trichlorofluoromethane	ND		4.4	0.41	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
Vinyl chloride	ND		4.4	0.53	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1
Xylenes, Total	ND		8.7	0.73	ug/Kg	☼	04/16/15 14:00	04/17/15 18:25	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: HP HIGH
Date Collected: 04/15/15 11:10
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-26
Matrix: Solid
Percent Solids: 85.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*64 - 126*	*04/16/15 14:00*	*04/17/15 18:25*	*1*
4-Bromofluorobenzene (Surr)	*104*		*72 - 126*	*04/16/15 14:00*	*04/17/15 18:25*	*1*
Dibromofluoromethane (Surr)	*96*		*60 - 140*	*04/16/15 14:00*	*04/17/15 18:25*	*1*
Toluene-d8 (Surr)	*101*		*71 - 125*	*04/16/15 14:00*	*04/17/15 18:25*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		420	120	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
1,1,2,2-Tetrachloroethane	ND		420	68	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		420	210	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
1,1,2-Trichloroethane	ND		420	88	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
1,1-Dichloroethane	ND		420	130	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
1,1-Dichloroethene	ND		420	140	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
1,2,4-Trichlorobenzene	ND		420	160	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
1,2-Dibromo-3-Chloropropane	ND		420	210	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
1,2-Dibromoethane	ND		420	73	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
1,2-Dichlorobenzene	ND		420	110	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
1,2-Dichloroethane	ND		420	170	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
1,2-Dichloropropane	ND		420	68	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
1,3-Dichlorobenzene	ND		420	110	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
1,4-Dichlorobenzene	ND		420	59	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
2-Butanone (MEK)	ND		2100	1200	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
2-Hexanone	ND		2100	860	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
4-Methyl-2-pentanone (MIBK)	ND		2100	130	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
Acetone	**120000**		2100	1700	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
Benzene	ND		420	79	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
Bromodichloromethane	ND		420	84	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
Bromoform	ND		420	210	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
Bromomethane	ND		420	92	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
Carbon disulfide	ND		420	190	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
Carbon tetrachloride	ND		420	110	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
Chlorobenzene	ND		420	55	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
Chloroethane	ND		420	87	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
Chloroform	ND		420	290	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
Chloromethane	ND		420	99	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
cis-1,2-Dichloroethene	ND		420	120	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
cis-1,3-Dichloropropene	ND		420	100	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
Cyclohexane	ND		420	93	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
Dibromochloromethane	ND		420	200	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
Dichlorodifluoromethane	ND		420	180	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
Ethylbenzene	ND		420	120	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
Isopropylbenzene	ND		420	63	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
Methyl acetate	**610**		420	200	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
Methyl tert-butyl ether	ND		420	160	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
Methylcyclohexane	ND		420	200	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
Methylene Chloride	**920**		420	83	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
Styrene	ND		420	100	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
Tetrachloroethene	**2300**		420	56	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
Toluene	ND		420	110	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
trans-1,2-Dichloroethene	ND		420	99	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: HP HIGH
Date Collected: 04/15/15 11:10
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-26
Matrix: Solid
Percent Solids: 85.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		420	41	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
Trichloroethene	ND		420	120	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
Trichlorofluoromethane	ND		420	200	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
Vinyl chloride	ND		420	140	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8
Xylenes, Total	ND		840	230	ug/Kg	☼	04/16/15 14:00	04/24/15 07:29	8

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*53 - 146*	*04/16/15 14:00*	*04/24/15 07:29*	*8*
4-Bromofluorobenzene (Surr)	*99*		*49 - 148*	*04/16/15 14:00*	*04/24/15 07:29*	*8*
Dibromofluoromethane (Surr)	*95*		*60 - 140*	*04/16/15 14:00*	*04/24/15 07:29*	*8*
Toluene-d8 (Surr)	*98*		*50 - 149*	*04/16/15 14:00*	*04/24/15 07:29*	*8*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**7650**		12.7	5.6	mg/Kg	☼	04/17/15 14:13	04/21/15 09:51	1
Antimony	**0.68**	**J**	19.1	0.51	mg/Kg	☼	04/17/15 14:13	04/21/15 09:51	1
Arsenic	**8.9**		2.5	0.51	mg/Kg	☼	04/17/15 14:13	04/21/15 09:51	1
Barium	**73.6**		0.64	0.14	mg/Kg	☼	04/17/15 14:13	04/21/15 09:51	1
Beryllium	**0.34**		0.25	0.036	mg/Kg	☼	04/17/15 14:13	04/21/15 09:51	1
Cadmium	**0.20**	**J**	0.25	0.038	mg/Kg	☼	04/17/15 14:13	04/21/15 09:51	1
Calcium	**1050**		63.7	4.2	mg/Kg	☼	04/17/15 14:13	04/21/15 09:51	1
Chromium	**9.5**		0.64	0.25	mg/Kg	☼	04/17/15 14:13	04/21/15 09:51	1
Cobalt	**5.7**		0.64	0.064	mg/Kg	☼	04/17/15 14:13	04/21/15 09:51	1
Copper	**17.4**		1.3	0.27	mg/Kg	☼	04/17/15 14:13	04/21/15 09:51	1
Iron	**22700**	**B**	12.7	1.4	mg/Kg	☼	04/17/15 14:13	04/21/15 09:51	1
Lead	**13.4**		1.3	0.31	mg/Kg	☼	04/17/15 14:13	04/21/15 09:51	1
Magnesium	**3040**		25.5	1.2	mg/Kg	☼	04/17/15 14:13	04/21/15 09:51	1
Manganese	**462**	**B**	0.25	0.041	mg/Kg	☼	04/17/15 14:13	04/21/15 09:51	1
Nickel	**15.9**		6.4	0.29	mg/Kg	☼	04/17/15 14:13	04/21/15 09:51	1
Potassium	**779**		38.2	25.5	mg/Kg	☼	04/17/15 14:13	04/21/15 09:51	1
Selenium	ND		5.1	0.51	mg/Kg	☼	04/17/15 14:13	04/21/15 09:51	1
Silver	ND		0.76	0.25	mg/Kg	☼	04/17/15 14:13	04/21/15 09:51	1
Sodium	**36.8**	**J**	178	16.6	mg/Kg	☼	04/17/15 14:13	04/21/15 09:51	1
Thallium	ND		7.6	0.38	mg/Kg	☼	04/17/15 14:13	04/21/15 09:51	1
Vanadium	**12.6**		0.64	0.14	mg/Kg	☼	04/17/15 14:13	04/21/15 09:51	1
Zinc	**73.4**	**B**	2.5	0.19	mg/Kg	☼	04/17/15 14:13	04/21/15 09:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**7180**	**B**	1000	120	mg/Kg			04/22/15 19:49	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: TRIP BLANK
Date Collected: 04/15/15 16:00
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-27
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/25/15 12:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/25/15 12:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/25/15 12:44	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/25/15 12:44	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/25/15 12:44	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/25/15 12:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/25/15 12:44	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/25/15 12:44	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/25/15 12:44	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/25/15 12:44	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/25/15 12:44	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/25/15 12:44	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/25/15 12:44	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/25/15 12:44	1
2-Butanone (MEK)	ND		10	1.3	ug/L			04/25/15 12:44	1
2-Hexanone	ND		5.0	1.2	ug/L			04/25/15 12:44	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/25/15 12:44	1
Acetone	ND		10	3.0	ug/L			04/25/15 12:44	1
Benzene	ND		1.0	0.41	ug/L			04/25/15 12:44	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/25/15 12:44	1
Bromoform	ND		1.0	0.26	ug/L			04/25/15 12:44	1
Bromomethane	ND		1.0	0.69	ug/L			04/25/15 12:44	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/25/15 12:44	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/25/15 12:44	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/25/15 12:44	1
Chloroethane	ND		1.0	0.32	ug/L			04/25/15 12:44	1
Chloroform	ND		1.0	0.34	ug/L			04/25/15 12:44	1
Chloromethane	ND		1.0	0.35	ug/L			04/25/15 12:44	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/25/15 12:44	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/25/15 12:44	1
Cyclohexane	ND		1.0	0.18	ug/L			04/25/15 12:44	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/25/15 12:44	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/25/15 12:44	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/25/15 12:44	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/25/15 12:44	1
Methyl acetate	ND		2.5	0.50	ug/L			04/25/15 12:44	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/25/15 12:44	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/25/15 12:44	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/25/15 12:44	1
Styrene	ND		1.0	0.73	ug/L			04/25/15 12:44	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/25/15 12:44	1
Toluene	ND		1.0	0.51	ug/L			04/25/15 12:44	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/25/15 12:44	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/25/15 12:44	1
Trichloroethene	ND		1.0	0.46	ug/L			04/25/15 12:44	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/25/15 12:44	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/25/15 12:44	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/25/15 12:44	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: TRIP BLANK
Date Collected: 04/15/15 16:00
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-27
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		66 - 137		04/25/15 12:44	1
4-Bromofluorobenzene (Surr)	104		73 - 120		04/25/15 12:44	1
Dibromofluoromethane (Surr)	106		60 - 140		04/25/15 12:44	1
Toluene-d8 (Surr)	100		71 - 126		04/25/15 12:44	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: HP CTRL DUP
Date Collected: 04/15/15 09:08
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-28
Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		04/28/15 16:23	04/29/15 15:16	1
Antimony	ND		0.020	0.0068	mg/L		04/28/15 16:23	04/29/15 15:16	1
Arsenic	ND		0.015	0.0056	mg/L		04/28/15 16:23	04/29/15 15:16	1
Barium	**0.011**		0.0020	0.00070	mg/L		04/28/15 16:23	04/29/15 15:16	1
Beryllium	ND		0.0020	0.00030	mg/L		04/28/15 16:23	04/29/15 15:16	1
Cadmium	ND		0.0020	0.00050	mg/L		04/28/15 16:23	04/29/15 15:16	1
Calcium	**9.2**		0.50	0.10	mg/L		04/28/15 16:23	04/29/15 15:16	1
Chromium	ND		0.0040	0.0010	mg/L		04/28/15 16:23	04/29/15 15:16	1
Cobalt	ND		0.0040	0.00063	mg/L		04/28/15 16:23	04/29/15 15:16	1
Copper	ND		0.010	0.0016	mg/L		04/28/15 16:23	04/29/15 15:16	1
Iron	ND		0.050	0.019	mg/L		04/28/15 16:23	04/29/15 15:16	1
Lead	ND		0.010	0.0030	mg/L		04/28/15 16:23	04/29/15 15:16	1
Magnesium	**1.6**		0.20	0.043	mg/L		04/28/15 16:23	04/29/15 15:16	1
Manganese	**0.0018**	**J B**	0.0030	0.00040	mg/L		04/28/15 16:23	04/29/15 15:16	1
Nickel	ND		0.010	0.0013	mg/L		04/28/15 16:23	04/29/15 15:16	1
Potassium	**0.25**	**J**	0.50	0.10	mg/L		04/28/15 16:23	04/29/15 15:16	1
Selenium	ND		0.025	0.0087	mg/L		04/28/15 16:23	04/29/15 15:16	1
Silver	ND		0.0060	0.0017	mg/L		04/28/15 16:23	04/29/15 15:16	1
Sodium	**10.2**		1.0	0.32	mg/L		04/28/15 16:23	04/29/15 15:16	1
Thallium	ND		0.020	0.010	mg/L		04/28/15 16:23	04/29/15 15:16	1
Vanadium	ND		0.0050	0.0015	mg/L		04/28/15 16:23	04/29/15 15:16	1
Zinc	ND		0.010	0.0015	mg/L		04/28/15 16:23	04/29/15 15:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**5.0**		1.0	0.43	mg/L			04/20/15 04:37	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: HP CTRL
Date Collected: 04/15/15 09:00
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-29
Matrix: Solid
Percent Solids: 9.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		34	2.5	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
1,1,2,2-Tetrachloroethane	ND		34	5.6	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		34	7.8	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
1,1,2-Trichloroethane	ND		34	4.5	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
1,1-Dichloroethane	ND		34	4.2	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
1,1-Dichloroethene	ND		34	4.2	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
1,2,4-Trichlorobenzene	ND		34	2.1	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
1,2-Dibromo-3-Chloropropane	ND		34	17	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
1,2-Dibromoethane	ND		34	4.4	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
1,2-Dichlorobenzene	ND		34	2.7	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
1,2-Dichloroethane	ND		34	1.7	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
1,2-Dichloropropane	ND		34	17	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
1,3-Dichlorobenzene	ND		34	1.8	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
1,4-Dichlorobenzene	ND		34	4.8	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
2-Butanone (MEK)	ND		170	13	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
2-Hexanone	ND		170	17	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
4-Methyl-2-pentanone (MIBK)	ND		170	11	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
Acetone	**1200**		170	29	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
Benzene	ND		34	1.7	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
Bromodichloromethane	ND		34	4.6	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
Bromoform	ND		34	17	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
Bromomethane	ND		34	3.1	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
Carbon disulfide	ND		34	17	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
Carbon tetrachloride	ND		34	3.3	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
Chlorobenzene	ND		34	4.5	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
Chloroethane	ND		34	7.8	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
Chloroform	ND		34	2.1	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
Chloromethane	ND		34	2.1	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
cis-1,2-Dichloroethene	**6.4**	**J**	34	4.4	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
cis-1,3-Dichloropropene	ND		34	4.9	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
Cyclohexane	ND		34	4.8	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
Dibromochloromethane	ND		34	4.4	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
Dichlorodifluoromethane	ND		34	2.8	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
Ethylbenzene	ND		34	2.4	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
Isopropylbenzene	ND		34	5.2	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
Methyl acetate	ND		34	21	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
Methyl tert-butyl ether	ND		34	3.4	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
Methylcyclohexane	ND		34	5.2	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
Methylene Chloride	ND		34	16	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
Styrene	ND		34	1.7	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
Tetrachloroethene	**13000**	**E**	34	4.6	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
Toluene	ND		34	2.6	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
trans-1,2-Dichloroethene	ND		34	3.5	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
trans-1,3-Dichloropropene	ND		34	15	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
Trichloroethene	**140**		34	7.5	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
Trichlorofluoromethane	ND		34	3.2	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
Vinyl chloride	ND		34	4.2	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1
Xylenes, Total	ND		69	5.8	ug/Kg	☼	04/16/15 14:00	04/17/15 18:51	1

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: HP CTRL
Date Collected: 04/15/15 09:00
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-29
Matrix: Solid
Percent Solids: 9.3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		64 - 126	04/16/15 14:00	04/17/15 18:51	1
4-Bromofluorobenzene (Surr)	101		72 - 126	04/16/15 14:00	04/17/15 18:51	1
Dibromofluoromethane (Surr)	94		60 - 140	04/16/15 14:00	04/17/15 18:51	1
Toluene-d8 (Surr)	96		71 - 125	04/16/15 14:00	04/17/15 18:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		7000	1900	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
1,1,2,2-Tetrachloroethane	ND		7000	1100	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		7000	3500	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
1,1,2-Trichloroethane	ND		7000	1500	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
1,1-Dichloroethane	ND		7000	2200	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
1,1-Dichloroethene	ND		7000	2400	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
1,2,4-Trichlorobenzene	ND		7000	2600	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
1,2-Dibromo-3-Chloropropane	ND		7000	3500	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
1,2-Dibromoethane	ND		7000	1200	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
1,2-Dichlorobenzene	ND		7000	1800	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
1,2-Dichloroethane	ND		7000	2900	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
1,2-Dichloropropane	ND		7000	1100	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
1,3-Dichlorobenzene	ND		7000	1900	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
1,4-Dichlorobenzene	ND		7000	980	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
2-Butanone (MEK)	ND		35000	21000	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
2-Hexanone	ND		35000	14000	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
4-Methyl-2-pentanone (MIBK)	ND		35000	2200	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
Acetone	**30000**	**J**	35000	29000	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
Benzene	ND		7000	1300	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
Bromodichloromethane	ND		7000	1400	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
Bromoform	ND		7000	3500	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
Bromomethane	ND		7000	1500	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
Carbon disulfide	ND		7000	3200	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
Carbon tetrachloride	ND		7000	1800	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
Chlorobenzene	ND		7000	920	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
Chloroethane	ND		7000	1500	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
Chloroform	ND		7000	4800	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
Chloromethane	ND		7000	1700	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
cis-1,2-Dichloroethene	ND		7000	1900	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
cis-1,3-Dichloropropene	ND		7000	1700	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
Cyclohexane	ND		7000	1600	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
Dibromochloromethane	ND		7000	3400	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
Dichlorodifluoromethane	ND		7000	3000	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
Ethylbenzene	ND		7000	2000	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
Isopropylbenzene	ND		7000	1000	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
Methyl acetate	ND		7000	3300	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
Methyl tert-butyl ether	ND		7000	2600	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
Methylcyclohexane	ND		7000	3300	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
Methylene Chloride	**7400**		7000	1400	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
Styrene	ND		7000	1700	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
Tetrachloroethene	**220000**		7000	940	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
Toluene	ND		7000	1900	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
trans-1,2-Dichloroethene	ND		7000	1700	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: HP CTRL
Date Collected: 04/15/15 09:00
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-29
Matrix: Solid
Percent Solids: 9.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		7000	690	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
Trichloroethene	ND		7000	1900	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
Trichlorofluoromethane	ND		7000	3300	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
Vinyl chloride	ND		7000	2300	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8
Xylenes, Total	ND		14000	3900	ug/Kg	☼	04/16/15 14:00	04/24/15 07:53	8

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*53 - 146*	*04/16/15 14:00*	*04/24/15 07:53*	*8*
4-Bromofluorobenzene (Surr)	*101*		*49 - 148*	*04/16/15 14:00*	*04/24/15 07:53*	*8*
Dibromofluoromethane (Surr)	*96*		*60 - 140*	*04/16/15 14:00*	*04/24/15 07:53*	*8*
Toluene-d8 (Surr)	*99*		*50 - 149*	*04/16/15 14:00*	*04/24/15 07:53*	*8*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**66400**		112	49.3	mg/Kg	☼	04/17/15 14:13	04/21/15 09:54	1
Antimony	**5.4**	**J**	168	4.5	mg/Kg	☼	04/17/15 14:13	04/21/15 09:54	1
Arsenic	**57.1**		22.4	4.5	mg/Kg	☼	04/17/15 14:13	04/21/15 09:54	1
Barium	**943**		5.6	1.2	mg/Kg	☼	04/17/15 14:13	04/21/15 09:54	1
Beryllium	**2.9**		2.2	0.31	mg/Kg	☼	04/17/15 14:13	04/21/15 09:54	1
Cadmium	**3.5**		2.2	0.34	mg/Kg	☼	04/17/15 14:13	04/21/15 09:54	1
Calcium	**46700**		560	37.0	mg/Kg	☼	04/17/15 14:13	04/21/15 09:54	1
Chromium	**78.7**		5.6	2.2	mg/Kg	☼	04/17/15 14:13	04/21/15 09:54	1
Cobalt	**63.2**		5.6	0.56	mg/Kg	☼	04/17/15 14:13	04/21/15 09:54	1
Copper	**159**		11.2	2.4	mg/Kg	☼	04/17/15 14:13	04/21/15 09:54	1
Iron	**153000**	**B**	112	12.3	mg/Kg	☼	04/17/15 14:13	04/21/15 09:54	1
Lead	**125**		11.2	2.7	mg/Kg	☼	04/17/15 14:13	04/21/15 09:54	1
Magnesium	**38100**		224	10.4	mg/Kg	☼	04/17/15 14:13	04/21/15 09:54	1
Manganese	**7740**	**B**	2.2	0.36	mg/Kg	☼	04/17/15 14:13	04/21/15 09:54	1
Nickel	**164**		56.0	2.6	mg/Kg	☼	04/17/15 14:13	04/21/15 09:54	1
Potassium	**7140**		336	224	mg/Kg	☼	04/17/15 14:13	04/21/15 09:54	1
Selenium	ND		44.8	4.5	mg/Kg	☼	04/17/15 14:13	04/21/15 09:54	1
Silver	ND		6.7	2.2	mg/Kg	☼	04/17/15 14:13	04/21/15 09:54	1
Sodium	**593**	**J**	1570	146	mg/Kg	☼	04/17/15 14:13	04/21/15 09:54	1
Thallium	ND		67.2	3.4	mg/Kg	☼	04/17/15 14:13	04/21/15 09:54	1
Vanadium	**103**		5.6	1.2	mg/Kg	☼	04/17/15 14:13	04/21/15 09:54	1
Zinc	**712**	**B**	22.4	1.7	mg/Kg	☼	04/17/15 14:13	04/21/15 09:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**8600**	**B**	1000	120	mg/Kg			04/22/15 19:57	1

Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP CTRL

Lab Sample ID: 480-78558-1

Date Collected: 04/15/15 10:00
Matrix: Water
Date Received: 04/16/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			239213	04/28/15 16:23	KJ1	TAL BUF
Total/NA	Analysis	6010C		1	239467	04/29/15 14:39	LMH	TAL BUF
Total/NA	Analysis	9060A		1	237465	04/19/15 17:10	NDB	TAL BUF

Client Sample ID: SP CTRL DUP

Lab Sample ID: 480-78558-2

Date Collected: 04/15/15 10:05
Matrix: Water
Date Received: 04/16/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			239213	04/28/15 16:23	KJ1	TAL BUF
Total/NA	Analysis	6010C		1	239467	04/29/15 14:41	LMH	TAL BUF
Total/NA	Analysis	9060A		1	237465	04/20/15 16:51	NDB	TAL BUF

Client Sample ID: KMNO4 LOW

Lab Sample ID: 480-78558-3

Date Collected: 04/15/15 10:10
Matrix: Water
Date Received: 04/16/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			239213	04/28/15 16:23	KJ1	TAL BUF
Total/NA	Analysis	6010C		1	239467	04/29/15 14:50	LMH	TAL BUF
Total/NA	Analysis	9060A		10	238131	04/23/15 09:19	EKB	TAL BUF

Client Sample ID: KMNO4 MID

Lab Sample ID: 480-78558-4

Date Collected: 04/15/15 10:15
Matrix: Water
Date Received: 04/16/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			239213	04/28/15 16:23	KJ1	TAL BUF
Total/NA	Analysis	6010C		1	239467	04/29/15 14:53	LMH	TAL BUF
Total/NA	Prep	3005A			239213	04/28/15 16:23	KJ1	TAL BUF
Total/NA	Analysis	6010C		5	239467	04/29/15 15:22	LMH	TAL BUF
Total/NA	Analysis	9060A		100	238131	04/23/15 10:15	EKB	TAL BUF

Client Sample ID: KMNO4 HIGH

Lab Sample ID: 480-78558-5

Date Collected: 04/15/15 10:20
Matrix: Water
Date Received: 04/16/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			239213	04/28/15 16:23	KJ1	TAL BUF
Total/NA	Analysis	6010C		1	239467	04/29/15 14:56	LMH	TAL BUF
Total/NA	Prep	3005A			239213	04/28/15 16:23	KJ1	TAL BUF
Total/NA	Analysis	6010C		5	239467	04/29/15 15:25	LMH	TAL BUF

Client Sample ID: KMNO4 HIGH

Lab Sample ID: 480-78558-5

Date Collected: 04/15/15 10:20

Matrix: Water

Date Received: 04/16/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		400	240187	05/01/15 19:37	NCH	TAL BUF

Client Sample ID: SP FECA LOW

Lab Sample ID: 480-78558-6

Date Collected: 04/15/15 10:25

Matrix: Water

Date Received: 04/16/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			239213	04/28/15 16:23	KJ1	TAL BUF
Total/NA	Analysis	6010C		1	239467	04/29/15 15:08	LMH	TAL BUF
Total/NA	Analysis	9060A		800	240187	05/01/15 20:04	NCH	TAL BUF

Client Sample ID: SP FECA MID

Lab Sample ID: 480-78558-7

Date Collected: 04/15/15 10:30

Matrix: Water

Date Received: 04/16/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		800	240187	05/01/15 22:21	NCH	TAL BUF

Client Sample ID: SP FECA HIGH

Lab Sample ID: 480-78558-8

Date Collected: 04/15/15 10:35

Matrix: Water

Date Received: 04/16/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1000	240187	05/01/15 22:47	NCH	TAL BUF

Client Sample ID: SP NAOH LOW

Lab Sample ID: 480-78558-9

Date Collected: 04/15/15 10:40

Matrix: Water

Date Received: 04/16/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			239213	04/28/15 16:23	KJ1	TAL BUF
Total/NA	Analysis	6010C		1	239467	04/29/15 15:10	LMH	TAL BUF
Total/NA	Analysis	9060A		400	240187	05/01/15 23:14	NCH	TAL BUF

Client Sample ID: SP NAOH MID

Lab Sample ID: 480-78558-10

Date Collected: 04/15/15 10:45

Matrix: Water

Date Received: 04/16/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			240009	05/01/15 11:58	TAS	TAL BUF
Total/NA	Analysis	6010C		1	240397	05/04/15 10:22	AMH	TAL BUF
Total/NA	Analysis	9060A		40	238131	04/22/15 15:20	EKB	TAL BUF

Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP NAOH HIGH

Lab Sample ID: 480-78558-11

Date Collected: 04/15/15 10:50
Date Received: 04/16/15 09:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			240009	05/01/15 11:58	TAS	TAL BUF
Total/NA	Analysis	6010C		1	240397	05/04/15 10:25	AMH	TAL BUF
Total/NA	Analysis	9060A		1000	240187	05/01/15 23:40	NCH	TAL BUF

Client Sample ID: HP LOW

Lab Sample ID: 480-78558-12

Date Collected: 04/15/15 11:00
Date Received: 04/16/15 09:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			239213	04/28/15 16:23	KJ1	TAL BUF
Total/NA	Analysis	6010C		1	239467	04/29/15 14:44	LMH	TAL BUF
Total/NA	Prep	3005A			239213	04/28/15 16:23	KJ1	TAL BUF
Total/NA	Analysis	6010C		5	239707	04/30/15 08:16	AMH	TAL BUF
Total/NA	Analysis	9060A		200	238131	04/22/15 16:16	EKB	TAL BUF

Client Sample ID: HP HIGH

Lab Sample ID: 480-78558-13

Date Collected: 04/15/15 11:10
Date Received: 04/16/15 09:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			239213	04/28/15 16:23	KJ1	TAL BUF
Total/NA	Analysis	6010C		1	239467	04/29/15 14:47	LMH	TAL BUF
Total/NA	Analysis	9060A		100	238131	04/22/15 16:43	EKB	TAL BUF

Client Sample ID: HP CTRL

Lab Sample ID: 480-78558-14

Date Collected: 04/15/15 09:00
Date Received: 04/16/15 09:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			239213	04/28/15 16:23	KJ1	TAL BUF
Total/NA	Analysis	6010C		1	239467	04/29/15 15:13	LMH	TAL BUF
Total/NA	Analysis	9060A		1	238131	04/22/15 00:24	EKB	TAL BUF

Client Sample ID: SP CTRL

Lab Sample ID: 480-78558-15

Date Collected: 04/15/15 10:00
Date Received: 04/16/15 09:00

Matrix: Solid
Percent Solids: 80.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			236804	04/16/15 14:00	RAS	TAL BUF
Total/NA	Analysis	8260C		1	236777	04/17/15 13:42	CDC	TAL BUF
Total/NA	Prep	5035A	DL		237369	04/16/15 14:00	RAS	TAL BUF
Total/NA	Analysis	8260C	DL	4	238262	04/24/15 04:20	JWG	TAL BUF

Client Sample ID: SP CTRL

Lab Sample ID: 480-78558-15

Date Collected: 04/15/15 10:00
Matrix: Solid
Date Received: 04/16/15 09:00
Percent Solids: 80.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			236914	04/17/15 14:13	TAS	TAL BUF
Total/NA	Analysis	6010C		1	237558	04/21/15 09:09	LMH	TAL BUF
Total/NA	Analysis	Lloyd Kahn		1	87262	04/22/15 18:31	MDK	TAL BUR
Total/NA	Analysis	Moisture		1	236729	04/16/15 22:39	CMK	TAL BUF

Client Sample ID: KMNO4 LOW

Lab Sample ID: 480-78558-16

Date Collected: 04/15/15 10:10
Matrix: Solid
Date Received: 04/16/15 09:00
Percent Solids: 84.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			237172	04/16/15 14:00	CDC	TAL BUF
Total/NA	Analysis	8260C		1	237173	04/20/15 02:13	RAS	TAL BUF
Total/NA	Prep	5035A	DL		237369	04/16/15 14:00	RAS	TAL BUF
Total/NA	Analysis	8260C	DL	1	238262	04/24/15 04:43	JWG	TAL BUF
Total/NA	Prep	3050B			236914	04/17/15 14:13	TAS	TAL BUF
Total/NA	Analysis	6010C		1	237558	04/21/15 09:12	LMH	TAL BUF
Total/NA	Analysis	Lloyd Kahn		1	87262	04/22/15 18:37	MDK	TAL BUR
Total/NA	Analysis	Moisture		1	236729	04/16/15 22:39	CMK	TAL BUF

Client Sample ID: KMNO4 MID

Lab Sample ID: 480-78558-17

Date Collected: 04/15/15 10:15
Matrix: Solid
Date Received: 04/16/15 09:00
Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			237172	04/16/15 14:00	CDC	TAL BUF
Total/NA	Analysis	8260C		1	237173	04/20/15 03:04	RAS	TAL BUF
Total/NA	Prep	3050B			236914	04/17/15 14:13	TAS	TAL BUF
Total/NA	Analysis	6010C		1	237558	04/21/15 09:16	LMH	TAL BUF
Total/NA	Analysis	Lloyd Kahn		1	87262	04/22/15 18:44	MDK	TAL BUR
Total/NA	Analysis	Moisture		1	236729	04/16/15 22:39	CMK	TAL BUF

Client Sample ID: KMNO4 HIGH

Lab Sample ID: 480-78558-18

Date Collected: 04/15/15 10:20
Matrix: Solid
Date Received: 04/16/15 09:00
Percent Solids: 80.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			237172	04/16/15 14:00	CDC	TAL BUF
Total/NA	Analysis	8260C		1	237173	04/20/15 03:30	RAS	TAL BUF
Total/NA	Prep	3050B			236914	04/17/15 14:13	TAS	TAL BUF
Total/NA	Analysis	6010C		1	237558	04/21/15 09:19	LMH	TAL BUF
Total/NA	Analysis	Lloyd Kahn		1	87262	04/22/15 18:51	MDK	TAL BUR
Total/NA	Analysis	Moisture		1	236729	04/16/15 22:39	CMK	TAL BUF

Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: SP FECA LOW

Lab Sample ID: 480-78558-19

Date Collected: 04/15/15 10:25
Matrix: Solid
Date Received: 04/16/15 09:00
Percent Solids: 79.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			236804	04/16/15 14:00	RAS	TAL BUF
Total/NA	Analysis	8260C		1	236777	04/17/15 15:25	CDC	TAL BUF
Total/NA	Prep	5035A	DL		237369	04/16/15 14:00	RAS	TAL BUF
Total/NA	Analysis	8260C	DL	1	238262	04/24/15 05:07	JWG	TAL BUF
Total/NA	Prep	3050B			236914	04/17/15 14:13	TAS	TAL BUF
Total/NA	Analysis	6010C		1	237558	04/21/15 09:22	LMH	TAL BUF
Total/NA	Analysis	Lloyd Kahn		1	87262	04/22/15 18:58	MDK	TAL BUR
Total/NA	Analysis	Moisture		1	236729	04/16/15 22:39	CMK	TAL BUF

Client Sample ID: SP FECA MID

Lab Sample ID: 480-78558-20

Date Collected: 04/15/15 10:30
Matrix: Solid
Date Received: 04/16/15 09:00
Percent Solids: 81.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			236804	04/16/15 14:00	RAS	TAL BUF
Total/NA	Analysis	8260C		1	236777	04/17/15 15:51	CDC	TAL BUF
Total/NA	Prep	5035A	DL		237369	04/16/15 14:00	RAS	TAL BUF
Total/NA	Analysis	8260C	DL	1	238262	04/24/15 05:31	JWG	TAL BUF
Total/NA	Prep	3050B			236914	04/17/15 14:13	TAS	TAL BUF
Total/NA	Analysis	6010C		1	237558	04/21/15 09:25	LMH	TAL BUF
Total/NA	Analysis	Lloyd Kahn		1	87262	04/22/15 19:05	MDK	TAL BUR
Total/NA	Analysis	Moisture		1	236729	04/16/15 22:39	CMK	TAL BUF

Client Sample ID: SP FECA HIGH

Lab Sample ID: 480-78558-21

Date Collected: 04/15/15 10:35
Matrix: Solid
Date Received: 04/16/15 09:00
Percent Solids: 90.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			236804	04/16/15 14:00	RAS	TAL BUF
Total/NA	Analysis	8260C		1	236777	04/17/15 16:17	CDC	TAL BUF
Total/NA	Prep	5035A	DL		237369	04/16/15 14:00	RAS	TAL BUF
Total/NA	Analysis	8260C	DL	1	238262	04/24/15 05:54	JWG	TAL BUF
Total/NA	Prep	3050B			236914	04/17/15 14:13	TAS	TAL BUF
Total/NA	Analysis	6010C		1	237558	04/21/15 09:28	LMH	TAL BUF
Total/NA	Analysis	Lloyd Kahn		1	87262	04/22/15 19:13	MDK	TAL BUR
Total/NA	Analysis	Moisture		1	236729	04/16/15 22:39	CMK	TAL BUF

Client Sample ID: SP NAOH LOW

Lab Sample ID: 480-78558-22

Date Collected: 04/15/15 10:40
Matrix: Solid
Date Received: 04/16/15 09:00
Percent Solids: 79.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			236804	04/16/15 14:00	RAS	TAL BUF
Total/NA	Analysis	8260C		1	236777	04/17/15 16:42	CDC	TAL BUF
Total/NA	Prep	5035A	DL		238930	04/16/15 14:00	GTG	TAL BUF
Total/NA	Analysis	8260C	DL	4	238941	04/28/15 04:44	JWG	TAL BUF
Total/NA	Prep	3050B			236914	04/17/15 14:13	TAS	TAL BUF
Total/NA	Analysis	6010C		1	237558	04/21/15 09:39	LMH	TAL BUF
Total/NA	Analysis	Lloyd Kahn		1	87262	04/22/15 19:20	MDK	TAL BUR
Total/NA	Analysis	Moisture		1	236729	04/16/15 22:39	CMK	TAL BUF

Client Sample ID: SP NAOH MID

Lab Sample ID: 480-78558-23

Date Collected: 04/15/15 10:45
Matrix: Solid
Date Received: 04/16/15 09:00
Percent Solids: 82.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			237369	04/16/15 14:00	RAS	TAL BUF
Total/NA	Analysis	8260C		4	238262	04/24/15 06:18	JWG	TAL BUF
Total/NA	Prep	3050B			236914	04/17/15 14:13	TAS	TAL BUF
Total/NA	Analysis	6010C		1	237558	04/21/15 09:42	LMH	TAL BUF
Total/NA	Analysis	Lloyd Kahn		1	87262	04/22/15 19:27	MDK	TAL BUR
Total/NA	Analysis	Moisture		1	236729	04/16/15 22:39	CMK	TAL BUF

Client Sample ID: SP NAOH HIGH

Lab Sample ID: 480-78558-24

Date Collected: 04/15/15 10:50
Matrix: Solid
Date Received: 04/16/15 09:00
Percent Solids: 80.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			237369	04/16/15 14:00	RAS	TAL BUF
Total/NA	Analysis	8260C		4	238262	04/24/15 06:41	JWG	TAL BUF
Total/NA	Prep	3050B			236914	04/17/15 14:13	TAS	TAL BUF
Total/NA	Analysis	6010C		1	237558	04/21/15 09:45	LMH	TAL BUF
Total/NA	Analysis	Lloyd Kahn		1	87262	04/22/15 19:34	MDK	TAL BUR
Total/NA	Analysis	Moisture		1	236729	04/16/15 22:39	CMK	TAL BUF

Client Sample ID: HP LOW

Lab Sample ID: 480-78558-25

Date Collected: 04/15/15 11:00
Matrix: Solid
Date Received: 04/16/15 09:00
Percent Solids: 88.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			237369	04/16/15 14:00	RAS	TAL BUF
Total/NA	Analysis	8260C		5	238262	04/24/15 07:05	JWG	TAL BUF
Total/NA	Prep	3050B			236914	04/17/15 14:13	TAS	TAL BUF
Total/NA	Analysis	6010C		1	237558	04/21/15 09:48	LMH	TAL BUF

Client Sample ID: HP LOW

Lab Sample ID: 480-78558-25

Date Collected: 04/15/15 11:00

Matrix: Solid

Date Received: 04/16/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Lloyd Kahn		1	87262	04/22/15 19:42	MDK	TAL BUR
Total/NA	Analysis	Moisture		1	236729	04/16/15 22:39	CMK	TAL BUF

Client Sample ID: HP HIGH

Lab Sample ID: 480-78558-26

Date Collected: 04/15/15 11:10

Matrix: Solid

Date Received: 04/16/15 09:00

Percent Solids: 85.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			236804	04/16/15 14:00	RAS	TAL BUF
Total/NA	Analysis	8260C		1	236777	04/17/15 18:25	CDC	TAL BUF
Total/NA	Prep	5035A	DL		237369	04/16/15 14:00	RAS	TAL BUF
Total/NA	Analysis	8260C	DL	8	238262	04/24/15 07:29	JWG	TAL BUF
Total/NA	Prep	3050B			236914	04/17/15 14:13	TAS	TAL BUF
Total/NA	Analysis	6010C		1	237558	04/21/15 09:51	LMH	TAL BUF
Total/NA	Analysis	Lloyd Kahn		1	87262	04/22/15 19:49	MDK	TAL BUR
Total/NA	Analysis	Moisture		1	236729	04/16/15 22:39	CMK	TAL BUF

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-78558-27

Date Collected: 04/15/15 16:00

Matrix: Water

Date Received: 04/16/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	238629	04/25/15 12:44	CDC	TAL BUF

Client Sample ID: HP CTRL DUP

Lab Sample ID: 480-78558-28

Date Collected: 04/15/15 09:08

Matrix: Water

Date Received: 04/16/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			239213	04/28/15 16:23	KJ1	TAL BUF
Total/NA	Analysis	6010C		1	239467	04/29/15 15:16	LMH	TAL BUF
Total/NA	Analysis	9060A		1	237465	04/20/15 04:37	NDB	TAL BUF

Client Sample ID: HP CTRL

Lab Sample ID: 480-78558-29

Date Collected: 04/15/15 09:00

Matrix: Solid

Date Received: 04/16/15 09:00

Percent Solids: 9.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			236804	04/16/15 14:00	RAS	TAL BUF
Total/NA	Analysis	8260C		1	236777	04/17/15 18:51	CDC	TAL BUF
Total/NA	Prep	5035A	DL		237369	04/16/15 14:00	RAS	TAL BUF
Total/NA	Analysis	8260C	DL	8	238262	04/24/15 07:53	JWG	TAL BUF

Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Client Sample ID: HP CTRL
Date Collected: 04/15/15 09:00
Date Received: 04/16/15 09:00

Lab Sample ID: 480-78558-29
Matrix: Solid
Percent Solids: 9.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			236914	04/17/15 14:13	TAS	TAL BUF
Total/NA	Analysis	6010C		1	237558	04/21/15 09:54	LMH	TAL BUF
Total/NA	Analysis	Lloyd Kahn		1	87262	04/22/15 19:57	MDK	TAL BUR
Total/NA	Analysis	Moisture		1	236729	04/16/15 22:39	CMK	TAL BUF

Laboratory References:

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

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Certification Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-16

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

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: TestAmerica Burlington

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0751	09-30-15
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-13-16
Florida	NELAP	4	E87467	06-30-15 *
L-A-B	DoD ELAP		L2336	02-26-17
Maine	State Program	1	VT00008	04-17-17
Minnesota	NELAP	5	050-999-436	12-31-15
New Hampshire	NELAP	1	2006	12-18-15
New Jersey	NELAP	2	VT972	06-30-15
New York	NELAP	2	10391	03-31-16
Pennsylvania	NELAP	3	68-00489	04-30-16
Rhode Island	State Program	1	LAO00298	12-30-15
US Fish & Wildlife	Federal		LE-058448-0	02-28-16
USDA	Federal		P330-11-00093	10-28-16
Vermont	State Program	1	VT-4000	12-31-15
Virginia	NELAP	3	460209	12-14-15

* Certification renewal pending - certification considered valid.

Method Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
9060A	Organic Carbon, Total (TOC)	SW846	TAL BUF
Lloyd Kahn	Organic Carbon, Total (TOC)	EPA	TAL BUR
Moisture	Percent Moisture	EPA	TAL BUF

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

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-C&B Dry Cleaners:Site# 907028

TestAmerica Job ID: 480-78558-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-78558-1	SP CTRL	Water	04/15/15 10:00	04/16/15 09:00
480-78558-2	SP CTRL DUP	Water	04/15/15 10:05	04/16/15 09:00
480-78558-3	KMNO4 LOW	Water	04/15/15 10:10	04/16/15 09:00
480-78558-4	KMNO4 MID	Water	04/15/15 10:15	04/16/15 09:00
480-78558-5	KMNO4 HIGH	Water	04/15/15 10:20	04/16/15 09:00
480-78558-6	SP FECA LOW	Water	04/15/15 10:25	04/16/15 09:00
480-78558-7	SP FECA MID	Water	04/15/15 10:30	04/16/15 09:00
480-78558-8	SP FECA HIGH	Water	04/15/15 10:35	04/16/15 09:00
480-78558-9	SP NAOH LOW	Water	04/15/15 10:40	04/16/15 09:00
480-78558-10	SP NAOH MID	Water	04/15/15 10:45	04/16/15 09:00
480-78558-11	SP NAOH HIGH	Water	04/15/15 10:50	04/16/15 09:00
480-78558-12	HP LOW	Water	04/15/15 11:00	04/16/15 09:00
480-78558-13	HP HIGH	Water	04/15/15 11:10	04/16/15 09:00
480-78558-14	HP CTRL	Water	04/15/15 09:00	04/16/15 09:00
480-78558-15	SP CTRL	Solid	04/15/15 10:00	04/16/15 09:00
480-78558-16	KMNO4 LOW	Solid	04/15/15 10:10	04/16/15 09:00
480-78558-17	KMNO4 MID	Solid	04/15/15 10:15	04/16/15 09:00
480-78558-18	KMNO4 HIGH	Solid	04/15/15 10:20	04/16/15 09:00
480-78558-19	SP FECA LOW	Solid	04/15/15 10:25	04/16/15 09:00
480-78558-20	SP FECA MID	Solid	04/15/15 10:30	04/16/15 09:00
480-78558-21	SP FECA HIGH	Solid	04/15/15 10:35	04/16/15 09:00
480-78558-22	SP NAOH LOW	Solid	04/15/15 10:40	04/16/15 09:00
480-78558-23	SP NAOH MID	Solid	04/15/15 10:45	04/16/15 09:00
480-78558-24	SP NAOH HIGH	Solid	04/15/15 10:50	04/16/15 09:00
480-78558-25	HP LOW	Solid	04/15/15 11:00	04/16/15 09:00
480-78558-26	HP HIGH	Solid	04/15/15 11:10	04/16/15 09:00
480-78558-27	TRIP BLANK	Water	04/15/15 16:00	04/16/15 09:00
480-78558-28	HP CTRL DUP	Water	04/15/15 09:08	04/16/15 09:00
480-78558-29	HP CTRL	Solid	04/15/15 09:00	04/16/15 09:00

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

480-78558 Chain of Custody

TAL-4124 (1007)

Client	Project Manager	Date	
HDR	Amita Patel	4/15/15	280762
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	
1 International Blvd, 10th Floor, Ste 1000	201-335-9419		Page 1 of 3
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Mahwah / NJ / 07495		Brian Fischer	
Project Name and Location (State)	**Carrier/Waybill Number**		
Site 907028 Former CB Cleaners			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis: TOC 9060A	TAL metals*	Special Instructions/ Conditions of Receipt
SP ctrl	4/15/15	1000		X					1	1			1	1	
SP ctrl dup		1005											1	1	
KMnO4 Low		1010											1	1	
KMnO4 Mid		1015											1	1	
KMnO4 High		1020											1	1	
SP FeCA low		1025											1	1	
SP FeCA MID		1030											1	1	
SP FeCA High		1035											1	1	
SP NaOH Low		1040											1	1	
SP NaOH Mid		1045											1	1	
SP NaOH High		1050											1	1	
HP Low		1100		X									1	1	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____
Standard

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	4/15/15	1700	1. Received By TA Buff	4/16/15	0900
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments
email results: Lcrawford@xdd-llc.com * excluding Mercury and cyanide #1 2.9

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
HDR		4/15/15	280761
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 2 of 3**
City / State / Zip Code	**Site Contact / Lab Contact**	**Analysis (Attach list if more space is needed)**	
Project Name and Location (State) Site 907028	**Carrier/Waybill Number**		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	~~H2SO4~~	~~HCl~~ DI	HNO3	HCl	NaOH	ZnAc/ NaOH	MeOH	TCL VOCs 8260	90day TOC	TAL metals SW
~~HP Mid~~	~~4/15/15~~	~~1105~~															
HP High	4/15/15	1140		X						1	1					1	1
HP ctrl		900		X						1	1					1	1
~~HP ctrl dup~~		~~908~~															
SP ctrl		1000			X		2	2						1	X	X	X
~~SP ctrl dup~~		~~1005~~															
KMnO4 Low		1010			X		2	2						1	X	X	X
KMnO4 Mid		1015			X		2	2						1	X	X	X
KMnO4 High		1020			X		2	2						1	X	X	X
SP FeCA Low		1025			X		2	2						1	X	X	X
SP FeCA Mid		1030			X		2	2						1	X	X	X
SP FeCA High		1035			X		2	2						1	X	X	X

Special Instructions/ Conditions of Receipt

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Standard

QC Requirements (Specify)

1. Relinquished By	Date	Time	1. Received By	Date	Time
[signature]	4/15/15	1700	[signature] TA BUFF	4/16/15	0900
2. Relinquished By	Date	Time	2. Received By	Date	Time
[signature]			[signature]		
3. Relinquished By	Date	Time	3. Received By	Date	Time
					#1 2.9

Comments
email results to Lcrawford@xdd-llc.com
*excluding Hg + Cyanide
please get TOC in soil out of 2oz jar - metals out of range

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
HDR			280765
Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page 3 of 3
City / State / Zip Code	Site Contact	Lab Contact	Analysis (Attach list if more space is needed)
Project Name and Location (State): Site 907028	Carrier/Waybill Number		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	MeOH	TCL VOC 8260	TOC 9060A	TAL metals*	Special Instructions/ Conditions of Receipt
SP NaOH Low	4/15/15	1040			X		2	2		2			1	X	X	X	
SP NaOH Mid		1045			X		2	2		2			1	X	X	X	
SP NaOH High		1050			X		2	2		2			1	X	X	X	
HP Low		1100			X		2	2					1	X	X	X	
HP High	↓	1110			X		2	2					1	X	X	X	
Trip Blank	4/15/15	1600	X							X				2			
HP ctrl dup	4/15/15	908	X							X	X				1	1	
HP ctrl	4/15/15	900			X		2	2					1	X	X	X	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: Standard
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	4/15/15	1700	1. Received By: [signature] TA BUFF	4/16/15	0900
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments
Please email results to LCrawford@xdd-LLC.com
* excluding Hg + Cyanide #1 2.9 Soil jar — Metals and TOC

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-23601.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: brian.fischer@testamericainc.com		Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.				Job #: 480-78558-1
Address: 30 Community Drive, Suite 11,	Due Date Requested: 4/28/2015			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email:	WO #:			
Project Name: NYSDEC-C&B Dry Cleaners:Site# 907028	Project #: 48010966			
Site:	SSOW#:			

Analysis Requested

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 - Na2S2SO3
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)

Other:

Sample Identification - Client ID (Lab ID)	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)	Lloyd_Kahn/ Routine Lloyd Kahn	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SP CTRL (480-78558-15)	4/15/15	10:00 Eastern		Solid			X	1	
KMNO4 LOW (480-78558-16)	4/15/15	10:10 Eastern		Solid			X	1	
KMNO4 MID (480-78558-17)	4/15/15	10:15 Eastern		Solid			X	1	
KMNO4 HIGH (480-78558-18)	4/15/15	10:20 Eastern		Solid			X	1	
SP FECA LOW (480-78558-19)	4/15/15	10:25 Eastern		Solid			X	1	
SP FECA MID (480-78558-20)	4/15/15	10:30 Eastern		Solid			X	1	
SP FECA HIGH (480-78558-21)	4/15/15	10:35 Eastern		Solid			X	1	
SP NAOH LOW (480-78558-22)	4/15/15	10:40 Eastern		Solid			X	1	
SP NAOH MID (480-78558-23)	4/15/15	10:45 Eastern		Solid			X	1	
SP NAOH HIGH (480-78558-24)	4/15/15	10:50 Eastern		Solid			X	1	
HP LOW (480-78558-25)	4/15/15	11:00 Eastern		Solid			X	1	

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *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:	Date/Time:	Company	Received by:	Date/Time:	Company
Carmen Wallace	4-17-15 1700	TAB		4/18/15 0930	TABN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

5/6/2015

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-23601.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: brian.fischer@testamericainc.com		Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.				Job #: 480-78558-1
Address: 30 Community Drive, Suite 11,	Due Date Requested: 4/28/2015			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email:	WO #:			
Project Name: NYSDEC-C&B Dry Cleaners:Site# 907028	Project #: 48010966			
Site:	SSOW#:			

Analysis Requested

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 - Na2S2SO3
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)

Other:

Sample Identification - Client ID (Lab ID)	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)	Lloyd_Kahn/ Routine Lloyd Kahn	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
HP HIGH (480-78558-26)	4/15/15	11:10 Eastern		Solid			X	1	
HP CTRL (480-78558-29)	4/15/15	09:00 Eastern		Solid			X	1	

Possible Hazard Identification
Unconfirmed
Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*
Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Cameron Wallace	4-17-15 1700	TAB		4/17/15 JA	9/18/15 0930 TABV
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

ORIGIN ID:DKKA (716) 504-9848
KEN KINECKI
TESTAMERICA LABS
10 HAZELWOOD DRIVE

AMHERST, NY 14228
UNITED STATES US

SHIP DATE: 17APR15
ACTWGT: 35.3 LB
CAD: 8466[illegible]/CAFE2807
DIMS: 26x15x14 IN

BILL RECIPIENT

TO MARK PHILLIPS
TA BURLINGTON
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403
(802) 660-1990 REF: BURLINGTON
DEPT: SAMPLE CONTROL

FedEx Express

3 of 5
MPS# 0263 5657 0118 2216
Mstr# 5657 0118 2190 0201

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO BTVA

05403
VT-US BTV

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-78558-1

Login Number: 78558

List Source: TestAmerica Buffalo

List Number: 1

Creator: Janish, Carl M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	4/16/15 1400
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	HDR
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-78558-1

Login Number: 78558
List Number: 2
Creator: Young, Joseph W

List Source: TestAmerica Burlington
List Creation: 04/18/15 11:07 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	234077
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	3.6ºC
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?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	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.	True	

BIOTRAX
3580 Harlem Road
Cheektowaga NY 14215

Certificate of Analysis

Report Date	3/13/2015	
Report Number	14897	
Customer Fax		
Total Pages	1	
Analysis Date	3/12/2015	Analyst
Analysis Time	1330	
Project ID		

Name / Address
HDR, Inc 1 International Boulevard, 10th Floor Suite 1000 Mahwah, NJ 07495-0027 USA

Laboratory Analysis Report Trade Secret

Test ID	Analytical Method & Analysis	Results / Units	Verified Date & Time
SPC ...	Standard Plate Count Potable/Non-Potable Water Method- SM 18 9215B MDL (<1 to >100,000 CFU/ ml) Location.....MW-5 Date and Time Sampled .....3-12-2015 1255 Date and Time Plated 3-12-2015 1330	3,370,000 CFU / ml	3-14-2015 1330

This report is issued under the authority of the analysts listed above. This report only relates to the samples which was tested. Interpretation of these results is the sole responsibility of the client. This report shall not be reproduced except in full, without the written approval of the laboratory
NYSDOH and NELAC ID 11660

ACCREDITED IN ACCORDANCE WITH nelac Pennsylvania Accreditation #68-03330 ISO 17025

Phone #	716-651-0146	Form CC-01
Fax #	716-242-3010	www.biotrax.net
E-mail	edward@biotrax.net	

Reviewed By Edward J. Lukaszyk

ATTACHMENT A

Design Drawings

ATTACHMENT B

Specifications

ATTACHMENT C

Cost Estimate

CONSTRUCTION COST ESTIMATE

Site: Former C&B Dry Cleaners – Soil Remediation

Location: Jamestown, Chautauqua County, New York
Phase: Final Design
Base Year: 2016
Date: August 31, 2016

Item	Quantity	Unit	Unit Cost	Estimated Cost	Subtotal	Note
1. Site Preparation						
General Mobilization/Demobilization	1	LS	$10,000	$10,000		setting up staging areas for injection, decontamination, and waste storage
NY One Call Notification	1	LS	$250	$250		
Site Clearing	1	day	$1,250	$1,250		
Utility Clearance	2	day	$2,500	$5,000		Local utility clearance near Swanson Building
Sub-total					**$16,500**	
2. ISCO Injection **ISCO Locations**	60					
Mobilization And Demobilization for Drilling Activity	1	LS	$2,000.00	$2,000		
DPT Drilling for Temporary Injections (Probe/Drill Rig Daily Rental W/ Operator)	12	Day	$1,750.00	$21,000		6 locations per day for ~ 60 locations ~ 10 days for 8 hr/day, plus 2 days for standby time
IDW	1	LS	$10,000.00	$10,000		
Surface Repair	1	LS	$1,000.00	$1,000		
Decontamination Equipment (Water and Steam Cleaner Rental)	10	Per Day	$220	$2,200		
Decontamination of Drilling Equipment	20	Per Hour	$110	$2,200		two hours per day
Mobilization And Demobilization for Injection Activity	1	LS	$5,000	$5,000		
Potassium Permanganate - groundwater (One-time Injection)	25,500	lbs	$2.25	$57,375		
External Water Source	2	load	$375.00	$750		Each load is ~6000 gallons
Injection Labor and Equipment	12	Per Day	$8,000.00	$96,000		Assumes 10 days + 2 days for implemention of infield design modifications
Well Abandoment	1	LS	$3,400.00	$3,400		for 60 locations
Sub-total					**$201,000**	
				Sub-Total Items 1-2	$218,000	
				Contingency: 25%	$55,000	
				Total Items 1-2	$273,000	
				Construction Management: 8%	$22,000	
				Total Costs	**$295,000**	